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Study of Kashan Metalworking During Qajar Dynasty with a Religious Approach

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Abstract

This article examines the close relationship between human and religious thoughts, ideas, and beliefs and their artistic manifestations. Since Qajar metalworking has been significantly influenced by religion and also these works are one of the most important immortal documents for studying social, political, cultural, and economic conditions in the Qajar dynasty, the present research was conducted. The main goal of this research is to clarify whether the metalworking of this period has a trend towards evolution? What are the changes of the decorative elements and motifs and symbols, and in the meantime, what effects have religious thoughts and beliefs as an important factor in human life, on the evolution of Qajar metalworking? The research method was library-documentary; however, the field research method has also been used for the works of the Central and Anthropology Museums in Mashhad along with interviews and photography of the works of several collectors in Kashan such as Mr. Moshki, Mr. Masoudi Niasar, and Mr. Sharif.

Keywords: *Qajar Metalworking;Islamic Metalworking;Metalworking Techniques; Metalworking Motifs; Flag; Nakhl Gardani; Qajar Coins*

Introduction

The theoretical framework of the research is the relationship between artistic manifestations and religious thoughts and beliefs. The research hypothesis indicates that there is a close relationship between religion and Qajar metalworking and its evolution. The purpose of this study is to find a meaningful and inseparable relationship between Qajar metalworking (as an artistic manifestation) and its evolution during this period (along with the advance of the intellectual level of religious beliefs) and its effect on the motifs and decorations on metalworks.

Since the advent of metal, various metals have gradually formed the art of metalworking over the centuries, and the art has become more delicate and complete. The Sassanid era is considered the culmination of the art of Iranian metalworking so that archaeological findings are clear proof of this claim. With the advent of Islam and the prohibition of the use of gold and silver utensils in the 7th century, so Islamic metalworking artists found alternative options and benefited from metals such as copper, bronze, brass, steel and created amazing objects by utilizing complex technical-artistic techniques such as casting, enameling. , embossing, latticework.

In the following, according to the Shia Islam as the official religion in the Safavid era and the subsequent spread of Shi'ism traditions (such as reciting Ta'zieh, Alam Gardani, Nakhl Gardani), the art of steelmaking became more flourished. Meanwhile, this trend gradually declined with the beginning of the Qajar dynasty and the arrival of European decorative elements. The present study tries to find out whether the relationship between the art of metalworking and religion in the Qajar era had a positive effect on this art and if so, what are its manifestations and aspects.

This study briefly reviews the works of Qajar Islamic metalworking, moreover, the study approach is more focused on the religious metalworking of the historical city of Kashan (given that Kashan is one of the first cities that has accepted the Shia religion and also one of the most important centers on the history of human civilization). It is hoped that this study will be useful for those who are interested in this art. And finally, thanks to Dr. Chitsazian, whose guidance was a great help in this research.

History of Metalworking

Since human realized different properties of metal such as melting, hardness, stability and durability, strength, impact resistance, and even some metal remain valuable after using (in metals such as gold and silver), they made various tools for hunting, war, agriculture, and all kinds of tools which were in danger of breaking. (Ehsani; 2007; 44)

One of the oldest metal melting centers in ancient Iran is Kashan Silk Hill. In this hill, the first copper works have been found from the Silk I period of layer 3, which are small decorative tools that have been formed with the technique of hot and cold hammering. In the next layers, other copper tools also have been found, the most important of which are needles and pins. During the Silk III layer 4 period, tools were found indicating that Silk's metalworkers succeeded in melting the metal and reprocessing the tool by molds. However, the theory is that since no tools and equipment related to copper melting have been found in this hill, melted copper has been brought to Silk Hill from the hill of the Central Plateau Cemetery of Iran (Buin Zahra). (Tohidi; 29)

Figure 1 and 2
Bronze pin or flag tip found in Kashan

Many metal art masterpieces were created in the city of Kashan during later periods so that names of Iranian masters from different cities of Iran, including Rey, Kashan, Neishabour, and Jorjan are engraved on metal works. (Tohidi; 29)

Excessive attention to wealth is considered absurd in Islam like any other religion. (Ward, 2005; 14) Although Islamic metalworking was used for religious purposes, it was influenced by religious restrictions, such as a range of laws and the application of materials; nevertheless, it tried to modified designs to preserve this industry. This background was common throughout the Islamic world, however, the creation of a clear style was the achievement that resulted from the cooperation of metalworkers and sponsors who ordered or bought metalwork. (Ward, 2005, 19)

The details of the metalworkers' personal lives and careers remain almost unknown. Metalworkers rarely signed their work, which has led to no information on the names and status of metalworkers in historical documents. Metalworking, like other medieval industries, was a family profession, the reason based on which they should be perfect masters in their art. Each craftsman was skilled in a specific field. (Ward; 2005; 21)

Since the registration of persons' identities has become compulsory, the historical and social importance of metal objects was because of the engraving of names, historical and political figures, also the signature of metalworking artists, and the mention of the date on the objects. The emergence of names shows that this art has been freed from the capitalists and has been made available to the public. These signatures also indicate that metalworkers had a prominent status in society. (Ehsani; 2007; 44)

Classification of Metal Objects of the Islamic Era

Since objects were designed to meet human needs, the type of metal was also selected according to the type of application. In general, objects were divided into six categories in terms of their application:

The first group: household and religious objects: this category had the most share of objects. These objects were most bronze and brass. Objects made for household purposes include:

1 - Lighting tools (lights, lanterns, candlesticks)

2- Perfumes container

3- Mirrors

4- Inkpots

5- Types of boxes (jewelry boxes, Quran boxes)

6- Jars and sunshades

7- Bowls, cups, glasses.

8- Religious applications (science, dishes, etc.)

The second group: doors and windows and their accessories: including door knockers, locks, keys, window frames, which were made of various and resistant metals such as iron and bronze.

The third group: scientific tools: which were made of different metals according to the application and include 3 categories:

1. Astronomical tools: such as astrolabes and Globe. Advances in the sciences, industries, and arts of metal, a group of metals found that did not exist in the past, such as astrolabes, astronomical tools by which the science of astronomy has differed from superstition and magic.

2. Medical tools: such as scissors, pliers, knives, and surgical and cupping instruments.

3- Engineering and architectural tools: such as mechanical machines, surface plate, plummet, measuring tools.

The fourth group: war equipment: which were generally made of hard and resistant metals such as iron and steel and included swords, daggers, knives, clubs, stickers, bayonets, arrows, maces, armor, axes, and shields. These tools have always been important (especially in Islamic periods and according to the importance of Jihad)

The fifth group: decorative objects and ornaments: for which precious metals are used such as gold and silver and include necklaces, earrings, bracelets, rings, belts, anklets, crowns, and headbands.

The sixth group: coins: gold, silver, and copper (Tohidi; 42)

The Most Common Metals Used in Metalworking

Gold, silver, copper, iron, lead, and tin were all used by metalworkers in the Middle East before the Islamic period. Islamic metalworkers added only one new metal to the metalworking industry in the 15th century AD which is zinc; zinc previously used as brass in a form other than alloyed metal with copper. Most of these metals have been mined in different parts of the Islamic world, but the greatest source of these metals was in Khorasan. (Ward; 2005; 28) Copper was less used as alloyed metal but used in cases such as damascening objects. Objects made of silver and gold are relatively rare, but metal damascening was very common from the late 6th to the 8th century A.H. Tin, copper, iron, and steel were widely used during the Safavid and Qajar periods. (Khorramabad Museum Collection; 17)

The Most Common Techniques for Decorating Metal Objects in the Islamic Period

Metal objects and accessories were decorated by artists during or after the construction process, and there are several ways to do so including punching, chasing, bossing and engraving, inlay, metalworking, perforating, melting, polishing, and niello, many of these methods were invented before Islam and Sassanid era then transferred to the Islamic period.

In the metalworking phase, the master first conducts the pre-operations including determining the type of metal according to the object application, preparing a specific mold, designing the shape of the dish, designing decorative lines and patterns compatible with the object theme. In the Islamic period, molding was used to make steel objects. The mold was mainly made of adobe or stone and sometimes with wax. This method of construction appeared from the 5th millennium BC and was common until the end of the Islamic era.

1- Punching: this method is used to engraved patterns on soft metals (gold, silver, copper and bronze, and brass) - in this method, stamps are used for engraving on metal.

2- Chasing: in this method, pens with V-shaped tips are used; a crust is eliminated from the metal surface by hammering on the pens and the patterns have appeared on the metal surface. This technique was one of the most common decorative techniques for bronze objects in the Islamic era.

3- Bossing & engraving: this technique is the opposite of the chasing technique so that patterns and motifs are engraved on metal surfaces in semi-embossed forms, especially on metals that are softer than bronze such as brass and copper. In this method, the edges of the designs are hollowed out with metal pens and a hammer, finally, the designs appear semi-embossed.

4- Inlay: this method has been done with various colored stones. In this method, first, the motifs and designs are carved with thin sharp pens to create grooves on the object surface. Very thin steel or metal wires, such as gold, silver, or copper, are then hammered on grooves in such a way that the wire does not create any roughness on the metal surface. In other words, inlay creates contrast and penumbra.

5- Niello: it meant creating a penumbra on the surface of the motifs. In this method, the same inlay is first carved on the objects with the desired motif and then with a compound of ferrous sulfate (copper, silver, and lead) was poured on the carved parts to make decorative motifs with penumbra background which make the surface of the metal object non-uniform.

6- Perforating: in all kinds of incense and oud burners, sculptures, tallow burners in which parts of the metal need to be hollowed out, this technique is used, which is the same as the lost-wax technique. In this method, the parts that want to be hollowed out are placed with hard wax while soft wax is used on the surfaces. After molding, the parts filled with soft wax melt and disappear sooner, and as a result, they absorb the metal, and the parts filled with hard wax remain unloaded via metal, and the object becomes perforated.

7- Melting (inking): it is a decorative method for steel, which has a thick and durable material and is used in making weapons such as daggers and swords. In this technique, the steel is first darkened by heating, melting, and cooling, and then by acid, the decorative patterns are hollowed out, the inside of which is filled with precious metals, and the rest of the surface is covered with wax. Finally, beautiful motifs are carved on a dark wavy background on the blades of daggers and swords.

8- Enameling: In fact, it is a kind of metal glaze in which the oxides of heated metals produce different colors and then the adhesive solutes are combined; the color of the oxidation process depends on the temperature and the duration of the heating. This method has been unchanged since the beginning.

9- Repousse metalwork: it means embossing the surface of objects by hammering from the inside, which is one of the oldest and most important techniques of metalworking.

10- Filigree: it is a delicate art in which metal objects are made and decorated with very fine wires and belts via beautiful and various motifs. Objects made in this art include bracelets, necklaces, pins, jewelry boxes, trays. (Heydarabadian; 2010; 21) and (Tohidi; 44)

Decorative Motifs in the Art of Islamic Metalworking

Decorative motifs on metals indicate customs, religious beliefs, ceremonies procedures, as well as hunting and fighting methods. Even the precision and delicacy of the metalworking masters show the application of a variety of iron tools, hunting tools, and weapons of war. Also, the details of decoration and the types of dresses of people such as clothes, hats, and shoes in different classes, and the use of ornaments, as well as the trend of developing new types of instruments are exactly obvious in the motifs and even shows various musical instruments.

Metal objects are very effective in recognizing Islamic script. Metal utensils are one of the most significant sources for indicating the evolution of the Islamic writing system and the six items of calligraphy and other methods and calligraphy styles, in addition to showing a type of Kufic calligraphy that is used only on metal objects dating back to the Middle Islamic period of Iran (as many of these calligraphies in books were destroyed by the Mongol invasion). A method of calligraphy that has never appeared on paper has been specific to the decoration of metals (like the Kufic script with the decoration of living creatures) (Ehsani; 2007; 46)

The most important of these motifs are divided into the following categories:

1- Geometric Patterns: geometric patterns in these very old motifs include from very simple patterns to complex motifs and they were the main decorations in the Islamic era because they somehow divided the space, moreover, they have symbolic concepts. One of the most important decorations is hexagonal patterns that have been popular on metal utensils since the 7th century AH. In geometric patterns, metals highlight the issue of limited surfaces, and metals rarely form the main shape but usually combined with other patterns.

2- Plant patterns: In the Islamic era, plant patterns on metals can be seen in these types:

1. Motifs derived from Mediterranean Hellenism and non-Iranian Hellenic models: including acanthus leaves (artichoke leaves), palm, leaf scrolls, stems with grape clusters, a pomegranate

tree, rose (rosette), lotus. These motifs were not used naturally but exaggeratedly or in a combination of some flowers and plants to cover the surface of the dishes.

2. Arabesque scrolls: Arabesque includes a variety of plant motifs (vine, palm, artichoke leaf with stem, leaf, and strawflower). Rotating, parallel, and symmetrical lines and set of straight geometric shapes and human and animal images that are intricately observed.

3- Human patterns: The role of the human is generally seen in different scenes and situations, which are:

A- Hunting scene: in these scenes, generally pre-Islamic motifs were used in which people were usually on horseback with arrows or bows or swords in their hands and are engaged in hunting animals, and various hunted animals can be seen around.

B- Ceremonial scene: sultans and rulers sitting down on the throne and crew in a state of respect. Influenced by pre-Islamic motifs.

C- Sports scene: generally equestrian and playing polo motifs

D- Musical scene: several musicians playing musical instruments including reed and flute, tambourine, lute, harp, and daf. Derived from pre-Islamic periods.

E- War scene: includes war scenes in the cavalry or on foot in battle besides combat weapons. Initially, it was used to record historical events, but in the Islamic period, it had a decorative role.

4- Patterns of animals and imaginary creatures: in Islamic metalworking, animals and imaginary creatures are one of the most important and prominent subjects of motifs and decoration of metal objects. Many of these motifs are derived from the pre-Islamic period but from the 8th century AH onwards, the role of imaginary creatures on metal utensils was decreased. Many of these imaginary motifs had symbolic concepts.

5- Decorative inscriptions: metalworking artists of the Islamic era realized the decorative properties of Arabic calligraphy and used it as a decorative factor. Besides, the Arabic calligraphy was also important in terms of religious and historical point of view. The signatures of masters, metalworkers, decorators, and calligraphers on metal objects are rarely seen in historical documents other than these objects. As a result, they are of great value from the point of view of the art research. Also, the verses of the Qur'an, which include goodness and blessings for the owners of the object, were decoratively carved on metal objects.

Kufic script: This type of calligraphy was used frequently on utensils due to the use of straight and angled lines. At first, only the Kufic script was used, and later, with the evolution of the Arabic calligraphy, other scripts such as Naskh, knotted Kufic, square Kufic, and floriated Kufic were also used. (Tohidi; 6) and (Hyderabadian; 2010; 30)

Specifications of Qajar Metalworking

Since the metalworking industry in the Zand and Qajar eras has been a follower of the Safavid era (Khorramabad Museum Collection; 20), this study examines the specifications of metalworking in the Qajar era and then the reasons for the decline of this art in the Qajar era are evaluated.

Early Safavid metalworking had small Islamic ornaments and inscriptions in the Timurid style. Bronze objects with embossed and etching ornaments were still made, but bronze was used as the main metal to make the basins and other utensils.

It was common to write poems and the names of the Prophet and Imams on objects, which were used inside frames decorated with Nastaliq script. Scenes of feasts and hunting grounds can be seen on

backgrounds with repetitive flowers on the frames of the medal, and the main element of these decorations is influenced by the painting methods of the Safavid era. Safavid artists always developed the shape of metal objects including candlesticks, bowls, and basins with beautiful curved designs. These artists skillfully used iron and steel, and elegantly decorated them, especially in perforating that are common to most objects. The most important metal objects - which have a larger share - are weapons, Persian swords and daggers with ink blades, to the decoration of which the art and craft of the Middle East and Europe were used because of the beauty and quality of their methods, as well as precious shield and other weapons of war of steel and iron that have metalworking ornaments and frequent metalworking carvings with gold and silver. Copper and brass were still used for bowls and basins. The beautiful basins, trays, caskets, and hookahs were made of steel with carvings and plating ornaments; court utensils were mostly made of gold and silver, with enamel ornaments or precious or semi-precious stones. Swords and daggers were common which hadink blades and handles decorated with expensive stones.

Many of the dishes were decorated with themes taken from Qajar miniatures and lacquered paintings. These ornaments well showed the influence of European art on Qajar art by combining the modified flower and plant forms of the Safavid period and the natural patterns of "Rococo". The art of metalworking was passed down from generation to generation, and despite the political and historical divisions of this ancient Iranian tradition, it was preserved due to the considerable ability of Iranian artists to accept situations and needs. These artists maintained their valuable technical skills and changed the ancient heritage of Iran, as can be seen during the Qajar period and the struggles with animals and hunters who hunted wild animals. Kufic and Naskh scripts along with floral and plant paintings of animal and human figures and Nastaliq calligraphy only show a section of the role played by the Iranians in Islamic design (Khoramabad Collection, 20).

In the late Safavid era, although metalworkers were masterful in their style of work and art, unfortunately with the development of the Western industrial movement and the advent of the steam engine age, could not create diversity or innovation in their way of working. They could not keep pace with the progress of technology to preserve their handcrafts. Iran also lost the 220-year-old peace and stability of the Safavid period at this time, and for nearly three centuries was embroiled in civil and foreign wars and, most importantly, suffered from political and commercial rivalries in its neighboring country.

At that time, there was no leader or organization to direct the art, which had decadence, properly for the benefit of Iranian society and artists. Besides, people turned to foreign goods with the arrival of foreign and similar goods, such as porcelain and rhinestones in pleasant colors and in large quantities, which were easily available to the public at low prices, resulting in the decadence of the traditional arts of metalworking and pottery so that prosperity of this art declined forever (Ehsani, 2007, 229). It should be noted that despite these ups and downs, the art of metalworking has now gained its prosperity in the market of industrial arts, and the proof of this claim is the cities where metal works are still produced. Isfahan can be mentioned as the center of this art and the other cities can be mentioned such as Tabriz, Shiraz, Tehran, Zanjan, Kermanshah, Boroujerd, and Tabas (Yavari, 2009, 31).

Examples of Qajar Metalworks

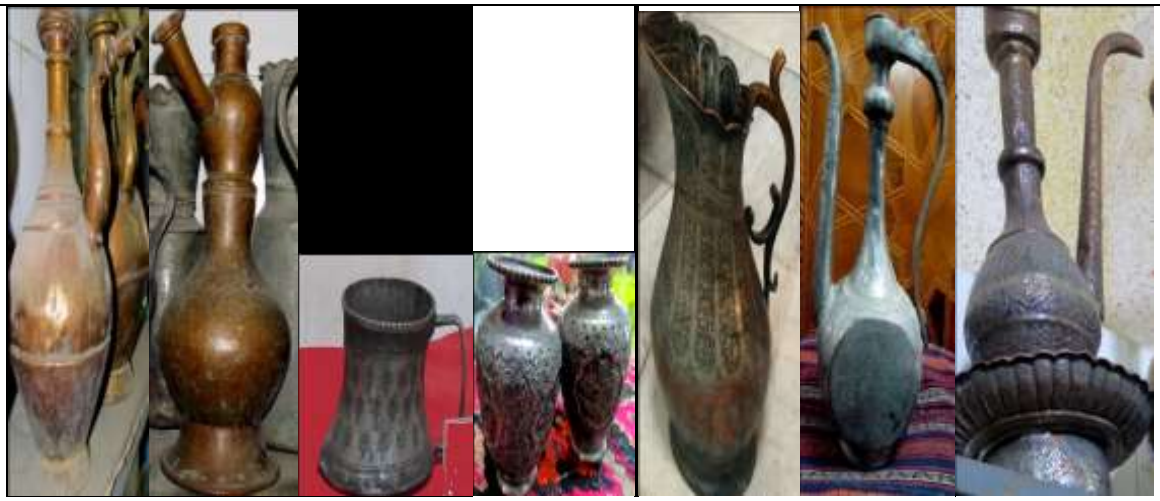
Based on the classification of works mentioned above, examples are as follows:

1- Objects with household and religious application:

C- Figures 10 and 11
mirror and hair curling tool
and the etched box

B- Figures 8-9
incense burners
(engraved and
perforated)

A- Figures 3 to 7
Lighting utensils
(pendant lights) - Candlestick base



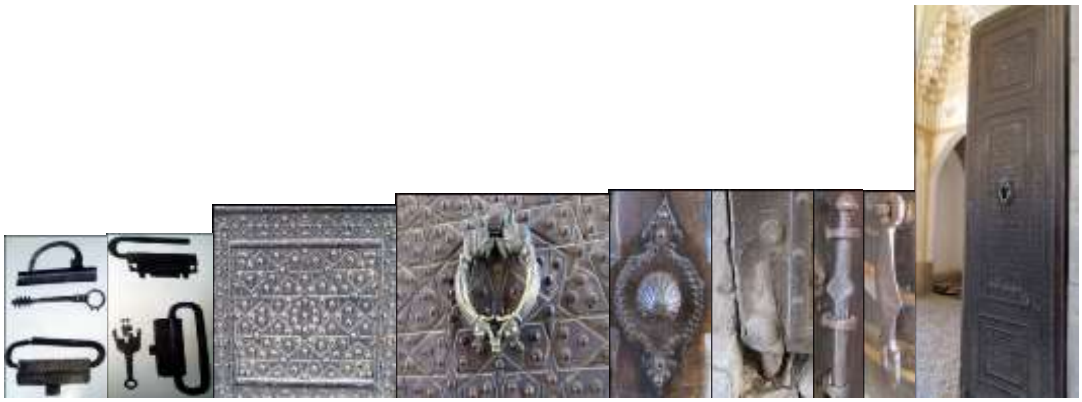
D- figures 12 to 18
Pots and basins - types of pitchers (the first 3 works are etched) - goblets

E - figures 19 to 23
Samovar service - rosewater container - hookah - teapot (all works are etched

F- figures 24 to 27
Bowl - Bath bowl – Chehel-Kilid cup (etched) - Oiler

G- figures 28 to 31
Two trays (etched) - Two examples of braziers

1. Doors and their accessories (knockers, locks):



Figures 32 to 40
The door of Agha Bozorg Mosque in Kashan and its Qajar decorations

2- Scientific tools and instruments:

4- Ornaments:

Figures 44 and 45
Earrings and necklaces

Figures 41 to 43
Astrolabe, Globe, sand, and astrolabe

5- Weapons and heroism equipment:

Figures 46 to 48
Shield, spear, armor, sword, helmet, club, armband - Saddle ax and knuckle- decorated bell

6- Gold, silver, copper coins:

Figures 49 to 55
Coins related to different Qajar kings - Embroidered coin hat

Since in this research, the historical city of Kashan has been considered with a religious approach, some examples of the historical monuments of this city are also given in terms of the historical-religious field. Flags and palms have a remarkable effect. Also, one of the important works of this city is a lock, as mentioned in the book of Iran locks by Parviz Tanavoli, one of the important centers of lock production is Kashan.

Samples:

1. All the works mentioned above are examples that have been photographed in some of Kashan's personal collections, certainly, there have been examples that were not produced in the city but have been used in Kashan as well due to their application in the Qajar era.
2. The mosque door: Aghabzorg School with all its Qajar decorations and photos on the door and accessories section.
3. Hexagonal: A wooden shrine with 6 sides (similar to the hexagonal shrine of Imam Hussein shrine, which is one of the examples of allegorical coffins that are carried in Kashan mourning processions. It has a painted and silver-plated facade. Inscriptions have been written under the roof and on the columns. For example, the coffin of reKashan Ali Akbar mourning commission is kept in the neighborhood of the Imamzadeh of Habib Ibn Musa. (Blockbashi; 2005; 38)
4. Al-Qalma Creek and the Euphrates River: The mourners of Abolfazl in the Panakhl neighborhood of Kashan have other coffins among which one resembles and symbolizes the shrine and slaughterhouse of Hazrat Abolfazl next to the Al-Qalma Creek and the other coffins or signs is famous for Al-Qalma Creek and Euphrates River among the people of Kashan.

Figure 56
Nakhl and Flag of the downtown of Ghamsar, Kashan
Figure 57
The allegorical coffin of "Al-Qalma Creek" in Kashan

5. Nakhl Gardani: this action has a long tradition in Kashan and each of the neighborhoods of Kashan had a Nakhl which was kept in Hosseinieh and was called by the name of the Hosseinieh or neighborhood. The largest Nakhl of Kashan is the Nakhl of Hosseinieh Sarpareh or the Nakhl of Sorpareh. (Blockbashi; 2005; 68) In Kashan, Nakhl Gardani ceremonies are held on the night and day of Ashura and the seventh night after the Ashura phenomena. Before the ceremony, the Nakhl is covered in black and decorated with cashmere and gold fabrics, mirrors, and lamps. A green handkerchief is also placed on the front of the Nakhl to mark the turban of Imam Hussein.

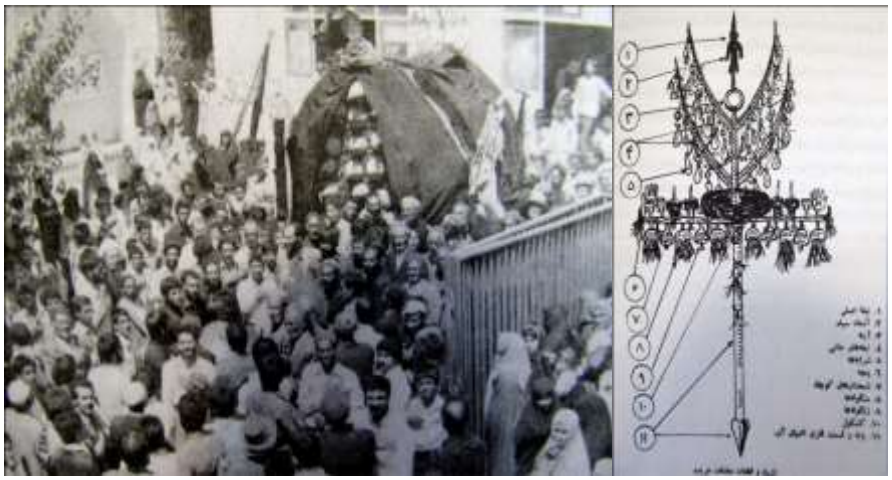


Figure 58
A design of a newspaper in Kashan
Figure 59
Nakhl of Hosseinieh Deh Abad in Kashan on the day of the assassination of Amir al-Mo'menin Ali

6. Faceted utensils: These utensils were placed in mosques and prayer rooms during the Qajar period so that juices could be poured into them and people could drink them as a vow. These utensils are all engraved and decorated with verses of the Quran and scripts.

Figure 60
Faceted utensil kept in the Anthropological Museum of Astan Quds Razavi

Conclusion

1- One of the oldest metal melting centers of ancient Iran is Kashan Silk Hill, the most important examples of which are needles and pins.

2- The city of Kashan created many masterpieces of metal art in later periods.

3- In the classification of metal objects, 6 categories were examined, which are also common in the Qajar period.

4- The most common techniques of decorating metal objects include punching, chasing and embossing, engraving, etching, inlay, perforating, melting, enameling, repousse, and filigree work which are also applicable in the Qajar period.

5- Decorative motifs of metalwork include various geometric, plant, human motifs, scenes of war and animals and imaginary creatures, and decorative inscriptions.

6- Finally, according to the characteristics of Qajar metalworking, which is a follower of the Safavid era, we conclude that in the early Qajar period metalworking appeared more decorated than the Safavid era, but with the arrival of European technical goods, metalworking lost its prosperity in many application fields. However, in the field of religion in most cities, including Kashan, which was a religious city, it is still common art to make flags, Nakhls, and other practical objects.

7- Based on what has been stated, it is found that Qajar metalworking endures many ups and downs in its evolutionary trend, which, at the end of the Qajar era, metalworking had a decline in prosperity in all field except religion where there was an insignificant growth. It is hoped that this research will be groundbreaking.

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