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6. 'I WILL FIX A PIN ON YOUR BREAST'. INTERDISCIPLINARY STUDY ON PINS DURING THE OLD ASSYRIAN PERIOD

Cécile Michel* & Fikri Kulakoğlu**

Introduction

During the third and first half of the second millennium BC, men and women used to wear the same types of clothes. The shape of these clothes was very simple. The texts usually refer to ungendered pieces of fabric. Only shoes were gender distinctive, presumably because of the differences of size between male and female feet (Michel forthcoming a). However, men and women arranged their garments in a different manner and used distinctive accessories to hold them: belts for men and pins for women (Michel 2021).¹ This contribution is devoted to garment pins attested in the Old Assyrian texts and examples of these artefacts excavated at Kültepe by the archaeological team since 1948.

Garment pins were found in large quantities in Near Eastern archaeological sites. Bone pins were used in Anatolia since the Neolithic and metal pins from the Chalcolithic period on. Garment pins are widely attested during the Bronze Age and are replaced by fibulae during the late second millennium BC (Caner 1983; Pedde 2000). Despite this widespread use, up to date, there is no systematic study of this artefact for Anatolia, similar to the work of H. Klein (1992) for Mesopotamia and Syria.

The pins found during the excavations of the houses and the graves at Kültepe lower town present a great variety of sizes, shapes and materials: they are most often made of metal or bone. Several silver and gold pins, or decorated bronze pins are known from various archaeological reports with incomplete data concerning their material, size or excavation context. However, the great majority of the unearthed pins remain unpublished. This study includes both the published material and some of the unpublished pins in metal or bone preserved in the Kayseri museum in order to have a better idea of the types of pins that Kaneš women used to fasten their garments. However, it is not intended to be exhaustive because various data are missing, such as the many pins archived in the Ankara museum, or a precise location of the discoveries or a systematic physico-chemical analysis of the objects presented in this study. In addition, in order to be able to define the different styles of garment pins used at Kültepe, those from other Anatolian sites have to be studied, and this would go far beyond the scope of the present overview.

Kültepe iconography, up to date, has not yielded representations of human figures wearing pins. Therefore, this work refers to iconography at the margin, alluding only to mid-third millennium inlaid panels from Mari.

The numerous pins found during the Kültepe excavations may be compared to those described by the texts. Garment pins occur regularly in the private archives of the Assyrian merchants involving women. They are usually made of metal and are sometimes described in more detail. The Old Assyrian texts provide a wealth of information on these 'garment pins' (*tudittum*), the most characteristic element of women's clothing. They specify their material, the weight of the precious examples in gold or silver, the identity of their recipient, their use, as well as their symbolic value. By intertwining data from different sources, this study aims at a better understanding of the nature, origin, use and social and economic aspects of garment pins during the Old Assyrian period.

Sources for Kültepe and Old Assyrian pins

This study relies both on textual and archaeological sources. The texts refer to garment pins in Aššur and Anatolia, belonging, for the most part, to Assyrian women. The archaeological artefacts were found, for the greater part, during the excavations at Kültepe and they originate predominantly from the tombs, located for many of them under the floor of the houses. While texts date to the nineteenth century BC (Kültepe lower town Level II), pins date to both the nineteenth and eighteenth centuries (Kültepe lower town Levels II and Ib).

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¹ We undertook this study as part of the International Research Network: *Ancient Textiles from the Orient to the Mediterranean* coordinated by Cécile Michel and linking French joint research units with the *Centre for Textile Research* (Copenhagen) and Leicester University (2015-2018). It was part of the research theme "Gender and Textile", and a first presentation was given by Cécile Michel at Copenhagen University on November 2017. This research was also included as part of the project 'The fabric of memory: Kültepe, a test laboratory for interdisciplinary research', labex *Past in present* (Investissements d'avenir ANR-11-LABX-0026-01). The larger part of this article was written during the corona virus crisis (spring 2020) as all university libraries were closed, we thus apologise for all the missing titles that could not be consulted.

Garment pins in the Old Assyrian texts

The Akkadian term for 'garment pin', *tudittum*, plural *tudinātum*, was identified by H. Klein in 1983. It is attested from the Ur III period (Sumerian *du/tu-di-tu*) to the Neo-Babylonian period,² but from the middle of the second millennium on, it occurs only in literary texts. The greater number of references from texts written for an immediate utilitarian purpose comes from the Old Assyrian period.

The plural, *tudinātum*, occurs together with the plural noun *siparrātum*, in the following letter:³

Send me small goods worth 10 shekels of silver, either *siparrātum* or *tudinātum*, (and) either 5 or 6 minas of silver.

In his edition of this text, M. T. Larsen (2002, no. 63) translates these two words as 'bronze pins' and 'fibulae' respectively. However, fibulae are unknown in Anatolia before the late second millennium BC (Caner 1983). In a note, he suggests that *siparrātum*, which 'denotes a small, cheap item sometimes counted, sometimes weighed' could derive from *siparrum*, 'bronze' (Larsen 2002, 90). In this text, the alternative to ordinary bronze or copper 'garment pins' (*tudinātum*) could then be 'simple pins', 'bronze nails' or similar kinds of objects.

About fifty Old Assyrian texts published or available in transliteration include the word *tudittum*, in the singular, dual or plural forms. These texts are mainly private letters, accounting documents, and a few marriage contracts. They were found in many different archives kept in the merchant houses or during illicit excavations, which took place at Kültepe during the late nineteenth century and first half of the twentieth century. Most of the references to garment pins consider them as valuable items that have been made, given, bought or sold, and are intended for women or belong to women. A few marriage contracts refer to a symbolic value of these garment pins.

Kültepe pins found during excavations

The pins discovered at Kültepe have not yet been the subject of an exhaustive study and only a small part of them are known from scattered publications in various archaeological reports and syntheses on the lower town discoveries. In his report of the first official excavation year (1948) at Kültepe in 1950, T. Özgüç (1950, 201 and Fig. 375-377) published four pins, three of them in bronze or copper and found in the debris of Level II, the last one in silver came from a grave (Özgüç 1950, Fig. 379). Three years later, he published a second volume about the excavations carried out in 1949 at Kültepe and presented some twenty more pins, eleven of them being made of bone (Özgüç 1953, Figs 542-546, 558-559, 650-659).

A specific section of the 1954 excavation report in the journal *Bulleten* is dedicated to the pins discovered during the five previous seasons (1948-1951, 1953); it gathers some thirty items (Özgüç 1955, 23-25, 33-36, 46-49, 69-91). Two more pins are presented in a first synthesis volume, *Kültepe-Kaniş* (Özgüç 1959, Figs 75-76, Pl. L 2-3). These artefacts were included in the study of H. Klein (1992, 339-340). For all these garment pins, we lack their inventory number and often their context of discovery.

The second synthesis volume, *Kültepe-Kaniş II*, includes two groups of pins – gold and silver ones and copper, bronze and lead ones; in all fifty pins, many with their excavation numbers and the general context of their discovery (Level II or Ib, tomb, Özgüç 1986, 31-33, 72-73, pls. G.3-4, H.3, 22-23; 69, 7-11; 70, 1-20; 71, 1; 121, 9; 125, 1-21). More recent volumes give nice photos of garment pins excavated at Kültepe and archived in the Museums of Ankara and Kayseri (Özgüç 2003, Fig. 274-275, 279, 290-293 without inventory numbers, Kulakoğlu & Kangal 2010, Fig. 334-352). With the exception of a dozen items in bone, all these garment pins are made of metal.

Together with these published garment pins, this study also includes more than a hundred unpublished examples archived in the Kayseri museum, mostly made of metal (group I of Klein 1992) or bone (group II of Klein 1992). For these, we have both the size and the weight of the objects and for some of them, the squares where they were found. Last but not least, garment pins on exhibit at the Ankara Museum have been included in this contribution, after being systematically weighed (Figs 6.1 and 6.2)

In total, the present work includes 240 pins excavated at Kültepe. These may be compared to the only few examples found in five of the Old Assyrian graves excavated at Aššur during the early twentieth century (Hockmann 2010, graves 7, 9, 37, 48 and 55).

² Note that in the Ebla texts, these garment pins are called *budi*; they are often in silver and regularly given to women, in pairs, with *zara*-garments see Biga 2021, 159.

³ KTS 1, 12:25-28, *ša 10 gín kù-babbar sà-he-er-tám, lu sí-pá-ra-tum lu [t]ù-dí-na-tum, lu 6 ma-na kù-babbar lu 5 ma-na, kù-babbar a-na pá-ni-a šé-bi-lá-nim.*

Whether made of metal, an alloy of copper, of bone or ivory, garment pins include a pointed shaft with a circular section and often a head, which can take a great variety of shapes. For a minority of those found at Kültepe, the shaft may be pierced. Their physical characteristics are documented differently by ancient texts and archaeological reports, sometimes these sources provide complementary data. The texts focus on the value of the jewelry given to women and eventually its use. At times they indicate the material of the pin and eventually its weight, while archaeological reports, beside the material of the artefact, generally specify its length and the shape of its head. In order to have data comparable to those given by the cuneiform texts, we have systematically weighed the unpublished garment pins kept in the Kayseri museum and included them in this study.

Pins and their Physical Characteristics in Texts

The majority of the Old Assyrian texts mentioning pins (*tudittum*, *tudinātum*) give no specification about their material, dimensions or weight. Moreover, as a rule, texts usually document mainly valuable goods and rarely ordinary ones. It is then not a surprise that only pins made of precious metals – gold, silver or iron – are more carefully described.

When a pin is said to be of gold, silver or iron, we usually consider that it is made of solid metal. However, it could also be only plated with these precious metals; this is the case for several archaeological items which are gold-plated bronze (Kt v/k 171, for example). Thus, when analysing the weights of metal corresponding to a pin, one needs to be very cautious in the interpretation.

Silver Pins

Among the precious pins, silver ones appear in various types of texts and often concern artefacts made in Anatolia and sent to Aššur, or made of Anatolian silver. Silver pins are mentioned by unit or in the plural, and in one instance in the dual, meaning that they were either worn as a pair or made identically. In some occurrences, the object is given with a weight of silver.

Weight of silver	Weight of silver in g ⁴	Objects in silver	Text
3 ½ gín	28.88 g	pin	Kt 93/k 515:24
5 gín	41.25 g	pin	Kt 87/k 386:31
7 gín	57.75 g	pin	HUCA 40, 59-60 (Michel 2020, no. 114):3-4
8 gín	66 g	pin	CCT 3, 48 (OAA 1, 31):6
10 gín	82.25 g	pin	Prag I 736:25
13 gín	107.25 g	pin	TC 3, 202:15
½ mana	165 g	pin	CCT 3, 31 (Michel 2020, no. 221):20
½ mana	165 g	pin	Kt 87/k 386:42
1 mana	495 g	pin and bracelets	Kt 93/k 788:6

Table 6.1. Attestations of a single *tudittum*-pin.

For these pins, mentioned in the singular, the texts give a weight of silver (Table 6.1). However, we do not know if this quantity of silver corresponds to the weight of the object or to its value in silver. A letter sent from Aššur to two women at Kaneš does not really help to decide which hypothesis is the correct one:⁵

The lady took away the silver that he brought there, and made me a *tudittum*-pin with ½ mina of silver. She (also) took away the remainder (of the silver).

In contrast, a transport contract listing silver quantities to be sent to Aššur explicitly gives the weight of the pins. This text no longer refers to a single pin but to a “pair of pins”, thus using the dual:⁶

2 *t*.-pins – their weight (in silver): ½ mina – for Lamassī and Ahaha.

⁴ According to the stone weights found at Kültepe, the Mesopotamian mina used there would weight 8.25 g (Kulakoğlu 2017; Michel forthcoming b). Since most of the people involved in these texts have Assyrian names, it might be correct to suppose that the Mesopotamian weight system was used and not the Anatolian one, the Anatolian mina weighing ten per cent less than the mina used in Aššur and by the Assyrians in Kaneš.

⁵ CCT 3, 31 (Michel 2020, no. 221):16-21, *kù-babbar, a-ma-kam ša ub-lá-ni, a-wi-ils-tum ta-ta-ba-al-ma, ša ½ ma-na kù-babbar, tù-dí-tám té-pu-ša-am, re-eh-tám ta-ta-ba-al*.

⁶ TC 2, 54:33-34, 2 *tù-dí-ta-an ½ ma-na ki-lá-bi, a-na Lá-ma-sí ù A-ha-ha*.

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The use of the dual here has no specific meaning since the pins are delivered to two different women of the same family, the mother and the daughter. It might just suggest that the two pins are identical and thus each weigh 10 shekels or 82.25 g; together ½ mina corresponding to 20 shekels.

The weights of silver given for each of the pins listed in Table 6.1 vary by a factor of one to more than five. It could suggest that the corresponding pins showed a great variety both in their length and diameter and that their heads may have different shapes. There are mainly two groups: silver pins corresponding to 10 shekels and less and those from over 10 shekels up to 20 shekels.



Figure 6.1. Kültepe silver pins on exhibition at Ankara Anadolu Medeniyetleri Müzesi (Photo: C. Michel, 2017)

These weights of silver for pins provided by the Old Assyrian texts may be compared to those from other textual sources. H. Klein (1983, 67, n. 71) gives some data from the Ur III texts with silver pins ranging from 5.5 g to 25.25 g. However, P. Paoletti (2012, 155) records an average weight of silver *t*-pins at 3 shekels; these are even lighter than the example of the first line of Table 6.1. At Ebla, texts refer regularly to silver pins weighing 10 shekels (Biga 2021); such a weight is in accordance with the Old Assyrian textual data.⁷

Mari administrative documentation provide weights of silver pins ranging from ‘2 gín 130 še’ to ‘9 ½ gín’ (22.5 g to 78.5 g; Arkhipov 2012, 102), thus corresponding more or less to the first group attested by the Old Assyrian texts. No silver pins are attested over 100 g, which suggests that the Old Assyrian textual references seem to be quite exceptional.

Weight of silver	Weight of silver in g	Objects listed	Text
17 gín	140.25	pins	Kt c/k 586:4
25 gín	206.25	pins	Kt 93/k 89 :8’
½ mana	247.5	pins	Kt c/k 18:44
1 mana	495	3 cups and pins (their weight)	AKT 8, 164 (Michel 2020, no. 61):1
1 mana	495	rings and pins	CTMMA 1, 78 (Michel 2020, no. 307):6
2 mana	990	pins	CUSAS 34:1
6 ½ mana 1 gín	3 225.75	silver, cup, pins	CCT 1, 31:2
-	-	pins and cups	Kt 88/k 971:50
-	-	rings, pins and cups	Kt 88/k 972:33
-	-	silver, šikkatum-bottle, 2 pins, earrings, [...], a muššum-jewel	CCT 3, 31:37

Table 6.2. Attestations of *tudinatum*-pins at the plural with other objects.

⁷ Note that the shekel at Ebla was in general heavier than in Mesopotamia according the weighing system used (Ascalone & Peyronel 2006).

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Except in one case, where there are two pins (but the corresponding quantity of silver is not given), other texts refer to pins in the plural form, *tudinātum*, with or without a quantity of silver, making it impossible to estimate the weight of the pins (Table 6.2). In addition, these are regularly mentioned with other objects and the weight in (or price in) silver, when given is global. Indeed, pins are regularly mentioned together with jewelry (bracelets, rings, earrings) and with cups (*kāsum*), also made of silver.

Gold Pins

Gold pins are more exceptional in texts. A broken list of items includes a pin made of gold, but the weight of the precious metal is not specified.⁸ A letter sent to Assyrian merchants in Kaneš mentions some precious goods in an ambiguous manner:⁹

4 minas of silver, 1/3 mina 1 shekel of gold, 1/2 mina 5 shekels: beads and pins, 1 cup: 1/2 min 8 shekels of silver, 2/3 mina 2 1/3 shekels of carnelian.

The text starts with a quantity of silver, then a quantity of gold, a third quantity of metal is mentioned without specification; logic would dictate that it should also be gold. And this last quantity of metal – 1/2 mina 5 shekels (288.75 g) – corresponds to the weight (or the price) of both beads and pins; unfortunately, we do not know the number of beads and pins concerned. The texts at our disposal do not provide the weight of pins made of gold. They also do not specify if the pins are made of solid gold or gold plated-bronze.

According to Ur III texts, gold pins could weigh between 16 and 25.25 g (Klein 1983, 67, n. 73), and in Mari administrative documents, the weight of gold pins ranged from ‘3 gín’ to ‘1 mana 30 gín’ (Arkhipov 2012, 102). According to these textual data, at Ur III and Mari, gold pins seem to be generally larger in size than silver ones.



Figure 6.2. Kültepe gold and gold-plated pins on exhibit at the Ankara Anadolu Medeniyetleri Müzesi (Photo: C. Michel, 2017)

Iron Pins

Considered as a very precious metal at the beginning of the second millennium BC, iron could be used to make garment pins. A pin made of meteoric iron is mentioned together with unknown objects as being entrusted to a man called Béliya. The value of the items was significant enough for the transaction to have been put in writing in a witnessed contract.¹⁰ However, there is no indication about the weight of the object.

⁸ ICK 1, 190:27', *tù-dí-tám ša kù-gi*.

⁹ CCT 3, 29:24-28, 4 *ma-na* kù-babbar, 1/3 *ma-na* 1 gín kù-ki 1/2 *ma-na* 5 gín, *hi-du ù tù-dí-na-tum*, 1 *kà-sú-um* 1/3 *ma-na* 8 gín kù-babbar, 2/3 *ma-na* 2 1/3 gín *sà-am-tum*.

¹⁰ Kt 08/k 30:2-3, 8, [*t*]ù-dí-tá-am, *ša kù-an* (...) *tù-dí-ta-am*. The objects read as 1. 1 and 7 *BU-ša-dí-ni-e* by the editor of the text, Çayır 2015, 41-42, are unknown. Since the tablet is partly broken or damaged, a reading *pu-uh¹-dí-né-e* could perhaps be proposed. The *puhdinum* is attested at Mari as an ornament (Arkhipov 2012, 171).

A letter sent to a woman concerns the selling of a composite pin made of iron with a head of lapis lazuli. The head, which weighs 3 ¼ shekels, is sold apart from copper, while the shank weighing 7 shekels is qualified as 'from the lump' (*ša kišrim*). Refined silver was offered for it, but the sender of the letter refused to sell it since his correspondent had mentioned a pin made of meteoric iron (*tudittam ša amūtīm*) in her own letter.¹¹ According to K. Reiter (1997, 413), the iron shank of the pin had been made through a process involving fire to obtain a higher quality of iron; the price proposed for this object is 21 shekels of refined silver. The total weight of this composite pin would have been 10 ¼ gín (84.56 g), the weight of the head being half of the shaft.

Iron pins remain rare during the Early and Middle Bronze Ages; only two examples are recorded in the Mari texts, plus a third composite one, which also includes gold (Arkhipov 2012, 102).

Pins of undetermined metal

In other texts, the material of the pin is not clearly stated. It could possibly be made of precious metal since it is listed with quantities of gold or silver and among other precious objects. For example this is the case in the following enumeration of items belonging to a young woman:¹² '18 shekels of gold, her rings, 2 *mihsū*, beads and her pins.'

For all the other occurrences of pins in the Old Assyrian texts, their material is not specified. Moreover, there is no attestation of pins said to be in bronze or copper, but we can suppose that when pins are referred to without the mention of their composition, it is very likely that these were made with a copper alloy. Pins made of materials other than metals and alloys, as for example bone, may not have been mentioned in written sources.

Size of pins

Old Assyrian texts do not give any clues concerning the size of the pins except in one letter addressed to a woman by another woman who asks her to take '3 cups and a small pin'.¹³ This could suggest that there was a category of small pins by opposition to a category of large pins, as reflected by the weights provided for silver pins (Table 6.1).

The head of composite pins

The textual documentation also attests the existence of composite pins with a shaft made of metal and a head of semi-precious stones such as lapis lazuli or agate. When the material of the head is given, its weight may also be specified, as in the following example in which two pin heads are listed among other jewelry:¹⁴

3 ½ shekels (28.875 g) of lapis lazuli 3 ½ shekels (27.5 g) of agate: pin heads.

Another unpublished tablet gives the price in copper of a pin's head in lapis lazuli:¹⁵

3 ¼ shekels (26.8 g) the lapis lazuli head of the pin was sold for 30 minas of good quality copper.

Thus, the average weight of these heads is between 27.5 and 28 g. In order for the head not to unbalance the pin fixed on a textile, we need to imagine, as in the example of the above mentioned iron pin, that the metal shaft weighed about twice the weight of its head, thus between 6 ½ and 7 shekels (over 50 g).

¹¹ Kt n/k 695: 6-23 (courtesy S. Çeçen), 7 gín, *tù-dí-ta-am, ša ki-iš-ri-im ša, A-šur-ta-ak-lá-ku, ub-lá-ni : šu-lu-ša-um, a-na kù-babbar ša-ru-pi-im, ú-kà-lu-nim-ma, ta-da-nàm, lá a-mu-a : ki-ma, i-na na-áš-pè-er-ti-kà', tù-dí-tám : ša a-mu-tim, lá-áp-tù : áp-lá-ah-ma, ta-da-nàm lá a-mu-a, na-áš-pè-er-ti-ki ki-ma, ša ki-iš-ri-ni : lí-lí-kam, a-ší-mi-im lá-dí-šu-ma iš-tí, wa-ar-ki-ú-tim, urudu^a-ki : ú-šé-ba-lá-ki-im, '7 shekels for the pin from the lump (of iron) that Aššur-taklāku brought, they offer to pay in refined silver at a rate of one to three, but I refused to sell (it). Since, in your letter a pin of iron was recorded, I was afraid and refused to sell it. Let a letter from you come here concerning that it is of *kišrum* and I will give it for sale and then I will send you your copper with those coming later.'*

¹² TC 1, 30:13-14, 18 gín kù-gi *a-nu-quí-ša, 2 mi-ih-sú hi-du ù tù-dí-na-tí-ša*. The *mihsū* (or *mihsūm*) was presumably a piece of jewelry. It must be distinguished from *mehsūm* which is attested in the Mari texts and corresponds to a tankard with a lid (Guichard 2005, 237-239).

¹³ AKT 9a, 71:4-5, 3 *kà-sà-tim, ù tù-dí-tám: ša-ha-ar-tám*.

¹⁴ BIN 6, 179:21'-23', 3 ½ gín ^{na}za-gìn: 3 ½ gín, *pá-pá-ar-da-li-am, qá-qá-da-at tù-dí-na-tim*.

¹⁵ Kt n/k 695:3-6, 3 1/4 gín *qá-qá-ad, tù-dí-tim ša hu-sà-ri-im, a-na 30 ma-na urudu sigs, ta-dí-in* (Dercksen 1996, 228, courtesy S. Çeçen).

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Because of the value of their material, pin heads are regularly attested alone as a tradable commodity (see below).¹⁶ This might explain why, in some instances, it could be specified that the pins have their heads: “pins wi[th their heads] in lapis lazuli.”¹⁷

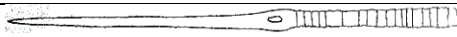

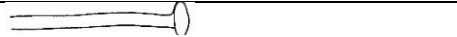




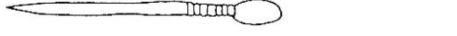
Beads linked to garment pins?

Two different types of beads can be found listed near the *t*-pins, the *hiddum*-bead and the *ziminzum*-bead. The first one is made of metal and may take various forms.¹⁸ In Old Assyrian texts, *hiddum*-beads are attested in gold, silver or tin.¹⁹ In two occurrences they are attested alongside *t*-pins, and it has been suggested that they could have been attached to them as decorative elements.²⁰

The same hypothesis could be applied to the second type of bead, the *ziminzum*-bead, which is rarely attested in Old Assyrian texts. It was made of gold or lapis lazuli (broken text).²¹ A text lists among other jewelry “2 beads of gold of $\frac{2}{3}$ of a shekel (5.5 g); $\frac{1}{2}$ mina (ca. 247.5 g) of silver: *t*-pins.”²² Unfortunately, the number of pins concerned here is unknown.

Archaeological artefacts

During some seventy-years of excavations, Kültepe has provided several hundreds of pins, which are now preserved in the Kayseri and Ankara museums. Of this rich archaeological material, only about a hundred examples have been published. As has already been noted, early publications do not provide the inventory numbers of the pins and most of the time, it was impossible to identify them in more recent publications or in the depots of the Kayseri museum.²³ To the published garment pins, it was possible to add unpublished ones kept in Kayseri museum; in all, 240 garments pins found at Kültepe are presented in Tables 6.3 and 6.4 together with all the data that could be gathered. These pins may be compared to the material already known from other Mesopotamian, Syrian and Anatolian sites, which have been documented by H. Klein (1992), and to the data provided by Old Assyrian texts.

Klein 1992 categories	material	Length in cm	Klein 1992 pl., no.	Özgüç publication (level, context)	Drawing by Klein 1992 or Özgüç (scale not respected)
I. 4A7a	copper / bronze	17.2	73,7	1954, p.390, fig. 31 (II)	
I. 4A7b	copper / bronze	11	73,9	1959, pl. 50, no. 3 (Ib)	
I. 4B1a II	copper / bronze	7.3	74,2	1950, pl. 63 no.376 (II)	
I. 4B1a II	copper / bronze	6.5	74,3	1950, pl. 63 no.377 (II)	
I. 4B4a	copper / bronze	78,8	76,3	1955, fig. 70 (Ib)	
I. 5B2b	gold and bronze	3.3	??	1953 pl. 57 no.618 (Ib grave 7)	
I. 6A3c	gold-plated bronze	11.8	84,12	1955, fig. 48 (Ib grave)	
I. 6B2b	copper / bronze	-	85,12	1955, fig 69 (Ib)	

¹⁶ A pin’s head in lapis lazuli is also mentioned without its shank among various objects in a personal accounting record, however in this instance the weight of the stone is not given. Kt 93/k 548, 5-6: *qá-qá-ad tù-[dî-tim]*, *ša hu-sà-ri-im*. See also the references given in Michel 2001, 357.

¹⁷ Broken letter: OIP 27, 41:12-13, *tù-dî-na-tim iš-[tí qá-qá-da-tí-šî-na]*, *ša* ^{na}4za-gìn.

¹⁸ For Mari references see Arkhipov 2012, 45.

¹⁹ *Hiddum*-beads in gold (AKT 6, 151:21, 28; AKT 6, 348:34; AKT 8, 258:21, 23), silver (AKT 6, 151:31; Kt c/k 684:1) or in tin (AKT 8, 146:20; AKT 8, 357:4, 4).

²⁰ Michel 2020, no. 260, note to l. 21; CCT 3, 29:24-26; TC 1, 30:12-13.

²¹ Lapis lazuli: BIN 6, 179:3-4, *zi-mi-zi* (4) [n]a4-za-gìn. In the Mari royal archives, *ziminzum* beads are attested in gold and weigh between 110 grains to 1 shekel and 130 grains, or rarely made of stone, lapis lazuli or agate (Arkhipov 2012, 58).

²² Kt c/k 18 (Dercksen 2015):42-44, 2 *zi-mi-zu*, *ša kù-ki ša* $\frac{2}{3}$ gin, $\frac{1}{2}$ *ma-na* kà-babbar: *tù-dî-na-tum*.

²³ The depots of the Ankara museum are being reorganised and it has not been possible for us to get access to Kültepe’s archaeological material.

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I. 8B1b	copper / bronze	-	92,10	1955, fig.81 (Ib)	
I. 8B1b	silver	6.6	92,11	1950, pl. 63, no. 379 (cist grave 2)	
I. 8B1b	copper / bronze	6,7	92,12	1950, pl. 63 no. 375 (II)	
I. 8B1b	copper / bronze	10	92,13	1953, pl. 56 no.542	
I. 8B1b	copper / bronze	7.8	92,14	1953, pl56no.544	
I. 8B1b	copper / bronze	7.6	92,15	1953, pl. 56 no.545	
I. 8B2a	copper / bronze	-	93,11	1955, fig. 83 (Ib)	
I. 8B3d	copper / bronze	-	94,5	1955, fig. 71 (Ib)	
I. 9A3c	copper / bronze	15.5	100,3	1955, fig. 90 (Ib grave)	
I. 9A3c	copper / bronze	7.5	100,4	1959, pl. 50, no.2	
I. 9B1a	copper / bronze	6.8	101,3	1955, fig. 79 (Ib)	
I. 10B1a II	copper / bronze		108,5	1955, fig. 78	
I. 10B1a II	copper / bronze		108,6	1955, fig. 80	
I. 10B3b	copper / bronze	10	110,9	1955, fig. 82 (Ib)	
I. 11B2a	copper / bronze		112,8	1955, fig. 91 (II)	
I. 11B3a	copper / bronze		112,13	1955, fig. 76 (II)	
I. 12A2a	copper / bronze	7.6	113,6	1955, fig. 74 (Ib)	
I. 12A2a	gold and silver	10.9	113,7	1953, pl. 57, no. 620 (II Grave 14)	
I. 12B1a Kt c/k 164	copper / bronze		115,2	1955, fig. 75 (II)	
I. 12B1a	copper / bronze	8.8	115,3	1953, pl. 56, no.543	
I. 12B2a	copper / bronze	-	115,10	1955, fig. 88 (Ib)	
I. 12B3a	copper / bronze	-	116,1	1955, fig. 85 (Ib)	
I. 12B3b	copper / bronze	-	116,4	1955, fig. 84 (Ib)	
I. 12B3e Kt f/k 389	copper / bronze	17.8	116,6	1955, fig. 73 (Ib)	
I. 12B3e Kt b/k 141	copper / bronze	-	117,6	1955, fig. 73 (Ib)	
I. 12B4a Kt f/k 279	gold	8.9	118,1	1986 fig. 27 (Ib grave)	
I. 12B4a	copper / bronze	-	118,2	1955, fig. 72 (Ib)	
I. 12B4a	copper / bronze	-	118,3	1955, fig. 87 (II)	
I. 12B4a	silver	2.3	118,4	1953, pl. 57, no. 617 (Ib grave)	
I. 12B4a	copper / bronze	5	118,5	1953,pl. 56, no. 546	
I. 12B5a	copper / bronze	-	118,8	1955, fig. 77 (II)	






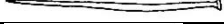
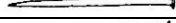
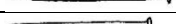
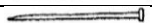
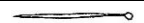
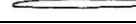



I. 18B3a	silver	-	138,1	1955, fig. 86 (lb)	
II. 4B1b	bone	6.9	155,2	1953, pl. 57, no. 598	
II. 4B1b	bone	9	155,3	1953, pl. 58, no. 650	
II. 4B1b	bone	8.4	155,4	1953, pl. 58, no. 651	
II. 4B1b	bone	9.2	155,5	1953, pl. 58, no. 652	
II. 4B1b	bone	9.6	155,6	1953, pl. 58, no. 653	
II. 4B1b	bone	7.5	155,7	1953, pl. 58, no. 654	
II. 4B1b	bone	7.2	155,8	1953, pl. 58, no. 655	
II. 4B1b	bone	6.6	155,9	1953, pl. 58, no. 657	
II. 4B1b	bone	6.1	155,10	1953, pl. 58, no. 658	
II. 8B1a	bone	6.3	160,3	1953, pl. 57, no. 597	
II. 10B2b	bone	7	164,6	1953, pl. 58, no. 656	
III. 12B1a	Gold-plated bronze & lapis lazuli	5.6	177,4	1955, fig. 49 (lb grave)	
III. 12B1c	silver & rock cristal	7.5	177,9	1955, fig. 46 (lb grave)	

Table 6.3. Kültepe pins recorded by H. Klein 1992, 339-34.

Classification of pins

H. Klein has published the most comprehensive study of Bronze Age Mesopotamian and Syrian pins. He distinguished four main groups according to their material. The first group, made of metal pins represents about 75 per cent of the analysed corpus ('I' in Klein 1992 categories, Table 6.3 first column), a total of 1657 items, most of them found in graves. They are made, for the greater part, of bronze and copper; others are in silver, gold, electrum, iron and lead; some pins are gold-plated bronze, or inlaid with silver or gold. The three other groups are bone pins (15.5 per cent of the total, group 'II'), composite pins (group 'III') and a small number of pins made of other materials, mainly stones (limestone, obsidian, steatite, group 'IV'). Composite pins, which represent about ten per cent of the corpus, are in metal with its head made of another material such as lapis-lazuli, glazed paste, frit, carnelian or ivory. In several instances, only the shaft or the head of the pins remained.

When the shaft is perforated, pins are referred to as toggle pins. They are attested from the end of the fourth millennium at Susa and they are present at Mari on the Middle Euphrates during the middle of the third millennium (Couturaud 2019, 58-59). They appear later in Anatolia, which led T. Özgüç to assume that they were brought to Kültepe by the Assyrian merchants and that they could originate from north Syria (2003, 260-261). A thread going through the eyelet and around the pin would help to fix it to the garment but it was also used to hang beads and cylinder seals onto the pin. At the end of the second millennium BC, toggle pins are replaced by fibulae, which originated from Europe through Greece. These are made of two parts, the curved body and the pin (Pedde 2000).

Within each category of material, H. Klein (1992, Pl. 3-4) identified several types of heads, from simple to complex shapes. For example, he proposes no less than forty-nine different head shapes only for metallic pins and these shapes are envisaged for pins and toggle pins as well. For toggle pins, the various criteria deal with the shape of the eye, its position on the shaft, and the presence or not of a ring around it.

As for the pin shaft, it may be plain or bear decorations, main or secondary ones, some pins having densely ribbed shafts. The preservation status of the shaft is important when measuring the length of the pin. The context of discovery is taken into account and when found in a grave, the position of the pin on the skeleton. At Mari, according to M. Jean-Marie (1999, 169, Pl. 141, grave 766), pins were found on the shoulder or breast of the dead, and in one case on the head, and could have been used as a hair-pin or simply to close the shroud. It is quite striking that the weight of the objects is never given. This is presumably the consequence of rarely being indicated in the archaeological reports.

The study of H. Klein (1992, 339-340, Table 6.3), which covers Mesopotamia and Syria also includes a group of 54 pins discovered at Kültepe and published by T. Özgüç during the 1950s, eleven of these are made of bone. As for the metal pins, two combine a shaft in gold or silver with a head made of stone (lapis lazuli and rock crystal), and only seven have their shaft pierced with a hole (letter A in Klein 1992 categories, Table 6.3, first column).

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Five Kültepe metal and nine bone pins belong to Klein's type '4' with a flat oval, lenticular head, which is clearly set off from the shaft; these are attested in Turkey, Syria and Lebanon (Klein 1992, 49-50, Pl. 10). Fifteen pins in metal can be found within Klein's type '12' with round to mushroom-fluted head, sometimes so deeply fluted that it appears as segmented flutes; seen from the top it looks like a flower or a star; these pins are attested mainly in Syria and Turkey (Klein 1992, 106, Pl. 17). Eight pins in metal are also linked to Klein's type '8' with a ball or globular head attested throughout the Near East (Klein 1992, 73, Pl. 13). The remaining Kültepe pins are scattered among different types.

Pins found during Kültepe excavations

Most of the pins published in archaeological reports are in metal or combine a shaft in metal and a head in stone. The many pins made of bone appear rarely in publications.²⁴ However, excavations carried out during the late twentieth century and early twenty-first century have uncovered a large number of bone specimens.

The Kültepe pins are presented in two tables, the first includes those discovered during the early years of excavations and have been documented by H. Klein (Table 6.3) and the second includes pins published after the 1950s or unpublished and preserved for a great majority in the Kayseri museum (Table 6.4); only four pins are common to both tables. In all, we were able to gather 240 pins – including 171 in metal – found predominantly in Level II and Ib, and originated for the majority from graves.

The ten gold pins recorded have a straight shaft, some decorated, none are pierced. Three of them have a fluted head in lapis lazuli or frit, and two others have a head with six bulls which, in at least one case, could have been surmounted by a stone.

Fourteen pins in silver are decorated with gold on the upper part of the shaft, just below the head. When preserved, the heads are fluted, deeply fluted and even with segmented flutes, including one with a lapis lazuli head (Kt 95/k 104), two others are globular, one with a carnelian head (Kt i/k 67). Four of these silver and gold pins belonging both to Levels II and Ib have an eye and a ring is still attached to a straight pin ending without a separate head (Kt 03/k 191).

There are twenty-three silver pins, none of them are perforated. Most of these were found in Ib graves. The head is generally fluted, deeply fluted or with segmented flutes, except for one, which has the shape of a bird (Kt t/k 401). Four pins have a head in stone or frit: amethyst (Kt f/k 275), rock crystal (Özgüç 1955, Fig. 46), chalcedony (116-66-64), frit (globular Kt g/k 153). One silver pin has its shaft clearly bent (Kt v/k 177).

Fourteen pins are gold-plated bronze, ten of them are badly preserved – in some cases only a part of the shaft is remaining – or highly corroded. Those of which are complete, have either no real head (Özgüç 1986, Pl. 70, 4-5) or a fluted head in metal (Kt v/k 171) or stone (lapis lazuli Özgüç 1955, Fig. 49). The upper part of the shaft may be decorated, none appear to have been perforated.

The pins made of an alloy of copper are the most numerous metallic pins, 108 are recorded in Tables 6.3 and 6.4. These show a great variety of forms, eight of them are bent. Their head has the shape of a flat mushroom; domed to globular and most of the time fluted, deeply fluted or with segmented flutes. Others have conical or lentil head, are scroll-headed or have no real head. One pin has a double mushroom head (Kt 81/k 36) and another one found in the Old Palace on the mound is in the shape of a lion (Kt 82/t 20). In fifteen complete examples the shaft is pierced and has a perforation in its middle, its upper part being ribbed; when the context is known, these belong in greater part to Level Ib (except Kt h/k 29).

Two recorded pins (?) are made of lead, their size and shape are completely atypical and they might have had a different usage (Kt 11/t 19, Kt 99/k 49). No pin in iron has been recorded in our inventory.²⁵

Bone pins in all sixty-eight listed generally present a more uniform shape. Most of them have a flat lentil-shaped head, only a few have a domed or conical head. Three pins have a flat head in the shape of two stylized birds (Kt 06/k 179, Kt 11/k 22, Kt 13/k 145). One pin made of ivory shows a similar style to two gold examples which have a head decorated with six bulls (Kt n/k 139).

All the pins included in this study were not necessarily used as garment or hair pins. In fact, T. Özgüç found a game board with holes in stone in which "metal pins with animal and other heads were stuck into these holes, and the stone thus served as a base for the whole toy" (Özgüç 1955, 67, object republished in Özgüç 1986, Pl. 132,7). These game boards, which could also have been used as computing tools, were used with pins deprived of a sharp shaft (Michel 2008a, 364, n. 31-34). The pin in the shape of a bird (Özgüç 1955, Fig. 86) was presumably among

²⁴ The eleven bone pins published by T. Özgüç in 1953 were found during the 1948 and 1949 excavations and thus their inventory number should start with Kt a/k and Kt b/k; none of these are among the unpublished ones preserved in the Kayseri museum and presented in Table 6.4.

²⁵ Two gold-plated bronze pins with iron strips (Kt 92/k 82-83) found in a Level Ib tomb were published by Özgüç (Özgüç 1986, 32, Pl. 70/1-2). An analysis done by the Laboratory in Ankara Museum of Anatolian Civilizations showed that the shaft of these pins were made of bronze and was overlaid with iron strips, gold and lapis lazuli.

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those found plugged in the game board. It is most probable that another one, Kt t/k 401 (Özgüç 1986, Pl. 71,1) with the same shape was used similarly.

Composition of alloyed pins

Garment pins were usually cast in molds and then cold worked.²⁶ The composition of the copper and alloyed pins of the Early Bronze Age have been analysed quite systematically, but we lack a similar study for the Middle Bronze Age pins. A small majority of the EBA III pins were made of a Cu-As alloy, the second type are either in copper or in a Cu-Sn alloy; three pins were made of Cu-As-Sn (Kt 11/t 265, 267, 75; Lehner et al. 2015). Different types of alloy may be used for the shaft and the head, confirming that pins were regularly prepared in two parts.

Similar observations were made for Early Bronze Age pins excavated at Resuloğlu (near Çorum) by G. Dardeniz and T. Yıldırım (2020, 148), who also noted that copper arsenic alloys were detected only in pins. During the Middle Bronze Age, arsenic is present in most of the analysed pins, and some pins do not contain tin at all (Kt i/k 303, Kt n/t 202, 205. See Dercksen 1996, 249 listing pins analysed by U. Esin). The presence of arsenic could be explained by the frequent recycling of metal, but as suggested by S. Selover for Tell Atchana pins, it could also be a deliberate choice for aesthetic reasons (Selover 2010, 152). Indeed, high concentrations of arsenic (at least 8 per cent) in copper alloy produce a brilliant silver-colored metal (Lehner et al. 2015, 205-206). As we do not know the composition of the pins included in this study, the table 5.4 present them as copper / bronze.

Size and weight of the pins

Length

The different lengths show a great variety from very small pins around 4 cm long (Kt g/k 153, Kt 92/k 1069) to a long one over 17 cm long (Kt f/k 389). Gold pins with a plain shaft and a golden or a precious stone head measure between 4.6 and 9 cm, more or less the same as most of the gold-plated bronze pins (between 5 cm and 9 cm). A category of partly gold-plated bronze pins with decorations added in gold are much longer, around 12-13 cm, and this is also the case for the silver pins decorated with gold, which measure between 10 and 13 cm.

As for the pins made of silver, their length ranges between 4.5 and 10.2 cm with an average of 7.5 cm. Those with a head in stone or frit are in general smaller, between 3.3 and 5.7 cm. Pins made of copper alloy measure in general between 7 and 11 cm, and are thus slightly longer than gold and silver pins. But there are several exceptions, a small pin measuring 5.6 cm (Kt 99/k 62) and at least three examples between 14.7 and 17.7 cm. The small examples could correspond to those mentioned in texts as 'small pins'.

Kültepe metal pins are comparable in length to those found at other Anatolian Bronze Age sites as Deve Hüyük, Gedikli, Mersin, Tarsus, or Tilmen Höyük (Klein 1992, 337-344), but they are smaller than those found at Terqa and Mari, on the Middle-Euphrates for example (Klein 1992, 358, 363). This might have suggested to T. Özgüç that the 'Syrian' style pins are quite long. Note that those found in the Old Assyrian graves at Aššur are also longer than the Kültepe metal pins, measuring between 10 and 17 cm.²⁷

Bone pins regularly measure between 6 and 9.5 cm with a few, smaller (Kt 08/k 129: 5.1 cm; Kt 08/k 132: 5.3 cm) or longer (Kt 06/k 185: 10.3 cm; Kt 85/k et. 7: 10 cm). This corresponds more or less to the bone pins found all over Anatolia for the Middle Bronze Age.

Shaft diameter

The shaft diameter is only given in the inventories recorded yearly by the excavation teams. It varies between 1.5 mm to 4 mm for bronze and copper pins, with two exceptions of pins found on the mound with a shaft diameter measuring 4 and 6 mm (Kt 11/t 78 and Kt 11/t 52); the most frequent diameter is 2 mm. Bone pins have a shaft diameter which varies between 2 and 4 mm, the most frequent one being 3mm, thus slightly longer than for metallic pins.

Weight of the pins

The weight of the pins is usually not given in the archaeological report. However, since this is the only measurement value that cuneiform texts provide, especially for pins made of precious metals, we have systematically weighed the pins preserved in the Kayseri archaeological museum, and colleagues have provided us with the weights of the pins on exhibit at the Museum of Anatolian Civilisations in Ankara, in order to have data that are comparable to those given by the texts.

There are six pins made of gold for which we have the weight, the lightest one has no head and weighs only 1 g. A group of small ones weigh between 2.3 g and 3.5 g, which is less than ½ shekel, while Kt f/k 279 measures

²⁶ For molds, see below, section 'local or imported?'

²⁷ Hockmann 2010, grave 9 Pl. 29 (Ass 6599c, 11.6 cm), grave 37, Pl. 60 (20504ar and as 16.6 and 17 cm), grave 48, Pl. 77 (Ass 20572a, 10 cm).

8.9 cm long and weigh 6.94 g, thus a little more than $\frac{1}{5}$ of a shekel of gold. This long and very fine decorated shaft with a fluted head would thus be much lighter than those attested in the Ur III and Mari texts weighing at least 2 or 3 shekels (see above).²⁸

Silver pins weigh either 3-4 g or 18-22 g with a length respectively at 4-5 cm or over 8 cm; these would correspond to the 'small pins' referred to in texts and a supposed 'large pins' category. However, the heavier silver pins measure 8.4 cm (Kt u/t 22) and 9.7 cm (Kt 13/k 94) and weigh 22 g each, thus $2\frac{2}{3}$ shekels (and 22.10 g for Kt 94/k 1592). This weight is under the lightest weight for silver pins recorded in the texts ($3\frac{1}{2}$ shekels). Silver pins decorated with gold are lighter, thus may also be organized into two groups: the small ones weigh between 2 and 6 g and the large ones between 10 and 15 g. The weights of two similar silver pins decorated with gold and found in a Level II grave (Kt b/k 264 and 265) are 13.3 and 15.2 g and their lengths are respectively 11 and 10.5 cm.

Copper or bronze complete pins often weigh between 8 and 18 g according to their length, the size of their head, and the diameter of the shaft. There are a few examples as light as 4 g (Kt 99/k 62) and several long pins weighing over 40 g. The heaviest copper or bronze pins are the following:

Kt 92/k 1074	78 g	(9 $\frac{3}{4}$ shekels)	16 cm
Kt f/k 389	49.28 g	(almost 6 shekels)	17.7 cm
Kt 94/k 23	42.67 g	(about 5 shekels)	

Two very large ones, broken and incomplete, weigh 126 and 156 g (19 shekels) for a total length approximately around 20 cm. We have to imagine that these long and heavy pins could only be used for outer clothes made of thick fabrics, while the bone pins, which usually weigh between 2 and 4 g, would have been fixed to light fabrics, scarfs or shrouds of the dead, or would have been used as hair pins.

The light weights for gold and silver pins from Kültepe, even if they do not exactly match the textual data, since they are lighter, echo the small size of pins made of precious metals attested in comparison to other cuneiform sources in the Old Assyrian texts.

The heads of pins

Kültepe pins show a great variety of heads from very simple lentil shapes to very sophisticated ones with animals, or fluted, deeply fluted head or even with segmented flutes, seen from the top, look like flowers, rosettes, or stars.²⁹ When known, the diameter of the pins' heads in metal vary from 0.5 to 1.3 cm and in bone from 0.3 to 0.7 cm, with the exception of the flat head with two stylized birds. Several precious metal pins consist of a pierced head with the top of the shaft going through it; the head is then made of gold, silver or precious stone, most often lapis lazuli. According to the texts, the weight of a lapis lazuli head would have been over 3 shekels, around 25 g, which, if it were a sphere would correspond to a diameter of 1.25 cm (Michel 2001, n. 145). The silver and gold pin Kt 95/k 104, which weighs in total 8.43 g, might have had a flat head with segmented flutes of lapis lazuli weighing between 2.8 and 3 g. In this case, once more, the data from the texts do not match the archaeological evidence.

Wearing garment pins

Inlay panels from Mari dating to the middle of the third millennium BC show how the three main types of pins could be worn (Fig. 5.3). Straight single pins go through the garment in an oblique direction from top to down and when fluted, the top of the head which formed a flower or a star was visible (in the Mari sample the head is globular). The pair of straight pins is also fixed in an oblique direction but from bottom to top, the second, forming an X on the breast of the woman. The bent pin is fixed horizontally. The size of the pins may have varied according to the way it was used, whether single or in pairs.

In the three examples from Mari, beads and a cylinder seal are attached to the pins with a thread, which is fixed at the top of the shaft, just below the head; the image does not show if the pins have an eyelet placed there. Toggle pins from Kültepe are usually perforated at the middle of the shaft. If they were used in the same manner as on the Mari panels of Fig. 5.3, the eyelet would be hidden inside the garment and thus be useless. It is possible that the pin was driven all the way into the garment so that the eyelet was visible on the surface. It was then possible to attach a thread to the eyelet so that the pin could be blocked and the beads and seal could be hanged.

²⁸ Note that the gold-plated bronze pin Kt v/k 171 is even lighter, weighing 6.36 g.

²⁹ Lehner et al. 2015, 197, no. 44-48 heads with segmented flutes viewed.

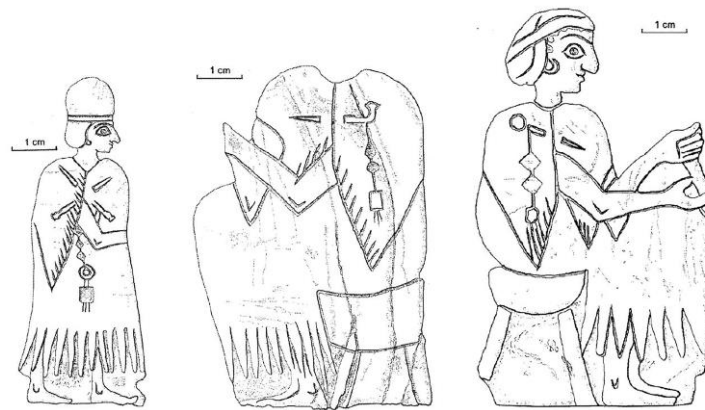


Figure 5.3. Mari inlay panel from the middle of the third millennium BC after Couturaud (2019): nos 522, 566 and 567, with the kind permission of the author.

During the excavation of burials, the position of the pins in relation to the skeleton may reveal details about how women wore them. D. Hockmann (2010, 73) noted for example, that in two of the Aššur Old Assyrian graves, the pin was found on the right shoulder, if not used to fix a shroud, this would give an indication of how the garment was placed.

Local or imported?

T. Özgüç distinguished two groups of Kültepe pins. The first one, which was local with parallels in central Anatolia, includes pins with an oval-shaped, fluted head with plain and ribbed shaft, but the ribbing did not extend to more than 1 cm (Özgüç 1955, Figs 75, 77; Özgüç 1986, Pl. 125, 17-21) or with a rounded or angular conical head (Özgüç 1955, Figs 78, 80). These 'Anatolian type' pins measure between 6 and 13 cm, with an average of 7-8 cm. K. Emre further distinguished six 'Anatolian types' of metal pins, which were found in the Yanarlar cemetery, three of them having parallels from Kültepe: Knob-headed pins, pins with melon-shaped heads and loop-headed pins (or scroll-headed pins, Emre 1978, 118-120). However, we still lack an exhaustive study of Anatolian pins.

The second group of Kültepe pins, according to T. Özgüç, gather together a smaller number of pins with flat mushroom-shaped, fluted heads on incised or heavily ribbed shafts (Özgüç 1955, Figs 76, 91). These pins were presumably imported from Syria with parallels in Syrian and Palestinian sites, and also at Alalakh (Özgüç 1986, 72; 2003, 252; Maxwell-Hyslop 1971, 97-101). The head was pierced in a way that the shaft could pass through it, securing a firm fit (Kt f/k 279). These pins were found in burials, deposited as tomb gifts, and were mainly dated to Level Ib. Several of them are toggle pins, with a perforation in the shaft, where some rings were preserved (Özgüç 1986, Pl. 125, 11-12). In general, these pins are longer than 'Anatolian' examples, measuring up to 12-16 cm long, more worked and complex, with many more ribbing decorations or incised designs. These pins would have been brought to Kaneš by the Assyrian merchants. An argument for the foreign origin of the non-local pins is that no stone moulds were found of the type (Henschel-Simon 1938, Pl. LXX/1; Özgüç 1986, 32). On several occasions, T. Özgüç suggests the existence of moulds for pins excavated at Kültepe; however, no such mould has been found in the Kültepe excavation archives. Pin moulds were found in other excavations in Turkey (Schliemann 1881, 1359, Fig. 103; von der Osten 1937, 230, 235, Fig. 298B; Özgüç 1982, 47, Pl. 59/3).

As demonstrated more recently, toggle pins did exist in Anatolia already during the Early Bronze Age, even if only a few examples are known in Anatolia. However, the so-called 'melon-headed' toggle pins were only on the Anatolian plateau attested in the burials of the lower town in Kültepe (Iamoni 2012, 259-360, Highcock 2019, 32).

In order to test T. Özgüç's hypothesis, these pins may be compared to those found in Aššur graves dated to the Old Assyrian period. Aššur pins have a fluted or deeply fluted blunt head, melon-shape or pointed head and may be divided into several groups (Hockmann 2010, 73): toggle pins with a sharp head and a shaft ribbed between the head and the eyelet (grave 9, Ass 5983c), toggle pins with a sharp head and lines running parallel to the shaft (grave 37, Ass 20504a), toggle pins with a sharp head and an undecorated shaft (grave 37, Ass 20504a), toggle pins with a flattened head and a shaft ribbed between the head and the eyelet (grave 48, Ass 20572a), and toggle pins with a round head and an undecorated shaft (grave 37, Ass 20572b). Thus Aššur and Kaneš have similar types of toggle pins. M. Iamoni (2012, 361) also noted that there is very little variation of such pins throughout Syria and thus "reflect a common fashion sense shared by various regions of the Near East which had different local traditions in other respects". Concerning the Aššur and Kaneš examples specifically, N. Highcock (2019, 33) added that this "points toward a shared material culture that travelled along the routes between two places."

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The Kültepe excavations also yielded a few animal headed pins. Two golden pins from Level II – one large, one small –, with the head in the shape of six bull heads were found during two different excavations seasons (Kt 88/k 788 and Kt 83/k 49). According to T. Özgüç (1986, 31), the socket at the top originally had a precious stone inlay. He compared these with an ivory polished pin with a similar head which was excavated from a Level Ib house (Kt n/k 139, Özgüç 1986, Pl. 69, 9). This last pin has contemporary parallels in Alişar and Boğazköy. A silver pin with a head in the shape of a perched bird (Kt t/k 401) is also similar to Alişar examples. All these pins are local 'Anatolian' contrary to the bronze pin found in the Old Palace, which has a head in the shape of a lion with four joined legs (Özgüç 1999, 102).

Composite pins with a shaft in metal and a bead in precious stone or frit are already known during the Early Bronze Age at Alaca Höyük, Syria and Mesopotamia, throughout the Middle Bronze Age in Anatolia.

Contextualisation of pin discoveries

The great majority of the pins presented in tables 5.3 and 5.4, when the context is available, were found in Level Ib graves and date to the eighteenth century. For this period, the written sources available are very limited and for a large part unpublished. However, the Level II archives are abundant and in a few districts of the lower town it has been possible to reconstruct the names of the inhabitants of some houses, especially in squares LV-LIX/125-129 (Hertel 2014, Michel 2018, 61-62).

The small gold pin with a head made of six bull heads was found in 1983 in the archive room together with cuneiform tablets (Özgüç 1986, 31). Only three of the 165 tablets unearthed that year are fully published and lines of a few others are cited (Michel 2003, 100). Two letters are addressed to the *kārum* of Kaneš from the *kārum* of Wahšušana, and involve several Assyrians.³⁰ The third letter is addressed to the Assyrian merchant, Irīšum by two Assyrians (Bayram & Çeçen 1995, no. 3). Thus, we can suggest that this golden garment pin belonged to the member of a household which was predominantly Assyrian. However, this does not completely exclude the possibility that it was worn by a local woman as mixed marriages are well attested during this period (Michel 2020, chapter 1).

In 1949 a grave (no. 14) was excavated under the floor of a small room of House 1 in Trench B (T. Özgüç 1949, 12, 28, 71). They found three pins in the grave: the first has a gold shaft and a bronze tip and head. Two gold-plated bronze toggle pins, have a head with segmented flutes and the top part of the shaft between the head and the eyelet is heavily ribbed and covered with gold leaf (Kt b/k 264 and 265). They were disposed at the back of the deceased and supposedly used to fix the shroud. During that year, several houses were unearthed and a total of 839 tablets were found (Michel 2003, 67); among the archives' owners only a certain Uzua has been identified, his house being located in squares R-T/21-22.

The great majority of the pins found during excavations cannot be connected to the archives found in some houses, either because they were located in graves dating to Levels Ib or Ia, or because their exact context of discovery is unknown. Only a simple bone pin found in 1994 (Kt 94/k 1562) could perhaps come from the house of Šalim-Aššur whose archives have been published by M. T. Larsen (AKT 6).

Uses and Symbolism of Garment Pins in Old Assyrian Texts

Several authors have already noted that the *tudittum*-pins are exclusively worn by women (see Klein 1983). In the *Old Assyrian Sargon Legend*, the heroic king, while wearing a snake as a belt as a symbol of masculinity, seeks to humiliate his enemies by showering them with feminine accessories. Among these "he provided the Luhmians with a *t*-pin" (Michel 2021).³¹

The Old Assyrian texts provide various data about the recipients of the *t*-pins, their symbolic value in marriage and divorce contracts, and their use as a commodity. These *t*-pins were also offered to goddesses among various other jewelry.

An accessory received and worn by women

According to the text, gold and silver *t*-pins are often made in Anatolia and sent to women in Aššur or in Kaneš. They appear in letters or transport contracts, and their recipients or owners are always women. The names of these women may be specified, as in the following examples:

"3 ½ shekels of silver, a *t*-pin for Ab-šalim" (transport contract of silver to Aššur),³²

"10 shekels of silver: a *t*-pin for Qannuttum" (transport contract of gold and silver to Aššur),³³

³⁰ Günbatti 1995, nos. 1 and 3.

³¹ Kt j/k 97 (Günbatti 1997):61-62, *Lu-ùh-me-e, tù-dí-tám: ú-dí-id* see the translation and interpretation by Kouwenberg 2015.

³² Kt 93/k 515:24-25, 3 ½ gín *tù-dí-tám, a-na Áb-ša-lim*.

³³ Prag 736:24-25, 10 GÍN, *kù-babbar: tù-dí-tum a-na Qá-nu-tim*.

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“2 *t*.-pins – their weight (in silver): ½ mina – for Lamassī and Ahaha.” (list of silver amounts sent to Aššur),³⁴
“The lady took away the silver that he brought there, and made me a *t*.-pin for ½ mina of silver”. (letter to two women from a man and a woman),³⁵
“3 cups and *t*.-pins, their weight: 1 mina of silver, under my seal” (assets of Lamassatum in Kaneš to be divided according to her will).³⁶

In other instances, the names of the owner or recipient of the pins are not given:

“Enna-Suen is bringing a *t*.-pin of 7 shekels of silver under my seal for the young girl” (letter from a man to a woman),³⁷
“5 shekels: a *t*.-pin, 12 shekels: a belt for the young girl (...) ½ mina: a *t*.-pin (other objects in gold and silver) for ʾLamaša (letter between to men),³⁸
“1 mina of silver: bracelets of the young girl, 18 shekels of gold, her rings, 2 *mihsū*, beads and her *t*.-pins” (letter from a man to his representatives concerning the inventory of his house in Aššur after his wife’s death).³⁹

Other texts refer to *t*.-pins without specifying their material, and these also either belong or are given to women:

“(our mother has) at her disposal 10 minas of copper and her *t*.-pin” (letter to a man from a woman),⁴⁰
“Take 3 cups and a small *t*.-pin” (letter exchanged between two women),⁴¹
“When I return from Wahšušana, I will fix a *t*.-pin on your breast and I will return your silver to you.”⁴²

In this last example, a man who had a debt, left to his creditor, a woman, his own *amtum*-wife as a security. He declares, in this witness deposition, that he will pay his debt when returning to Kaneš and promise his female creditor, a jewelry as a gift to be sure that in the interim his *amtum*-wife is well treated. According to the textual references, *t*.-pins are clearly accessories worn only by women. They are often listed among their valuables, especially jewelry and cups. The writer specifies the type of metal only of those of value, made of gold and silver. When there is no indication about their material, we suppose that the *t*.-pins are made of an alloy of copper. It is not a real surprise that only the valuable *t*.-pins occur in texts, because everyday objects are usually not mentioned in the texts.

The *tudittum*-pin, a key to women’s possessions in marriage contracts

As part of the female costume, every woman, whether married or not must have had at least an ordinary *t*.-pin to hold her garment around her body. At the occasion of their marriage, women received gifts, including one or more *t*.-pins, both from their parents as their dowry and from their future husband and eventually her in-laws, as in the following example:⁴³

³⁴ TC 2, 54:33-34, 2 *tù-dí-ta-an* ½ *ma-na* ki-lá-bi, *a-na Lá-ma-sí* ù *A-ha-ha*.

³⁵ CCT 3, 31 (Michel 2020, no. 221):16-21, *kù-babbar*, *a-ma-kam ša ub-lá-ni*, *a-wi-ils-tum ta-ta-ba-al-ma*, *ša* ½ *ma-na* *kù-babbar*, *tù-dí-tám té-pu-ša-am*.

³⁶ AKT 8, 164 (Michel 2020, no. 61):1-3, 3 *kà-sá-tum* ù *tù-dí-na-tum*, *šu-qú-ul-ta-áš-na*, 1 *ma-na* *kù-babbar ku-nu-ku-a*. There is only one instance, where the name of the recipient is usually borne by men, *Ē-nibâš*: ‘1 mina of silver: a *t*.-pin and bracelets for *Ē-nibâš*’ in an unpublished transport contract of silver to Aššur, Kt 93/k 788:5-7, 1 *ma-na* *kù-babbar*, *tù-dí-tám* ù *ša-wi-ri*, *a-na E-ni-ba-áš*. However, this person receives jewelry in the first part of the text, and all the names in this section are female names. Despite to the fact that all the other attestations of that name refer to men, we suppose that *Ē-nibâš* was an epicene name.

³⁷ HUCA 40, 59-60 (Michel 2020, no. 114):3-6, 7 *gín* *kù-babbar* ⁴*tù-dí-tam* *ku-nu-ki-a* ⁵*a-na šú-ha-ar-tim* ⁶*En-na-Sú-en* *na-ší*.

³⁸ Kt 87/k 386:31-32, 42, 46, 5 *gín* *tù-dí-tum* 12 *gín*, *mu-sà-ru-um ša šú-ha-ar-tim* (...) ½ *ma-na* *tù-dí-tum* (...) *a-na La-ma-ša* (transliteration K. Hecker, courtesy G. Kryszat).

³⁹ TC 1, 30 :10-14, see above note 12.

⁴⁰ Kt c/k 127:43-44, *qá-tí-ša* 10 *ma-na* URUDU, ù *tù-dí-ta-ša* (courtesy Dercksen).

⁴¹ AKT 9a, 71 (Kt. c/k 1514):4-6, 3 *kà-sà-tim*, ù *tù-dí-tám*: *ša-ha-ar-tám*, *le-qé-ma*. See also another letter with the same correspondents AKT 9a, 72:5-6, *tù-dí-tám*, *ša* KI-*ru-a-tim*.

⁴² AKT 3, 51 (Michel 2020, no. 190):9-12, *iš-tù Wa-ah-šu-ša-na*, *lá-tù-ra-ma* *tù-dí-tám*, *i-na ir-tí-ki a-ša-kán*, ù *kù-babbar*^{4p} *ki ú-ta-ra-ki-im*.

⁴³ Transport contract of gold and silver for Aššur, TC 3, 202:15-16, 13 *gín* *kù-babbar* *tù-dí-tám*, *a-na kà-li-tí-ni*. Pins are part of dowries in the Mari royal archives as well: gifts received by princess Inbatum at the occasion of her marriage included two *t*.-pins in gold (ARM 9, 20:5, Charpin 2008). The gift of luxurious garment pins to the bride is also very well attested at El-Amarna; some of these could be in ivory as the nineteen samples listed in EA 14:iv10 (Moran 1992, 34), others were in silver or gold with inlays of lapis lazuli and a great variety of other precious stones (EA 25:i22-32, Moran 1992, 72).

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“13 shekels of silver, a *t*.-pin for our daughter-in-law.”

When the families were wealthy enough, the *t*.-pin(s) offered were made of gold or silver. The *t*.-pins were listed among the various jewelry offered, but held a special status that is suggested by the marriage contracts including clauses in cases of divorce. Puzur-Šamaš, an Assyrian man married the Anatolian woman Hašušarnika; their marriage contract considers the possibility that if they divorce:⁴⁴

If Puzur-Šamaš breaks the contract and divorces her, he shall pay 1 mina of silver. If Hašušarnika commits a misdeed, she shall leave (the house) drawing out the *t*.-pin (of her cloth).

The clauses are clearly not reciprocal in this case. If the husband decides to divorce, he has to pay one mina of silver as divorce money to his wife; nothing is said about the wife wishing to divorce, suggesting that she might have not been allowed to do so. In case she had committed a serious offense, then her husband could chase her away without compensation, and she had to leave the house almost naked, after that the toggle pin holding her cloth has been striped off and her garment had dropped from her shoulders. This symbolic gesture, which consists of depriving the wife of her garment pin, meant that she had to leave all her belongings to her husband (Michel 2020, 86, no. 32).

This is confirmed by another marriage contract between an Assyrian man and an Anatolian woman which uses the same expression but without the explicit mention of the *t*.-pin:⁴⁵

If she is deceitful or misbehaves in any way, he shall strip (her) of her cloth and her tunic and drive her away *naked*.

A third marriage contract involves a girl as a bride sold by her Anatolian parents to become the wife of an Assyrian man:⁴⁶

If she prostitutes herself or steals, he will deprive her of the garment, her *t*.-pin and her head-dress and she will become a slave-girl.

In the last case, the bad wife not only loses her *t*.-pin and garment, but also her head-dress, and her social status changes since she becomes a slave. The *t*.-pins, at the same time jewelry of value and the accessory, which holds the feminine garment thus symbolize the women’s possessions. Such a meaning is also implied in a letter sent by Šimat-Suen to her brother. She had taken the responsibility of her brother’s daughter and explains to her brother that the girl is left with nothing: her only possession is the *t*.-pin that he sent her:⁴⁷

Your daughter, her aunt has rejected her, she left her nothing! She is wearing the *t*.-pin that you sent her. She is placed before me, I will personally clothe her and cover her, and she always will go with me. You should not be anxious about her. I will take care of her.

It is undoubtedly for its symbolic value as a woman’s possession that this jewelry appears at the beginning of the list of goods left by Lamassatum, wife of Elamma, at her death to her heirs:⁴⁸

3 cups and *t*.-pins, their weight: 1 mina of silver, under my seal; separately ½ mina 6 shekels of silver under my seal, votive offerings of Elamma (*description of debt claims, cash silver and 10 textiles that she owned*) 5 slaves and 5 female slaves, of which 1 female slave, named Iantalka, belongs to Ilina, daughter of Aššur-ṭāb. All this, Lamassatum, wife of Elamma left behind (at her death).

⁴⁴ AKT 10, 41A-B (Michel 2020, no. 32):4-15, *šu-ma, Puzur₄-utu, i-ša-mu-ùh-ma, e-zi-ib-ší, 1 ma-na kù-babbar, i-ša-qal, šu-ma Ha-šu-ša-ar-ni-kà, ší-lá-ta-am, ta-ar-ší, i-na ší-hi-iṭ, tù-dí-tim, tù-ší.*

⁴⁵ Kt 94/k 141 (Michel 2020, no. 31):6-12, *šu-ma, sà-ra-at ù-ul mì-ma, ta-ša-lá-al, šú-ba-sà ù na-ah-lá-áp-/ta-ša, i-ha-ma-ší-ma, e-za-za-am-ri-ša, i-ṭá-ra-sí; see also Michel 2008b, 223, n. 77.*

⁴⁶ Kt 94/k 487 (Veenhof 2018, 43, no. 5):8-13 *šu-ma ta-ha-ri-im, ú-lá ta-ša-r[i]-i[q], 1 TÚG tù-dí-ta-š[a], ù ša qá-qí-dí-ša, e-tí-ir-ší-ma, ú a-ma-at-ma* (tablet deciphered by M. T. Larsen and G. Barjamovic).

⁴⁷ AKT 2, 31 (Michel 2020, no. 273):27-35, *me-er-at-kà, a-ha-at a-bi₄-ša ta-tí-dí-ší, [m]i-ma lá té-zi-ib-ší-im, [ṭ]ù-dí-tám ša tù-šé-bi₄-lá-ší-ni, ša-ak-na-at, a-pá-ni-a na-ad-a-at a-na-ku-/ma, ú-lá-ba-ší ù ú-kà-ta-am-ší, ù iš-tí-a-ma : ta-ta-na-lá-ak, lá ta-ša-ra-áp-ší : a-šu-ur-ší.*

⁴⁸ AKT 8, 164 (Michel 2020, no. 61):1-6, 3 *kà-sá-tum ù tù-dí-na-/tum, šu-qú-ul-ta-áš-na, 1 ma-na kù-babbar ku-nu-ku-a, a-ha-ma ½ ma-na 6 gín kù-babbar, ku-nu-ku-a-ma ik-ri-bu, ša E-lá-ma (...)* 5 *ir^{du} ù 5 a-ma-tum, šà-ba 1 am-tum : I-a-an-tal-/kà, ša Ì-lí-na dumu-munus A-šur-du₁₀, mì-ma a-nim Lá-ma-sá-tum, dam E-lá-ma, té-zi-ib.*

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Therefore, the clothing *t*-pin, symbol *par excellence* of femininity of an otherwise gender-neutral costume, also represents women’s possessions: it is enough to remove the pin from her garment for the woman to find herself naked and symbolically deprived of her possessions.

Jewelry as money

Made of precious metals when they occur in texts, garment pins, like other pieces of jewelry (rings, bracelets, etc.) may also be considered as marketable goods and sold for silver.⁴⁹ In a letter addressed to a woman, an Assyrian wrote:⁵⁰

From your *t*-pins or whatever is at your disposal, raise about one mina of silver and send it to me. Do you not know that I am going to undertake a winter journey and (have to) spend an extra of 10 shekels of silver?

This man needed some money for his travel and asked the woman to sell her jewelry for silver. In another letter also addressed to a woman, an Assyrian merchant explains that he has sold her sister’s rings and *t*-pins and bought with their proceeds two female slaves:⁵¹

I took 1 mina of silver belonging to your sister in the City of Aššur, either from her rings or her *t*-pins, and overthere, I gave her to understand as follows: “For your silver that I took, both female slaves shall be yours.”

Women in Aššur could use the lapis lazuli heads of their garment pins to pay debts to the Town Hall:⁵²

We gathered our pins for your investors and representatives and we gave to the Town Hall the equivalent in silver of the price of the lapis lazuli (of their heads).

In other instances, *t*-pins may be listed among other goods, objects of credit and debit relationship between individuals. Garments pins representing an amount of two minas of silver were given as good-faith consignment loan; here the jewelry is listed only for their value in silver.⁵³ The same is true in a letter sent by Pūšu-kēn to his representatives after the death of his wife in Aššur. Jewelry belonging to her daughter, which is listed according to their value, including *t*-pins are in the inventory of the house in which his wife was living.⁵⁴

Jewelry of the goddess

Precious garment pins could be offered to goddesses. Indeed, gods and goddesses were represented by figurines which were luxuriously dressed and adorned with jewelry. In a letter addressed to the *kārum* of Kaneš, the *kārum* of Uršu deplors the theft of the golden disk of the god Aššur, which was on the breast of his statue kept in his chapel (Michel 2001, no. 51). A letter sent to a priest of Ištar concerns the jewelry, which used to adorn the statue of the goddess in a chapel located in his own house in Kaneš; during his absence from Kaneš part of the jewelry of the goddess was stolen. The inventory of the stolen jewelry included 12 earrings of meteoric iron, a representation of a pudendum of gold, 2 beads of gold, garment pins in silver, pieces of silver, a mace of silver, beads in gold and lapis lazuli forming a necklace. The weight of each piece is specified and the garments pins represent ½ mina of silver (Kt c/k 18:44, Dercksen 2015).

In the mythological text “Ištar’s Descent to the Netherworld,” the goddess has dressed herself with garments and is adorned with jewelry representing all her powers, including her pins. As she wants to challenge her sister

⁴⁹ For the sale of jewelry to buy food, see the letter from Tarām-Kūbi to her husband CCT 3, 24 (Michel 2020, no. 128): “You wrote me as follows: ‘Watch over the bracelets and rings that are there, so that they can serve to provide you with food.’” *ta-āš-pu-ra-am um-ma a-ta-ma, ša-wi-ru-ú: ú a-nu-qú-ú, ša i-ba-ší-ú-ni : ša-ší-ri, a-na a-kà-li-ki : li-ib-ší-ú.*

⁵⁰ BIN 4 97:14-20 (letter to Nini from Aššur-mūtappil), *lu tù-dí-na-tù-ki, lu mī-ma i-qá-tí-ki i-ba-ší-ú, kù-babbar 1 ma-na, ma-li-a-ma šé-biá-lá-nim, lá tí-des-a ki-ma, ḥa-ra-an ku-ší-im, a-lu-ku kù-babbar 10 gín, ut-ra-am, a-ga-mu-ru.*

⁵¹ CTMMA 1, 78 (Michel 2020, no. 307):5-11, 1 *ma-na* kù-babbar : *lu a-nu-qú-ša, lu tù-dí-na-tum : i-na a-lim^{ki}, A-šur : ša a-ha-tí-ki : al-qé-e, ú a-ma-kam : ú-ša-hi-sí, um-ma a-na-ku-ma a-kù-babbar^{pi}-ki, ša al-qé-ú : a-ma-tum, ki-lá-al-ta-ma : lu ku-a-a-tum.* In the unpublished letter Kt c/k 43 (courtesy Dercksen), in which a woman explains that she had to give her bracelets to pay the eponym and to sell her *t*-pin for wool.

⁵² CCT 4, 24a (Michel 1991, no. 5):2'-4', *a-um¹-mī-a-ni ú ša-zu-[za-tí-kà], [t]ù-dí-na-tí-ni : nu-lá-qí-it-ma : a-na kù-babbar, [š]í-im : hu-sà-re-e : a-na é a-lim: nu-uš-[ta-qí-il].*

⁵³ CUSAS 34, 30:1-5, 2 *ma-na* kù-babbar *tu-dí-na-tim, a-na ta-ad-mi-iq-tim, a-dí-na-kum,* “I gave you as good-faith consignment loan 2 minas of silver in *t*-pins.”

⁵⁴ See above note 26. See also CCT 3, 29:24-26, 4 *ma-na* kù-babbar, ½ *ma-na* 1 gín kù-ki ½ *ma-na* 5 gín, *hi-du ú tù-dí-na-tum,* 4 minas of silver, ½ mina and 1 shekel of gold, ½ mina 5 shekels: beads and *t*-pins.

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in the netherworld, she has to go through seven doors and strip herself of a piece of jewelry at each door. Going through the fourth door, she has to take off the garment pins over her breast and finds herself naked, having lost all her powers, when she finally reaches her sister (Foster 2005, 500, l. 51).

These pieces of jewelry were offered to the deities as an act of piety and it is not very surprising to find them among the *ikribū*-offerings to deities (Kt c/k 368:4-5, courtesy Dercksen).

Conclusions

The Old Assyrian texts excavated from the houses of Kültepe's lower town document various aspects of garment pins and their use by women during the nineteenth century BC. These data have been compiled to 240 pins recovered during more than seventy years of excavations. All the attestations of *t*-pins in texts refer to garment pins, while all the pins recorded were not necessarily used for this purpose. Some of them may have been used to close the shroud of someone deceased or as hair pins, while others were part of games or computing tools and stuck into a gaming board. Texts refer only to metal pins, but a great quantity of pins are made of bone. Furthermore, as might be expected, the two sets of data do not necessarily document the same aspects about pins, but they also appear to contradict each other in some of their physical characteristics.

Texts provide the weights of metal linked to metal pins, while archaeological reports record their dimensions, length, and occasionally the diameter of their shaft and head. As we had the opportunity to weigh the pins in the museums in Kayseri and Ankara, we observed differing results concerning silver pins. Texts provide weights for silver pins, which are heavier than the weights of the preserved silver pins. However, the Old Assyrian texts give a lighter weight in general than those from other textual sources, as for example from Mari. Thus, it could be possible that the weight of 20 shekels of silver (165 g) attested for some pins correspond not only to the weight of the object but also to the added value of the craftsman's work. However, the question remains open for composite pins with a head of lapis lazuli weighing around 25 g, as this suggests a shaft of about 50 g, and a pin of 75 g. None of the gold or silver pins recorded up to date reach such a weight, the heaviest being 22.10 g. Perhaps these discrepancies could be explained by the regular recycling of metal objects and the hazard of discoveries.

The style of the pins and the technology used to produce them was not in the scope of this study and remains to be done. The distinction between 'Anatolian' and 'Syrian' pins proposed by T. Özgüç is based on too tenuous an argument and we still lack a systematic study of Anatolian pins similar to the exhaustive work of H. Klein (1992) for Syria and Mesopotamia. It is not impossible, as proposed by T. Özgüç that Assyrian merchants and their wives brought their toggle pins to Anatolia, which could have influenced the local production of pins. However, the Old Assyrian texts allow further considerations. Most of the texts concerning deliveries of pins to women suggest that the gold and silver pins were regularly made in Anatolia, where the raw metals were available and then sent to the women in Aššur. In the same manner, the sun discs offered by the Assyrian merchants to their gods were also shaped in Anatolia and it is clear that the Assyrians appreciated Anatolian local goldsmith's skills (Michel 2016, 325-326). Moreover, if toggle pins are rare in Anatolia, the fluted head pins or heads with segmented flutes without a pierced shaft are very common in Anatolia during the Middle Bronze Age, and D. Hockmann suggested that a precursor of this form was already found in the so-called princely tombs in Alaca höyük (Hockmann 2010, 73). Thus, pins, as many other artefacts, underscore reciprocal borrowings between the communities in the Kültepe lower town (Michel 2014, 78) and according to M. Iamoni "the fashion concept might actually explain how toggle pin types overcome geographical/cultural/historical boundaries, thus working as trait-d'union across various regions" (Iamoni 2012, 361).

There is no doubt that gold and silver pins, sometimes with a lapis lazuli or carnelian head were luxury items worn by women of a certain social class. At Ebla, Mari or El Amarna, women receiving such gifts are members of the ruling family or important priestesses. We can easily imagine that wives of wealthy Assyrian merchants, as Tarām-Kūbi or Lamassī were eager to display that highly visible sign of social success in the same manner that they were living in large houses served by numerous slaves (Michel 2020, chapter 4). According to visual depiction and their location within burials, pins were inserted on their garments horizontally for the bent pins or diagonally for the straight ones, used single or by pairs, leaving the top of the decorated head visible. When in need of concrete money, women could sell their pins and other jewelry to pay for food or slaves or reimburse debts to the Town Hall. The pins, as they were used to close the female costume as both a tool and ornament (Selover 2010, 147), symbolized women's possessions in marriage contracts, and in the event of divorce for the wife's wrongdoing, she had to take off her pin and get out of the house naked, leaving all her possessions.

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our warmest thanks to Aslıhan Yener who not only corrected the English text but also helped us to define the typology of some pins' heads.

Abbreviations

- AKT 2 Bilgiç, Emin & Bayram, Sabahattin ; *Ankara Kültepe Tabletleri 2*, (Türk Tarih Kurumu Yayınları 6/33). Türk Tarih Kurumu Basımevi, Ankara, 1995.
- AKT 6 Larsen, Mogens Trolle (*Ankara*) *Kültepe Tabletleri 6a. The Archive of the Šalim-Aššur Family*, vol. 1-6 (Türk Tarih Kurumu Yayınları 6/33d). Türk Tarih Kurumu Basımevi, Ankara, 2010-2018.
- AKT 8 Veenhof, Klaas R. (*Ankara*) *Kültepe Tabletleri 8. The Archive of Elamma, son of Iddin-Suen, and his Family (Kt 91/k 285-568 and Kt 92/k 94-187)*, (Türk Tarih Kurumu Yayınları 6/33f, Ankara, 2017.
- AKT 9a Albayrak, İrfan & Erol, Hakan. (*Ankara*) *Kültepe Tabletleri 9a. Buzutaya ve Lipit-İštar Arşivleri 1950 Yılı Tabletlerinden (Kt c/k) Seçilmiş Metinler*, Türk Tarih Kurumu Yayınları 6/33g-a). Türk Tarih Kurumu Basımevi, Ankara, 2016.
- AKT 10 Günbattu, Cahit. (*Ankara*) *Kültepe Tabletleri 10. Anadolu Tüccarlar Şarabunuwa ve Peruwa'nın Arşivleri*, (Türk Tarih Kurumu Yayınları 6/33h). Türk Tarih Kurumu Basımevi, Ankara, 2016.
- ARM 9 Birot, Maurice. *Textes administratifs de la salle 5 du palais* (Archives Royales de Mari 9). Paul Geuthner, Paris
- BIN 4 A.T. Clay, *Letters and Transactions from Cappadocia* (Babylonian Inscriptions in the Collection of J. B. Nies, Part 4), New Haven, 1927.
- BIN 6 S. Stephens, *Old Assyrian Letters and Business documents* (Babylonian Inscriptions in the Collection of J. B. Nies, Part 6), New Haven, 1944.
- CCT 1 Smith, Sydney, *Cuneiform Texts from Cappadocian Tablets in the British Museum*, Part 1. British Museum: London, 1921.
- CCT 3 Smith, Sydney, *Cuneiform Texts from Cappadocian Tablets in the British Museum*, Part 3. British Museum: London, 1925.
- CCT 4 Smith, Sydney, *Cuneiform Texts from Cappadocian Tablets in the British Museum*, Part 4. British Museum: London, 1927.
- CTMMA 1
Larsen, Mogens Trolle, in Ira Spar (ed.), *Tablets, Cones and Bricks of the Third and Second Millennia B.C.*, Cuneiform Texts in the Metropolitan Museum of Art 1, New York, 1988, p. 92-143, 177-192, pls. 66-109, 129-156.
- CUSAS 34
Hertel, Thomas, Old Assyrian Tablets, in Andrew R. George *et alii* (ed.), *Assyrian Archival Texts in the Schøyen Collection and Other Documents from North Mesopotamia and Syria*, Bethesda, 2017, p. 1-60.
- EA
see Moran 1992
- HUCA 40
Lewy, Hildegard. Old Assyrian Texts in the University Museum, *HUCA 40-41*, 1969-1970, p. 46-85.
- ICK1
Hrozný, Bedrich. *Inscriptions cunéiformes du Kultépe*, vol. 1, Monografie Archivu Orientálního, vol. 14, Prague, 1952.
- Kt ?/k
Tablet found during the 1948- Turkish excavations at Kültepe, in the lower town, and preserved in the Anadolu Medeniyetleri Müzesi (Ankara).
- Kt ?/t
Tablet found during the 1948- Turkish excavations at Kültepe, on the tepe, and preserved in the Anadolu Medeniyetleri Müzesi (Ankara).
- KTS 1
Lewy, Julius. *Die altassyrischen Texte vom Kültepe bei Kaisarije*, Keilschrifttexte in den Antiken-Museen zu Stambul (1), Konstantinopel, 1926 (copies of tablets).
- OAA 1
Larsen, Mogens Trolle. *The Aššur-nādā Archive*, Old Assyrian Archives 1, Publications de l'Institut historique et archéologique néerlandais de Stamboul 96, Leiden, 2002.
- Prag I
K. Hecker, G. Kryszat, L. Matouš, *Kappadokische Keilschrifttafeln aus den Sammlungen der Karlsuniversität Prag*, Prague, 1998.
- TC 1
G. Contenau, *Tablettes cappadociennes du Louvre*, Textes cunéiformes du Louvre, vol. 4, Paris, 1920.
- TC 2
F. Thureau-Dangin, *Tablettes cappadociennes du Louvre*, Textes cunéiformes du Louvre, vol. 14, Paris, 1928.
- TC 3
J. Lewy, *Tablettes cappadociennes du Louvre*, Textes cunéiformes du Louvre, vols. 19, 20, 21, Paris 1935-1937.

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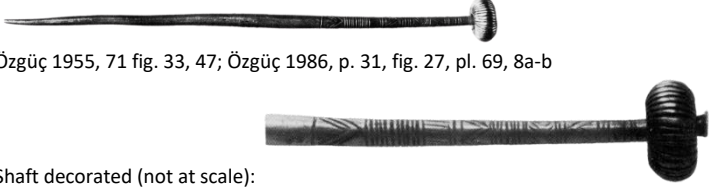






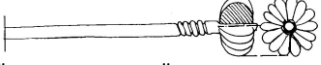




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Excavation number	material	head	eyelet	shaft	length in cm	weight g	Level	House/ grave	Photo, drawing, publication	scale 
Kt f/k 279	gold	gold fluted	no	straight	8.9	6.94	lb	tomb	 Özgüç 1955, 71 fig. 33, 47; Özgüç 1986, p. 31, fig. 27, pl. 69, 8a-b Shaft decorated (not at scale):	
Kt 83/k 49	gold	6 bull heads, lost precious stone	no	straight	4.67		II	Assyrian house, archive room with tablets	 Özgüç 1986, p. 31, fig 29, pl. H3, 69; 2003, 253, no. 279, 7 Kulakoğlu & Kangal 2010, no.334	
Kt 88/k 788	gold	6 bull heads	no	straight	8.3		II		 Özgüç 2003, no. 273-274; Kulakoğlu & Kangal no.335	
Kt 00/k 65	gold	globular	no	straight		3.49			see figure 5.1	
Kt 03/k 189	gold	deeply fluted	no	straight		2.3			see figure 5.1	
Kt 94/k 1568	gold	fluted half broken, stone	no	straight		2.47			see figure 5.1	
Kt 00/k 66	gold	no head	no	straight		0.99			see figure 5.1	
Kt 03/k 188	gold	frit?, fluted	no	straight		3.32			see figure 5.1	
Kt 84/k 135	gold & lapis lazuli (head)	segmented flutes	no	straight	6.05		II	tomb	 Özgüç 1986, pl. H22; 2003, 253, no. 279; Kulakoğlu & Kangal 2010, no. 346	
Kt 89/k 49	gold & lapis lazuli (head)	segmented flutes	no	straight	8.2		lb		 Özgüç 2003, 253, no. 279; Kulakoğlu & Kangal 2010, no. 347	
Kt k/42	gold-plated Bronze	carnelian granulation gold	-	broken	0.8		lb	tomb	 Özgüç 1986, pl. 70 8 a-b	
-	gold-plated Bronze	no head	no	Straight, decorated	7.5		lb	tomb	 Özgüç 1986, pl. 70, 4	
-	gold-plated Bronze	fluted globular lapis lazuli	no	Gold top part	6		lb	tomb	 Özgüç 1955, fig49; Özgüç 1986, fig. 30 (not at scale)	
Kt f/k 268	gold-plated Bronze	no head	no	Straight, decorated	6.3		lb	tomb	 Özgüç 1986, pl. 70, 5	
Kt g/k 118	gold-plated Bronze	-	no	Broken, decorated	1.7		lb	tomb	 Özgüç 1986, pl. 70, 6	
Kt i/k 194	gold-plated Bronze	-	no	straight	4		lb	tomb	 Özgüç 1986, pl. 70, 3	
Kt v/k 171	gold-plated Bronze	fluted	no	straight	8.9	6,36	lb	tomb	 Özgüç 1955, fig 49; Özgüç 1986, pl. 69, 11a-b	










Kt r/k 115	gold-plated Bronze	-	-	Straight broken	5.7		lb	tomb	 Özgüç 1986, pl. 70, 2
Kt t/k 36	gold-plated Bronze	-	-	straight	8.5		lb	tomb	 Özgüç 1986, pl. 70, 1
-	gold-plated Bronze	pointed	no	Gold decorated top part	5		lb	tomb	 Özgüç 1986, fig. 31 (not at scale)
Kt 92/K 82	gold-plated Bronze	-	no	straight	13	8,13	lb		 Özgüç 2003, no. 290 Kulakoğlu & Kangal 2010, no. 350
Kt 92/k 83	gold-plated Bronze	-	no	straight	12	7,81	lb		 Özgüç 2003, no. 291; Kulakoğlu & Kangal 2010, no. 349
Kt 00/72	gold-plated Bronze	no head	-	straight		1.56			see figure 5.1
Kt i/k 67	silver & gold	globular carnelian	yes?	straight	2.5	1,42	lb	tomb	 Özgüç 1986, pl. 70 17
-	silver & gold	deeply fluted	no	straight	9.3		lb	tomb	 Özgüç 1986, pl. 70 16
Kt 84/k 68	silver & gold	deeply fluted	no	straight	5.1		lb	tomb	 Özgüç 1986, pl.H 23
Kt 90/k 399	silver & gold	Flower head	no	straight	7 broken		lb		 Özgüç 2003 no. 275 Kulakoğlu & Kangal 2010, no. 352
Kt 01/k 147	silver & gold	segmented flutes	no	straight	11.7		lb		 Kulakoğlu & Kangal 2010, no. 344
Kt 01/k145	silver & gold	segmented flutes	no	straight	11.3		lb		 Kulakoğlu & Kangal 2010, no. 343
Kt 03/k 191	silver & gold	no head	yes middle ring inside	straight	13		lb		 Kulakoğlu & Kangal 2010, no. 342














Kt b/k 264	silver & gold	deeply fluted	yes middle	straight grooved top part	11	13,30	II	tomb	 Ögüç 1953, fig 620; Özgüç 1986, pl. 70 11
Kt b/k 265	silver & gold	deeply fluted	yes middle	straight grooved top part	10.5	15,23	II	tomb	 Ögüç 1953, fig 619; Özgüç 1986, pl. 70 10
Kt 95/k 104	silver & gold	Lapis lazuli flat deeply fluted	no	straight		8.43			see figure 5.2
Kt 01/k 143	silver & gold	segmented flutes	no	straight		10.86			see figure 5.2
Kt 00/22	silver & gold	globular decorated	no	straight		2.72			see figure 5.2
Kt 95/k 105	silver & gold	segmented flutes	no	straight		2.16			see figure 5.2
Kt 95/103	silver & gold	segmented flutes	no	curve		6.83			see figure 5.2
Kt i/k 61	silver & gold	-		straight broken	5.2		lb	tomb	 Özgüç 1986, pl. 70 14
Kt 84/k 137 (84/323)	silver	fluted	yes	straight	10.2		lb	tomb	Özgüç 1986, G 4 Kt 84/k 323
Kt u/t 22 (6074)	Silver	segmented flutes	no	straight	8.4	22			
Kt f/k 275	silver	amethyst fluted	no	straight	5.7		lb	tomb	 Özgüç 1986, pl. 70 20
Kt g/k 153	silver	frit globular	no	straight	3.3		lb	tomb	 Özgüç 1986, pl. 70 18
(116-66-64)	silver	chalcedony fluted	no	straight	5		lb	tomb	 Özgüç 1955, figs. 35, 46; Özgüç 1986, fig. 32 (not at scale)
Kt j/k 161	silver	segmented flutes	no	straight	7.5		lb	tomb	 Özgüç 1986, pl. 70 13
Kt j/k 164	silver	fluted	no	straight	5.3		II	tomb	 Özgüç 1986, pl. 70 19
Kt t/k 401	silver	bird	no	curved	6.7		lb	tomb	 Özgüç 1955, fig 36, 86; Özgüç 1986, pl. 71 1


















Kt u/k 92	silver	segmented flutes	no	straight	9.5		lb	tomb	 Özgüç 1986, pl. 70 15
Kt v/k 177	silver	deeply fluted	no	bent	7.8		lb	tomb	 Özgüç 1986, pl. 70 12
Kt 13/k 94	silver	segmented flutes	no	straight	9.7 Head 1.0	22		Kt. 13/k/01/Mk. 01/Tomb M. 04/1242	
Kt 84/k 132	silver	mushroom deeply fluted	no	straight	6.1		ll		 Özgüç 1986, 31 G-3 Kulakoğlu & Kangal 2010, no. 345
Kt 84/k 137	silver	segmented flutes	no	straight	10.2		ll		 Özgüç 1986, 31, G-4 Kulakoğlu & Kangal 2010, no. 348
Kt 92/k 1069 (92/256)	silver	segmented flutes	no	straight	4.5	3			
Kt 92/k 3	silver	segmented flutes	no	straight		4.37			see figure 5.2
Kt 95/k 106	silver	oval plain	no	straight		3.23			see figure 5.2
Kt 94/k 1591	silver	segmented flutes	no	straight		18.21			see figure 5.2
Kt 94/k 1592	silver	deeply fluted	no	straight		22.10			see figure 5.2
Kt 03/k 185	copper/bronze	globular and lentil end	No	Straight	11		lb		 Kulakoğlu & Kangal 2010, no. 340
Kt 03/k 186	copper/bronze	globular and lentil end	No	straight	11.3		lb		 Kulakoğlu & Kangal 2010, no. 339
Kt 06/k 128	copper/bronze	globular faience bead	no	Straight (slightly curved)	8,3 Head 1 Shaft Ø 0.2		?	L/116	

Kt 06/K 129	copper/ bronze	deeply fluted	no	bent	7.3 Head 1.2 Shaft Ø 0.3		lb	LII/112	
Kt 06/k 139	copper/ bronze	Lentil	no	straight	7 Head 0.5 Shaft Ø 0.15		lb	LI/111	
Kt 06/k 69	copper/ bronze	globular	no	bent	5,5 Head 0.6 Shaft Ø 0.2		lb	L/113	
Kt 06/K 70	copper/ bronze	Lentil	no	Straight pointed	8,1 Head 0.6 Shaft Ø 0.2		lb	XLVIII/122	
Kt 06/k 72	copper/ bronze	globular	no	curved	8,5 Head 0.9 Shaft Ø 0.2		lb	LI/112	
Kt 06/k 74	copper/ bronze	scroll-headed	no	bent	5,1 Head 0.6		lb	L/113	
Kt 06/k 89	copper/ bronze	Conical	no	straight	8,6 Head 0.7 Shaft Ø 0.2		lb	Room 6 grave 3	
Kt 06/k 90	copper/ bronze	globular	no	straight	7,9 Head 0.7 Shaft Ø 0.3		lb	L/111	
Kt 06/k 91	copper/ bronze	globular	no	Slightly curved	6,8 Head 0.6 Shaft Ø 0.2		lb	L/113	
Kt 08/k 179	copper/ bronze	broken	no	straight	11.3 Head 0.2 Shaft Ø 0.2				
Kt 08/k 180	copper/ bronze	Lentil	no	straight	8.3 Head 0.9 Shaft Ø 0.3				
Kt 08/k 181	copper/ bronze	lentil	no	straight	7.9 Head 0.8				

					Shaft Ø 0.3				
Kt 08/k 182	copper/ bronze	Lentil	no	straight	7.8 Head 1 Shaft Ø 0.3				
Kt 08/k 183	copper/ bronze	globular	no	straight	8 Head 0.9 Shaft Ø 0.3				
Kt 08/k 184	copper/ bronze	Mushroom segmented flutes	no	straight	9 Head 1.2				
Kt 08/k 185	copper/ bronze	segmented flutes	no	straight	8.4 Head 1.3				
Kt 08/k 186	copper/ bronze	deeply fluted	no	straight	7.4 Head 1.2				
Kt 10/t 12	copper/ bronze	fluted	no	straight	11.5				unpublished, Kültepe inventory 2010
Kt 11/t 52	copper/ bronze	simple	no	slightly curved	7.9 Head 0.9 Shaft Ø 0.6				
Kt 11/t 78	copper/ bronze	scroll-headed	no	slightly curved	9.6 Head 1.1 Shaft Ø 0.4				
Kt 77/k 97	copper/ bronze	deeply fluted	Yes middle	straight	10.7	lb	tomb		
Kt 81/k 30	copper/ bronze	Globular segmented flutes	yes middle	straight	14.7	lb			
Kt 81/k 30	copper/ bronze	Globular deeply fluted	Yes middle	straight	14.7	lb	tomb		













Kt 81/k 36	copper/ bronze	double mushroom fluted	no	double straight	7.5 (broken)		lb	tomb	 Özgüç 1986, 68/73 pl. 125 15
Kt 82/t 20	copper/ bronze	Lion, four legs clustered together, muzzle open	no	straight	11.9		lb	Old Palace XCV93-94	 Özgüç 1999, 102, pl. 86, 1ab; Kulakoğlu & Kangal 2010, no. 336
Kt b/k 141	copper/ bronze	segmented flutes	no	straight	7.2 cm		lb	tomb	 Özgüç 1986, 68/73 pl. 125 18
Kt b/k 294	copper/ bronze	fluted head	-	straight	6.9 broken		lb	tomb	 Özgüç 1986, 68/72 pl. 125 9
Kt c/k 164	copper/ bronze	fluted head	-	straight	4.8 broken		lb	tomb	 Özgüç 1986, 68/72 pl. 125 8
Kt f/k 387	copper/ bronze	small lentil head	Yes middle with ring	straight	15		lb	tomb	 Özgüç 1986, 68/72 pl. 125 11
Kt f/k 388	copper/ bronze	small pointed head	Yes middle with ring	straight	13.5		lb	tomb	 Özgüç 1986, 68/72 pl. 125 12
Kt f/k 389	copper/ bronze	segmented flutes	no	straight	17.7	49,28	lb	tomb	 Özgüç 1986, 68/72 pl. 125 14
Kt 94/k 23	copper/ bronze	Flat lentil	yes middle	straight		42.67			see figure 5.2
Kt f/k 413	copper/ bronze	fluted	no	Straight, pointed	11.4		II		



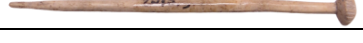



									Kulakoğlu & Kangal 2010, no. 337
Kt f/k 543	copper/ bronze	flat fluted	no	straight	7.3		lb	tomb	 Özgüç 1986, 68/73 pl. 125 21
Kt f/t 370	copper/ bronze	segmented flutes	no	bent	10.5		lb	tomb	 Özgüç 1986, 68/73 pl. 125 19
Kt g/k 157	copper/ bronze	small lentil	Yes middle	straight	?		lb	tomb	 Özgüç 1986, 68/72 pl. 125 6 (size unknown)
Kt g/k 158	copper/ bronze	Small lentil	no	straight			lb	tomb	 Özgüç 1986, 68/72 pl. 125 4
Kt h/k 26	copper/ bronze	fluted head	yes bottom	straight	6.7		lb	tomb	 Özgüç 1986, 68/73 pl. 125 20
Kt h/k 29	copper/ bronze	top ribbed	Yes middle	straight ribbed	16.5		ll		 Özgüç 1986, 68/72, 125-5 Kulakoğlu & Kangal 2010, no. 341
Kt h/k 90	copper/ bronze	elongated	Yes middle	straight ribbed	7.5 (broken)		lb	tomb	 Özgüç 1986, 68/72 pl. 125 7
Kt i/t 303	copper/ bronze	scroll-headed	no	Straight	8.5		lb		 Kulakoğlu & Kangal 2010, no. 338
Kt j/k 147	copper/ bronze	small lentil	no	straight	10 (broken)		lb	tomb	 Özgüç 1986, 68/72 pl. 125 1
Kt j/k 148	copper/ bronze	No head	-	straight	7.7 (broken)		lb	tomb	 Özgüç 1986, 68/72 pl. 125 3
Kt k/k 163	copper/ bronze	small lentil	-	straight	6.6 (broken)		lb	tomb	 Özgüç 1986, 68/72 pl. 125 2
Kt v/k 178	copper/ bronze	segmented flutes	no	straight	8.5		lb	tomb	 Özgüç 1986, 68/73 pl. 125 17
Kt 06/k 187	copper/ bronze	Conical head	no	straight	6.8 Head 0.6		lb	LII/112	







					Shaft Ø 0.2				
Kt 06/k 192	copper/ bronze	Flat nail	no	straight	11.2 Head 0.7		lb	LIII/113	
Kt 06/k 198	copper/ bronze	globular	no	-	6 Head 0.6 Shaft Ø 0.2		lb	LII/112	
Kt 93/k 1031 (93/86)	copper/ bronze	deeply fluted	no	straight	7.2	18			
Kt 94/k 165	copper/ bronze	-	tip broken	-	-	28			
Kt 95/k 121 (95/88)	copper/ bronze	globular	no	bent	9.4	14			
Kt 93/k 24 (93/17)	copper/ bronze	Conical head	no		8.7	22			
Kt 95/k 371 (95/214)	copper/ bronze	scroll-headed	no	Curve tip broken	3.8	8		LII-LIV/117-121 1. Trench	
Kt 00/k 142 (2000/662)	copper/ bronze	fluted globular	no	Straight Partly broken	6.4	13		1. Trench Exp.	
K t99/k 43 (99/22)	copper/ bronze	Conical	no	straight	8.7	10	lb	LIX/128	
Kt 99/k 47 (99/??)	copper/ bronze	Conical			6.4	9	lb	LIX/128	
Kt 99/k 62 (99/37)	copper/ bronze	globular	no	straight	5.6	4			
2008/4	copper/ bronze	Large cubic?	no	straight	7	14			
Kt 95/k 71 (95/67)	copper/ bronze	conical	no	straight	8.7	8			
Kt 00/k 141 (2000/661)	copper/ bronze	conical	no	straight	9.2	8		2. Trench	
Kt 00/k 140 (2000/660)	copper/ bronze	globular	no	bent	8.4	9			
Kt 00/k 139 (2000/659)	copper/ bronze	globular	no	curve	7.2	8		1. Trench upper layer. Exp.	
Kültepe 1938 (1771)	copper/ bronze	flat segmented flutes	no	straight	9	16			
Purchased (77/766)	copper/ bronze	scroll-headed	no	straight	9.7	24			
81/340	copper/ bronze	globular	no	Straight	9.6	12			

Kt 82/k 179 (82/838)	copper/ bronze	mushroom fluted	no	straight	6	15		T/21 Plk. Zeynel. Ağa tarlası, T/21 Plk.	
Kt 82/k 67 (82/757)	copper/ bronze	mushroom fluted	no	straight	10.5	22		bb/17 plk.	
Kt 95/k 165 (95/132)	copper/ bronze	deeply fluted	no	straight	7.6	19			
Kt 91/k 250 (91/284)	copper/ bronze	Small lentil	yes	Straight groved	13.4 (18.4?)	156			
Kt 91/k 249 (91/283)	copper/ bronze	Small lentil	yes	straight	10.3	126			
Kt 95/k 186 (95/146)	copper/ bronze	globular	no	straight	8.5	7			
Kt 91/k 9 (91/191)	copper/ bronze	mushroom	no	straight	9.1	10			
Kt 92/k 1074 (92/257)	copper/ bronze	segmented flutes	no	straight	16	78			
Kt 11/t 19	lead	spiral	Yes head	straight	2.5 Head 0.4				
Kt 99/k 49 (99/28)	lead	No head	no	curve	9.3	39	lb	LVIII-LIX/128	
Kt n/k 139	ivory	6 bull heads	no	straight	6.4 (broken)		lb	house	 Özgüç 1986,, p. 31, fig 29, pl.69, 9
Kt n/t 134	bone	bird	no	straight	9.4		lb		 Özgüç 1986, pl. 121, 9
Kt 82/k 34 (2013/1272)	bone	small flat	no	straight	5.8	1			
Kt 82/k et. 31 (2013/1269)	bone	small flat	no	straight	7.6	3			

Kt 83/k et. 32 (2013/1270)	bone	small flat	no	Straight?	8.5	4			
Kt v/k ?? (2013/1271)	bone	irregular prism	no	Straight?	7.9	2			
82/k et. 25 (2013/1273)	bone	globular fluted	no	straight	6.2	3			
82/k et. 26 (2013/1275)	bone	irregular round	no	straight	6.6	2			
Kt o/t 16 (2013/1274)	bone	lentil	no	straight	7.2	3			
Kt 94/k 1562 (94/149)	bone	circular broken	no	straight	8	3	II		
Kt 95/k 10 (95/10)	bone	flat	no	straight	6.5			surface	
Kt 99/k 78 (99/49)	bone	small lentil	no	straight	9.4	3	I	LIV/128	
Kt 99/k 51 (99/30)	bone	lentil	no	straight	7.9	3	I	LIX/128	
Kt 00/k 138 (2000/658)	bone	lentil	no	straight	8.3	3		1. Trench 7. room	
Kt 01/k 71 (2001/71)	bone	lentil	no	curve	7.8	2			
Kt 06/k 32 (2006/65)	bone	flat lentil	no	straight	9.3 Head 0.7 shaft Ø 0.4	7	lb	XLVIII/122 1. Trench East section. Street fill.	
Kt 06/k 33 (2006/66)	bone	flat lentil	no	straight	7.3 Head 0.6 Shaft Ø 0.3	4	lb	LI/113 2. Trench Loc.3 ash layer	
Kt 06/k 71 (2006/90)	bone	flat lentil	no	curve	7.5 Head 0.7 Shaft Ø 0.3	4	lb	XLVIII/122 1. Trench East exp	
Kt 06/k 179 (2006/161)	bone	flat stylized birds	Yes head	straight	8.9 Head:1.6 Shaft Ø 0.4	6	lb	LIII/112 2. Trench 12. Exp.	
Kt 06/k 183 (2006/165)	bone	flat lentil	no	straight	8.9 Head 0.6 Shaft Ø 0.4	4	lb	LIII/112 2. Trench 13. Exp. Loc. 2b	
Kt 06/k 184 (2006/166)	bone	flat nail	no	straight	7.3 Head 0.5 Shaft Ø 0.3	3	lb	LIII/113 2. Trench 11a Exp.	
Kt 06/k 185	bone	flat nail	no	slightly curved	10.3 Head 0.6 shaft Ø 0.3	6	lb	LII/112	
Kt 06/k 188 (2006/168)	bone	conical elongated	no	straight	6.6 Head 0.3	2	lb	LIII/113	

					shaft Ø 0.2			2. Trench 11a. Exp. southeast Loc..6.	
Kt 06/k 190 (2006/169)	bone	flat lentil	no	straight	5.7 Head 0.2 shaft Ø 0.2	2	lb	LII/112 2. Trench 12. Exp. Loc. 1.	
Kt 06/k 197	bone	flat lentil partly broken	no	straight	7.9 Head 0.6 shaft Ø 0.3	4	lb	LII/112 2. Trench 12. Exp. Loc. 1	
Kt 08/k 121 (2008/560)	bone	mushroom round decorated with lines	no	straight	7.5 Head 0.6 shaft Ø0.3	3			
Kt 08/k 122 (2008/561)	bone	lentil	no	slightly curved	9.5 Head 0.6 shaft Ø 0.3	5	lb	2008/k/01/01/01	
Kt 08/k 123 (2008/562)	bone	flat nail partly broken	no	straight	6.8 Head 0.6 shaft Ø 0.3	3	lb	2008/k/02/04/04 9	
Kt 08/k 124	bone	flat nail	no	straight	7.4 Head 0.4 shaft Ø 0.3	2			
Kt 08/k 125 (2008/564)	bone	small lentil	no	straight	6.4 Head 0.4 shaft Ø 0.3	2	lb	2008/k/02/01/01	
Kt 08/k 126 (2008/565)	bone	flat lentil	no	straight	6.6 Head 0.6 shaft Ø 0.3	2	lb	2008/k/02/01/02 surface	
Kt 08/k 127 (2008/566)	bone	flat conical	no	straight	7.8 Head 0.3 shaft Ø 0.4	3	lb	2008/k/02/01/01 9	
Kt 08/k 128 (2008/567)	bone	mushroom	no	straight	6.5 Head 0.4 shaft Ø 0.3	2	l	2008/k/02/02/02 1	
Kt 08/k 129 (2008/568)	bone	mace-head	no	straight	5.1 Head 0.6 shaft Ø 0.2	2	l	2008/k/02/04/04 9	
Kt 08k /130 (2008/569)	bone	flat partly broken	no	slightly curved	6.1 Head 0.5 shaft Ø 0.3	2	l	2008/k/02/02/01 7	

Kt 08/k 131 (2008/570)	bone	hammer	no	straight	6.5 Head 0.4 shaft Ø 0.3	2	lb	2008/k/02/01/04	
Kt 08/k 132 (2008/571)	bone	hammer	no	straight	5.3 Head 0.5 shaft Ø 0.2	2	l	2008/k/02/04/04	
Kt 08/k 133	bone	big	no	thick body poorly pointed	4.6 Head 0.7 Shaft Ø 0.3				
Kt 08/k 134	bone	thin flat	no	straight	7.3 Head 0.4 Shaft Ø 0.3				
Kt 08/k 135	bone	thin flat	no	slightly curved	7.3 Head 0.6 Shaft Ø 0.3				
Kt 13/k 145 (2013/1669)	bone	flat stylized birds	Yes head tip is broken	straight	6.7 Head 1.7 Shaft Ø 0.4	5		Kt. 13/k/01/Mk. 29/1757	
82/t 30 (2013/1277)	bone	lentil	no	straight	9	4			
82/k et. 27 (2013/1276)	bone	lentil	no	straight	7.4	2			
85/k et. 7 (2013/1279)	bone	globular	no	straight	9.8	10			
82/k et. 32 (2013/1392)	bone	lentil	no	straight	7.9	3			
Kt 15/t 46 (2015/53)	bone	lentil			6.4	2			
11/k 22 (2013/1392)	bone	flat stylized birds	Yes head tip broken	straight	6.6 Head 1.3 Shaft Ø 0.4	9		Kt. 11/k/00/Mk. 00/004	
Kt u/k 82 (6130)	bone	lentil half broken	No	straight	7	4	lb	dd-ee/19-20 large stone cist grave. kt.u/k.80- 85	
Kt v/k 103 (6509)	bone	conical	no	straight	7.3	3	lb	dd-ee/19 street fill	
kt v/k 104 (6510)	bone	flat hammer	n	straight	6.3	3	lb	dd-ee/19 street fill	
Kt v/k 102 (6508)	bone	conical	no	straight	6.7	2			
Kt v/k 69 (6499)	bone	flat hammer	no	straight	8.1	3	lb	Dd/19 street fill	

Kt y/t 19 (71/115-6)	bone	flat lentil	no	curve	8.3	5			
Kt y/k 86 (71/115-62)	bone	no	tip broken	straight	9.6	5			
Kt 09/t 75 (2009/168)	bone	lentil	No	straight	8.4	4			
Kt 09/t 81 (2009/172)	bone	mace-head with decorations partly broken	no	straight	8.2	5			
Kt 79/k 26 (79/150)	bone	hammer shape partly broken	no	straight	7.4	3	lb		
Kt 79/k 25 (79/149)	bone	flat partly broken	no	straight	7.9	3	lb	Hamdi Ağa Field, Next to Walnut tree. Street fill	
Kt 80/k 39 (80/487)	bone	lentil	tip broken	straight	6.8	3	lb	level lb	