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A Comparative Study of Urartian Jewelries of Urmia Museum, Iran

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Urartu is one of the powers of the beginning of the first millennium B.C., which has been located in Turkey, Armenia and north-west of Iran, competing strongly with New Assyrian Empire and encountering to local government of Mannea, and has dominated on some parts of Urmia Lake. The presence of Urartu can be seen in architectural remains in areas like Bastam and Hasanlu. But, the cultural effect of this great power and its affection on physical remains, to comprehend the process of forming and completion of the region's combined art works, has not been taken into account so much. However, in the Urmia Museum, there is a significant number of artifacts attributed to Urartu have not yet been introduced or studied.In the present study, aims to fill this gap, 31 artifacts including: strap, bracelet, necklace, rod and safety pin and tweezers were selected and documentedfrom the treasury of Urmia Museum. The results of this study can be used for more precise studies in the future aimed to determine factors affected forming of the style features of Urartian art and the Urartian artistic and cultural impression on the region's culture and art during 7th and 8th centuries B.C., which has been obviously appeared in art works of Mannea territory.

Keywords: Urartu, jewelries, Urmia Museum, comparative study, art history.

Introduction

Urmia Museum is one of the first and most important museums in Iran that has a long history of preserving various artifacts of different historical periods of Iran and especially examples of Urartian artifacts in the northwestern region. On the other hand,

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northwestern Iran is the only place of Urartu and Mannea governments in the first millennium B. C., and sometimes it was the military and political confrontation with the Assyrian Empire. Urartu studies have been carried out for a long time, along with the Assyrian and Mannaean studies, and any studies and research related to the archeology of the Iron Age, first millennium B. C. in Iran, Asia Minor, and Mesopotamia and has played a key role. The proximity of the three governments of Urartu, Assyria, and Mannea, and their cultural and artistic impacts and influences, are among the most important cases in archeological studies in northwestern Iran in the first millennium B. C. The cultural and artistic influences and impacts of these three civilizations and the similarities in their artistic styles make any attribution of ancient artifacts discovered from the northwest to one of them as a challenge for archaeologists and researchers. Sometimes there is a lot of controversy about the attribution of an artifact to one of these cultures. Based on this, the study and classification of Urartian works in the northwest museums of the country, which are among the rich reservoirs of this type of work, can be very useful in this area.

The classification of artifacts and cultural artifacts discovered from archaeological sites in museums is one of the most important topics in the field of archeology and is known as secondary operations. In most cases, these secondary operations have been ineffective in preserving place of artifacts (museums) and did not end, or their attribution to a specific period is confronted with many problems. Although studies in the field of museums are specialized and require the presence of a museum owner, conducting these studies by an archaeologist with the presence of a museum owner will lead to good results, because further archaeological knowledge after excavation of the site can give more strength to the resulting areas in assigning artifacts and works.

Researchers trying to study hand-made Urartian metal structures face many obstacles. First of all, there are a lot of publications have been written in various fields. As the study begins, it soon becomes clear that most of the studied and published material lacks archaeological originality, and most of them have many origins of museum, collection, and antiquity mercantilism in different countries. This suggests that only a limited number of artifacts have been archaeologically introduced are available for meaningful studies and are mixed with a very large group of artifacts not have this capability. Have been. It will be clear to the researcher that despite the fundamental importance of the relative reality of the origin/originality and position / absence of the position of artifacts, this would not be understood and in fact would remain unknown or even sometimes would be rejected in research discussions. The consequence of this work is that a well-established and unprincipled published pattern becomes commonplace, and as a normal archaeological discussion, its success leads to promotion of a model for others to follow [1, p. 621]. This pattern has led to a serious mental and functional disorder in the study of Urartian artifacts. The issue is not whether archaeologists can and should ignore these unexplored collections or not. An important issue is how archaeologists, who are seeking archaeological knowledge, should use these baseless phenomena by what methods or parameters with inherently limited information [1, p. 622]. For example, the existence of a local and public art style in Urartu art alongside formal royal iconography has largely been suggested based on the existence of specimens of unknown origin and history from the Urartian local style. Future discoveries may prove or disprove such theories, but until then it is better to be critical and skeptical of some of the claims made about Urartu culture and based on conducted researches on artifacts of unknown origin [2].

Research method

The artifacts studied in this paper, regardless of the original context of their identification location, have been examined only from a chronological aspect and morphological comparison with Urartian specimens, and the main emphasis was on whether they are attributable to the Urartian culture or not and on determination of the approximate date of their production. To study the chronology of artifacts, especially metal artifacts, and among numerous works, we began from a large number of studies that not only used excavated materials, but also intelligently considered a wide range of artifacts. In this regard, we referred to the published sources of excavations in eastern Anatolia and northwestern Iran in certain sites such as Ayanis and Bastam contained Urartian metal artifacts. Basically, the research method in this type of studies is library and based on comparative comparison and classification of artifacts, which the same study method is used in this research.

Review of literature

The relatively large number of Urartian metal artifacts that the Urartians surpassed all in terms of their construction dates back to the peak of their power and the golden age of the kingdom. Their study is the basis for much of the history of art in West Asia. These metal artifacts (war tools, tools belonging to horses, utensils and decorative artifacts) often contain cuneiform inscriptions in Urartian language and sometimes contain patterns presented in distinct ways. The present study of Urartu art is by Lehmann-Haupt, entitled *"Armenian einst und jeltz"*[1], published in German language in Berlin [3]. In the late 1960s, the first method of studying the combination of Urartu art from the time of Hauptwas applied by M. van Loon, and it was published in a book entitled *"Urartian Art: its Distinctive Traits in the Light of New Excavations"* [4]. This work was a location study identified two Urartian artistic styles, including the "royal style' and the "folk style"; Boris Piotrovsky published the work entitled *"Urartu: The Kingdom of Van and its Art"* [5], mainly provided a descriptive study of the type of Urartu industry. In *"Urartäische und Altiranische Kunstzentren"*, Akorgal tried to summarize the main morphological and stylistic features of Urartu, Iran, and eastern Anatolia [6]. Giti Azarpay, in the book *"Urartian Art and Artifacts: A Chronological Study"* [7], has compiled inscribed artifacts to construct a chronological and temporal framework for the study of Urartian art. Since the publication of these studies, more Urartian metal artifacts have been identified, most of which have unfortunately entered the antiques market through unauthorized excavations. One of the most notable books on the art of Urartu's metal artifacts is the catalog book, which was prepared to hold the exhibition of Urartian artifacts belonging to museums from North America and Europe [2].

This book includes several scattered articles that, in many ways, are comprehensive studies of the totality of Urartian metalworking art and the artifacts of the mentioned museums. What has been studied in this article is a group of similar artifacts kept in the Urmia Museum. These artifacts are classified into different groups based on material and then arranged in smaller groups on the basis of application.

[1] "Armenia in past and present".

Urmia Museum

After the establishment of the National Museum of Iran in 1937, 10 top museums were formed in the country including the Urmia Museum. In terms of the richness of its works, this museum is considered as one of the top museums in the country and is in the second place in the country after the National Museum of Iran. This museum was built in 1967 in the city of Urmia with the presentation of a preliminary design by Dr. Kiani, a professor at the University of Tehran, on Shahid Beheshti St. in Urmia (Faculty) with base of 750 square meters in an area of 2,000 square meters and Later, two relatively large spaces and an underground treasure were added to preserve the museum's unique artifacts and artifacts and expand the museum. In the early years, 500 items of cultural and historical artifacts were transferred from the National Museum of Iran and exhibited. Until in 1994, about 1,850 square meters of space was added to it.

The building units of Urmia Museum are:

1. Hall no. 1, cultural, historical property section.
2. Cultural property protection and restoration laboratory.
3. Cultural and historical property storage tank.

Hall no. 1 is a large salon for ancient and historical artifacts belonging to different historical periods and a small hall dedicated to the Museum of Anthropology. The exhibition section of the cultural and historical property of artifacts, which was divided from the oldest periods of Neolithic to the Urartian, Achaemenid, Parthian, Sassanid, early Islamic period to Qajar period, includes: stone artifacts, obsidian blades, pottery vessels, metal artifacts, patterned bricks, manuscripts, tableau, glassware and cuneiforminscriptions on stone (memoirs in Assyrian and Urartian languages).

Fig. 1. An Image of display hall of ancient artifacts in Urmia Museum. Photo by Maryam Abbaszadeh

A collection of exquisite manuscripts is preserved in Urmia Museum, most of which are Qur'an and religious and Islamic books. There also can be seen the artifacts of national and decorative arts of anthropology and handicrafts. There are currently a total of sixty-one showcases in the museum's hall, of which thirty-seven are vertical and twenty-four are horizontal. The artifacts studied in this research are kept in five verticals and one horizontal showcases (Fig. 1).

History of Urartu in Urmia Museum

In the nineteenth century, Urartu was gradually saved from oblivion and forgetfulness by a small group of researchers who worked increasingly on linguistics and archeology. Although the number of researchers was small, they had a wide range of capabilities and,

from this perspective, formed an extraordinary group. In 1998, a detailed bibliography of Urartian studies listed 1,432 books and articles written by approximately 500 researchers in Turkish, German, Russian, Armenian, English, French, Italian, and several other languages [8].The number of publications related to Urartu studies has increased significantly since then, if not doubled. In the process of forming Urartian studies, archaeological researches have begun in Caucasus, and many attempts has been made in the Soviet republics of the Caucasus by collaborating with central and local scientific institutes in the field of the history of this area, have made significant progress in identifying the history of Urartu civilization. The results of Piotrovsky's excavations in Karmir Blur in 1939 drew the attention of numerous scientific centers to the discovery of the history and culture of the Urartians [9]. Subsequently, the American, British, German, and Russian delegations reviewed Urartu's past [10, p. 60].

The beginning of new discoveries in northwestern Iran is a new and later stage in the archeology of Urartu, which led to the determination of the area of influence and structure of Urartian cities. The tendency to study Urartian artifacts on Iranian soil was formed when scientific circles noticed that the Hermitage Museum in 1859 had acquired a number of Urartian artifacts discovered in the Alishar (Shotlu) area on the Iranian border. The discovery of another complex in northwest of Lake Urmia in 1905 proved the need for extensive research in this area. In 1968, a team from the German Archaeological Institute, led by *Wolfram* Kleiss, began a detailed study of northwestern Iran. In the first phase of its work, the team identified a number of Urartian sites in the northwest of Salmas and published the results in 1970. From 1972 to 1976, the German delegation's studies in northwestern Iran focused mainly on surveying of castles and palaces, accurate dating of inscriptions and buildings, and further study of pottery vessels and bronze artifacts obtained from excavations many years ago (see: [10, p. 62]).

The Urmia Museum, as one of the most important sources related to Urartu studies in Iran, has some of the most important Urartian artifacts and inscriptions, including the bilingual inscription of Kelishin, Moana and Mirga Karavan. These inscriptions are important written sources of Urartu that have all been translated and contain important information about the geography, culture and religion of the Urartians. In addition to inscriptions, a large number of bronze and iron artifactsinclude war materials (shields, helmets, daggers and swords, arrowhead, etc.), jewelry (bracelets, earrings, armlets, necklaces, etc.), agricultural tools (sickle, plough, ax, knife, etc.), metal vessels, golden jewelry, Urartian fine potteries, etc. are kept in this museum.

A Comparative Study of Urartian Jewelries of Urmia Museum

It is safe to say that the Urartians inherited all of what the artisans of the various Anatolian and Caucasian tribes had acquired. Urartu's art and craft has been inspired by Mesopotamian style in the construction of temples and palaces and their decoration with stone sculptures and stone statues of gold, silver, and bronze. They also used iron in their artifacts; as if the axes, hammers, and ploughs have been obtained from that great people. Bronze was used for vessels and household items. The Urartian pottery vessels, and especially the specimens obtained from Tupraq Qaleh, are so delicately crafted that, according to Adontz, no distinction can be made between them and the pottery that is currently being taken out of the factory in Armenia. His pottery is similar to that of his contempo-

raries in Asia Minor, and is particularly similar to that of the Phrygian people [11, p. 234; 12, p. 220; 13, p. 13; 14]. In casting and building artifact industry, they created a casting attributed to Van that is still called Van's casting by his name.

The Urartians introduced their artistic standards and norms of cultural material into their dominant societies and regions. This made the cultural symbols of other tribes simply disappear. However, these cultural materials did not last long and, as was common with the arrival of the Urartians, did not last long with their departure. In fact, Urartu did not have a cultural similarity, and a large number of cultures, languages, economies, and etc. were included in its subset. Artistry in Urartu has been so extensive and advanced that researchers sometimes use the term "metalworking center" to refer to Urartu [8, p. 108]. Urartian metallurgists were technically very skillful and understood alloying processes well. The metallurgy obtained through official archaeological excavations provides a view toward the collection of Urartian metal artifacts, which includes vessels, everyday tools, weapons, chariot equipment and horse accessories, furniture sections, and items from personal ornaments such as jewelries. Many of these artifacts were decorated with embossed and engraved decorations. These ornaments sometimes contain decorative abstract bands and in some cases contain Iconographic scenes [2]. Urartians have also used precious metals such as gold, albeit to a lesser extent than bronze and iron. The mixture of Zinc metal and copper (Brass) has also been used in the production of gold-colored artifacts [11, p. 235].

Most of the bronze artifacts (shields, helmets, quivers, bayonets, decorative ribbons, etc.) were made with the help of techniques such as molding and hammering of bronze, and finally they were decorated with engraving, grooving, stamping, putting stone and other metals and reliefs. It can be understood that a number of molded bronze blades are made using the lost-wax casting technique. In some specimens, the surfaces of the artifact were decorated with light engravings after the work was done [15, p. 381].

Iron jewelries and religious weapons are among the main finds in Urartian tombs including bracelet, anklet and rings made by hammering, safety pin, daggers, and bayonets, knives, mace-head, chains, and long iron pieces called swords [16, p. 162]. The Urartians used gold and silver to make jewelry and sometimes to make devoted artifacts of temples. They used iron to make weapons such as sword and axe, arrowhead and spears, etc., and a wide range of tools such as helmets, shields, armor, plaque, belts, horse mouths, and so on was made by bronze. Meanwhile, Urartians' instruments and bronze tools had influenced many areas. As a result, the export of these bronze items to the West made the artists of Etruria to create similar artifacts by imitating the bronze works of the Urartians [2].

The selected artifacts, which has been introduced in this article in terms of appearance, technical specifications, decorations, arrays, and how related to the Urartian famous and recognizable artifacts, include 31 pieces of metal artifacts respectively numbered. A typological comparison with specimens having known Urartian origin from Iran and abroad and the relative dating of these artifacts is one of the most important aims of the present paper, which has been done in this chapter; obviously, making principled comparisons about museum artifacts is only possible with artifacts obtained from ancient legal and scientific excavations. Therefore, caution has been exercised in the comparative use of specimens of non-exploratory museums that have been widely introduced and published in Urartian studies, and the reliance on museum artifacts without accurate archaeological identification has been avoided.

Bracelets end in the snake's head

Table 1. **General dimensions and specifications artifacts from Fig. 2a to Fig. 2h**

Fig. number	Title	Registration number	Material	Dimensions of inner diameter of rod thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
2a	bracelet	2705	bronze	0.7–5.6	decorative	0 10 70	donative	Urmia Museum
2b	bracelet	4701	bronze	0.7–5.7	decorative	0 0 60	Seizure of Maku	Urmia Museum
2c	bracelet	5402	bronze	0.8–5.9	decorative	0 0 60	Seizure of Maku	Urmia Museum
2d	bracelet	5235	bronze	0.6–5.8	decorative	0 0 5	Maku	Urmia Museum
2e	bracelet	7128	bronze	0.6–5.5	decorative	0 0 60	Seizure of Salmas	Urmia Museum
2f	bracelet	11089	bronze	0.6–5.4	decorative	Absolutely safe and intact	Khan Takhti	Urmia Museum
2g	bracelet	11090	bronze	0.6–5.2	decorative	0 70 70	Khan Takhti	Urmia Museum
2h	bracelet	11091	bronze	0.5– 5.6	decorative	0 70 70	Khan Takhti	Urmia Museum

Continuation of the bracelets end in the snake's head

Table 2. **General dimensions and specifications of artifacts from Fig. 3a to Fig. 3f**

Fig. number	Title	Registration number	Material	Dimensions of inner diameter of rod thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
3a	bracelet	2166	bronze	0.7–5.7	decorative	0 0 5	Seizure of Urmia	Urmia Museum
3b	bracelet	2649	bronze	0.7–5.7	decorative	0 0 5	Seizure of Urmia	Urmia Museum
3c	bracelet	7435	bronze	0.4–4.4	decorative	0 0 70	Seizure of Urmia	Urmia Museum

End of the Table 2

Fig. number	Title	Registration number	Material	Dimensions of inner diameter of rod thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
3d	bracelet	11085	bronze	0.8–4.8	decorative	0 5 70	Khan Takhti	Urmia Museum
3e	bracelet	11086	bronze	0.7–6	decorative	0 5 60	Khan Takhti	Urmia Museum
3f	bracelet	11088	bronze	0.7–4.6	decorative	0 70 5	Khan Takhti	Urmia Museum

Description and review of works

Urartu bracelets at the Urmia Museum include several types. One of these types consists of bronze rods, which are almost in the shape of an elliptical ring with an open end, and at both ends it has "snake shaped" busts with different shapes and prominence. The rod of these bracelets are often smooth and simple (Figs 2, 3, Tables 1, 2), but in some specimens, they are divided by creating scratches or deep grooves (Fig. 4, Tables 3).

The use of animal head shapes is one of the decorative methods often seen on bronze jewelry. The best example of using this method, which has been molded in an integrated format, can be seen in Urartu bracelets [17, p. 114]. The end of two sections of this type

Continuation of the bracelets end in the snake's head (grooved specimens)

Table 3. **General dimensions and specifications of artifacts from Fig. 4a to Fig. 4d**

Fig. number	Title	Registration number	Material	Dimensions of inner diameter of rod thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
4a	bracelet	10041	bronze	0.6–5.4	decorative	0 0 5	Seizure of Urmia	Urmia Museum
4b	bracelet	2665	bronze	0.5–5.8	decorative	0 0 5	Seizure of Oshnavieh	Urmia Museum
4c	bracelet	1845	bronze	0.6–5.2	decorative	0 0 5	Seizure of Oshnavieh	Urmia Museum
4d	bracelet	10042	bronze	0.7–5.6	decorative	0 0 5	Donative	Urmia Museum

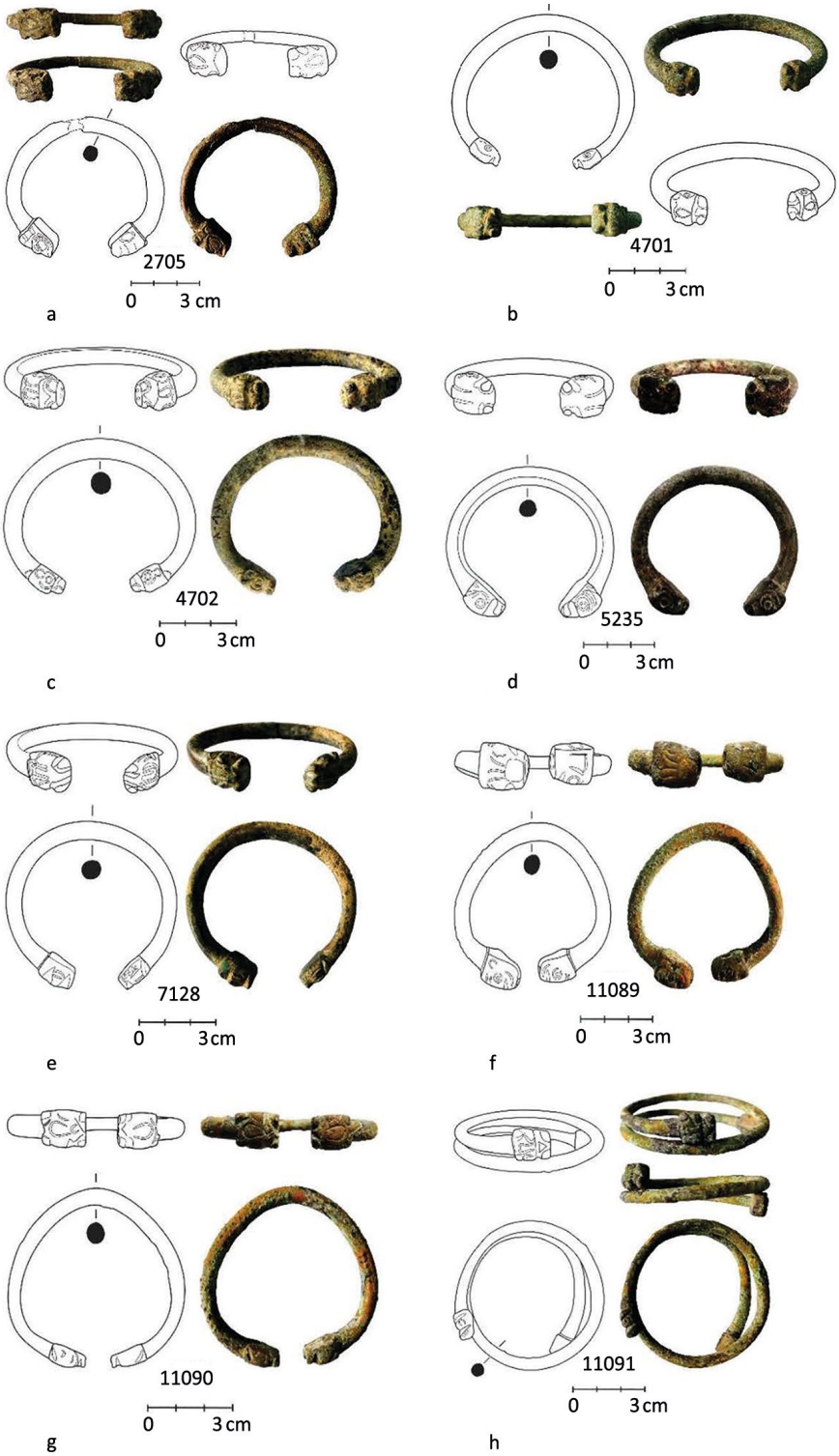

Fig. 2. Bracelets with cubic snake head. Photo and layout by Maryam Abbaszadeh

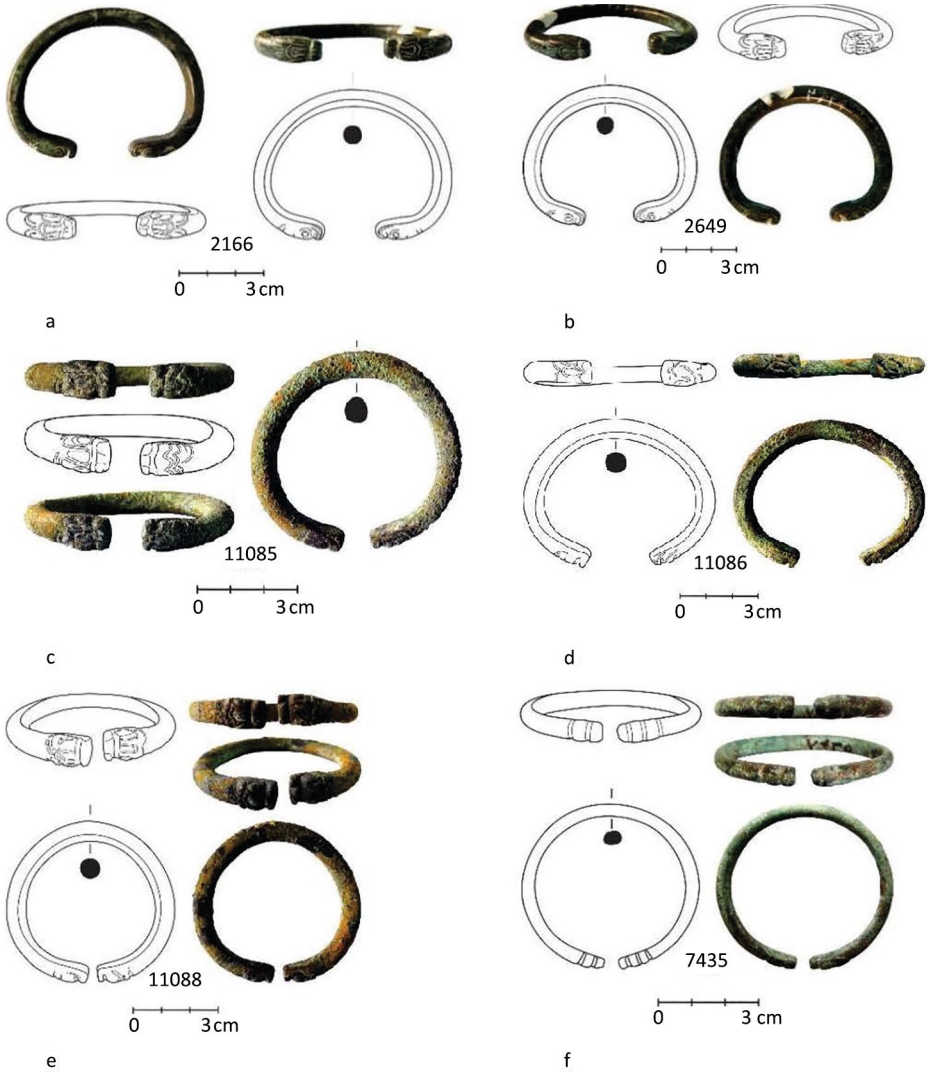

Fig. 3. Snake shaped bracelets. Photo and layout by Maryam Abbaszadeh

of molded bracelet is in the form of the anterior part of the snake. Murray gave important explanations about their importance due to their early presence in Hasanlu and their continuation until the Achaemenid period [18; 19, p. 132]. Animal-shaped bracelets were very common during the Iron Age I in Iran, Assyria, and the Caucasus, and continued until the Achaemenid period. Healso noted that the shape of the snake's head, in particular, was taken appropriately for bracelets, and it was probably one of the first forms used for bracelets in the Middle East. Specimens of bracelets end in snake shape obtained from Deylaman of Iran, the Caucasus, and Urartu. Interestingly, in Urartian specimens, especially in specimens obtained from the Igdir cemetery, this shape is referred to as the lion's head. In addition, it is possible that a number of published bracelets with two simple ends were originally made in the shape of a snake's head and, due to corrosion and erosion, were considered simple and free of bust [18; 19, p. 36].

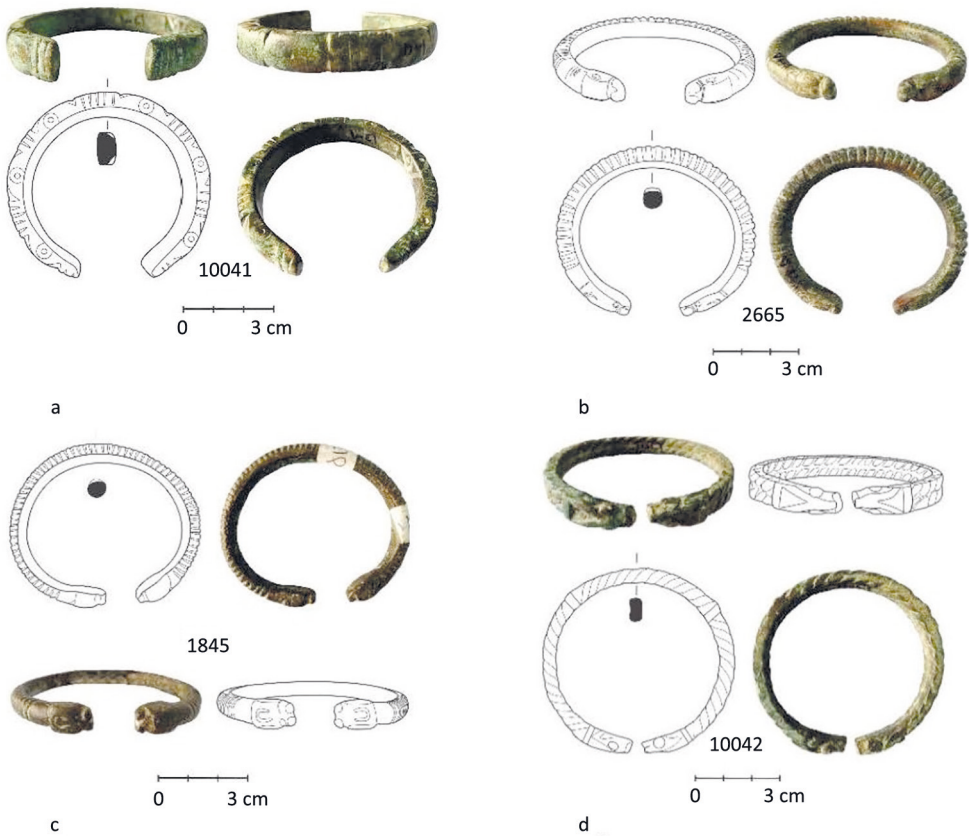

Fig. 4. Grooved bracelets ends in the snake's head. Photo and layout by Maryam Abbaszadeh

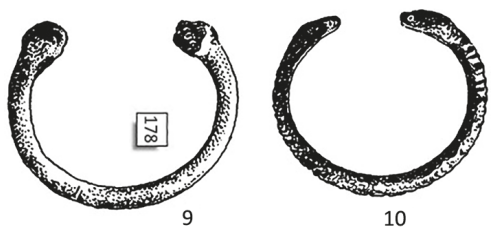

Fig. 5. Bracelets of Igdir Cemetery [20, p. 178]

At Igdir Cemetery, bracelets form the largest group of artifacts and consist of three types. The first type is like a tespih (misbaḥah) and consists of several spheres (balls) or prominence next to each other. The second type is an open-loop bracelet consists of a rod with low prominence (surface roughness) and ends in snake head (?) at two ends. There are specimens of these bracelets among the bronze bracelets of the Urmia Museum (see: Figs 2, 3). The third type of Igdir bracelet, as mentioned by Muscarella, is referred to as the bracelet ends in the lion's head, while the animal's bust at the end of the bracelet is from the snake's head. Many specimens of this type of bracelet have been identified in Igdir and in many other Urartian sites, and for this reason this type has been introduced as one of

Fig. 6. Specimens of Urartian bracelets [21, p. 240, fig. 9]

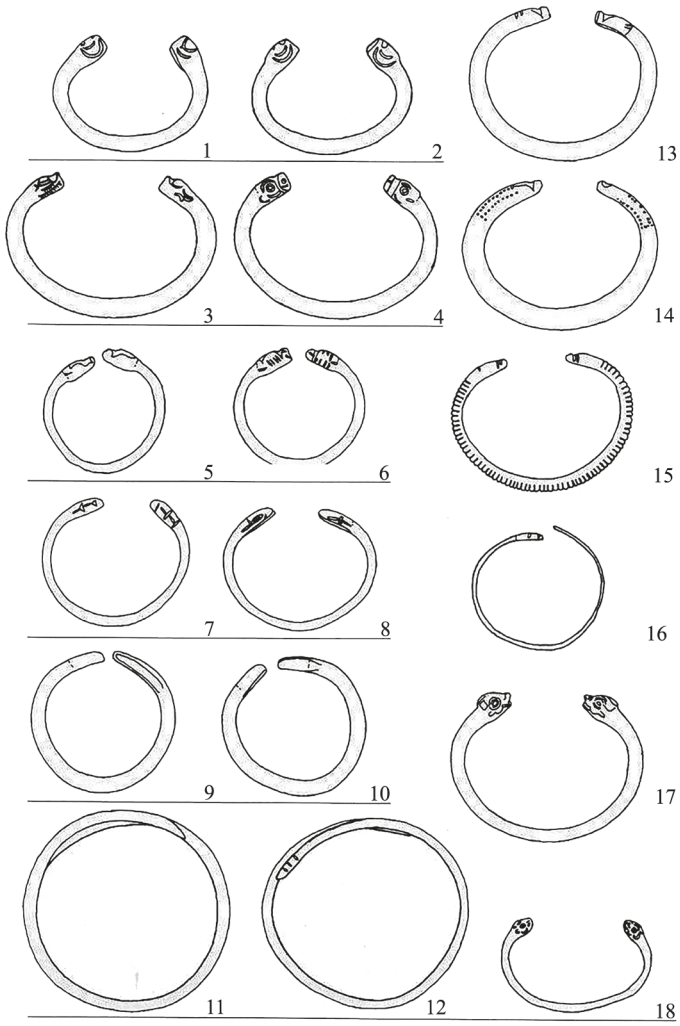

Fig. 7. Specimens of Urartian bracelets [22, p. 183, fig. 20]

the distinguishedtypes of Urartian bracelets (Figs 5–7). In some cases, the bust at the end of these bracelets has been marked prominently on the surface of the bracelet rod bar, and sometimes taken the form of a cube. These molded busts are often rough and have a slit in the back of the nose. The bracelet rod often has a circular cross section and is sometimes divided and has an uneven surface. Examples of these bracelets have also been obtained

from the Urartian site of Armavir in Armenia [20, p. 178–9]. A comparison of Urmia Museum's animal bracelets with the specimens of Igdir cemetery and Van Museum reveals that these objects belong to the Urartu period. Despite the fact that the history of the Igdir cemetery specimensis clear, the wide scope of the use of these bracelets during the Urartu period and the non-belonging of the specimens of Urmia Museum to the archaeological layers make it impossible to accurately decide on their date.

Broad head bracelets

In addition to animal bracelets, there are other types of bronze bracelets among the metal artifacts in the Urmia Museum that appear to be imitations of the snake's bust. In some of these bracelets, the two ends of the bracelet ring are slightly wider by hitting hammer (Fig. 8). As mentioned earlier, according to Muscarella, some of these broad head specimens may originally have been in the form of a snake (stylized) and may have been thought to be simple and free of bust due to corrosion and erosion. On the other hand, these bracelets may first have been hammered and widened at two ends in the same way and with the aim of inducing the as stylized snake's head. In fact, two specimens of these bracelets were found in the Urartian site of Sangar of Maku during ancient archeological excavations, and there is no doubt that they date to the Urartu period (Figs 8, 9, Table 4). In addition to these two cases, there are three other similar specimens among the metal artifacts of the Urmia Museum (see: Fig. 8, b, c, d), which are based on the specimens of the Sangar site and compared with other similar Urartian bracelets (Fig. 10) attributed to the Urartu period and the 7th century B. C.

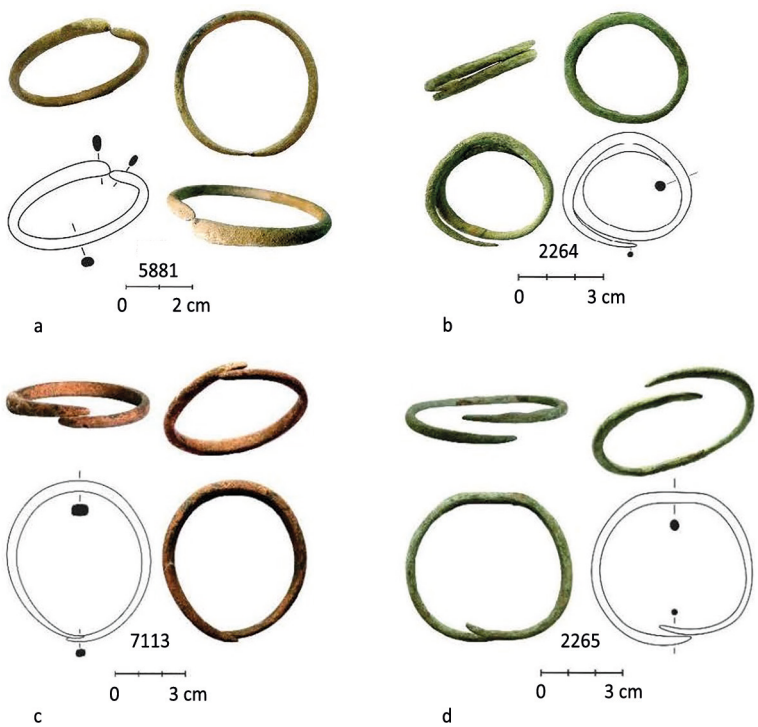

Fig. 8. Bracelets with two broad ends. Photo and layout by Maryam Abbaszadeh

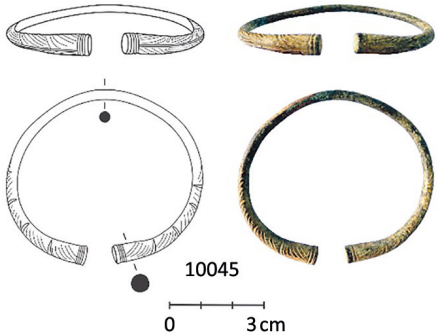

Fig. 9. Snake shaped rings. Photo and layout by Maryam Abbaszadeh

Fig. 10. Specimens of Urartian broad head bracelets. Photo by Maryam Abbaszadeh

Table 4. **General dimensions and specifications of artifacts of Figs 8, 9, 11**

Fig. number	Title	Registration number	Material	Dimensions of inner diameter of rod thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
8a	bracelet	5881	bronze	0.3–3.8	decorative	0 0 5	Excavation of Sangar	Urmia Museum
8b	bracelet	7113	copper	0.5–5.4	decorative	0 0 5	Excavation of Aftarkhan	Urmia Museum
8c	bracelet	2264	copper	0.4–3.5	decorative	0 0 5	Seizure of Bazargan	Urmia Museum
8d	bracelet	2265	bronze	0.4–5.3	decorative	0 0 100	Seizure of Piranshahr	Urmia Museum
9	bracelet	5877	bronze	3.2–6.7	decorative	0 0 100	Excavation of Sangar	Urmia Museum
11	bracelet	10045	cooper	0.3–5.6	decorative	0 0 100	Seizure of Oshnavieh	Urmia Museum

Finally, the last of the bracelets introduced in this paper is a very different type of Urartian bracelets with open rings and narrow rods, which are thickened at both ends and cut smoothly and vertically (see: Fig. 11). The bracelet is decorated with geometric lines carved in two ends, which, along with the relative thickness, has added the emphasis on these two parts. Urartian specimens similar to this type of bracelet are kept in the Van Museum (Fig. 12).

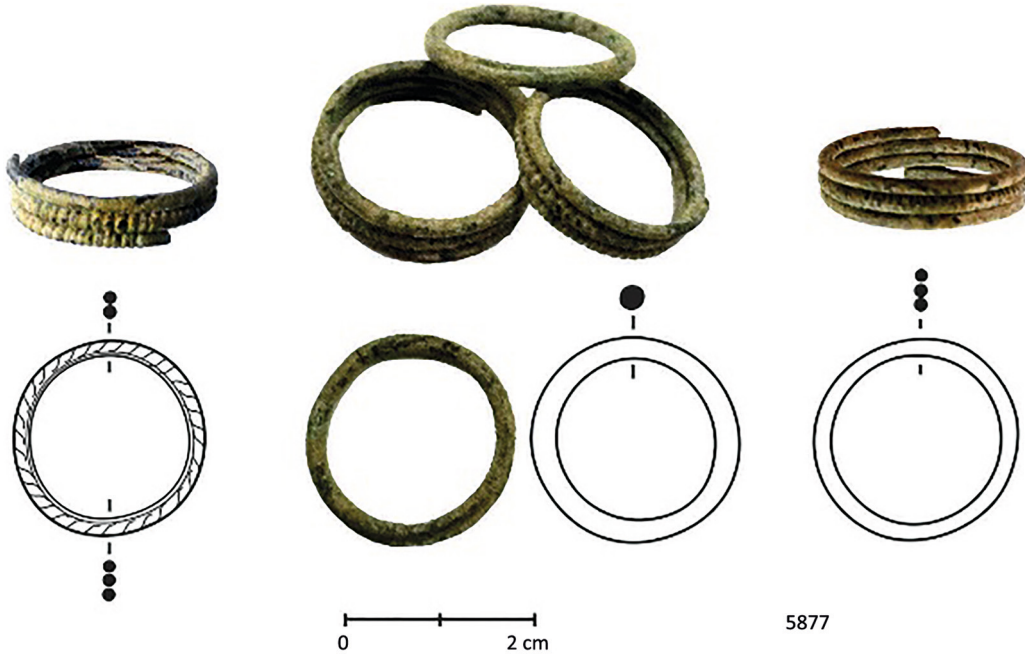

Fig. 11. Bracelets with two thick ends. Photo and layout by Maryam Abbaszadeh

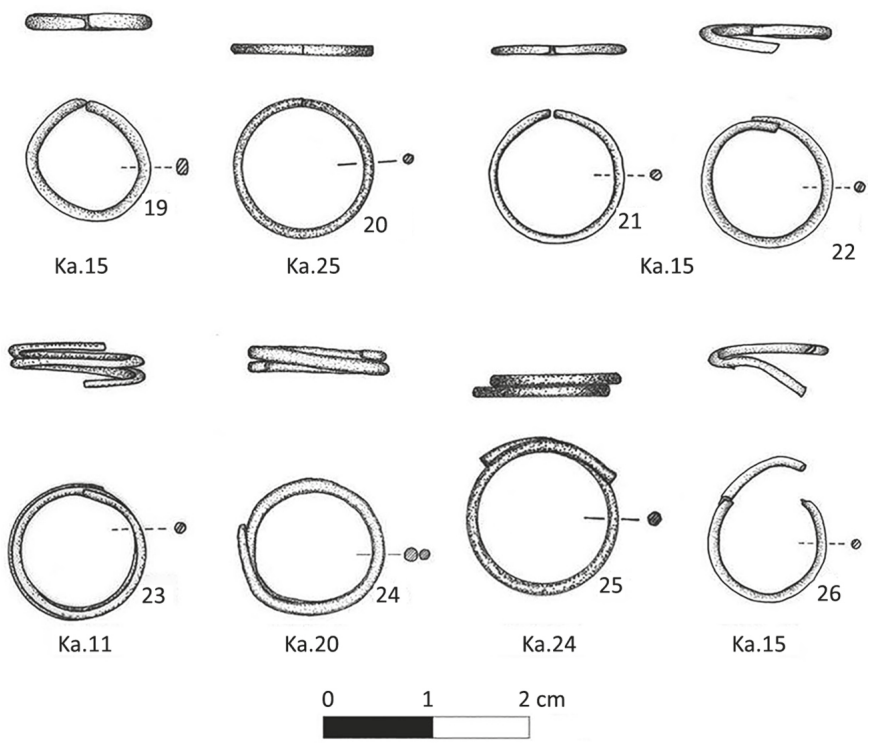

Fig. 12. Specimens of Urartian broad head bracelets [21, p. 239, fig. 7]

Description and review of the work

Among the objects introduced by the Urmia Museum, there are two stringy (granular) necklaces contain grains of red agate and red and white streaky agate (see: Fig. 13, Table 5). In addition to Urartu, the production and use of such necklaces in the Iron Age has been common among various cultures, but since both of these necklaces are derived from excavations at the Urartian site of Sangar of Maku, and one of their large grains located in the center of the necklace and is irregular oval-shaped, resembles the Urartian specimens of the eastern regions of Turkey (Fig. 14). Thus, Urartu is recommended for the chronology of both periods.

Granular necklaces

Table 5. **Dimensions and general specifications of artifacts of Fig. 13**

Fig. number	Title	Registration number	Material	Length dimensions of large bead	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
13a	bracelet	5876	Agate stone	2.9–3.5	decorative	No Low No	Excavation of Sangar hill	Urmia Museum
13b	bracelet	5886	Agate stone	4	decorative	No Low No	Excavation of Sangar hill	Urmia Museum

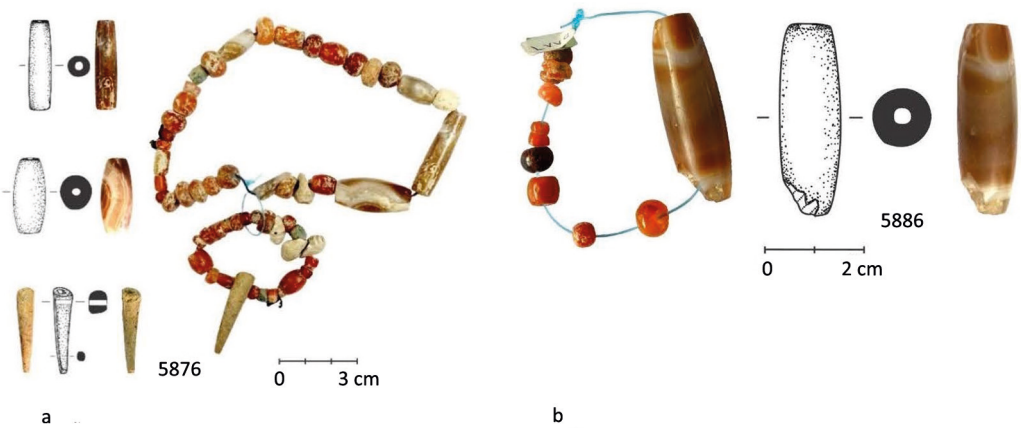

Fig. 13. Necklaces decorated with ornamental stones. Photo and layout by Maryam Abbaszadeh

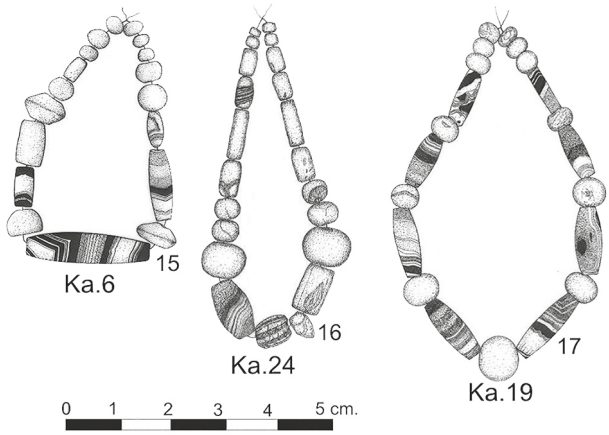

Fig. 14. Specimens of Urartian necklaces of eastern Anatolian [21, p. 238, Fig. 6]

Description and review of the work

Pins are cultural findings obtained from most archaeological sites that are generally divided into two types: rod pins, which were common from the third millennium B. C. to the Achaemenid period, and safety-pins, which have gradually replaced rod pins since the 8th century B. C. These pins, which have been found in many archaeological sites in Iran, have various shapes and motifs. It is useful to pay attention to these motifs and their apparent characteristics in analyzing the use of these artifacts [23, p. 6]. Among the artifacts obtained from various ancient sites, especially in Lorestan region, a large number of bronze and iron metal pins and sometimes a combination of these two metals have been found. Most of the iron specimens have been eroded and destroyed due to high compositional properties of this metal with oxygen; however, most bronze specimens have remained intact.

Pins can generally be divided into two types in terms of appearance: first, the rod pins, which in English are called "pin" and consist of two parts; the first part is the head of pin, decorated with various geometric, plant, animal, human and mythical motifs, and the second part is a rod in variable sizes. Second, safety-pins pins, known as "fibula" in English and have been common since the 8th century B. C. These pins did not exist before [18, p. 106].

Rod pins, which were used in many archaeological sites in western Iran in the early third millennium B. C. and were used in other areas until the Achaemenid period, from the Achaemenid period onwards, their use was declined and were replaced by safety pins. The earliest specimens of safety pins obtained from the Middle East and in the ancient sites of Syria, Palestine, Anatolia, Urartu, Assyria, and Iran, dating to the late 8th century B. C. [23, p. 7]. Safety pin has a definite function in everyday life for tying and holding clothes, and before it became popular, rod pins were used for this purpose. In addition, due to the great variety of its forms, it may have been used as a jewel. However, in East near the ancient, safety-pins had a spiritual character as evil eye or they had the value of oblation, and were used as talisman against evil spirits or religious gifts to the gods. Thus,

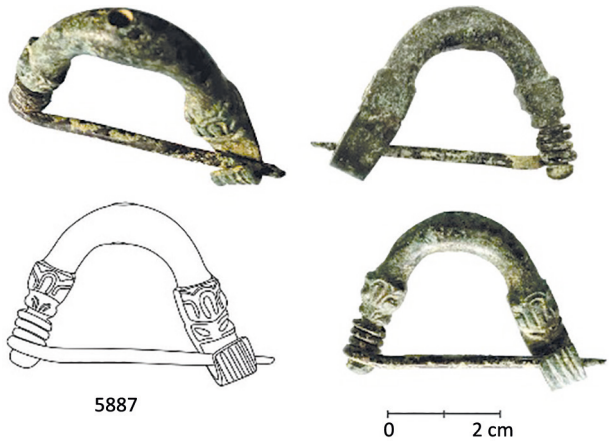

Fig. 15. Safety-pin with fibula shape. Photo and layout by Maryam Abbaszadeh

Safety-pin (fibula)

Table 6. **Dimensions and general specifications of artifacts of Figs 15 and 16**

Fig. number	Title	Registration number	Material	Dimensions of length thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
15	Safety-pin	5887	bronze	0.7–4.5	decorative	Yes 70	Excavation of Sangar hill	Urmia Museum
16	Fibula chain	5879	bronze	0.2–48	decorative	Yes 70	Excavation of Sangar hill	Urmia Museum

these seemingly simple objects had a cultural meaning that surpassed their practical use [19, p. 46].

Safety-pins consist of two parts: the first part is the horizontal bar and the second part is the pin arm on which the main decoration of the pin is. The difference between the safety pins is due to the difference in the pin arm [23, p. 8]. Stronach has examined safety-pins and classified hundreds of pins from the Middle East into different types [24]. Based on two criteria of form and shape, he has classified the safety-pins of the Middle East into three main groups:

1. Semi-circular safety-pins.
2. Arch shaped safety pins.
3. Triangular safety pins.

The specimens kept in the Urmia Museum is of the type of articulate arch shaped fibulae (without spring), which consists of two parts: "bow" and "rod"; the bow of this fibula has a semioval arch. In the upper part (center of the bow), like the prominent Urartian specimens, has a slight protuberance or slack (see: Fig. 15, Table 6). This feature is the most important aspect of the similarity of the discussed fibula with the Urartian specimens. The two ends of the bow are connected to protuberance with a square section and geometric

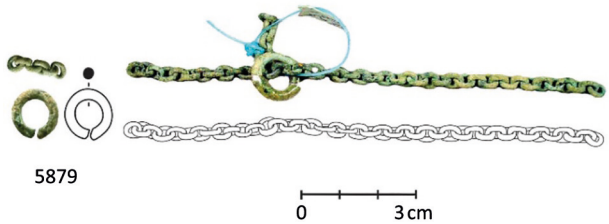

Fig. 16. Bronze chain. Photo and layout by Maryam Abbaszadeh

patterns. One of the two ends of the bow has slightly been delaminated and widened, and actually has been taken the form of a human hand to hold a fibula rod. The other end, after a square shaped protuberance, has slightly been narrower and finally ended in at a small dome. One end of the fibula wire rod has been wrapped around the narrowed section, and the other end has been extended into the hand shaped section of the bow.

This fibula has been identified along with a two-piece chain and a bronze ring, and at the time of registration, the two-piece chain and the connected ring has mistakenly recorded as separate objects (see: Fig. 16).

The technical specifications of these three pieces are as follows:

1. The largest part of this group is a metal chain consisting of 42 rings and a total length of 5.10 cm. The diameter of each ring is 2 mm in the free state and 2.5 mm in the time of placement due to the occupation of 0.5 mm of space inside the ring. The entire surface of this chain has been covered with a green layer, which is the result of copper oxide.

2. The second piece of this work is actually a continuation of the previous chain having 6 rings with the length of 1.5 cm. This piece, like the previous piece, has a green copper oxide.

3. The third piece of this work is a metal ring with a diameter of one centimeter, which, like the previous examples, has a green copper oxide.

Among the personal decorative elements, the safety and rod pins have been the subject of many special studies. Urartian safety-pins or fibulae have a special form with a semicircular bow that resembles Phrygians specimens and differs from the common Assyrian and Western "arm" specimens [2]. This type of articulated or jointed fibulae with a thick bow has been excavated in the Caucasus and Urartu (Karmir Blur, Adilcevaz, Bastam and Chavosh Tappeh). Other Urartian fibulae of no origin, both articulated and springy, have been dated by Mr Ogon to the late 8th century B. C. Such fibulae are very old. A specimen of them was obtained from the Koti castle in the southwestern part of the Caspian Sea and was apparently attributed to the late Achaemenid or Parthian period. Articulated fibulae date back to the 7th century B. C. in terms of stylistics, and one of them has a disc bow that has been identified in the northwestern areas of Iran (Hasanlu and Mannea sites). There is no evidence that these two types of fibulas (embossed and disc bows) have been used in western Iran or south of northwestern Iran [16, p. 47]. However, in most Urartian sites we see the first type of embossed bow (in the central part) (Fig. 17, 18). Thus, the specimen kept in the Urmia Museum, along with its similarities with other Urartian fibulae, has been obtained by excavating from Urartian site in northwestern Iran. Definitely they attribute to this period and to the history of the seventh century B. C.

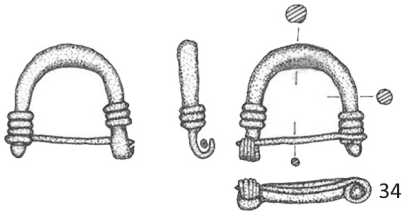

Fig. 17. Specimens of Urartian fibulae [21, p. 239]

Fig. 18. Specimens of Urartian fibulae in the Van Museum [21, p. 239, fig. 7]

Description and review of the work

The rod pin with a griffin head is another metal artifact obtained from the site of Sangar of Maku made of bronze. This pin was intact and only a small amount of copper oxide is seen on its surface. This artifact is made by molding and Bivalvia casting. The head of the pin is 1 cm long and is divided into four parts by a groove. This part is also separated by three grooves with two prominent circles from the lower part, and the lower part (above the rod) includes a smooth and undecorated surface in the form of an inverted quadrilateral pyramid with a length of 2 cm and a rod of pinwith the length of 5 cm. As mentioned, this work has no decoration in the rod section, but in the upper part, it has several grooves and bold rings, and finally, at the head of this pin, there are four protuberances that have a view of the eagle or hawk's head shape (see: Fig. 19, Table 7).

Rod pin

Table 7. **Dimensions and general specifications of artifacts of Figs 19 and 20**

Fig. number	Title	Registration number	Material	Dimensions of length thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
19	Rod pin	5880	bronze	0.3–7.4	decorative	0 0 100	Excavation of Sangar hill	Urmia Museum
20	Rod pin	5884	bronze	0.3–8	decorative	Yes 0 60	Excavation of Sangar hill	Urmia Museum

The Urartians, like their contemporaries, used their symbolic shapes and symbols in their metal industries; for example, in pins of the griffin's head, the shapes of the creatures' heads were made geometrically; the shapes of the head of the lion were made individually, or the heads of group lions or bulls, the combination of animals, or the shapes of birds were made. In addition to bronze, gold and silver were also used to make this type of pin. A similar specimen of this type of golden pin, obtained from Patnos in Van province in

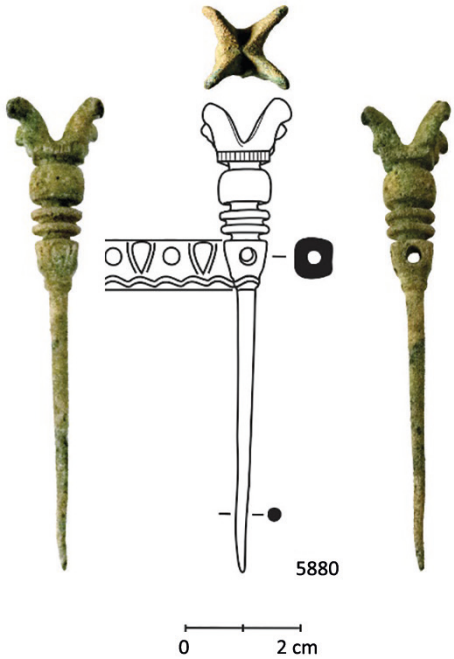

Fig. 19. Rod pin with griffin head. Photo and layout by Maryam Abbaszadeh

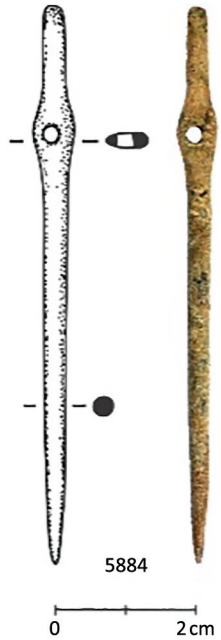

Fig. 20. Rod pin. Photo and layout by Maryam Abbaszadeh

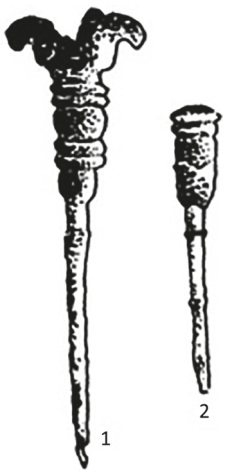

Fig. 21. Griffin's pin from Igdir Cemetery [20, p. 178]

Fig. 22. Griffin of Van Cemetery / Kalechik [25, p. 251, fig. 2]

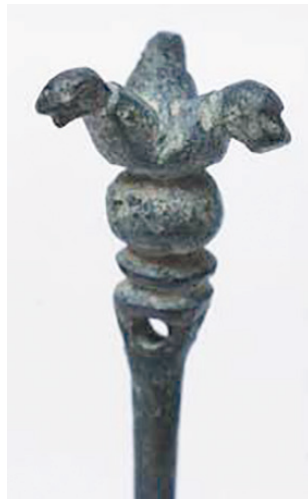

Fig. 23. Griffin of Erzurum Museum [25, p. 259, fig. 14]

eastern Turkey, dates to the eighth century B. C. Very similar specimens have also been identified from the 7th century Urartian cemetery of Igdir [20, p. 178–9] (Fig. 21). Other Urartian specimens have been introduced by Çavuşiğlu [25, p. 251, Fig. 2, p. 259, Fig. 14] (Fig. 22, 23).

In general, the specimens kept in the Urmia Museum, along with the similarities with other Urartian pins, have been obtained by excavations from a Urartian site in northwestern Iran. Definitely they attributed to Urartu and to the history of the seventh century B. C. This work is one of the most beautiful and elegant Urartians metal works of the Urmia Museum, which dates back to before Urartians and the early second millennium B. C. in Anatolia. This work is most likely an imported product and is not produced in northwestern Iran, because its previous and contemporary examples have not been widely observed in northwestern Iran [26, p. 117; 27].

Broad head rod pin

Description and review of the work

This work is a rod pin in the shape of a wire with a length of 8 and a maximum thickness of 0.3-centimeter-wide and one-fifth of its upper part has been flattened by hammer blow creating a hole in it. A similar Urartian specimen of this pin was introduced by Çavuşiğlu of Van Cemetery [25, p. 251, fig. 2] (Fig. 24).

Description and review of the work

This work is a bronze tweezers obtained from Sansar site of Maku and are now kept in the Urmia Museum (see: Fig. 25, Table 8). Its length is 7 cm and it is in good condition. Such artifacts were produced by casting, hammering and cutting thick sheets. A similar specimen of this type of bronze tweezer with arsenic has been obtained from Urartian sites in eastern Anatolia (Fig. 26).

Tweezers

Table 8. **Dimensions and general specifications of artifacts of Fig. 25**

Fig. number	Title	Registration number	Material	Dimensions of length thickness	Usage	Conditions: fracture; corrosion (%); oxidation (%)	Place of discovery	Keeping place
25	Tweezer	5878	bronze	5.5 — 7	decorative	0 0 40	Excavation of Sangar hill	Urmia Museum

Specimens of tweezers have been obtained from sites such as Samsun, Ikiz Tepe, Çorum, Alaca huyuk, Yuzgar and Alişer Huyuk in Anatolia from 2800 B. C. to the middle of the first millennium B. C. [26, p. 118]. Due to the dating of other metal finds in the Sangar site, the date of the 7th century B. C. is also suggested for this work.

Fig. 24. Pin of Van Cemetery/ Kale Chick [25, p. 251, fig. 2]

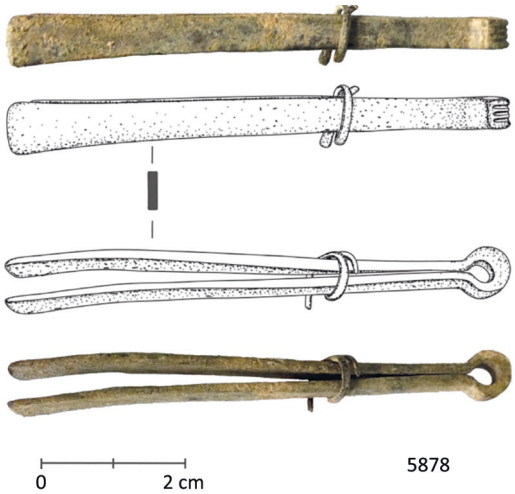

Fig. 25. Bronzetweezers. Photo and layout by Maryam Abbaszadeh

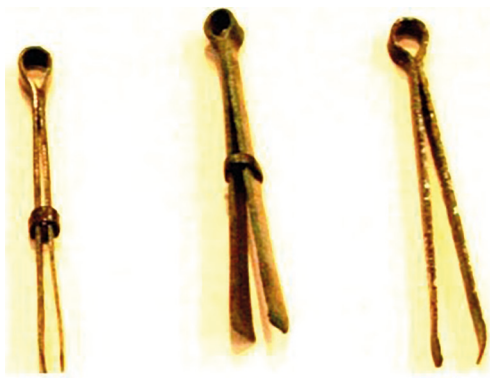

Fig. 26. Specimens of Urartian pins in the Van Museum. Photo by Maryam Abbaszadeh

Conclusion

Urmia Museum, as one of the first museums in Iran and the most important and richest museum in the northwest, especially in connection with Urartian studies, has a large number of items and cultural property attributed to Urartu, which has been obtained either from archeological excavations or confiscated from antiquities smugglers or donated by lovers of history and culture. The attribution of artifacts obtained from excavation according to the principles of excavation and considering the texture, layer and other scientific items to a specific period has its own scientific principles and is somewhat defensible, but determining the age and period of them obtained from the smugglers of cultural property or donated by lovers of cultural heritage, due to lack of knowledge of the location and texture of the artifact and the method of its discovery, is a very difficult task

and sometimes full of mistakes and high error. The only achievement of experts to do this is to make a comparative comparison and consider the artistic style of the artifacts.

On this occasion, a number of jewelries of Urmia Museum, including bracelets, necklaces, safety-pins and tweezers attributed to Uraratu were investigated through library studies, comparative study, considering the artistic style, and comparing them with similar artifacts discovered of archaeological excavations. A comparison of Urmia Museum's animal bracelets with specimens of Igdir cemetery and Van Museum reveals that these artifacts belong to the Urartu period. Despite the fact that the history of the specimens of Igdir cemetery is clear, the wide scope of the use of these bracelets during the Urartu period and the non-belonging of the museum specimens of Urmia to the archaeological layers make it impossible to accurately date them. Because the necklaces examined in this article are both from excavations at the Urartian site of Sangar of Maku, and one of their large grains is located in the center of the necklace and is in the shape of an incomplete oval, it can be concluded that it is similar to the Urartian specimens of the eastern regions of Turkey; thus, the Urartian period is recommended for the chronology of both. Fibula pin of the Urmia Museum is a type of articulated arched fibula. The bow of this fibula has a semi oval arch and like the prominent Urartian specimens, has a slight protuberance or slack in the upper part (center of the bow). This feature is the most important aspect of the similarity of the discussed fibula with the Urartian specimens. The pin specimen with griffin's head kept in the Urmia Museum, along with the similarities with other Urartian pins, have been obtained by excavations from a Urartian site in northwestern Iran. Definitely they attributed to Urartu and to the history of the 7th century B. C. According to the history of other metal finds in Sangar site of Maku, the date of the 7th century B. C. is also suggested for bronze tweezer of the Urmia Museum.

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