

Hossein Esfahani Aghajani Mural Restoration Practices

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Research Article

Abstract

The present study explores the life and work of Hossein Aqajani-Esfahani with a descriptive and analytical approach. The aim of this study was to review the works and cultural services of an artist, who has a significant position in the field of restoration of the monuments and buildings, and on the other hand, in the domain of academic education, as well as in the domain of management in cultural position, his role is highly considerable. But unfortunately, based on the available resources, no research yet has been conducted about this artist. The approach of the research in the analysis of the works of this artist was based on statistical population, consisted of various works in the field of restoration. The result of the research is that Hussein Aghajani-Esfahani in his restoration projects tried to consider historical authenticity and stylistic features of the works with his extensive knowledge and command of the field of restoration, and in developing this attitude he would have a determining role. Documentation and following the executive authenticity in reconstruction is one of the important points of his works of restoration in various fields.

Keywords: Restoration; Iranian Painting; Mural; Hossein Aghajani-Esfahani

1. Introduction

Murals are a category of historical works, which their aesthetic aspect can be, evaluated as important as equal to their historic value. For this reason, all sciences, related to the field of painting and illustration are involved in it. The sensitivity of the issue finds its most importance, when the historic aspect and irreversible direction of elapsed time over the historical work, impose some constraints over balancing. In fact, achieving an acceptable balance between these two main aspects, always has forced restorers to strive in various branches of science in this field that has led

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to create a new branch called 'Foundations of Restoration of Painting'. In fact, the goal of each balancing method is to achieve a goal that the theoretical foundations define. The principle is to practice theoretical principles, not necessarily everywhere in the world and in all cases, should balancing of the murals have been conducted with just one particular method. With the beginning of the 1960s and for the first time, painting works and decorative motifs in buildings such as Zanjan's Dome of Soltaniyeh and paintings of various palaces and mansions in Isfahan attracted the attention of Italian restoration specialists. Technical and technological studies were conducted on a number of damaged murals and after obtaining an understanding of the technology and the technique used in them according to the laboratory and scientific methods, the mentioned paintings were restored by IsMEO board of experts, based on particular conservation and restoration principles. In places such as Ali Qapu and Chehel Sotoun, there are works in which multiple layers of paint has been painted. Their approach with such a technique resulted in restoration of some of these paintings, and removal of annexed layers from the old painting, but a small number of them have remained as sample proofs and with the same technique. Restoration is an act that defines the relationship between the work and restorer. Restorer is an expert, an artist, who looks deep into history, and more important than that he is a modern and contemporary person. The attraction of love to history, art, and above all the love of human is pulled him toward this profession. He is not an apathetic person and looks at the historical work with knowledge and love, and it is this love that plays as a motivation for him to know and to connect with the work, a relationship which is romantic, wise and artistic. In addition to be a profession, restoration is the self-gratification of soul and is the seeking of God's satisfaction. According to a unanimous intellectual, "restoration is a mission that rather than talent, requires cognition, rather than fertility, requires patience, it needs conscience more than emotion, it requires dignity more than acquirement of benefit, in this domain one should not pursue business, but he should devote himself". Restoration requires humility, selfishness and egoistic attitude is a pest for this profession. The day that restoration is finished and when the intention of restorer is being reflected and colored in it, the work loses its character. Restorer has to act in such a way that his work must express history to and sustain it. His job is to sustain history and bestowing continuation to it. More than anything, restorer is a righteous trustee. The thing that is in his hand is a trust that must be transferred with honesty and integrity to the next generation. This article analyzes the works of one of the most sublime restorers, Hossein Aghajani, who spent many years of his life with the IsMEO board of expert to repair and restore, historic monuments of Isfahan; and then he and his colleagues started to restore other monuments in Isfahan and other cities. In the present research the restoration methods of Hossein Aghajani are evaluated. His education was in the field of Restoration of Historical Monuments. The features of restoration work of Aghajani are in such a way that the restoration of the paintings is mostly done by oil painting technique and tempera on the wall, and the restorations of decorations of the building were done on tiles and plasterworks and mirror works of the historic building. Therefore, here, the activities of Aghajani are evaluated to understand what methods he has used in his works? What are the components of the restoration methods and techniques of murals by Hossein Aghajani? What are the subdivision categories of restored works of Hossein Aghajani?

2. Research Method

In general, scientific research can be divided into two categories of descriptive research and experimental research based on how to obtain the required data (research design). In this paper methods - descriptive case study was used. Descriptive research includes a set of methods that aim to describe the conditions of the conditions or phenomena under study. Conducting descriptive

research can be more about understanding the current situation or helping the decision-making process. Conducting research using a case study method consists of four stages: stating the problem and selecting the "case" (analysis unit), conducting field operations (data collection), organizing data and compiling a report. The researcher's focus in the case study is on a "case". But this unit may consist of multiple events and different people or it may be composed of different processes.

3. Research Background

Based on the available existing sources, the background studies, which were found to this time, are as follows. An article by Hamid Frahmand-Boroujeni, Hossein Ahmadi, and Reyhaneh Qasemabadi (2011) under the title of "A Review on Theorizing of Restoration of Mural in Europe", published in the first volume of 'Restoration of Historical Works and Buildings' magazine, which dedicated to theoretical bases of murals and the method for restoring and retouching them. Aslani, Hessam (1998), conducted research on the principles of conservation and restoration of historical-cultural murals with a special attitude to the mural of Persian Miniatures in Safavid Era, in Isfahan; his supervisor was Rasool Vatan Doost at University of the Arts (Isfahan Campus). In this thesis after briefly stating the basic principles of restoration of murals, he compares the murals of Brankachy chapel with the murals of Qeysarie Gate. Haji Alian Mohammad Ismail (2009), 'Analysis of Fifty Years of Restoration of Safavid Murals of Chehel Sotoun Place in Isfahan', Supervisor doctor Samad Samanian, Isfahan University of Art. In this thesis he analyzes the principles of restoration of murals of Chehel Sotoun Palace in Isfahan, which have been done by Italian restoration board of IsMeo and Iranian restoration groups.

4. Theoretical Foundation

4.1. History of Restoration

In general, in order to present the history of restoration one cannot introduce a starting point, because repair and restore and reconstruct of the works, is a subject that has been existed in different times and different places and other people have used this creativity, in various methods, in order to satisfy their daily needs. This practice is as old as the history of tool-making human; meaning that, when primitive people learned how to make useful tool by materials around them, they naturally forced to learn how to repair worn-out or broken objects. For example, many people were using residential buildings and objects belonged to their ancestors, and certainly in certain conditions, repair was being performed over them. So, one of the primary sources of useful information about primary restoration are the very objects of that time (Mirfakhrai'e, 2008: 5).

4.2. Approach of Painting Restoration

Restoration of monuments and historical buildings is very important for restores. But what is essential in this regard, is paying attention to conserve and maintain the original work. Restorers restore the damaged parts and leave the rest of the work intact. It is in this case that its painter and creator of the work is respected and when the viewer examine the restored work, he/she realizes that to what extent the original painter has created artistically and beautifully his own work, as well as value is given to the restoration work. Since the beginning of restoration, as one can get from old inscriptions, dealing systematically and careful concluding, are among the cases of interest and concerns of all people, who are interested in conserving artistic works (Azadeh Tafreshi, 2016: 112).

Some of the early writers, quite surprisingly have been agreed with modern ideas in this field. (Reconstruction) of surface coloring (painting) or interior of the works, as it is called today, has to be limited to the replacement of the damaged parts without hiding the primary color and improvement of the work without new coloring. Authors have proposed different ways to interpose color. For valuable artistic works, it is desirable that the painting be restructured in such a way that the restored part is not clearly discernible, rather, the restored parts have to be tracked down by close examination. The next method is the method of a different brush stroke in contrast to the surrounding color. (Like hatching and other methods), or placed the filled solution at a lower level of the original. Precise painting with different colors or characteristics from the surrounding environment or leaving these parts in a flat manner and slightly colored, and with same level of color next to it, are among the methods that can be mentioned. Besides preventing further decay and disintegration, the purpose of the correct restoration, is to provide an appropriate and acceptable appearance of an artistic object. So that, it can be studied with intervention of disturbing factors as a complete set. So, the fake reconstruction of the original is not the goal of restoration (Vatandoost et al, 2013: 80).

Damage on the body of a human figure or pale transparent sky in contrast to the dark background that creates less inconvenience to the viewer, can take much longer time on the color and texture or the skill of the painter. The task of the restorer is to restore paintings that are more valuable for its owner as a decoration on the wall or the image of a visage that is valuable due to a reason rather than historical or artistic values. Restoration in the sense of recreation is concluded as repairing without damaging the original. In some cases, which the contemporary works are damaged, especially when the original painter fixes it or supervises its restoration, the same flawless perfection is desired (Hesami, 1998: 44-52).

4.3. Importance of the Conservation of Historical Works

Artistic works and historical monuments are subjected big and small damages over time, which sometimes human has role in that damage or sometimes they are damaged naturally and without human intervention. What is important here is to maintain and conserve these works, because, in such works the age-old culture of a country lies, and its restoration helps to the durability of the art and the civilization of that culture. Clearing is considered as an essential part in the process of preservation and maintenance, and it is the aesthetic factor of the object and increases its lifespan and improves its structure. It also specifies the conditions and the actual situation. In such a way, that with appropriate measures, we can be ensured that it can be preserved for future generations. In the recent years countless critiques have been stated about the traditional methods of cleaning buildings and historical-cultural and artistic objects. Inappropriate application of techniques and technologies carelessly, including cleaning with pressure of air and steam can cause severe damages to the surface. The loss of surface detail and subtleties due to overall cleansing and throughout the surface, can corrupt the strength of the surface and even in some cases, exacerbate the destruction process. Chemical techniques also have problems of their own, and sometimes the leftovers of the chemical materials, after the cleaning process remain on the surface and will reveal its effect in the future, principally they have uncontrollable reaction (Azadeh Tafreshi, 2016: 100-120).

4.4. Features of Reconstruction and Restoration of Murals

One of the most important debates on restoration of historical works, is the restoration of murals that is considered important for restorers, due to the diversity of techniques and methods of coloring, compositions, different artistic styles, adequate knowledge. Because insufficient information on the painting results in incorrect restoration, that in turn results in deterioration of restored work, therefore, the restorer by knowing this information start to restore the historical works especially murals, with precision and delicacy and a pinpointing look. Before 1960s, the performed activities in the field of conservation of the murals in Iran have not been congruent with the modern restoration principles, which have been put forward by the Italian board of experts IsMEO in the years after this decade. Although shedding or chipping the damaged murals and covering them with plaster, by painters, that have been done in different periods and with the aim of restructuring of the painting, is a conservative approach, but it is a method, which is accepted as a reconstruction and renovation method of the paintings, without conserving the originality of the work and in contrast to the type of performance in the early year of scientific and modern restoration. Many examples of murals, especially works in Isfahan, and Shiraz and . . . are observed, which are restored with multiple layers over each other. Works, which were restored by eminent experts such as Mosavor Al-Mollk, Javad Rostam Shirazi and.... At the beginning of the 1960, and for the first time, the paintings and decorative motifs in buildings such as Dome of Soltaniyeh in Zanjan and murals of the palaces in Isfahan and Shiraz attracted the attention of Italian experts of restoration. Technical and technological studies were performed on a number of damaged murals, and after obtaining an understanding of technology and technique used, according to the laboratory and scientific methods, the mentioned murals were restored based on the principles of conservation and restoration, particularly via using scientific methods, by the restoration board of IsMeo; however, the examination of how the conservation and restoration, the methods used and the strengths and weaknesses in the performance of IsMeo board does need another study. Before the presence of the mentioned experts, conservation and restoration of mural had a distinct definition from scientific restoration (Arzhmand and Aminpoor, 2014: 110).

In palaces, like Ali Qapu and Chehel Sotoun, in which there are several layers of paint over each other that underlie many questions. The performative instance of multi-layer murals can be seen in the works of other cities as well, but the presence of Italian restorers in Isfahan and Shiraz and deal with such a technique caused the restoration of a number of these paintings and removal of additional layers on the old painting, in next periods, but a small number remained with that technique as the proof sample. The works that have been done before this decade on the wall paintings by master painter, can be considered as a reconstruction or renovation of the old paintings; thus, the master painter in facing the damaged painting work caused by the passage of time or other erosive factors, with purposes such as maintaining the aesthetic aspect of the work, altering a part of the architectural space or changing the period of the history of the painting, they shed (destruct) the painting or they were chipping them, then in order to reconstruct it, they cover the painting with a layer of plaster. This type of restoration approach has not been based on the principle that emphasizes on the volubility and originality of the work (Vatan Doost, Beheshti, and Neieri, 2013: 71-82).

5. Method and Technique of Iranian Oil Painting with a Red Preparatory Layer in the Works of Hossein Aghajani

The use of oil paint in order to create works of art goes back to ancient times; the ancient Greeks and as well as the Romans were aware of this important method and sometimes a combination of canvas and oil paints was used for paintings. In Iran, and it perhaps can be said in the Middle East and Asia, this method was not used much. Perhaps, the main reason is the consideration of the important factor of climate, which due to dry weather, in most parts of Iran; water color was mostly used (color + water soluble base). In Iran, in most of the works in buildings and mosques, often watercolor techniques were used for creation of artistic paintings, and in order to create big paintings on the wall or murals, this technique was used. In this study, the aim is to find methods, tools, and materials that have had been used in certain period and time of the history of Iran's art (Safavid Era) in creation of painting masterpieces and wall decorations, and this is conducted in this way that with the information that is made available the repairing of these works will be carried out using modern scientific and technical facilities with full knowledge and originality. Carrying out these investigations, one should benefit from the following three options. Evaluating the works and the techniques used to create them through the remaining writings and documents from the intended time period utilizing the experiences and expertise of contemporary masters and skillful traditional experts, close objective examination of works by laboratory studies. One way of proper laboratory study, is the small cuts of paintings (paint layers and its base) and observing it with microscopes. In this way, the fashion of the use of paint and the placement of layers, despite of its small thickness in the paintings can be studied very well. Oil paintings with slightly Iranian style and some signs of Hindi elements, oil paintings in Isfahan of Safavid era were created by a wide variety of different method and techniques, and often painted by Iranian, European, Armenian, and probably Indian painters. These features are as follows: 1. these works regarding, technique, style and size were unique per se and are considered as the largest paintings in Iran under the Safavid era. 2. Paint layers regarding their conservations, are in a pretty good condition. In such a way that after elapsing almost four centuries, the layers of paint have not change physically or chemically. 3. They are among of the first examples of oil painting murals on the real sense, which have been painted by Iranian master of painting. 4. Although, in these painting, the influence of European paintings can be seen, but Iranian masters have proven that after being influenced by European paintings, they have changed it to their wish, and gave it Iranian soul and characteristic (Field studies and researcher interview with Professor Aghajani, 2016).

Preparing the primer layer and the surface according to the usual time, the primer layer was mostly mud and straw and the surface was polished plaster. The first practical work by master painter carried out was canvassing (saturation of the surface of the plaster to be painted, with baked linseed oil, or other diluted vegetable oils or diluted isinglass. After the canvassing the surface of the plaster, in some cases, they were attempting to cover a red paint on the entire of the plaster surface, and this is the same preparatory layer red that is apparent in some of the painted image of Safavid era with other color layers on it (the paintings of ceremonial parties in Chehel Sotoun and etc.), the base of this color is likely as same as the vegetable oil that has already been cooked and prepared, and later the painter attempted to draw a design that has already been studied and then he will complete the painting is completed. Meanwhile, in a design, which was being prepared, first the positions of individuals in painting were set regarding official positions and rank. Preparing the layers in predetermined places attaching gold to ornate clothing and garment makings also were done, that this operation was performed after dropping color of garments and clothes in an oily manner. And finally, portrait makings and the hands and feet were painted and polished, after

completing the details; the painting was abandoned in order to be dried. After relative drying of the paint layer, they were covering the painting with the protective oil layer, which has been previously prepared (Aghajani, 1982: 165-186).

6. Painting Method and Technique on the wall with a Red Preparatory Layer (Enlarged Miniatures) in the Works of Hossein Aghajani

The stages of painting are as follows; wetting the intended wall that usually was made of brick or clay, leveling the surface of the wall with screed of plaster in the corners of the wall, in order to guide and keep the layer of primer in its place and creating a smooth surface. Coating the primer, primers were usually made of straw and mud and sometimes made of plaster that has been covered by hand on the wall. A sample is in the highest floor of Ali Qapu palace (at the level of plaster sometimes they were scratching it by hatchet so it would find a better adhesion) in fresco painting technique (lime base) in Europe, most of the painters were drawing on the primer layer, which was a mix of lime and sand instead of straw and clay, and they were studying the design with the architecture of the intended building that has been known as the preparatory design. The upper layer was mostly made of plaster, which was performed after preparation of the solution of the plaster and after wetting. This layer has been composed of several parts that gradually became softer and tenderer. In such a way that with tools and equipment of plasterwork the scratched layer was completely removed and they easily turn it to the shape and form they wish. And then dividing the body of work in the dimensions of the frame of paintings and lining up the levels until the top layer is still wet. The frames of these paintings are often square or rectangular. As well as, blocking the parts without plaster layer and that was being polished by warm plaster and special trowels. After that the surfaces of wall became completely dry, in order to making a canvas out of it they did cover the surface of the wall with a solution of tragacanth plus sugar or a diluted solution of tragacanth and gum Arabic or too thin animal glue. In carried out tests, it was observed that the use of tragacanth and sugar for canvas was the most popular methods in comparison to the other methods, because tragacanth does not dissolve in water and it is less harmful to the surface of plaster. In some cases, a small amount of red paint was added to canvassing fluid in order to create a red surface. The thickness of this red layer is inconsiderable, and this is this preparatory red layer which can be seen in some mural paintings of Safavid era wall picture, which paint has been covered on it (Field studies and researcher interview with Professor Aghajani, 2016).



Fig 1 Chehel Sotoun Palac, Two Lovers, tempera on plaster, on red preparatory layer, restorer: Hossein Aghajani. (Source: Safavid Era Murals in Isfahan, 2015)



Fig 2 Chehel Sotoun Palac, Rabbit Hunting, tempera on plaster, on red preparatory layer, restorer: Hossein Aghajani. (Source: Safavid Era Murals in Isfahan, 2016)

7. Design Preparation Method for Painting in the works of Hossein Aghajani

A design, which was studied beforehand, was the same size of the intended frame to be draw on, and punched in order to make holes then it was placed on the canvassed surface, the it was copied on the canvas with black powder in thin textile that made the black powder to be sprayed, so the design would become visible in form of black dots on the wall. B. By a very thin black paint, they drew the dotted design. C. The first act of painting in this category of paintings includes the preparation and creation of the preparatory layer of gold and red layering and then attaching gold folio. D. On the surface that its design and its gliding is determined, the colors that have been previously tested and remained perfectly are painted on the desired parts in a body and flat manner, so the flat painted surfaces were created. The material that has been used the base of color was most likely egg yolk or warm gum Arabic with special wax. The mixture of Arabic gum and wax as the base for color, would give a beautiful and special state to the outer layer that is similar to the surface of the eggshell. The color of the face and body parts, was generally pink-white, and was made of a mixture of hot Sheikh Jawahar Water. In order to create bright colors a mixture of Macro colors and Sheikh Water was used; grass greens were generally a mixture of indigo dye and orpiment. E. After painting the pictures, respectively, the painters began to complete the sky and clouds, trees, mountains and flowers relating to it, and then continue to paint the clothes. F. A very important step in paintings was the outlining the shirts and caps and turbans and trees and limbs, this technique perfectly depicts and manifests the main appearance and wrinkles in clothing and body parts of the painting and generally it became practical with a darker color than the underlying color. In the last stage hands and face and all parts of the body that has been painted with pink color





















that tended to white, was painted by warm red ink, and eyebrows and hairs and the line above the eye were outlined with black paint and in order to highlight the outlining in addition to red, black was also used, in such a way that under the red line, a black line was drawn so, the intensity the red line has been multiplied. When the painting and decorating of clothes and so on were finished, to protect the paint layer a solution of tragacanth and sugar would be covered on the painting (Aghajani, 1981: 160-178).








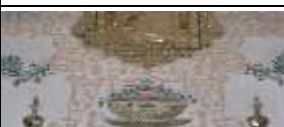








8. Conclusion

In this study, the works of Hossein Aghajani-Esfahani were analyzed and evaluated, apart from his works, his life was also studied. In regard to, who and what have led to his successes. Therefore, the biography of Aghajani was observed then his restoration works of paintings in historical buildings were discussed. In other words, each biography has two layers, one layer is a narrative individual and personal events and another layer is the narrative of historical and social events. In a sense, biography is a hole that each reader can observe through it a wide range of historical and social and cultural invents of a period, and evaluates it. Then, the importance and necessity of restoration and its approaches and restoration of painting works and the restoration of decorations of the building were discussed, because he was majoring in the field of Restoration of Monuments. The features of restoration work of Aghajani are in such a way that the restoration of the paintings is mostly done by oil painting technique and tempera on the wall, and the restorations of decorations of the building were done on tiles and plasterworks and mirror works of the historic building.

In Iran, oil painting technique has been used; due to the dry climate in most parts of Iran watercolor was mostly used (color + water soluble base). In Iran, in most of the works in buildings and mosques, often watercolor techniques were used for creation of artistic paintings. The other feature of his restoration works is that the mostly used motifs are traditional motifs and sometimes it was a combination of tradition and modern. For example, in the restoration of the Shrine of Sukayneh Bint Huseyn (peace be upon her) the motifs are traditional and coloring is modern, but in his personal works he is inspired by modern motifs and has combined with his method and traditional motifs. Restoration activities have been carried out on the restoration of historical buildings and paintings, and architecture and decoration of the building. Most of the restored subjects of historical buildings in Isfahan or in other cities are the paintings on the walls or murals, such as Chehel Sotoun, Alig Qapu, Qeysarie Gate, and Eight Paradises, in which the tempera technique plaster and oil paint have been used. In Hussaynias and tombs, most of the restored subjects are done on tiles that are traditional motifs and the colorings are either traditional or modern; in some of these tombs, there have been some paintings that have been restored, for example Haronie tomb, which inside the monument there are some floral and birds' motifs as well. Most of the motifs of the historical buildings relate to the Safavid and Qajar eras. Some of the buildings, building constructs, and motifs used in buildings belong to Qajariyyeh era, and some of the architectural buildings belong to the Safavid era but the paintings relate to the Qajariyyeh, like Chehel Sotoun Palace, this palace was created in the time that Safavid government were transferring its administrative offices to Isfahan. But the Persian Miniatures were painted by Reza Abasi in the Qajariyyeh era; these paintings were also restored and repaired by Qajar style. The main goal here is to introduce this artist to the art community; this study has evaluated his works from young age to the present time, and since there was no document of his works, some of his works has been collected in this research.

Table 1 Documents of the Restored works in Isfahan, Restorer: Hossein Aghajani-Esfahani, (Source: Author, 2016)

Location	Technique	Time Period	Subject	The works of Historical Buildings	
Chehel Sotoun Palace	Oil paint on Plaster	Safavid	Banquet Party		
Eight Paradises Palace	Tempera on Plaster	Safavid	Muqarnas		
Ali Qapu Palace	Tempera on Plaster	Safavid	Vase Cutting		
Qeysarie Gate	Oil paint on Plaster	Safavid	Hunting		
Ashraf Hall	Dead Plaster	Safavid	Mi'raj		
Jameh Mosque	Plasterworks and Tile Restoration	Safavid and Seljuk	Geometric Motifs		
Imam Mosque	Painting on Tile	Safavid	Forrest		
Shahshahan Mausoleum	Tempera on Plaster	Timurid	Geometric Motifs		
HAronie Boqeh	Tempera on Plaster	Safavid	Gerefteh Gir		
Ezhei'e House	Tempera on Plaster	Qajar	Still Life of Landscape		

Ali Qoli Aqa Bathroom	Tempera on Plaster	Safavid	Hunting		
Kamal Zoorkhaneh	Tempera on Plaster	2015	Shamseh		
Hossaynieh Imam Ja'far Al-Sadiq	Tempera on Plaster	2011	Arabesque Motifs		
Shafti's Historical House	Tempera on Plaster	Qajar	Flower Motifs		
Sokias' Historical House	Tempera and Mirror Working	Safavid	Foreign Christian		
Haratian's Historical House	Oil Painting	Safavid	Hunting		
Imam Ali Mosque	Tempera on Plaster	Safavid	Rasmi-Bandi		
Imam's Door Mosque	Tile Restoration	Safavid	Arabesque Motifs		

References

- Azadeh Tafreshi, F. (2016). *Protection, Conservation and Restoration*. Payam'e Baharestan, 44, 100-120.
- Arzhmand, M., & Aminpour, A. (2016). The role of restorer in the restoration of buildings in the field of Islamic culture and civilization. *Islamic Architecture Research Quarterly*, 9, 98-112.
- Aghajani-Esfhany, H. (1981). Repairs of Painting 2. *Asar magazine, The National Organization for the protection of antiquities of Iran*, 2, 160-178.
- Aghajani-Esfahani, H., & Javani, A. (2007). *Safavid Era Murals in Isfahan*. Academy of Arts Publications

- Aghajani-Esfahani, H. (1980). Repairs of Painting. *Asar magazine, the National Organization for the protection of antiquities of Iran*, 1, 79-90.
- Aghajani-Esfahani, H. (1982). Oil Paintings with Red Preparatory Layer. *Asar magazine, the National Organization for the Protection of Antiquities of Iran*, 3, 165-186.
- Ghanooni, M. (2012). *The Aesthetics of the Restoration of Paintings*. Isfahan, Goldasteh Publications.
- Hesami, M. (1998). The Restoration of Paintings. *Jelveyeh Honar*, 10-11, 44-52.
- MirFakhrai'e, F. (2008). *Transformation of the Need to Repair Historical Objects*. Tehran Sobhan'e Noor Publications.
- Pakbaz, R. (2013). *Encyclopedia of Art*. Tehran, Contemporary Culture Publications.
- Vatan Doost, B., Neiry, A., & Seyed Mohammad, P. (2013). A Survey in the Foundations of Traditional Restored Murals in Iran with a look at a few examples of Indicators. *Bagh'e Nazar Magazine*, 10(27), 71-82.