

International Journal of Applied Arts Studies

Volume 7, Issue 1

Feb – Mar 2022

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. Ardeshtir 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

Salar Zohoori

Vince Quevedo

Reviewers

Anna Powell

Loghman Karimi

Luis Diaz

Sharieh Hosseini nasab

Terry Barrett

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 Aug – Sept 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.ir

INDEX

NO	TITLE	PAGES
1	Introduction	i-vi
2	Identifying and Explaining the Components Influencing the Quality of Environmental Perception in Residential Complexes (High-Rise Building) <i>Nazanin Sabetan, Mehdi Tavakoli Kazeruni</i>	7-18
3	Investigation and Analysis of Jungian Archetype and its Indication in Architecture <i>Elnaz Behnoud</i>	19-32
4	Evaluation of University Education in Architecture at the Undergraduate Level from the Viewpoint of Professional Needs and Employment <i>Ali Asgari</i>	33-48
5	Ornamental Motifs of the Marouflage in Sheikh Safi-ad-din Ardabili Tomb with the Ervin Panovsky Iconology Approach <i>Parvaneh Gharib Garakani, Hamideh Sadat Baniahmad</i>	49-64
6	Analysis of Published Critiques in Sukhan Monthly Magazine on the Subject of Paintings and their Effect on Iran's Modern Painting Flow from 1943 to 1959 <i>Homa Noor Alizadeh, Ali Akbar Jahangard</i>	65-82
7	Design of Protective Fabric Masks and Gloves based on Lufthansa Airline Logo <i>Akram Shahbeigh Hassanabadi, Salar Zohoori, Abolfazl Davodiroknabadi, Mehrnoosh Sakenyandehkordi</i>	83-93

Identifying and Explaining the Components Influencing the Quality of Environmental Perception in Residential Complexes (High-Rise Building)

Nazanin Sabetan^a, Mehdi Tavakoli Kazeruni^{b*}

^a*Department of Architecture, Shiraz Branch, Islamic Azad University, Shiraz, Iran*

^b*Department of Architecture, Shiraz Branch, Islamic Azad University, Shiraz, Iran*

Received 27 April 2022; revised 28 June 2022; accepted 03 July 2022

Research Article

Abstract

Citizens' dissatisfaction has been generated by the reduction in the quality of residential settings as a result of cities' fast expansion and development, which has led to issues such as mental depression and different types of urban unrest and damage. In such conditions, several architectural and urban planning thinkers and theorists have recommended "enhancing the quality of the living environment" as a means of reaching the aim of "environmental perception." The approach's major goals are divided into two categories: improving the physical state of the living environment and enhancing residents' mental perceptions of the quality of their living environment. This is accomplished by attempting to generate favorable physical/environmental circumstances as well as a positive assessment of the environment's objective and observable elements. To achieve this, it is necessary to identify the variables and components that affect the quality of the living environment, as well as to measure the level of residents' perception of each component, to develop appropriate strategies if there is a clear difference between the measured and desired situations, so as to enhance and improve the quality components. Thus, the current study attempted to provide a model using a descriptive - analytical method by examining various theories and experiences in the field of quality, so that it can be used in Shiraz city's environmentally and socially for evaluating the perception of residential environment and to take action on the specified goals. Once the primary factors, which include physical, functional-functional, and social variables, have been identified, the factors impacting perception of the environment were then assessed using the field survey and

* Corresponding author. Tel: +98-9177142863.

E-mail address: m_tavakoli1@yahoo.com.

questionnaire, with the spatial physical variable receiving the highest score. In this respect, the enhancement of urban life and the inhabitants' perceptions of the environment in their region pave the way for the eradication of many social issues that is now influencing residential environments.

Keywords: Housing; Residential Complex; Environmental Psychology; Improving Quality of Environmental Perception; Design Strategies

1. Introduction

An architect owes it to the public to see the space in its totality. In fact, the space is offered to the audience inside the structure. The art of architecture has the responsibility of gathering the features of the environment and displaying them in the location by artistically making it. Of course, it has been a very successful and inefficient moment in history in order to accomplish this objective. Traditional Islamic-Iranian architecture may have had a lot to say in this respect, but wandering through the city's streets and alleyways has made it forget its original character. People now live in buildings that were designed and built without consideration for man's psychological requirements, resulting in issues such as a diminished feeling of belonging, tranquility, and security. Housing has always been a source of worry for people at different stages of their lives. Its development throughout time, from the time when man lived in the jungle to cave-building and tool-making, etc., has been founded on his bodily and emotional requirements. Human beings have used the desire for shelter as a beginning point or starting point for building from a variety of angles. The numerous schools of thought have all attempted to explain how this urge emerged in man. In most of the responses, man is shown as a wandering creature in nature who seeks safety in caves or trees, and it is here that he is inspired by a pattern such as a cave (Nurberg Schultz, 2002).

Shelter is a material, spiritual, and natural need. "And God has fashioned you a place of habitation (and serenity) from your homes, and from the skins of living animals, and he has also given you houses that you can easily move from your day of movement and from their wool and shaggy hair, for you to construct," says the Bible (and various means of life), until a specific point in time (Sura al-Nahl verse 80).

The functionalism of modernist viewpoints has alienated growth, man, city, and architecture from the sensation of emptiness, and has rendered man fearless and indifferent via mass manufacturing of boundless and fearless places.

2. Concept of Environment

The term "environment" has different meanings, making it difficult to come up with a single definition. The scope or circumstances in which any phenomena or species lives or operates are defined by Oxford culture in establishing its habitat. Everything that exists around and has the ability to interact with the person is referred to as the environment. However, receiving all accessible information is not feasible. The environment is all of the data that comes in from the world around us (Pakzad, 2007: 45). This potential data may be sent from both natural and man-made surroundings. Architects, psychologists, sociologists, and geographers all have varied definitions and classifications of the environment, making it impossible to pin down a precise term. "The environment is a multidimensional notion with many dimensions. Environmental factors include spatial data, social, cultural, physical, architectural, symbolic, geographical, historical, and biological components " (Mortazavi, 2001) Literature about the environment differentiate between

physical, social, psychological, and behavioral environments. In the realm of architecture, "ambient space" is the primary requirement for defining the environment. As a result, whenever we discuss architecture, we are referring to the man-made space that surrounds us.

3. Environmental Perception

Because the environment is the source of all information, perception is at the heart of all environmental activity. The environment stimulates all of the senses and overwhelms the individual with information. As a consequence, perception is not the same as sensation; rather, it is the outcome of the individual's cognitive experience improving his or her processing. Because it has been argued that we are nothing more than our cognitive and long-term memory, Itelson claims that the person is a member of the perceptual system. It is difficult to separate the person from the environment throughout the perceptual processing process. Because these two are always interacting and perceptions are based on what the person is doing (Mortazavi, 2001), in environmental perception, the perceiver is a part of the observed environment and plays an important role in defining limits and other features through his behavior and movement in space. In other words, the observer's actions and aims are crucial in defining the environment's and space's bounds. From the perspectives of environmental psychology, perception, cognition, and conditions, we can consider space as an individual experience that is the result of his perceptual processes, as well as attributing specific meanings to the whole, components, and connections between those components in space (Matlak, 2001). An environment that is interwoven and entangled, particularly when the perception of things is separated from the sense of the surroundings. Because the individual travels in space and meets the environment according to assumptions and particular practical aims, environmental perception involves more variables and circumstances, and perception has a broader scope (Mortazavi, 2001).

Being human is a continual attempt to comprehend identity via perception of the environment. The perception of the environment, it may be argued, plays the most important function in human comprehension of the environment. Perception, in general, refers to a person's knowledge and awareness of the world around him as well as the world inside him, and it has long been a topic of debate among philosophers as the foundation of human cognition and identity.

Human mental state at the time of perception, as well as the ambiance of the surroundings at the time of perception, are factors that influence human perception. - the viewer's unique mood, which is formed by all of the viewer's previous experiences and occurrences - genetic influences as well as the social environment, Personal variables such as personal experiences, age, gender, and education are examples of psychological factors. Cultural elements are examples of factors that are not generated by learning or experience. In this respect, environmental stress is added, which is a physical environment aspect that creates a negative emotional response since it is frightening. Environmental stressors are variables that, over time, decrease a person's capacities by causing them to become stressed. Some of these elements, like noise, have an immediate impact on a person's performance, while others, like air pollution, have a longer-term impact. Noise, congestion, and other variables are examples of these. Almost everyone is affected by noise, heat, or humidity in some way. On the other side, you may experience anxiety and fear upon approaching a space or a location for no apparent cause. Environmental stresses are the initial instance in environmental psychology. Environmental stressors are threatening elements that generally elicit a negative emotional reaction. This response differs from one individual to the next. The way you perceive the surroundings has a major impact on how stressed you feel. It is one of the many elements that influence one's perception, including life events, genetics, and so on. There are various perceptual

elements that may make individuals apprehensive about the surroundings, apart from personal aspects that influence how a person views the world as stressful. Experiments have shown that if a person is completely ignorant of the environment, or the information received from the environment is so limited that he is unable to expand his knowledge of his surroundings, or on the other hand, the volume of information received from the environment is so large that he is able to expand his knowledge of his surroundings, he is unable to expand his knowledge of his surroundings. If a person grows to the point where he is no longer able to evaluate and pay for knowledge, he will experience unpleasant mental states such as boredom, unwarranted worry, and nightmares, among other things (Grütter, 2020).

3.1. Place and Space

According to the Oxford Geographical Dictionary, "place" refers to a distinct spot on the earth's surface that is an identifiable location for a circumstance in which human values are produced and evolved. In addition to the geographical idea, Webster's English dictionary refers to how individuals are situated in society in distinct regions (social dimension of space) [5]. Table 1 shows how various theories describe space, whereas Table 2 shows how space is defined.

Table 1 Definitions of place (Source: authors)

Theorists	Theory
Kanter (1971)	According to Kanter's model, place is a component of built or natural space that is the outcome of interrelationships between three factors: human behavior, meanings and ideas, and physical qualities, with these three components determining the quality of the environment.
Ralph (1976)	He considers place to be a phenomena that obtains its fundamental meaning not from its surroundings or functions, but from the civilization that inhabits it. Places, in his opinion, are a blend of natural order and human people, and they are crucial global experiences.
Johnston (2001)	Place is a section of geographical space occupied by a person or thing.
Partovi (2004)	Place is more than simply an abstract location from a phenomenological standpoint. A location is a collection of real-world things that includes materials, materials, forms, textures, and colors. The interaction of these components determines a location's environmental character. Place is considered as the product of a multitude of political, economic, social, and psychological influences that impact it at a given moment in time in traditional environmental psychology. These forces are thought to be able to modify the location if they intervene properly. The foundation for activities is location, which has an identity that encompasses a wide range of social realms and a history that spans the past, present, and future.
Davoodi (2008)	A place is a location where man has a complete perception of his being.
Habibi (2009)	The most important aspect of a person's identity is their location. Man may get information by knowing where he is.
Afshar Naderi (2012)	Place, he imagines is the outcome of the interplay of three aspects of human conduct: conceptions, physical qualities, and human behavior. As a result, "location" might be thought of as the experience of "inner worlds" vs "outer realms," which encompasses a variety of characteristics and openings.

Table 2 Definitions of space (Source: Authors)

Theorists	Theory
Shakubi (2000)	The idea of space as a component of socioeconomic structures. Space reflects man's knowledge of the world, his life experiences, and his intentional reliance on his surroundings. Individual or collective human choices, voluntarily or coerced, consciously or subconsciously, modify and manifest space across time.
Heidegger (2001)	In essence, space is something that has been made available, something that has been given up. Places, not space, provide the essence of spaces in this manner.

Almost every human being detects and experiences space more readily than place, and he simply feels the significance of place for individual and communal existence in contrast to space. People even comprehend space via location and discover an inconceivable realm independent from place. This distinction between place and space perception stems from the fact that space is more abstract than location (Pakzad, 2007). Although there is space everywhere, there is also a distinct sense of location. Envisioning everywhere must undoubtedly be more difficult than imagining a specific location. Space is a type of vacuum, yet place contains substance. Space is simpler to define and restrict than place, despite the fact that space is decentralized and limited (Purdihmi, 2008). In reality, locations are frequently environmental broad terms like nations, regions, landscapes, settlements, and structures. As a result, terms like island, promontory, bay, woodland, forest, square, street, yard, floor, wall, roof, window, etc., or names, are used to refer to them. The usage of names validates the acknowledgment of locations as actual and existing entities. Spaces, unlike locations, are frequently described as communication systems, which are usually articulated in prepositions. Additional letters such as door, inside, face, top, side, from, and so on are employed to accomplish this.

3.2. Factors Affecting Environmental Perception

Perception and cognition are impacted by psychological elements (such as wants, motives, and past acquisitions) that are also influenced by environmental circumstances, both in the stage of gathering information and in the stage of interpretation (cognition). Accept. These elements may be classified into two groups. The doer is regarded a component of the observed environment in the perception of the environment (Mortazavi, 2001: 90).

Some attribute the wide range of perception and cognitive processes to the variety of human nature, while others attribute it to the diverse experiences of people, and still another group attributes it to both. The organs detect information during perception and cognition, such as seeing a picture of objects and environmental stimuli in the retina (Mortazavi, 2001: 88). Life stages, spatial ability, familiarity with location, gender, and cognitive-spatial mistakes are among the five criteria that researchers have given more attention to than others (Grütter, 2020: 18). Table 3, summarizes the factors influencing the perception of the environment from the perspective of different thinkers and researchers.

Table 3 Components influencing environmental perception

Factors influencing the formation of environmental perception and the occurrence of perceptual diversity	Name of the thinker
Previous experiences / social class / cultural background	Amos Rapaport, 2005
Changing individual abilities due to learning / gender / culture	Duard Hall, 2009
Social and psychological factors / cultural differences	Jürg Groter, 1996
Past experiences / requirements and motivations / cultural environment / individual human personality	John Long, 2003)
Social and cultural developments / personal experiences / value system / personality differences of individuals	Cremona et al. 2009
Social, cultural and economic indicators / distance and proximity / residence history	Brody et al. 2004
Physical and environmental factors of the environment / Social indicators / Individual indicators / Housing characteristics	Santos et al. 2009
Physical factors of the environment / interests, feelings, memories and expectations / social context / time	Vischer, 2008
Worldview (designer and society) / culture / history / times and expectations of society / different human forces	Naghizadeh, 2008

4. Methodology

In order to develop a model that can be utilized by Shiraz city's Environmental and Social to assess how residents perceive their surroundings and to take appropriate action toward the set objectives, the current study made an effort to examine various theories and experiences in the field of quality. Following the identification of the main elements, which include physical, functional-functional, and social variables. The variables influencing how people perceive their surroundings were then evaluated in the field and through a questionnaire, with the spatial physical component earning the highest rating.

5. Results

The Factors influencing the promotion of environmental perception in residential spaces were obtained according to the review of the resident's environmental perception questionnaires.

5.1. Sociability

The features of man-made settings impact establishing a suitable number of collective interactions in living environments as one of the components determining the quality of the environment and environmental perception (Mortazavi, 2001: 64).

Cultural elements such as kind of traditions, culture, family structure, and attitudes toward privacy of inhabitants have a major effect in their happiness, according to research studies, and

cultural similarities among complex residents may boost satisfaction with the complex (Hip, 2010: 25).

5.2. Environmental Conditions

Climate change, bright sunlight, freezing and dropping temperatures, strong winds, dryness or high humidity, and rainfall are all factors that influence how people perceive their living environment. Providing people with comfort by shielding them from harmful elements such as sunshine or wind, paying attention to the microclimate of the place, and preventing abrupt changes in climatic conditions in a row may all contribute to the creation of a comfortable atmosphere.

5.3. Satisfaction

In study, the realm of architecture and housing, contentment is often described as a criterion that fits the demands of occupants. According to John Lang, an environmental planning and design specialist, independent of the demands of space users, it may cause significant physiological and psychological harm to individuals. The presence of green areas, fountains, and other natural elements in the open spaces of residential complexes have a significant impact on the creation of a sense of security, belonging to the place, efficient use of space, and promotion of social relations among residents, all of which contribute to residents' satisfaction. Seven factors, including the size of the space, social interactions, security, and infrastructure, as well as communication with the outside world, urban activities, and natural open spaces, have the biggest influence on the construction of environmental perceptions in residential complexes (Asghari, 2014).

5.4. Providing the Expectations of Residents from the Residential Environment

Kanter presented functional parameters as factors determining residential complex satisfaction in his 1977 investigations (Kanter, 1977: 152). Public services, recreational services, commercial services, and transportation services were introduced as sub-criteria of functional and significant elements in this sector (Benaito et al., 1999: 333).

5.5. Activities in Public Space

According to Carney's findings, inhabitants' most significant criterion of pleasure are social ones, but planners, designers, and architects focus more on physical qualities). According to his findings, community factors, rather than physical traits, have a larger impact in predicting the pleasure of older inhabitants. Even in circumstances when other things are not pleasant for the new inhabitants, contentment with the living environment is better in cases where individuals are happy with their neighbors. Physical aspects are crucial variables in people's contentment, according to Potter and Cantarro, for new inhabitants. Social elements and connection with neighbors are regarded more relevant variables with a longer history of dwelling (Potter and Cantarro, 2006: 623). As social elements determining inhabitants' contentment, Bialps emphasized local ties, involvement, and individual shared values (Barati and Kakund, 2013: 17).

5.6. Security

Human security refers to the safeguarding of individual, economic, cultural, social, and political rights and security. Human security has two dimensions: a minimum (sufficient) dimension in

which members of society are able to provide for and ensure their livelihood, survival, and security; and a developmental (welfare) dimension in which people are able to feel happy and secure in their lives and psychosocial security. Personal security, however, is more essential to individuals than other human security in the meanwhile. In truth, people's feelings of insecurity in a society may have a variety of implications. Withdrawal behaviors might also be triggered by a lack of trust or apprehension about numerous concerns. If they are able, people may flee insecure locations. Citizens may see that the location is unsafe because of the uncontrolled chaos (Giddens, 1999.) The theoretical underpinnings of order and security are one of the most important components of every civilization, focusing on the philosophy of their existence and the link between their interactions in society. As a consequence, the loss of order and security in any society will result in that society's disintegration; on the other hand, the cornerstone of every sustainable social organization is made up of its fundamental and matching components of social order and security (Salehi, 2008: 17). Security is a sense of calm and certainty that one's life, property, and other human rights will not be violated. One of the needs of individual and communal existence is monopoly value. In the past, cities were fortified by walls and ditches that surrounded them, protecting them from foreign assault (Kamyar, 2003: 33). Spiritual stability is seen as the most essential aim of life and the cornerstone of mental health (Forum, 1981: 11). Security is the second most significant category and the most fundamental requirements in Maslow's hierarchy of needs, after physiological needs (b and food, etc.). When people's physiological requirements are addressed, according to Maslow (1968), they become more intimately related with their capacity to meet and satisfy higher-level wants like security. These requirements are intertwined with the social and physical environment (Salehi, 2009: 22).

The individual characteristics like social status, personality, roles (age and social class, family support, being a student or worker, etc.) and these issues in identifying the comfort of these people also influences their understanding of the vulnerability of a place, and these problems in identifying the comfort of these people also influences their understanding of the vulnerability of a place (Howard 219: 1999).

After biological requirements, safety needs, according to Abraham Maslow, are the most fundamental human wants, which psychologically imply the human desire for peace and mental comfort, as well as the avoidance of upheaval and structural disorder in society (Samadifard, Movahed). The problem of environmental security is one of the most critical issues determining the quality of public places (Jahanbakhsh, 1932). Environmental insecurity has an impact on all human activities, and in certain situations, it may even interrupt normal social activity. Providing security in residential areas has a number of advantages, including improving the quality of life and increasing citizen satisfaction, encouraging people of all social classes to visit these places, increasing social interactions and cooperation, the volume and distance between buildings (masses in space), and neighborhood participation, and finally reducing urban crime. People who spend time in open places are seen to be successful in decreasing crime and boosting their security (Purdihmi 2008).

5.7. Sense of Belonging to a Place

The realm develops a psychological connection to a location and becomes a sign of ownership and physical composition (Sholeh, 2006, quoting, Pastslsn, 1970: 101-88). Residents believe their place of residence has specific characteristics, and although they are interested in it, they prefer to satisfy their requirements within its confines (same source quoted by Pollaway and Hillbert, 2012: 71). Lang is thought to have understood "to put" as a feeling of place citizenship (ibid., Cited in 85

and 19, 1994). Lang 291 Today, given the massive changes in the organization of cities' social institutions, and also, the investment system's orientations in the area of development and production of urban spaces, people's feeling of belonging to communities and urban spaces is eroding. Karami and Shariati (2008) although humans have differed in terms of biological geography and cultural surroundings across time, they share many of the same fundamental requirements. The human approach to urban design places people's common needs in the framework of time for long-term urban development in many cultures and climates at the forefront of its activities. Urban planners and designers may create acceptable models for sustainable physical, cultural, environmental, and economic development by paying attention to the role of human aspirations in the evolution of communal life (Motalebi, 2006: 58).

Table 5 Design solutions to increase the sense of belonging in residential complexes (Source: Authors)

Components	Providing an architectural solution
Proper physical access by facilitating riding and walking access	The rule of outdoor sidewalks To reduce the danger of accidents for residents, separate pedestrian pathways from pedestrians and prevent dividing open space with automobile lanes. More chances to reduce the negative impacts of automobile traffic, boost yard efficiency, and design flexibility are available with underground stops.
Suitable space for various activities through facilities and amenities,	Predicting public areas for sports, exercise, sports fields (football, tennis, volleyball, etc.), bodybuilding equipment, chess and ping pong tables, and children's playgrounds (sand playground, Skating rink and play equipment such as swings, slides and swings). Special occurrences that occur in space Regard activities such as playing music that provide a dynamic soundscape. Establishment of commercial (supermarket, bakery, fruit store, etc.) and recreational (club and swimming pool) purposes in order to offer 24-hour activities and secure space in the complex at night.
Sense of security	Design of restricted entrances for a residential complex with guards present and the ability to monitor the residents. Paths, green spaces, and sitting places should not be constructed in such a manner that lack of monitoring and sight is a possibility. Creating a welcoming environment for women's presence Enough illumination to make nighttime maintenance of entrance points, access roads, and public parking lots easier.
Clarity and legibility of spaces through no confusion in finding paths	Provide collections with well-defined inputs to avoid uncertainty for clients and residents. With a mix of building form, landscape design, and basic and readable markers, pedestrian access pathways may be made more visible and straightforward.
Separation of public-private space	Hierarchies of public, semi-private, and private open spaces are used. Sound transmission from spaces such as restrooms and toilets, kitchens, washing machines, and family living rooms to calm regions of the house such as the living room, bedroom, and study or work room may be prevented by properly placing functions within the home.
Landscape and use of nature	On the southern front, deciduous trees are used, whereas on the western front, evergreen trees are used. To generate variety and inhabitants' contentment with the environment, the trees' colors should be varied, and they should be planted in four seasons.
Social Relations	Designing the movement routes in the whole complex The compliance of component performance with total function

	Multi-functionality of spaces The proportion of components together
Color, texture and material	Form, construction materials, color, texture, and required apertures in building volumes are all coordinated with the surrounding texture. Create a continuous and dynamic shell and create movement in the entire set by moving it at a high level and seeing the entire set Use new materials in a part of the building: for example, emptying a part of the body of the space and transposing it - Create a continuous and dynamic shell and create movement in the entire set by moving it at a high level and seeing the entire set Garden design with a mix of old and new ideas (association of Iranian garden movement system and garden pits)
Associations of memories	Applying the fountains, lighting, sculptures and spaces with a special form Using the water as a focal and cumulative element in the landscape design

6. Conclusion

Because of the rapid growth and development of cities, there has been a decline in the quality of residential environments, which has contributed to problems like mental depression and various forms of urban unrest and destruction. Many architects and urban planners have suggested "improving the quality of the living environment" in these circumstances as a means of achieving the goal of "environmental perception."

The main objectives of the method can be broken down into two categories: raising residents' mental evaluations of the quality of their living environment and improving the physical condition of the living environment. This is achieved by making an effort to create advantageous physical and environmental conditions as well as a positive evaluation of the environment's objective and observable components. To do this, it is necessary to identify the factors and elements that influence the standard of the living environment, as well as to gauge how residents perceive each of these elements. This is necessary so that, in the event that there is a glaring discrepancy between the measured and desired conditions, appropriate strategies can be developed strengthen and improve the components of quality. To accomplish this, focusing on typical public and private high-rise residential buildings in shiraz, users' perceived importance of key attributes, The variables influencing how people perceive their surroundings were then evaluated in the field and through a questionnaire, with the spatial physical component receiving the highest rating. Once the main elements have been determined, which include sociability, environmental conditions, satisfaction, activities in public space, security, sense of belonging to a place, in these attributes were studied.

Thus, by examining various theories and experiences in the field of quality, the current study attempted to provide a model using a descriptive and analytical method, so that it could be used in Shiraz city's Environmental and Social to assess the perception of the residential environment and to take action on the specified goals. There is little doubt that the improvement of urban life and residents' impressions of their local environment pave the way for the eradication of many social ills that now have an impact on residential environments.

In conclusion, the outcome demonstrates that the design of the flat buildings and residences should be designed with full awareness to the needs and demands of the residents. The results can help to determine the areas for improvement in new building designs and facilitate prioritization of limited resources for upgrading building performance.

References

- Asghari, M. (2014). *A way to reach the alphabet of urban design from valuable traditional textures*. Master Thesis, Shahid Beheshti University, 55.
- Afshar Naderi, K. (2012). A look at residential architecture after the revolution. *Architect Magazine*, 18, 47.
- Beer, A., & Higgins, C. (2004). *Environmental planning for site development: A manual for sustainable local planning and design*. Routledge.
- Chapman, D. (2005). Creation of Neighborhoods and places in man-made environment. *Translated by Tabibian, M. & Faryadi, Sh., Tehran University Press, Tehran*.
- Fuller, M., & Moore, R. (2017). *An Analysis of Jane Jacobs's: The Death and Life of Great American Cities*. Macat Library.
- Grütter, J. K. (2020). *Basics of Perception in Architecture*. Springer Nature.
- Golkar, K. (2000). Components of urban design quality. *Soffeh*, 11(32), 38-65.
- Irvani, M., & Khodapanahi, M. K. (2002). *Psychology of Emotion and Perception*. Tehran, SAMT, 11th edition.
- Mohseni, S. (2009). Understanding the nature of architectural space by reflecting on the similarity of space in indigenous settlements. *PhD thesis in architecture. Faculty of Architecture, Fine Arts Campus, University of Tehran*.
- Mortazavi, Sh. (2001). *Environmental psychology and its application*. Tehran, Shahid Beheshti University Press.
- Moore, A. (2005). The impact of sustainable development on the process of urban landscape design with the aim of improving the quality of life (Aboutaleb, N. Trans.). *3rd International Conference on Science and Engineering, Istanbul, Turkey, Vira Capital of Ideas*.
- Nurberg Schultz, K. (2002). *The concept of housing: towards an allegorical architecture* (Yaz Ahmadi, A. Trans.). Tehran: Tehran Publishing.
- Parkinson, J. (2006, June). Holistic democracy and physical public space. In *British Journal of Political Science Conference* (pp. 1-17). London: British Academy.
- Pakzad, J. (2007). The appearance of the city and what Kevin Lynch understood from it. *Abadi Quarterly Journal of Urban Planning and Architecture*, 16(53).
- Purdihmi, Sh. (2008). *Residential open space*. 36.
- Unpal, D. (2001). A Study of the method of using traditional architectural elements in modern residential houses (Fereydoun, A., & Abedi, M. H. Trans.). *International Conference on Architectural and Urban Engineering*, Tehran.

Investigation and Analysis of Jungian Archetype and its Indication in Architecture

Elnaz Behnoud^{a*}

^aAssistant Professor, Department of Architecture, Sardroud Center, Tabriz Branch, Islamic Azad University, Tabriz, Iran

Received 14 April 2022; revised 28 June 2022; accepted 03 July 2022

Research Article

Abstract

Architecture is a mixture of science and art. Accordingly, there is always moving between the two poles of sense and sensibility. There is always something new to discover and interpret in artifacts. Theorists in aesthetics and psychology believe that many architectural forms have cultural, sociological, philosophical, psychological, etc. meanings higher than their functional values, which can be expressed through the structure of architecture. Carl Gustav Jung, a Swiss psychoanalyst and founder of the School of Psychoanalysis, by studying dreams, sacred texts and myths, could reach archetypes in the human psyche that have been repeated throughout the history of human life in art and human works. Jung believes that there is a psychological system that has a collective, universal, and impersonal nature that is common to all human beings. This collective unconscious does not grow individually but it is inherited and consists of pre-existing forms, ie archetypes. The purpose of this article is to answer the question of how to understand its reverberation in the structure of architecture from an accepted value in the field of psychoanalysis. Based on the nature of the research, this research is qualitative and has been done by descriptive-analytical method. The results of the research indicate that in fact, part of architecture as art is a symbolic expression of the collective human psyche and transforms its mental contents into matter.

Architecture occupies two thresholds at the same time; First, structural, industrial and material reality, and second, abstract, semantic, artistic and spiritual.

Keywords: Archetype; Carl Gustav Jung; Collective Unconscious; Architecture

* Corresponding author. Tel: +98-9144149382.

E-mail address: el_behnoud@yahoo.com

1. Introduction

Architectural works are one of the most important examples of art in human life. Architectural structures as the first types of art in addition to cultural features include information, knowledge and even memories of previous generations and part of their function is to transfer data and internal accumulations to future generations. The influence of mind and psychological processes on the creation of artifact is undeniable. Carl Gustav Jung, a Swiss psychoanalyst and founder of the School of Psychoanalysis, by studying dreams, sacred texts and myths, achieved archetypes in the human psyche repeatedly projected in art and human works throughout the history of human life. The application of the school of Psychoanalytic Psychotherapy in the present century led to the formation of the archetypal criticism approach in the liberal arts, which is used to develop a structural model in comparative studies and reciting the works in various literary and artistic fields. In this study, Jung's archetypes are read from various, deeper and more internal angles. The main purpose of this research is to apply Jung's important theories of psychology and his archetypal insights by indexing archetypal symbols in order to provide a model for analyzing, processing and critique architectural components. Also, according to the architects' views on the duality (internal dimension and external dimension) in architecture and the vacuity of research conducted in architectural sources in the field of archetypes, the necessity of this research becomes important; with the following research questions; 1. What is an archetype and how are its semantic implications identified? 2. How can an understanding of its reverberation in the structure of architecture be understood from an accepted value in the field of psychoanalysis?

2. Literature Review

There is a lot of research on the comparison of archetypes with literary and artistic works. Among these works, we can refer to the articles "Comparative Analysis of Perfectionism in Mysticism and Jung's Psychoanalysis" (Mirbagheri Fard and Jafari, 2000) which is discussed in relation to the general framework of the process of individuality in two categories of archetype and mysticism.

In the article "Comparison of Jung archetypes with the mystical method of Abu Sa'id" (Ejheee and Arab Jafari, 2017) archetypes of shadows and veils and their adaptation to mystical methods have been discussed. We can also refer to the article "Review and Analysis of the archetype of the shadow according to the concept of the soul in mysticism" (Rozatian et al, 2012), which refers to the shadow, the most deeply rooted archetype of the human subconscious mind. Also, in architecture a book entitled "Archetypal Architecture (Archetype)" (Gholabchi and Zeynali Farid, 2014), introduces and examines the concepts of archetypal architecture. Also, the article "Comparative Comparison of the Concept of Ascension in the Consultations of Archetypal Architecture with the Body of Architecture" (Dehghan et al, 2011), has been studied in order to achieve a single pattern language in architecture. Heravi et al., (2019), in their article entitled Reflection of the Mother Archetype in Iranian Historical Architecture Based on Jung's Theories, prove the presence of femininity in Iranian historical architecture with a psychoanalytic critique.

Behnoud et al. (2021), In their article entitled The Manifestation of Jung Archetypes in the Architectural Structure of Aref Chalabi Oglu Tomb, have examined the archetype of the process of individuality in the structure of the tomb complex. A review of the research literature shows that although the values of psychoanalytic knowledge and archetypal theory have been favored in the study of the liberal arts and social sciences, its prestige has received less attention in architecture. This article discusses how to reflect an accepted value of the school of psychoanalysis in

architecture and also by carefully studying and evaluating the sources, it tries to eliminate the shortcomings of previous researches.

3. Research Method

Based on the nature of the research, this research is qualitative and has been carried out by descriptive-analytical method. In this regard, after collecting data and documents, recognizing and organizing resources (Information gathering, data collection and organization, note-taking and observation) will be done. Then the obtained data are evaluated (description, analysis, measurement, fact-finding) and the information is classified. After that, the narration is done in a descriptive way. This research tries to discover their traces in architecture.

4. Basic Concepts in Perception

4.1. Concept of Archetype

The word archetype dates back to about five or six centuries. Archetype is derived from the Greek word Archetypos. The word in Greek meant the model or pattern that they made something out of it. The prefix Arch is used to mean original, old and rooted. The word Type itself is derived from the Greek root Topos and the word Typos in Latin. In English, it is the equivalent of the words Model, Exemplar, Form Class, Symbol and Character. The word archetype in philosophy and psychology means the original or archetypal pattern, characteristic and nature (Memarian and Tabarsa, 2013: 104). They attribute the invention of this concept to Plato (348-428 BC). The term archetype was taken as an "interpretive expression" of Plato's parable, that all beings are artificial creatures (Plato, 1906, Republic, Book VII). Before Plato, two thousand five hundred years ago, Pythagoras founded a mystical school on the basis that "everything is a number. That is, all reality is based on the simple manifestation of integers. The discovery of the fact that the square root of the number 2 cannot be expressed as a fraction of integers shakes this school. The discovery was so horrifying that it was only shared with professors who were deeply acquainted with the mysteries of reality. Raphael (1511-1510)'s painting, known as the Athenian school, depicts various figures from the most famous ancient Greek philosophers, scientists, and other well-known figures from Socrates, Plato, and Aristotle to Pythagoras, Ptolemy, Euclid, and Zoroaster. (Fig 1)[†]

[†] **The School of Athens** (Italian: *Scuola di Atene*) is a fresco by the Italian Renaissance artist Raphael. It was painted between 1509 and 1511 as a part of Raphael's commission to decorate the rooms now known as the *Stanze di Raffaello*, in the Apostolic Palace in the Vatican. The identities of some of the philosophers in the picture, such as Plato and Aristotle, are certain. Beyond that, identifications of Raphael's figures have always been hypothetical. To complicate matters, beginning from Vasari's efforts, some have received multiple identifications, not only as ancients but also as figures contemporary with Raphael. Vasari mentions portraits of the young Federico II Gonzaga, Duke of Mantua, leaning over Bramante with his hands raised near the bottom right, and Raphael himself.



Fig 1 The School of Athens; Fresco by Raphael. 1. Socrates, 2. Plato, 3. Aristotle, 4. Pythagoras (Robertson, 2016: 5)

A century and a half after Pythagoras, Plato argued in *The Republic* that there was a deeper layer of the real world beyond the emergence of external reality. This allegory points to the possibility that human imaginations are incorrect. In fact, this allegory states that this world is a shadow of the real world, which is the general world or the proverbial world. The cave is also an allegory of this world that is like a shadow (Poornamdarian, 2009: 54). Everything we think is real is in fact a shadow of the parable that radiates eternal fire, beyond human comprehension, back and forth, and the one who comes out of it is the philosopher who can meet the sun (Robertson, 2016: 2). (Fig 2).

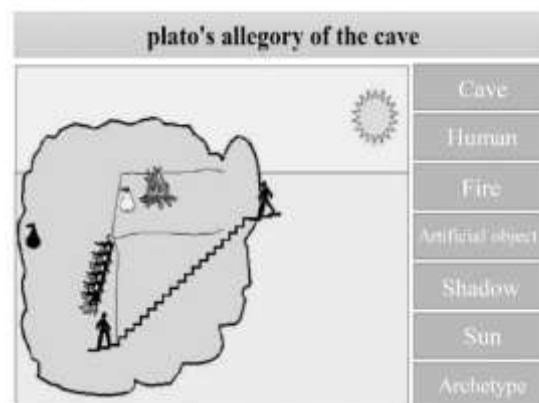


Fig 2 Plato's allegory of the cave and archetype (Source: Author cited by Plato, *Republic*, 1906)

This concept is essentially what Emmanuel Kant defines as "the object itself" in other words, how the human sensory organs and brain are constructed causes the world to be perceived in a specific way and within a certain range, which is not the same as the reality of the world. He argued that physical reality is experienced only by the internal structures that organize the "world of thousands of things." Arthur Schopenhauer also points out in his theory of the world as representation and image: We can only understand the appearance of objects (Phenomena), not as

they are in the soul (Nuomena) (Schopenhauer, 2011: 19). This concept basically expresses the same truth that Plato describes in the allegory and means the veil of the world. Influenced by Schopenhauer, Friedrich Nietzsche also proposed the theory of "eternal return", also known as the "das schwerste Gewicht". A hypothetical concept expresses the fact that the universe has returned and will continue to return in a similar and uniform manner in the form of a continuous space-time for innumerable times. Nietzsche returns to this idea in the chapter "Meeting and Riddle" from the book "Thus Spoke Zarathustra". The desire for the eternal return of all events leads to the absolute acknowledgment of life, which is itself a reciprocal response to Schopenhauer's praise of the denial of the will and desire for life (Nietzsche, 2017: 170-175). In *The Birth of Tragedy*, he discusses the worldview of Dionysiac, which is actually an archetype that in Hebrew refers to the godlike image of man (Imago Dei) as well as the gods Irenaeus and Dionysus can be found (Palmer, 2016: 167). Influenced by Nietzsche's Dionysian worldview, Carl Gustav Jung was one of the people who played an important role in promoting the word archetype in the twentieth century. To describe the original framework of the archetype, he first used a range of terms, including "primordial form" but in 1919 he first used the term "archetype" (Jung, 1990). He used Sigmund Freud's theory of the Freud's iceberg model to show the structure of the subconscious mind. According to Jung, all human beings share a mental "layer" called the archetype. Archetypes are not just names or philosophical notions, but components of life itself that are inextricably linked to a bridge of emotions to human beings. Therefore, any contractual or universal interpretation of any archetype is impossible. Archetypal shapes are remarkably interchangeable and commonly share humans around the world (Bilsker, 2012: 82). The following diagram shows the steps to achieve the philosophical concept of archetype (Fig 3).



Fig 3 The process of achieving the archetype philosophical concept (Source: Author)

4.2. Jungian Archetype

Jung believes that there is a psychological system that has a collective, universal, and impersonal nature common to all human beings. This collective unconscious does not grow individually but it is inherited and consists of pre-existing forms, i.e., archetypes (Robertson, 2016: 193). One of the most important and central archetypes that Jung proposes is the archetype of growth, which is vital for the process of individualization (Processus d'individuation) in all human beings. Jung calls the

process by which one is able to integrate the conscious and unconscious parts of one's personality the "process of individualization". Individuality means becoming oneself. Thus, individuality can be defined as "self-discovery" or "self-knowledge" (Palmer, 2016: 203). According to Jung, the human psyche is a sphere whose radiant region expresses the conscious and the "Ego" is at its center (The object is conscious when I know it). The "self" makes up the whole sphere (Jung, 2016: 243). (Fig 4)

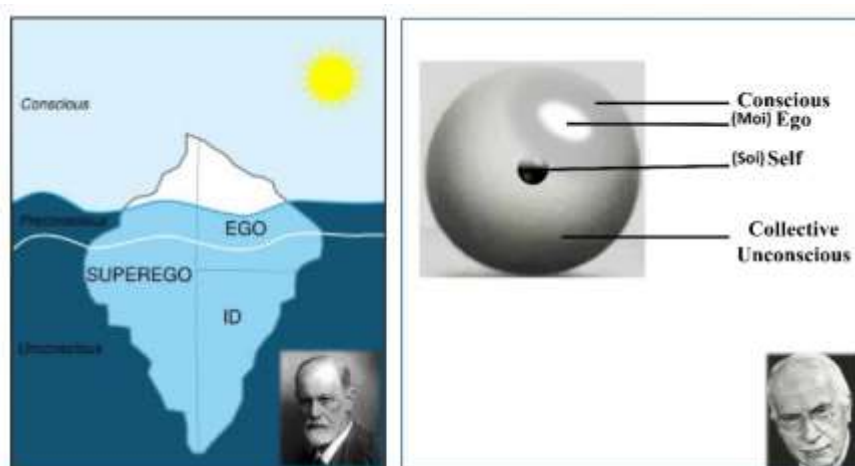


Fig 4 Right: The relationship between the conscious mind, the individual unconscious and the collective unconscious (Source: Jung, 2016: 243) Left: The structure of the human mind from Freud's point of view: conscious and unconscious (Source: Palmer, 2016)

The process of individuality has three steps:

1. "Ego" becomes one "self". 2. "Ego" detaches "self". 3. "Ego" reunites with "self". According to this plan, in the process of "birth, life and death", the first half of life represents ego gradual separation from "self", and the second half represents the reunion of the two (Palmer, 2016: 209). When the climax of a person's life is reached, the superior invisible personality of the person is manifested to the inferior personality by the force of inspiration. This causes the individual life to be directed in a superior and higher direction and creates a kind of inner transformation of the personality (Mirbagheri Fard and Jafari, 2000: 2). Jung believes that moving in the path of individuality is an endless movement and achieving any perfection and individuality leads one to a superior and higher stage (Bilsker, 2012: 53). The famous seventeenth-century philosopher and mathematician Blaise Pascal said that God (or the world, because he saw them as synonymous) is an infinite sphere with its center everywhere and nowhere around it. Lao Tzu said the same thing two thousand years ago. He and Jung sought to convey the fact that people perceive every day in exceptional moments that encompass the whole world. Since every human being is capable of such an experience, the world is centered on the number of human beings. Abraham Maslow and Jung both acknowledged that exceptional human beings constantly live close to such an exceptional experience. Jung described our life as a cycle of "self", that is, as a spiral path around an inner center. For Jung, life was not a straightforward pursuit of a distant goal. It was a journey to find a center within ourselves (Robertson, 2016: 267).

The growth archetype consists of four general parts: 1. Persona 2. Shadow 3. Anima / Animus 4. Self (Quincey, 2011: 4). Jung argues that this archetype can only be compared to the indescribable mysteries of "Uniomystica" or the Tao, or the content of the Samadhi or Satori experience in Zen,

Anima and Animus: The anima and animus archetypes are related to the opposite sexual characteristics of the psyche. Anima is a feminine characteristic of a man and animus is a masculine characteristic of a woman.

Complex and precise moral issues do not arise only through the shadows and another inner character often manifests itself. Jung called this masculine and feminine image "masculine element" and "feminine element".

Self: The self is the archetype of wholeness and integrity. Accordingly, the self is the goal of our lives to achieve the most perfect combination effect that we call individuality. The beginning of our whole life is rooted in this point and all our great goals are facing it (Palmer, 2016: 171-175).

When a person seriously and persistently fights with his masculine element or feminine element so as not to be suspected of them, subconsciously changes his character and emerges in a new symbolic form that represents the "self", the innermost core of the psyche. (Fig 6)

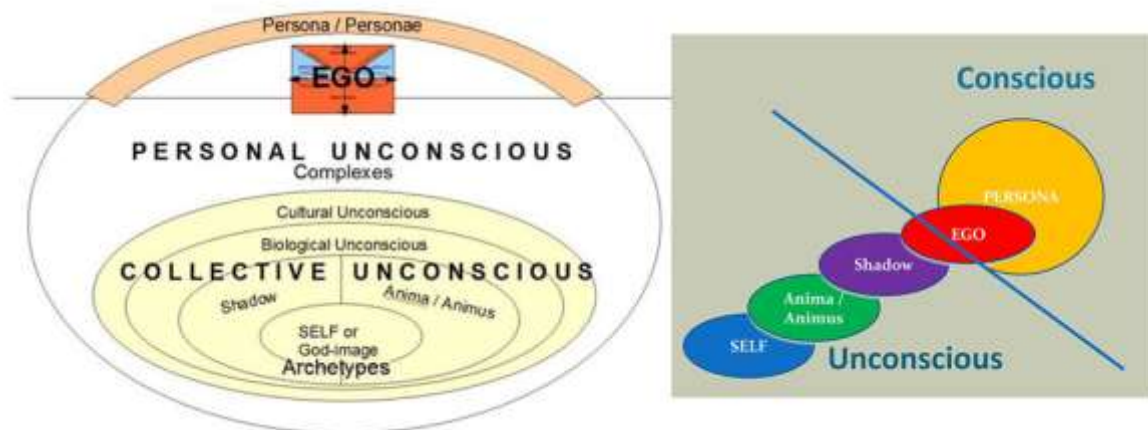


Fig 6 Analysis of Jungian Archetypes (Source: Jung, 1990)

5. Archetype and its Manifestation in Common Global Sources and Information

Based on what has been stated, archetypes are truths from the whole universe originated from the hidden conscience of human beings and sometimes enter the consciousness as images of common universal information. In order to overcome the gap between the obvious and the hidden part of their mind, human beings need resources such as symbols, myths, and dreams in order to recognize archetypes. Archetypes come into play when they find content because archetypes are empty by themselves. The following is an explanation of how archetypes manifest in these sources.

5.1. Archetype and its Manifestation in the Subconscious Mind and Dreams

Jung, who had been a follower of Freud's school for some time, was overwhelmed by Freud's insistence on certain ideas, including the influence of sexuality on human behavior. He declared that "Twentieth-century man has become too rational and has extreme reliance on the conscious mind and other human forces including the unconscious have been underestimated to the extent that the spiritual and material value of man has been overshadowed by the material and physical" (Dyer, 2007: 5).

The dream also connects the personal unconscious to the conscious through symbolic language. In fact, the subconscious aspect of any event is revealed in imaginary and symbolic form in dreams (Jung, 2016: 28).

5.2. Archetype and its Manifestation in World Myths

Myths, like dreams, rise from the depths of the collective psyche and subconscious and tell common themes objectively and symbolically (Eliade, 2014: 67). According to Jung, the psyche, much of which is in the realm of the unconscious, manifests itself through myth. According to Mircea Eliade, symbols and myths are not invalid constructions of the human soul and psyche, but meet the needs of human beings and play a functional role: "Revealing the most hidden features of existence." The important book "The Golden Bough" by James George Frazer is a comparative study that seeks to find common ground between the religions and myths of the peoples of the world. (Fig 7)

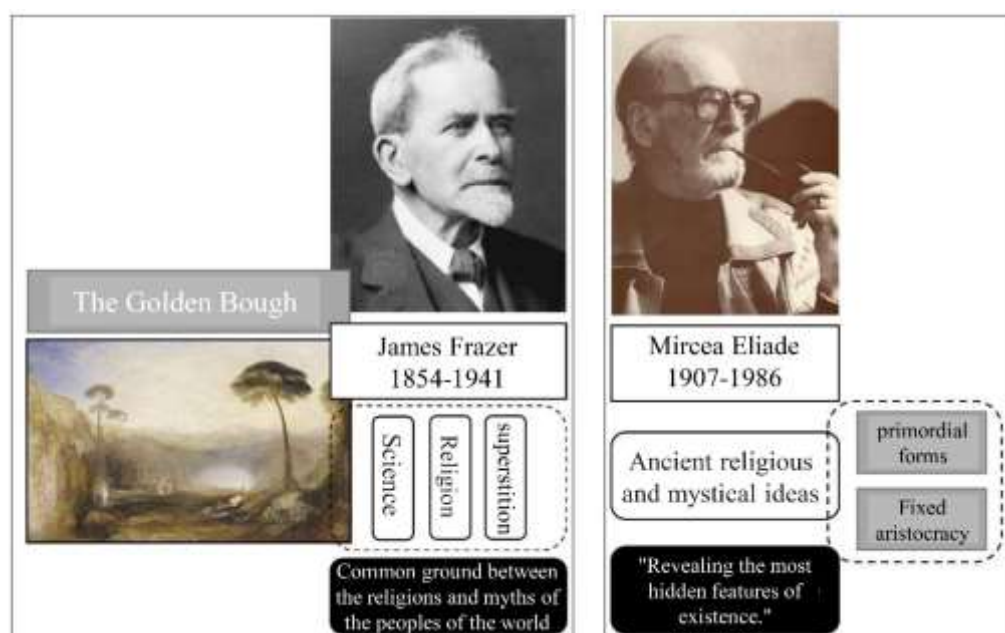


Fig 7 Analysis of Myth and Religion by Eliade and Frazer (Source: Author)

Apparently, the emergence of myth coincides with the emergence of mankind. When we look at the psychological characteristics of the human species instead of the physical characteristics, we understand that the first thing that distinguishes the human species from other creatures is that human beings were guided and managed according to mythical laws and goals, and economic and livelihood goals and laws were placed in the next stage. This insight and awareness of mortality and the need to go beyond death is the first human desire for myth. The second is the awareness of the importance of the social group in which the individual is born. There is a third factor that has had a profound and far-reaching impact on the formation of myths. This factor is obviously related to the human experience. As man grows and develops, and the power of their thoughts and observations matures, they inevitably become aware of the world and explore the mysterious relation of their existence in it.

The first common examples of mythical thinking can be found in the Neanderthal period, which lasted from about 250,000 to 50,000 BC. The first examples are burial with food, special shrouds, tools, sacrificial animals, and the like; the second example is the shrines they built in the caves of the high mountains, which symbolically represent life after death. (Fig 8)

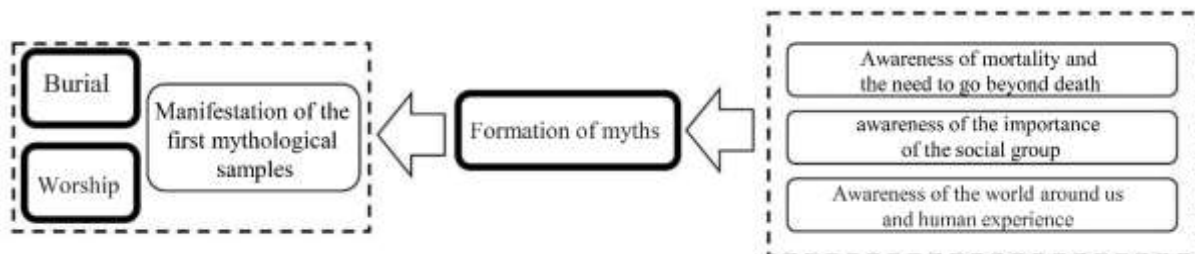


Fig 8 The formation of mythical (Source: Author cited by Campbell, 2016: 31)

5.3. Archetype and its Manifestation in the Symbol

One of the reasons for man's need for a symbol is the separation between the conscious and the unconscious part of his mind (Wilber, 1986: 31-43). The symbol acts as a bridge between the two layers of the psyche, the subconscious and the conscious (May, 1960: 19). Since the set of conventional means of communication is not capable of expressing religious and mythical themes, human beings need to invent a symbol for this purpose as it has not been possible to express them in any other way. According to Jung, the symbol has an implicit meaning in addition to its conventional and apparent meaning. The symbol signifies something solid, unknown and final. Therefore, any word or image is symbolic if it indicates something more than its obvious meaning (Jung, 2016: 3-4). Some natural objects such as rocks and sacred mountains and these man-made objects had symbolic functions. Geometric shapes such as circles, triangles and squares have symbolic functions in all cultures (Jung, 2016: 257).

The conscious part always understands archetypes as symbols. Thus, in art, dealing with symbolic works can be a step towards recognizing the collective unconscious and archetypes. Originally, by separating from the fence of matter, the symbol becomes a transcendental thing and beyond matter and into energy; the energy that takes him out of the fence of time and causes a cosmic presence and connection (Cirlot, 2010: 5). Each symbol can be examined in two ways: First, its external reality and second, the symbolic nature of its components, which include the content and meaning of the symbol. Symbols are the intermediate energies between the inner space and the surrounding space and the bridge between inside and outside to reveal the mysteries of existence in a more understandable way for human beings. (Fig 9)

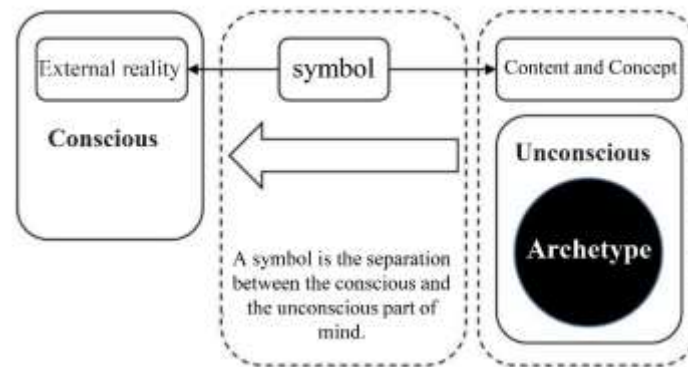


Fig 9 Manifestation of archetypes within symbols (Source: Author)

6. Achieving Common Patterns in Architecture through Myth, Symbol and Dream

The purpose of each of these explanations, "Archetypes of the Collective Subconscious" by Carl Jung, "Structural Anthropology" by Claude Lévi-Strauss, "Themes of Global Myths" by Joseph Campbell in Psychology, Anthropology, Mythology and Comparative Theology, is to highlight common elements and patterns within the relevant string. The question that now arises is whether there is a common source for structures and patterns in architecture or not (Dehghan and Memarian, 2011: 93). Two theorists in the field of architecture in terms of applying such methods in the field of architectural theories are Herman Hertzberger and Christopher Alexander. Hertzberger compares "language" and "speech" with "structure" and "interpretation" in architecture. If it is accepted that symbol and myth are composed of common elements and architecture is a spatial and temporal expression of myth and symbol, the question of the existence of a common pattern language in architecture will also be valid (Dehghan and Memarian, 2011: 94). (Fig 10)

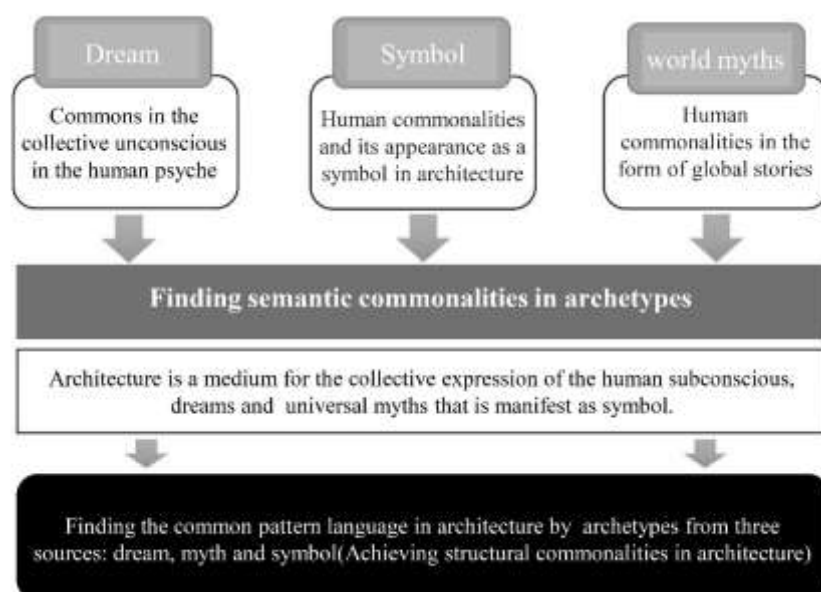


Fig 10 The model of achieving a common pattern language in architecture resulting from semantic commonalities of the archetype (Source: Author)

7. Conclusion

Man, by knowing his psyche, is able to bring the contents of the unconscious to the level of the conscious and use them consciously. By understanding the subconscious mind, the ability to create and innovate becomes active in the human being. Art and psyche interact with each other, and to understand this interaction as much as possible, one can search for the trace of the psyche in the text of art works. Archetypal themes emerge through symbols and can be understood through interpretation. Jungian school's psychoanalytic critique and archetypal concepts, with the cognition it has created in the lower layers of the psyche, has introduced artifacts to new readings. At present, archetypal critique in liberal arts and art research is expanding. According to Jung, man stands between the two outer or conscious worlds and the inner or unconscious world. The representation of these two worlds is considered part of the hierarchy of personality development. Part of this evolution takes place through the process of recognizing and balancing contrasting aspects within and, consequently, in artifacts. Architecture also occupies two thresholds at the same time; First, structural, industrial and material reality, and second, abstract, semantic, artistic and spiritual.

The results of the research indicate that part of architecture as art is a symbolic expression of the collective human psyche and transforms its mental contents into matter. This approach is new in knowledge architecture and can cover a wide range of future research. (Fig 11)

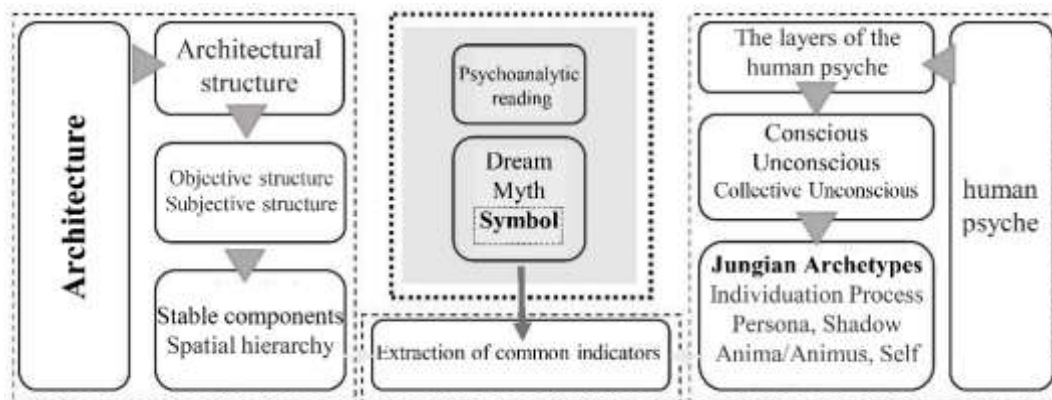


Fig 11 Relationship between Jungian Archetypes and Architecture (Source: Author)

References

- Batuli, S. M. (1997). *Jung and Sohrevardi*. Tehran: Ettela' at Publications.
- Behnoud, E., Balilan, L., & Sattarzadeh, D. (2021). Jung's Archetypes manifestation in architectural structures of Chalabi Oghlu mystic tomb's collection. *Journal of Researches Islamic Architecture*, 8(4), 145-166.
- Bilsker, R. (2012). *On Jung*. Tehran: Farhang Javid Publication.
- Campbell, J. (2016). *Myth to live by*. Tehran: Doostan Publication.
- Cassirer, E. (2017). *The philosophy of symbolic forms*. Tehran: Hermes Publication.
- Cirlot, J. E. (2010). *A Dictionary of symbols*. Tehran: Dastan Publication.
- Dehghan, N., Memarian, Gh., Moradi, A., & Ardakani, H. A. (2011). Comparative comparison of "ascension" concept in semantic commons of archetypes and architecture. *Scientific Journal of Motaleate Tatbigi Honar*, 1(2), 87-100.
- Dyer, W. (2007). *Treatment with mysticism (You will see it when you believe it)*. Tehran: Sherkat-e Sahami-e Enteshar.

- Ejheee, T., & Arab Jafari, M. (2017). Comparison of Jung archetypes and the mystical method of Abu Sa'id. *Mytho- Mystic-Literature Journal*, 13(47), 67-97.
- Eliade, M. (2014). *Images and symbols. Studies in religious symbolism*. Tehran: Parsehbook Publication.
- Frazer, J. (2003). *The Golden Bough*. Tehran: Agah Publication.
- Gardner, H. (2019). *Art through ages*. Tehran: Neghah Publication.
- Golabchi, M., & Zeynali Farid, A. (2014). *Archetypal Architecture*. Tehran: Tehran University Publication.
- Heravi, H., Falamaki, M. M., & Tahae, A. (2019). The Representation of the Mother Archetype in the Historical Architecture of Iran Based on Jung's Views. *Bagh-E Nazar Journal*, 16(75), 5-14.
- Jung, C. G. (1990). *The Archetypes and Collective Unconscious*. Translator: Hull, R. F., tenth printing, New York: Princeton University.
- Jung, C. G. (1988). *Four Archetypes: Mother, Rebirth, Spirit, Trickster*. Mashhad: Astan Quds Razavi Publication.
- Jung, C. G. (2016). *Man and His symbols*. Tehran: Diba Publication.
- Kargar Pishe, A. (2007). Several issues on Chalabi Oghlu monastery and it's relationship Molaviyeh. *Religion & mysticism Journal*, 5(20), 281-296.
- Memarian, Gh., & Tabarsa, M. A. (2013). Typology in architecture. *Iranian scientific association of architecture and urbanism*, 4(6), 103-114.
- Mirbagherifard, S. A. A., & Jafari, T. (2000). Comparison studying of the perfection of Sufism and Jung psychology. *Journal of mystical literature*, 2(3), 1-32.
- Nietzsche, F. (2017). *Also Sprach Zarasthustra*. Tehran: Agah Publication.
- Palmer, M. (2016). *Freud and Jung on religion*. Tehran: Roshd Publication.
- Plato, B. (1906). Book VII. *The Republic*, 207-237.
- Poornamdarian, T. (2009). Plato's world of illusion, Collective unconscious of Jung, and Mowlana's world of heart. *The Journal of Epic Literature*, 1(19), 52-68.
- Quincey, Ch. (2011). *Archetypes (An illustrated guide to the Seven Archetypes of Consciousness that guide and transform our lives)*. The wisdom Academy, christiandquincey.com.
- Robertson, R. (2016). *Jungian Archetypes: Jung, Godel, and the history of archetypes*. Tehran: Daf Publication.
- Rozatian, S. M., Mirbagheri Fard, S. A. A., & Mani, M. (2012). Notice and analysis between shadow archetype and Ego in mysticism. *Journal of letters and language, bahonar kerman university*, 15(32), 86-103.
- Schopenhauer, A. (2011). *Aphorismen Zur Lebensweisheit*. Tehran: Niloofar Publication.
- Schultz, D., & Schultz, S. (2006). *History of Modern psychology*. Tehran: Roshd Publication.
- Wilber, D. (1986). *The Architecture of Islamic Iran (The Ilkhanid Period)*. Tehran: Scientific and cultural publications company.

Evaluation of University Education in Architecture at the Undergraduate Level from the Viewpoint of Professional Needs and Employment

Ali Asgari^{a*}

^aAssistant Professor, Department of Architecture, Faculty of Art and Architecture, Shahr-e-Qods Branch, Islamic Azad University, Tehran, Iran

Received 17 April 2022; revised 27 June 2022; accepted 03 July 2022

Research Article

Abstract

Architecture education has long been related to many topics. The assortment of these topics and their correct arrangement in the learning process has been one of the key subjects in forming educational systems and the description of courses in this university major. Simultaneously, the effectiveness of an educational system in educating people in the work environment is another concern that is considered as a measure of the quality of the same educational system in public judgment. This study aims to recognize the areas of employment and capabilities affected by the areas of knowledge and skills that each job position requires. To this end, in terms of their relationship with each skill, the arrangement and planning of architecture courses are valuable for qualitative and quantitative review.

Under a qualitative paradigm and with a logical reasoning approach, the current research tries to understand the relationship between effective parameters in the common fields of employment of architecture graduates with approved courses in the discontinuous bachelor's degree. For this purpose, the researchers use a pairwise analogy of skill-specialized parameters of architectural employment and hierarchical analysis to measure the frequency of courses and the weighted frequency of the criteria.

The description of the approved courses as the most effective upstream plan in the architecture education system has a rigid and inflexible body that, while not responding to creating effective areas to reinforce the students' ability to enter numerous fields of employment due to their central vision, has caused a waste of student time while studying and learning topics that they do not use in

* Corresponding author. Tel: +98-9122546292.

E-mail address: a.asgari@qodsiau.ac.ir.

a professional environment as provided. On the other hand, the top graduates of this educational system are very similar in terms of similar learning; they have a lot of competition in limited fields.

Keywords: Architecture Education; Employment; Professional Architecture; Business; University Education

1. Introduction

Architecture education's scope must comprise a wide range of knowledge and skills that help architecture students become an architect who can play an effective role in society. However, a variety of architecture education courses in some contexts, such as the design of form and space, criticism and investigation of architectural works, principles of buildings' restoration and maintenance, and theories about the creation of manmade spaces, etc., cannot by itself make architecture students choose different approaches for their careers after graduation.

Albeit, it is confirmed that variety in diverse and sometimes different topics on architecture education has a long history. This background goes back to the late first century BC when Vitruvius[†] theocratized architecture education, which is so far a debatable issue in architectural circles. Vitruvius believed that an architect must be trained in all environmental areas, social and cultural topics, artistic traditions, and construction techniques (Hojjat, 2011: 114). In his opinion, various professions are inculcated in architectural design; hence, it is essential to consider these professions in architecture education: drawing to produce a sketch, geometry to produce design and recognize proportionality, visual sciences in detecting light in the building, mathematics to assess costs and dimensions, history to express symbolic properties for an employer, philosophy to define personal ritual and viewpoint, physics to understand nature rules, music for theoretical aspects to find mathematical (sound-dependent) ideas, and medicine to diagnose health status of building's site, law to teach rules and regulations related to building, and astronomy to understand harmony in the world (Hearn, 2003: 31). This diversity is still, after centuries, tangible and touchable in architecture education and speeches about skills required for architects to enter this profession.

Born as a result of European architecture education, the modern architecture education in Iran goes back around the current 100 years. Architectural education has been assigned to the university over the past century, and the student-professor education process still exists. However, the second education mode is not the research case of extant study because employment is involved in this mode, and the builder enters the profession space as an apprentice from the first stage of learning. The considerable point of architecture education at university is that this process has been developed to educate more effective and productive graduates for a professional society. However, the inefficiency of architectural design education and wide gaps between current education and labor work are the most common concerns and discussions among architecture instructors in various faculties of Iran (Lalbakhsh, Ghobadian, Azizi, 2020, 318).

For example, Simoni and Abbasi (2022) evaluated the performance of academic education of architecture from the perspective of quality of technical and executive skills and entering this profession from the viewpoint of consultant and designer engineers, professionals and practitioners, faculty members, instructors, and students at a lower level relative to other performances of this educational system. Although this study is not a hundred percent general, it includes some feedback

[†] Marcus Vitruvius Pollio (70BC-15BC)

from workspace and university that somewhat reflects the relative assessment in the professional scape of architecture.

One of the crucial concerns in any educational system is how to design and compile a curriculum. On the other hand, every person who enters the educational system aims to achieve a better occupational and professional position, changing the conditions after education. There will be a difference between a person who has received higher education and an individual without any education in this field (Mahfar and Shahbazi, 2020: 93). However, it is a consensus the case that the higher education system is a fundamental part of society and is intimately related to the labor market and socio-economic development of the country. Despite a slight expansion of universities and higher education institutions in recent decades, unemployment issues and lack of skills among youth have increased in Iran. Meanwhile, inconsistency of educational and research policies, programs, and content with society and the labor market's needs are major obstacles and disturbances in youth employment, requiring special attention (Ghorbanalizade and Najar Nahavandi, 2014: 74).

Alade (2011) conducted a study entitled "trends and issues on a curriculum review in Nigeria" and concluded that curriculum review practices must be shifted from theoretical to practical ones. In this regard, Hadizadeh et al. (2020) introduced sustainable employment after the need for a labor market and employment rate for education, fostering and creating competency among graduates.

However, profound studies must be repeated due to time variations among graduates of each discipline based on the different and various labor markets. Asgari et al. (2020) considers flexibility in the recreation of curriculums as a condition for stability of architectural education programs and indicates this subject when comparing optional and flexible courses in leading universities. This case requires identifying different aspects of architectural employment in Iran and the world.

Besides the viewpoint of architecture education' scope, some studies have been conducted on the employment of architecture students and graduates and have reached some results that are matched with findings of studies about the concern of employment in other engineering disciplines. For instance, Mirjalili (2022: 297) introduces technical skills, social skills, skills in using appropriate technology, teamwork skills, systematic thinking and attitude, work and project management skills, and skills with working with data and information as skills required for employment of architecture graduates. She explains that the academic education system must strive to increase students' employment rate in workplaces to strengthen the skills mentioned above.

Therefore, the extant study aimed to find the employment aspects introduced to students by architecture education and to what extent students can alleviate the educational system's shortcomings in entering the workspace through this process. Accordingly, the present paper first introduces the identified aspects of employment in architecture, and their required talents and competencies, then examined the function and shortcomings of the educational system in this case. It is worth noting that entering the employment skills as the common literature with other disciplines is not the discussion case of extant study.

2. Research Method

The extant study was done based on logical-mathematical reasoning. Linda Grout and David Wang (2013: 341) express that causal studies with logical reasoning are influenced by a series of existing knowledge or factors that have been ignored, leading them to a coherent design within single frameworks with a considerable and sometimes innovative explanatory power. The present study aimed to examine effective values in planning curriculums of architecture discipline with an emphasis on bachelor's degrees. In this case, after employment fields for architecture students were

assessed, courses or teachings required for each field were evaluated. In logical reasoning, research, definition, relationship, and expression are important components; hence, the theoretical foundation section of the study defines employment areas then architecture BA courses are categorized as shown in Tables 2 and 3. In the next step, the inner relationships of these courses are examined in pairwise comparison through Analytic Hierarchy Process (AHP) through relevant software[‡]. The case that has been illustrated in Fig 3 is finally compared with the frequency of each value in the table of courses approved by the Ministry of Science. Fig 1 depicts the research steps.

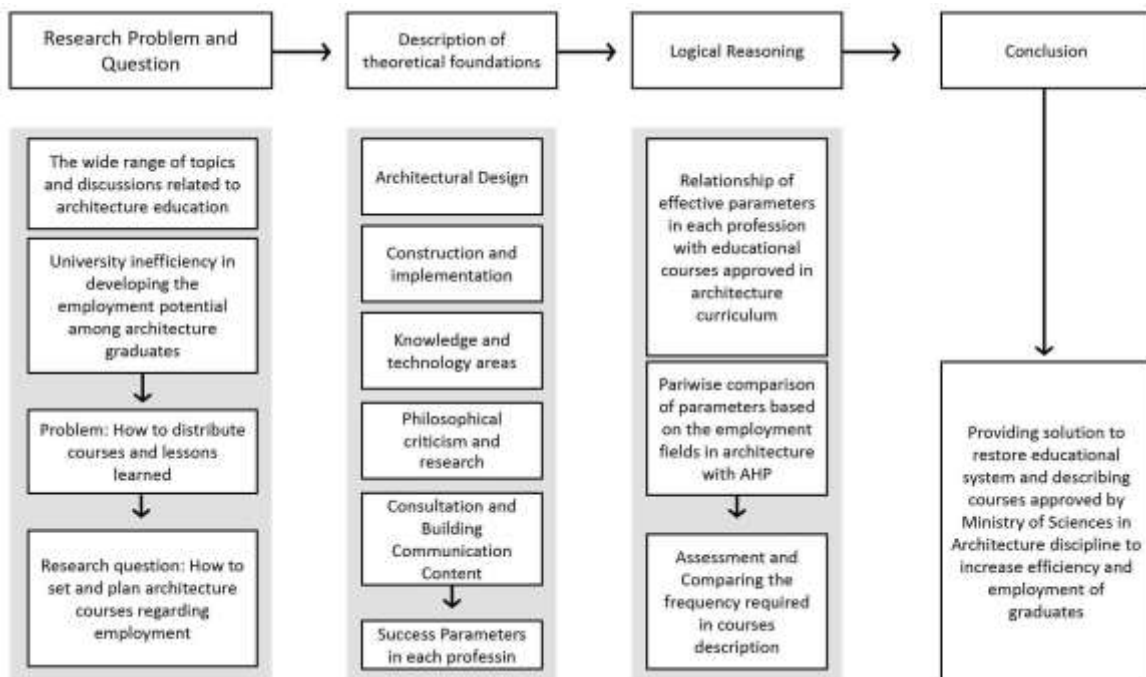


Fig 1 Research Model's Process

3. Theoretical Foundations: Employment Areas in Architecture

The challenge of employment in the academic educational system requires a suitable knowledge about employment areas. Although this is an obvious cause, the author's observations indicate that architecture students and graduates of different degrees always argue that professional space literature is unknown in practical fields and categorical diversity. Architecture students consider architectural design as their main professional aspect due to the presence of a large number of courses entitled "architectural design" and its derivatives. However, the educational system has tangible inefficiency in terms of architectural design. Regardless of design and implementation that are tangible and demanded aspects of employment applicators, there are other various jobs in world architecture scope explained herein.

[‡] Expert Choice - v11

3.1. Employment from the Perspective of Design and Architecture

Architecture and design are profound and broad concepts. Although the design, sciences, and engineering scopes can be separable, they affect each other. This implies the requirement of parallel teaching of theoretical and practical architecture courses. As shown in Figure 2 and Table 1, engineers and scientists conclude based on pure knowledge regardless of personal ideas. While designer does design actions based on implicit knowledge and sometimes their personal and intuitive viewpoint. Designers and engineers tend to transform the world's future into a superior condition, but scientist strives to understand the world. Scientist and designers' action is human-centered, while engineers' performance is technology-based (Rezaie, 2014: 56).

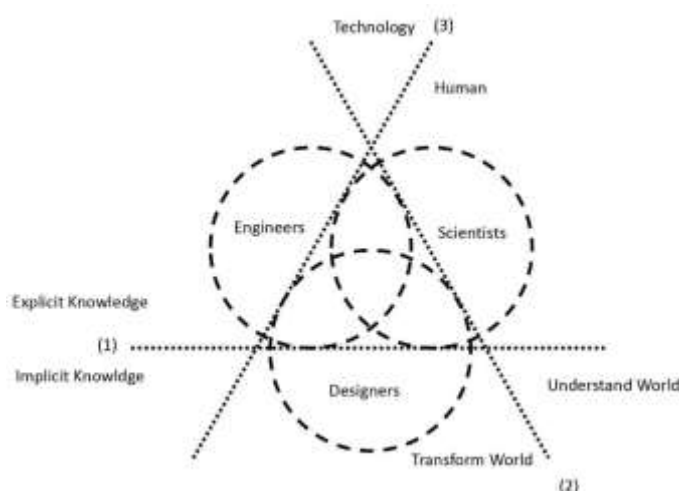


Fig 2 Relationship, differences, and similarities between sciences, engineering, and design (Bartneck and Rauterberg, 2007: 738)

Table 1 Comparison between sciences, engineering, and design

	From the scientists' point of view	From the engineers' point of view	From the designers' point of view
Understanding and knowledge	Based on the explicit knowledge		Based on the implicit knowledge
How to look at the case	Regardless of personal and expressible opinion		Based on a personal and sometimes intuitive point of view
Working concerns	Attempt to understand the world	They tend to transform the future into a better condition rather than the current world	
Performance focus	Human-centered	Technology-centered	Human-centered

The design theorist and expert in design methods and theories, Horst Rittel, explained that some activities, such as planning, policymaking, and engineering, have a specific form of design. Like the design, these activities solve wicked problems while sciences solve tame problems. Because a person cannot remember, search, and study all variables of a wicked problem, many individuals from different ranges of engineering and design sciences control unsolved problems (Rittel and Webber, 1973).

The subject of revealing design and estimation of problem-solving approaches again emerged after it disappeared in 1980, especially in engineering and industrial design disciplines. Since then, sciences, engineering, and design again approached each other, and then design aspects were developed in sciences and engineering. Many scientists have searched different design process areas, such as applied tools, managerial methods, design problem structure, design activities, and design philosophy over recent years (de Vries, Cross and Grant, 1993: 1623).

Donald Schön[§], the philosopher of this scope, explains that architects in professional activity rely more on the acquired design techniques and initiatives in the profession than on academic or school teachings. According to his study, practical thinking is more useful for the design process than single technical and theoretical rationality, the thinking that does not occur in schools (Rezaie, 2014: 58).

The design has various techniques to comprise many secrets and ambiguities. If we want to provide a leading educational system, identifying such secrets and ambiguities and their differences is so broad that they cannot be briefed in this study.

3.2. Employment from the Viewpoint of Architecture and Implementation

After architecture students end their academic careers and exit the university, they face different approaches and routes with different trends, so architects have a different working profession. A student encounters some challenges for different reasons when entering the architecture profession as a constructor or executor, which is expressed by various pieces of literature such as construction, contraction, surveillance, implementation, and restoration.

The first category of reasons entitled "individual conditions" include "non-use of practical experiences in an academic atmosphere," "low knowledge about contemporary technology due to absence of approved description of courses," and "difference in gender adoptions." The second category includes "work labor conditions:" "doubts caused by mistrust in university," "non-introduced routes in university," and "weak employment system" caused by employer's fear of loss, reduction in implementation quality, and absence of information bank during education (Hojjat, 2012: 216). Moreover, this issue may lead to preventive function, instead of instructing function, of some governmental systems and organizations due to different excuses, such as the time gap between graduation and entrance exam of an engineering system, which causes an uncertainty period (Seyyedian and Hassanpoor, 2014: 6), which makes the third category, i.e., "executive and legislative engineering system."

This case has been observed among associate graduates of architecture who are introduced as technicians in the educational system. This case redirects the employment status of technicians in labor division and expertise-based hierarchies (traditional internship and apprenticeship) towards a social hierarchy-based labor vision. It enhances office tasks, relationships with the employer, and the design of reconstruction projects in implementation-related issues. This case has not been defined in the official area of these individuals' jobs and education (Nari Ghomi and Bahreini, 2018: 15).

In case of implementation, none of the educational methods can be as useful as a person's experimental understanding, which is essential in implementing "testing," "doing," and "experiencing objectively" to approach the learning cycle to the performer or executor's

[§] Donald A. Schön (1930-1997)

responsibility (Farzian and Karbasi, 2014: 4). In other words, those architects that graduated as executors from the academic field highly need a primary awareness of how to implement. Lack of empirical background among graduates in the labor market and lack of physical knowledge about the work atmosphere may cause many problems for those who want to enter the executive workshops. It can be stated that weakness in the practical education of architecture is the main reason for such shortcomings (Hojjat, 2012: 18).

Non-trust in executive systems in universities over the past decade has been made due to inappropriate evaluation systems or unjustifiable leniencies requiring revising executive courses' assessments. This case is directly related to the spirit and property of consumers and employers, so it is an undeniable part that, unfortunately, cannot be flexible in learning aspects. This can restore inefficient sectors by interfering engineering system when students are earning, denying the university's responsibility **, narrowing the time gap between entering the profession and graduation (Seyyedian and Hassanpoor, 2012: 10).

3.3. Employment from the Viewpoint of Knowledge and Architecture

Naturally, a group of graduates must be prepared to attend scientific areas of architecture discipline. It was tried to search feasibility of this case in the structure proposed by the University of Tehran (2013), notified to Iran's universities in 2017 by the Ministry of Sciences, Research and Technology.

Headlines of architecture courses†† indicate the presence of knowledge and scientific fields among multidisciplinary architecture discussions on educational courses of this discipline. This topic that was mentioned in the introduction section of the study could provide the field for the development of knowledge-based activities in architecture employments in some areas, such as anthropology, sociology, psychology, chemistry (materials and materials science), physics (static, dynamics, energy, light, and sound), and computer (software and hardware).

Some aspects, such as spatial planning, can be introduced as a context between design and knowledge area in architecture knowledge scope. In spatial planning, an architect is neither a designer nor a scientist that sees humans from a high look but assesses needs and puts them in norms' literature.

Architectural planning is applied research and a part of the decision-making process based on research in parallel. This case can be done while designing educational activities for architecture schools and universities and consulting engineers' service descriptions (Navai, 2014: 23). Of course, architectural planning is the forsaken aspect besides design. The reality is that many architects, particularly architecture students, are interested in design but do not like planning, so they focus on design, considering architectural planning a cumbersome issue that slows them down (Navai, 2015: 20). The mentioned issue has led to a lack of attention to this need in architectural society and earns profit for a certain group of graduates with mastery over this profession in current conditions of Iran.

** This concern is more seen in universities that cover their functional costs by adopting more students.

†† For more information see the approved course description for the architecture bachelor's degree (University of Tehran, 2013) notified to Iran's universities in 2016 by the Ministry of Sciences, Research, and technology.

3.4. Employment from the Viewpoint of Philosophy, Criticism and Architecture

A good architect can also be a good critic. This case is fulfilled if the architect considers some criteria for the criticism tools. An architect can acquire more experience by learning these criteria over their academic education. Such experience can be chosen as a pattern used to assess and judge architectural works. This forsaken field in Iran has become popular in the architecture discipline globally. However, this case has not received considerable attention from gifted graduates despite its profitability among other skill-based professions.

Wayne Attoe believes that a provident criticism is more useful than a retrospective one. Criticism is a behavior, not just a judgment (Attoe, 1979: 234), implying that criticism is a talent that requires a qualified person, a person who has basic knowledge, to analyze sheer intuitions of a phenomenon and examine whether it is suitable for future based on the acquired knowledge and understanding (Tayefeh, Hodjat, and Ansari, 2016). Judgment is one of the conventional aspects of criticism, which intensifies competition between architectural atmospheres and improves its standards and qualitative level (Mayahi et al., 2021: 295). Criticism of architecture projects and determination of their superiority vary through time because students and people's opinions and ideas and effective criteria, such as the final formation of design, aesthetics of architecture quality, and criteria related to building function or building position in the environment change through time (Tayefeh, Hodjat, and Ansari, 2016).

3.5. Employment from the Viewpoint of Consultation and Architecture

According to contemporary Iranian literature, the personality of consultant architecture equals consultant engineers, while consultant engineers have been classified in design and implementation scopes. However, a consultant in the architecture discipline is a person who is familiar with architecture scope and can guide and help investors, purchasers, or consumers to make choices and decisions. The lack of such job in today's architecture occupations have led to the advent of unstructured activities, such as "estate consultation offices."

Consultation is a professional relationship between consultant and client, a new phenomenon and modern psychology knowledge's achievements. Hence, the importance of this issue makes the consultant do the consultation process for the client. The consultant must know theoretical and practical perspectives of consultation techniques. Although practical use of consultation techniques is a kind of art that its fulfillment depends on the consultant's personality traits, teaching consultant techniques and methods will increase the probability of their success in consultation (Ghadbeygi, 2018: 27).

In the literature on consultation based on psychology, "self-awareness," "ability to adopt unconditionally," "transparency," and "empathy" are introduced as qualities of a successful consultant (Ghadbeygi, 2018: 29). However, the current system of estate consultants in Iran that benefit from investment realization is not transparent. This context has not been considered an employment chance while being introduced as a business idea in the employment' entrepreneurial area.

A part of this literature is done in the presence of some individuals out of the architecture scope in the defined real estate guild. However, architecture consultation is not limited to housing cases and can cover investment in construction projects and behavioral-psychological issues in selecting the proper architecture for natural and legal consumers.

It is worth noting that some other contexts have been ignored in the architecture discipline but are beyond the scope of the extant study. Moreover, some skills, such as teaching, have been

considered in previous scopes due to some qualities but cannot be taken as a job in the literature of associate graduates.

4. Data Analysis

As mentioned in the research method, the extant study weighed and prioritized jobs and required educational courses to identify the priority and association between professions and educational scopes in approved courses. In this literature, each educational scope of architecture discipline in the notified course includes various headlines of architecture BA that are learning options and criteria for analyzing relevant occupations. Data analysis and results derived from Expert Choice 11 software led to a pairwise comparison between criteria and options, as shown in Fig 3.

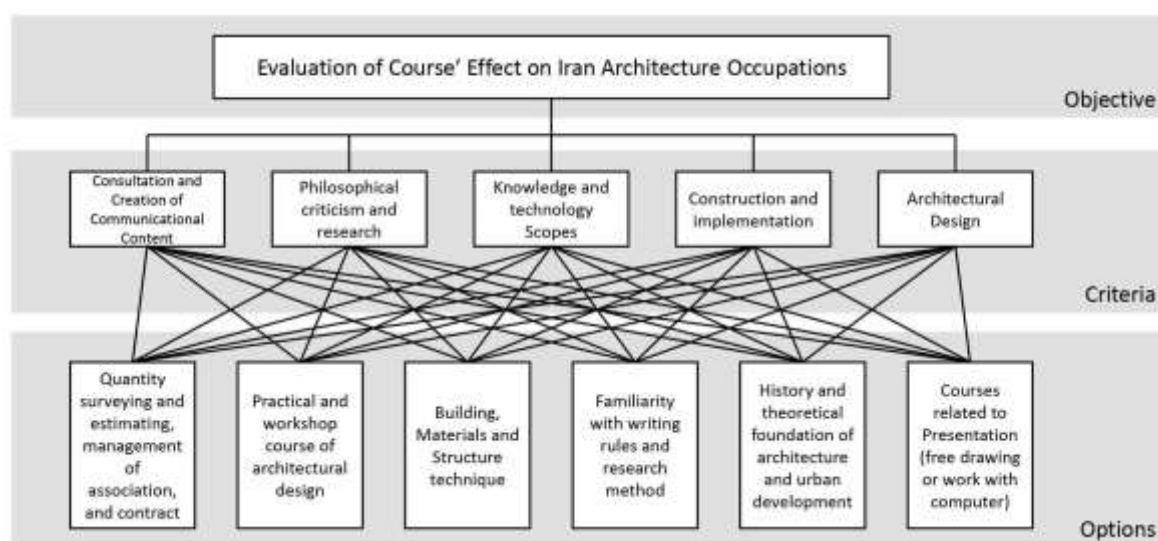


Fig 3 Tree chart of pairwise comparison between criteria and options

Some questionnaires were designed to ask experts' ideas and rate comparison in this research. Experts of this study comprised 15 architecture discipline professors who were entrepreneurs in the employment field. These experts were selected using snowball sampling within two steps: criteria (employment fields) were examined then areas affecting each occupation were assessed in terms of achievement. In this case, a number between 1 and 9 was chosen for comparisons per step to indicate the importance of two assessed pairs from the experts' point of view. Then the whole data were inserted into the software, shown with an inconsistent rate of 0.05 in Table 2.

Table 2 Results of pairwise comparisons through software

Criteria		Architectural design	Construction and implementation	Knowledge and technology scopes	Philosophical criticism and research	Consultation and creation of communicational content
Options	Total	0.403	0.352	0.131	0.069	0.045
Courses related presentation (drawing or)	0.296	0.488	0.184	0.163	0.122	0.093

History and theoretical foundations of architecture and urban development	0.307	0.225	0.13	0.730	0.951	0.417
Familiarity with writing rules and research method	0.273	0.088	0.094	1	1	0.097
Building, materials and structure techniques	0.510	0.204	0.776	0.881	0.391	0.278
Practical and workshop courses in architectural design	0.542	1	0.223	0.212	0.298	0.271
Quality surveying and estimating the management of association and contract	0.495	0.115	1	0.360	0.159	1

According to Table 2, the second row indicates students' willingness for activity in each branch from the experts' points of view. In this case, most graduates looking for a job are willing to work in "architectural design" and "construction and implementation" scopes. The "knowledge and technology" scope is just limited to some science and technology parks and knowledge-based companies due to the poor infrastructures of the country; hence, most graduates do not know anything about it. In addition to these three scopes, "philosophical criticism and research" and "consultation and creation of communicational content" had the lowest frequency. This issue in the first scope may stem from the need for further studies and the presence of many uneducated individuals in the second scope.

It does not matter to what extent the scopes mentioned above are accepted; the less-accepted scopes have more chance for employment and progress. Moreover, the required skills for each scope are worth identifying, so the required discussion for entering each scope is assessed relative to each other by experts who participated in this research.

For field courses, the curriculum approved by the University of Tehran (2013) was examined, and each course's headlines were reported in Table 3 based on the course's focus in previous groupings. The approved curriculum is the first revision of architecture education technique after

the Islamic Revolution, designed and ordered by the Supreme Planning Council and notified universities in 2017. In this comparison, general and optional courses were removed from the investigation process.

Table 3 Courses introduce in the description of courses approved for architecture bachelor's degree (University of Tehran, 2013: 11-13)

Course categories	Total of units	Course title and unit	Frequency
Courses related to presentation (drawing to computer)	12	Architectural expression 1, 2, 3 (2 units), Sketch 1& 2 (2 units), and Architectural Presentation through computer (2 units)	0.105
History and theoretical foundations of architecture and urban development	19	Human, nature, and architecture (2 units), World architecture (2 units), Islamic Architecture 1 (2 units), Islamic Architecture 2 (3 units), Contemporary architecture 1 & 2 (2 units), Theoretical foundations of architecture (2 units), Foundations of planning urban spaces (2 units), and Design of urban spaces (3 units)	0.166
Familiarity with writing rules and research method	0	Courses of this headline have been removed from the new curriculum and are just defined based on the research activities in other courses	0
Building, materials, and structure techniques	28	Building materials (2 units), Building 1 & 2 (2 units), Static (2 units), Enforcement of materials and steel structures (2 units), Design of concert buildings (2 units), Construction systems (2 units), Adjustment of environmental conditions (2 units), Electrical infrastructures (light and sound) (2 units), Mechanical infrastructures of the building (2 units), Technical design (3 units), Familiarity with maintenance and restoration principles (3 units), and Mapping (2 units)	0.245
Practical and workshop courses in architectural design	51	Architectural design basics 1 2, 3 (5 units), Architectural design 1, 2, 3, 4, 5 (5 units), the Design process in architecture (2 units), Village design and analysis (3 units), and Final Plan (6 units)	0.447
Quality surveying and estimating the management of association and contract	4	Management and workshop associations (2 units), Quality surveying and estimating (2 units)	0.035
Sum	114		

According to the ratio of each row's unit to total, the approved curriculum highly concentrated on "practical and workshop course of architectural design" followed by "building, materials, and structure technique" and "history and theoretical foundations of architecture and urban development." However, to what extent are these scopes accepted in employment spaces? Experts compared courses' importance in specific activities to answer this question. This case has been investigated in diagrams 1-6 by comparing weighted frequency rates from the experts' point of view with the weighted frequency of units relative to the whole curriculum.

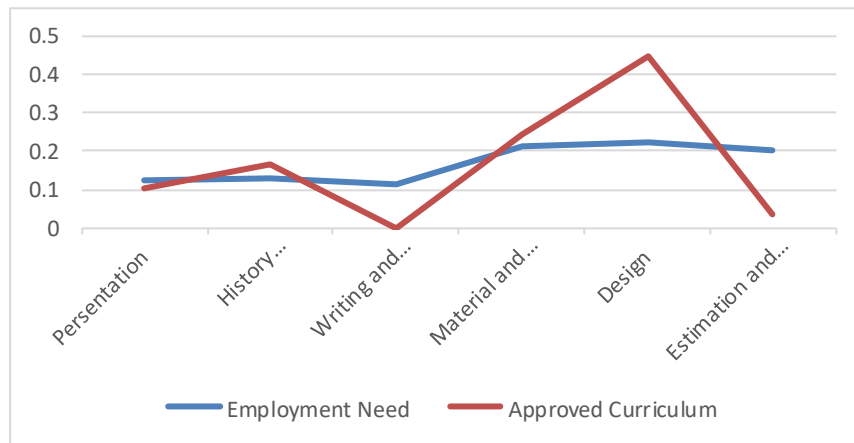


Diagram 1 Comparing frequency of the importance of the curriculum approved by the Ministry of Sciences based on employment need assessment (overview)

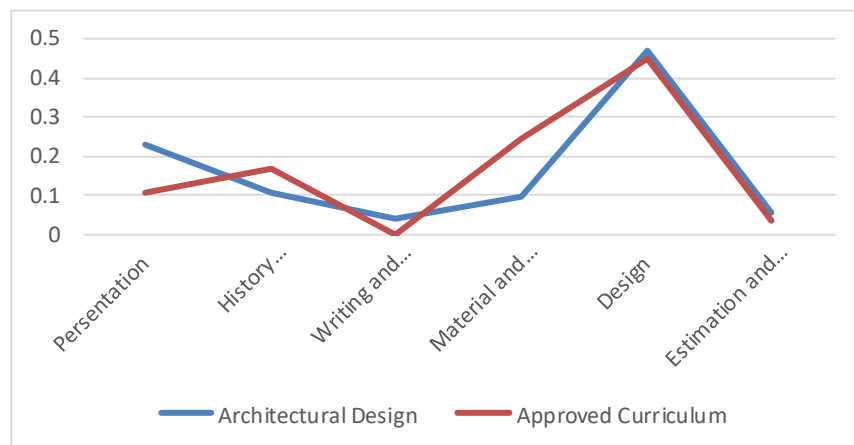


Diagram 2 Comparing frequency of the importance of the curriculum approved by the Ministry of Sciences based on the need to design occupations

As seen in the comparison between diagrams 1 and 2, the approved curriculum is more matched with the needs of a part of this society interested in professional experience in the design environment rather than the total employment rate of architecture discipline.

Diagram 3 depicts that graduates who enter the construction and implementation jobs find a major part of their learned courses during BA irrelative to their activity. They also consider the required topics in the workshop place (project estimation, costs, financial affairs, workshop associations, and contract) limited and insufficient.

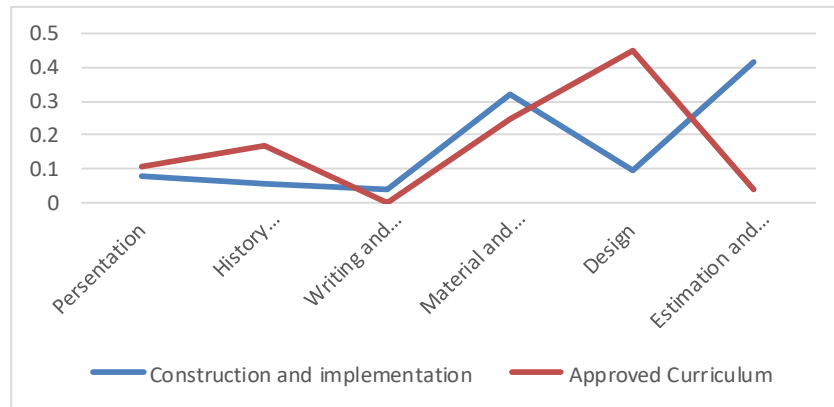


Diagram 3 Comparing the frequency of the importance of the curriculum approved by the Ministry of Sciences based on the need in occupations related to construction and implementation

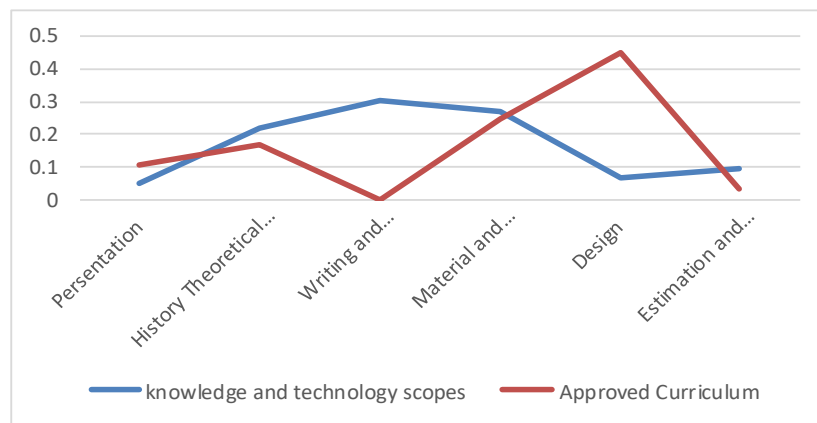


Diagram 4 Comparing the frequency of the importance of the curriculum approved by the Ministry of Sciences based on the need in occupations related to knowledge and technology

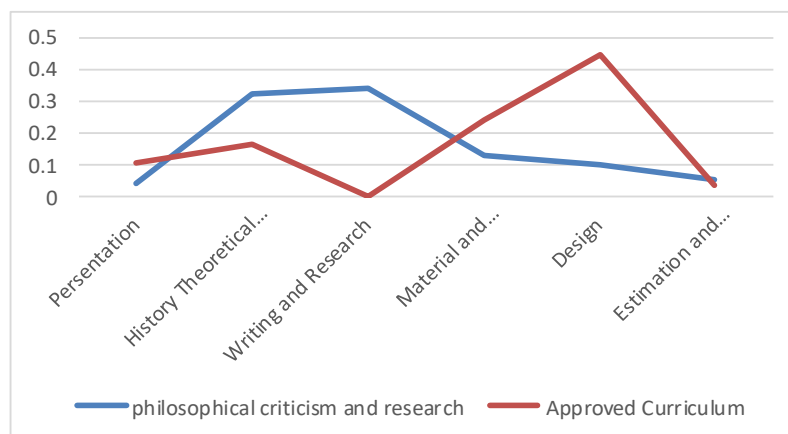


Diagram 5 Comparing the frequency of the importance of the curriculum approved by the Ministry of Sciences based on the need in occupations related to criticism and research

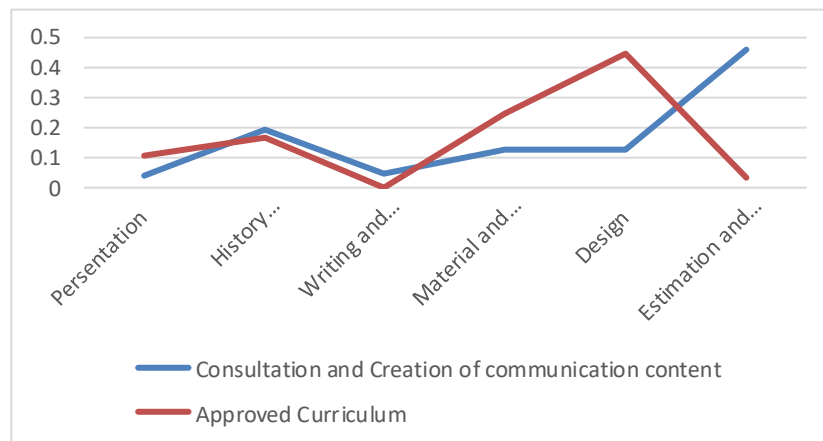


Diagram 6 Comparing the frequency of the importance of the curriculum approved by the Ministry of Sciences based on the need in occupations related to consultation

As shown in Diagrams 4, 5, and 6, the most considerable shortcoming of the approved curriculum is seen in an occupation related to knowledge, technology, criticism, research, and consultation.

5. Conclusion

As mentioned, the current approved educational system is a one-dimensional and hard platform, which has led to similar skills of academic graduates and their willingness to enter the scopes limited to the literature of architecture discipline employment. This issue warns of the necessity of changing architecture discipline planning; therefore, literature on course description must be reviewed to enhance the resilience potential in taking courses and students' arrangement and appraisal. Those occupations that do not require a specific skill undoubtedly do not need to attend courses on those skills as much as other occupations. Hence, further studies can be done to find how five characters of "designer," "executor," "scientist ad technician," "critic researcher," and "consultant" are formed in architecture education literature.

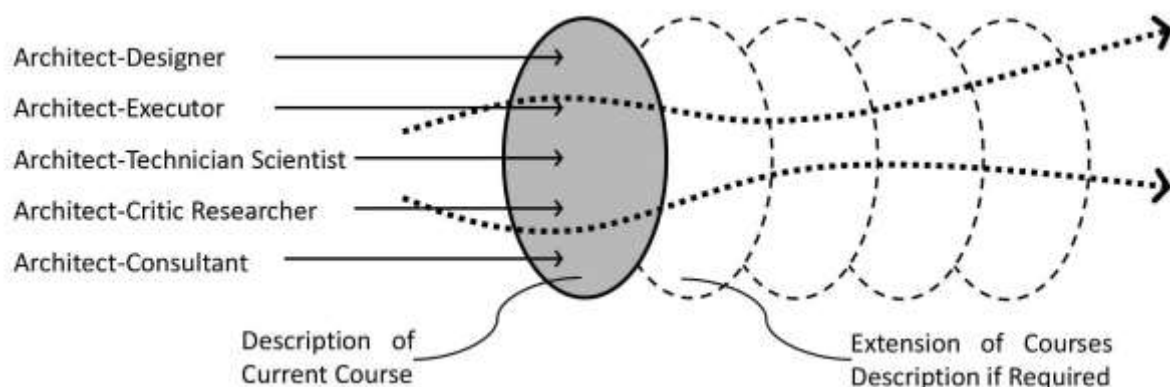


Fig 4 Required extension of courses description if required

The author of this paper believes that the proposed course description must be able to match its structure with students' demands or be based on their talents recognized by the educational system. In this way, all required tasks and roles of society find a time and space in the academic structure, and graduates' diversity can alleviate post-university courses. More intimate relationships will be between graduates and professional platforms.

References

- Asgari, A., Nasir Salami, S. M., Soltanzadeh, H., & Hashemzadeh Shirazi, H. (2020). An analysis of skills priorities in the architectural education system at the bachelor's degree (comparative study of the top ten architecture schools of Iran and the World). *Armanshahr Architecture & Urban Development*, 12(29), 125-140.
- Attoe, W. (1979). Architecture and critical imagination. *Journal of Aesthetics and Art Criticism*, 37(3).
- Farzian, M., & Karbasi, A. (2014). Handcrafts-personal experience learning by doing in architectural design education. *Honar-Ha-Ye-Ziba: Memory Va Shahrasi*, 19(3), 87-96.
- Ghadbeygi, Z. (2018). Professional consultation, its principles and solutions. *Journal of Modern Developments in Psychology, Training Sciences, Education and Training*, 1(5), 27-37.
- Ghorbanalizade, M., & Najari Nahavandi, M. (2014). Analysis of the effectiveness of higher education on the issue of youth employment. *Journal of Strategic Studies on Youth and Sports*, 13(24), 75-94.
- Hadizadeh, M., Khosravibabadi, A., Assareh, A., & Norouzzadeh, R. (2020). Designing a competency-based curriculum in higher VET education (Case Study: University of Applied Sciences). *Research in Curriculum Planning*, 17(66), 1-21.
- Hearn, M. F. (2003). *Ideas that shaped buildings*. MIT Press.
- Hojjat, I. (2012). *Tradition and innovation in architecture education*. University of Tehran Press.
- Alade, I. A. (2011). Trends and Issues on Curriculum Review in Nigeria and the Need for Paradigm Shift in Educational Practice. *Journal of Emerging Trends in Educational Research and Policy Studies*, 2 (5), 325-333.
- Lalbahsh, E., Ghobadian, V., & Azizi, Sh. (2020). New model for collaborative education in architectural design in Iranian universities. *Journal of New Approaches in Educational Administration*, 11(42), 317-338.
- Mahfar, M., & Shahbazi, B. (2021). How to design and codify higher education based on employment in training sciences (pedagogy). *Journal of Psychology and Pedagogy Studies*, 7(58), 93-110.
- Mayahi, M., Mirriahi, S., Mazhari, M. I., & Mehralizadeh, Y. (2021). Investigating the changes in the globalization of higher education in architecture education and judging architectural designs in Iranian universities. *Journal of Karafan*, 18(4), 265-295.
- Mirjalili, T. (2022). Assessment of various employable skills of female graduates in the field of architecture at Yazd Girls Technical and Vocational College. *Karafan Quarterly Scientific Journal*, 18(4), 297-315.
- Nari Ghomi, M., Bahreini, H. A. (2018). Middle-range proficiency in the professional organization of architecture and building (Case Study: Design offices of engineer's council of Qom). *Bagh-e Nazar*, 15(64), 15-28.
- Navai, K. (2014). Architectural programming: the process, the product, and the method of data collection. *Housing and Rural Environment*, 33(146), 23-42.
- Navai, K. (2015). An introduction to architecture planning. *Sefeh*, 22(3), 19-28.
- Rezaie, M. (2014). *Design Analytics*. First Edition, Tehran, Islamic Azad University Central Tehran Branch Press.

- Rittel, H. W., & Webber, M. M. (1973). Dilemmas in a general theory of planning. *Policy sciences*, 4(2), 155-169.
- Seyyedian, S. A., & Hassanpoor, H. (2014). The necessity of architecture education permanence in engineering system up to architect training. *Fifth Conference on Architecture Education, Tehran*.
- Simoni, P., & Abbasi, M. (2022). Evaluation of education according to the perspective of faculty members and students in faculty of architecture and urban planning, University of Art. *Journal of Architecture and Urban Planning*, 14(34), 5-24.
- Tayefeh, E., Hodjat, E., & Ansari, H. R. (2016). Definition and establishment of an analytical model for architectural form based on assessment and rethinking of the criticism framework. *Journal of architecture Studies*, 4(8), 73-88.
- The University of Tehran. (2013). *General specifications and course headlines of architecture BA (revised by the University of Tehran)*. Supreme Council of Planning of Ministry of Sciences, Research, and technology, Tehran.
- de Vries, M. J., Cross, N., & Grant, D. P. (Eds.). (1993). *Design methodology and relationships with science*. Dordrecht: Kluwer Academic Publishers.

Ornamental Motifs of the Marouflage in Sheikh Safi –ad-din Ardabili Tomb with the Ervin Panovsky Iconology Approach

Parvaneh Gharib Garakani^{a*}, Hamideh Sadat Baniahmad^b

^a*Lecturer, Philosophy of Art, Pars University of Architecture and Art, Tehran, Iran*

^b*Master's Student, Art Research, Pars University of Architecture and Art, Tehran, Iran*

Received 22 February 2022; revised 16 May 2022; accepted 27 June 2022

Research Article

Abstract

Murals have always been considered by the Islamic studies field. However, the marouflages in Iran have been less considered in terms of the execution and their nature. Some researchers have considered them murals, and some have taken them as canvas paintings. They are a combination of paintings that are executed on the canvas and are installed on a wall. The themes of the icons used in the Islamic era's tombs ornaments have found a divine nature based on the Muslim artists' beliefs and ideas. The prohibition of painting in Islam made Muslim artists turn to allegorical language to express concepts. The tomb of Sheikh, which was built in 753 A.H. and expanded during the Safavid era, contains different artistic disciplines. This tomb has the highest volume and diversity of marouflages in Iran, and that is why it has been selected for the current study. Due to the religious nature of the space, all marouflages contain ornamental and written motifs. Thus, these motifs have been considered for their great visual aesthetic potential. Like other components of the Islamic era art, the selection and high usage of the geometric shapes in this complex have certain doctrinal foundations. The current study aimed to investigate the distinguished ornamental motifs in the marouflages of Sheikh Safi with the Panovsky iconology approach. Using Panovsky's method and their tiniest visual details, a network of latent interconnected meanings was found, which indicates the painter's intention of using these motifs and themes as well as the meanings behind them.

Keywords: Sheikh Safi-ad-din Ardabili; Marouflages; Arabesque and Khatai Motifs; Islamic Art; Ervin Panovsky

* Corresponding author. Tel: +989124870922.

E-mail address: gharibazin@yahoo.com

1. Introduction

Human has always sought to create art and express their inner desires with the help of image and words. Sometimes, these two arts are combined, and sometimes they are expressed separately. Now, we should see with what medium the artist expresses his idea, and his mental power lies in his art being word-centered or image-oriented. If we accept what is expressed in his art as a combination of both methods, the achievement of the latent concepts hidden behind the work would be possible through investigation and interpretation of its details. An interpretation that helps the viewer achieve the verbal meaning of the work depends on the work's criteria, its author, and its audience. Therefore, different individuals would perceive an artistic work differently based on their attention and use of each of these criteria, leading to the perception of its latent facet. Accordingly, and regarding the current study, when faced with the marouflages in Sheikh Safi-ad-din Ardabili Tomb, we do not know much about the hidden verbal meaning; this question is raised about how the verbal aspect of these images and what explains them are perceived? The murals have always been important as one of the artistic disciplines. Its effects on human life were such that it has always occupied a special place over time, and not only has it never disappeared, but also significant changes have taken place in it. Among different types of murals, there is a type of wall painting executed on canvas.

Canvas is one of the most prevalent fabrics that have been used for painting. Examples of such paintings can be seen in some monuments of the Islamic era in Iran. It has been executed on canvas in different methods. They were usually transferred to the intended location after execution, and then they are installed based on the spatial structure in which they are supposed to be placed. Their installation method was in a way that most of the time, they could not be removed, and not only were they considered a component of the work, but they also gave the monument a kind of divinity and historical value.

Murals have always been considered by Islamic studies. However, the marouflages have not been researched in Iran regarding their execution and nature. They have been slightly mentioned only in some writings. The tomb of Sheikh Safi-ad-din Ardabili is among the few monuments with the highest volumes of such murals that are still intact. In the current study, we will investigate this style of murals painted on canvas and attached to the wall. These murals are called marouflage.

The current study is an effort to answer these questions: What is the shape of the ornamental motifs on these murals? What meanings are hidden behind the interpretation of these images based on Islamic-Iranian art? How is the division of space and themes in these works from Islamic-Iranian art's doctrinal concepts?

The current study aimed to get familiar with marouflages in Sheikh Safi-ad-din Ardabili Tomb due to the high volume of these works in this monument, in terms of the form, content, constituent layers, and installation method. Understanding the concept and themes of the ornamental motifs in murals and their written inscriptions based on the Ervin Panovsky iconology approach to investigate the semantic content of these works and their inner layers is another objective of the current study. Panovsky analyzes content versus form. He has proposed a methodical research approach to evaluate works filled with latent icons and implications. The research method is descriptive-analytical in the current study, and the data collection method is library-based and internet-based. Unfortunately, no clear images of these murals were found in the internet sources, and due to the prohibition of photography, a great deal of effort was put in, and finally, we could receive a relatively practical image with the help and cooperation of the tomb's Public Relations Department. The findings indicate that the arabesque motifs first became prevalent due to the prohibition of human body illustration in the early Islamic era, and it had elements of Sassanid art.

Gradually, based on the teachings specific to that era, these motifs have found an abstract form and have also affected other arts in that era. The outcome of the current study is higher familiarity with this art, the current state of the work, and the verbal and visual concept of the ornamental and written motifs of these murals. Besides, the introduction of this art, which is performed with an Islamic-Iranian style, is important and necessary for the current study.

2. Ervin Panovsky Theory

Erwin Panovsky, as the most important and influential figure in the field of Iconology, is known as the founder of the theory and criticism in this field. He has introduced a fully practical, organized, and firm method of iconography and iconology. Panovsky, in 1932, in an article entitled “Studies on iconology: humanistic themes in renaissance art,” used the iconology approach to evaluate renaissance and Christian art. Panovsky methodically interprets the artistic phenomena from their description. “Panovsky has tried in this book to differentiate between the old interpretation of iconography as a visual representation of a theme through a figure and iconology as a perception beyond the iconic representations” (Abdi, 2011: 31).

This interpretation passes through three implicative elements: motif, theme, and content. In the iconology approach, the process of interpretation of the artwork has been organized under three strategic movements of description, analysis, and interpretation. Since each artwork is a set of icons beyond the individual and in the scope of the society’s beliefs and culture, the most basic objective of this approach is explanation and definition of the distinction and dissociation between the theme or meaning on the one hand, and the form on the other hand.

Therefore, during three stages of pre-iconographic description, iconographic analysis, and iconographic interpretation (iconology), this strategy identifies and separates the three primary, secondary, and content layers step-by-step, and with the objective of perception of the hidden messages beyond the tangible elements of the artistic work, analyzes and explores the unknown aspects of the beliefs and world-view hidden in the visual elements.

In these three stages, it should be said that pre-iconographic description is a formal semi-analysis and iconographic analysis is the entrance to the world of work’s codes through familiarity with the world of images, narratives, and stories. However, in the iconographic interpretation, we deal with the iconic values in the face of those images, narratives, and stories. Thus, in the first stage, the primary interpretation of what is seen beyond the conventional or iconic meanings is enough. The subject is only focused on the representation through practical familiarization with the artistic and visual principles and mastery of the style history.

The first step is introduced under the natural or primary subject title. In this stage, the viewer is encouraged to decompose the image to its tiniest and most obvious details and recognize the constituent elements in color, writing, form, etc. In his view, these pure elements and forms can be named artistic motifs. The recognition of the pure forms that constitute the image is named the pre-iconographic description stage by Panovsky.

The second step is raised for achievement and recognition of the secondary or conventional meanings latent in the artistic work, familiarizing with specific themes and concepts by referring to the literary knowledge sources and its mastery and testing this knowledge through familiarization with the historical types. In this stage, the icon interpretation is deeper.

The last stage in this approach is based on the written intuitions and inspirations and deals with the human mind’s basic inclinations, including the psychology or individual worldview in a mutual equation. The third and last stage allows the researcher to recognize the deepest layer of the icon. This layer is not allowed by the recognition unless, in a historical search, the researcher can

recognize the conditions and state of the creation and coding of the work. This final stage, which somehow seems to be out of access, is known with the latent and inner concept or meaning. This stage is focused on the achievement of the type of a nation's attitude from a specific social class in a specific period with specific religious and philosophical beliefs.

Panovsky applied his method to Christian art and, most specifically, the renaissance period, while others applied it to the Far East and Buddhist art and got some results. This emphasis leads the Iranian audience's mind toward the point where the iconology moves from the form to the meaning and, in this path, answers the probable questions made in the mind of the audience through referring to the sources and documents from non-visual texts. As a result, it is a comprehensive and facilitator method in the Iranian visual world.

3. Difference between the Mural and the Marouflage

This difference can be found in the constituent layers of the murals. Both forms of the murals are the same in terms of the support, priming, and ground layers; however, in the murals, the grounding canvas, paint, and varnish layers finish the work, while in the marouflages, after the ground layer, the adhesive, grounding canvas support, paint, and varnish layers finish the work (Fig 1).



1. Support Layer (stone, brick, wood, ...)
2. Primer Layer (plaster, clay, lime, ...)
3. Ground Layer (plaster, clay, lime, ...)
4. Glue or Nail Layer
5. Fabric Support
6. Ground Layer (water paint, oil paint, emulsion + filler)
7. Paint Layer
8. Varnish Layer

Fig 1 The constituent layers of marouflages (dark colors are the main layers and bright colors are the secondary layers) (Hamzavi, Vatandoost, and Ahamdi, 2017: 45).

The grounding for these marouflages is made of canvas. “Canvas is a Flemish word (Flanders Language) known as a rough and thick fabric” (Farhang, 1987: 206), which was very popular for being water-resistant. Canvas was originally a useful material for producing sailcloth and a great means for painting mediums. Before using the canvas, the painters painted on wooden surfaces, making it difficult for them due to cracking and warping. However, after knowing about the significant resistance of the canvas against the changes, it immediately became the most popular painting medium all over Europe.

The canvas weaving art in Iran roots back to the era before Il-Khanid Dynasty and is tied to the handicrafts of this era. The fame of Iranian weaving reached its peak in the Sassanid era. With the Safavid Dynasty coming to power and the trade exchanges between Iran and Europe, the Western artists' works entered Iran. As a result of political relations and the gifts exchanged between the western states and Iran, some paintings were also sent to the country. “The paintings painted on the fabric which were ordered by the Armenian merchants to be transferred to the churches can be mentioned as such examples” (Imadi, 2006: 176). Unfortunately, there is not much research in this regard; however, since the Iranians were familiar with the canvas weaving art, the artistic works imported to Iran from Europe grabbed their attention.

4. History of Marouflages in Iran

The murals have always been the center of focus in Iran, since “what gives identity to the mural is the exploration of the verbal and visual capabilities in the wall and achievement of the harmonic space between them, as well as the visual elements and qualities dominating the wall space” (Kafshchian Moghaddam, 2006: 43). The history of Iranian marouflage dates back to the Il-Khanid era, and an example of it can be seen in the Dome of Soltanieh in Zanjan. However, these murals have been damaged over time due to a lack of protection, and a small number of works have been left. There are no works observed from the Timurid Dynasty era so far. However, this style of murals has been more used by the artists in the Safavid Era. In this era, the exchange of artistic works between the European countries and Iran leads to the transfer of some works and paintings of the European artists to Iran. The sample marouflages in Safavid Era can be seen in Sheikh Safi-ad-din Ardabili Tomb, Chehel Sotoon Palace, Qazvin Dar al-Saltaneh, Isfahan, Isfahan Clock Mansion, Aali Qapu Mansion of Isfahan, Ashraf Hall of Isfahan, Hasht Behesht Mansion, Saint Mary Church of Isfahan, and sporadically, in a few other places. In addition to illustrations, decorative lines and written inscriptions were also used in murals in this era. The Zand and Qajar eras were the pinnacles of marouflages in Iran. In this period, many paintings were transferred from Shiraz to Tehran as ordered by Agah Mohammad Khan. Some examples of this period can be seen in Tabriz, Isfahan, and Tehran. During this period, the works grabbed more attention; however, since their maintenance method was inappropriate, they were seriously damaged. However, in the two monuments of Sheikh Safi-ad-din Ardabili Tomb and Saint Mary Church of Isfahan, a greater volume of intact works can be seen.

5. Sheikh Safi-ad-din Ardabili Tomb Complex

In the Sheikh Safi-ad-din Ardabili Tomb Complex, there are three separate yet adjacent shrines. The second shrine belongs to Sheikh Safi-ad-din Ardabili, known as the ‘Allah Allah Dome.’ The shrine of the great Sufi, Sheikh Safi-ad-din Ardabili, the ancestor of Safavid Sultans, was built in 735 A.H by his son, Sadreddin Musa and contains a complex of Safavid Sheikhs, Sultans, and scholars as well as ritual and worship spaces in Ardabil. This monastery that is among the ten most

important archaic monuments of Iran was also registered as the 11th most valuable historical monument in Iran by UNESCO on July 25, 2010. According to Ibn Bazzaz, “the house and monastery to Sheikh Safi-ad-din Ardabili have been the same place according to his will, he has been buried in a room next to an adytum, garden and spring house, and a building is built on his grave” (Ibn Bazzaz and Tavakol, 1999: 986). What has made this shrine artistically distinct is that different types of arts, such as calligraphy, molding, tiling, gilding, silverwork, etc., have been used in it in the most beautiful way possible. In this historical site, there are also several specialized museums. The specialized archaeology museum, the stone museum, the specialized library of Tomb of Sheikh Safi-ad-din Ardabili, and the porcelain museums or porcelain houses are also placed in this historical site.

The location of Sheikh Safi-ad-din Ardabili shrine is under the ‘Allah Allah Dome.’ “This dome which is placed above the Sheikh Safi-ad-din Ardabili shrine and is the central core of the complex, built by Sadreddin Musa, is a cylindrical brick tower with the height of 17.5 or 18 meters and a 22-meter perimeter, which is built on an octagonal stone base and ends in a low-rise dome with Araghchin shape at the top. On the body of the tower, the great name of Allah is written with turquoise-colored Mughal tiles, which is why it is named ‘Allah Allah Dome.’ The stem and dome decorations are also applied with the same turquoise-colored tiles on a brick background and with a repeated lozenge pattern. At the joint where the tower is connected to the stem of the dome, an inscription of Quranic verses in Sols calligraphy with white mosaic tiles in the azure background can be seen” (Babasafari, 1991: 237) (Fig 2).

Plan 1, at point A, the location of the ‘Allah Allah Dome’ and Sheikh Safi-ad-din Ardabili Tomb can be seen. Sheikh Safi-ad-din Ardabili Tomb is located in the middle of an octagonal area. Inside the tomb, it is covered with a finely carved and inlaid wooden box once adorned with jewelry. In the margin above its lateral surfaces, a detailed inscription is carved with Sols calligraphy that contains some phrases, including the name of the tomb’s owner. On the northern side of the box’s body, there is also a plate of silver on which is written the name of the tomb’s founder, Al-Abd Musavi al-Safavi (Fig 3).



Plan 1 The Sheikh Safi-ad-din Ardabili Tomb Complex (Monument registration booklet)

A= Location of the tomb and ‘Allah Allah Dome.’



Fig 2 Allah Allah Dome (Source: A photograph by Reza Khanabaei)

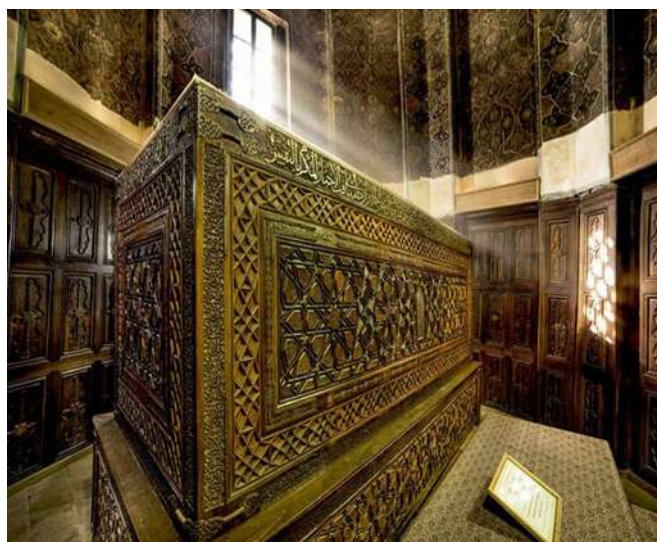


Fig 3 Sheikh Safi-ad-din Ardabili Tomb (Source: Ardabil Cultural Heritage Site)

6. Structure and Execution of the Murals in Sheikh Safi-ad-din Ardabili Tomb

The subject of these murals in the tomb is ornamental, and the inscriptions are written. There are few such murals with ornamental paintings of the plant motifs in Iran, and Sheikh Safi-ad-din Ardabili Tomb is one of these examples, with another example being Golestan Palace in Tehran. The main reason behind using arabesque-Khatai motifs in this place is the religious nature of the space, and since illustration is prohibited in Islam, especially in eth religious places, the artists have turned to the use of ornamental and written motifs.

Different from the murals in terms of the theme, they are as different in execution method. Some have glued the canvas painting on a wooden board, some have glued it to the wall with its frame, and sometimes, the frame around these paintings is decorated with plaster frames that, in addition to decoration, have also protected the works against damages. Furthermore, in another example, a wooden frame has been used instead of a plaster frame.

“The marouflages in the Sheikh Safi-ad-din Ardabili Tomb have full coverage of interior surfaces and are decorated with ornamental paintings in terms of characteristics, and are painted on a large canvas as needed for the installation place in terms of execution” (Hamzavi, Vatandoost, and Ahmadi, 2017: 49).

“During the investigation and analysis of the materials used in the paper inscriptions and the fabric used in ‘Allah Allah Dome,’ it was revealed that the fabric material is cotton, the yarns are Z-twist, the weaving style is taffeta, and the pigments were gold, yellow, azure, white-gold, yellow, orpiment, and most likely litharge, along with white lead, minium red, and grace green with white lead filler. The water-based adhesives (Soleimani and Shishehbori, 2017: 68).

The paintings have water-based adhesives binding attached to the walls with glue and nails. The ornamental paintings are executed on the canvas and then cut and attached based on the installation space. However, to prepare the written inscriptions, the paper was first attached to the canvas, and

then the calligraphy was perfumed. The remaining steps have been executed and installed like other works.

7. Concept of Arabesque and Khatai Motifs

In the visual dictionary of the visual arts, the arabesque motifs are described as follows: “The arabesque is kind of traditional plant decoration that consists of spirals, waves, and abstraction twists (stylized), and leaf-shaped abstract elements that are scrolled around curved patterns” (Marzban, 1998: 22).

Roein Pakbaz defines the word arabesque as “The arabesque”, which is publicly used for interwoven and scrolled plant motifs and is especially a prominent theme in Islamic art. The Muslim artist found them suitable for expressing his imagination and ingenuity and diversified them. The only important principle he observed was the contrast between the foliage and the continuity of the stem. The arabesque in the hands of the Muslim artists found a simple and complex design, mostly an abstract and manifested form (Pakbaz, 2001: 27-28).

The reason behind naming Khatai is not clear. It can be said that it is attributed to ‘Khata,’ i.e., a city in the Persian literature that is usually associated with ‘Khotan.’ In this case, this naming corresponds to ‘Eslimi’ (arabesque), which is the inverted form of ‘Islami.’ Besides, it would also denote the effects of Chinese art on Iranian art. Some carpet motifs designers believe that Khatai is the continuance of the design in which case it should be written in gold. Some others also write it as ‘Khataei’ and believe that the lines derived from ‘Khata’ (a word meaning mistake in Persian) correspond to skewness (Maleki and Aghdasiyeh, 1985: 86).

Khatai is the flower stem design and a manifestation of the tree’s branch or a plant with flowers, leaves, and buds that should enclose the flowers, buds, and leaves and create unity between them. As arabesque was a manifestation of an abstracted tree, Khatai is also stylized, and although its design depends on the artist’s initiative, it is not nature. There is a less straight stem, i.e., a direct line, in the Khatai design, and in fact, direct lines are less seen in the mature art of Iran. The stems of the trees have harmonic curves and are a combination of enchanting and charming movements of curved lines. In rare cases, straight lines sometimes connect spiral circles of flowers, leaves, and bracts, sometimes broken curves, and sometimes just the appearance of flowers and leaves.

With this description, it can be said that the Khatai design is used in a manner in line with the arabesque rotations and proportionate to the space and geometric forms, moving on the surface of the work and making the artists use such design. In other words, he, as a work tool, arranges it with consideration for the order, unity, and cohesion of the artistic components.

Spiral or the snail curve is the first step in arabesque and Khatai design. These curves are the main artery of the design since all components of the Khatai and arabesque motifs are formed on the same curves, and they play a very important role in creating the space.

It should be noted that although Khatai and Islamic curves are often designed in combination with each other, the elements of the Islamic curves are never placed on the Khatai curves. In addition, the Khatai flowers and leaves are never placed on the arabesque curves, and they are designed with complete independence from each other (Eskandar pour Khorami, 2000: 136-137).

8. The Subject and Installation Location of the Marouflages in Sheikh Safi-ad-din Ardabili

“The only monument in Iran whose internal surfaces are fully covered with marouflages is Sheikh Safi-ad-din Ardabili, in which the surface of the wall is completely covered with painted

canvas. Also, some Toranj patterns are painted on the dome's ceiling in this method. The paintings are ornamental and executed with Khatai and arabesque motifs" (Hamzavi, Vatandoost, and Ahmadi, 2017: 48).

The written sources describe the execution of some marouflages, and they have noted some decorations in this building. The walls of the room where the Sheikh Safi-ad-din Ardabili grave is located are plastered up to the joint with the dome on which the painted canvases are nailed. These marouflages on the internal walls of 'Allah Allah Dome' are a beautiful example of the painting decorations in Sheikh Safi-ad-din Ardabili Tomb Complex. Also, the Sols calligraphy inscription under the dome is attached to the fabric after performing and is fixed on the wall. In this tomb, two kinds of marouflages are performed. The works that exist on the surface of the wall are decorative, and the works on the ceiling are written.

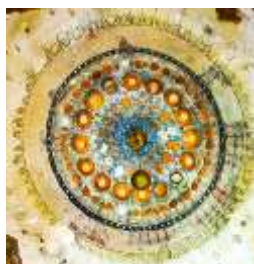
The works on the walls are directly painted on the canvas and installed on the wall. However, the written inscriptions are written on the paper for ease and smoothness of the reed pen, and then, the paper is attached to the canvas. The remaining installation steps are the same as the marouflages (Fig 4).



Fig 4 Sols calligraphy inscriptions around the dome's circle

9. The Interior View of the Ceiling of Sheikh Safi-ad-din Ardabili Tomb

On the 'Allah Allah Dome' ceiling, we see a sun motif in the middle. This motif has numerous symbolic motifs (Fig 5a). "The interior surface of the Sheikh Safi-ad-din Ardabili dome also has paintings in white on Pateh molding, which is painted in common molding decoration methods in Il-Khanid and Safavid periods. Among the important motifs of this area is the Sharafeh Shanzdah Par Shamsheh in the middle of the ceiling with eight Toranjes and half-Toranjes around it" (Golmaghanizadeh and Yusefi, 2005: 143-44). Before Islam, the sun symbolized a window through which the light of divinity was cast on the earth. Around this motif on the ceiling, we see eight Toranjes. This number has a specific divine concept for Muslims. Between these almost circle-shaped Toranjes, we can see eight cylindrical Toranjes, and inside the circle's perimeter, we see eight half-Toranjes (Fig 5b).



a



b

Fig 5 Shanzdah-Par Shamsheh in painting under the tomb's ceiling

Shamseh is the symbol of multiplicity in unity and unity in multiplicity. The multiplicity is the manifestation of God's properties, manifested in this motif in the form of multiple shapes cast from a single center. This motif, as its name suggests, evokes the concept of light. As Holy Quran also names God the 'light' "الله نور السموات والارض" Allah is the light of the heavens and the earth" (Al-Noor, 64), Shamseh is, in fact, the symbol of God (Sattari, 1997: 53).

The Shamseh motif, the symbolic embodiment of the sun, has a great position in Iranian art and has been considered by artists for a long time. The sun disk placed in the middle of two wings next to each other in the Ahura Mazda sculpture indicates this fact. The sun disk with two wings on top of the stone pillars and walls have protected the sky and separated the sky from the earth. In the Muslims' art, inspired by the circular shape of the sun, has been usually associated with arabesque, Khatai, geometric, and inscription motifs, and in some cases, with animal motifs such as the fish or bird. Sometimes, it is similar to the sun disk with small beams, or in the form of the multiple numbers of repeated rays in a way that covers the entire surface, such as the motif in the center of the tomb's ceiling in which the sun rays are completely obvious in its perimeter (Fig 5). On the 'Allah Allah Dome' ceiling, we can see an eight-part division that has decorated the space around the inner perimeter with a Toranj shape. The internal walls are also divided into eight parts, and all these spaces are covered with marouflages (Fig 6).



Fig 6 Inside the 'Allah Allah Dome' and the tomb's marouflages (Source: Ardabil Cultural Heritage Site)

Eight petal motif is made through rotation of two squares, and the number eight has been for a long time the symbolic number of the sun in Europe, Asia, and Africa, as it has been expressed in Islam in different forms "the eight paradises, eight doors of paradise, and the eighth door which is the always-open door and the door of repent in mysticism" (Emami, 2003: 63). In the Zoroastrian religion, the eight petal pillar and the octagonal halls have been used in fire temples. In ancient Iran, the water goddess was illustrated with an eight petal crown (Avesta, Yashteha, 128). Furthermore, in Sumer, the eight petal star has been the symbol of God and the sky. This symbol has depicted the sky sign named King Naramsin, Sargon's nephew, in the land of Mesopotamia (Phingan, 1983: 50).

In terms of the symbology, the number eight has been mentioned in the Holy Quran and Shiite narratives as follows: In Quran, this number, the opposite pairs have been noted as it mentions ‘ثمانیه ارواح Samaniah Arwah’ (eight souls) (Al-A’araf: 43). However, the most important verse in Quran that denotes the symbology of this number is the Verse 17 of Surah Al-Haghah that mentions the throne of God which is borne eight angles “ويحمل عرش ربك فوقهم يومئذ ثمانية” (And there will bear the Throne of your Lord above them, that Day, eight [of them]). The most important place of the world on earth is the Kaabeh which is cubic, while the first number of the cube is eight.

10. The Murals in Sheikh Safi-ad-din Ardabili Tomb

In the marouflages of the Sheikh Safi-ad-din Ardabili Tomb, we can see Khatai motifs. These motifs are painted with a horizontal half drop repeat. As was mentioned before, the wall is divided into eight parts. Inside these eight parts, a single design is used, while in the remaining space outside, another design is used (Fig 7-8).



Fig 7 The paintings outside the wall division
(Source: Ardabil Cultural Heritage Site)









Fig 8 The paintings inside the wall division (Source: Ardabil Cultural Heritage Site)


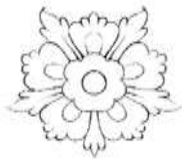

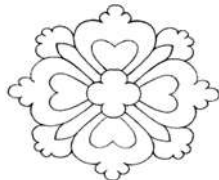
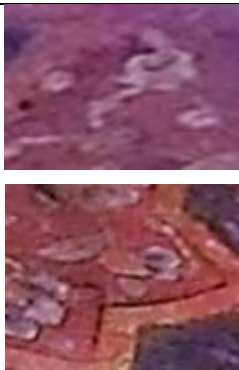



Khatai flowers are seen in different models with buds and leaves in the paintings. If we divide the wall into the inside and outside the eight parts, the motifs outside the division (Fig 7) are more in ochre red, dark blue, yellow, and purple, framed in gold. The gold alone has given these designs an elegant look and indicates the golden lines in gilding. In this part, as seen in Fig 7, the design begins with a central flower like the four petal pomegranate flower similar to the sun in the middle, and on the four sides of the painting, the Shah Abbasi flower can be seen. The space between these designs is filled with six petal and five petal butterfly flowers with simple arabesque lines and these motifs connect them. If this complete form is placed in the middle, on the four sides of this octagonal form, there is the ochre red that contains six petals, butterfly flowers and the buds. It is dark blue between these motifs in the center which are painted with eight petals, five petals, and butterfly flowers. These three combinations, as mentioned before, are repeated along the wall as repeated half drop horizontal form.

On the inner part of the octagonal area, we can see the use of brown, jujube red, dark blue, cedarn, and golden (Fig 8). These paintings, also like the outside part, are more in the form of Khatai flowers which are connected with simple lines. The composition of these paintings is in repeated half drop horizontal form along the wall. In Fig 8, we see a central design in which two eight petal and two six petal flowers are drawn. This design is repeated on both sides, and on the top and bottom sides, a four-sided flower is drawn, placed in the middle of eight petal star, and then the design is repeated.

Five petal star: The number five is usually associated with human life and the five senses. This number also plays a role in the general astrological process. Number five is also very important in Islamic tradition. In addition to the five pillars of the religion (Faith, prayer, fasting, Alms (Zakat), and Pilgrimage (Hajj)), the Muslims have five daily prayers. The Islamic rules include five categories (Wajib, Mustahabb, Mobah, Majruh, and Haram). The booty of war is divided into five parts for which the Khums should be paid. The five members of Al-e Aba (The Family of The Cloak) are the five members of Prophet Muhammad (PBUH) who are the most prominent Shiite figures and also highly respected by Sunni people (Hosseini and Farashi Abarghuei, 2015). The Shiite Ikhwan al-Safa in the tenth century, openly announced that Islam is based on five, not only for the five principles and five members of the prophet's family but also because there are five *Arch-Prophets* (Ulul'azm) and no collection of the Quran's Muqatta'at (the mysterious words) exceeds five letters (Schimmel, 2016: 127-131).

Table 1 The motifs used in the marouflages of Sheikh Safi-ad-din Ardabili Tomb (Source: Author)

Name	Main motif	Khatai motif	Description
Flower			It includes pomegranate, butterfly, and multi-petal flowers, all taken from nature.
			Butterfly flower
			Six petal flower

			Five petal flower
			Combined four petal or square flower
Bud			Another element used in traditional design that causes the evolution and variety of designs is the bud, which consists of two parts, the bud and the petal.
Leaf			There are different types of leaves in small and large sizes, which are the same in traditional design and are used individually and in a multiplex.

11. Discussion

After the emergence of Islam, the buildings with religious usages, such as the mosque, monastery, and school, which had greater room than other buildings, were allocated for arabesque and Khatai motifs. Moreover, the lowest share belonged to residential usage (Namdar, 2012: 113). We can understand from this fact that two important categories exploit the ornamental motifs. First is the usage philosophy of the motifs. Today, most researchers believe that the use of arabesque and Khatai is closely related to the religious concepts and these decorations are first a symbol of the eternal paradise that depicts the eternity of the paradise. In the more supreme stages, they play a vital role in explaining the mystic concept of multiplicity in unity. The plant arabesque and Khatai, with their specific curves, leads all the directions and movements towards a single path of unity which is the supreme symbol of monotheism (Burckhart, 1997: 68). Drawing the arabesque motifs is more difficult and time-consuming than other motifs. Also, due to the numerous curves, these motifs have their execution with any kind of material is not easy and cheap. To decorate a building with arabesque motifs, more time and money should be spent. That is why in less important buildings, the ornamental motifs are less used than the geometric motifs, and it turns from a popular design into a luxurious and ceremonial design.

Relying on other people's opinions about this attitude, it can be said that Islamic art is complex, meaningful, symbolic, and mysterious at first sight. In this attitude, the Muslim's intention of creating an artistic work is not limited to merely exterior decoration and surface adornment. The artistic work is symbolically has been interpreted as a counterpart of the Quran's interpretation with the movement from the surface and appearance to the conscience. Edward Modan and AL-Faroighi have confirmed this belief in the symbolic being of Islamic art. Modan states that: "In the Islamic art, the limitless role of arabesque and inscriptions is symbolic everywhere it is found" (Bolkhari Ghahe, 2012: 449).

Oliver Leeman, in his inferences, does not agree with the Pythagorean ideas of Ikhwan al-Safa in the coordination of natural movements with artistic forms and the Platonic ideas of Nasr in the interpretation of Islamic art. He also rejects Sufi interpretation as well as extremism in symbolism. The book 'Aesthetics of the Islamic Art' states that those who believe that designs such as arabesque are going to instill other concepts in us are talking irrationally. Leeman believes that the fear of space for arabesque or Khatai or geometric motifs in Islamic art is due to the lack of the subject in the Islamic art, and in his view, all the spaces around the motifs are not full. He openly states that these motifs are not intrinsically eternal and holy motifs for the arabesque, but sometimes, they indicate a type of sensual passion, and sometimes, they are full of sorrow. In his view, aesthetic objectives can be defined, no specific interpretation be attributed to them based on movement from the surface to the depth. He believes that the line in "arabesque" designs seems continuous and uninterrupted; however, if the space in which the arabesque curves are used is limited, the arabesque also cannot be infinite and limitless.

In most of his arguments, he believes that what can be said about Islamic art, especially its arabesque and symbology, can be easily used about other motifs, too (Leeman, 2014: 109-111, 147).

As said by this group, in their point of view, and some other historians' opinion, the Muslim artists' intention of creating artistic works is to create beauty, ornament, and even exterior provisions. The religious teachings' view of the art has not been negative and inhibitory, and the Muslim artist has never intended to express doctrinal and mystical concepts or a latent and deep concept with the creation of artistic work. Rather, he has just turned to exterior decoration and adornment. According to these commentators, where the appearance of the artistic work is devoid of symbolic and cryptic expression, the movement to the meanings, depth, and conscience is meaningless, and the analysis of the artistic works does not need interpretation. The important components of this group's followers' thought are as follows:

- Islamic art is a decorative and formal art affected by the civilizations before Islam and is external and shallow in terms of content.
- There is no depth and interior in Islamic art and no mystery or symbols that are tools for expressing depth.
- The Islamic art has no mystic interpretation, and when it is discussed from the third attitude, it seems hollow (Musavi Gilani, 2011).

However, regarding Grabber's arguments in the book "A Review of the Iranian Illustration," this interpretation of externalism can be attributed to the effects of the historical conditions on the formal components of the Islamic artworks and motifs. Based on the title of Leeman's book "The Aesthetics of the Islamic Art" and his references to distance and aesthetic experience in defense of his justifications, a view close to Kant's division of free and continued beauty can be extracted from his opinions. Perhaps Kant is not directly mentioned in Leeman's book, but his collection of arguments in the description of free and non-symbolic beauty of the arabesque or the geometric

motif reveals his adherence to this. As a result, he talks about a pure initiative aesthetical experience when faced with the Islamic artworks or arabesque-Khatai motifs. In this regard, first, the consideration for the purposeful design and composition of the work is intended. However, it never stays at the same level since what is inferred from the external senses in the form of an internal imagination stimulates the internal sense, referred to as 'beauty.' A beauty that is created not from the sense of understanding but the harmony between the two forces of sensitivity and understanding, that is, two uncoordinated things, and it is the understanding of this beauty that will cause the pleasure of the work.

As an expression of the aesthetic idea whose force is innovation, this pure beauty in another stage becomes a rival of rational ideas. This beauty itself is so independent and free that under the dominance and consent of reason, it can be connected to other disciplines as the sub layer of a reflective and indirect relationship, no matter if it invokes the ethical concepts symbolically or creates other extensive meanings for the arabesque motif through resorting to the materials used or the inner content of the motif. In this case, the predicate of impure aesthetic judgment is replaced by moral concepts, which indirectly contain a degree of pure beauty. Also, there is no prohibition that after clarifying the examples of beauty, the effects of historical periods on whether they are enjoyable or not are evaluated (Grabber, 2011).

Wood states: "Even if it is said that when making an aesthetic judgment, any ability for provision of an aesthetic judgment, especially for the artistic works created by human, is a personal ability, and it cannot be considered to be separate from the previous experiences of the individual, cultural conditioning and the extent of his acquired ability to make such a judgment" (Wood, 2018: 265).

12. Conclusion

The marouflages are a category of murals that are executed on canvass. The similarity between the murals and the marouflages is naming a 'mural,' and their difference lies in their constituent layers. The oldest marouflages in Iran can be found in the Slotanieh Dome of Zanjan from the Il-Khanid era, from which only a part is available now. In the Safavid era, the diversity of these works underwent such drastic change due to relations with Europe that can be seen in the works available in Isfahan. These works have been decorative-visual. The works from the Safavid era indicate that canvas painting has been attached to the wall by glue or nail, or both, and then if a space remained empty, it was completed on the wall. This method has been seen only in Iran. The Sheikh Safi-ad-din Ardabili Tomb, due to its antiquity and containing the highest volume of such murals, has been selected for the current study. Since this space has been religious, the ornamental motifs have been used in it and a part of it (the dome's ceiling); in addition to these motives, the written inscriptions in Sols calligraphy have also been used. In addition to a brief introduction of the marouflages, it has been tried in the current study to evaluate the decorative paintings and written inscriptions inside the tomb and pay attention to the motifs on the wall and their symbolic concept. Then, the paintings were analyzed based on Panovsky's theory of iconology. In this regard, three factors can be identified to create the motifs in early Islamic art. The first factor is the thoughts and beliefs of the people as well as the literature and language, the second is the religious concepts, and the third is the ancient art heritage. The arabesque motifs rooted in the Parthian and Sassanid art and the Khatai motifs promoted by the Mongolians were a supplement for the Islamic art.

What can be inferred from the current study is that Islamic art is an art that, in addition to being influenced by the previous artistic styles, is alone rooted in the natural symbols and is naturalistic. The Islamic art reaches multiplicity from unity, i.e., a simple Khatai curve leads to the formation of a structure and elegant motifs in painting. Also, the finding indicates that these motifs first became

prevalent due to the prohibition of illustration of the human body in early Islam, which had roots in Sassanid art, and then, based on the teachings specific to that era, found an abstract form which is still effective to this day. Islamic art has survived to this day with all its properties due to its originality, and it has become even more bold and useful than in the past.

References

- Quran*. Al-A'araf, 43. Al- Noor, 64. Al-Haghah ,17.
- Avesta*. Yashtha, 128.
- Abdi, N. (2011). *Introduction to Iconology: Theory and Application and Case Study of Iranian Painting*. Tehran: Sokhan Publications.
- Babasafari, A. S. (1991). *Ardabil in the passage of history*. Ardabil: Omid Publications.
- Bolkhari Ghahe, H. (2012). *Mystical Foundations of Islamic Art and Architecture*. Tehran: Soure Mehr Publications.
- Burckhart, T. (1997). *Sacred Art* (Sattari, J. Trans.). Tehran: Soroush Publications.
- Emami, S. (2003). *Symbol, simile, differences, and similarities*. Second Edition. Tehran: Surah Mehr Publications.
- Eskandar pour Khorami, P. (2000). *Khatai, Flowers (Carpet & Tiles)*. Tehran: Ershad Publications.
- Farhang, P. (1987). *Material Culture*. Tehran: Iranian Foundryman Society Publications.
- Golmaghanizadeh, M., & Yousefi, H. (2005). *Archeology and Art History of the Tomb of Sheikh Safi al-Din Ardabili*. Ardabil: Nik Amuz Publications.
- Grabber, O. (2011). *A Review of Iranian Painting* (Vahdati Daneshmand, M. Trans.). Tehran: Academy of Arts.
- Hamzavi, Y., Vatandoust, R., & Ahmadi, H. (2017). *A Study of Islamic period's canvas-marouflaged murals in Iran and selected European works*. Tehran: Pazhuhesh-e Honar (Biaannal) No 13.
- Hosseini, S. H., & Farashi Abarghuei, H. (2015). Analysis of Shiite symbolic aspects in the decoration of Yazd's Jame Mosque. *Negareh Magazine*, (29), 33-43.
- Ibn Bazzaz, & Tavakol, B. (1999). *Sefat-al-Safa* (Tabatabaei, Gh. Trans.). Tehran: Zaryab Publications.
- Imadi, M. R. (2006). Factors Influencing Traditional Wall Paintings of the European Method in Historical Monuments of Isfahan. *Journal of Faculty of Literature & Humanities University of Isfahan*, 2(44-45).
- Kafshchian Moghaddam, A. (2006). *How to organize wall paintings*. Tehran: Honarhay Ziba Honarhay Tajasomi, Tehran University No 25.
- Leeman, O. (2014). *The Aesthetics of Islamic Art* (Abolghasemi, M. Trans.). Tehran: Mahi Publishing.
- Maleki, S., & Aghdasiyeh, H. (1985). *Arabesque and Khatai, Flowers of Shah Abbasi. Articles by Ernest Connell*. Tehran: Farhangsara Publishing.
- Marzban, P. (1998). *Illustrated Culture of Visual Arts*. Tehran: Soroush Publications.
- Musavi Gilani, S. R. (2011). *The Wisdom of Art: Art from the Perspective of Tradition and Modernity*. First Edition. Qom: Islamic Research Center of Radio and Television.
- Pakbaz, R. (2001). *Encyclopaedia of Art*. Tehran: Farhang Publications.
- Phingan, J. (1983). *The Ancient East* (Nomei, T. Trans.). Tehran: Iwanami.
- Sattari, J. (1997). *The Code of Sacred Thought and art*. Tehran: markaz Publications.
- Soleimani, P., & Shishebori, T. (2017). The Technical Study of canvas-Marouflaged Mural of Mulla Ismail's Mosque in Yazd, Iran. *Tabriz: Journal of Research on Archaeometry*, (3).
- Schimmel, A. M. (2016). *The mystery of numbers* (Tofighi, F. Trans.). Qom, University of Religions and Denominations.
- Wood, A. (2018). *Kant* (Fooladi, A. Trans.). Tehran: Contemporary View Publishing.

Analysis of Published Critiques in Sukhan Monthly Magazine on the Subject of Paintings and their Effect on Iran's Modern Painting Flow from 1943 to 1959

Homa Noor Alizadeh^a, Ali Akbar Jahangard^{b*}

^a*Master's of Research Art, Non-Profit Art Institute Higher Education, Shiraz, Iran*

^b*Assistant Professor, Faculty of Art and Architecture, Islamic Azad University, Shiraz, Iran*

Received 05 March 2022; revised 25 June 2022; accepted 03 July 2022

Research Article

Abstract

The press is one of the most important means of communication due to the rapid reflection of society's news and developments. Following the modernization policies in the Pahlavi era, intellectuals have made fundamental changes in the needs of the Iranian community, especially in the cultural sphere. The publication of art magazines from 1941 to 1978 had an essential role in the cultural revival of society. The authors of these magazines and publications made a significant impact on public opinion through their content and writings. Therefore, the range of such magazines is an essential source of information and various approaches of this period. One of these publications was "Sukhan" Monthly Magazine, established by Parviz Natel Khanlari in June 1943. In the present study, the main issue is focused on how and what influence Sukhan Magazine has on artistic developments, especially on the modernization and expansion of Iranian painting. In terms of purpose, this research is in the category of basic research, and in terms of method, it is based on the descriptive-analytical method. According to the primary purpose of the journal, which is research on visual arts and the introduction of typical painting in Europe and the United States, the results show that the Sukhan Monthly Magazine had been influential in the process of holding exhibitions of paintings and the introduction of modern Iranian painting from the beginning and had a growing trend in that area.

Keywords: Sukhan Monthly Magazine; Contemporary Iranian Painting; Content Analysis; Pahlavi Era

* Corresponding author. Tel: +98-9375013563.

E-mail address: ali.jahangard@gmail.com

1. Introduction

In the history of contemporary Iran and in its political, social and cultural developments, the influence of publications and magazines can not be ignored. The number of such publications may have been small from the beginning especially, in the field of literature and art, but this important issue has been their factor of influence. Sukhan Monthly Magazine is one of the first magazines established in 1943 by Parviz Khanlari in the Iranian Art Society. It underwent fundamental changes and transformations during more than four decades of its activity until 1975. Sukhan journal was first published as an Teacher Training Graduates Association Organization, and after 1946 it became an independent and specialized monthly magazine in the fields of literature, education and society, focusing on intellectuals, university professors, teachers, school officials and students (Abrahamian; 1983: 343). Evidence shows that this publication had a significant impact on the modernization and developments of contemporary Iranian art. Dr. Khanlari mentions Bahar (Spring) as the first "literary magazine", which appeared in 1902 under the direction of his almost only colleague, Yusuf Ektisamel, whose articles included biographies of famous literary works and translations of European poetry, short stories, and ethical and sociological content (Avery; 2008: 846). The role and position of Sukhan is very exceptional in the process of modernization of Iranian art, that of course, it has not been much considered so far. Significantly, the part of this publication and its efforts has not been much considered in the texts and research on the history of contemporary Iranian art.

In this research, one of the most critical issues is the large volume of data that must be evaluated and analyzed effectively; due to the long-term activity of Sukhan Monthly Magazine, the main focus of this research was exclusively on articles published in the field of painting. On the other hand, given many published articles in the field of painting, it would be impossible to analyze all of them in one text. Therefore, due to the large volume of information and the need to preserve it, research about these issues will be published in two articles. In the first part, the first ten volumes of the journal are examined as prominent examples. These ten volumes include 118 issues that have been published over 16 years. The total number of articles published during the first ten periods on the painting is 93 articles, all of which have been reviewed. During the same period, 53 domestic and foreign painting exhibitions were held, which this subject concerns the activities of the magazine and the articles published in it. The upward trend of opening and holding domestic painting exhibitions are directly related to the publication of painting articles, sponsorships, and critiques in the journal. Therefore, this subject has been addressed in this study both quantitatively and qualitatively.

One of the critical goals of this research is the alignment of published articles in the journal with modernity in the field of art; this goal is vital because Sukhan had introduced itself as a promoter of new ideas from the beginning. In other words, a more detailed study of the type and manner of the impact of Sukhan's painting articles on the flow of modern Iranian painting has been considered as the primary goal. For this purpose, first, the topic and objectives of the authors are identified. Then the specific data of the articles of each period are put together in a diagram to achieve the results. With the help of these diagrams, the ascending and descending trend of publishing domestic and foreign articles domestic and foreign exhibitions of artists in each decade are determined separately according to the influential factors (political, social, and economic currents in the society). Also, Attempts have been made to provide a picture of political and social developments and, accordingly, artistic developments based on the data and analysis. Through these surveys, data, and information on the tables of each decade, the influence of political and social tendencies of the Sukhan Monthly Magazine on modernist Iranian painting will be identified, which was reflected in

the articles. Due to the high volume of the studied samples, an attempt has been made to briefly present a descriptive report of each article. This matter has made it possible by referring to the journal and its articles with the cooperation of the archives of the National Documents and Library Organization of Fars province. This publication is archived in general volumes, and therefore, the page numbers in several periods are presented in general and in one format.

2. Research Methodology

Content analysis is one of the exceptional cases in observational research and historical documentary research. This method has been followed scientifically through the analytical study of publications since the twentieth century and spread to various other scientific fields. This method has different definitions in multiple sources: "Content analysis is a method for objective, quantitative and systematic study of communication products of the obvious content of the message to achieve interpretation" (Ghaedi, Golshani, 2016: 3). The research method in this article is based on a goal of a theoretical-fundamental type, and it is based on the implementation as descriptive-analytical type. All information is collected in a library style, through document reading and to refer to the volume of the available archive in the National Library of the Islamic Republic of Iran, Fars Center. In this study, a general analysis of the extent of influences and main goals in Sokhan Magazine will review by surveying the process of published articles and the current socio-political situation.

3. Literature Review

To determine the research background, it should mention that a specific background that has a significant alignment with the objectives of the present research and is focused on the studied sample, i.e., Sukhan Monthly Magazine, has not been published yet. Other studies have focused on the performance and articles of other publications that can be considered in harmony with the present article. These sample studies include:

Content analysis of quarterly journal of ganjineh asnad articles, Rezaei Sharifabadi, Saeed: Mehdizadeh, Farghdan, Journal of National Library and Information Studies, (2009). In this research, the authors' tendencies of articles have shown that research priority is adjustment and processing unit in the thematic axis of archival studies; then, there are background units of archives, information, and evaluation. Analytical list of articles in the Journal of Art and People 1963-1978, Scientific Documentation Center, Parvaneh, Movahed (1986), in this article, the crucial contents of 1084 articles related to the sixteen periods of this journal have been provided to the readers as an abstract. This study aims to identify the sources of research on the history of architecture and urban planning in the Persian language and eliminate its shortcomings. Quantitative and qualitative evaluation of Fine Arts Journals during the 12 years, Bemanian, Mohammad Reza: Yeganeh, Mansour: Naderi, Seyed Majid: Fine Arts Magazine, (2008). Also, in this study, the authors have evaluated all articles in this journal. They considered the growth process of quantitative and qualitative articles of the journal is ascending. They express the decline of historical research and the rise of content analysis.

Classification of articles thematically and their relations to social conditions and artistic developments:

A review of painting articles and classification of journal's authors' information during the years 1943-1959:

3.1. First Year 1943-1944

The first period of the magazine started in 1943 and continues to 1944. In this period, authors have discussed more the familiarity and definition of art for the audience by their articles. The four essays written by Parviz Khanlari are thematically descriptive in articles. These articles deal with the relationship between art and the artist. Also, an article introduces the style of a French painter. In this period of publication of the journal, the approach of articles is descriptive, and it only describes artistic works and currents. The titles of the articles and the names of their authors are as follows:

- i. Art and artist; Parviz Natel Khanlari: No. 3, August 1943.
- ii. Art and artist; Parviz Natel Khanlari; No. 4 and 5: September and August 1943.
- iii. Art and ethics; Parviz Natel Khanlari: No. 6; November 1943.
- iv. Art and life; Parviz Natel Khanlari: No. 7 and 8; February and March 1943.
- v. Paul Gauguin, French painter; Abdullah Faryar: No. 7 and 8; February and March 1943.

3.2. Second Year 1944-1945

The second period of publishing the magazine starts from January 1944. During this period, the editors and writers claim that the country lags behind today due to political and social issues in scientific, literary, and artistic matters. They were eager to eliminate the deficiency. "Unsolved political and social issues have prevented our country from progressing. During this time, other countries advanced more than us. Now we have no choice but to be diligent and hurry." (Khanlari, second year, 1944: 2) In this period, five articles about painting have been written and published. Two articles have introduced foreign painters in the category of descriptive articles. One article has introduced a new style and method of painting. Also, an article has compared the style of painting in the past and the present. For the first time, a report from a foreign exhibition is included in this period, which is in the category of news articles. The description of the "Autumn 1945 Painting Exhibition in Paris" had been brought to the attention of art-loving audiences due to the importance of the works and art samples. The title and author of the articles are as follows:

- i. Ilya Repin; Anonymous author: No. 3; March 1944.
- ii. Claude Monet; Abdullah Faryar: No. 4; April 1945.
- iii. Old and new paintings; Reza Jorjani: No. 5; May 1945.
- iv. Cubist style in painting; Anonymous author: No. 10; November 1945.
- v. Painting Exhibition in the Fall of 1945 in Paris; Anonymous author: No. 10; November 1945.

3.3. Third Year 1946

This period, after a two-year break, has started with the same style and way of the magazine by the authors since April 1946. The main goals of the magazine's editor are rushing to the future and magnifying and popularizing science and art, eliminating and compensating defects and backwardness of culture, and finally harmonizing with today's world of science and art. "They may criticize us that in this turmoil of the world, which has also disturbed the work of our country, there is no point in talking about science and art. But we do not accept this objection. Progress in spiritual matters is related to the social and economic situation, so we must first reform social affairs so that progress can be made in other areas as well." (Khanlari, 3rd Year, 1945: 4) The authors of this period are still trying to present the subject of their articles in the same style as the previous periods.

The articles have only the aspect of awareness and descriptive mode. A notable event in this period, which is considered the beginning of a great movement, is the holding of the Iranian Fine Arts Exhibition in April 1946. It seems to be an important event for both the magazine and the audience, especially the art community. The articles of this period reach nine articles with a slight difference in number. Five domestic articles and two foreign articles, one foreign exhibition report, and one domestic exhibition report are the author's works of this period. Of these statistics, two articles are in the category of news-analytical articles. Five articles have also dealt with the class of art analytically. An article is also in the variety of descriptive articles.

- i. Iranian Fine Arts Exhibition; Reza Jorjani: No. 1; April 1946.
- ii. Iranian painting; Translated by Parviz Behnam: No.1; April 1946.
- iii. Painting in England; Translated by Abdullah Faryar: No.2; May 1946.
- iv. Delacrova; Translated by Reza Jorjani: No.3; June 1946.
- v. Freedom of Art; Parviz Khanlari: No.4; October 1946.
- vi. Sassanid Art; Moore Ganshtern: Translated by Sadegh Hedayat: No.5; November 1946.
- vii. Autumn Painting Exhibition in Paris; Unknown Author: No.6 and 7; December and January 1946.
- viii. The influence of Islamic Art; Elie Faure, translated by Parviz Behnam: No.6 and 7; December and January 1946.
- ix. Artistic Anatomy; Nematullah Kayhani: No.8 and 9; May and June 1947.

During this period, Parviz Natel Khanlari seems to have reflected the effects of the socio-political conditions and rapid developments of that period in his article entitled "Freedom of Art". This article can be considered critical to Iran's social and political conditions in those years.

3.4. Fourth Year 1952-1953

During this period, after a six-year hiatus (1946-1952), the publication has been republished since December 1952. It was still loyal to its previous goals, including creating a new culture. Khanlari has explicitly expressed that: "Sukhan" deals with literature, knowledge, and art as before and has nothing to do with politics of the day. But this does not mean that the Good and Bad Magazine writers look at the situation with one eye and turn away from the world and what is in it. The authors of the magazine mention society's political and social status in their writings. Still, they aim to inform their compatriots about the various manifestations of thought and interests of other nations, be aware of different and new ways in each of the literary and artistic art in the world today and establish a new and worthy cultural foundation. The articles published in this period primarily introduce foreign artists and their art style. In the fourth edition of the magazine, ten years after its first volume, we are witnessing the number of art articles increasing, which was predictable. Although most of the articles are adaptations of foreign articles related to foreign artists and their style, they can significantly impact young artists. "The brief establishment of social freedoms and direct contact with the manifestation of Western culture created an opportunity for artistic innovation. Familiarity with the expert's works and lifestyles of modern art aroused the thought of breaking free from the constraints of traditional art among Iranian young artists" (Pakbaz, 1999). During this period, several exhibitions have been organized every two months. The most critical points are the exhibitions organized by the cultural associations of Iran and the United States, Iran and France, and Iran and the Soviet Union. The first painting exhibition with a modernist approach to art was opened in Iran-Soviet Union Cultural Association in 1945. (Khalili, 2006: 24). Also, in this period, two items are considerable: first, the non-publication of domestic articles and second, the publication of "Ehsan Yarshater" articles, which introduce foreign artists and, more importantly,

painting styles published regularly in each volume. There are 12 articles related to painting, most of which are descriptive, and several news articles have been published as exhibition reports. Exhibition reports have studied the works of painters in terms of artistic style and the effects of Western painting. Finally, the authors of 10 articles on non-Iranian topics have published five reports on the establishment of domestic exhibitions, which are:

- i. Renaissance and Leonardo da Vinci's intellectual and artistic ingenuity; Ehsan Naraghi: No. 3 February 1952.
- ii. Japanese Painting; Hassan Ghaemian: No.4; March 1952.
- iii. Michael Angelo; Ehsan Yarshater: No.5; April 1953.
- iv. Van Gogh the Painter; Ehsan Yarshater: No.6; May 1953.
- v. Paul Gauguin; Ehsan Yarshater: No.7; June 1953.
- vi. Paul Cézanne; Ehsan Yarshater: No.8. July 1953.
- vii. Impressionism the beginning of the movement; Ehsan Yarshater: No.9; September 1953.
- viii. Impressionism in painting Principles of Impressionism; Ehsan Yarshater: No.10; October 1953.
- ix. Impressionism Impressionist Painters; Ehsan Yarshater: No.11; November 1953.
- x. Impressionism Impressionist Painters; Hassan Yarshater: No.12; December 1953.
- xi. Painting Exhibition in Mehregan Club; Ehsan Yar Shater No.6; May 1953.
- xii. Painting Exhibitions Associations of Iran and France, Iran and the Soviet Union; Ehsan Yarshater: No.8; July 1953.

3.5. Fifth Year 1953- 1954

The fifth volume of the magazine has been published since January 1953, and during these years, it has gained a proper position among young artists. In the first issue of this period, Parviz Natel Khanlari states that for the first time in the art section of the magazine, we will publish colorful and beautiful examples of painting masterpieces at the request of readers. As evident from the title of the articles, it seems that since the fourth period, the approach of articles has become more diverse, and articles are descriptive, translated, news, and even critical. In this period, we are facing an increase in articles, and a total of 12 articles about painting have been published. Of these articles, seven articles are descriptive, two articles are news, two articles are critical, and one article is a report. In 1952 and 1953, the field of internal political developments under the influence of the whole situation had caused the emergence of several political currents such as the national movement, religious-political forces, and the Tudeh Party. The social and political problem of the country is not in a favorable condition, and it has been criticized. Since the publication had relative freedom in recent years, these criticisms have been expressed by its authors to their audiences.

- i. George Sora and the New Impressionist Method; Ehsan Yarshater: No. 2; February 1953.
- ii. The Image of Animals in Sassanid Art; Parviz Behnam: No. 2; March 1953.
- iii. George Sora and the New Impressionist Method; Ehsan Yarshater: No. 3; March 1953.
- iv. Henry Matisse; Ehsan Yarshater: No.4; April 1954.
- v. Methodism; Ehsan Yarshater: No.6; July 1954.
- vi. Familiar and Foreign Art; Sukhan: No.7; August 1954.
- vii. Developments in Indian Art; Translated by Hassan Honarmandi: No. 7; August 1954.
- viii. A Journey into the World of New Painting; Mohammad Saeedi: No. 9; October 1954.
- ix. Painting of Prehistoric People; Translated by Fathullah Mujtaba'i: No. 9; October 1954.
- x. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater: No. 11; December 1954.
- xi. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater: No. 12; January 1954.

- xii. Spring Exhibitions; Ehsan Yarshater: No. 4; April 1954.

3.6. Sixth Year, March 1954- 1955

After the coup d'état of August 28, 1953, the activities of intellectuals expanded due to the social and political conditions and the effects of the coupon society and, on the other hand, due to the modernization policies of the government. In this decade, the government's actions towards modernization took a more severe form, and accordingly, it created more space to develop modernism in Iranian art. "The Iranian artist in the first years of the emergence of modern painting, while examining a new artistic language, also, is experiencing his living conditions and two-way relations with architecture, modern urban planning and the culture embedded in it." (Del Zande, 2017, 238). In the continuation of the magazine's activity, we observe the continuation of the same movement and new method that has found its way between artists and painters. The magazine authors have also dealt with different angles with their articles and writings. Ehsan Yar Shater is also an active writer in this period. In this period, the article "Is It Possible to Enjoy a New Painting?" has a more practical and analytical perspective than before and discusses this issue regularly in each case.

Yarshater began his collaboration with the magazine in 1953 and published several articles (12 articles) about painters and new European painting styles. These articles are purposeful and respond to the need of Iranian artists. Yar Shater considers the contemporary painters and their path so important and worth considering. Parviz Khanlari has also studied the history of Iranian painting in this period. Analytical and critical articles are increasingly dealing with new and modern painting. Also, the publication of descriptive essays continues. In this period, the number of articles has increased compared to all periods. Seventeen articles have been published in this period. Of these, ten domestic and seven foreign articles about art, especially painting, are statistically significant. In addition to the articles, the report of two exhibitions in the form of news has also been held in this period. The title and author of the articles are:

- i. A brief overview of the history of painting in Iran; Parviz Natel Khanlari, No. 1; March 1954.
- ii. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater, No. 2; April 1955.
- iii. A brief overview of the history of painting in Iran; Parviz Natel Khanlari, No. 2; April 1955.
- iv. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater, No. 3; May 1955.
- v. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater, No. 5; July 1955
- vi. Is It Possible to Enjoy a New Painting?; Ehsan Yarshater, No. 6; August 1955.
- vii. Congenital Artists; Parviz Marzban, No. 6; August 1955.
- viii. Flowers in old and new paintings; Translated by Hamid Enayat, No. 7; September 1955.
- ix. A child, an artist who is unaware of himself; Anonymous Author, No. 7; September 1955.
- x. About Japanese painting; Anonymous Author, No. 8; October 1955
- xi. Art and Beauty, Somerset Maugham; Translated by Majid Masoudi, No. 8; October 1955.
- xii. New Art - New Painting; Parviz Marzban, No. 9; November 1955.
- xiii. Photographic and painting relationships; Houshang Alam, No. 9; November 1955.
- xiv. Drawing in painting; Anonymous, No. 9; November 1955.
- xv. Book picture art; Ismail Asadi, No. 10; December 1955.
- xvi. International Representative Images; Translation, H. A., No. 11; January 1955.
- xvii. Is it possible to enjoy a new painting?; Ehsan Yarshater, No. 12; February 1955.

In this period, articles have different approaches, and the authors have turned to the discussion of new art and painting. These issues indicate that developments are occurring around the art of painting and artists. Although most of the articles are adaptations of foreign articles and represent new artists and styles in Europe, this is a result of the impact of the articles and their role in encouraging young artists in the country, in which the magazine made this decision in this decade. Another critical point is the significant growth in the number of exhibitions organized by the cultural associations of Iran and the United States, Iran and the Soviet Union, and Iran and France, which have been interpreted and analyzed by authors from different angles. Opponents of modernist painting, meanwhile, have voiced their criticism against the magazine's authors. "When an artistic movement takes place in the civilized world and lasts for more than half a century and attracts great critics and art critics, it becomes more or less generally accepted, it is undoubtedly worthy of the attention of those who love art. Therefore, when we come across shapes in a new painting that looks like nothing definite but show a lot of things if we object that "this is not like," we are wrong because many of the works of new painters in showing parts of our inner life are true and more agreeable. As a result, it is a long-standing tradition to stick to the habit and fight in a new way. If one wants to keep pace with the spiritual journey of the world and not be unaware of the new ways that have taken root in our century, one must look at contemporary art by open eyes and receptive mind" (Yarshater, The sixth period, 1067).

3.7. Seventh Year 1956

The seventh volume of the magazine and its first issue was published in April 1956. During the period of publication of this magazine, according to the authors of Sukhan, several publications were created, all of which more or less imitated Sukhan magazine, but none of these magazines were able to continue. "Some of them had political motives and used literature and art as excuses." (Editor, seventh year, First Volume, 3) In this period, the authors' painting articles and introducing new methods in painting that are emerging among artists also expose that method to discussion and criticism. Each chapter is dedicated to presenting the art of countries that have not yet addressed it. During this period, the number of domestic and foreign articles has decreased, and most of the articles have dealt with the same thematic matter in the same style as the first periods. In this period, four articles have been published; three of them were foreign articles, one of them was a domestic article, and one of them was a domestic exhibition. During this period, the magazine published pictures of famous paintings in color for its readers. The reflection of social issues, which was one of the magazine's goals, has become more prominent in this period. The titles of the published articles are as follows:

- i. Beauty and Art; Ehsan Yarshater; No. 4; July 1956.
- ii. Government, Iranian Painter in India; Issa Behnam, No. 10; February 1956.
- iii. Author and Painter; Anonymous Author, No. 10; February 1956.
- iv. Ingenuity, Art, Inspiration; Aldus Huxley, translated by Jalal Nematollahi: No. 12; April 1957.

3.8. Eighth Year 1957

During this period, which started in 1957, the magazine only published foreign articles, and there is no domestic article from the authors. However, during these years, young people have shown activity in painting with a modernist orientation or the western painting path. Exhibitions of young artists in recent years and the efforts and excitement of gallery owners in organizing painting

exhibitions and introducing the works of young painters in recent years are influential in the development of emerging painting. "Although these young painters have not yet found a definite path, their work nevertheless promises a very bright future in the field of art, which is now re-valued, and their more mature and original works can be expected." (Emami, Sukhan, 1957, No. 2; 201) The influential author of this period is a person with the artistic name of "Researcher" who since 1957 (eighth period), had published articles entitled "History of Painting in the West" (24 articles) for the magazine's audiences in each period and introduces European painting methods in a descriptive and interpretive way. In these articles, the author deals with the personal life of the artist, the personality and spirit of the artist, and the style and manner of the painter and his views on painting, so that the reader gains complete knowledge of the painter and his style of painting along with his portfolio. "Reza Seyed Hosseini", another author of the magazine in 1958 of the ninth period, according to the policies of this period of the magazine, had published translations of well-known critics related to the "conditions of innovation in art". In these articles, the author states the circumstances in which artists, by accepting these circumstances innovation would be taken as a positive value. The author must write such articles because, as mentioned in this period, the modern painting was still considered rejected and unacceptable by many people. Eleven articles on painting have been published in this period. Six of these articles are foreign articles and one domestic article, ten domestic exhibitions, one foreign exhibition, and one exhibition of Iranian artists held abroad. Foreign articles have descriptively and analytically dealt with the history of painting in the West and introduced artists. The title and author of the articles are as follows:

- i. Artist and Community; Thomas Mann, translated by Sirus Parham, No. 3, July 1957.
- ii. My Master Picasso; Cyrus Zaka, No. 5; September 1957.
- iii. What art lovers want from an Artist; Andre Moroa, translated by Zahra Khanlari, No. 6; October 1957.
- iv. History of painting in the West; Researcher, No. 7; November 1957.
- v. History of painting in the West; Researcher, No. 8; December 1957.
- vi. Knowledge and Art; Parviz Natel Khanlari, No. 9; January 1957.
- vii. History of painting in the West; Researcher, No. 9; January 1957.
- viii. Author's Copyright, Parviz Natel Khanlari, No. 10; February 1957.
- ix. History of painting in the West; Researcher, No. 10; February 1957.
- x. History of Painting in the West, Pajohand, No. 11 and 12; March 1957.
- xi. Success of a young Iranian Artist, Anonymous Author, No. 11 and 12; March 1957.

3.9. Ninth Year 1958

In this period, according to the routine of previous periods, in each issue, while discussing the art of painting and the great masters of this art, an example of these works has been published for the readers. In the previous period, foreign articles increased significantly, but domestic articles reached their maximum in this period. This matter shows that writers are on the same path as painters and find it necessary to write these articles. In addition, this matter can be considered in parallel with current nationalism in the government of this period. "A new way of painting has reached Iran and gained followers over the years. Exhibitions that have been held around the country in recent years have often shown that some artists have embraced new styles and sought to find a way through them" (Yarshater, 1958, ninth year, No. 1;83). Through the efforts of the Fine Arts Administration, a national exhibition is held every two years in Tehran at the same time as the Venice World Biennale, for modernist painters, sculptors, and designers to participate. In the last seven years of the magazine, Ehsan Yarshater says about the importance of this issue: "With this

event, we can pave the way for the development and advancement of national arts of painting, sculpture, and design, and make a valuable and effective share in the World of Biennale. Without a doubt, we can keep pace with the advances of the world today by this development in the field of art." The result of the authors' activity in this period is 14 articles, two of them are domestic articles, ten of them are foreign articles which are thematically in the category of descriptive-analytical articles, one is a report on exhibitions of Iranian artists abroad, and two of them are related to domestic exhibitions that are descriptively analytical. Descriptions of two foreign exhibitions have also been published. The titles and authors of the articles are as follows:

- i. History of Painting in the West of Flemish Art, Researcher Author, No. 1, April 1958.
- ii. "Biennale" Painting and Sculpture Exhibition in Abyaz Palace, Ehsan Yarshater, No. 1, April 1958.
- iii. History of Painting in the West of Flemish Art, Researcher Author, No. 2, May 1958.
- iv. Conditions of Innovation in Art 1, Gabriel Marcel, translated by Seyed Reza Hosseini, No. 3, June 1958.
- v. History of painting in the west of the Flemish style, Researcher Author, No. 3, June 1958.
- vi. History of painting in the west of the German style, Researcher Author, No. 4, July 1958.
- vii. Conditions of Innovation in Art 2, Gabriel Marcel, Researcher Author, No. 4, July 1958.
- viii. About Tehran Biennale, Rassam Arjangi, No. 4, July 1958.
- ix. History of painting in the west of the Dutch style, author of Pajohand, No. 6, September 1958.
- x. History of painting in the west of the Dutch style, Researcher Author, No. 7, November 1958.
- xi. History of painting in the west of the Dutch style, Researcher Author, No. 8, December 1958.
- xii. History of Painting in the West of the Spanish Style, Researcher Author, No. 9, January 1958.
- xiii. History of Painting in the West of the Italian Style, Researcher Author, No. 10, February 1958.
- xiv. History of painting in the west of the French style, Researcher Author, No. 11 and 12, March 1958.

3.10. Tenth Year 1959

In this period, which started in April 1959, the authors have published fewer articles than in the previous period, and the publication of foreign articles is superior. These articles introduce artistic methods and analyze them in more detail. Another considerable matter is the remarkable enhancement in domestic exhibitions by artists. During this period, several exhibitions have been held, and artists' works have been exhibited. Another issue related to painting and its influence on it is that the Office of Fine Arts of the whole country has decided to participate in this year's "Biennial" in Paris and invited young painters to send their paintings to judge by the jury. This decision and event, which marks an important event for painters, is an opportunity for artists to introduce Iranian Art to universal art scholars and critics. Finally, the authors' activity in this period is three foreign articles one domestic article, which are descriptive. The report of 6 foreign exhibitions, 16 domestic exhibitions, and two foreign artists in Iran are also included in the journal. The titles of the published articles are as follows:

- i. History of Painting in the West, French-style; Researcher Author, No. 1; April 1959.
- ii. History of Painting in the West; Researcher Author, No.2; May 1959.

- iii. The Origin of Iranian painting; Rene Grosse: Translated by N., No.3; May 1959.
- iv. History of Painting in the West, Researcher Author, No.11 and 12; February and March 1959.

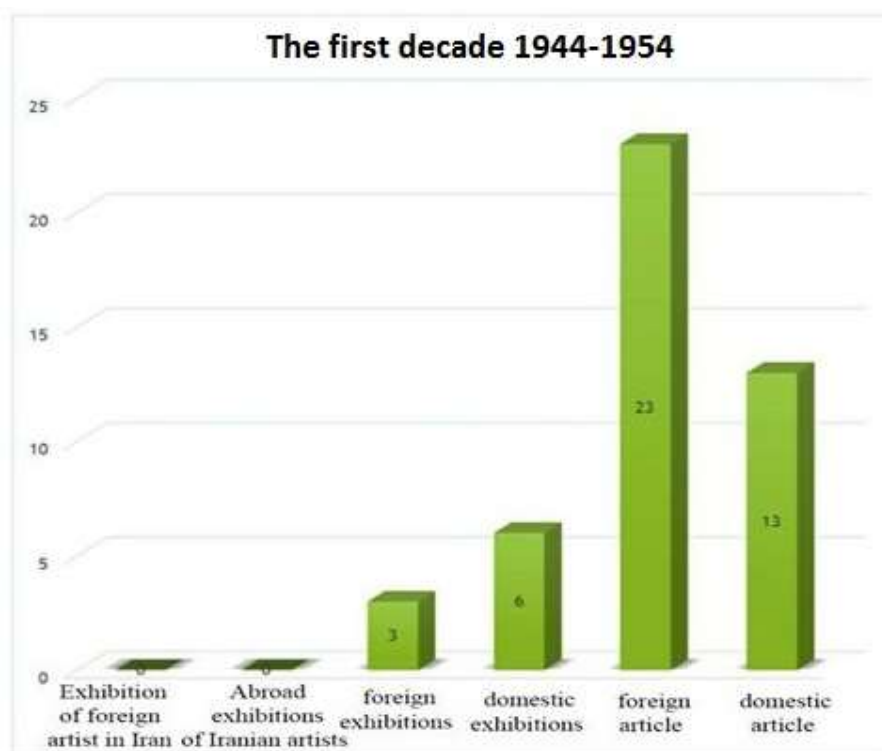


Fig 1 General Activity Process of Sokhan Monthly Magazine in the first part

4. Overview of the Essential Activities of the First and Second Decade (1943-1959) of Sukhan Magazine and its Relationship with Social and Artistic Conditions

In the early years of its publication, the authors published numerous articles and reports about the establishment of painting exhibitions. By examining the articles of this period and the statistics that can be seen from the tables, the authors first began to publish articles that describe and identify art generally. Also, in the thematic axis of articles, priority is given to publishing foreign articles and foreign artists. This crucial initial approach of the journal is partly related to society's social and political developments at that time and is connected to it. Descriptions are the basis for other discussions that will be more important. The first exhibition report of the magazine is related to an exhibition entitled "Western Painting and Sculpture Exhibition". After this report, in the next period, in 1946, we observed the most prominent artistic event, namely the "opening of the Fine Arts Exhibition of Iran". In 1952, another painting exhibition was held in Mehregan Club. Due to the existence of few and stable artistic publications at this time, the role of Sukhan Magazine cannot be ignored in orienting the Iranian art space at that time. The opening of painting exhibitions in these years is influenced by the current that the Sukhan Magazine and its currents have caused. Especially, report articles on foreign exhibitions have significantly been involved and influential on this matter. According to the general policies of Sukhan Magazine, "the creation of such exhibitions helps to promote art and encourage artists and familiarize art lovers with the works of Iranian

painters, and is undoubtedly effective in promoting this art and the development of the recent movement in Iranian painting." In addition to reviewing the general flow of the exhibition, the authors have introduced their styles, painters, principles, and methods in detail in these reports. Authors who have published influential and purposeful artistic articles related to painting are Parviz Khanlari, Ehsan Yarshater, Reza Jorjani.

After publishing several articles about art and its description, as well as its role in society and people's lives, Parviz Khanlari states in the seventh and eighth volumes: "People like to get news about the lives of great artists because they think that there is a connection between their lives and their beautiful works" (Khanlari, Sukhan, 1953, No. 7 and; 8365). Connected to this matter, "Abdullah Faryar" publishes foreign articles in the first volume of the magazine to deal with the life and works of these artists. The great issue is that critical discussions began in the second period of the magazine, which is related to social developments and fundamental approaches of the political and social spheres. From the first volume, an article entitled "we must harmonize with the world" was published by Parviz Khanlari, who believes that the country lags behind the world today in terms of scientific and literary affairs and what is called culture, we should seek to eliminate it. Following this discussion, the editor points to socio-political causes that have inhibited progress. Some have also criticized the magazine for publishing imaginary and intellectual developments as an extremist magazine. They criticized the literature and art of others as patriotic and detrimental to the preservation of our nation. This time, the magazine responds to these criticisms: "Our writers are well aware that nothing in today's world is separate from politics, but to enter politics and strive in this way, there are many parties, factions, and presses that criticize each other and we respect everyone as long as these efforts are sincere and pure, intending to serve the country and advance the work and reforming things, even though the path taken by each sect is different." (Sukhan, Khanlari, 1952, No. 1; 2). Khanlari, with knowledge of these conditions and circumstances, that relative calmness reigns in society, considers the continuation of the magazine as the only right way, and his most important goal is to try and hurry to eliminate the lags. "We must accept the culture of today's world inevitably, and imitation and adaptation are the basis of cultural progress and this matter is not shameful" (Khanlari, Sukhan, second year, 1944, p. 3).

The opening of the "Fine Arts Exhibition of Iran" under the auspices of the Association of Cultural Relations between Iran and the Soviet Union is the first step taken to introduce Iranian artists. According to Reza Jorjani, the magazine's critic and author of art issues, this exhibition can follow the same autumn exhibition of French painters, because Jorjani explicitly states that: For many years, French painters, in autumn, have been exhibiting and judging their works in a unique hall in Paris. Even the smallest cities in Europe now have a painting museum. Painters who can not afford to arrange the exhibition space, with the permission of the municipalities, sell their paintings at significant intersections under small tents." (Jorjani, Sukhan, Third Year, 1946, No. 1;25) Elsewhere, he states that: During these years, there was not an effort to develop fine arts, especially painting, and the problem with discussing art is the lack of encouragement of artists and the promotion of fine arts, however, the Ministry of Culture should provide a suitable place to establish a painting museum as soon as possible. Another important issue that he points out is the allocation of funds for the purchase of exquisite paintings by professors and the establishment of an annual exhibition to showcase new works" (Ibid.) The preparation that Jorjani has announced should be considered to promote and expand the work of the country's painters and the prosperity of the art market.

As developments in the social, political, and economic spheres are occurring, Parviz Khanlari, by knowing these conditions and on the other hand of the conflict that arose between the defenders of

the old style and the proponents of modernity in this period, published an article entitled "Freedom of Art". Believing that these changes and transformations require effort, he states: "I think that in art, as in society, freedom strives, it requires courage, and the seeker of freedom must be able to stand on his own feet. Do not choose what is easy, but go for the difficulties, the difficulties that have few seekers. A free artist is one who, with self-confidence, can clear his mind of what others have given him; And for the first time, he is commissioned to know and teach the world" (Sukhan, Khanlari, Third Period, No. 4; 244). Khanlari's opinions on freedom of the arts were later criticized by some, especially several members of parliament, forcing Khanlari to publish a defense of himself and the magazine. During these years, Sukhan Magazine, due to the existing open and democratic space, begins its activities by dealing with European artistic and literary issues. The magazine introduces the great painters of the world. It shows the methods and actions that each of them had taken in the development of new painting, and at the same time deals with the existing issues of the society parallel with the goals of modernization. The coverage of foreign exhibitions has created an opportunity to develop and open the first art exhibitions and galleries. As shown from Fig 1, in this decade, the magazine's main priority and the authors' main priority is to publish painting articles and describe the report related to foreign exhibitions. Along with them, domestic painting articles have an ascending trend.

5. Performance and Policies of Sukhan Magazine and its Relationship with the Current of Modernization in Contemporary Iranian Art and Painting

Undoubtedly, Sukhan is one of the most influential cultural media in its period which has been effective on the process of modernization and cultural conditions in Iran at that time. As far as, some researchers believe that "the political views of intellectual class were reflected on Sukhan magazine" (Abrahamian;1983;343). Sukhan is a magazine that devotes some of its pages to criticism and discussion on the general principles and laws of art at the very beginning of its publication. This publication aims to express the purpose of various fields of art for those with admire art and establish the principles of artistic evaluation and criticism. In short, in the first decade, the magazine's articles are more to get acquainted with the works of art and common painting styles of other nations. In the second decade, there is a relatively more significant focus on the flow of art inside Iran and the growing trend of modernity. According to the authors, familiarity with the modernity and art of other nations "not only is not harmful and does not conflict with nationality but also has enormous benefits. The authors believe that if a nation profited by basics and principles of science and art, it is because of familiarity with the arts and interests of other nations that it can develop its interests and by combining the factors and components that each has acquired from somewhere and learned from an ethnic group and create an exquisite collection in every technique" (Editor's Express, 1953, No. 7;491). In the same years, the government is trying to find a political policy appropriate to the situation of the Iranian people and sees the most crucial element in the modernization of Iran.

On the other hand, the Iranian political system is trying to become a member of the United Nations. In this regard, efforts are being made to move towards democracy based on reason and thinking, after countless instabilities and successive changes in the past decades, to maintain peace and tranquility. The government also intends to be more in touch with other countries to develop and progress in foreign relations.

Another policy that is being talked about in the country these days is creating national unity. In this regard, Parviz Khanlari has made suggestions to eliminate these differences, which are: "Holding congresses with the participation of different countries to acquaint thinkers and their

relationship with each other, communication of cultural delegations with other countries to get acquainted with each other's thoughts, customs and intellectual works and establishment of cultural relations associations for the exchange of books and the press" (Khanlari, Sokhan, Third period, No. 8 and 9; 524). Khanlari believes that these measures significantly impact the development and evolution of culture and bring substantial benefits. The causes of these developments are primarily affected by the internal needs of society and secondly by the modernist ideas and currents of thought of the new generation that emerged in the first Pahlavi period. Modernist theorists believed that Third World societies, which they interpreted as traditional societies, would inevitably have to begin the process of modernization in the direction taken by the West. It was stated that: "creating fundamental changes in the cultural foundations and existing values of society and creating a kind of cultural transformation that can lead to the creation of modern man, was a priority" (Fawzi, 2000; 5). Accordingly, new ideas and studies and recent research by the country's intellectuals are expanding, the significant effects of which can be seen in the coming years.

The field of culture and art, especially the visual arts, was one of the most dynamic fields affected by modernity in Iran. In the meantime, painting can be considered one of the pioneers of modernity in Iranian culture, which was developed by the support of the government structure and publications such as Sukhan Magazine and accelerated advancement in this field. During these years, in addition to exhibitions organized by the government and associations, gallery owners also supported new paintings by holding numerous painting exhibitions and introducing young painters, domestic and abroad. "With the expansion of the field of activity of modern painters, the attention of government institutions was drawn to the current of contemporary painting. Especially by honoring the artists' works in cultural associations, government institutions found this artistic movement as a suitable platform for the introduction of national art and, at the same time, modernization (Hosseini Rad, 2011: 6).

"Undoubtedly, holding biennials played an effective role in the development of painting and sculpture and the introduction of works by Iranian artists" (Pakbaz, 1999: 893). The role of cultural associations created by Iranian intellectuals and the embassies of other countries in Tehran to support modernization policies should not be underestimated because these associations are places where young painters can easily display their new works away from the opposition. Introducing artists and collecting and preserving works of art, arranging and determining and allocating annual prizes for art disciplines, organizing art exhibitions, and organizing yearly congresses to discuss art are among the goals of these associations. We see these supports and effects in the writings of the magazine's artists. As mentioned, through connections with other countries, it became possible for painters to participate in foreign exhibitions and achieve significant success, which has been reflected even in foreign magazines. In the meantime, Sukhan Magazine reported all these efforts supported to the audiences and appreciates them. Young painters in other countries and exhibitions abroad and foreign painters who have participated in domestic exhibitions are also supported by the magazine. The analysis of their exhibitions for the audience is done accurately. In total, seven painting articles published by the magazine are dedicated to domestic exhibitions, while 36 domestic exhibitions by artists have been held in various galleries and associations. Also, seven foreign exhibitions have been saved by foreign artists in the country. Domestic exhibitions have been a slow and gradual process since the beginning of the publication. In the following periods, this trend has increased along with the publication of foreign exhibitions. Also, the process of publishing domestic and foreign articles in different periods is shown.

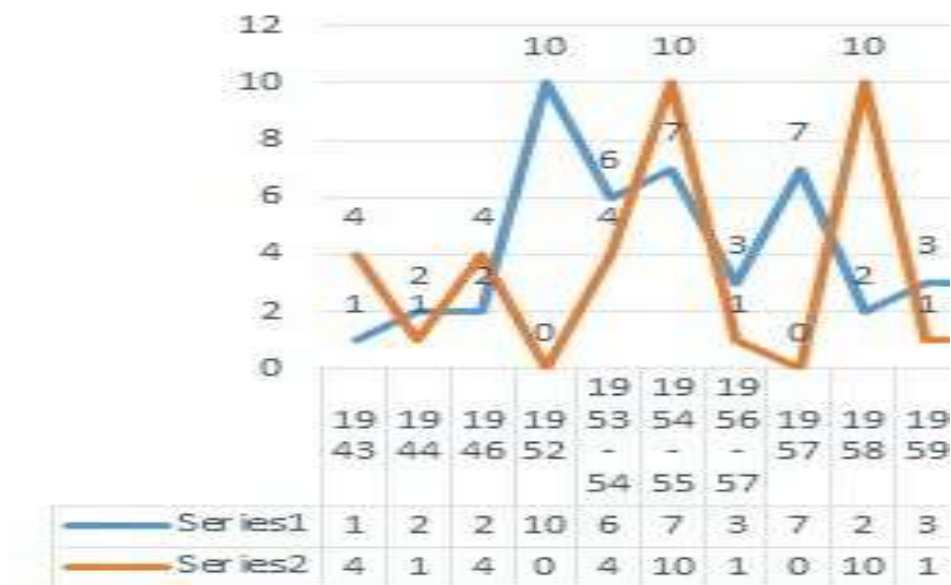


Fig 2 The process of domestic and foreign articles from 1943 to 1959.

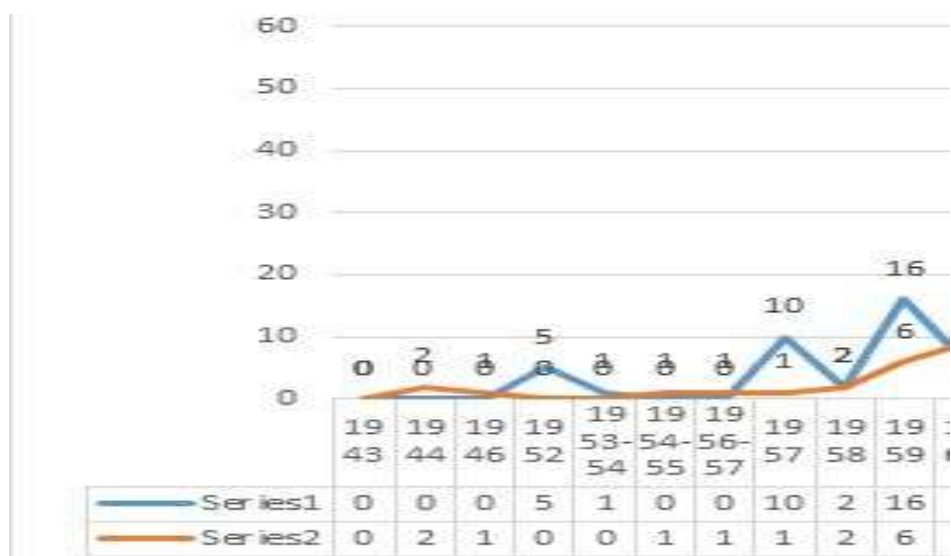


Fig 3 The process of holding domestic and foreign exhibitions from 1943 to 1959

Parallel to policies for the support of new arts in the cultural structure of Iran, after holding the exhibitions and considering them, it was time to open the "Biennials" by the Department of Fine Arts. This is done every two years to be an important opportunity for young painters to present their work to the public and judges, and, on the other hand, for painters to be able to keep pace with the progress of world art. The position of Sukhan Magazine in the face of such an event from the previous decade is clear. As in several articles, including the article of the Iranian Fine Arts

Exhibition in the first volume of the third period by Reza Jorjani, he wanted to allocate a specific place for the display of works of art by modern artists; In other articles, such as the article about "Biennials" exhibition of paintings and sculptures in the White House by Ehsan Yarshater in the first volume of the ninth period, he wanted the promotion and development of visual arts and painting. He considered the way of progress in the field of culture and art. "Undoubtedly, with the transformation that the implementation of this goal brings, these national arts can be recognized with their special importance and value and keep pace with the progress of the world in the field of art today" (Sukhan, Seventh Year, 1957: 8). Foreign judges are also used in these biennials, and this shows the closeness of the styles and methods of domestic artists with foreign works. Sukhan Magazine's position on this important event in visual arts, especially painting, is supportive, and it aligns this with its policies and goals. Of course, the formation of such events and currents can be considered the result of the previous efforts of the magazine. Finally, the first Tehran Biennial was opened in 1958 in an ample exhibition space that displayed a range of various experimental approaches (Kashmir Shekan; 2017: 78) Ehsan Yarshater, as a critic and reporter of this biennial, has analyzed and interpreted it. At the end of the exhibition, Yarshater stated: "The Biennial Exhibition is, above all, the herald of the good news that new painting in Iran has passed its primitive period and is a movement that has attracted many talented and lively talents. What should be wished is that the new Iranian painters and sculptors do not lose their strength in their glorious endeavors and that their motivators continue to increase their support" (Yarshater, 1958: 83).

The alignment of Sukhan Magazine's policies with the process of modernizing, promoting, and developing had drawn criticism from various groups and strata; the magazine's approach and response to these criticisms are as straightforward as before within the framework of the goals that were set, "If no ethnic group interferes in our internal affairs if we remain in the same manner that we have behaved in the last thirty or forty years if we do not enter the path of civilization and progress, and if the country is not liberated, the danger of extinction is hovering over our heads." (Sukhan, Minavi, 1954: 819). By efforts of the Office of International Relations and Publications of Fine Arts of the country, biennials are held to support the flow of new paintings. The proposal to establish a "National Education Organization" under the leadership of the Shah to promote education and raise the level of national knowledge and research to modernize the social method and support it is reflected in the magazine, in 1958, in an article entitled: "Our responsibility in educating youth" by Mahmoud Sanaei. Holding biennials giving awards and art scholarships, and providing the possibility of communication with international art associations for artists to participate in exhibitions was on the agenda of this foundation. During these years, the magazine has always dedicated a part of its pages to introducing the favorite and intellectual works of different world nations. These popular Western articles and paintings are beneficial for those who are more or less dealing with painting and are not unfamiliar with the changes in painting style. During this period, the authors have published numerous articles that deal with both foreign artists and their style and domestic art and artists. These articles have found their fans among the people, and the authors respond to this support according to their interests and expectations. All the activities and approaches of the magazine and writers in this decade, according to the titles of the articles published in the mentioned periods and also according to the developments after the coup d'etat of August 28, 1953, are connected to the modernization policies of the government. At the forefront of these policies is a move toward modern and progressive society.

6. Conclusion

It seems that Sukhan Magazine has a special place in the modernization process in Iranian culture and art from 1943 to 1975. From the very beginning, Sukhan Monthly Magazine introduces itself as a promoter of new ideas and new methods in literature and art. It is considered by a group of science and art enthusiasts. One of the aspects and results of this research indicate the alignment of the paintings of Sukhan Monthly Magazine with the current of a modern painting of the Second Pahlavi period from 1943 to 1975 and even the influence of these articles on that trend. Thus, based on the central question of this research, Sukhan Monthly Magazine, in this period, like many other magazines, according to the prevailing political and cultural currents, has not been separated from the changes and developments of the society and, in addition, has accompanied the modernization policies of the community. In the first part of this article, it became clear that the painting articles of Sukhan Monthly Magazine, with a conscious approach and a predetermined policy, had become a respondent to one of the needs of Iranian society despite many criticisms and objections, that took a current position in publishing painting articles and supporting exhibitions of modern artists, art circles and providing suitable hospitality for raising a generation of young contemporary artists. The lack of art publications at that time and the extent of the media's influence is itself an essential reason for this claim. Sukhan Monthly Magazine left a lasting impact in promoting and supporting modern Iranian painting and gained significant achievements for young painters by providing the opportunity for discussions between artists and critics, reflecting domestic and foreign art events, publishing critiques before and after each art event. In general, by examining the subject and content of the articles and their adaptation to the socio-political and economic situation, as well as according to the obtained statistics, it was clear that every time that will be passed of the magazine's publication and activity, its approach, and trend in introducing and supporting the modernist painting flow and also, existing modernization policies and its promotion in society have been growing. The development of the policy of modernity in the field of visual arts, especially painting, is connected to the planning and goals of the magazine in the first decade of its activity. Considering the type of materials and articles published in the magazine in the first decade, it seems that the developments in the field of visual arts, especially the holding of events such as the Tehran Painting Biennial, have not been unaffected by the magazine's performance. Undoubtedly, due to the pioneering role of this publication in the field of visual arts and painting and articles published in the social conditions of those years, an extraordinary scope of influence can be considered for it.

References

- Abrahamian, E. (1983). *Iran between two revolutions*. Published by Princeton University Press.
- Avery, P. (2008). *The Cambridge history of Iran*. Volume 7, From Nadir Shah to the Islamic Republic, Cambridge University Press.
- Del Zandeh, S. (2017). *Iranian artistic visual developments*. Nazar Publication, Second Edition, Tehran.
- Fawzi, Y. (2000). Religious Leaders and Modernization in Iran in the Second Pahlavi Period. *Matin research journal*, (9), Tehran.
- Kashmir Shekan, H. (2017). *Research in Contemporary Iranian Art*. Nazar Publication, Tehran.
- Khalili, M. (2006). Modern Iranian Art Movement. *Journal of Visual Arts Studies*, (26), Tehran.
- Minavi, M. (1955). Danger announcement. *Sukhan Magazine*, (11), 813-819, Tehran.

- Natel Khanlari, P. (1943-1959). *Sukhan magazine*. First to Tenth Periods, Tehran.[†]
- Natel Khanlari, P. (1947). Freedom of art. *Sukhan Magazine*, (4), 241-244, Tehran.
- Natel Khanlari, P. (1948). Common culture. *Sukhan Magazine*, (3), 521-526, Tehran.
- Pakbaz, R. (1999). *Iranian painting from ancient times to the present day*. Zarrin and Simin Publications, Seventh Edition, Tehran.
- Pakbaz, R., & Emdadian, Y. (2003). *Pioneers of Modern Iranian Art*. Museum Publication, Contemporary arts and the development of the visual arts, Tehran.
- Qaedi, M. R., & Golshani, A. (2016). *Content analysis method from quantitative to qualitative*. (23), Tehran.
- Yar Shater, E. (1956). Is it possible to enjoy a new painting? *Sukhan Magazine*, (6-7), 1052-7106, Tehran.
- Yar Shater, E. (1959). Biennial exhibition painting and sculpture in the White House. *Sukhan Magazine*, (1), 82-84, Tehran.

[†] . The author is referring here to the critique of modernist painting by the proponents of representative painting, and especially by the followers of the Kamal al- Mulk School because the criterion of similarity has been one of the basic criteria in painting.

Design of Protective Fabric Masks and Gloves based on Lufthansa Airline Logo

Akram Shahbeigh Hassanabadi^a, Salar Zohoori^{a*}, Abolfazl Davodiroknabadi^a,
Mehrnoosh Sakenyandehkordi^a

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

Received 06 May 2021; revised 06 June 2021; accepted 08 August 2021

Research Article

Abstract

The present study investigated the effects and protective role of masks and gloves as part of the design of job uniforms to prevent the occurrence and spread of Covid-19 virus using the antibacterial properties of raw cotton samples made of nanomaterials. Since there was no research on the specific fashion of job clothing design and mode for masks and gloves, this research is innovative in this domain. In conducting this research, both quantitative and qualitative methods were used for data collection. The experiments and the method of their analysis were quantitative and special designs were completed for the mask and gloves, which were presented in a qualitative method. In this thesis, the antimicrobial productivity of cotton samples in reducing a common species of Gram-positive *Staphylococcus aureus*, the source of eye, skin, bone, and joint infections, was investigated. The results of antibacterial activity of raw cotton samples supplemented with nanomaterials indicated that the raw fabrics have no microbial properties and in the treated samples the percentage of bacterial reduction for gram-positive bacteria *Staphylococcus aureus* was calculated to be 97.1%. Finally, the research findings showed that the design and production of protective fabric face masks and gloves suitable for jobs with this method can bring about a drastic change in the clothing industry.

Keywords: Uniform Design; Glove; Mask; Fashion; Lufthansa

1. Introduction

Textile and clothing design is a branch of applied arts and is based on artistic taste, creativity and scientific experiences. Beauty is the first feature that is used in this art and refers to the effort that

* Corresponding author. Tel: +98-9173067942.

E-mail address: s_textile@yahoo.com

originates from the human mind of the artist based on phenomena and sensible affairs and is manifested in the form of abstract art. Costume design is an applied art discipline that has always been influenced by artistic flows throughout its history and is not considered separate from them, and its division is based on the amount of importance a person gives to clothing and its artistic aspects. Much research has been done on the design of fabrics and clothing, and a small part of that is associated with the design of masks and gloves for jobs. Since gloves and masks are considered applicable and essential accessories in the domain of health, it is better to include the beauty of the fashion world in it, and in addition to their comfort and beauty, it is necessary to protect us against viruses and infectious diseases. To this end, the design of masks and gloves protected with nano-materials and their relationship with job clothing investigated.

2. Literature Review

2.1. Mask

If we want to have a comprehensive definition of the mask, we can refer to its definition in “Farhang Farsi Emrouz (Persian to Persian Dictionary)”, which describes the mask as a "shield, mask, face mask, and a device that covers the mouth and nose to help breathing and/or preventing respiratory tract from infection (Gholam Hossein Sadri Afshar, Hakami and Hakami, 1994).

John L. Spooner (1967) believed that it was difficult to determine exactly when face masks were first used to help control surgical sepsis. In 1897 Johann von Mikulicz Radecki' described a surgical mask composed of one layer of gauze. That same year Fluegge' demonstrated that ordinary conversation could disseminate bacteria-laden droplets from the nose and mouth, substantiating the need for an effective face mask (Auron Magazine, 1967).

In an interview with the New York Times, Christos Lynteris, a medical anthropologist at the University of St Andrews in Scotland, described the face mask as a sign of something that "communicates while concealing." A sign that can be a symbol of unity in protests, an integral part of the fashion and clothing industry in some parts of the world, and a symbol of coping and prevention of disease in times of epidemic (Snooper, 1967).

Surgical mask, also known as medical mask or simple face mask, which is often used by treatment staff, is designed and used to prevent bacteria from escaping and dropping or airborne particulates from their mouth and nose. These masks are not designed to protect the wearer from inhaling airborne bacteria or virus particles, and in proportion to masks such as N95 or FFP made of solid materials and layers which have better protecting layers, they have less protection (Dental Industries, 2016).

Surgical masks are designed depending on the situation of their use. Masks are usually made in three layers. This ternary material is made of a molten material within non-woven fabric. The molten material acts as a filter that prevents germs from entering and leaving the mask. Most surgical masks are wrinkled. Three piles are used so that the user can extend the mask to cover the area from the nose to the chin (Free encyclopedia Wikipedia, 2020).

Since the 1960s, the gradual replacement of medical disposable masks with reusable masks has been renovated by consumer culture. What Life magazine enthusiastically called "discarded life" in 1955 (History of Medical Masks and the Rise of Disposable Culture, Elsevier, 2020).

The first recorded use of a cloth face mask was made by a French surgeon named Paul Burger during an operation in 1897 in Paris. In the early twentieth century, masks were used to protect against infectious diseases. At the time of the outbreak of plague, Wu Lin Tee designed a mask that protected users from bacteria in experimental experiments. This mask was inspired by the 1918 flu

masks. In the 1940s, face masks made of cheesecloth were used to protect nurses from tuberculosis. Cloth masks were made from non-woven fabric in the 1960s, known as surgical masks, and were used during the SARS outbreak in West Africa during the Ebola epidemic in Asia. In addition, a linen mask is a mask made of common textiles, usually cotton, which is worn over the mouth and nose. When more effective masks are not available and when physical distance is impossible, cloth face masks are recommended by public health organizations for "source control" disease in epidemic conditions to protect others from virus drops in the breath, cough and sneeze of infected mask wearers. Since they are less effective than surgical masks, they are not considered personal protective equipment by public health organizations. They are used by the general public at home and in the community as protection against both infectious diseases and airborne particulate pollution (Free encyclopedia Wikipedia, April 4, (2020)).

The fabrics used to make the mask are made of different materials and determine their degree of permeability to the spread of viruses (Wikipedia, the free encyclopedia 10 October 2020).

The first prototype of the N95 mask was inspired by a woman named "Sarah Little Trenball" whose model of medical mask was designed from her previous design of a cup bra. The N95 mask was finalized in 1972 (Abdelfatah and Arablouei, 2020).

The N95 mask is not perfect and most of them are not designed to provide a complete air insulation on the face of children or people with facial hair. If air insulation is not provided, the function of the mask will not be as it is said. In addition, there are types of N95 masks that are worn in high-risk areas and do not have an exhaust air outlet valve, consequently wearing them warms the space inside the mask (N95 Mask History Source: Nano Pak, 27 April).

Dr. Anne Macintosh in her article "the history of face masks" expressed that, generally speaking, face masks have several terms: medical mask, surgical mask, operation mask. The purpose of the mask is to prevent any bacteria or viruses' particles from healthcare providers getting to the patients. That is, masks were designed to protect the patients, not the healthcare providers. Today, there are different levels of mask protection, depending on the specific needs. Mask use has also expanded outside of the medical and dental arena... the general population uses masks, too. Basically, medical masks were being developed before antibiotics had widespread use; the goal was to prevent pathogens from healthcare providers getting to their patients. That is, masks were designed to protect the patients, not the healthcare providers (Dr. Anne McIntosh, 2019).

The earliest recorded face mask-like objects in history date to the 6th century BC. Some images of people wearing cloth over their mouths were found on the doors of Persian tombs. In China, a kind of scarf woven with silk and gold threads from the Yuan Dynasty (1279-1368) is believed to be the earliest item in China that is similar to today's face mask. According to the record of The Travels of Marco Polo, the 13th-century travelogue of the famous Italian who once traveled in China in Yuan Dynasty (1279-1368), servants who served the emperor during meals needed to wear silk scarves to cover their mouths and noses. It was believed that the silk scarves would keep the servants' breath from impacting the smell and taste of the food. In the 14th century, the Black Death spread to Europe. This also greatly promoted the emergence of functional face mask-like objects. In the 16th century, French doctor Charles de Lorme invented the beak mask. He installed glass in the eye sockets to ensure visibility, and perfume, scented spices or medicines including mint leaves, camphor could be placed in the beak section to filter out disease (Global Times, 2020).

2.2. New Design

With several outbreaks of infectious diseases and flu, and the rise of smog from modern industry, the materials in masks have continued to evolve to better filter viruses and pollution. In addition to

the SARS epidemic in 2003, the last large-scale use of masks in China was due to smog in 2012. That year, the term "PM2.5" began to enter public awareness, and mask models such as N95 and KN90, which can filter out this fine particulate matter, became highly popular. The 3M mask is short for Minnesota Mining and Manufacturing Co, the company which has produced these masks since 1967. Interestingly, the idea of 3M came from women's disposable bras. An employee proposed the inspiration that a disposable mask could protect workers' noses and lungs in harsh operating environments such as mining and smelting (Global Times, 2020).

2.3. Effectiveness

Cloth masks have been used in healthcare and community settings to protect the wearer from respiratory infections. The use of cloth masks during the coronavirus disease (COVID-19) pandemic is under debate. The filtration effectiveness of cloth masks is generally lower than that of medical masks and respirators; however, cloth masks may provide some protection if well designed and used correctly. Multilayer cloth masks, designed to fit around the face and made of water-resistant fabric with a high number of threads and finer weave, may provide reasonable protection. Until a cloth mask design is proven to be equally effective as a medical or N95 mask, wearing cloth masks should not be mandated for healthcare workers. In community settings, however, cloth masks may be used to prevent community spread of infections by sick or asymptotically infected persons, and the public should be educated about their correct use (Chaughtai, 2020).

2.4. Glove

A glove is a piece of clothing that covers a hand. The use of gloves refers to an ancient history and there are many different uses of gloves. Gloves are made of many different fabrics and materials used in many ways.

Also, in "Farhang Farsi Emrouz (Persian to Persian Dictionary)", gloves are considered to be a cover of a flexible material (knitted, leather, rubber, plastic) to cover the hands (Gholam Hossein Sadri Afshar, Hakami and Hakami, 1994).

2.5. Glove History

Gloves appear to be of great antiquity. According to some translations of Homer's *The Odyssey*, Laërtes is described as wearing gloves while walking in his garden so as to avoid the brambles. Other translations, however, insist that Laertes pulled his long sleeves over his hands. There are occasional references to the use of gloves among the Romans as well. What writers have written of Pliny the Younger says that his uncle's shorthand writer wore gloves in winter so as not to impede the elder Pliny's work (Glove, 2020).

In the 17th century, gloves made of soft chicken skin became fashionable. The craze for gloves called "limericks" took hold. This particular fad was the product of a manufacturer in Limerick, Ireland, who fashioned the gloves from the skin of unborn calves (Glove, 2020).

When short sleeves came into fashion in the 1700s, women began to wear long gloves, reaching halfway up the forearm. By the 1870s, buttoned kid, silk, or velvet gloves were worn with evening or dinner dress, and long suede gloves were worn during the day and when having tea (Fashion Editor, 2020).

Medical gloves are disposable gloves used during medical examinations and procedures to help prevent cross-contamination between caregivers and patients. Medical gloves are made of different polymers including latex, nitrile rubber, polyvinyl chloride and neoprene (Medical Glove, 2020).

2.6. Titanium Dioxide

Titanium dioxide (Fig 1) for many years in the production of a wide range of industrial and consumer goods including paints, coatings, adhesives, paper and cardboard, plastics and rubber, printing inks, coated fabrics and textiles is used in the textile industry as well as in the production of synthetic fibers (Vitrinnet, 2020).

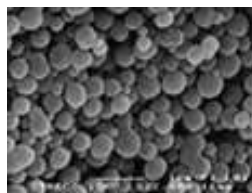


Fig 1 Titanium Dioxide

2.7. Applications of Nano-Dioxide Titanium

Textile dyes and industrial dye agents contain large groups of organic compounds that increase environmental hazards and pollution. Due to the presence of large current aromatics in dye molecules and the stability of modern dyes, conventional biological operating methods to degrade and decolorize them are ineffective. However, traditional physical methods such as adsorption of activated carbon, ultrafiltration, reverse osmosis, coagulation with chemical agents, ion exchange change in the kinetics of the adsorbent resin, take only the organic compounds of water to another phase. In recent years, due to the interesting photocatalytic properties of titanium dioxide crystals, much research has been reported. The commercial use of nano-TiO₂ as a photocatalyst is widespread in areas such as a) water treatment b) air purification c) sterilization or disinfection (Ghiasi, 2021). In many works, the deposition of TiO₂ on surfaces with high heat resistance such as glass and silica by sol-gel method has been reported. Temperatures above 500 °C produce a film or anatase group or anatase /rutile on the silica surface. Recently, many studies have been reported on the nucleation of anatase at relatively low temperatures, including

1. Covering the substrates by sol-gel method exposed to boiling water.
2. Sol-gel method exposed to water vapor at a temperature of 100 °C.
3. At 60 -180° C temperature by SiO₂ / TiO₂ films exposed to water vapor.
4. Anatase nanocrystals are recently produced by TTIP Salt alcohol solution at low temperature with sol-gel process with dimensions of 20 nm on cotton fabric.
5. Bleaching and mercerization of cotton textiles activated with RF and MW plasma with ultraviolet light. (Applications of Nanotechnology, 2014, Comprehensive Nanotechnology Education System)

The most important substance used in this study to improve the properties of antibacterial fabric is the use of Zinc Titanate.

3. Research Method

The research method in this article is a descriptive experimental design. The study of fabric masks and gloves and the possibility of designing and producing such fabrics is done by using special materials on the way to improve its properties. These specific fabrics can greatly help the appropriateness and effectiveness of masks and gloves designed for a particular job. Hence, in the data analysis method, first the data is collected and then the evidence is analyzed. Necessary

information in the field of theoretical and artistic topics gathered through different research methods. Accordingly, in the continuum of the research process, materials and their application in the design of antibacterial masks and gloves corresponding to jobs examined.

3.1. Materials and Commodities

In this project, a cotton fabric with the specifications recorded in Table 1 was used. Also, in the process of completion, Titanium Zinc nanoparticles with the specifications listed in Table 2 were exploited. Completion process implemented as a batch pad.

Table 1 Characteristics of the fabrics used

Texture Type	Fabric Material	Fabric Weight (g/m ²)	Warp Density (1/cm)	Woof Density (1/cm)
Taffeta	Cotton 100%	100	22	14

Table 2 Material Used

Cl. No.	Chemical Formula	Material Type
634409	ZnTiO ₃	Zinc Titanium

3.2. The Preparation of Sample Fabric

To prepare a sample of cotton fabric with Titanium Zinc particles, the material was used and examined on cotton fabric by batch pad method and then its original sample was developed. After the stabilization, the mentioned fabric was used as an effective agent in preventing the formation and growth of bacteria in expected masks and gloves.

3.3. Fabric Antibacterial Test Results

The spread of various diseases caused by pathogenic bacteria and their resistance to antibiotics has forced researchers to study healthy and safe methods to make products suitable for human well-being. With the advent of nanotechnology in the present century, nanomaterials such as silver, gold, zinc, copper and titanium dioxide are used as antimicrobial agents. In this paper, the antimicrobial efficacy of cotton samples in reducing a common species of Gram-positive *Staphylococcus aureus*, which is the source of eye, skin, bone and joint infections, investigated. The results of antibacterial activity of raw cotton samples supplemented with nanomaterials indicated that raw fabrics have no microbial properties and in the treated samples the percentage of bacterial reduction for Gram-positive *Staphylococcus Aureus* was calculated to be 97.1%. Consequently, the use of these specific nanomaterials facilitates the decomposition of bacteria.

4. Analysis

The utilization of masks and gloves is one of the preventive actions that can prevent the expansion and spread of some viral diseases, including Covid-19. Hence, at the present time, most of the people of the world with the outbreak of Corona virus have resorted to the use of masks and sanitary gloves. In this continuum, the design of the masks and gloves was considered in a manner that covers all aspects including beauty, comfort, health, proper and unique structure. To design the masks and gloves mentioned in this research, the crane bird, which is the symbol of Lufthansa

Airline Company logo (Fig 2), was used. Therefore, some of the black pen sketches of masks and gloves decorated with the logo was designed.



Fig 2 Logo of Lufthansa Airlines Company

Crane birds are large birds with long wings and long, thick beaks. The idea was taken from this bird in the mentioned designs and the colors used in these projects were inspired from the organizational color and the color of the company's uniforms, which include yellow, navy blue, and white. In describing these colors, it should be said that the use of yellow attracts attention and is the first color that is visible and eye-catching. In addition, this color causes happiness and better perception. Another color used in the logo structure is navy blue, which evokes a sense of calm and symbolizes peace, security and discipline. Navy blue is also a symbol of power, and the people who use it are trustworthy. The colors used in these designs include navy blue and yellow and by combining these colors, a sense of passion, peace and trust is simultaneously created in the person. By combining these colors, a strong amalgamation of colors is obtained and it induces more power. The predominant color used in the design of the gloves is white. This color has some characteristics such as light-heartedness, purity, lucidity, lightness and simplicity. Human beings see white as a bright color that evokes clarity and cleanliness. The combination of navy blue and white can create light blue colors that are often motionless and relaxing. Additionally, glossy blue colors are energizing and refreshing. White is widely used in fashion because it is a soft and neutral color and fits all colors. Moreover, white reflect all colors, indicating an influx of energy from all spectrums into the eyes. The combination of yellow and blue shades with white creates a peaceful beauty in the viewer (Leatrice Eiseman, 2000).

The design arrangements organized with regard to cover the basic design features, dimensions and flexible details, and job-related requirements and needs. The form of the human face contains important details that are necessary to maintain and establish a precise relationship between the design and external perspective of the mask and the shape and fitness of the face. Another noteworthy point in the project is the idea of creating symmetry in the structural composition of the designs, because the human body has symmetrical structures. Accordingly, in this regard, the symmetry of the applied fashion exhibitions has been considered in such a way that is visually pleasing and physically has a visual balance and symmetry.

After considering all aspects of appearance, color, structure composition and design, computer imagery of masks and gloves was ultimately implemented (Fig 3 and 4).



Fig 3 Final designed masks



Fig 4 Final designed gloves

Towards the end, along with designing a set of masks and gloves for Lufthansa Airline Company employees, the researchers had a special look at the customer orientation in their activities. Consequently, two masks were designed for young girls and boys (Fig 5). In the boys' logo design, the tip of the crane bird was placed on the nose and its tail was drawn linearly down the horizon and diagonally. Furthermore, the wings of the crane bird extend to the forehead with a curved line. The two wings were connected to each other on both sides of the face using a shield. With this design, the investigators wanted to encourage children to use a mask, and when boys wore this mask, they would feel like superheroes. The girls' mask was simply designed and the Lufthansa Airline Company logo was designed on the top edge of the shield. In addition, for the convenience of the mask usage, two clips decorated with a logo design that were fixed to the mask straps and were attached on both sides of the head. When young girls used this kind of mask, it did not hurt their

ears and were encouraged to wear it for comfort and beauty. The presence of two crane birds at the top of the shield could induce the existence of a crown on the head and the feeling of being a princess.



Fig 5 Designed Masks for Young Girls and Boys

5. Discussion and Results

In this investigation, we intend to clearly review the project based upon the questions raised and the main objectives of the research. At the beginning of the research, we were challenged with two basic questions, which are enlightened below.

- How we are able to design a mask and/or glove that protect us against contamination?
- How can masks and gloves be considered as part of clothing design?

In answering to the first question, it should be stated that personal protecting equipment plays an important role in averting contamination. Masks and gloves are part of these devices and are considered as primary protective barriers. They can protect a person from the spread of various diseases by pathogenic bacteria. However different methods can be used so that these devices protect a person from viruses and chronic diseases in well-thought-out ways. One of these methods is the use of nanotechnology in the present time of life. For this reason, nanomaterials such as silver, gold, zinc, copper, and titanium dioxide, which are known as antimicrobial agents and correspondingly used in this study, can be used. With the help of some of these nanomaterials, it is possible to produce a fabric that considerably helps people prevent the spread and growth of dangerous viruses, and finally design masks and gloves that provide the needed protection against contamination.

The answer to the second question can begin with this statement that with the outbreak of the Covid-19 virus, the production of masks and gloves has increased at an incredible rate, and the fashion industry has not lagged behind and has come in the field quickly to make a profit. Manufacturers are looking for masks and gloves that will attract many customers in terms of aesthetics and efficiency. Since hygienic gloves and masks and fabrics are an inseparable part of our clothes these days, fashion designers have come up with interesting and new ideas to make eye-catching and valuable achievements in this artistic field, namely the fashion industry. Accordingly, gloves and masks have become part of everyday clothing and, of course, have opened their way in the fashion and clothing industry.

6. Conclusion

The purpose of this study was to investigate and design a mask and/or glove as an essential cover with the intention of preventing infection and protecting people, especially in specific occupations, against disease transmission. In addition to efficiency of the cited equipment, other important

aspects such as innovation, ornamentation, beauty and attention-grabbing were considered for the designing of stated protective covers. Another important factor that was considered in this study was the antimicrobial properties of the fabric that should be used in the production of masks and gloves. Based on laboratory studies, significant results were obtained with nanomaterials that had antimicrobial properties. The results of antibacterial activity of raw cotton samples supplemented with nanomaterials showed that the raw tested fabrics had no microbial properties and in the verified samples, the percentage of bacterial reduction for Gram-Positive *Staphylococcus Aureus* was 97.1%. As a result, the findings showed that the use of nanomaterials can facilitate the decomposition of bacteria. The design of protective masks and gloves suitable for job clothing industry can be integrated with modern technologies such as nanotechnology developments and fashion. A review of some of the gathered information on this subject acknowledged that cloth masks and gloves could not be a suitable alternative to personal protective equipment against infectious and bacterial diseases. However, the present study provided reliable justifications for rejecting that claim.

References

- Abdelfatah, R., & Arablouei, R. (2020, May 21). How One Woman Inspired The Design For The N95 Mask. Retrieved from npr: <https://www.npr.org/2020/05/21/859991324/how-one-woman-inspired-the-design-for-the-n95-mask>
- Behpour, M. (2013, February 6). Special applications of titanium dioxide nanoparticles. Retrieved from Nano: https://nano.ir/index.php?ctrl=paper&actn=paper_view&id=3108&lang=1
- Chughtai, A. A. (2020). Effectiveness of Cloth Masks for Protection Against Severe Acute Respiratory Syndrome Coronavirus 2. *Emerging Infectious Diseases*, 1-5. doi:<https://dx.doi.org/10.3201/eid2610.200948>
- Cloth face mask. (2020, October 10). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Cloth_face_mask
- Comprehensive Nanotechnology Education System. (2014). Retrieved from Applications of titanium dioxide nano: <http://edu.nano.ir/paper/499>
- Editor, F. (Ed.). (2020, September 3). History of Gloves in Fashion and Society. Retrieved from Fashion in Time: <https://www.fashionintime.org/history-gloves-significance>
- Eiseman, L. (2000). *Pantone Guide to Communicating with Color*. How Books.
- Glove. (2020, October 14). Retrieved from Wikipedia: <https://en.wikipedia.org/wiki/Glove>
- Ghiasi Yeganeh, Davodiroknabadi Abolfazl, Zohoori Salar (2021) *Bull. Mater. Sc.*, <https://doi.org/10.1007/s12034-021-02406-5>Sadhana(0123456789()).
- History of the origin of the mask N95. (2020, April 27). Retrieved from Mask Nano Pak: <https://masknano.com>
- Mcintosh, A. (2019, April 26). History of the Facemask. Retrieved from LinkedIn: <https://www.linkedin.com/pulse/history-facemask-dr-anne-mcintosh>
- Medical glove. (2020, April 27). Retrieved from Wikipedia: https://en.wikipedia.org/wiki/Medical_glove
- Nasaji. (2020). Retrieved from Application of nanotechnology in textile materials: <https://nasaji.com>
- Sadri Afshar, G. H. (1994). *Farsi Emrouz*. Tehran: Nashre Kalameh.
- Spooner, J. L. (1967 , January). History of Surgical Face Masks. *AORN Journal*. doi:[https://doi.org/10.1016/S0001-2092\(08\)71359-0](https://doi.org/10.1016/S0001-2092(08)71359-0)
- Strasser, B. J., & Schlich, T. (2020). A history of the medical mask and the rise of throwaway culture. *Elsevier*, 1. doi:10.1016/S0140-6736(20)31207-1

The evolution of face masks. (2020, February 12). Retrieved from Global Times:
<https://www.globaltimes.cn/content/1179358.shtml>
Vitrinnet. (2020). Retrieved from Application of titanium dioxide: <https://vitrinnet.com/blog/article>