

## THE CRAFTSMEN AND MANUFACTURERS IN THE URARTIAN CIVILIZATION

*Rafet Çavuşoğlu, Bilcan Gökce and Kenan Işık\**

### **Abstract**

*Urartu became a powerful state in the Near East during the first millennium BC. In spite of geographic impediments such as high mountains and strong streams, and a severe climate, the Urartians developed a high level of production in every area of craftsmanship. We encounter in Urartian written sources professions indicating craftsmen and manufacturers who constituted the base of this production. Iconographical and archaeological findings prove the existence of further types of handicrafts not mentioned in written sources. In our study, some questions regarding gender and social status related to Urartian craftsmen and manufacturers are clarified. Additionally, places where production took place are identified. The study gives an overview of the world of arts and crafts in Urartu, and the people behind it.*

### INTRODUCTION

One of the main factors that constitute the socio-economic structure of societies is craftsmen and manufacturers. As to ancient Near Eastern sources, the craftsman is defined as the person who does the work requiring experience, skill and mastership, together with other individuals. The person who produces all kind of goods by processing raw materials is known as the manufacturer (Bienkowski 2000: 80).

A number of studies exist on the classes that formed the socio-economic structure of ancient Near Eastern societies. For example, there are some studies on the socio-economic structures of the societies of Neo-Assyria (1000-612 BC), Neo-Babylonia (612-539 BC), Persia (539-330 BC) and Urartu (859-638 BC). Thus Zimansky (1985: 80-94) and Salvini (2006: 140-144) state that there were different ethnical and social classes in the Urartian society, a society that dominated during the 9<sup>th</sup>-7<sup>th</sup> centuries BC a geographical area including from the Euphrates in the west to Iranian Azerbaijan in the east, from Gökce Lake and Aras Valley in the north to the Taurus and the southern part of Lake Urmia in the south.

In this article, we attempt to determine the importance of craftsmen and manufacturers within the social organization of the Urartian state, in the light of the written sources, and of the archaeological findings as well as the evidence of visual arts uncovered at many Urartian sites, especially in Toprakkale (ancient *Rusaḫinili*) and Karmir-Blur (*Teišeḫani*). The aim of this study is to reveal the relationships between craftsmen and manufacturers within the socio-economic organization of the state as determined by the craft and manufacturing branches of the society, demographic indicators, workshops and division of labour between the genders, and the known and/or presumed social organization of Urartian sites used as

---

\* Yüzüncü Yıl University, Van, Turkey.

examples. Although the names of some craftsmen and manufacturers are not mentioned in the Urartian written sources, we will attempt to identify what data is relevant to the existence of craftsmen and manufacturers in the light of the archaeological material. In addition, in order to enlighten the role of the craftsmen and manufacturers, this data and interpretations will be compared with contemporary civilizations, mainly the Neo-Assyrian, a direct contemporary of Urartu.

## Textiles

It is clear from the archaeological findings, written sources and the visual arts that weaving was an important line of work in the Urartian state. In Urartu, a highland area, animal husbandry was the main source of living – as it is at present. The Urartians could have provided their wool that was the main raw material of textile from sheep. Thus, regarding Urartian geography and the severe climatic conditions experienced in the area, the importance of wool can be understood. Additionally, Urartian written sources record that wool was transferred between cities (UPD: no. 10). It appears that in some cases weaving activities took place in workshops that were established in Urartian centres for the needs of the state. A document that clarifies this issue was discovered in Toprakkale. In the tablet, the expression 68 MUNUS.GAD-*hi-e* has been translated as “68 weaving women”<sup>1</sup>. These weaving women (MUNUS.GAD) appear in the second category of the list in this tablet. MUNUS.GAD is understood to be a Sumerogram but is seen only in this tablet among the surviving Urartian texts as yet. Although some words<sup>2</sup> defining women in Urartian written sources are known, especially in booty lists, women who had an occupation are documented in this tablet for the first time.

Another source of evidence about weaving women in Urartian society are visual representations, with weaving looms and figures of weaving women shown on fragments of a few metal belts (Kellner 1991: pl. 70: 282; Seidl 2004: pl. A-3) (Fig. 1 A-B). In weaving scenes, female figures described as being in front of a sloped loom are probably weaving rugs, carpets or fabrics. It has been stated that in those Neo-Assyrian texts contemporary to the Urartian state, the people named as LÚ.TÚG.DU<sub>8</sub> DU<sub>8</sub> *ka-mi-du* were felt weavers and carpet weavers, while the people called LÚ.UŠ.BAR were simply weavers (Kinnier Wilson 1972: 68).

On a fragment of an Urartian metal belt in Van Museum, both women wool-spinners and weavers are depicted<sup>3</sup>, with weaving looms sloped at an angle of about 45 degrees (Fig. 1 B). There are similar examples in Near Eastern civilizations. On a relief dated to 8<sup>th</sup>-7<sup>th</sup> centuries BC and found in the acropolis of Susa, for example, an Elamite woman is shown while spinning (Amiet 1966: 540, see also fig. 413). Also on a Maraş tomb stele

<sup>1</sup> Diakanoff 1989: 99: although the expression here for weaving women was previously translated as 68 LÚGAD (UPD: no: 12, p. 39), it was read as 66 MUNUSGAD (see Salvini 2007: 38ff). Sumerian GAD(A) is “linen”.

<sup>2</sup> In the Urartian language, the words defining woman are MUNUS (CTU I: 46), <sup>MUNUS</sup> *lutú* (CTU II: 142ff), <sup>LÚ</sup> *úedia* or <sup>MUNUS</sup> *úedia* (CTU II: 223ff). Melikishvili translated these last words as “woman” (UKN II: 480-485).

<sup>3</sup> From Rafet Çavuşoğlu’s archive (this piece was in the study collection at the time he researched belts in the Van Archaeological Museum).

dated to the Late Hittite period (1200-700 BC), there is a female figure spinning in a sitting position on a stool (Darga 1992: 318, see also fig. 304). In Phrygian Gordion (750-300 BC), during the excavations in a room defined as belonging to a service building, many spindles and clay spindle-whorls,<sup>4</sup> and a comb interpreted as a device to be used in a weaving loom, were uncovered (Voigt 2007: 72).

In addition to the written and visual data indicating weaving activities in Urartu, spindle-whorls were found in some Urartian sites such as Armavir-Blur (*Argištihinili*) (Martirosjan 1974: pl. 107), Çavuştepe (*Sardurihinili*) (Erzen 1978: fig. 23, pl. XXXV: a-i), Ayanis (*Rusašinili Eudurukai*) (Çilingiroğlu and Sağlamtimur 2003: 467) and Anzap (Belli and Ceylan 2004: 34, see also fig. 6) (Fig. 2). Thus, the spindle-whorls and fragments of a weaving loom found in room No. X in Çavuştepe (Erzen 1978: 39) and Karmir-Blur (Piotrovskii 1969: 156) have been considered as an indicator of weaving workshops in the Urartian state.

The visual arts of the Urartians demonstrate how both men and women wore patterned and ornamented garments. The garments of the women generally go down to the ankles and these garments are decorated with daisy-like rosettes or nested square motifs. The garments of the men have two parts and include an undergarment like a skirt going down to the kneecaps; above this a tunic or over-garment going down to the ankles. The edges of the men's garments are generally finished with tassels. Actual physical data related to the garments used in Urartu are known from the carbonised remains of a long tunic in Karmir-Blur (Piotrovskii 1969: 156) and remains uncovered on the skeletons in the graves of Erzincan-Altintepe (Özgüç 1969: 6) and Patnos-Dedeli (Öğün 1978: 667ff). More textile evidence was detected on a bench along the wall in room No. 2 in the domestic spaces found during the excavations in the Ayanis Fortress, that was covered with a fabric overlay. Beside this, textile examples in different living areas were also found in the Ayanis Fortress (Çilingiroğlu and Erdem 2010: 4). In addition, the garments of human and winged genies depicted on the walls of the palaces at Erzincan-Altintepe (Özgüç 1966) and Arin-Berd (*Erebuni*) (Hovhannisian 1973) were painted in blue, red, yellow, black and white colours.

In the booty lists of the Neo-Assyrian king, Sargon II (721-705 BC), during his famous eighth campaign (714 BC) to Muşşir (*Ardini*), the Urartian holy city, states that he seized 130 pieces of bright-coloured woollen clothing, pieces of purple clothing and wool produced for red clothing in the countries of Urartu and Ḫabḫe (ARAB II: no. 213; Thureau-Dangin 1912: 78-81, lines 49-51; duplicating Mayer 2013: 135, line 366). In the booty lists of this campaign, nine ritual garments, the edges of which were attached with *murdu* (line 386),<sup>5</sup> belonging to Urartian rulers, are also mentioned (ARAB II: no. 173; Mayer 2013: 136). In the light of this information, it is also understood that there were special garments worn during rituals by the Urartians. So this evidence confirms the existence of weavers in Urartu, as well as the manufacture of coloured wool/fabric work.

<sup>4</sup> A spindle is a wooden weaving tool that allows for manual wool-spinning; a spindle whorl is the weight that provides the spinning motion.

<sup>5</sup> Mayer 2013: 137: "9 Gewänder seiner Gottheit mit Gürteln aus Gold, Rosetten aus Gold, deren Stickereien (*šibītu*) mit Goldfäden (*murdu*) eingefäbt sind".

Among the findings uncovered in the Urartian-period Armavir-Blur site (Martirosjan 1974: figs. 82/1, 4, 8, 9), Kayalıdere Grave A (Burney 1966: pl. XXV: g), Adilcevaz I Necropolis chamber No 1 (Yıldırım 1989: 78), Liç (Öğün 1978: 674), and the Van-Kalecik Necropolis (Çavuşoğlu and Biber 2008: 192, see also fig. 16: 7), sewing needles used for sewing fabric or clothing were reported (Fig. 3). However, because no names of weaving professions, except for weaving women, were found in Urartian written sources, we can adduce terms defining other weaving professions in the contemporary Neo-Assyrian texts. For example, in Neo-Assyrian texts, titles such as “tailor” (LÚ.TÚG.KA.KÉŠ *ka-š[i-ru]*) and “sewing specialist” (LÚ.TÚG.KAL.KAL *mu-ga-bu-u*) are mentioned (Kinnier Wilson 1972: 68). Although no similar professions have been identified in the Urartian written sources, we think that there could also have been such specialist cloth-workers in Urartu just as in Assyria.

We also note the term *mu-ga-bu-u* (= *mukabbû*) mentioned in Neo-Assyrian texts. Although the meaning is not known with certainty, it has been suggested that this term defined the person who applied metal-type embellishments to be worn over clothing (Kinnier Wilson 1972: 68). Appliqué accessories or over-garments were found in graves of princesses in Nimrud, a Neo-Assyrian city, and the same accessories are also seen on the garments on royal reliefs (McIntosh 2005: 262). Some gold, silver and bronze buttons perhaps sewn onto the garment on a male skeleton have been found in an Urartian chamber in Erzınca-Altıntepe. In addition, disc-shaped gold buttons decorated with rosette motifs in granulation technique, and gold sequins adorning the garment have been reported in a sarcophagus of a woman (Özgüç 1969: 22; 1983: 31-33, see also pl. XI: a-c). Similar examples can also be seen on the Adilcevaz-Teişeba relief (Piotrovskii 1967: 64, see also fig. 44) and the garment of the Toprakkale eunuch statuette (Mitchell 1983: 158-159, see also pls. XXXVI/a-b-XXXVIII/a-b). This leads us to conclude that there were also masters in appliqué accessories for clothing in the Urartian civilization, just as in the Neo-Assyrian kingdom. In view of the grave findings and adorned garments on statues and reliefs, the noble class in Urartian society preferred these distinctive clothes.

In summary, the available archaeological data proves that the textile industry played an important role in the Urartian state. It can be concluded that there were various craft branches in the Urartian textile industry.

### **Builders and Architects**

The Urartians built magnificent buildings, mainly on natural hills and compatible with topographic structures. Beside functional buildings such as fortresses (É.GAL) (Zimansky 1985: 62-66) surrounded by huge fortification walls, palaces (Çilingiroğlu 1997: 74-77), temples (*susi*-E.BARA) (Salvini 1979: 575ff), storerooms (*ari*) (Salvini 1969: 7ff), they built civil settlements usually in the form of a ‘lower city’. Additionally they built bridges (*qaburzani*) (Çavuşoğlu et al., 2010: 42-50), underground stone-built tombs, canals (*pili*) (Zimansky 1985: 66-69), open-air temples and rock tombs that were formed by carving into natural rock. As construction materials in architecture, stone, mud-

brick and timber were used (Forbes 1983). The depictions of the fortresses on some metal belts dated to the Urartian period (Seidl 2004: 146, see also sm. 2-37), the temple of the god Haldi on the Khorsabad relief (Çilingiroğlu 1997: fig. 36), and a bronze construction model uncovered in Toprakkale (Kleiss 1976: fig. 6), provide us with detailed knowledge about Urartian architecture. These findings are important in forming an opinion about the superstructure and appearance of Urartian buildings that survive only as foundations.

The stonemasons in Urartian architecture used materials that were easily found and in good supply in the area, such as andesite, basalt, limestone, and sandstone. These materials were probably transported to the building area after having been roughly shaped in quarry workshops. In the buildings they were intended for they would have been processed more elaborately. It is understood from the archaeological findings that the Urartian master builders produced works requiring a very intensive labour power and architectural expertise. The best examples that can be said to demonstrate this situation are places such as fortresses, tombs built by carving into natural rock, stores, cisterns, and barns for sacrificial animals (*siršini*) (Salvini 1986: 31ff). All architectural constructions are an indicator of how the Urartian master builders were skillful in stonework.

In some buildings the Urartians used stone or mud-brick up to a certain level and from this level on upwards they used timber. In Armavir-Blur, *in-situ* wall remains made of mud-brick have been found, standing 7.00 m in height and 2.50 m in thickness (Martirosjan 1974: 75). The dimensions of the mud-bricks used in cities in Urartu are very similar. Mud-bricks of about 52 x 35 x 15 cm were used in Karmir-Blur (Piotrovskii 1950: 43), of about 53 x 35 x 14 cm to 53 x 53 x 14 cm in the Adilcevaz-Kef Fortress (Bilgiç and Öğün 1964: 97) and of about 46 x 46 x 12 cm at Bastam (Rusai URU.TUR) (Forbes 1983: 31).

Beside external architecture, the Urartians also produced important works in their internal architecture. The inner walls of some buildings such as Urartian temples and palaces were decorated with some motifs and figures in colours such as red, white, black, and blue (Özgüç 1966; Hovhannisian 1973). Additionally, the floors of some places were inlaid with mosaics (Barnett 1954: 4, 8, see also figs. 2, 8; Çilingiroğlu 2001: 56, see also fig. 18). There are also inscriptions carved on the walls in some buildings such as temples (Erzen 1978: 10; Çilingiroğlu 2001: 52, see also fig. 7). Inlaid decorations in the Ayanis Temple (Çilingiroğlu 2001: 51-60), wall paintings in Erzincan-Altintepe (Özgüç 1966: 13-60) and Arin-Berd (Hovhannisian 1973: 18ff) indicate that there were some masters who made elaborate internal decorations. So this evidence reveals that similar profession groups such as stonemasons, carpenters, floor-makers, scribes and trimmers worked together for interior architecture works.

Physical evidence of the stonemasons and other craftsmen who made the splendid buildings of the Urartian civilization has been identified at Armavir-Blur. At that place the craftsmen (stonemasons, pottery and metalworking specialists, etc.) who made up the bulk of the population lived alongside the ruling classes in the same area. It has been shown that the areas of the houses varied between 500-700 m<sup>2</sup> in size and that they had approximately ten rooms. The houses of the ruling class covered an average space of 614 m<sup>2</sup>, enclosed by

a wall, and with an oven, a kitchen, a bathroom, storehouses for different commodities, and an inner hall of about 70 m<sup>2</sup> in size (Figure 4). Based on this evidence one may conclude that the members of the ruling class in the Urartian state lived in an advanced stage of well being (Salvini 2006: 144).

We learn from Urartian inscriptions that those building professionals among the people who had been brought from other sites, or by forced migration as a result of military campaigns, were employed to build fortresses or other constructions. For example, the temple inscription of the Ayanis Fortress and a bulla of Rusa II uncovered in Bastam indicate this.<sup>6</sup> Piotrovskii believes that captives were also included among the workers together with local craftsmen for building the city of Karmir-Blur (Piotrovskii 1969: 133), while Martirosjan has claimed that captives from Assyria and Mana were used for all of the building activities at Armavir-Blur (Martirosjan 1974: 46ff).

In the light of the written documents of the Urartian period<sup>7</sup> and archaeological data it is clear that there was some form of a standardised plan and architectural tradition behind the building of some constructions such as fortresses, palaces, and especially temples. The temples (*susi*) built in the Urartian sites have a standard form and share very similar dimensions, thus providing the best examples for this situation. It also indicates the existence of a special group of master builders connected to the kingdom.

Some of the tools probably used by architectural masters have been identified as the result of archaeological excavations. The best examples known so far are an iron sledgehammer and a shovel from Toprakkale (Wartke 1990: pl. XXX: a-b), an iron shovel from Ayanis (Çilingiroğlu and Erdem 2007: 130, see also fig. 14), and other iron tools from Armavir-Blur (Martirosjan 1974: 141, see also fig. 87: b) and the Van-Kalecik Necropolis (Çavuşoğlu and Biber 2008: 192, see also figs. 17: 2-3) (Fig. 5). Although we have no evidence in the Urartian written sources of any distinctive name for master builders or architects, the evidence is clear that there were masters of architecture in Urartian society and these professionals followed different lines of business.

<sup>6</sup> We know from the written sources that the Urartian state supplied a part of its need for labour force in construction activities by mass population transfers. In the temple inscription of the Ayanis Fortress from the time of Rusa II, it is indicated that the people included in the construction of the fortress were brought from specifically named countries: “Rusa, son of Argišti, says: I brought (deported) men women and cattle from the Lulu countries (= the enemy, barbarian countries), from Assur, from Targuni, from Etiuni (Armenia), from Tablani, from Qainaru, from Hāte (the Neo-Hittite country, like Malatya), from Muški, from Şilquuni (never attested before). I built through(?) people (craftsmen? evidently the deportees) that fortress and the settlements” (Salvini 2001: 261). Beside this, we learn from other written sources that masters of architecture were sometimes brought from another city or a country for working at a specific site. On the bullae of Rusa II uncovered in Bastam, for example, it is stated that carpenters were brought from the city of Bastam (Rusa-i URU.TUR) for the construction of the Toprakkale fortress (Salvini 1988: 130-131, 134-135, no. 3.1.1.1 and 3.1.3).

<sup>7</sup> The expression “... *nothing has been done here before...*” which the Urartian kings mentioned frequently in construction inscriptions shows that they attached great importance to construction activities. This indicates the importance of masters of architecture. Hence, although they were found in different regions, the similarity in features and certain fixed dimensions (cellas of *susi* 5 x 5 etc.) of Urartian fortresses, temples and fortification walls – especially temples – lead us to conclude that these could only be built by a group of master builders and architects connected to the kingdom.

## Woodworking

It is known from the written sources that timber was another professional business in Urartu. Thus, some sources also state that the need for building timber constituted some of the problems between the Neo-Assyrian and Urartian states.<sup>8</sup> Building timber was used in Urartian architecture (Forbes 1983) and wood was used for elaborate furniture manufacturing (Merhav 1991a: 246-262). Bronze throne fragments in Toprakkale (Wartke 1990: 30, see also fig. 1), a chair, table and throne, uncovered in the graves in Erzincan-Altıntepe (Özgüç 1969: 24), and a wooden trestle found at Adilcevaz H reef (Seidl 1993: 185, see also fig. 49) represent good examples of functional woodworking made during this period. Metal was placed between wood panels in some places in the furniture fragments uncovered at these sites both for decorative purpose and providing a connection between parts of a complex piece of equipment. Additionally, metal and wood were used together in various weapons, construction materials and agricultural tools. Wood will have also been used for vehicles used in land and river transportation and for some daily-use materials.<sup>9</sup>

Some expressions indicating the profession of a carpenter or other specialists dealing with work in wood are found in the Urartian written sources. For example, on the bulla of Rusa II, the Urartian king (685-645 BC), found in Bastam, the expression LÚ.GIŠ.NAGAR.MEŠ in a section of the text has been translated as “carpenters” (Salvini 1988: 130-131, 134-135, no. 3.1.1.1 and 3.1.3). The bulla records the building of *Rusahinili Qilbanikai*, the Toprakkale fortress “before Mt. Qilbani” (the Ereğ Mountain?).

Diakonoff has stated that the “*garurda* men” (LÚ.GIŠ.*garurda*) (whose numbers were indicated as 20 in the Toprakkale tablet) could be professionals related to producing a tool or pots and pans made of wood (Diakonoff 1989: 99). Salvini, however, has stated that the words LÚ.GIŠ.NAGAR and LÚ.GIŠ.*garurda* were quite close to each other phonetically in the Urartian written sources (Salvini 1988: 135). This term is in the fifth category of personnel list in the Toprakkale tablet, and from the preceding determinative LÚ.GIŠ.*ga-ru-ur-da* is understood to be a profession related to wood, and must therefore be the term for carpenter in the Urartian language.

In the Near and Middle East, there are also some written and visual sources about the profession of carpentry. For example, in the tablets of Assyrian Trade Colonies Period (1900-1750 BC) the term *rabi naggâri* meaning ‘head carpenter’, is recorded (Sever 1991: 250). Working male carpenters are also depicted on a baked clay relief of Near Eastern origin dated to ca. 1900 BC (Matthews 2000: 456) and on a wall painting of a grave dated approximately to 2500 BC in Egypt (Hodges 1970: 109, see also fig. 98).

In the light of this information, it can be said that the Urartians used wood in architecture, furniture, the production of weapons, fine workmanship (wood carving

<sup>8</sup> Based on information by Neo-Assyrian spies, the Urartian king Arğišti II (714-685 BC) took timber together with the rulers of the city of Harda from a place called Eziat (see SLA: no. 6). In a Neo-Assyrian letter, it is mentioned that 470 timber trees were brought to the city of Ura by 160 men coming from different cities through the river (see SLA: no. 109); In another letter of a Neo-Assyrian spy, 500 huge logs cut by the Urartians are mentioned (see ABL: no. 705).

<sup>9</sup> Thus, wooden vessel fragments from Ayanis are known (see Çilingirođlu and Erdem 2010: 9).

and decoration), vehicles in land and river transportation, and daily equipment. So they benefited from professional groups producing these, and these groups probably produced under the patronage of the state.

### Jewellers

Objects used for the purpose of ornamentation have been uncovered mostly in necropolis excavations rather than in Urartian residential areas. Karmir-Blur (Piotrovskii 1967: 53-55), Giriktepe (Balkan 1964: 241), Kayalıdere Grave A (Burney 1966: pl. XXV: c, d, f), Erzincan-Altın-tepe (Özgüç 1969: 22; 1983: 33-35), Van-Altın-tepe (Ayaz 2006), Van-Kalecik (Çavuşoğlu and Biber 2008: 192, see also fig. 16), and Iğdır Necropolis (Barnett 1963: 178, 181, 185, 195-196, see also figs. 32, 34, 36, 41-43, 44) provide the best examples on this subject. Additionally, there is also jewellery from various provenances, often unknown, that is available for study in various national and international museums and special collections (Zahlhaas 1991: 184-197). The use of jewellery is seen on some figures on bronze statuettes (Seidl 2004: fig. 38: a-c), on the Adilcevaz-Teişeba relief (Piotrovskii 1967: 65, see also fig. 44), on various belts (Kellner 1991: pls. 69: 260-265), and on votive plaques of Urartian origin (Seidl 2004: figs. 122-125, 137-145).

Although not clearly mentioned in the Urartian sources, the existence of silversmiths responsible for producing and cleaning jewellery is known from the texts of the Neo-Babylonian and Cassite periods in Near Eastern civilizations (Oppenheim 1949: 172). For example, in the written sources of Mesopotamia the silversmith is known as *zadim*, and the goldsmith is known as *kudim/kutimmum* (McIntosh 2005: 258). The Urartians had jewellery made of mainly bronze, gold and silver. Among such items bracelets, armlets, rings, beads, necklaces, pectorals, fibulas, amulets, and pins are the most common. As to the Urartian examples, it is thought that there were some professional craftsmen preparing moulds, casting, and performing finer works (ornamentation).

Jewellery has an important role in demonstrating the level of socio-economic development and class differences in the Urartian society. In the light of the archaeological findings, we think that jewellery workshops in the Urartian administrative sites operated for the satisfaction of the ruling class. However, the existence of much jewellery in some public necropolises, such as Dedeli (Öğün 1978: 663-668), Liç (Öğün 1978: 672-674), the Iğdır Necropolis (Barnett 1963: 178-195), and Adilcevaz H reef (Öğün 1978: pl. CLXIV: 51-52-55, pl. CLXV: 57-59), indicate that private specialist workers produced jewellery by imitating state production. It is clear that some jewellery makers were literate and aware of the various deities adored in Urartu. The best evidence for this is a carnelian bead of the Urartian king Arğişti I (786-764 BC) with an inscription on it: "Arğişti presented [this] to the goddess Arubani. He brought [it] from [the country] Eriahi" (Dinçol and Kavaklı 1980: 231-234).



## Sculptors

The main material of the Urartian sculptures and reliefs in large dimensions is stone, generally andesite, basalt and limestone. Smaller sculptures and relief works were made of bronze and clay. Among the large-scale Urartian sculptures there is a lion protom found around the cemetery area of Gevaş-Celme Hatun (Sevin 1993: 565-567), and three lions protoms found in Van-Garibin Hill (Derin and Sağlamtemur 1998: 15-33). Some embossed and relief works in stone are found on both sides of the main entrances in some Urartian buildings, and the decoration of some walls or pillars. The best examples known of this type of work are the Adilcevaz-Teişeba relief (Burney and Lawson 1958: 213, see also fig. 2; Piotrovskii 1967: 65, see also fig. 44; Seidl 1974: 116-119), and the chariot relief in Van Museum (Bilgiç and Ögün 1964: 87, see also pl. XIX: c).

Several bronze statuettes represent small-scale sculptural work. Generally these have been uncovered as furniture fragments (Merhav 1991b: 278-283), but better known are those attached to cauldrons and representing bullheads or sirens (Merhav 1991c: 226-243). Beside these, there were also probably small statuettes in the form of a god and goddess for religious functions (Seidl 2004: pl. 38/a-c; Çilingiroğlu and Erdem 2010: 25, see also fig. 12; Gökce 2013: 211-217). Although no large-scale bronze statues have been recovered in Urartu, their existence is indicated by their inclusion in Neo-Assyrian booty lists.<sup>10</sup>

Although not clearly mentioned in the Urartian written sources or shown in Urartian art, the inscriptions<sup>11</sup> and the plastic arts<sup>12</sup> of the Neo-Assyrian kingdom, the contemporary of Urartu, show that masters of sculpture and relief formed an occupational group that worked for the state. Thus, although we have no evidence for the specific professions of stonemasons and masters of relief in the Urartian written sources so far, the finds that we have and the Neo-Assyrian booty texts provide evidence for the existence of these specialised craftsmen. As the surviving examples can be identified as products intended for religious or royal purposes, it can be suggested that professional craftsmen making sculpture and relief works in Urartu belonged to a similar state-organised profession as in the contemporary Neo-Assyrian kingdom.

<sup>10</sup> The Neo-Assyrian king Sargon II states in the information about the plunder recovered from Muşāşir that he seized "... four figures of (divine) main gate guardians made of bronze, the protectors of his (temple) gates with a height of 4 cubits, as well as their bases cast in bronze; one statue in praying attitude – on a royal pedestal – of Sarduri, son of Išpuini, king of Urartu – its base cast in bronze; (...) one statue of Rusa with his two riding horses (and) his charioteer as well as their base, cast in bronze, on which was written in self-praise: 'With my two horses and my single charioteer I have won royal rule over Urartu'." (see ARAB II: no. 173; Mayer 2013: 136-139, lines 399-404).

<sup>11</sup> "... We made a sculpture of the potentate based on the sketch I had drawn; they prepared a different kind of sculpture of the king. The king should see (the sculptures) personally and whichever is appropriate should be done. My potentate should pay attention to the hands, the chin (?) and hair. On the statue of the king they had, there is a rod in the front side of the sculpture, its hands rest on the knee. I do not make the work because this is not regarded as appropriate. They will not listen to me if I say something about form (or) other issues..." (see Sevin 2010: 15).

<sup>12</sup> In a scene engraved on bronze plaques made by Shalmanasar III (858-824 BC), for fixing on the door wings of a temple in Balawat, the procession of a king made by a craftsman under the control of a courtier is shown (see Sevin 2010: 14-15, see also fig. 11).

## Bone, Horn and Ivory Carving

Although pieces of bone, horn and ivory worked for decorative and other uses have been uncovered at some Urartian period sites, these are not common finds. There are a small number of works made of ivory found in Karmir-Blur (Piotrovskii 1967: 57-61), Toprakkale (Van Loon 1966: 131) and Erzincan-Altıntepe (Özgüç 1969: 42-43). It is known that ivory was brought to Urartu from Northern Syria and Mesopotamia by trade or as a result of military campaigns. We also know that the Urartians processed raw ivory in local workshops.<sup>13</sup> Images representing the tree of life, which had artistic features reflecting Urartian influence, were found in Karmir-Blur and Erzincan-Altıntepe. Examples of rough ivory point to the processing of raw ivory in local workshops (Sağlamtimur 2009: 567).

In Karmir-Blur, remains of horn were found in two rooms. It has been stated that there is some evidence showing that the horns had been cut on a surface (Piotrovskii 1969: 139). Additionally, based on the presence of other horn fragments and a hacksaw, the excavators claimed that this place was a bone-horn processing workshop (Piotrovskii 1969: 139). This situation indicates that there could be workshops and masters of ivory-, bone- and horn-working in other important Urartian sites.

## Viticulture

Urartian written sources speak of laying out vineyards and gardens. In fact, the grape (*ḫaluli*) and the planting of vineyards (GIŠ.*uldi* or GIŠ.GEŠTIN) is mentioned frequently in the texts. These texts make it clear that vine cultivation was performed especially as a state investment. The inscriptions of Karahan<sup>14</sup>, Armavir-Blur<sup>15</sup>, Karataş<sup>16</sup>, Çelebibağı<sup>17</sup>, Ayanis<sup>18</sup> and Keşişgölü<sup>19</sup> are some of the more important inscriptions about the planting of vineyards. In addition, a rock inscription found in Edremit/Kadembast (Katepa'c) reports how a vineyard was planted in the name of Tariria, perhaps the wife(?) of king Minua (CTU I: no. A 5A-1). This text also shows that vineyards were planted and operated in the names of individuals in Urartu. Another important subject related to vineyard and viticulture in

<sup>13</sup> Özgüç and Hermann claimed that a lion statuette found during excavations of Erzincan-Altıntepe was a North Syrian product, but Akurgal has claimed it was an Assyrian production because of stylistic features (for this discussion, see Muscarella 1980: 186-187).

<sup>14</sup> On a stela of king Minua found in Karahan, the king states that he founded a city (URU) and a fortress and also established a vineyard (<sup>GIŠ</sup>*uldi*) (CTU II: no. A5-30).

<sup>15</sup> Argišti I, son of the Urartian King Minua, reveals in one of his inscriptions that he had a vineyard laid out near the city that he had founded and named after himself (*Argištihinili*) in Armavir-Blur, as well as a water-channel and an orchard (CTU I: no. A 8-16).

<sup>16</sup> Sarduri II, son of the Urartian King Argišti I, mentions a vineyard that he planted in an inscription found in Karataş near Erciş (CTU I: no. A 9-11).

<sup>17</sup> In an inscription belonging to Argišti II, son of the Urartian King Rusa I, found in the Çelebibağı locality southwest of Erciş, the planting of a vineyard is recorded (CTU I: no. A 11-1).

<sup>18</sup> In an inscription belonging to Rusa II, son of Argišti II, found in Ayanis, the planting of a vineyard is mentioned, as well as many investments, such as a fortress, a temple, a city and an orchard (CTU I: no. A 12-9).

<sup>19</sup> The stela found in Gövelek village near Van is of Rusa III, son of one of the last kings of Urartu Erimena, and mentions the planting of a vineyard as well as the making of a water-channel and orchard (CTU I: no. A 14-1).

Urartu is the animal sacrifice made for the god Haldi and his consort, the goddess Arubani, during the vintage season in autumn (CTU I: no. A5-33).

We encounter some of the names and titles belonging to the people working vineyards at almost every site in Urartu in the written sources. The expression I ME LX VIII LÚ.*e-ši-a-te* in the fifth line in the tablet uncovered in Toprakkale has been translated as “168 palace servants”. The expression X LÚ.Ē.TIN.MEŠ-*ni*, appearing among the LÚ.*ešiate* men on the same tablet, has been interpreted as “ten cupbearers or wine manufacturers” (UPD: no. 12, 83 and 93). In addition, the expression LÚ.Ē.TIN <sup>m</sup>šá-*ni-e-[h]i-[n]i* found on a tablet belonging to the reign of Sarduri III, son of Rusa (645-635 BC), found in Karmir-Blur, has been translated as “viticulturist or son of cupbearer <sup>m</sup>šá-*nie*” (UPD: no. 1).

Further evidence about winemaking in Urartu comes from archaeological excavations, and Karmir-Blur provides the best information on this issue. The existence of a large winery there has been documented as a result of archaeological study (Piotrovskii 1969: 140-153). Based on its findings we conclude that there were wine workshops and manufacturers throughout Urartu. Additionally, many cellars in which wine was stored have been found at several Urartian sites. Wine cellars with capacities of 60-100 thousand litres have been identified at Armavir-Blur (Martirosjan 1974: 138) and eight wine stores in which 40.000 litres of wine could be stored were uncovered at Karmir-Blur. Next to these wine cellars in Karmir-Blur, 1036 red-burnished pots in bright colour and bronze cups were found. There are also 97 bronze bowls on which the names of Minua (810-786 BC), Argišti I (786-764 BC), Sarduri II (764-734 BC) and Rusa I (734-714 BC) can be read; they were found on pithoi in a winery (Piotrovskii 1969: 140-153). These finds demonstrate that terracotta and metal vessels were used during wine offerings for the king or gods.

It is clear from all this evidence that wine was produced by processing grapes from a large amount of vineyards in Urartu in wineries. The wine so produced should have been consumed after being stored. In this instance, vine cultivation, wine production, wine storage and serving wine are different lines of the viticulture business as is indicated by the information provided above.

## Brewers

In addition to wine production in Urartu, there is also evidence for making beer. A stone basin for grinding barley grains found in a room uncovered in Karmir-Blur points to beer production (Piotrovskii 1969: 139).

## Miners

The development of metallurgy in settlements of Early Iron Age in Eastern Anatolia resulted in a technological leap by which metal manufacturing became a particular characteristic of Urartu. Many metal artefacts found in Urartu have been brought to national and international museums as well as private collectors, through archaeological excavations

and purchases on the antiquities market. All these objects are important in showing how Urartu mined the metal resources in the region in the best way to produce an abundance of metal artefacts.

In Urartu, artefacts made of (mainly) bronze, iron, gold and silver are quite common. Metal working techniques employed in their manufacture included the lost-wax (*cire-perdue*) method, casting, and forging. In decorating such artefacts techniques such as engraving, embossing, hemstitch, plating, filigree, and granule work were performed. This shows that, in addition to artefact manufacture, there were craftsmen dealing with the fine decorative workmanship of Urartian metal work. For example, small iron and bronze working pencils in fine workmanship were uncovered in the Van-Anzaf Fortress (Belli 2007: 422-423) and the Ayanis Fortress (Çilingiroğlu and Sağlamtimur 2003: 467) (Fig. 6). The dimensions and types of working pencils found in the Anzaf Fortress are all the same. The heads of the pencils, with square-shaped edges, are bulbous and have acute points. They are 7-7,5 cm in length and 21-25 gr. in weight on average (Belli 2007: 422-423). Most metal objects uncovered were likely produced in workshops that were connected to the Urartian state, as many share similar features of style and form. However, some such artefacts may have been privately produced. Of these, the Giyimli (Hırkanis) votive plaques, with their simple embossed motifs, are the most important group (Erzen 1974: 19ff).

Although there are a large number of artefacts representing Urartian metal work, there is no information in the written sources or the plastic arts relating to who was responsible for producing these. However, archaeological investigations at some Urartian sites have proven the existence of metal workshops. Karmir-Blur provides us with a good example: irregularly shaped bronze ingots ready for being processed were found in the workshops (Piotrovskii 1969: 139). Beside these metal workshops, a workshop producing military equipments was also located at this site (Oganesian 1961: 25). Iron workshops have been uncovered during the excavations of Armavir-Blur, where the remains of a furnace, along with iron dross, bullion remains and heavy hammers, were recorded in one workshop. These dross remains and the furnace (probably an annealing furnace) indicate that the process of iron-ore smelting was performed in this area. Other remains such as a furnace related to bronze casting, and a crucible found in layers dated to the Urartian period at the Metsamor site in Armenia confirm the existence of foundry workshops during the Urartian period (McConchie 2004: 107). Although there could be some workshops in the areas adjacent to mineral sources (Wartke 1991: 324), people involved with bronze metalworking probably lived in the same area as the ruling classes in the larger settlements (Martirosjan 1974: 46ff).

It is known from Near Eastern sources that the person who melted and cast iron was the *simug/nappāhum*, while the person producing metal objects was the *tibira/gurgurum* (McIntosh 2005: 258). This also shows that there was a division of labour among metal workers. No archaeological evidence confirming the same division between different classes of metalworker has been identified in Urartu so far. However, it seems highly likely that there would have been such a division in Urartu, too.

## Potters

Uartian pottery types include bright red burnished and decorated ‘palace ceramics’, alongside domestic vessels in mainly grey, buff and pink colours, and roughly-made storage vessels. ‘Palace ceramics’ were discovered at almost all Uartian sites. Beside these, many ceramics of the same type were uncovered in the lower cities and necropolises. The existence of workshops where ceramics were produced is inevitable. The magazine found in Karmir-Blur in which red-burnished ceramics were stored shows that these were produced in royal workshops (Van Loon 1966: 29-37; Çilingiroğlu 1997: 131-135), and other ceramic workshops have been identified (Piotrovskii 1969:139). The processes involved in pottery-making, such as selecting good clay for manufacture, preparing the clay, shaping by hand or using the wheel, burnishing, engraving, decorating with appliqué bull heads, and kiln-firing, all require a level of expertise best found in a workshop. We believe that in such workshops different people were responsible for different parts of the process under the control of a master.<sup>20</sup>

## Leather Manufacturers

The written sources of Urartu<sup>21</sup> and Assyria<sup>22</sup> tell us how a great number of bovine animals and sheep were bred in the Uartian state. The Uartian king Minua had an animal barn (*siršini*) built on the northern ridge of Van Castle, with an inscription placed at the entrance stating it was for protecting animals (CTU I: no. A5-68). Many tools made of bone in room No XI. and fragments of a weaving loom in the pillared hall no X. have been uncovered during the excavations in Çavuştepe. Based on these data, it has been suggested by the excavator that these rooms were workshops related to weaving, wool-preparation, or leatherworking (Erzen 1978: 39). Leather, defined by the Sumerogram KUŠ in the Uartian texts, was apparently transferred between the Uartian cities. On a tablet found in Karmir-Blur, mention is made of the leather of 26 cows, 172 sheep and 16 goats that was sent to the city of the “god A” in country Aza (UPD: no. 10).

Ceramic rhytons uncovered during excavations in Karmir-Blur (Piotrovskii 1969: 173) are evidently imitations of long leather boots, hence the conclusion that leather was

<sup>20</sup> A scene of pottery-making on a wall painting of a tomb dated to about 2000 BC in Egypt shows that the various processes such as preparation of clay, shaping the vessel, kiln-drying, etc., were carried out by the people with different professions (see Hodges 1970: 69, see also fig. 53).

<sup>21</sup> In the Meherkapı inscription, there is a list about the sacrifice of dozens of bovines and small ruminants for the Uartian gods (CTU I: no. A3-19). Also there are lots of Uartian texts about animal sacrifice. One of these texts, the Kelişin inscription, reports the sacrifice of 1112 bovines, 9120 sheep and 12480 nanny goats for the god Haldi by Išpuini and his son Minua in the sacred city Muşaşir (CTU I: no. A3-11). Additionally, we know from written sources that the Uartian kings also seized animals; tens of thousands as booty during military expeditions. As an example from these lists, the king Argišti I proclaims that he brought 14478 bovine animals and 73770 small ruminants from the countries of *Qada*, *Aşqalaşi* and *Şašilu* during one of his campaigns (CTU I: no. A8-2).

<sup>22</sup> The Neo-Assyrian king Sargon II (721-705 BC) states that he captured 1,285 sheep and 525 cattle from the sacred city Muşaşir that belonged to the Uartians (ARAB II: no. 176; Mayer 2013: 141). Again Neo-Assyrian texts convey to us that strong oxes and numerous fleshy sheep were sacrificed during the ascension to the throne of the Uartian kings (ARAB II: no. 171; Mayer 2013: 131, lines 341-342).

used for shoe making. Leather could also be used for producing clothes. Physical evidence for leather working includes awls probably used in leather processing found at the Anzaf Fortresses (Belli and Ceylan 2004: 34, see also fig. 7) and the Van-Kalecik Necropolis (Çavuoğlu and Biber 2008: 192, see also fig. 16) (Fig. 7), while eyelets on the outer edges of metal belts and on horse trappings indicate that leather or fabric was used as undercoat.

There is no term in the Urartian texts to match the term LÚ.*aškappu* or “leatherworker” in the Neo-Assyrian texts (Kinnier Wilson 1972: 3). However, the available data indicates that some members of Urartian society were involved in manufacturing at least shoes and perhaps clothing, also made of leather. It is impossible to say as yet whether the people preparing the leather for processing, providing the leather to be used as clothing, or shoe making, etc., were the same persons, or whether there was a division of labour.

### **Basket Manufacturers**

The remains of baskets uncovered during the excavations in Armavir-Blur (Martirosjan 1974: 108, 167, see also fig. 94) and the Ayanis Fortress (Çilingiroğlu and Erdem 2010: 5) suggest that basket manufacturing was also performed in Urartu. The basket remains in the Ayanis Fortress were found in room No 2. in the area defined as a residential area in the west of the citadel (Çilingiroğlu and Erdem 2010: 5). There is nothing in the written sources or the plastic arts that can be related to basket making or the use of baskets in Urartian society, but a relief in the Southwest Palace in the Neo-Assyrian city Nineveh, contemporaneous with Urartu, shows a woman carrying a basket on her head (Roaf 1996: 130). It seems highly probable that baskets, providing a simple means of carrying products, would have been made in some quantity in Urartu, a society based on animal husbandry and agriculture.

### **DISCUSSION**

One of the main characteristics of civilizations is the occurrence of specialised production, and so specialised or professional producers. It is possible to see evidence for this situation in Urartu. The evidence found shows that the production in Urartu was performed on two levels: as state and as private production. This situation is reflected in Urartian inscriptions. Some Sumerogram titles for people working connected to the state or producing for the state, such as a cupbearer or a wine manufacturer (LÚ.E.TIN), a carpenter (LÚ.GIŞ.NAGAR), a weaving woman (MUNUS.GAD), are recorded. These titles are the titles of producers who appear in limited numbers in the Urartian texts. The fact that the titles of the people working in important lines of business, such as architecture, pottery, jewellery, etc., do not occur in the texts, except for the craft branches mentioned, should result from the official structure and nature of the state inscriptions and their contents. Additionally, we do not know the names or titles of any of the master masons and architects who built the huge fortresses that are such a characteristic feature of the Urartian state.

However, captives that were used in building constructions and carpenters brought from a region outside Urartu (Aluani Ülkesi/Bastam surroundings) are mentioned in the Urartian inscriptions, and so we can understand from this evidence in particular that at least some of the production experts and masters were not from the core region of Urartu.

We believe that there could also have been local masters of production in Urartu responsible for some industries in the region, especially the making of wine, leather, and basketry. But we assume that the people performing the finer embellishments of many Urartian artefacts, such as fresco, intaglio, sculpture-relief, carpenters and architects, could originate from outside of Urartu, probably from Mesopotamia. Additionally, some lines of production, such as textiles, pottery, and jewellery, may have been the responsibility of both state and private enterprises. Did the masters producing for the state also produce for the public? This is unlikely. It is clear that the objects belonging to the state or the ruling classes were elaborately crafted. In contrast, the objects belonging to the common people were processed quite simply and plainly. In this instance, the probability of both groups of work being produced by the same group of master craftsmen seems weak.

There is some evidence for the existence of a hierarchical ranking or a status difference among the manufacturing classes working in connection with the Urartian state. Some professions such as weaving women and accountants in the list of palace personnel of Toprakkale belong to the second, higher category. However, the position of wine manufacturer or cupbearer is reported in the fifth line and the LÚ.GIŠ.garurda men, thought to be carpenters, are in the sixth line at the end. The relative positions of these professions on this tablet point to a hierarchical ranking (Diakonoff 1989: 99). In this instance, the higher status of the working people closely connected to the state is obvious. Another important piece of information showing a status difference is the living areas of craftsmen and manufacturers. Craftsmen lived in residences in the same area as the noble classes at Armavir-Blur. This situation is evidence that the masters producing for the state were considered more important than those supplying the lower social strata such as slaves, villagers, and warriors. Many craftsmen in the ancient Near East lived generally around the king or the temple (McIntosh 2005: 233). This also probably applies to those master craftsmen brought to Urartu after military campaigns. The state built the temple of Iubša at Arin-berd for the population from the Neo-Hittite country, brought to Karmir-Blur during the reign of Rusa II, who were employed in construction work. It is a sign that the state had a lenient approach to the people working for it, and so this situation should also have been reflected in the status of these immigrant masters.

The identification of the places in Urartu where production took place greatly increases our knowledge about master craftsmen. Production centres belonging to public craftsmen were located in the traditional places, in the villages. The workshops or ateliers in which the production was performed for the Urartian state or noble classes are either located in a part of the settlement or fortress or in an area outside the settlement or fortress. During the excavations in Karmir-Blur, wineries were found on the south of the acropolis and workshops for pottery-making and metalworking outside the acropolis. Additionally,

we can say that textile production was also performed in the settlement or fortress connected to the state, just as at Karmir-Blur and Çavuştepe. Clearly, because of the nature of the production process in some working sectors, these centres should be outside the city, for example, the melting of metals at a high temperature, pottery kiln-firing, and stone-working. Where necessary, the processed raw material could then be finished by having the finer workmanship carried out in the workshops and ateliers in the city.

We do not have any direct information regarding specialization and the division of labour in the various professions. However, it is obvious that certain processes require the involvement of more than one master craftsman. For example, some processes, such as picking grapes from vineyard, the preparation of clay for potters, the writing of certain standardised cuneiform phrases about measurements and goods, kiln-firing, etc., would have been performed by the individuals specializing in their own craft. Here a division of labour makes us consider a factory-style production in the state economy of Urartu. There must also have been state officials controlling these masters beside the people working in these production workshops. Additionally, the existence of the state officials who organized the work, supplied requirements for the raw material and regulated the relationship between supply and demand of the state, is inevitable.

A significant question is whether the Urartians took goods needed for the palace from the same workshops as for the temple and the soldiers. The stylistic features of works belonging to these units indicate the same workshops. The functional and artistic standardization in the works in each field, from architecture to jewellery, reflects state care. This situation shows that these production industries worked under the control of the state.

Private people in Urartu probably imitated the production methods and products that were performed under the control of the state. The best evidence for this is to be found in attentive and simple production methods in such fields as architecture, pottery, and metal working from sites away from the Urartian administrative cities. The discoveries made in common Urartian necropolises provide the best examples for this matter.

We can see that there was a gender gap between lines of business in Urartu. Both visual and written data record that there were weaving women, while it can be assumed that women also produced pottery. Men worked in heavy labour tasks such as architecture, metalworking and sculpture, and the people dealing with lumber and carpentry were probably also men. We do not have adequate data to prove that women were involved in decorative art production such as jewellery, fresco, and engraving. However, certain production tasks were shared. For example, men and women worked together in making wine from grapes as well as picking them during vintage season, an important period in religious and economic aspects for Urartu. Although all family members were probably involved in making the traditional products used by the ordinary people, there probably was a more highly organized system of involvement regarding gender, professional skills, and age, in those workshops connected to the state.

Another remarkable issue is technological and artistic competence in the various areas of Urartian manufacture. It is obvious that techniques and decorations foreign to the



region were used especially in productions for the state. Architectural decorations such as fresco, intaglio, inscriptions, and examples of sculpture-relief, reflect the influence of Mesopotamia. This implies that at least some Urartian master craftsmen connected to the state were brought from other countries, and we have already mentioned how Urartian texts describe how various master craftsmen were brought to Urartu after military campaigns.

## CONCLUSION

In spite of its rugged and divided topography, the Urartian state, which imitated the state model of Assyria, managed to prosper for some 250 years. The state demonstrates its success thanks to the craftsmen and manufacturers who produced standardised finished goods in every field, mainly in architecture and art. It is possible to distinguish traces of these craftsmen and manufacturers in the sites that came under state administration. The evidence is that professional groups of females and males were formed for supplying the needs of the administrators and senior bureaucrats living in the centres of the cities. Furthermore, it is clear that some professional groups were especially privileged. Knowledge about these professions stems from a combination of the written sources, archaeological findings, and the plastic arts. According to the available information, craftsmen and manufacturers made an important contribution to the extension and development of the Urartian state.

## BIBLIOGRAPHY

- ABL = Harper, R.F., 1892-1914 – Assyrian and Babylonian Letters belonging to the Kouyunjik Collection of the British Museum I-XIV. Chicago: The University of Chicago Press.
- ARAB II = Luckenbill, D.D., 1968 – Ancient Records of Assyria and Babylonia II. New York: Histories & Mysteries of Man Limited. Reprint of the 1927 edition.
- Ayaz, G., 2006 – Van/Altıntepe Urartu Nekropolü Takıları (Unpublished Master's Thesis, Yüzüncü Yıl University). Van.
- Amiet, P., 1966 – Elam. Auvers-sur-Oise: Archée Editeur.
- Balkan, K., 1964 – Patnos'da Keşfedilen Urartu Tapınağı ve Urartu Sarayı. Türk Tarih Kurumu Yıllık Konferansları I Atatürk Konferansları: 235-243.

- Barnett, Richard, D., 1954 – The Excavations of the British Museum at Toprakkale, near Van: Addenda. *Iraq* 16/1: 3-22.
- Barnett, R.D., 1963 – The Urartian Cemetery at Igdyr. *Anatolian Studies* 13: 154-198.
- Belli, O., 2007 – 2005 Yılı Yukarı Anzaf Urartu Kalesi Kazısı. 28. Kazı Sonuçları Toplantısı I: 413-429.
- Belli, O., and Ceylan, A., 2004 – 2002 Yılı Aşağı ve Yukarı Anzaf Urartu Kaleleri Kazısı. 25. Kazı Sonuçları Toplantısı 2: 29-41.
- Bienkowski, P., 2000 – Art, Artists, Craftsmen, Sculpture, and Wall Painting. In: P. Bienkowski and A. Millard (eds.), *Dictionary of the Ancient Near East*, 32-33, 80-81, 256-257, and 314-315. London: British Museum Press.
- Bilgiç, E., and Ögün, B., 1964 – Excavations at Kef-Kalesi of Adilcevaz. *Anatolia (Anadolu)* 8: 93-124.
- Burney, C.A., 1966 – A First Season of Excavations at the Urartian Citadel of Kayalıdere. *Anatolian Studies* 16: 55-111.
- Burney, C.A., and Lawson, G.R., 1958 – Urartian Reliefs at Adilcevaz on Lake Van and Rock Relief from the Karasu near Birecik. *Anatolian Studies* 8: 211-218.
- Borger, R., 1978 – Assyrisch-Babylonische Zeichenliste. Kevelaer: Butzon & Bercker.
- CTU = Salvini, M., 2008 – Corpus dei Testi Urartei. Vol. I-II-III. Rome: Istituto di Studi Civiltà dell'Egeo e del Vicino Oriente.
- Çavuşoğlu, R., and Biber, H., 2008 – Van-Kalecik Urartu Nekropolü Üzerine Bir Değerlendirme. In: E. Genç and D. Çelik (eds.), *Aykut Çınaroğlu'na Armağan/Studies in Honour of Aykut Çınaroğlu*, 189-212. Ankara: Ekici Form Ofset.
- Çavuşoğlu, R., Işık, K., and Salvini, M., 2010 – New Urartian Inscriptions from East Turkey. *Orientalia* 79: 35-54.
- Çilingiroğlu, A., 1997 – Urartu Krallığı Tarihi ve Sanatı. İzmir: Tükelmat A.Ş.
- Çilingiroğlu, A., 2001 – Temple Area. In: Çilingiroğlu, A. and M. Salvini (eds.), *Ayanis I. Ten Years' Excavations at Rusahinili Eiduri-kai 1989-1998*, 37-67. Roma: CNR Documenta Asiana.
- Çilingiroğlu, A., and Sağlamtimur, H., 2003 – Van-Ayanis Kalesi 2001 Yılı Çalışmaları. 24. Kazı Sonuçları Toplantısı 1: 465-473.
- Çilingiroğlu, A., and Erdem, Ü.A., 2007 – Ayanis Kalesi Kazıları, 2005. 28. Kazı Sonuçları Toplantısı 1: 123-137.
- Çilingiroğlu, A., and Erdem, Ü.A., 2010 – Ayanis Kalesi Kazıları, 2006-2008. 31. Kazı Sonuçları Toplantısı 1: 1-27.
- Darga, M., 1992 – Hitit Sanatı. İstanbul: Akbank.
- Derin, Z., and Sağlamtemur, H., 1998 – Alaköy Kalesi ve Kale'de Bulunan Urartu Heykelleri. *Belleten* LXII, Sayı: 233-235.
- Diakanoff, I.M., 1989 – On Some New Trends in Urartian Philology and Some New Urartian Texts. *Archäologische Mitteilungen aus Iran* 22: 77-102.
- Dinçol, A.M., and Kavaklı, E., 1980 – Van Bölge Müzesinde Bulunan Yazıtlı bir Urartu Boncuğu/Ein beschrifteter urartäischer Steinkugel. *Anadolu Araştırmaları* 8: 231-234.
- Erzen, A., 1974 – Giyimli Bronz Definesi ve Giyimli Kazısı. *Belleten* XXXVIII: 191-214. Ankara: Türk Tarih Kurumu Basımevi.
- Erzen, A., 1978 – Çavuştepe I. Urartian Architectural Monuments of the 7<sup>th</sup> and 6<sup>th</sup> Centuries B.C. and a Necropolis of the Middle Age. Ankara: Türk Tarih Kurumu Basımevi.
- Forbes, T.B., 1983 – Urartian Architecture. Oxford: BAR International Series 170.
- Gökce, B., 2013 – Urartularda İnsan Biçimli Metal Heykelcikler, In: O. Tekin, M.H. Sayar and E. Konyar (eds.), *Tarhan Armağanı/M. Taner Tarhan'a Sunulan Makaleler/Essays in Honour of M. Taner Tarhan*, 211-217. İstanbul: Ege Yayınları.

- Hodges, H., 1970 – *Technology in the Ancient World*. New York: Barnes and Noble.
- Hovhannisian, C., 1973 – *The Wall-Paintings of Erebooni*. Yerevan: Armenian SSR Academy of Sciences Publishing House Press.
- Kellner, H.-J., 1991 – *Gürtelbleche aus Urartu*. Stuttgart: Franz Steiner Verlag.
- Kinnier Wilson, J.V., 1972 – *The Nimrud Wine Lists*. London: British School of Archaeology in Iraq.
- Kleiss, W., 1976 – *Urartäische Architektur*. Urartu: ein Wiederentdeckter Rivale Assyriens, Vol. 2. München: Buchdruck Werkstätte Pichlmayr.
- Martirosjan, A.A., 1974 – *Argištichinili*. Yerevan: Izdatel'stvo Armyanskoj SSR.
- Matthews, D., 2000 – *Artisans and Artists in Ancient Western Asia*. In: J.M. Sasson (ed.), *Civilizations of the Ancient Near East, 455-468*. Peabody, MA: Hendrickson Publishers. (Reprint of 1995 edition. New York: Scribner).
- Mayer, W. – *Assyrien und Urartu I. Der Achte Feldzug Sargons II. im Jahr 714 v. Chr.* Münster: Ugarit Verlag.
- McConchie, M., 2004 – *Archaeology at the North-East Anatolian Frontier V: Iron Technology and Iron-Making Communities of the First Millenium B.C.* Paris/Leuven: Peeters.
- Mcintosh, Jane, R., 2005 – *Mesopotamia New Perspectives*. Santa Barbara: Free Press.
- Merhav, R., 1991a – *Secular and Cultic Furniture*. In: R. Merhav (ed.), *Urartu: A Metalworking Center in the First Millenium B.C.E.*, 246-262. Jerusalem: Israel Museum.
- Merhav, R., 1991b – *Sculpture in the Round*. In: R. Merhav (ed.), *Urartu: A Metalworking Center in the First Millennium B.C.E.*, 274-283. Jerusalem: Israel Museum.
- Merhav, R., 1991c – *Cauldrons and Their Stands*. In: R. Merhav (ed.), *Urartu: A Metalworking Center in the First Millenium B.C.E.*, 226-243. Jerusalem: Israel Museum.
- Mitchell, T.C., 1983 – *An Urartian Lead Figurine From Toprakkale*. *Anatolian Studies* XXXIII: 157-162.
- Muscarella, O.W., 1980 – *The Catalogue of Ivories from Hasanlu, Iran*. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.
- Oganesian, K.L., 1961 – *The Architecture of Erebuni (in Russian)*. Erevan: Academy of Science of the Armenian Soviet Socialist Republic.
- Oppenheim, A.L., 1949 – *The Golden Garments of the Gods*. *Journal of Near Eastern Studies* 8: 172-193.
- Öğün, B., 1978 – *Die Urartäischen Bestattungsbräuche*. In: F.K. Dörner, S. Şahin, E. Schwertheim and J. Wagner (eds.), *Studien zur Religion und Kultur Kleinasien*. Festschrift für Friedrich Karl Dörner zum 65. Geburtstag am 28. Februar 1976 II, 639-678. Leiden: Brill.
- Özgüç, T., 1966 – *Altıntepe I. Mimarlık Anıtları ve Duvar Resimleri /Architectural Monuments and Wall Paintings*. Ankara: Türk Tarih Kurumu Basımevi.
- Özgüç, T., 1969 – *Altıntepe II. Tombs, Storehouses and Ivories*. Ankara: Türk Tarih Kurumu Basımevi.
- Özgüç, T., 1983 – *Jewellery, Gold Votive Plaques and A Silver Belt From Altıntepe*. *Anatolian Studies* 33: 33-37.
- Piotrovskii, B.B., 1950 – *Karmir-Blur I*. Erevan.
- Piotrovskii, B.B., 1967 – *Urartu The Kingdom of Van and its Art*. Londra: Evelyn, Adams & Mackay Ltd.
- Piotrovskii, B.B., 1969 – *The Ancient Civilisation of Urartu* (transl. by J.B. Hogarth). London: Cowles Book Co.
- Roaf, M., 1996 – *Mezopotamya ve Eski Yakındoğu*. *Atlaslı Büyük Uygarlıklar Ansiklopedisi* 9 (translated by Zülal Kılıç). İstanbul: İletişim Yayınları.
- Sağlamtimur, H., 2009 – *Urartu Krallığı'nda Fildişi Oymacılığı, Ayanis Kalesi Taş Kapları ve Haldi Tapınağı*. In: H. Sağlamtimur, E. Abay, Z. Derin, A. Ü. Erdem, A. Batmaz, F. Dedeoğlu, M. Erdalkıran, M.B. Baştürk and E. Konakçı (eds.), *Altan Çilingiroğlu'na Armağan Yukarı Denizin Kıyısında Urartu Krallığı'na Adanmış Bir Hayat/Studies in Honour of Altan Çilingiroğlu. A Life Dedicated to Urartu on the Shores of the Upper Sea*, 565-581. İstanbul: Arkeoloji ve Sanat Yayınları.
- Salvini, M., 1979 – *Una "bilingue" assiro-urartea*. *Studia Mediterranea Piero Meriggi dicata*, Vol. 1: 575-593.

- Salvini, M., 1969 – Nuove iscrizioni urartee dagli scavi di Arin-berd, nell'Armenia Sovietica. *Studi Micenei ed Egeo-Anatolici* 9: 7-24.
- Salvini, M., 1986 – Tuschpa, die Hauptstadt von Urartu. In: V. Haas (Hrsg.), Das Reich Urartu. Ein altorientalischer Staat im 1. Jahrtausend v. Chr. ("Xenia", Konstanzer althistorische Vorträge und Forschungen 17), 31-44 (+ 20 figs.), Konstanz.
- Salvini, M., 1988 – Die Urartäischen Schriftdenkmäler aus Bastam (1977-1978). In: W. Kleiss (Hrsg.), Bastam 2. Ausgrabungen in den urartäischen Anlagen 1977-1978 (= Teheraner Forschungen 5), 125-144. Berlin: Gebr. Mann.
- Salvini, M., 2001 – The Inscriptions of Ayanis (Rusahinili Eiduru=Kai) Cuneiform and Hieroglyphic. In: A. Çilingiroğlu and M. Salvini (eds.), Ayanis I. Ten Years' Excavations at Rusahinili Eiduri-kai 1989-1998, 251-271. Roma: CNR Documenta Asiana.
- Salvini, M., 2006 – Urartu Tarihi ve Kültürü. İstanbul: Arkeoloji ve Sanat Yayınları.
- Salvini, M., 2007 – Die urartäische Tontafel VAT 7770 aus Toprakkale. *Altorientalische Forschungen* 34: 37-50.
- Seidl, U., 1974 – Torschützende Genien in Urartu. *Archäologische Mitteilungen aus Iran* 7: 116-119.
- Seidl, U., 1993 – Urartian Furniture. In: G. Hermann and N. Parker (eds.), The Furniture of Western Asia Ancient and Traditional, 181-186. Mainz: Philipp von Zabern.
- Seidl, U., 2004 – Bronzekunst Urartus. Mainz am Rhein: Philipp von Zabern.
- Sever, H., 1991 – Kültepe Tabletlerinin Anadolu Tarihi ve Kültür Tarihi Bakımından Önemi. Ankara Üniversitesi Dil ve Tarih-Coğrafya Fakültesi Dergisi, Cilt: XXXV, Sayı: 2: 247- 269.
- Sevin, V., 1993 – An Urartian Lion from Gevaş, Van. In: M.J. Mellink, E. Porada and T. Özgüç, Aspects of Art and Iconography: Anatolia and Its Neighbors: Studies in Honor of Nimet Özgüç, 565-567. Ankara: Türk Tarih Kurumu Basımevi.
- Sevin, V., 2010 – Assur Resim Sanatı. Ankara: Türk Tarih Kurumu Basımevi.
- SLA = Pfeiffer, R.H., 1967 – State Letters of Assyria: A Transliteration and Translation of 355 Official Assyrian Letters Dating From the Sargonid Period (722-625 BC). New York: American Oriental Society.
- Thureau-Dangin, F., 1912 – Une relation de la huitième campagne de Sargon (714 av. J.-C.). Paris: Librairie Paul Geuthner.
- UKN II = Melikishvili, G. A., 1960 – Urartaskie Klinobrazny Nadpisi, Moskova: Otkritiya i Publicatsiyi, Vestnik Drevnej Istorii.
- UPD = Diakonoff, I.M., 1963 – Urartskiye Pisma i Dokumenti. Moscow-Leningrad: İzdatel'stvo Akademii Nauk CCCP.
- Van Loon, M.N., 1966 – Urartian Art. Its Distinctive Traits in the Light of New Excavations. İstanbul: Nederlands Historisch-Archaeologisch Instituut.
- Voight, M.M., 2007 – Gordion Kazıları/Excavations at Gordion. In: H. Sivas, T.T. Sivas (eds.), Friglerin Gizemli Uygarlığı/The Mysterious Civilization of the Phrygians, 65-77. İstanbul: Yapı Kredi Kültür Sanat Yayıncılık Ticaret ve Sanayi A.Ş.
- Yıldırım, R., 1989 – Urartu İğneleri. Ankara: Türk Tarih Kurumu Basımevi.
- Zahlhaas, G., 1991 – Clothing Accessories and Jewelry. In: R. Merhav, Urartu: A Metalworking Center in the First Millennium B.C.E., 184-197. Jerusalem: Israel Museum.
- Zimansky, P.E., 1985 – Ecology and Empire: The Structure of the Urartian State. Chicago: Oriental Institute of the University of Chicago.
- Wartke, R.B., 1990 – Toprakkale. Untersuchungen zu den Metallobjekten im Vorderasiatischen Museum zu Berlin. Berlin: Akademie-Verlag.
- Wartke, R.B., 1991 – Production of Iron Artifacts. In: R. Merhav, Urartu: A Metalworking Center in the First Millennium B.C.E., 322-329. Jerusalem: Israel Museum.

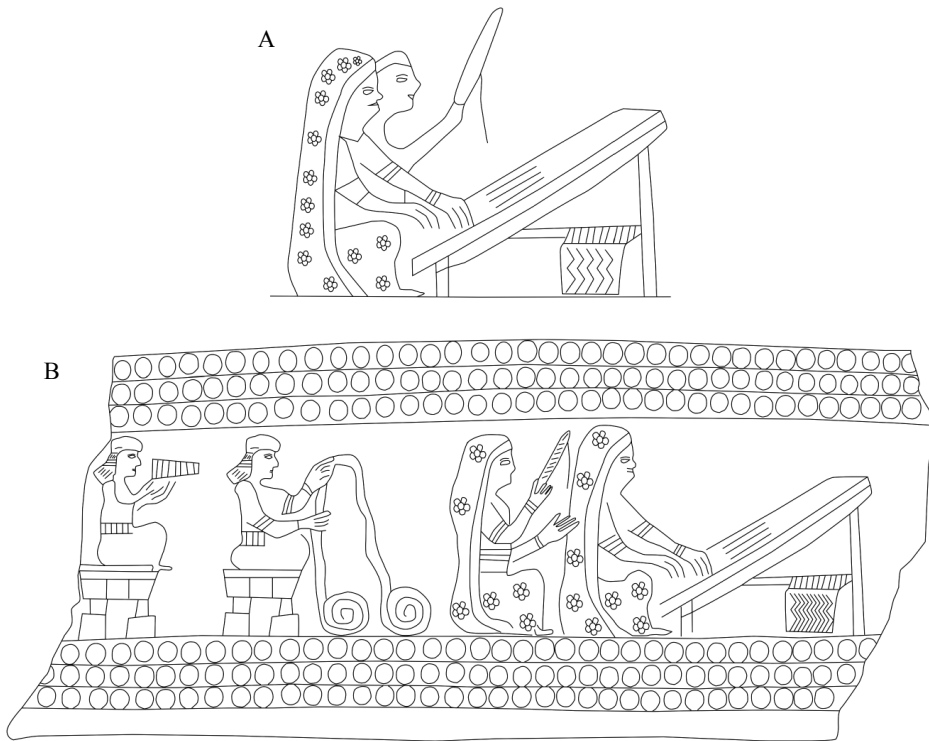


Fig. 1. Women in the textile professions shown on metal belts.

A: Redrawn after Seidl 2004: detail from plate /A3; B: Çavuşoğlu's archive.

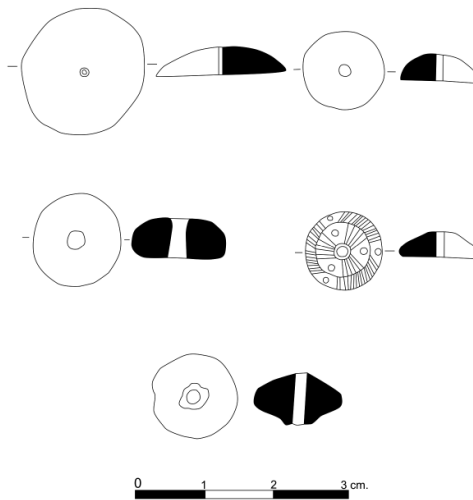


Fig. 2. Spindlewhorls from Çavuştepe (redrawn after Erzen 1978: fig. 23).

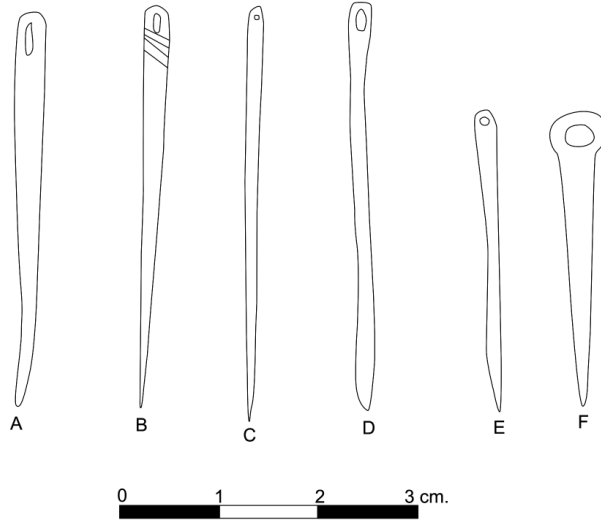
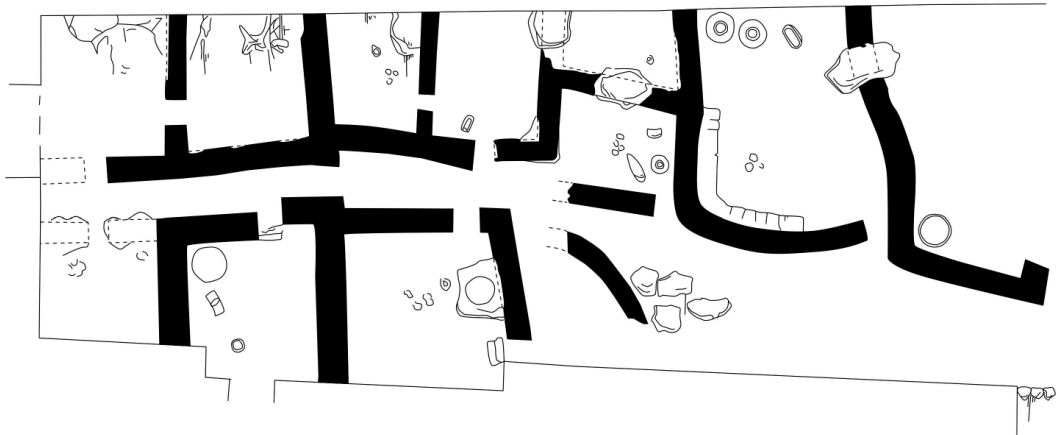


Fig. 3. A-B. Armavir-Blur (redrawn after Martirosjan 1974: fig. 82/1); C. Kayalıdere Grave A (redrawn after Burney 1966: pl. XXV/g); D. Adilcevaz I Necropolis (redrawn after Yıldırım 1989: 78); E. Liç (redrawn after Ögün 1978); F. Van-Kalecik Necropolis (Çavuşoğlu's archive).



Scale: 1:50

Fig. 4. Living areas of craftsmen from Armavir-Blur (redrawn after Martirosjan 1974: pl. 36/a).

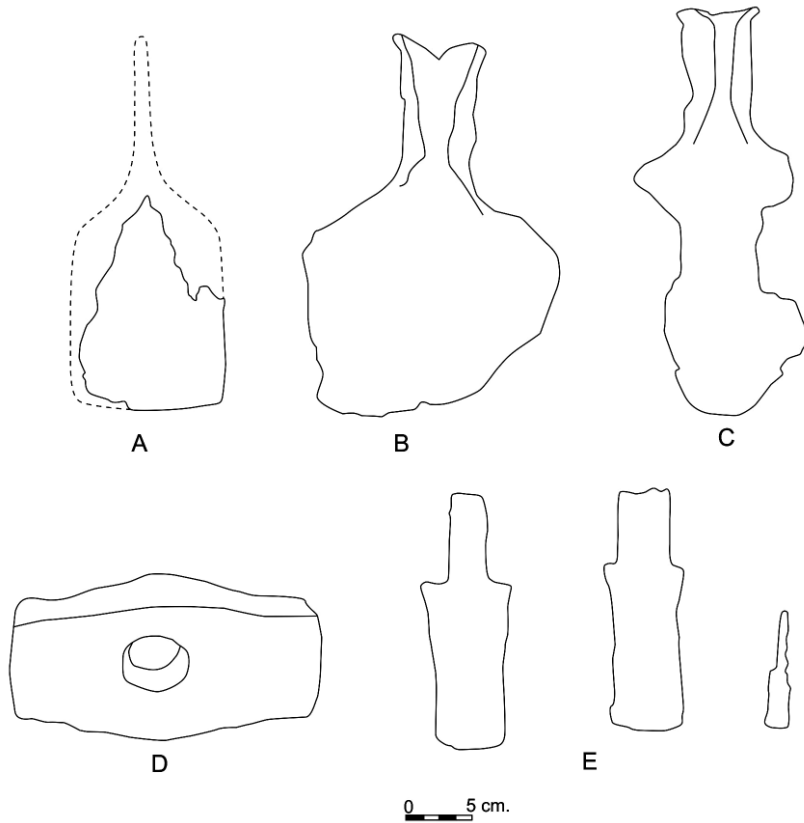


Fig. 5. A. Armavir-Blur (redrawn after Martirosjan 1974: 141); B. Ayanis (redrawn after Çilingiroğlu and Erdem 2007: fig. 14); C-D. Toprakkale (redrawn after Wartke 1990: pl. XXXI a-b); E. Van-Kalecik Necropolis (Çavuşoğlu's archive).

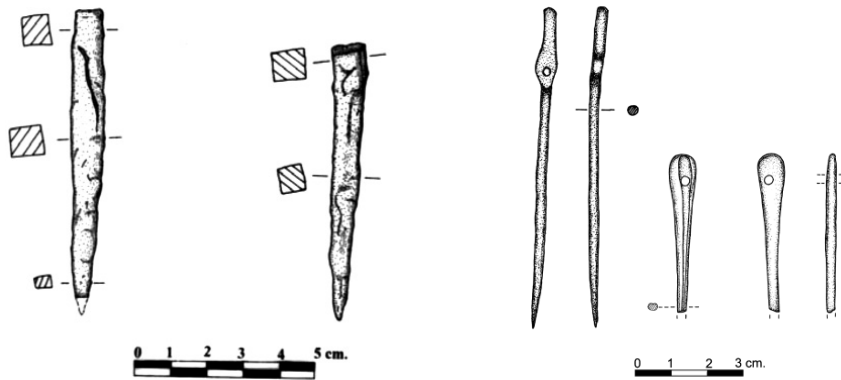


Fig. 6. Small metal-working pencils made of iron and bronze in Van-Anzaf Fortress (Belli 2007: fig. 7).

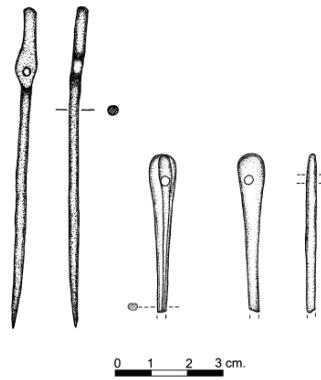


Fig. 7. Awls from Van-Kalecik Necropolis (Çavuşoğlu's archive).