

# THE SPREAD OF 'HEAVENLY WRITING'

**Marina ZORMAN**

University of Ljubljana

marina\_zorman@yahoo.com

## Abstract

Cuneiform is the name of various writing systems in use throughout the Middle East from the end of the fourth millennium BCE until the late first century CE. The wedge-shaped writing was used to write ten to fifteen languages from various language families: Sumerian, Elamite, Eblaite, Old Assyrian, Old Babylonian and other Akkadian dialects, Proto-Hattic, Hittite, Luwian, Palaic, Hurrian, Urartian, Ugaritic, Old Persian etc. Over the centuries it evolved from a pictographic to a syllabographic writing system and eventually became an alphabetic script, but most languages used a 'mixed orthography' which combined ideographic and phonetic elements, and required a rebus principle of reading.

**Keywords:** cuneiform; writing; history of writing; writing in Mesopotamia

## Povzetek

Izraz *klinopis* se uporablja za poimenovanje različnih načinov pisanja, ki so se uporabljali v Mezopotamiji in na Bližnjem vzhodu od konca četrtega tisočletja pr. n. š. do druge polovice prvega stoletja n. š. Pisava, katere osnovni element po obliki spominja na klin, je služila za zapisovanje do petnajst jezikov iz različnih jezikovnih družin: sumersčine, elamsčine, eblanščine, stare asirščine, stare babilonsčine in drugih akadijskih dialektov, protohatijsčine, hetitsčine, luvijščine, palajščine, huritsčine, urartijščine, ugaritščine, stare perzijsčine itd. V teku stoletij se je iz podobopisa razvila v zlogovno in nazadnje v glasovno pisavo, vendar jo je večina jezikov uporabljala tako, da so se v njej izmenoma pojavljali ideografski in fonetični elementi. Branje take pisave je bilo podobno reševanju rebusov.

**Keywords:** klinopis; pisava; vrste pisav; razvoj pisave; pisava v Mezopotamiji

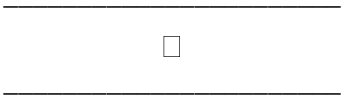
## 1. Introduction

Cuneiform—or 'Heavenly Writing' as this writing system is also called—represents one of the earliest and most influential writing systems of the world. Today, it is generally assumed that it was created by the Sumerians, but since the most archaic tablets written in so-called 'proto-cuneiform' are not yet deciphered, we may eventually need to revise our views about its origin.

According to the Mesopotamian mythology the origin of cuneiform writing is related to divination. The goddess of writing and knowledge Nisaba, a lady 'coloured like the stars of heaven' was given a lapis-lazuli tablet by Enki, the god of wisdom and magic. The holy tablet was marked with the stars of heaven and Nisaba was to consult the cosmic constellations just as scholars from her House of Wisdom, i.e. the scribal school, were to consult the clay tablets written with star-shaped signs. A starry sky indeed does resemble a cuneiform tablet as shown by Fig. 1 and 2. Some scribes in Mesopotamia were skilled in reading prophetic signs in the heaven, therefore the name 'Heavenly Writing' for cuneiform is not without any justification.



**Figure 1:** An Old Persian foundation plaque (<http://tiny.cc/ihvtgx>)

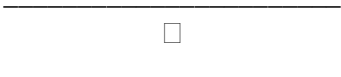


**Figure 2:** The star (MUL) sign

The word 'cuneiform' literally means 'wedge-shaped', since the wedge (Latin *cuneus*) is one of the two basic elements combined into complex signs (Fig. 3); the other element being the so-called 'Winkelhaken' (Fig. 4) which lacks an adequate English translation.



**Figure 3:** A horizontal wedge



**Figure 4:** A 'Winkelhaken'

Cuneiform signs could be carved into stone and metal, or impressed with a reed stylus into soft clay or the waxed surface of a writing board; there is even some evidence that they were written on parchment and leather (Radner & Robson, 2011, p. 2). Some signs were relatively simple, while others required dozens of impressions as shown by Fig. 5, 6 and 7:

---

ϕ┘ ∪ IP

---

**Figure 5:** ugnim 'army, troops'

---

ζ;=

---

**Figure 6:** dida 'sweet wort, an ingredient for beer making'

---

ψH∧δ)

---

**Figure 7:** ġizzal 'wisdom; understanding; ear; hearing'

Cuneiform was in use throughout the Middle East from the end of the fourth millennium BCE until the late first century CE. It served to write the various languages and dialects listed in Table 1. The table also indicates the language family for each language, the geographical region in which it was spoken, and the approximate period of its attestation:

**Table 1:** List of languages using cuneiform

Language	Language family	Geographical area	Period of attestation
Sumerian	language isolate	Mesopotamia	4th millennium BCE-?
Elamite	language isolate	western, southwestern Iran	23rd-4th centuries BCE
Eblaite	Semitic	northern Syria	25th- 23rd centuries BCE
Old Akkadian	Semitic	Syria, Mesopotamia, Iran	24th-20th centuries BCE

Old, Middle, Neo-Assyrian	Semitic	Anatolia, northern Mesopotamia, <i>lingua franca</i>	20th-7th centuries BCE
Old, Middle, Neo-, Late- Babylonian	Semitic	Anatolia, Syria, central and southern Mesopotamia, Egypt, <i>lingua franca</i>	20th c. BCE-1st c. AD
Ugaritic	Semitic	northern Syria	14th–12th centuries BCE
Hattic	unclassified	Anatolia	2nd millennium BCE
Hurrian	Hurro- Urtian	Anatolia, northern Syria, Mesopotamia, Egypt	late 3rd-late 2nd millennium BCE
Urtian	Hurro- Urtian	northern Mesopotamia	9th-6th centuries BCE
Hittite	Indo- European	Anatolia	2nd millennium BCE
Luwian	Indo- European	Anatolia	2nd millennium BCE
Palaic	Indo- European	Anatolia	2nd millennium BCE
Old Persian	Indo- European	north-, southwestern Iran	6th-4th centuries BCE

---

Cuneiform was used as either the only, or one of a number of writing systems for the languages listed above. In addition, there exist some cuneiform inscriptions containing names and technical terms in languages that did not regularly use cuneiform, such as Gutian, Amorite, and Kassite. The cuneiform systems used for individual languages vary considerably and do not always continue the original Mesopotamian cuneiform tradition as will be discussed in more detail below.

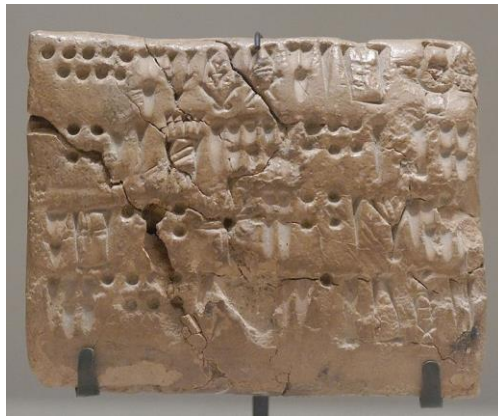
## 2. Early stages

In Mesopotamia, the earliest stage in the development of writing is represented by clay accounting tokens (Fig. 8).

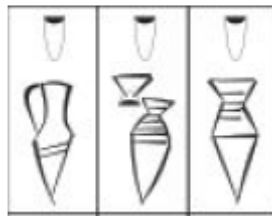


**Figure 8:** Clay tokens (<http://tiny.cc/ihvtgx>)

Clay tokens were followed by an archaic script called 'proto-cuneiform'. This script had no direct relation to language. It consisted of about 1500 pictograms (Damerow, 1999, p. 11) which served to record objects and quantities as shown in Fig. 9. The deep impressions which can be seen in this figure represent numerical signs. At this stage in the development of cuneiform, the non-numerical signs were not yet impressed, instead they were incised into the soft clay, therefore they are less clearly visible than the numerical signs. They could also be curvilinear in shape as shown by Fig. 10.

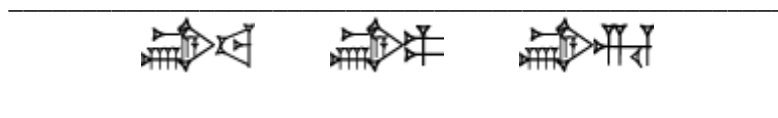


**Figure 9:** A proto-cuneiform tablet (<http://tiny.cc/ihvtgx>)



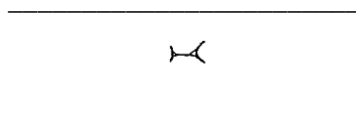
**Figure 10:** Some proto-cuneiform vessel signs (adapted from <http://tiny.cc/eovtqx>)

In the course of time, impressing replaced incising and both the straight and the curved lines turned into wedges. The script started to flow horizontally from left to right instead of being written inside boxes as in the earliest written records, and the orientation of signs rotated 90 degrees counter clockwise. As a consequence, cuneiform lost its pictographic character and the signs became abstract in appearance as shown by Fig. 11:



**Figure 11:** Some types of vessels (<sup>dug</sup>ba, <sup>dug</sup>banmin, <sup>dug</sup>dal)

Sometime around 3000 BCE Sumerian scribes adapted cuneiform to also write grammatical elements, names, and notions that could not be represented by pictures, i.e. they started to use the available logographic signs to represent the sounds—both syllables and phonemes—associated with them on the basis of acrophony. The signs which at this stage might already have had more than one logographic value, became polyvalent in yet another sense of the word: they could be used as either ideograms or as phonetic signs, and when used as phonetic signs, they could represent several different syllables. The syllabaries of individual languages usually included hundreds of signs. The fact that most signs had several values is illustrated below in Fig. 12 by a sign taken from the Hittite syllabary which has 22 or—including the different meanings of its Sumerian readings—26 values. Making sense out of a text written in cuneiform could therefore hardly be considered a trivial matter.



Hittite *pát, pád, pít, píđ, pé, pì*, (*mút, múđ*), Akkadian also *bad, bat, bať, be, bi<sub>4</sub>, mid, mit, miť*, Sumerian BAD 'when, as', 'master, lord', 'to depart', BE 'master, lord', SUMUN 'old', SUN 'old', TIL 'complete', 'to close, to run out', ÛŠ 'to die', 'death, plague, annihilation'

**Figure 12:** Polyvalency of cuneiform signs.

As a consequence of the polyvalency of cuneiform signs, most cuneiform languages used a kind of 'mixed orthography'. This kind of orthography requires a rebus principle of reading which turned the decipherment of cuneiform in the middle of the nineteenth century into an adventure story (Friedrich, 1957, pp. 29-86). This orthography combines the ideographic and phonetic values of signs, therefore the reader is constantly expected to make selections among various values of a sign to adapt its reading to the context. Transliterated texts which use this orthography look awkward due to the fact that the value of a sign is indicated by the selection of a character style. The following Hittite sentence is for instance composed of a phonetically written Hittite and Akkadian word (Hittite *a-ki* 'he/she dies', 'Akkadian' *I-NA* 'in'), two numerals (one representing the number 16 and one serving as a symbol of the Moon-god (XXX), a logogram (UD 'day'), a Sumerian suffix (KAM), a determinative or semantic classifier preceding the names of the deity (<sup>d</sup>), and a phonetic complement specifying the case (-aš):

*I-NA UD.16.KAM <sup>d</sup>XXX-aš a-ki*

'on the 16th day the moon dies'

In this transliteration, lower case letters represent Hittite, italic capitals represent Akkadian, and plain capitals represent Sumerian elements.<sup>1</sup> Writing above the normal line indicates that a logogram is used as a determinative. The Hittites probably read the entire sentence in Hittite, even if parts of it were written in Akkadian and parts in Sumerian.

In Mesopotamia, Sumerian was in contact with Akkadian from at least the end of the 4th millennium BCE. The earliest cuneiform texts in Semitic found in the vicinity of the ancient Nippur in southern Mesopotamia go back to the mid-3rd millennium BCE. From there, cuneiform spread to Semitic and Hurrian language areas in the north-west of Mesopotamia and soon reached Ebla and the Khabur region in northern Syria. In the east, cuneiform was adopted by the non-Semitic Elamites and reached as far as the Zagros mountains in the modern-day Iran (Walker, 1990, pp. 50-58; Cooper, 2010, p. 328). Early in the 2nd millennium BCE Old Assyrian traders brought cuneiform to Anatolia, but the writing system which was attested a few centuries later in the Hittite state archives at Hattuša (central Anatolia) is not that of the Old Assyrian colonies. The question of exactly when and how cuneiform was adopted by the Hittites needs further investigation, but there is a good evidence that various neighbouring cultures had a strong hold on the scribal practice in Hattuša, and that changes in

<sup>1</sup> In Hittite, a Sumerian ideogram can combine with an Akkadian and a Hittite phonetic sign even within the confines of a single word, for instance DINGIR-LIM-ni 'for the god'.

paleography were motivated by changes in ideology (Weeden, 2011, p. 603; Waal, 2012; Gordin, 2014).

In the process of adapting cuneiform to write languages for which it was not originally designed, the number of signs gradually reduced.<sup>2</sup> Scribes were forced to make selections from extant signs and change their form and phonetic value. The sign shapes usually underwent simplifications as shown by Fig. 13. However, there were also periods of deliberate archaizing when scribes tended to return to earlier sign forms even if they were more complicated to write and read (Walker, 1990, p. 30), and there were puzzling changes suggesting that politics, administration, and orthography were already linked with each other in the Stone Age, as recently pointed out by Veldhuis (2012).



**Figure 13:** Gradual simplification of the sign TAG<sub>4</sub>/TAK<sub>4</sub> in the Hittite syllabary<sup>3</sup>

Old Persian and Ugaritic cuneiform scripts did not continue the Mesopotamian tradition, but were cuneiform in appearance. The Old Persian syllabary had no more than 36 phonetic signs, 8 logograms and 23 numerals which were—apart from a single sign—unrelated to any other cuneiform system (Schmitt, 1993). The cuneiform texts from Ugarit were written in a Semitic-style consonantal alphabet (Dietrich & Loretz, 1999).

The spread of cuneiform writing went hand in hand with the spread of cuneiform culture and religion. In scribal schools Sumerian remained the language of instruction long after it dropped out of use as a spoken language. The standard cuneiform copy books used for scribal education in Mesopotamia included old Sumerian and later on Akkadian compositions which served as models for royal inscriptions, legal and administrative documents, official correspondence, omen compendia, myths, rituals, literary compositions, scholarly texts and other genres known to us from ancient Middle Eastern archives. However, towards the middle of the 1st millennium BCE Akkadian cultural dominance over the Middle East started to decline. The use of cuneiform became more and more restricted, but it survived as long as Babylonian temples remained in use in Babylonia (Geller, 2009). In the State Archives in Assyria, there is a letter of king Sargon II to one of his magnates named Sîn-iddina of Ur who

<sup>2</sup> Inventories of cuneiform signs usually include a few hundred signs. Old Assyrian used only about 130 signs.

<sup>3</sup> Rüster & Neu 1989: 206, No 227.



asked the king to let him write in Aramaic. Sargon's response to this question reads as follows:

'Why can you not write a letter to me in Akkadian style? Be sure that the document you write is like this one [i.e. in cuneiform]. It is the custom. Let it remain so!' (George, 2007, p. 59)

This letter is dated to the late 8th century BCE. About a century later, king Ashurbanipal who made history by the amazing wealth of his library prided himself on being able to read complicated cuneiform texts, 'whose Sumerian is obscure and whose Akkadian is hard to figure out' (Cooper, 2010, pp. 327f.), but other kings in the ancient Middle East were less prone to tradition and let the consonantal Aramaic script eventually replace the old-fashioned cuneiform. 'The last wedge'<sup>4</sup> was presumably written in 75 AD.

## References

- Cooper, J. (2010). 'I have forgotten my burden of former days!' Forgetting the Sumerians in Ancient Iraq. *Journal of the American Oriental Society* 130, 327-335.
- Damerow, P. (1999). The origins of writing as a problem of historical epistemology. Invited lecture at the symposium *The Multiple Origins Of Writing: Image, Symbol, And Script*, University of Pennsylvania, Center for Ancient Studies, March 26-27, 1999. Max-Planck-Institut für Wissenschaftsgeschichte, Preprint 114. Retrieved from [http://cdli.ucla.edu/files/publications/cdlj2006\\_001.pdf](http://cdli.ucla.edu/files/publications/cdlj2006_001.pdf)
- Dietrich, M., & Loretz, O. (1999). The Ugaritic script. In W. G. E. Watson & N. Wyatt (Eds.) *Handbook of Ugaritic Studies* (pp. 81-90). Leiden: Brill.
- Friedrich, J. (1957). *Extinct Languages*. New York: Philosophical Library.
- Geller, M. J. (2009). The last wedge. *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 87/1, 43-95.
- Gordin, Sh. (2014). The sociohistorical setting of Hittite schools of writing as reflected in scribal habits. In Sh. Gordin (Ed.) *Visualizing Knowledge and Creating Meaning in Ancient Writing Systems* (pp. 57-80). Gladbeck: PeWe-Verlag.
- George, A. (2007). Babylonian and Assyrian. In J. N. Postgate (Ed.) *Languages of Iraq, Ancient and Modern* (pp. 31-71). London: British School of Archaeology in Iraq.
- Radner, K., & Robson, E. (Eds.) (2011). *The Oxford handbook of cuneiform culture*. Oxford; New York: Oxford University Press.
- Rüster, Ch., & Neu, E. (1989). *Hethitisches Zeichenlexikon. Inventar und Interpretation der Keilschriftzeichen aus den Bogazköy-Texten*. Wiesbaden: Harrassowitz.
- Schmitt, R. (1993). Cuneiform script. *Encyclopaedia Iranica*, Vol. VI, Fasc. 5, pp. 456-462. Retrieved from <http://www.iranicaonline.org/articles/cuneiform-script>
- Veldhuis, N. (2012). Cuneiform. Changes and developments. In S. D. Houston (Ed.) *The Shape of Script. How and Why Writing Systems Change* (pp. 3-23). Santa-Fe: School of Advanced Research Press.

---

<sup>4</sup> This was the title of the inaugural lecture and a paper of M. J. Geller discussing the survival of cuneiform up until the 3rd century AD (Geller 2009).

- Waal, W. (2012). Writing in Anatolia: The origins of the Anatolian hieroglyphs and the introductions of the cuneiform script. *Altorientalische Forschungen*, 39/ 2, 287-315.
- Walker, C. B. F. (1990). Cuneiform. *Reading the Past. Ancient Writing from Cuneiform to the Alphabet* (pp. 17-73). Berkeley: University of California, British Museum.
- Weeden, M. (2011). Adapting to new contexts. Cuneiform in Anatolia. In K. Radner & E. Robson (Eds.), pp. 597-618.