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Cécile Michel

# Erasing Signs and Lines on Old Assyrian Cuneiform Clay Tablets

**Abstract:** About 22,860 cuneiform clay tablets were excavated in the lower town of Kültepe, the ancient Kaneš, in Central Anatolia. The great majority date to the first half of the nineteenth century BCE and belong to Assyrian merchants originating from Aššur, in the north of Iraq. Their archives include letters, legal texts, and accounting documents. A significant part of the population of Aššur and Kaneš was literate, having either received a formal scribal education or learned to read, write, and count within their families. Many of the tablets found at Kültepe, probably written by the second group of literate people, show signs and even whole lines that have been erased. The analysis of various examples should make it possible to answer different questions. What techniques were used to erase one or more signs? Under what circumstances were the signs and words erased? Are there particular places to erase text on a tablet? Is this practice of erasing attested to by the texts themselves? This study on the practice of erasing signs and lines on clay tablets focuses on an Old Assyrian archive of a thousand tablets excavated in 1993 at Kültepe and belonging to Ali-ahum and his children Aššur-taklaku and Tariša.

## 1 Introduction

Clay is a plastic material with many qualities, which explains its use as a writing medium for cuneiform, linear A and B, and Cretan hieroglyphs.<sup>1</sup> Over the past two decades, more and more Assyriologists have become interested in the materiality of writing and have devoted studies to the material characteristics of cuneiform clay tablets. The main features of clay tablets have been described as follows:

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<sup>1</sup> See the most recent book on clay edited by Xavier Faivre (2023a), which gathers several contributions on the use of clay tablets for writing. For the practice of erasing cuneiform signs on wax tablets, which is technically similar to the process for clay, see Cammarosano 2024, 172–173, 177–178, with previous literature. Unless otherwise stated, I took all the photos reproduced in the essay. The symbols °...° indicate signs or full lines deliberately erased. On the recycling and editing of cuneiform tablets, see also the contributions by Michele Cammarosano and Jon Taylor in this volume.

‘They were written by hand and are thus unique; they were transportable; they could be enclosed in an envelope; they could bear annotations or drawings and be erased or recycled; they could also be grouped into books of a sort and arranged in archives and libraries’, and, as such, they belong to the category of manuscripts.<sup>2</sup> The ability to erase signs or lines is an important feature that was widely used in Mesopotamia and neighbouring regions employing cuneiform scripts in all periods.

This practice is particularly well attested in private documentation for immediate use, as can be seen in the Assyrian merchants’ archives uncovered in the lower town of Kültepe, the ancient Kaneš, in Central Anatolia. These cuneiform clay tablets include letters, legal texts, and accounting documents. A significant part of the inhabitants of Aššur (north of Iraq) and Kaneš was literate, from well-educated merchants to those who learned the rudiments of writing,<sup>3</sup> and many of their tablets show signs and even whole lines that have been erased.

After a brief overview of the literature dedicated to the erasing of cuneiform signs on fresh clay tablets, this chapter intends to answer different questions. Is the practice of erasing signs attested on the Old Assyrian Kültepe tablets? Under what circumstances were signs and words erased? Are there particular places to erase text on a tablet? What techniques were used to erase one or more signs? The analyses, carried out on examples originating from a single Kültepe archive, enable us to look at the practice of erasing within the same group of people and to evaluate of the frequency of this practice in relation to literacy.

## 2 Erasing signs on cuneiform clay tablets written for utilitarian purposes

Clay cuneiform tablets written for an immediate utilitarian purpose – such as letters and legal, administrative, and school texts – were only dried in the sun and not baked. They could then, in theory, be placed in a container with water and reshaped anew.<sup>4</sup> A very common practice was to take advantage of the easy mal-

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<sup>2</sup> Michel 2021, 107.

<sup>3</sup> Michel 2008.

<sup>4</sup> Faivre 1995; Charpin 2008, 17 with a photo of a Mari administrative text in the process of being recycled; Faivre 2023b; and Michel 2023a, 103. Jonathan Taylor and Caroline Cartwright (2011, 318) suggest that the recycling of clay tablets was not so common due to the wide availability of the material.

leability of fresh clay by erasing signs to correct an error while writing on a tablet. In practice, this involved smoothing the surface of the fresh clay with a finger or a tool to obtain a surface ready to receive a new text. Erasure left traces, and it is possible to observe the corrections of the writer, as the erased signs or original line have often only partially disappeared.

## 2.1 Erasures on cuneiform clay tablets

It is generally accepted that clay tablets, once shaped, were written in one go, as long as the clay remained fresh. It is therefore mainly during the writing of a text that the scribe could make corrections, by flattening the surface to remove one or more signs that had already been formed. Dominique Charpin observes that, for Old Babylonian texts, erasures are regularly found at the end of lines. Scribes used to justify lines on the right. After writing the first syllables of a word, if it turned out there was insufficient space to complete the word on the same line, they would erase these first syllables, as well as the last sign of the previous word, which they would rewrite further to the right to align it with the other lines.<sup>5</sup>

According to Jonathan Taylor, erasures are not so common, as scribes were careful when writing a tablet and avoided deleting text, because such corrections remained visible.<sup>6</sup> However, a single accounting transactions on a document, for example, could be erased, and this left traces. Palimpsests would be found only on type II school tablets: the left column was written by the master and copied by the student several times in the right column.<sup>7</sup> Between two exercises, the pupil erased the right column to practise writing. As a result of this repeated erasure of the student's column, it would eventually break off. These successive exercises were written in a very short period, since clay had to stay fresh. In Iraq, a tablet might become dry in an hour.<sup>8</sup>

There is a debate, in Assyriology, about the possibility of erasing text from an already dried tablet and writing new text on it. Jonathan Taylor and Caroline Cartwright consider that remoistening was not a technique practised by scribes, as adding water to the surface of an already dry tablet does not restore the clay to its original plastic state, but rather turns its surface into sludge: 'Erasure and re-

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5 Charpin 1989, 59.

6 Taylor 2011, 19. This applies most probably to official and library texts.

7 Charpin 2008, 75–77.

8 Taylor and Cartwright 2011, 311.

inscription is not a technique that would be suitable for use on old, long-dry archival tablets'.<sup>9</sup>

Other authors consider that erasing signs on dry clay tablets was possible and is even described in the cuneiform documentation (see Section 3).<sup>10</sup> The analysis of the different techniques and practices for erasing cuneiform signs and lines on clay tablets developed here focuses on the Old Assyrian private archives unearthed at Kültepe in Central Anatolia, a corpus which lends itself well to this type of study.

## 2.2 Clay tablets from Kültepe

About 22,860 clay tablets, envelopes, and bullae, covered with cuneiform signs, written in the Old Assyrian dialect and syllabary, were discovered at Kültepe, nearby the modern city of Kayseri.<sup>11</sup> They form the archives of merchants, mainly originating from Aššur, who settled there during the nineteenth and eighteenth centuries BCE, and document the long-distance trade established between Aššur and Anatolia. These archives consist almost half of letters and half of legal texts, personal accounts, and memoranda.<sup>12</sup> A dozen school texts, as well as several incantations and some other non-commercial texts, are scattered among a few archives. All these tablets were stored in sealed containers in private houses, in a specific room dedicated to the storage of goods and tablets.<sup>13</sup>

Because the Old Assyrian tablets were written for an immediate utilitarian purpose, they regularly include erased signs and lines. Most of the time, signs were erased while a tablet was being written, usually by smoothing the surface with a finger. Occasionally, however, tablets that had already been archived were remoistened to remove names or words, or even to change the text.<sup>14</sup> The following examples show clear instances of erasing signs and lines while the tablet was still fresh.

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<sup>9</sup> Taylor and Cartwright 2011, 313.

<sup>10</sup> Faivre 2023b, 126; Michel 2023a, 103.

<sup>11</sup> Michel forthcoming.

<sup>12</sup> Michel 2020, 11–20 with previous bibliography.

<sup>13</sup> Michel 2023b.

<sup>14</sup> Michel 1995.

### 2.3 Different types of erasures on Old Assyrian clay tablets

Old Assyrian tablets show a great variety of erasures, whether of signs or lines, and the traces left on the surface of the clay suggest the use of different techniques. A few signs may be erased at the beginning or end of a line, and less often in the middle (Figs 1a–c).



**Fig. 1a:** Prag I 601; five signs are erased at the beginning of the obverse line 4 (ù PN). Photo: CDLI P359203.

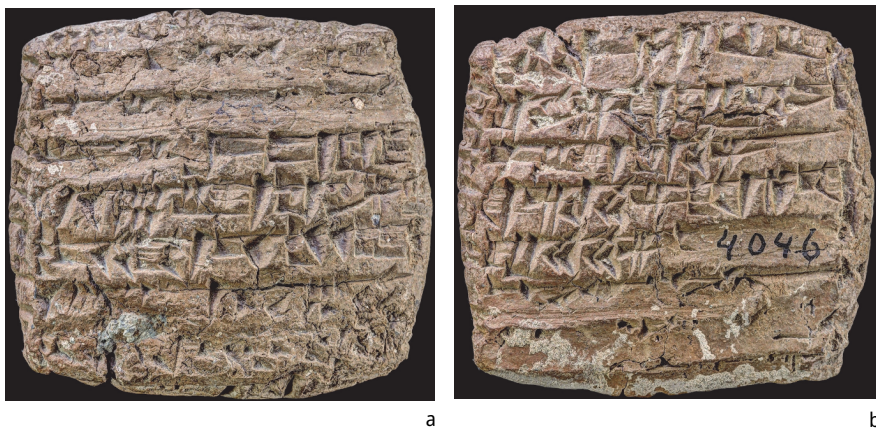


**Fig. 1b:** BIN 4, 32; signs in the middle of the reverse bottom line and the sixth line before the end are erased. 'Tablet. Letter concerning terms of business agreement. Old Assyrian. Clay', <<https://collections.peabody.yale.edu/search/Record/YPM-BC-004638>> (accessed on 20 April 2024). Photo: Yale Babylonian Collection, Peabody Museum.



**Fig. 1c:** CCT 3, 19b; the last two signs of the second line of the lower edge are erased. Photo: CDLI P358577.

Sometimes, full lines are erased, even several lines in a row, presumably corresponding to one or more of the recorded transactions. In an anonymous personal account, the lines deleted at the beginning of the obverse and end of the reverse represent a total of five and a half lines (Figs 2a–b).



**Figs 2a–b:** Sample caption BIN 4, 203: lines 2 and 3 of the obverse as well as two and a half lines from the bottom of the reverse are erased. Photo: CDLI P293749.

An Old Assyrian tablet discovered in a room of the Old Palace in Aššur presents a school exercise (Fig. 3).<sup>15</sup> It is a fragment of a type II text, and words written with cuneiform signs remain only on the left column, written by the master. The right column was kept moist all through the exercise, during which the student copied the text of the master, erased it after being checked, and copied it again several times. The right column has been erased with a tool several times, leaving scratches and traces of wedges.

<sup>15</sup> Pedde and Lundström 2008, cat. no. 1097, VAT 10048 (Ass 19478). A photo of the tablet is reproduced in Marzahn (ed.) 2008, cat. no. 377 and Cancik-Kirschbaum 2008, 347, fig. no. 263.



**Fig. 3:** Old Assyrian school text (type II) from Aššur; the right side has been erased several times by the student; VAT 10048, Vorderasiatisches Museum.

### 3 The emic approach of erasing signs according to the early-second-millennium texts

Texts rarely document the gesture of erasing signs on a clay tablet, because this action was generally accomplished while writing the tablet. Consequently, and for reasons of temporality, only erasures made a posteriori are eventually quoted. Moreover, when erasures are mentioned in the cuneiform texts from the early second millennium, the focus is more on the words that have to be erased than on the technique used to erase cuneiform signs.<sup>16</sup> This is the case in, for example, a letter sent by Hammu-rabi to his governor in Larsa, Šamaš-hazir. The king explains that his surveyor had marked out on a tablet a field for one of his soldiers, Lipit-Ištar, but that, in the latter's absence, the substitute for this soldier had had

<sup>16</sup> One needs to make a distinction between erasing signs (*pašāṭum*, often used for royal inscriptions) and smashing or dissolving a clay tablet (*pussusum*). For an overview of the vocabulary linked to clay tablets, see Faivre 2023c, 87–88.

Lipit-Ištar's name erased and his own written in its place.<sup>17</sup> The tablet, if made of clay, was presumably dry, as the erasing was done some time after its writing. In fact, the use of the Š-stem applied to the verb *pašātum* ('to erase') suggests that Lipit-Ištar's substitute took the tablet to a literate person for this criminal act. The modification was not invisible, since the deception was revealed.

The Old Assyrian vocabulary to express the act of erasing signs on a tablet is quite varied.<sup>18</sup> In a letter addressed to Imdī-ilum, Puzur-ilī asks for a correction to be made on a contract already written and presumably archived:

Concerning the 30 *kutānum*-textiles that you sold to Ennum-Aššur, and for which you wrote a tablet indicating that we were jointly liable for 10 minas of silver over a 5-week period (and concerning the fact that) Ennum-Aššur took the *kutānum*-textiles, yourself look for Ennum-Aššur (and as to) the tablet on which my name is written down, erase my name and write down the name of Ennum-Aššur.<sup>19</sup>

The verb *tabā'um* at the D-stem, *tabbu'um*, is used here with the meaning 'to erase', but may also refer elsewhere to the cancellation of tablets.<sup>20</sup> In this instance, as in the previous example, the request is not only to erase a name but to write another name in the same space, something which surely left traces on the tablet.

Since these texts refer to the practice of erasing signs on already dried tablets, one wonders how this was technically done. Another letter gives some hints about the procedure for erasing a sentence on a dried tablet which has been archived for a while. Sabasiya wrote to Puzur-Aššur the following:

Concerning the tablet relating to the house of Wašhuba about which you wrote me, take Ilabrat-bāni with you, open the tablet (container), take out the tablet concerning 49 minas of silver representing guarantees for the two houses of Anah-ilī, the priestess, his sister, and Āl-tāb, his brother, and on the tablet supplement these men are recorded. Where these men are recorded as judges, moisten (it) with water and erase, then seize the two houses.<sup>21</sup>

<sup>17</sup> TCL 7, 15 (AbB 4, 15):9–13, *i-na la wa-aš-bu-ut li-pi-it-Ištar*, <sup>1</sup>lu-<sup>d</sup>nin-šubur-ka dah-šu, šum <sup>1</sup>Li-pi-it-Ištar ú-ša-ap-ši-iṭ-ma, šum-šu i-na a-ša šu-a-ti, ú-ša-aš-ṭe<sub>4</sub>-er. The verb used in this letter to express the act of erasing is *pašātum* at the Š-stem.

<sup>18</sup> Michel 1995, 25–26.

<sup>19</sup> CCT 2, 50:11–23, *a-na 30 ku-ta-ni, ša a-na En-um-A-šur, ta-dí-nu-ma, 10 ma-na kù-babbar, a-na 5 ha-am-ša-tim, ṭup-pá-am i-na qá-qá-ad, šál-mi-ni : tal-pu-tù, ku-ta-ni : En-um-A-šur, il<sub>5</sub>-qé-ú : En-um-A-šur, a-ta šé-e : ṭup-pá-am, ša šu-mi lá-áp-tù, šu-mi : ṭá-bi<sub>4</sub>-ma : šu-mi, En-um-[A]-šur-ma : lu-pu-ut.*

<sup>20</sup> For such instances, see, for example, CCT 3, 15:22 and KTS 1, 34a:5.

<sup>21</sup> KTS 2, 9:2–14, *a-šu-mi ṭup-pi-im, ša é Wa-áš-hu-ba ša, ta-áš-pu-ra-ni I-lá-áb-ra-at-ba-ni, iš-tí-kà ša-ba-at-ma ṭup-pi pé-té-ma, ṭup-pá-am ša 50 lá 1 ma-na kù-babbar, ša A-na-ah-dingir gu<sub>5</sub>-ba-áb-tim*

The blank space left by the erasing in this instance was not written upon again. The lines to be erased were written on a supplementary ‘page’.<sup>22</sup> Sabasiya outright asks his correspondent to forge a document in order to erase the names of embarrassing witnesses and take possession of houses put up as collateral. And, in the same letter, he asks Puzur-Aššur to modify another tablet:

There is a tablet (stating) that the creditor has loaned 21 minas 10 shekels of silver to Šalim-Aššur, Ikūnum, and Sabasiya, and that concerning the silver, (these men) are jointly liable; take out this tablet, examine it, and where it is written: ‘The silver was taken in the name of Iliš-tikal’, moisten (it) with water (and erase it) and show to the son of Šalim-Aššur what is important for you (on the tablet). And if he wants to settle the matter, let him settle (it). I have paid the silver to the creditor and taken out the tablet, (so) settle the matter as best as you can.<sup>23</sup>

In this loan contract, the name of the person who commissioned the loan must be removed. Sabasiya, who appears as one of the three debtors, seems to have paid his part and does not want to be involved anymore, even though the debtors are jointly responsible. The erasing technique described in this text is relatively simple. The tablet was already archived and thus completely dry. So the lines to be erased must be moistened with water and then the signs erased by smoothing the damp surface with a finger.

These different examples show that it was not unusual to make modifications to tablets already in storage, by erasing signs and either leaving a space blank or rewriting something different on the surface. Note that, when an error was made on a contract, instead of erasing an already stored tablet, corrections also could be made copying again the document with the addition of an addendum specifying the correction, as did the author of a loan contract. This text concerns a loan of 17 minas of refined silver granted by Aššur-idī to Šumī-abiya and Aššur-damiq, to be paid within twenty-four weeks and dated to the month Kuzallu (xi); the writer adds after the list of witnesses: ‘In his tablet he wrote by error (month) Te’inātum (x)’.<sup>24</sup>

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*a-ha-tí-šu, ù A-al-du<sub>10</sub> a-hi-šu ša 2<sup>šēna</sup> bé-ta-an, e-ru-ba-tù-ni šé-li-ma i-na, ši-ba-at ṭup-pí-im a-wi-lu a-ni-ú-tum, wa-du-ú a-šar a-wi-lu a-ni-ú-tum, da-a-nu wa-du-ú : ma-e : šī-qí-ma, ha-li-iq é<sup>ti</sup> ki-lá-li-ma, qá-at-kà li-iš-ba-sú-nu.*

22 For tablet supplements or second pages, see Michel 2023c, 24–28.

23 KTS 2, 9:15–27, *ṭup-pu-um ša 21 ma-na 10 gín kù-babbar, ša i-šé-er Ša-lim-A-šur I-ku-num, ù Sà-ba-si-a dam-gàr i-šu-ú, kù-babbar i-qá-qá-ad šál-mi-ni ra-ki-is, ṭup-pá-am šé-li-šu-ma a-mu-ur-ma, a-šar kù-babbar a-šu-mi Ì-li-is-tí-ká, lá-qé-e wa-du-ú ma-e šī-qí-ma, dumu Ša-lim-A-šur a-pu-tí-kà-ma, kà-li-im-šu-ma šu-ma a-wa-tám, i-ga-mar li-ig-mu-ur, kù-babbar a-na dam-gàr áš-qú-ul-ma, ṭup-pá-am ú-šé-ší a-ma-lá ta-le-e-ú, a-wa-tám guš-mu-ur.* AKT 1, 25 is a copy of this text with small variants.

24 KTS 1, 44b:20–23, *i-na ṭup-pi-šu, Té-i-na-tim, im-ší-i-ma, ilš-pu-ut.*

## 4 The practice of erasing within an Old Assyrian archive

The few above-examined documents seem to suggest that the practice of erasing signs on a tablet was not uncommon and not limited to the moment of writing, but could occur on tablets already dry, or even archived. To estimate the frequency with which such a practice was used and the methods employed, the study now focuses on the examination of tablets belonging to a single archive.

### 4.1 The archive of Ali-ahum, his son Aššur-taklāku, and his daughter Tariša (Kt 93/k)

During the 1993 season at Kültepe, the Turkish archaeological team under the direction of Tahsin Özgüç excavated two badly destroyed houses located on squares LVII/127 and LVIII/127–128. They completed the clearing of this area at the beginning of the 1994 excavations. In all, they unearthed a thousand tablets belonging to Ali-ahum, son of Iddin-Suen, as well as to his son Aššur-taklāku and his daughter Tariša.<sup>25</sup> The fire which destroyed the houses had the effect of baking the tablets, which turned various colours according to their position in relation to the fire: white, black, reddish brown, beige, etc. (Fig. 4).<sup>26</sup>

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<sup>25</sup> For this archive, see Michel 2008; for the women attested in this archive, see Michel 2015.

<sup>26</sup> I wish to thank Tahsin Özgüç and Fikri Kulakoğlu, the successive directors of the Kültepe excavations, who entrusted me with the publication of this archive.



**Fig. 4:** Some tablets excavated at Kültepe in 1993.

The archive comprises more than 40 per cent letters, 25 per cent contracts and other legal texts, 15 per cent personal accounts, some unidentified documents, and many fragments of envelopes. Most of the tablets are well written and several hands can be identified, especially that of Aššur-taklāku. Both the general shape of the letter and memoranda tablets, as well as the script of the tablets presumably written by him are very characteristic.<sup>27</sup>

At least sixty tablets from this archive show clear signs of erasure, and it is highly likely that a closer examination of each object would reveal many more. Some of these erasures, though very few, are unintentional, because the signs erased – almost certainly inadvertently – are necessary to understand the text

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<sup>27</sup> Michel 2015; Beyer 2019.

properly. This is, for example, the case with the tablet Kt 93/k 317:<sup>28</sup> before it was dried, the scribe or other person who manipulated it partially erased a few signs on two lines, presumably pressing it with their fingers or the palm of their hand (Fig. 5).



rev. *A-šur-i-mi-tí* :  
 16 2½ <túg> *a-na ni-is<sub>5</sub>-ha-tí-kà*  
*ni-dí-[in] 2 túg a-na*  
 18 *A-la-b[i-j]m : iš-tù ší-im*  
 2 túg *ù ku-ta-nim : ga-am-ru-*ni**

Fig. 5: Letter from Ali-ahum; Kt 93/k 317; top of the reverse.

The great majority of the erasures observed are, however, intentional. The writers deleted signs in specific places, sometimes full lines, and used various techniques to accomplish this.

## 4.2 Signs erased within a line

The most frequent erasures concern signs at the end of a line. Contrary to the Old Babylonian practice of justifying lines on the right, eventually leaving blanks in the middle of a line, the writers of the Old Assyrian tablets filled the lines with signs from left to right, tightly packed together, and could leave a blank at the end of the line if there was not enough space to write a word in full.

<sup>28</sup> Kt 93/k 317:14–19: ‘(From those of the consignment of) Aššur-imitti, we ga[ve] 2½ <textiles> for your import tax, 2 textiles for Ali-ab[u]m. Since the price for 2 textiles and a *kutānum*-textile has been spent (...)’.



- obv. 1 *ma-na kù-babbar ší-mi-ša*  
 2 *ša Ab-ša-lim* (°x x°)  
*A-šur-ta-« ta »-ak-lá-/ku*  
 4 *dumu A-lá-hi-im*  
*a-na Ha-ri-ma* (°x x°)  
 6 *Aš-ha-al-kà : a-ší-tí-šu*  
*ú Ištar-sí-im-tí*  
 8 *iš-<qú>-ul : šu-ma*

Fig. 6: Kt 93/k 215; obverse.

On the personal memorandum Kt 93/k 215,<sup>29</sup> the two signs erased at the end of line 2 do not correspond to the word written at the beginning of the next line (Fig. 6). Rather, the writer started another word and erased it. There are also two signs erased at the end of line 5, which could eventually be ‘*áš*’ and ‘*ha*’, the two first signs of the name Ašhalka, written in the next line.<sup>30</sup> In both lines, the signs were erased using a finger to smooth the surface of the fresh clay. In any case, the writer of this tablet must have been particularly distracted, since he or she duplicated a sign in the proper name Aššur-taklâku (line 3) and omitted a sign (line 8) in the conjugated verb *išqul*.

Old Assyrian writers repeatedly ran out of space at the end of a line to complete a word. The last sign is often written at the very end of the line on the right-hand edge, or slightly below the line. However, in some instances, the writer decided to not complete the word, and instead erased the one or two signs already written, so as to start again at the beginning of the next line (Fig. 7).

<sup>29</sup> Kt 93/k 215:1–8: ‘Aššur-taklâku, son of Ali-ahum, has p[ai]d 1 mina of silver to Harima, Ašhalka, his wife, and Ištar-simti for the price of Ab-šalim. If (...)’.

<sup>30</sup> Such a practice is clearer in the following example: Kt 93/k 317, Fig. 7.



- 6 1 *ku-ta-nam a-na ra-q[á]-/tim*  
*ni-dí-in ší-tí (°šú°)*  
 8 *šú-ba-tí-kà 50 túg*

**Fig. 7:** Kt 93/k 317; middle of the obverse.

At the end of line 7 of the tablet Kt 93/k 317,<sup>31</sup> there is one sign erased, for which the last vertical is visible as well as one smaller vertical just before plus the head of an upper horizontal. The erased sign was a ‘šú’ and there appears some space for another sign before the ‘tim’, which belongs to the end of the above line. The writer started to write the word *šubātika* before realising he or she would not have enough space for the four signs; he/she then erased the ‘šú’ and wrote the complete word at the beginning of the next line. The surface of the clay was smoothed with a finger, but the heads of three wedges are still visible.

Experiments made on a freshly written tablet show similar traces after the erasing of two signs at the end of a line by smoothing the surface of the clay several times with the thumb: the deeply impressed head of the wedges are still visible (Fig. 8).

Note that signs also could be erased in the middle of a line, even though this appears less often. In such cases, the writer had forgotten a word or started to write something else before realising the mistake.



**Fig. 8:** Experiment; erasing the last two signs of a line on a freshly made and written clay tablet.

<sup>31</sup> Kt 93/k 317:6–8: ‘We gave 1 *kutānum*-textile for one thin textile. The remainder of your textiles – 50 textiles (...)’.

### 4.3 Erasing full lines with a finger

The same erasing technique of smoothing the clay's surface with a finger could be applied to full written lines. This occurs especially at the end of a tablet, on an edge. The second and last line of the left edge of Kt 93/k 60 (Fig. 9) has been erased,<sup>32</sup> however, the text is still readable and looks incomplete. Because there was not enough space on the tablet to finish the sentence, whoever wrote it gave up on that last sentence and deleted it.



le.e. *i-li-bi<sub>a</sub> Šu-li*  
20 (°[x] gín kù-babbar *a-na A-šūr/ki*<sup>30</sup>)

Fig. 9: Kt 93/k 60; left edge.

The same technique was applied in the next example, Kt 93/k 450, but, here, the two first signs are preserved and only the rest of the line is erased (Fig. 10).<sup>33</sup> However, the scribe did not bother to erase the line all the way to the end, considering it sufficiently clear that the signs on the right are not to be read. The erased signs can still be guessed at and correspond to the logogram ‘dumu’ and the first three signs of the name Buzutaya. Since the writer was unable to find space for the final ‘a’, he/she decided to erase the four signs and start anew on the beginning of the following line.

<sup>32</sup> Kt 93/k 60:19–20: ‘are on the account of Šuli’.

<sup>33</sup> Kt 93/k 450:14–18: ‘Buziya, son of Bazaza gave his testimony. Šuli, son of Buzutaya was my partner’.



- rev.  
 14 *dumu Ba-za-za ší-bu-tù-šú*  
*i-dí-in*  
 16 *Šu-li* (\**dumu Bu-zu-ta*°)  
 u.e. *dumu Bu-zu-ta-a*  
 18 *tap-pá-i*

**Fig. 10:** Kt 93/k 450; bottom of the reverse and upper edge.

In the following experiment (Fig. 11), two lines were erased, smoothing the clay with the index finger, just after they had been written. The erased wedges are still visible and a few signs can still be read.



**Fig. 11:** Experiment; erasing two lines on the middle of a freshly made and written clay tablet.

In some instances, a full record may be erased. The writer of the personal account Kt 93/k 712, listing various transactions of silver, (or someone else) decided to erase one of these transactions completely (Fig. 12).<sup>34</sup>



- obv. 4 *ma-na* 4 gín kù-babbar  
 2 *ša šé-ep A-šûr-du*<sub>10</sub>  
 dumu *Hu-ra-ša-nim*  
 4 1 *ma-na* kù-babbar  
*ša E-na-nim*  
 6 dumu *A-bi-a i-na*  
 lo.e. *A-lim*<sup>ki</sup> : *il<sub>5</sub>-qé*  
 8 (°line erased°)  
 rev. (°line erased°)  
 10 (°line erased°)  
 (°x x : *A-šûr-ma-lik*°)  
 12 (°*û-bi<sub>4</sub>-il<sub>5</sub>*°) *ší-im*  
 5 *ma-na* ki *U-šur-ša-Ištar*  
 14 7 *ma-na* 5 gín  
 u.e. *iš-t[ ] A-šûr-iš-ta-kál*  
 16 [du]mu *Sú-kà-lí-a al-lqé*  
 2½ *ma-na* 15 gín ki  
 le.e. *A-šûr-du*<sub>10</sub> *al-qé*

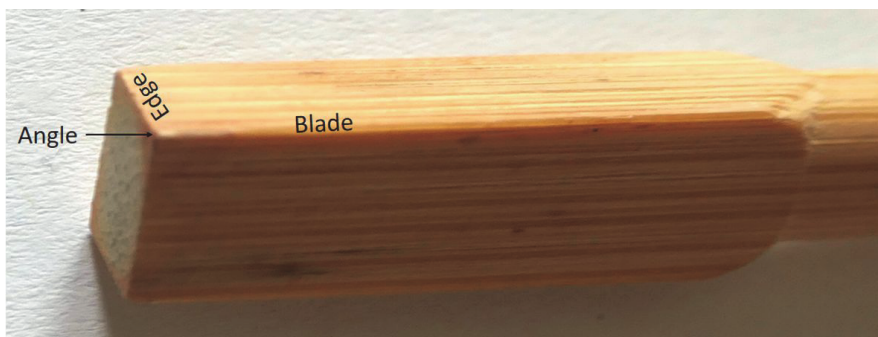
Fig. 12: Kt 93/k 712; personal account on which a complete transaction has been erased.

<sup>34</sup> Kt 93/k 712:1–7, 12–18: ‘4 minas 4 shekels of silver from the consignment of Aššur-ṭab, son of Hurašānum, 1 mina of silver from Ennānum, son of Abiya, he took in the City (of Aššur). (erased transaction). I took the price of 5 mana with Ušur-ša-Ištar, 7 mana 5 shekels with Aššuriš-tikal, son of Sukkalliya, 15 shekels with Aššur-ṭab’.

It seems that the tablet was in the process of drying when four and a half lines were erased, because signs remain visible, and even readable, on lines 11 and 12. It is not clear how the surface was erased, possibly with fingers or, more likely, with a smooth material, perhaps a wet textile.

#### 4.4 Erasing lines with a tool

In some instances, a tool was used to erase signs or a line and has left a specific imprint in the clay. This may correspond to the edge of the section of a stylus (Fig. 13),<sup>35</sup> or any other hard tool.



**Fig. 13:** Chopstick used as a stylus for the experiments described in this paper; writing: impressing the angle, then the blade (vertical tilt) to obtain a wedge; erasing: using the edge to smooth the surface of the clay.

The resulting erasure is more uniform than simple smoothing with a finger, and more or less straight lines have formed at the two ends of the tool. Several signs were erased presumably with the edge of a stylus on three consecutive lines on the reverse of the Kt 93/k 906 tablet (Fig. 14).<sup>36</sup> In line 24, the erasure concerns a number, possibly a fraction. The second half of line 25 has been erased, with only

<sup>35</sup> A tool, traditionally of reed, in the shape of a stick, often with a square section and a right angle at one end, applied on the surface of fresh clay to obtain negative cuneiform signs. See Cammarosano 2014.

<sup>36</sup> Kt 93/k 906:24–28: ‘including 12 shekels of silver of the import tax, the export tax was deducted, and he gave us the remainder of the silver: 5½ minas and 1 shekel’.

the heads of the vertical wedges remaining, and the last three signs in line 26 were made to disappear using the same technique.



- 24 12 (°x°) gín kù-babbar *ni-is-ha-/tim*  
*wa-ši-tum<sub>x</sub>* (°ù x x x x°)  
 26 *iš-hi-ir-ma ši-tí* (°x x x°)  
 kù-babbar 5½ *ma-na* 1 gín  
 28 kù-babbar *i-df-ni-a-tí-ma*

**Fig. 14:** Kt 93/k 906; bottom of the reverse.

Using a stylus or any other hard tool to completely smooth out one or more lines is particularly easy to apply to the bottom, top, or side edge of a tablet (Fig. 15), or even to top or bottom line of the obverse or the reverse, as, due to the curvature, there is no risk of accidentally erasing nearby lines that should be kept.<sup>37</sup>



- le.e. *mì-ma a-nim A-šur-be-el-a-wa-tim e-*  
*zi-ba-lam*  
 (°line erased°)

**Fig. 15:** Kt 93/k 337; left edge.

Erasing the bottom edge line of the tablet Kt 93/k 706 with a stylus formed a clay ridge across the entire width of the tablet (Fig. 16).<sup>38</sup>

<sup>37</sup> Kt 93/k 337:le.e.: ‘all this Aššur-bēl-awātim left me’.

<sup>38</sup> Kt 93/k 706:8–11: ‘Well, you have taken the merchandise of your father’.



8 *a-ma lu-qú-tám*  
*ša a-bi<sub>4</sub>-ku-nu*  
 lo.e. (°line erased°)  
 rev. *tal-qé-a*

Fig. 16: Kt 93/k 706; bottom of the obverse; lower edge and top of the reverse.

The end of a letter addressed to Ali-ahum by his son Aššur-taklāku has been completely erased; in all, thirteen written lines have disappeared. The surface of the clay, already in the drying stage, was smoothed with the help of a tool, presumably the blade of the stylus, used as a scraper (Fig. 17).<sup>39</sup> The status of the deleted text remains unknown; it was probably out-of-date or useless information.



rev. *ša* [x x x x x x x]  
 22 *na-áš-pé-[er-tí x x x]*  
*ù a-šú-mi* [x x x x]  
 24 *I-[d]í-Sú-en<sub>6</sub> tû-[x x x]-ma*  
 (°eight lines erased°)  
 u.e. (°two lines erased°)  
 le.e. (°three lines erased°)

Fig. 17: Kt 93/k 895; reverse; upper and left edges of a fragmentary letter.

<sup>39</sup> Kt 93/k 895:21–24: ‘of [...], [my] letter [...], and concerning [...] Iddin-Suen [...]’.

In the following experiment, a line was erased with the edge of a wood stylus on a clay tablet one hour after being written. Some wedges are still visible and the bottom of the tool traced a line on the clay (Fig. 18).



**Fig. 18:** Experiment; erasing a line with a tool on a clay tablet in the process of drying.

## 4.5 Computing and practising

The Assyrians knew in general how to size their tablets according to the length of the text to be written. Most tablets are completely filled, including the left side, and for letters, a small additional tablet, written on one side only, could be added.<sup>40</sup> Nevertheless, a few examples exist where the bottom of the reverse has been left blank. This unwritten-upon surface occasionally shows traces that may be the result of cuneiform signs being erased several times. This phenomenon is well known in other periods; the surface is referred to as a scratch pad and was, for example, used to compute.<sup>41</sup> This possibly could be the case for the reverse of tablet Kt 93/k 290:<sup>42</sup> the writer may have calculated the interest of the loan on the reverse and then erased the numbers with a tool (Fig. 19).

<sup>40</sup> Michel 2023c, 24–28.

<sup>41</sup> Proust 2017.

<sup>42</sup> Kt 93/k 290:6–9: ‘The interest for 10 months amounted to 1½ minas 4 shekels’.



obv.

6 1½ *ma-na* 4 *gín*

ša 10 *iti-kam*

lo.e. *ši-ib-tum*

rev. *i-li-ik*

(°surface erased°)

Fig. 19: Kt 93/k 290; reverse.

The following example, Kt 93/k 693,<sup>43</sup> looks much like the result of an exercise in writing a loan contract (Fig. 20). The words are cut over two lines, and the sentence is incomplete. The reverse has been erased and the surface was perhaps used for practising the writing of different signs.

<sup>43</sup> Kt 93/k 693:1–4: ‘29% minas 3 shekels of silver to’.



obv. 29½ *ma-*  
 2 *na* 3 *gín*  
*kù-babbar*  
 lo.e. *i-šé*-(°x°)  
 rev. *er*  
 (°section erased°)

Fig. 20: Kt 93/k 693; an exercise?

#### 4.6 Erasing the end of a dried or archived tablet

All the examples examined so far show erasures on tablets in the process of being written or in the process of drying. Old Assyrian documentation also mentions the possibility of erasing a word or sentence from an already archived tablet, and even writing a new text in its place (as mentioned in Section 3). The technique used in that case consisted of using water to remoisten the surface of the clay in the area to be erased. The clay would not regain all its plasticity, but would become soft again and take on the appearance of slip. The signs could then be completely erased, with the consequence that the waterlogged clay would spill over the ruling separating two lines of writing. For example, the last

line of tablet Kt 93/k 51 appears to have been wetted before being completely smoothed, perhaps with a finger, and the bottom ruling was partially covered by slip (Fig. 21).<sup>44</sup>



rev.

2% *ma-na* 5 *gín*

8 *an-na a-šu-mi*

*Iš-me-lim i-ni-kà-sí*

10 *Šu-Ištar ú-ša-hi-ra-am*

(°line erased°)

Fig. 21: Kt 93/k 51; reverse.

This may also be the case for the last two lines on the reverse of Kt 93/k 192, as small flows of clay cover the final ruling (Fig. 22)<sup>45</sup>.

The following example is even clearer. The tablet Kt 93/k 688 seems to have been completely dried and presumably archived for a while, after which its lower edge and reverse were remoistened (Fig. 23).<sup>46</sup> The clay turned into slip and was smoothed with fingers, leaving faint streaks on the surface of the clay, until the cuneiform signs and even rulings disappeared: a new layer of clay, produced from the melted clay originally present in the tablet, partially covers the written lines. However, on the right part of the reverse the signs are still visible, as this part of the tablet was not soaked in enough water to restore any plasticity to the clay. Proof of the addition of water lies in both the change in the clay's colour and the small bump visible on the top left of the reverse, left

<sup>44</sup> Kt 93/k 51:7–10: '2% minas 5 shekels of tin has been deducted from my account in the name of Išme-ilum'.

<sup>45</sup> Kt 93/k 192:13–14: 'Send me (x) silver their price'.

<sup>46</sup> Kt 93/k 688:1–6: '10 shekels of silver are with Amur-Aššur, 1 *pirikannum*-textile is with Tuma-na, since three years (they are) on their account'.

by the clay turned into slip. The five lines erased probably relate to a closed account.

An experiment was carried on a tablet fully dried for ten days (Figs 24a–b). After pouring water on the last line of one of its sides, the wet clay was then easy to smooth with a finger; the result obtained is similar to that of tablet Kt 93/k 688 (Fig. 23), with a lightening of the clay's colour and the appearance of a small bump of clay on the bottom right corner of the tablet.



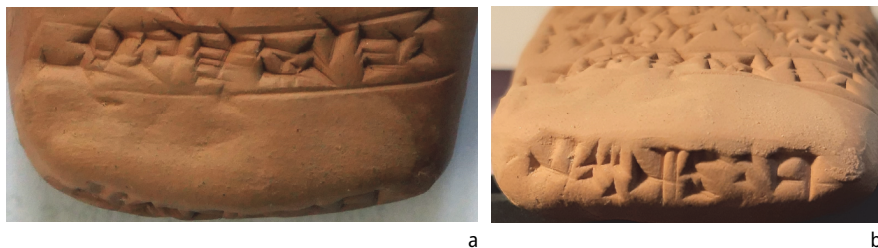
rev.  
 kù-babbar ší-im-šu-nu  
 14 šé-bi<sub>A</sub>-lam  
 (\*two lines erased\*)

**Fig. 22:** Kt 93/k 192; reverse.



- obv. 10 gín kù-babbar  
 2 *iš-tí A-mur-A-šūr*  
 1 tūg *pi-ri-kà-nu*  
 4 *iš-tí Tù-ma-na*  
*iš-tù 3 ša-na-tim*  
 6 *i-li-bi<sub>4</sub>-šu-nu*  
 lo.e. (\*line erased°)  
 rev. (\*four lines erased°)

**Fig. 23:** The lines on the lower edge and the reverse of tablet Kt 93/k 688 have been erased with water.



**Figs 24a–b:** Experiment; remoistening a dry tablet to erase a line.

## 5 Conclusions

This overview of the numerous erasures observed on cuneiform tablets from a single Old Assyrian archive shows a wide variety of cases and techniques used. Erasures were commonly practised on fresh clay, in the course of writing. Signs and lines could be erased by smoothing the surface of the clay with a finger, or with the edge or blade of a stylus. Old Assyrian texts suggest that dried and archived tablets could also be partially erased when moistened with water, and changes in the text were sometimes made. Some tablets illustrate this practice: the remoistened clay has been smoothed and small bumps have appeared on the surface of the tablet. The various experiments conducted on newly written cuneiform clay tablets confirm the viability of different erasing techniques.

That erasure practice was widespread in the Assyrian merchant community contrasts with other milieus.<sup>47</sup> It must be put into perspective against the extensive literacy among the Assyrians, including both men and women, at the beginning of the second millennium BCE. They used a relatively limited syllabary of eighty to one hundred syllabic signs and only thirty to forty common Sumerian logograms. The small number of signs they had to learn compared to other periods facilitated this widespread access to writing, and, vice versa, having a great number of people with access to writing simplified the syllabary and limited the number of signs used.<sup>48</sup>

<sup>47</sup> Taylor 2011, 19, writes: ‘While erasures are far from rare, the general impression is that scribes took sufficient care with inscriptions that relatively little use was made of erasure; this is perhaps connected to the feature that invisible erasure seems to be very difficult’. These observations derive mainly from Aššurbanipal’s library tablets from Nineveh (first millennium BCE).

<sup>48</sup> Michel 2008. School texts were found scattered in different houses of the lower town of Kaneš, as well as in Aššur, mixed in Middle Assyrian archives. They are adapted to the knowledge merchants required in their daily activities.

The Old Assyrian tablets nevertheless show different levels of writing. Some tablets are extremely well shaped and written and were clearly produced by a professional scribe or educated merchant. Other tablets are not as regular in their shape, layout, or writing but are globally correct and display features characteristic of members of the same family, such as the use of certain specific signs, the consistency of execution, and so on, which suggests that learning was carried out at home.<sup>49</sup> A last group of tablets are badly shaped, feature irregular signs, and are full of mistakes in signs, syntax, and grammar; these were produced by people who learned how to read and write on the job. The archive of Ali-ahum and his children, excavated in 1993 in the lower town of Kaneš, includes texts from all three categories. Erasures resulted, on the one hand, from hesitant use of cuneiform writing and carelessness, self-correction while writing, misjudgement of the length of a word to be written at the end of a line and, on the other hand, due to accounting purposes, such as the cancellation of a transaction on an archived tablet.

## Abbreviations

AbB 4 = Fritz R. Kraus, *Briefe aus dem Archiv des Šamaš-Ḫāziri in Paris und Oxford* (Altbabylonische Briefe in Umschrift und Übersetzung, 4), Leiden: Brill, 1968.

AKT 1 = Emin Bilgiç, Hüseyin Sever, Cahit Günbattı and Sabahattin Bayram, *Ankara Kültepe Tabletleri*, vol. 1 (Türk Tarih Kurumu Yayınları, 6/33), Ankara: Türk Tarih Kurumu Basımevi, 1990.

CCT 2 = Sydney Smith, *Cuneiform Texts from Cappadocian Tablets in the British Museum*, vol. 2, London: British Museum, 1924.

CCT 3 = Sydney Smith, *Cuneiform Texts from Cappadocian Tablets in the British Museum*, vol. 3, London: British Museum, 1925.

Kt 93/k = Tablets found during the 1993 Turkish excavations at Kültepe, in the lower town, and preserved in the Anadolu Medeniyetleri Müzesi, Ankara.

KTS 1 = Julius Lewy, *Die altassyrischen Texte vom Kültepe bei Kaisarije: Keilschrifttexte in den Antiken-Museen zu Stambul*, vol. 1, Istanbul: Antiken-Museen, 1926.

KTS 2 = Veyssel Donbaz, *Keilschrifttexte in den Antiken-Museen zu Stambul*, vol. 2 (Freiburger Altorientalische Studien Beihefte, 2), Stuttgart: Frank Steiner, 1989.

TCL 7 = François Thureau-Dangin, *Lettres de Hammurapi à Šamaš-Ḫâšir* (Textes Cunéiformes, Musée du Louvre, 7), Paris: Librairie Orientaliste Paul Geuthner, 1924.

VAT = Vorderasiatische Abteilung, Tontafel, Staatliche Museen zu Berlin – Preußischer Kulturbesitz, Vorderasiatisches Museum.

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<sup>49</sup> Beyer 2021.

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