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Néhémie Strupler. Overview of Sealing Practices at Kültepe during the Anatolian–Old Assyrian Trade Network Period. Fikri Kulakoğlu; Guido Kryszat; Cécile Michel. Cultural Exchange and Current Research in Kültepe and its Surroundings Kültepe, 4, Brepols Publishers, pp.181-196, 2021, KÜLTEPE INTERNATIONAL MEETINGS, 978-2-503-59152-0. hal-03440315

HAL Id: hal-03440315

<https://hal.science/hal-03440315>

Submitted on 22 Nov 2021

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Overview of Sealing Practices at Kültepe during the Anatolian–Old Assyrian Trade Network Period

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Author’s manuscript published in Kulakoğlu, F.; Kryszat, G. & Michel, C. (Eds.) *Cultural Exchange and Current Research in Kültepe and its Surroundings Kültepe*, Brepols Publishers, 2021, 181-196

[p. 181 starts]

Abstract:

Sealing is a well-known technique to mark ownership and identity on objects in order to protect their integrity. It is essential to administrative activities taking place beyond the face-to-face sphere of interactions.

During the Anatolian–Old Assyrian Trade Period seals were intensively used on different clay supports: on written objects such as tablets or envelopes or on clay lumps securing the opening of objects. This paper reviews sealing assemblages from Kültepe to show similarity and diversity in the production, use, and deposition of the sealings during the Anatolian–Old Assyrian Trade Period. It seeks to highlight their functions at Kültepe and to spotlight some connections with assemblages from other sites.

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Introduction

'Sealing a document' is a long-lasting practice, but as yet a field of innovative application, as demonstrated for instance in the 2010s by the eruption of the 'blockchain' technology, a new mechanism to 'lock' data. Functions and uses of seals today bear strong similarities with those dating from four thousand years ago or more. A sealing serves two main purposes: to protect the integrity of a commodity and/ or ascertain its ownership. Nowadays, (physical) seals are still used everywhere, such as on a wide variety of packaging types. Examples include plastic ring bottle caps that are detached (broken) when opened for the first time; stickers on the screw of electronic devices to prevent them from being opened and labelled with the warning 'Warranty will be void if seal is damaged', or similarly, as tape labelled 'Do not accept if seal broken' on delivered parcels. When seals are removed (broken), they may enter a new life cycle and become a (cheap) convenient tool of accounting. For example, to count how many bottles of water have been consumed in a restaurant during a week, one possibility would be to collect and count all the caps. In comparison with collecting the bottle, caps offer the advantages of being smaller, often standardized, and easy to store, allowing the bottles to be discarded or reused in the meantime.

These intertwined functions of sealing – integrity, ownership, obliteration – have been seminal in their adoption by growing institutions. The necessity of safeguarding integrity and ownership starts to be critical where administrative activities take place beyond the face-to-face sphere of interactions. Sealings are crucial for operations on a larger scale, because they enable control of several administrative procedures or transactions without the physical presence of a person or a group of people. As such, it is not surprising that seals and sealing are an important and integral part of the Anatolian–Old Assyrian trading and exchange networks during the first half of the second millennium BC. Merchants organized as 'family-businesses' deployed large-scale commercial activities within a trade network covering the central Anatolian region and the link between Anatolia and Aššur. The impression of seals on fresh clay to produce a sealing was a widely used identification technique during this period. It was applied on different clay supports, on written objects such as tablets and envelopes, or on clay lumps securing the opening of ob-

jects.¹ Out of this practical activity emerged a remarkable craft, seal engraving, and the study of the iconography has proved to be a very rich field for investigating cultural interactions, economy, belief systems, and the organization of craft making (Özgüç N. 1965, 1968, 1989, 2006; Özgüç N. and Tunca 2001; Alexander 1979; [p.182 starts] Teissier 1994; Süleyman 2010; Lassen 2014; Mogens Trolle Larsen and Lassen 2014; Topcuoğlu 2014; Ricetti 2017, 2018).

For a long time, sealing studies underestimated the importance of the functions and practices of sealing to disentangle otherwise non-recorded aspects of transactions. Shifting the interest from art objects to common practices within a comprehensive context, that is the relationships of seals and sealings with other administrative tools, makes it possible to provide another glimpse of the economic system (Panagiotopoulos 2010). The functional study of sealings involves the study of the impressions of seals onto them as well as the impression of objects on which the sealing has been applied, including string and other materials, the form and the material of the sealing, and all the details that can be collected on the life of the sealing, such as its creation, usage, and discarding (Ferioli et al. 2007). Most of the time the study of sealing is based on sealing debris, i.e. sealings that have been discarded. Therefore, it is difficult to understand a unique piece out of context and it is the comparison within and between 'collections' put into archaeological context that makes it possible to reliably interpret how they were used, and consequently deduce what was (the shape of) the kind of objects sealed.

As a first step toward a functional analysis of sealing practices in Anatolia during the Anatolian–Old Assyrian Trade Network Period, this paper aims at providing an overview of collections of sealings at Kültepe.

¹In this paper, *seal* refers to the object used to seal (cylinder or stamp seal). The main purpose of a seal is to generate the same imprint at each application. (*Clay*) *Sealing* refers to the clay lump that have been sealed, generally with a seal, but inscription or finger imprints are other possibilities. A sealing is unique and has a shape dependent on the support. The function of the support determines the function of the sealing, such as door-sealing, jar-sealing, etc. See Ferioli, Fiandra, and Tusa (1979); Ferioli et al. (2007); and Zettler (1987) with similar terminology; at Arslantepe (Frangipane 2007) *clay sealings* are called *cretulae*.

Kültepe

Kültepe provides one of the most important collection of seals and sealings from the Anatolian–Old Assyrian Trade Network Period.² There is a strong contrast between the number and the spatial distribution of texts and sealings discovered at the site. Around 23,000 cuneiform tablets have been found during the excavations at Kültepe, most of them in the lower town and only forty (i.e. less than 0.2 per cent) on the citadel mound (Michel 2011). In contrast, as of 2005, only 430 clay sealings have been discovered, but over a quarter (c. 27 per cent, 118 sealings) were found on the citadel mound (Michel 2016). The proportion of clay tablets and clay sealings is also different from other sites, in which more clay sealings than texts have been discovered, for instance at Achemhöyük, where more than 1300 sealings but almost no tablets have been found (Özgüç N. 1989; Veenhof 1993, 2017a; Kuzuoğlu 2015).³

A significant part of the c. 23,000 written documents have seal impressions (especially envelopes). Among them, we distinguish more than two thousand different seals (Süleyman 2010). Two types of seals are commonly used: cylinder seals, typical from the Mesopotamian traditions, which have been grouped according to different styles ('Old Assyrian', 'Old Babylonian', 'Old Syrian', 'Old Anatolian') and stamp seals, considered as a marker of Anatolian traditions and purported to be more frequent during the later period of the Anatolian–Old Assyrian Trade Period, 'Karum Level Ib' (Özgüç N. 1965, 1989). Seals were made of semi-precious or hard stones, metal, ivory, bones, or faïence (Özgüç T. 2003, 275). By order of support frequency, seals have been mainly used on envelopes, clay sealings, and ceramics (Süleyman 2010). Clay sealings (often referred to as "bullae" at Kültepe, see Andersson Strand, Breniquet, and Michel 2017) were shaped to fit the closed item or as an independent 'tag' and are found in a va-

riety of forms such as triangular, matchbox-shaped, mushroom-shaped, round (pottery opening stopper), or hemispheric (Özgüç T. 2003, 288–291). Seals on envelopes and clay sealings may be accompanied with written cuneiform text specifically referring to the context of the sealing. In this case, items were first sealed then labelled (Özgüç T. 2003, 275).

Most of the research on seals has been devoted to the iconography and prosopography to eventually identify the owner of the seals (Özgüç N. 1965, 1989, 2006; Teissier 1994; Lassen 2014; Ricetti 2019). Recently however, more attention has been directed towards the production of seals, clay sealings, and sealing practices (Özgüç N. and Tunca 2001; Özgüç N. 2006; Larsen 2008; Michel 2016; Ricetti 2017). This trend has been initiated mostly by philologists looking at the link between texts and clay sealings found together at the same find-spot to understand archival practices. It is very fortunate that seals were not only mentioned in texts, but have also been found together with texts.⁴

[p. 183 starts]

Evidence of Sealing Practices at Kültepe

The written documents found at Kültepe testify to an intensive use of sealings to manage the commercial activities between Aššur and Anatolia as well as within Anatolia. The seals belonging to the owners or the senders of goods (such as metal, textiles, precious objects) were used to secure containers (made out of textiles, leather bags, baskets, or reed mats) during their transportation in the merchants' caravans (Stratford 2014). At the final or interim stocking destination, merchants sealed the houses, rooms, or containers to protect the merchandise awaiting further transaction, a practice that was extended when a merchant died before its succession had been managed (Larsen 1977, 2008; Veenhof 1993; Michel 2016; Andersson Strand, Breniquet, and Michel 2017).

From the archaeological accounts of the twentieth century ad, we know that texts and clay sealings have been found together in houses in the lower town. This situation offers a very good case to investigate the 'archival practices' by analysing the archaeological record and the intertwined relation between texts and

²There are numerous, easily accessible accounts on Kültepe such as Özgüç T. (2003); Kulakoğlu and Kangal (2011).

³Nimet Özgüç (2001) proposed that the relatively low number of sealings at Kültepe results from the 'destruction' of the archaeological contexts that the palace underwent during the first excavations in the nineteenth century AD. It is also possible that due to the small size of some sealings, they may have been missed with the archaeological methods of the twentieth century. Under any circumstances, it is striking that the finds from Kültepe do not reflect what we know from other settlements of central Anatolia and it is rather atypical.

⁴This is not unique as demonstrated by some of the finds from the Hittite capital. See Herboldt (2005).

seals. However, even for these best recorded findings, the archaeological accounts do not allow us to reconstruct specific find-spots and the relations between artefacts and clay sealings. Until now, in the best cases, it has been possible to work out which sealings were found with which archive, but this does not allow us to reconstruct detailed sealing and archiving practices (Larsen 2008). For example, in the case of the Elamma archive published by Veenhof (2017b), the broad description provided in the archaeological report makes it impossible to reconstruct the group of tablets and sealings, even if it is clear that tablets were grouped by dossier or by gender.⁵ In the absence of detailed archaeological data, the study of Kültepe's clay sealings necessarily focuses on the objects themselves. The inscription, if present, attracts most of the attention, but the general shape and the traces or marks left on the back of these pieces of clay are increasingly highlighted. These reflect somehow their use: a flat surface suggests, for example, the application to a wooden door or box; but traces of string, reeds, or textiles hint at the closing of a bundle or cloth bag.⁶ Based on inscriptions on some of the clay sealings, they have been classified into two categories: clay sealings for the shipment of goods, for which the inscription in Assyrian states this with the word

našpertum, and clay sealings used for archival purposes (Veenhof 1993, also 2013, 55–58); Michel (2016, 177) mentions that these functions are not necessarily exclusive. The word *našpertum* indicates that these sealings have been attached to tablet lots to be sent (for a discussion of the Assyrian word *našpertum* see Tunca 2001, 305–306; Veenhof 2017b, 6:114; Michel 2018).

Which are the seal collections and assemblages we know from archaeological evidence at Kültepe? We are aware of multiple cases for which texts and clay sealings have been found together. Nimet Özgüç mentions diverse archives of merchants associating texts and sealings, such as archives of Uzua, found in 1948 (2001, 148–150: six sealings); Adad-šululi also found in 1948 (2001, 150–153: eleven sealings); or Ali-ahum found in 1950 (2001, 157–164: twenty-four or twenty-five sealings).⁷ Additionally, Michel (2016) discusses in greater details four published archives with clay sealings, the archives of the families of Šumī-abiya, of Elamma, of Šalim-Aššur and of Ali-ahum.⁸ Moreover, besides the clay sealings found in the lower town, assemblages of sealings have been found on the citadel mound: in the so-called 'Palace of the west terrace', in a house, and in the 'Waršama palace' (Özgüç N. and Tunca 2001). The description and comparison of the assemblages from the lower town [page 184 starts] and the citadel mound give good hints at how people engaged with clay sealings in their daily life at Kültepe.

Even if the publication of the sealings from Kültepe is rich in illustrations, not all the sealings mentioned in the catalogue include a photo. Moreover, almost all the photos are close-up views of seal impressions rather than general pictures showing the shape of the sealings. This may be the best choice for investigating the iconography, but it is poor for a typological classification. Therefore, only a coarse reinterpretation of the typology is possible. In order to help myself and help the readers to understand what the sealings look like, I sketched drawings of some representative sealings from the published photos. These are idealized and do not represent reality. My classification was done using the main publication of Nimet Özgüç (2001). This is not an optimal methodology, and the classification should be regarded with caution. Due

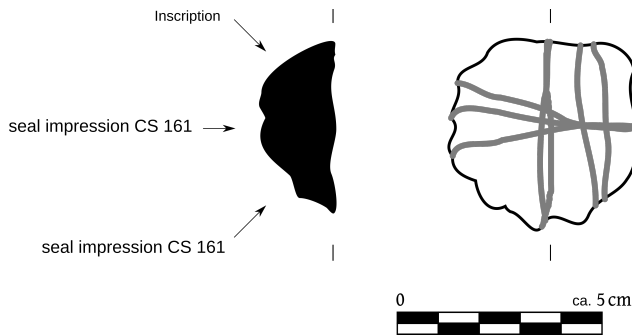
⁵The archive of the merchant [Elamma] was found along the base of the east wall of Room 3 and in rooms 4–5, in groups once packed in boxes, bags, sacks and straw mats. On top of each group lay one or two clay sealings. Unopened envelopes were placed at the bottom, tablets on top. In contrast to other archives, here we did not find tablets stored in jars' (Özgüç T. 1994, 369)

⁶The main publication of the clay sealings from Kültepe deals with the sealings found until 1997. It classifies the clay sealings into nine groups (Özgüç N. and Tunca 2001, 135–136): 1. hemispheric (one hundred clay sealings) with traces of textile and strings on the back; 2. triangular clay sealings (twenty-one clay sealings): they have string holes and inscription, as a kind of tag; 3. gable with cylinder seal rolled on two sides of wet clay lumps (twenty-two occurrences) with string marks on back. Closing of small vessels?; 4. cone-shaped, with string hole on top and impression on base. Eight occurrences, six of which are from Late Mound palace; 5. rectangular in a shape similar to tablets (seven cases); 6. half ring, probably attached to the neck of vessels (seven occurrences); 7. plaques or disc-shaped (five occurrences); 8. stoppers of jars (mushroom and alike); 9. hollow clay sealings (two cases). No specific drawing supports this typology. Michel noted that one of the sealings found in the house of Šumī-abiya, Kt 90/ 111, has been interpreted as a door sealing, but the sealing bears an inscription that mentions *našpertum*, a hint that argues against a door seal. Instead, it could be a wooden-chest containing goods or tablets, sent from Aššur or or another locality (Michel 2016, 178).

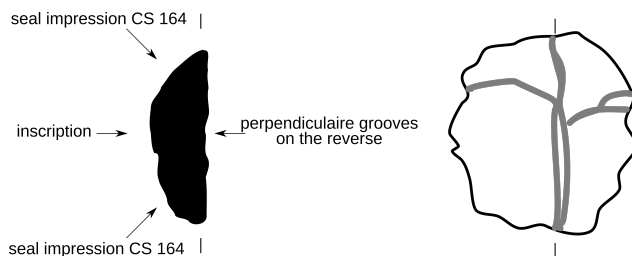
⁷For further references, see Michel (2000); Veenhof (2019)

⁸For this article, I only will present these four archives as they have recently been published and contextualised into a larger frame.

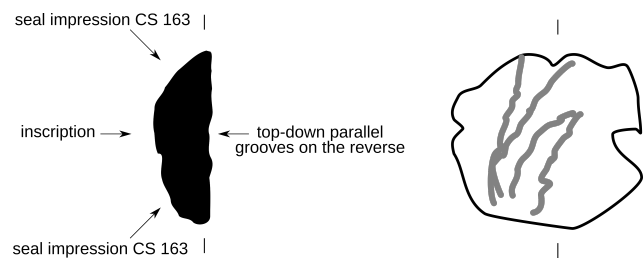
to the fact that I only used photos and drawings, it wasn't possible to determine kinds of marks such as ropes, thread, or strings as rightly already suggested for Kültepe (Andersson Strand, Breniquet, and Michel 2017).⁹



Caption Figure 1: Schematic drawing of the hemispheric clay sealing Kt 90/k 111, with placement of seal impressions and inscription on the outer part of the sealing (left) and indication of 'rope' on the reverse of the sealing (right). Redrawn after the photographs in Özgüç N. and Tunca (2001), pl. 99. CC BY Néhémie Strupler



Caption Figure 2: Schematic drawing of the hemispheric clay sealing Kt 90/k 207, with placement of seal impressions and inscription on the outer part of the sealing (left) and indication of 'rope' on the reverse of the sealing (right). The similarity with the other hemispheric sealings (see Fig. 1) indicates that it was a common task. Redrawn after the photographs in Özgüç N. and Tunca (2001), pl. 100. CC BY Néhémie Strupler



Caption Figure 3: Schematic drawing of the hemispheric clay sealing Kt 90/k 206, with placement of seal impressions and inscription on the outer part of the sealing (left) and indication of 'rope' on the reverse of the sealing (right). The marks of the 'ropes' on the reverse of the sealing are slightly different, but the overall similarity with the other hemispheric sealings (see Figs 1–2) indicates that using this kind of sealing was a well-known and mastered task and that it was applied to a similar object: a flat surface (box?) closed with 'ropes'. Redrawn after the photographs in Özgüç N. and Tunca (2001), pl. 99. CC BY Néhémie Strupler

[page 185 starts]

Sealings from the Lower Town

The Archive in the House of Šumī-abiya The number of sealings found within the archive of this house is not clear (Michel 2016).¹⁰ Two inscribed clay sealings are described as "našpertum" (see Figs 1–2: Kt 90/k 111 and Kt 90/k 207; Tunca 2001; Michel 2016). The fact that their forms are very similar consolidates the interpretation of a similar use: a hemispheric shape with a slightly concave back, and cloth imprints with string grooves.¹¹ Kt 90/k 206 has an almost identical shape and based on its inscription, this sealing was probably used for closing a container holding verdicts issued by the *kārum* of Kaneš (see Fig. 3).

These three sealings, according to their inscriptions, were used for sealing lots of tablets. They are very

¹⁰Texts published in Michel and Garelli (1997) and sealings in Özgüç N. and Tunca (2001): 220–221. See now Ricetti (2019) for a meticulous analysis of style and seal owner's identification.

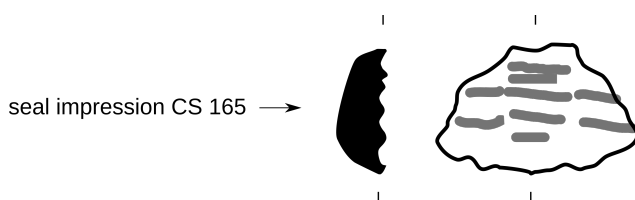
¹¹This could be also the case for Kt 90/209, but the inscription is broken.

⁹I would like to renew my thanks to Cécile Michel and Fikri Kulakoğlu for providing me with unpublished photos and for letting me reproduce some of them here.

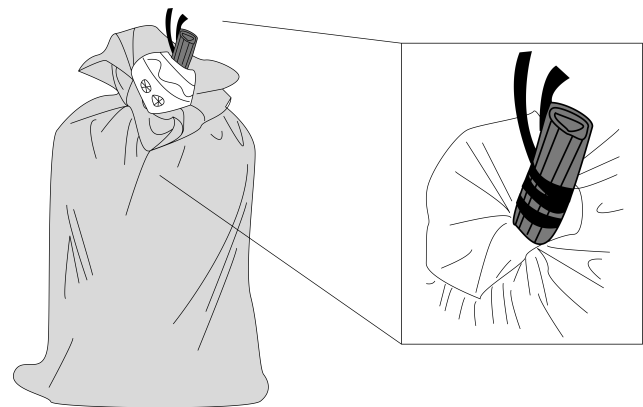
similar in their form, which is hemispheric, with a flat reverse and string marks. The sealing Kt 90/ 209 belongs to the same group, but only the personal names (henceforth PN) are readable in the remaining inscription. It could, however, also be a *našpertum*.

The two other sealings (graphically) known from this archive are different in their form and are anepigraphic. Kt 90/ 210 was attached to a circular object, which could have been a (door) peg or the top of a bag (see Fig. 10.4). Kt 90/ 212 is only illustrated by a closeup view of its seal so it is difficult to draw any information on its shape, but it seems that the reverse was not flat, making it clearly different from the three hemispheric seals.

As a possible interpretation of the function of the sealings Kt 90/ 210 and Kt 90/ 212, I can imagine a system that is similar to Arslantepe, where some sealings were used for closing a bag with a peg and a rope (see Fig. 10.5). This could be used for (long-term) storage of goods (reserve of silver?). I am against interpreting this as a sealing used for a door peg or for closing another type of goods that would have been frequently accessed. The low number of sealings discovered indicates that the sealings we find within houses were not broken on a regular basis (as would presumably happen in the case of a door).



Caption Figure 4: *Kt 90/k 210, with placement of seal impression on the outer part of the sealing (left) and indication of 'rope' on the reverse of the sealing (right). The marks of the 'ropes' on the reverse of the sealing are parallele and the general shape of the sealing is round, indicating that it was applied on a round surface such as a peg on which a rope was winded (see Fig. 5). Redrawn after the photographs in Özgüç N. and Tunca (2001), pl. 100. CC BY Néhémie Strupler*



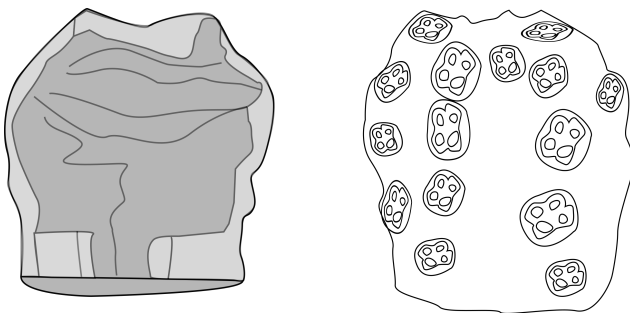
Caption Figure 5: *Possible interpretation for rounded sealings with parallel rope marks. On the left, clay was applied on ropes wound around a peg. This would explain the round shape and the parallel rope for some sealings from Kültepe. The detail on the right of the figure presents the situation prior applying the fresh clay to seal. Inspired by Ferioli et al. (2007){ 75, fig II.7}. CC BY Néhémie Strupler*

To recapitulate, we can classify the published sealings into two groups. First the group of hemispheric sealings associated with sent lots (only of tablets?), with or without a *našpertum* inscription. Second the anepigraph sealings with rounded shapes. In general, the low number of sealings and the absence of reusing the same seal on different sealings indicates a long-term archival practice rather than a daily practice, in which the sealing would have been regularly broken and renewed. The similarities in the hemispheric sealing type tend to indicate that, despite the low number of executed sealings, it was a rather well-known and shared practice among merchants. As we will see, the corpora from other merchants' houses from the lower town display a similar pattern.

[page 186 starts]

Sealings in the House of Elamma This house was excavated in 1991 and 1992 (latest account in Veenhof 2017b, 6:13–18), and seven clay sealings were found with it (Özgüç N. and Tunca 2001: 225–226 for the sealings, 340 for the reading; Veenhof 2017b, 6:474–476 discusses the inscriptions from the sealings within the text-archive context). Two sealings (Kt 91/k 378 and Kt 91/405) are very similar to clay

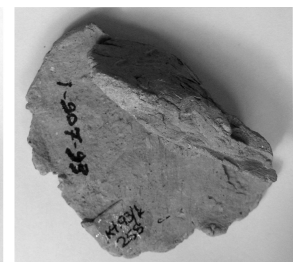
sealings within the text-archive context). Two sealings (Kt 91/ k 378 and Kt 91/ 405) are very similar to clay sealings from the Šumi-abīya house: hemispheric with a slightly concave back, cloth imprints, deep perpendicular string grooves. The sealing Kt 91/ 405 bears the word *našpertum*, and therefore was most probably used for sealing tablets. Two other sealings are also hemispheric and bear inscriptions that only mention the owner of the seal ('PN1 son of PN2' for Kt 91/ k 380 and Kt 92/ k 141), that would also include them in the *našpertum* type (for this interpretation see Tunca 2001, 305–306). The other sealings (Kt 91/ k 379, Kt 91/ k 553, Kt 92/ k 140) are described as 'shapeless' by Nimet Özgüç (2001, 225–226). Kt 92/ k 140 and Kt 91/ k 379 have a concave back, which suggests a difference with the hemispheric sealings. They were probably applied on a softer material (sack?). Moreover, Kt 91/ k 379 is remarkable because it has fourteen impressions of the same stamp seal. Sadly, we do not have any information about where this sealing was found, as it is the only example that is so different. If we agree with the general idea that most of the sealings have been used for archiving and managing the texts, stamp seals seem (to me) to be less adequate for this aim. This would point to the interpretation that this sealing was closing some other good. I could not find any information about what the break tells us: Was the sealing kept broken, as a reminder that some transaction happened, or was it still attached to something (a sack?) at the moment of abandonment and destruction of the house?



Caption Figure 6: Schematic drawing of the clay sealing Kt 91/k 379, with the repetition of the same seal (originally St 72). The general shape, round with traces of string and fabric on the inside points to a sealing that was applied on the closing of a sack, but without a peg. Redrawn after the photographs in Özgüç N. and Tunca (2001), pl. 108. CC BY Néhémie Strupler



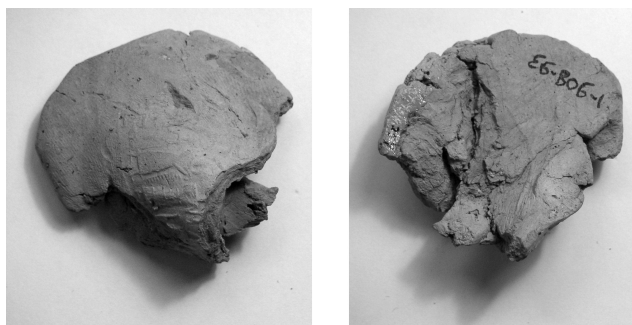
Caption Figure 7: Kt 93/k 810: photos of the obverse and reverse. This shows a typical hemispheric sealing that was applied on a relatively flat surface tied with strings. The finger gives a good impression of the size of the sealing. See also Özgüç N. and Tunca (2001), pl. 123. Photo: Cécile Michel, ©Kültepe archaeological mission



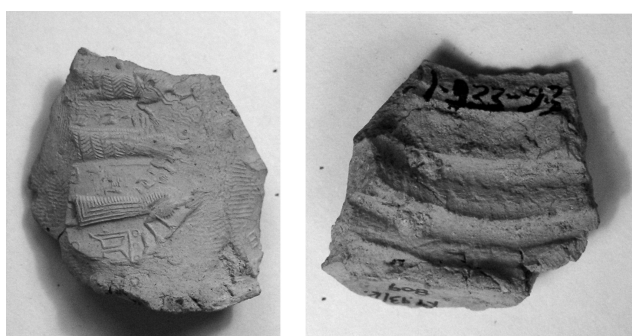
Caption Figure 8: Kt 93/k 258: photo of the obverse and reverse. The photo on the right shows how the seal is bent in its middle, where the main rope was covered. This sealing belongs however to the group of the hemispheric type. One of the few cases of sealing removed shortly after having been applied (see Fig 9). Publication by Özgüç N. and Tunca (2001), pl. 115. Photo: Cécile Michel, ©Kültepe archaeological mission

Sealings from the House of Ali-ahum Two adjacent houses containing text archives that have been excavated in 1993 contained 926 tablets and 37 clay sealings constituting the archives of Ali-ahum, son of Iddin-Suen, and his son Aššur-taklāku (Michel 2008, 2016). Among these sealings, the majority (22 sealings, 60 per cent) are of the hemispheric type: Kt 93/k 254, Kt 93/k 255, Kt 93/k 256, Kt 93/k 257,

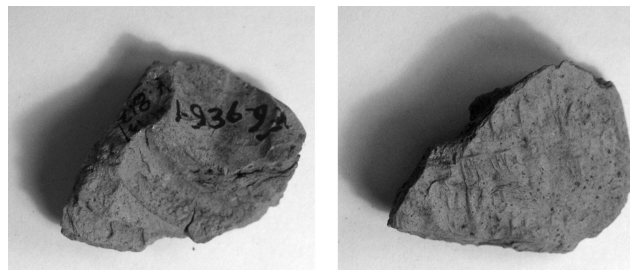
Kt 93/k 258 (see Fig. 8), Kt 93/k 259 (see Fig. 9)¹², Kt 93/k 260, Kt 93/k 261, Kt 93/k 263 (inscribed as *našpertum*), Kt 93/k 264 (inscribed as *našpertum*), Kt 93/k 268 (inscribed as *našpertum*), Kt 93/k 271 (inscribed as *našpertum*), Kt 93/k 272 (inscribed as *našpertum*)[page 187 starts], Kt 93/k 273 (inscription of the clay sealing indicates that it was used for closing tablets concerning Suen-pilah), Kt 93/k 608, Kt 93/k 801 (the back is impressed with concentric reeds), Kt 93/k 802 (shape is slightly different, but this looks like a sealing that has been removed when the clay was still wet, explaining the deformation), Kt 93/k 804 (inscribed as *našpertum*), Kt 93/k 807 (with an inscription indicating that it was closing a group of tablets), Kt 93/k 808 (inscribed as *našpertum*), Kt 93/k 810 (see Fig. 7), and Kt 93/k 811.



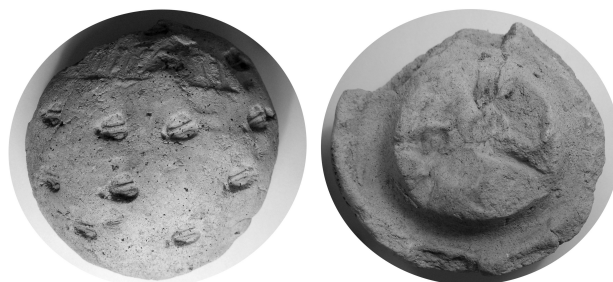
Caption Figure 9: Kt 93/k 259, photo of the obverse and reverse. In comparison to the hemispheric sealing type, it shows that the clay was still fresh when it was removed from the string it was covering. Publication by Özgüç N. and Tunca (2001), pl. 115. Photo: Cécile Michel, ©Kültepe archaeological mission



Caption Figure 10: Kt 93/k 809: photo of the obverse and reverse, similar to Kt 90/k 210, interpreted as a sealing of a sack with a peg (see Fig. 5). Photo: Cécile Michel, ©Kültepe archaeological mission, publication by Özgüç N. and Tunca (2001), pl. 123



Caption Figure 11: Kt 93/k 812: photo of the obverse and reverse, similar to Kt 90/k 210, interpreted as a sealing of a sack closed by a peg (see Fig. 5). Photo: Cécile Michel, ©Kültepe archaeological mission, publication by Özgüç N. and Tunca (2001), pl. 124



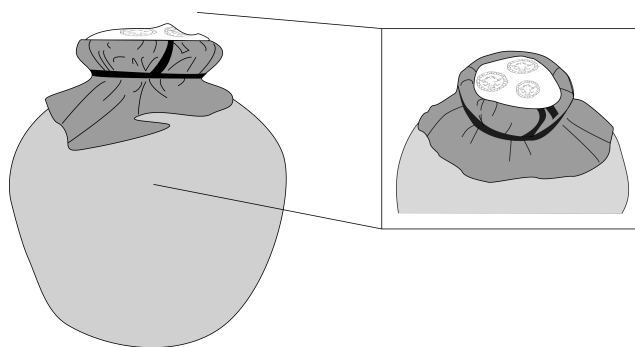
Caption Figure 12: Kt 93/k 267: photo of the mushroom-type sealing with cylinder and stamp seals impressions. On the reverse (right), the rim as well as three 'rope' imprints are clearly visible. The shape corresponds to similar findings and reconstruction from Arslantepe (see Fig 13). Photo: Cécile Michel, ©Kültepe archaeological mission, publication by Özgüç N. and Tunca (2001), pl. 117

¹²Judging from the photographs kindly provided by Cécile Michel, these two sealings were also hemispheric (Kt 93/k 258, Kt 93/k 259), but in my opinion they were deformed at the moment they were broken when the clay was still fresh. This would also explain why the impressions of the seals are also notably badly conserved.

There are ten sealings with a different shape. Among them, four have a longer (broken) inscription (Kt 93/k 269, about an offering; Kt 93/k 270, about a sales transaction, Kt 93/k 805, and Kt 93/k 806) classifying them

as sealings for text archival purposes. The other four sealings (Kt 93/k 262, Kt 93/k 809, Kt 93/k 812, Kt 93/k 814), judging from the photos, seem to have been applied to a rounded surface, like a peg winded with ropes closing a bag (see Fig 10–11). Kt 93/k 267 is a mushroom-shaped sealing (see Fig. 12) with cylinder and stamp seal impressions. It is larger than the other sealings and it is still possible to recognise the rim of the vessel on the reverse of the sealing. It seems that the clay was not directly applied on the vessel but over a tissue that have been tied with ropes, in a similar way as it has been proposed for Arslantepe (see Fig. 13).

The remaining five sealings are too small to be classified into types (Kt 93/k 265, Kt 93/k 266, Kt 93/k 650 (deformed hemispheric seal?) Kt 93/k 803, Kt 93/k 815).



Caption Figure 13: Possible use for mushroom-type sealings used for closing a vessel on top of a piece of fabric fixed with string. Inspired by Ferioli et al. (2007), 82, fig II.13. CC BY Néhémie Strupler

[page 188 starts]

Sealings from the House of Šalim-Aššur According to Morgen Larsen, who published this archive discovered in 1994, 1100 texts and thirty-three clay sealings were found in the house of Šalim-Aššur and his two sons Ennam-Aššur and Ali-ahum.¹³ The typology of the sealings matches well with the other archives, but displays also very interesting differences as well.

¹³See Larsen (2008) for the sealing; texts are published in Larsen (2010); Larsen (2013); Mogens T. Larsen (2014); Larsen (2018)

A new type is present, the triangular shape, for which most of sealings are inscribed (seven out of ten) : Kt 94/k 876, Kt 94/k 878 (inscription about a group of tablets), Kt 94/k 879 (inscription about a group of tablets), Kt 94/k 1058, Kt 94/k 1060, Kt 94/k 1061 (inscription about a group of tablets), Kt 94/k 1062 (inscription about a group of tablets), Kt 94/k 1063 (inscription of PN from the seal owner), Kt 94/k 1290 (inscription about a group of tablets), Kt 94/k 1664 (inscription about a group of tablets). At least twelve sealings belong to the hemispheric group, out of which eight bear an inscription, either with the word *našpertum* or indicating a group of tablets or the recipient: Kt 94/k 586 (inscription about a group of tablets), Kt 94/k 646, Kt 94/k 648 (*našpertum*), Kt 94/k 875, Kt 94/k 877 (indication of the recipient), Kt 94/k 1059 (indication of the recipient), Kt 94/k 1184 (*našpertum*), Kt 94/k 1185 (*našpertum*), Kt 94/k 1286 (inscription about a group of tablets), Kt 94/k 1288, Kt 94/k 1289, Kt 94/k 1431 (inscription about a group of tablets). Four inscribed sealings that are badly broken could belong to one of these two groups : Kt 94/k 874 (statement of name sealing), Kt 94/k 1665 (inscription about a group of tablets), Kt 94/k 1684 (only part of the PN preserved), Kt 94/k 1717 shipment (inscription of the PN sealing). Out of the last seven sealings, three are “odd shaped” (Kt 94/k 647, Kt 94/k 1287, Kt 94/k 1531) and the remaining four sealings have been sealed with stamp seals; two sealings, Kt 94/k 585 and Kt 94/k 1729 are in the form of a jar stopper (similar in appearance to Kt 91/k 371 from the Elamma Archive), two sealings with stamp seals, Kt 94/k 1430 and Kt 94/k 1489, are not classifiable with the photos provided.

From this classification, it is easy to conclude that almost all of the sealings were used for archival purposes (twenty-two including the triangle and hemispheric types, summing to twenty-six if the smaller fragments are also taken into account). If the function of the three ‘oddly shaped’ seals is unclear, only four seals (i.e. 12 per cent), all with stamp seals, may have been used for a purpose other than text archival practices.

Remarks on the Finds from the Lower Town

The evidence presented here from the lower town of Kültepe points toward the use of sealings as an internal management tool within the house. The majority of the sealings have been used for organizing and storing tablets. Within this group, an important part of

the sealings have been used to indicate the origin or the destination of a group of tablets (*našpertum*). Only very few examples suggest the storage of other goods. Several clues hint at the interpretation of all of these sealings as tools for long-term storage and archival purposes rather than commercial transactions or the transportation of goods: the low number of sealings, their types, the near-absence of different sealings attesting to the use of the same seal, and the lack of any indication showing that the same actions have been repeated in a short time span. Finds from the mound, however, display greater diversity.

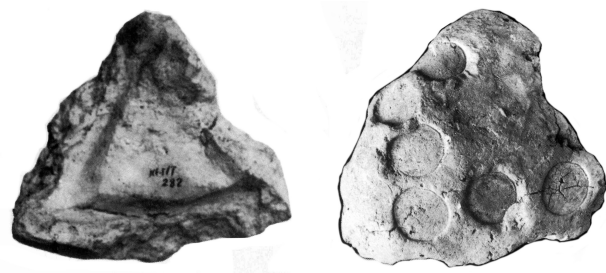
Sealings from the mound

Similar to the situation in the lower city, the exact number of sealings from the mound is difficult to assert. The mentions in the archaeological reports do not fully correspond with the published material and with the catalogues from the two main publications by Nimet Özgüç (1989; 2001).¹⁴ However, the differences with the sealings from the lower city are striking (Larsen 2008). Most of the sealings from the mound are anepigraphic and have been sealed with stamp seals, and not with cylinder seals. Sealings from the mound in context include those from a house, the so-called palaces 'on the west terrace' and 'Waršama' (Michel 2019).

The 'Palace on the West Terrace' This building is dated to the 'Karum level II', contemporary to the 'old palace' (Özgüç T. 1999, summary in 2003, 133–40). It is an imposing structure organized around a paved courtyard, with two wings on each side of an imposing corridor. The number of sealings found in the building is not unequivocal. Tahsin Özgüç (2003, 139) wrote that the building has been emptied and that in the debris, only one sealing 'with cylinder seal impression' have been found (corresponding to Kt k/t 115). However, Nimet Özgüç (2001, 166–167) mentions three other sealings from the building (Kt i/t 282–284). I follow here her catalogue and count four sealings (Kt k/t 115, Kt i/t 282, Kt i/t 283, Kt i/t 284).

[page 189 starts]

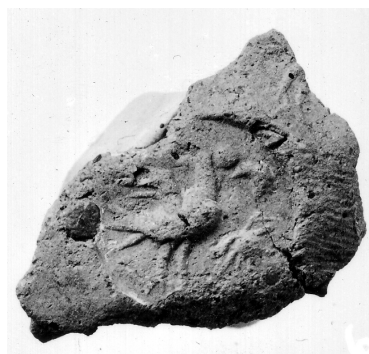
¹⁴There are some discrepancies between the publications and the authors. For example, the sealing Kt z/t 28 is mentioned as part of the sealings from Room 12 of the Waršama Palace by Tahsin Özgüç (Özgüç T. 1999, 87), but is absent in the publication of Nimet Özgüç (2001).



Caption Fig. 14: Kt i/t 282. On the right, the top shows the multiple application of the same seal, on the left, the reverse marks indicate the triangle shape left by the beak of a spouted jar. No visible trace of rope. Photos from the publication of Özgüç N. and Tunca (2001), pl. 58



Caption Fig. 15: Kt 77/t 85: under the stamp seal, the trace of a 'rope' is visible where the sealing is broken. The style as well as the sealing type differ from other sealings from Kültepe. Annotated photo from Özgüç N. and Tunca (2001), pl. 81.



Caption Fig. 16: Bo64-153-2: photo of a sealing discovered in a house from the later period of the Anatolian-Old Assyrian trade period. The sealing is similar to Kt 77/t 85 (see Fig. 15), as well

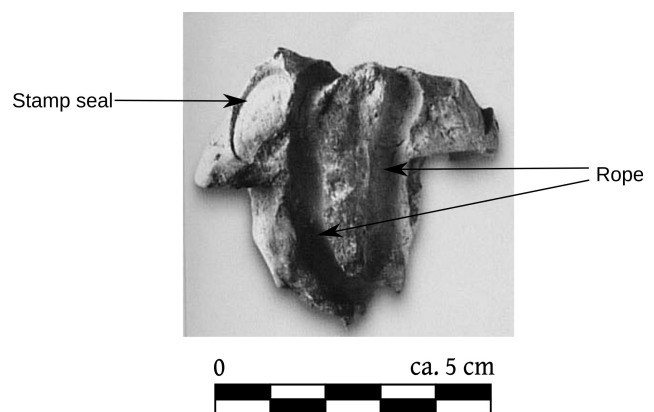
as the size and type of the seal. The iconography is not identical but shares a common ground. Photo Archiv der Boğazköy Expedition

On the top of Kt i/t 282 (see Fig. 14), the same stamp seal have been impressed ten times, and the reverse of the sealing shows a triangle imprint, maybe from a beak-spouted vessel (Özgüç N. and Tunca 2001, 166). Kt i/t 284 is also described as a stopper of a beak-spouted vessel with seven impressions of the same stamp seal on the obverse, but only the top of the sealing is represented in the publication and no additional information is provided (Özgüç N. and Tunca 2001, pl. 58). The sealing Kt i/t 283 is described as being 'shapeless'. It has eight impressions of the same stamp seals. Again, only a close-up of the obverse of the sealing is published, giving no further hint on the general shape (Özgüç N. and Tunca 2001, pl. 58). The sealing with the cylinder seal impression (Kt k/t 115) is badly broken and is presented as a 'band-shaped ring' with few preserved cuneiform signs indicating the seal owner.

A House on the Mound A house with 'a store-room' is known to have been excavated in 1977 (Özgüç N. 1989, 382; Özgüç N. and Tunca 2001, 191. I could not identify a report on the excavations or a plan of the house). The catalogue lists seventy-five sealings found in this room. All the sealings are anepigraphic and have been sealed with stamp seals. Out of the seventy-five sealings, only twenty are illustrated, and I could not find any information about the reverse of these seals or their possible functions. There are, however, multiple cases of sealings that have been impressed with the same stamp seal showing that some actions have been repeated and the sealings have been kept for accountancy, similar to what we know from Arslantepe (Frangipane 2007).¹⁵ The focus was on the iconography and the reconstruction

¹⁵Nimet Özgüç thought that in some case, different fragments belonged to the same sealing. This is the case with Kt 77/t 13, mentioned in on catalogue as 'Black, non-joining fragments of a bulla, very fragmentary design of No. 137' (Özgüç N. 1989, 397). This sealing is not listed in her 2001 publication anymore (Özgüç N. and Tunca 2001, 191). I would be cautious about this interpretation, because without any other indication, we should hypothesize to have two different sealings with impressions from the same seal. This indicate that the number of seventy-five sealings found in the storeroom should be regarded as a minimum number of sealings.

of the different stamp seals rather than on understanding the functions [page 190 starts] or how they differ from the sealings found in the lower town (Özgüç N. 1989, 397–400, pl. 112–115; Özgüç N. and Tunca 2001, 191–202, pl. 80–82). Because they do not bear any inscription and are not associated with cuneiform tablets, they have not been restudied by philologists recently. As yet, almost no contextual information is available. Among the available photos, some may display 'rope marks', as Kt 77/t 85 (see Fig. 15). However, though the information is scanty, there is no doubt that these sealings are very similar to an ensemble of c. 150 fragments of clay sealings discovered in 1963 and 1964 during the excavations at Büyükkale, the citadel of the Hittite city Hattuşa by the *Boğazköy Archaeological Expedition* (see Fig. 16, and see Neve 1982, 22–30). These were hidden in the wall of one the best-preserved buildings from the Anatolian–Old Assyrian trade network period under the remains of the Hittite royal palace. On the floor of this elaborate house of more than ten rooms, archaeologists found a rich assemblage of hundred vessels, including finely modelled rhytons, confirming that this building certainly belonged to the elites (Strupler 2013). At Boğazköy/Hattuş, about thirty different stamp seals have been reconstructed out of the 150 clay sealings. They also have been succinctly published, with particular attention to the iconography rather than their function.¹⁶ Both assemblages, from Boğazköy and Kültepe depict animals such as lions, birds or bulls, but also mythical figures. They are all very similar in their style and form, with a diameter of 2 cm (see Fig. 15–16).



¹⁶A project in collaboration with Andreas Schachner was initiated in order to republish this material now kept in the Museum of Anatolian Civilizations in Ankara. We hope that our work will help to better understand both contexts.

Caption Fig. 17: *Kt t/t 9 (Room 11): this mushroom shaped sealing is smaller than examples known from the lower city (see Fig. 12) and shows a distinctive rope mark on the side, almost identical to Kt t/t 24 (see Fig. 17) Annotated photo from the publication (Özgüç T. 2003, 289, fig. 337, see also 1999, pl. 70.3; Özgüç N. 1989, pl. 116.1).*



Caption Fig. 18: *Kt t/t 24: Photo from another mushroom type sealing with stamp seals and rope impressions. This type is almost identical to Kt t/t 9 (see Fig. 16). Photo: Cécile Michel, ©Kültepe archaeological mission, publication by Özgüç N. and Tunca (2001), pl. 78*

Waršama Palace In the so-called Waršama palace, contemporary to the “Karum level Ib”, ca. thirty-two clay sealings have been discovered.¹⁷ They are all

¹⁷As in other cases, the exact number is not easy to establish. In 1989, N. Özgüç states that ten sealings came to light (Özgüç N. 1989, 382), but her catalogue lists more than ten sealings from the palace; Tahsin Özgüç says that most of the sealings have been published in 1989 by Nimet Özgüç, but he mentions one sealing (Kt z/t 28) that is absent from Nimet's publications (Özgüç T. 1999, 87); Morgen T. Larsen speaks of twenty-seven sealings, but does not list them so that the origin of this number is enigmatic (Larsen 2008, 83). There are 32 entries concerning the Waršama palace in Özgüç N. and Tunca (2001); some numbers are also different from one publication to the other, such as Kt h/t 324 in Özgüç N. (1989), 389, which is equal to Kt h/t 326 in Özgüç N. and Tunca (2001), 183.

anepigraphic and stamp [page 191 starts] sealed, except for one, Kt z/t 15, which is a triangular sealing that mentions a merchant and a votive offering. All the other sealings bear stamp seal impressions ‘typical from the later period’. Tahsin Özgüç (1999, 87) gives the most extensive description of these sealings: ‘All of the [sealings] have round bases, impressed with a stamp-seal design; they are reddened and soot-stained as a result of the conflagration. String-holes are evident. One contingent was tied to vessels in bottle-shape’. Mushroom-shaped sealings are illustrated by the sealing Kt t/t 9 (see Fig. 16, Özgüç T. 1999, pl. 70.3.a/b) and Kt z/t 24 (see Fig. 17, Özgüç T. 1999, pl. 72.2.a/b). There are clear string marks on each side of the ‘mushroom’. Therefore, it is possible to say that opening of the vase was first closed with a tissue and the sealing was applied on top of it, as seen in the lower city (see Fig. 12–13).

The iconography of the seals is different from the 1977 house from the mound, and the iconography of the stamp seals is closer to the Old Hittite style (Boehmer and Güterbock 1987). The sealing catalogue provides information such as in which room of the palace the sealings have been found, but as it is impossible to classify the sealing into a typology from the close-up photos and the descriptions, as yet, no functional difference can be established between the rooms. I am convinced however, that a new study of these sealings, based on the typology and the archaeological context, would bring new informations on the function of the sealings and the rooms as well as some aspects of daily life in the palace.



Caption Fig. 19: *Sealing c 2705 from Alişar Höyük, described as “Fragment of a pottery stop-*

per with string marks and part of a stamp seal impression with circular base; design unrecognizable. Found 5.20 deep in T 29", Osten (1937), p227 and figure 253, p. 216



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Caption Fig. 20: A sealing from (Konya) Karahöyük (Alp 1968, catalogue 130), with almost identical marks as Kt 93/k 809 and Kt 93/k 212 (see Fig 10–11)

Remarks on the Finds from the Mound The discoveries from the citadel mound are different from the lower city, with an almost exclusive usage of the stamp seals. Sadly, the published information is not sufficient to create a new typology in order to understand what the sealings were closing, but because they have not been found together with tablets, we can exclude their usage as 'text archival' tools. They must have sealed containers, but the main question remains open: Was the sealing used for internal management of storage within a building or for keeping track of exchange outside of the building? Only the findings from the house, showing that the same seal has been repeatedly used on different sealings, attest that a similar activity should have taken place in a relatively short time. Associated with the highest number of sealings found in one room at Kültepe, this assemblage attests to internal management of goods that may be linked to transactions or exchange. In this case, however, this would apply to goods other than tablets. The complete lack of archaeological data as yet, impedes a deeper functional analysis of this assemblage.

[page 192 starts]

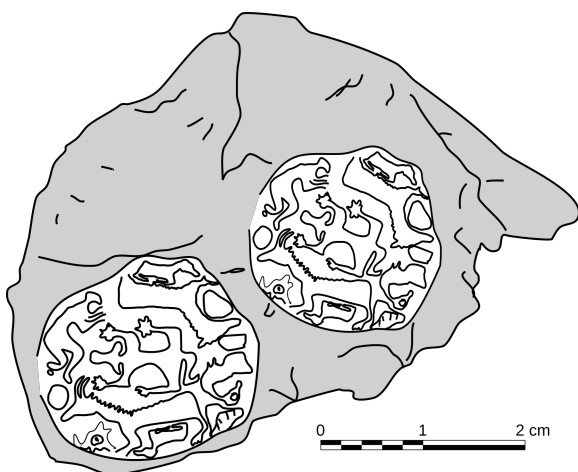
Conclusion and Perspectives

Making a review of sealing assemblages from Kültepe gives some hints about their different usages. From secured contexts, we know that for the lower city sealings marked with a cylinder seal seem to relate almost exclusively to 'archive management', i.e. a tool to store groups of tablets together (Larsen 2008). In contrast, clay sealings with stamp seals from the lower city seem to have been attached to other goods. In both cases the number of sealings is low, and duplicate sealings with the same seal are not well attested. This short overview reveals some questions that could shed new light on Kültepe, on the management of goods in daily practices, and how these relate to other contemporary cities.

A computation of the ratio between tablets or, better, the kind of tablets with sealings could bring further hints at how these tablets have been stored and what role the sealings played. Is there an archive without sealings? Another crucial point that would shed light on the usage of the seals, would be to check if it is possible to make a classification on the point when the sealings have been broken (if at all): during the abandonment of the building or perhaps some sealings have been kept broken to record a past event? Finally, a third approach would need to compare the different sealing assemblages with other sites from Central Anatolia. Veenhof (1993, 2017a) investigates closely the assemblages from Acemhöyük and their relations to Kültepe. But how are the practices from Kültepe different from other sites? A possibility for gaining knowledge on the shared practices would be to look for similarities of the sealings. This seems to be the case for the mushroom type (see Fig. 10.19), but it is also probably the case for the sealings used with a peg (see Figs 10.10–10.11, 10.20–10.21). There is also more work to accomplish on working out the parallels in the iconography of stamp seals, as shown with the 1977 citadel mound house and Boğazköy (see Figs 10.15–10.16). Could we add other examples, such as from Kayalıpınar (see Fig. 10.22)? Is there any distinct style, and not only a uniform 'Anatolian' style? At this point, it should become evident that a closer look at the function of sealings, especially anepigraphic stamp sealings, has great potential to yield new information on daily life during the Anatolian–Old Assyrian Period and Kültepe as well as the broader central Anatolia region, which remains under-investigated.



Caption Fig. 21: A sealing from Boğazköy (Bo64-632), with almost identical marks as Kt 93/k 809 and Kt 93/k 212 (see Fig 10–11). Photo Néhémie Strupler CC BY-SA 4.0, Archiv der Boğazköy Expedition



Caption Fig. 22: A sealing from Kayalıpınar with an iconography close to the iconography of sealings from the “1977 house” on Kültepe mound. Redrawn after the photos in Müller-Karpe and Müller-Karpe (2009), 195, fig. 9. CC BY Néhémie Strupler

[page 193 starts]

Acknowledgements

I would like to thank Cécile Michel, Fikri Kulakoğlu, and Guido Kryszat for organizing the KIM meeting in

2019 and editing the proceedings, as well as all the Kültepe archaeological team, who backed the conference and granted us an ideal working environment. For this paper, I am grateful to Cécile Michel and Andreas Schachner for authorizing the reproduction of photos and for their feedback. I am also very grateful to Andreas Schachner for providing the opportunity to study the Boğazköy sealings in the Ankara Archaeological Museum and his generous sharing of ideas in discussing the materials. Deniz Genceolu contributed with a first editing of the English and Tim Barnwell increased the readability of the text.

References

- Alexander, Robert L. 1979. “Native Group Cylinder Seal Engravers of Karum Kasnish Level II.” *Bulleten* 43 (171): 573–618.
- Alp, Sedat. 1968. *Zylinder- Und Stempelsiegel Aus Karahöyük Bei Konya*. Ankara: Türk Tarih Kurumu Basımevi.
- Andersson Strand, Eva, Catherine Breniquet, and Cécile Michel. 2017. “Current Research on Textile Imprints on Bullae at Kültepe.” In *Movement, Resources, Interaction, Proceedings of the 2nd Kültepe International Meeting*, edited by Fikri Kulakoğlu and Gojko Barjamovic (eds.), 87–104. Belgium: Brepols Publishers.
- Boehmer, Rainer M., and Hans G. Güterbock. 1987. *Glyptik Aus Dem Stadtgebiet von : Grabungskampagnen 1931 - 1939, 1952 - 1978*. 14. Berlin: Mann.
- Ferioli, Piera, Enrica Fiandra, Marcella Frangipane, Romina Laurito, M. B. D’Anna, and Cristina Simonetti. 2007. “The Arslantepe Period VI a Cretulae and Other Administrative Devices: Material and Functional Characteristics.” In *Arslantepe – Cretulae. An Early Centralised Administrative System Before Writing*, edited by Marcella Frangipane, 61–174. Rome: Università degli Studi di Roma La Sapienza / Dipartimento di Scienze Storiche, Archeologiche e Antropologiche dell’Antichità; CIRAAS.
- Ferioli, Piera, Enrica Fiandra, and Sebastiano Tusa. 1979. “Stamp Seals and the Functional Analysis of Their Sealings at Shahr-I Sokhta II-III.” In *South*

- Asian Archaeology* 1975, edited by Johanna Engelberta van Lohuizen-de Leeuw, 7–26. Leiden: Brill. <https://brill.com/view/title/693>.
- Frangipane, Marcella. 2007. "Thousands of Cretulae in the Fourth Millennium 'Palatial' Complex at Arslantepe (Period VI a, Lc 5): The Archaeological Contexts." In *Arslantepe – Cretulae. An Early Centralised Administrative System Before Writing*, edited by Marcella Frangipane, 25–60. Rome: Università degli Studi di Roma La Sapienza / Dipartimento di Scienze Storiche, Archeologiche e Antropologiche dell'Antichità; CIRAAS.
- Herbordt, Suzanne. 2005. *Prinzen- Und Beamtsiegel Der hethitischen Großreichszeit Auf Tonbullen Aus Dem Nişantepe-Archiv in.* 19. Mainz am Rhein: von Zabern.
- Kulakoğlu, Fikri, and Selmin Kangal, eds. 2011. *Anatolia's Prologue: Kültepe Kanesh Karum*. Kayseri: Kayseri Metropolitan Municipality.
- Kuzuoğlu, Remzi. 2015. "Acemhöyük'ten Eski Asur Dönemi'ne Ait İki çivi Yazılı Belge." *Höyük* 8: 1–15.
- Larsen, Mogens T. 1977. "Seal Use in the Old Assyrian Period." In *Seals and Sealing in the Ancient Near East*, edited by Gibson McGuire and Robert D. Biggs, 6:89–105. Bibliotheca Mesopotamica. Malibu: Undena Publication.
- . 2008. "Archives and Filing Systems at Kültepe." In *Old Assyrian Studies in Memory of Paul Garelli*, edited by Cécile Michel, 77–88. Leiden: Netherlands Institut voor het Nabije Oosten.
- . 2010. *The Archive of the šalim-Aššur Family*. Vol. 1: The first two generations. Kültepe Tabletleri 6a. Ankara: Türk Tarih Kurumu Basımevi.
- . 2013. *The Archive of the šalim-Aššur Family*. Vols. 2: Ennam - Aššur. Kültepe Tabletleri 6b. Ankara: Türk Tarih Kurumu Basımevi.
- . 2014. *The Archive of the šalim-Aššur Family*. Vols. 3: Ali-ahum. Kültepe Tabletleri 6c. Ankara: Türk Tarih Kurumu Basımevi.
- . 2018. *The Archive of the šalim-Aššur Family*. Vols. Volume 4: Texts concerning non-family members. Kültepe Tabletleri 6-d. Ankara: Türk Tarih Kurumu Basımevi.
- Larsen, Mogens Trolle, and Agnete Wisti Lassen. 2014. "Cultural Exchange at Kültepe: Studies in Honor of Matthew W. Stolper." In *Extraction & Control*, edited by Michael Kozuh. Studies in Ancient Oriental Civilization 68. Chicago: Oriental Inst. of the Univ. of Chicago.
- Lassen, Agnete Wisti. 2014. "The Old Assyrian Glyptic Style: An Investigation of a Seal Style, Its Owners, and Place of Production." In *Current Research at Kültepe/Kanesh. An Interdisciplinary and Integrative Approach to Trade Networks, Internationalism, and Identity*, edited by L. Atici, F. Kulakoğlu, G. Barjamovic, and A. Fairbairn, 107–22. Journal of Cuneiform Studies Supplemental Series 4. Lockwook Press.
- Michel, Cécile. 2000. "À Propos d'un Testament Paléo-Assyrien : Une Femme de Marchand « Père et Mère » Des Capitaux." *Revue d'Assyriologie et d'archéologie Orientale* 94 (1): 1–10.
- . 2008. "The Alāhum and Aššur-Taklāku Archives Found in 1993 at Kültepe Kaniš." *Altorientalische Forschungen* 35: 53–67. <https://doi.org/10.1524/aof.2008.0006>.
- . 2011. "The Private Archives from Kanish Belongig to Anatolians." *Altorientalische Forschungen* 38: 94–115. <https://doi.org/10.1524/aof.2011.0007>.
- . 2016. "Quelques remarques sur les bullæ inscrites de la ville basse de Kültepe." In *Parcours d'Orient Recueil de textes offert à Christine KEPINSKI*, edited by Aline Tenu Bérengère Perello, p. 175–84.
- . 2018. "Constitution, Contents, Filing and Use of Private Archives: The Case of Old Assyrian Archives (Nineteenth Century BCE)." In *Manuscripts and Archives*, edited by Alessandro Bausi, Christian Brockmann, Michael Friedrich, and Sabine Kienitz, 43–70. De Gruyter.
- . 2019. "Palaces at Kaneš During the Old Assyrian Period: Internationales Colloquium Der Deutschen Orient-Gesellschaft, 30. März - 1. April 2016, Frankfurt Am Main." In *Der Palast Im Antiken Und Islamischen Orient*, edited by Dirk Wicke, 9:121–38. Colloquien Der Deutschen Orient-Gesellschaft. Wiesbaden: Harrassowitz Verlag.

- Michel, Cécile, and Paul Garelli. 1997. *Tablettes Paleo-Assyriennes de Kültepe 1 (Kt 90/K)*. Paris: Boccard.
- Müller-Karpe, Andreas, and Vuslat Müller-Karpe. 2009. "Untersuchungen in Kayalıpınar Und Umgebung 2006-2009: Mit Beiträgen von Elisabeth Rieken, Tobias Mühlenbruch, Christoph Salzmann, Manuel Zeile Und Jesper Wangen." *Mitteilungen Der Deutschen Orient-Gesellschaft* 141: 173–238.
- Neve, Peter. 1982. *Büyükale – Die Bauwerke*. 12. Berlin: Mann.
- Osten, Hans Henning von der. 1937. *The Alishar Höyük, Seasons of 1930 -32 Part II*. Vol. XXX. Oriental Institute Publications. University of Chicago Press.
- Özgüç N., Nimet. 1965. *Kültepe Mühür Baskılarında Anadolu Grubu. The Anatolian Group of Cylinder Seal Impressions from Kültepe*. Türk Tarih Kurumu Yayınları : V. Dizi ; 22 ; Türk Tarih Kurumu: Türk Tarih Kurumu Yayınları / 5 22. Ankara: Türk Tarih Kurumu Basımevi.
- . 1968. *Kaniş Karumu İb Katı Mühürleri Ve Mühür Baskıları; Seals and Seal Impressions of Level Ib from Karum Kaniş*. Ankara: Türk Tarih Kurumu Basımevi.
- . 1989. "Bullae from Kültepe." In *Anatolian and the Ancien Near East - Studies in Honor of Tahsin özgüç*, edited by Kutlu Emre, Barthel Hrouda, Matched Mellink, and Nimet Özgüç, 377–405. Ankara: Türk Tarih Kurumu Basım Evi.
- . 2006. *Yerli Peruwa Ve Aşşur-ımitti'nin Oğlu Assur'lu Tüccar Usur-şa-Iştar'ın Arşivlerine Ait Kil Zarfların Mühür Baskıları = Seal Impressions on the Clay Envelopes from the Archives of the Native Peruwa and Assyrian Trader Usur-şa-Iştar, Son of Aşşur-ımitti: Yerli Peruwa Ve Aşşur-ımitti'nin Oğlu Assur'lu Tüccar Uşur-şa-Iştar'ın Arşivlerine Ait Kil Zarfların Mühür Baskıları = Seal Impressions on the Clay Envelopes from the Archives of the Native Peruwa and Assyrian Trader Uşur-şa-Iştar, Son of Aşşur-ımitti*. Türk Tarih Kurumu Yayınları : 5. Dizi ; 50 ; Türk Tarih Kurumu: Türk Tarih Kurumu Yayınları / 5 50. Ankara: Türk Tarih Kurumu.
- Özgüç N., Nimet, and Önhan Tunca. 2001. *Kültepe - Kaniş Mühürlü Ve Yazıtlı Kil Bullalar ; Sealed and Inscribed Clay Bullae: Mühürlü Ve Yazıtlı Kil Bullalar ; Sealed and Inscribed Clay Bullae*. Türk Tarih Kurumu Yayınları 48. Ankara: Türk Tarih Kurumu Basımevi.
- Özgüç T., Tahsin. 1994. "A Boat-Shaped Cult-Vessel from the Karum of Kanish." In *Cinquante-Deux Réflexions Sur Le Proche-Orient Ancien : Offertes En Hommage à Léon de Meyer*, edited by Hermann Gasche, Michel Tanret, Caroline Janssen, and Ann Degraeve, 369–75. Mesopotamian History and Environment. Leuven: Peeters.
- . 1999. *Kültepe-Kaniş-Neşa Sarayları Ve Mabketleri; The Palaces and Temples of Kültepe-Kaniş-Neşa*. Ankara: Türk Tarih Kurumu Basımevi.
- . 2003. *Kültepe | Kaniş | Neşa — The Earliest International Trade Center and the Oldest Capital of the Hittites*. Istanbul: Middle Eastern Cultural Center in Japan.
- Panagiotopoulos, 1957, Diamantis. 2010. "A Systemic Approach to Mycenaean Sealing Practices." In *Die Bedeutung Der Minoischen Und Mykenischen Glyptik: VI. Internationales Siegel-Symposium Aus Anlass Des 50jährigen Bestehens Des Cms Marburg, 9.-12. Oktober 2008*, edited by Walter Müller, 297–307. Corpus Der Minoischen Und Mykenischen Siegel. Beiheft 8. Mainz: P. von Zabern.
- Ricetti, Melissa. 2017. "The Contribution of Old Assyrian Cylinder Seals to the Elaboration of a Local Style in Anatolia at the Beginning of the 2nd Millennium Bce." In *Proceedings of the 10th International Congress on the Archaeology of the Ancient Near East, Volume 1*, edited by Barbara Horejs, Christoph Schwall, Vera Müller, Marta Luciani, Markus Ritter, Mattia Giudetti, Roderick B. Salisbury, Felix Höflmayer, and Teresa Bürge, 1st ed., 509–22. Harrassowitz Verlag. <http://www.jstor.org/stable/j.ctvc4m4f86.43>.
- . 2018. "Identification Through Image and Legend. Inscribed Seals from Kültepe Lower Town Level Ii: Proceedings of the 61e Rencontre Assyriologique Internationale, Geneva and Bern, 22–26 June 2015." In *Text and Image: Proceedings of the 61e Rencontre Assyriologique Internationale, Geneva and Bern, 22-26*, edited by Pascal Attinger, Antoine Cavignaux, Catherine Mittermayer, and Mirko Novák. Orbis Biblicus et Orientalis. Series Archaeologica. Leuven: Peeters Publishers. <https://doi.org/10.5167/uzh-157125>.

- . 2019. "Preliminary Results on the Seal Impressions from the 1990 Excavation Season at Kültepe/Kaniš (Kt 90/K)." In *Proceedings of the 3rd Kültepe International Meeting*, 205–25. Belgium: Brepols Publishers.
- Stratford, Edward. 2014. "'Make them Pay': Charting The Social Topography of an Old Assyrian Caravan Cycle." *Journal of Cuneiform Studies* 66: 11–38.
- Strupler, Néhémie. 2013. "Vorratshaltung Im Mittelbronzezeitlichen Bogazköy. Spiegel Einer Häuslichen Und Regionalen Ökonomie." *Istanbuler Mitteilungen* 63: 17–50.
- Süleyman, Özkan. 2010. "Kaniş'te Mühür Sanatı: Asurlular İstanbul'da." In *Anadolu'nun önsözü Kültepe Kaniş-Karumu*, edited by Fikri Kulakoğlu, Selmin Kangal, and İrfan Albayrak, 148–53. Kayseri Büyükşehir Belediyesi Kültür Yayınları 78. İstanbul: Seçil Ofset ; Kayseri Büyükşehir Belediyesi.
- Teissier, Beatrice. 1994. *Sealing and Seals on Texts from Kültepe Karum Level 2*. 70. İstanbul: Uitgaven van het Nederlands Historisch-Archaeologisch Instituut te İstanbul.
- Topcuoğlu, Oya. 2014. "Behind the Scenes: A Look at Seal Carvers as Artists and Artisans in the Old Assyrian Period." In *Current Research at Kültepe/Kanesh. An Interdisciplinary and Integrative Approach to Trade Networks, Internationalism, and Identity*, edited by L. Atici, F. Kulakoğlu, G. Barjamovic, and A. Fairbairn, 123–34. *Journal of Cuneiform Studies Supplemental Series* 4. Lockwood Press.
- Tunca, Önhan. 2001. "Inscription on the Cylinder Seal Impressions and on the Bullae." In. Vol. 5. *Türk Tarih Kurumu Yayınları* 48. Ankara: Türk Tarih Kurumu Basımevi.
- Veenhof, Klaas R. 1993. "On the Identification and Implications of Some Bullae from Acemhöyük and Kültepe." In *Aspects of Art and Iconography: Anatolia and Its Neighbors. Studies in Honour of Nimet Özgüç*, edited by M. J. Mellink, Edith Porada, and Tahsin Özgüç .T, 645–57. Ankara: Türk Tarih Kurumu Basımevi.
- . 2013. "The Archives of Old Assyrian Traders: Their Nature, Functions and Use." In *Archives and Archival Documents in Ancient Societies: Legal Documents in Ancient Societies*, edited by Michele Faraguna, 27–71. EUT Edizioni Università di Trieste.
- . 2017a. "Acemhöyük: Seals, Chronology and History: Proceedings of the 2nd Kültepe International Meeting, Kültepe, 26-30 July 2015; Studies Dedicated to Klaas Veenhof." In *Movement, Resources, Interaction*, edited by Fikri Kulakoğlu and Gojko Barjamovic, XX–XX. *Kültepe International Meetings* 2. Turnhout: Brepols.
- , ed. 2017b. *The Archive of Elamma, Son of Iddin-Suen, and His Family (Kt. 91/K 285-568 and Kt. 92/K 94-187): Ankara Kültepe Tabletleri* 8. Vol. 6. *Türk Tarih Kurumu Yayınları* 3. Ankara: Türk Tarih Kurumu.
- . 2019. "On the Identification of Old Assyrian Seals." *Jaarbericht van Het Vooraziatisch-Egyptisch Genootschap Ex Oriente Lux* 47 (2018-19): 193–215.
- Zettler, Richard L. 1987. "Sealings as Artifacts of Institutional Administration in Ancient Mesopotamia." *Journal of Cuneiform Studies* 39 (2): 197–240. <http://www.jstor.org/stable/1359781>.