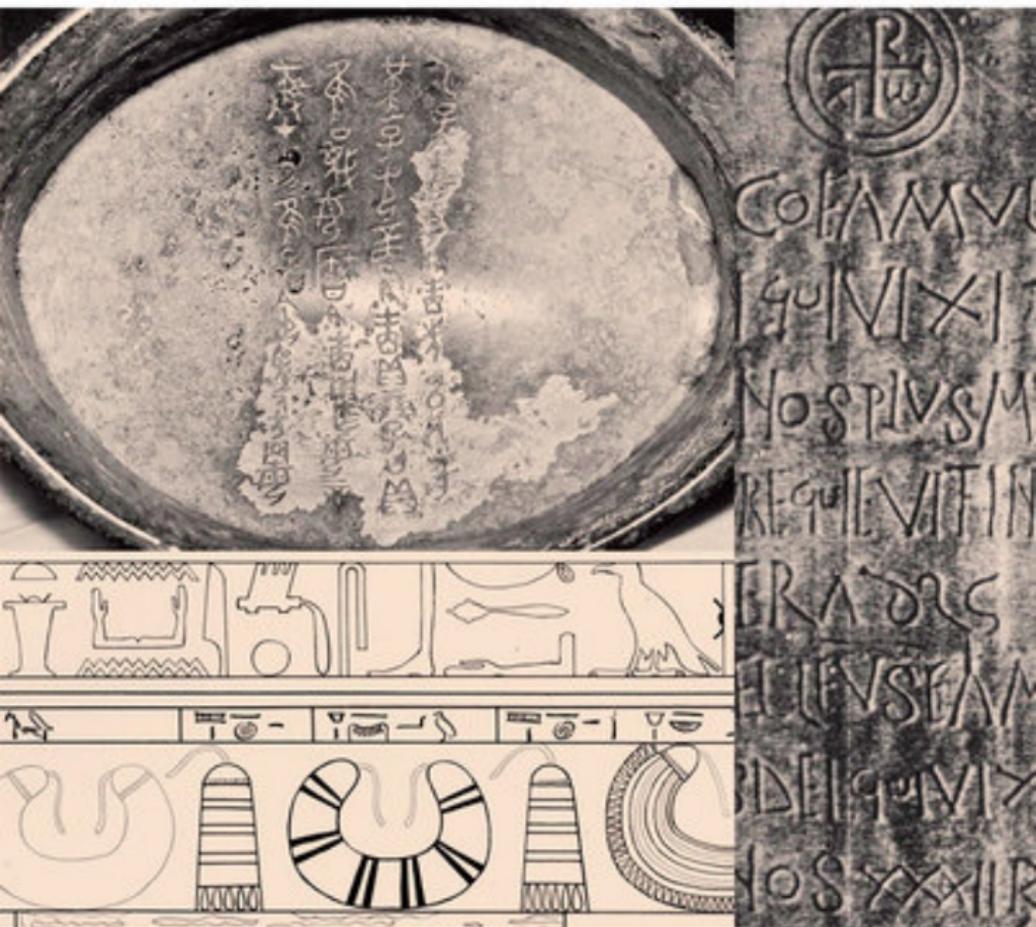


The Shape of Script

How and Why Writing Systems Change



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1

Cuneiform

Changes and Developments

Niek Veldhuis

The cuneiform writing system was invented in the south of present Iraq around 3200 BCE and was used continuously for a period of more than three millennia. Because of its long and well-documented history, cuneiform provides numerous interesting case studies in how and why writing systems change. In this chapter I discuss three such changes, each with its own motivation and historical background. Regular developments of the system include adaptations to different languages or genres, as well as random changes in the form and use of cuneiform signs over the centuries. These kinds of developments are usually well documented and well known to specialists; a few of them are illustrated in the first section of this chapter. The administrative reforms of the king Šu-Su'en (ca. 2035 BCE) indirectly caused a very different type of change through the relocation of individuals who brought with them alternative writing conventions. A very broad change, a revolution in writing, took place around 2000 BCE. In this period, writing lost its almost exclusive link to officialdom, resulting in a broad array of changes in the form, function, and social location of writing.

The changes in cuneiform writing discussed in this chapter involve not only the shape of the symbols, or their logographic and syllabographic values, but also the people who employed this writing system and their needs.

Deterministic theories predicting that a writing system will evolve toward greater efficiency or toward a more phonemic representation of the linguistic message are a bad fit for explaining the kinds of changes that the cuneiform record attests to. Writing partakes of the complex structure of a society; it defines the social place of those who use it as scholars, scribes, readers, or uninitiated bystanders.

REGULAR DEVELOPMENTS

Cuneiform writing was introduced in the south of Babylonia at the end of the Uruk period (around 3200 BCE). The period is characterized by strong urbanization and increased societal complexity. The city of Uruk grew to an unprecedented size of some 100 hectares, dominated by monumental temple buildings and surrounded by a system of smaller settlements. The temples played an important role in the exchange of goods, necessitated by the division of labor that accompanied urbanization. It is in this context that record keeping developed into writing.

The nature of the archaic writing system has been much clarified in the past two decades, in particular through the efforts of Hans Nissen and Robert Englund (see, most importantly, Englund 1998). It is, in essence, an administrative system and does not directly represent a spoken language of any kind. Although some signs depict recognizable animals, body parts, or objects, they are thoroughly conventionalized and do not qualify as “pictograms,” strictly speaking. The archaic signs are capable of recording commodities, professional titles, and a variety of metrological systems. The texts do not record administrative events in a narrative fashion but use the layout of the tablet (columns, obverse and reverse) to indicate the relationships among items, totals, and persons involved (see Green 1981). In this respect, archaic cuneiform (at least in the more complex accounts) is more like a modern spreadsheet than a modern writing system. Because the writing system does not encode sentences, identifying which language is represented can be difficult. The individual signs that signify “sheep,” “beer,” or “administrator” could in theory be read in any language. Most Assyriologists agree that the underlying language was probably Sumerian, the language of Southern Babylonia in the third millennium BCE. It is significant, however, that Robert Englund, widely recognized as the world expert on the archaic corpus, does not share this conviction and holds that Sumerian was probably introduced to Southern Babylonia after the end of the fourth millennium (Englund 1998:73–81). Although this controversy may not be settled anytime soon, it is important to note that the identification of the language of the late Uruk texts does not influence in any

way our understanding of the archaic texts or the workings of the early writing system.

Archaic writing was intimately related to the societal and administrative complexity of the late Uruk period. The inventories of signs (enumerated in so-called lexical lists) reflect the kinds of commodities that were recorded and the titles of officials who were known at the time and who were (or might be) involved in transactions that required recording (Veldhuis 2006). Perhaps the most extraordinary aspect of archaic cuneiform is its survival after the collapse of late Uruk society. The system was well documented in the lexical lists and apparently flexible enough to survive drastic societal changes.

We know little about the history of cuneiform in the period between 3200 and 2700 BCE. By this time the system was capable of recording sentences, including verbs, and morphology through syllable signs. On the more formal level, all curved lines had been replaced by straight strokes and all signs had become abstract.

Two structural changes that took place during the course of the third millennium gradually allowed the writing system to represent sentences and connected text. First, the introduction of syllabic signs made it possible to provide lexemes with the morphological elements they need to produce grammatical sentences in Sumerian. It is possible that syllabography of some sort was part of the system from the outset (this is a point still debated). However, its widespread use for representing morphology is certainly a third-millennium innovation. Through most of that period, bound morphemes in Sumerian were written sparingly, even when the system had acquired the capability of writing them all. It is only in the early second millennium that full representation of verbal and nominal morphology becomes the norm. This change may be nicely illustrated by one of the few Sumerian compositions that is known in exemplars dating to different phases in this development. The earliest copies of the Instructions of Šuruppak come from the middle of the third millennium and only rarely represent morphological elements. Old Babylonian copies of the same composition (around 1800 BCE) render the same sayings in a much fuller orthography:

gan ₂ kaskal na-ĝa ₂ -ĝa ₂	(Adab, about 2500 BCE)
gan ₂ kaskal-la nam-bi ₂ -ib-ĝa ₂ -ĝa ₂	(about 1800 BCE)
“Do not cultivate a field on the road.” ¹	

The late orthography explicitly indicates the locative /a/ (written -la) on the word for “road” (*kaskal*) and cross-references the object of the verb

immediately before the verbal root (this is the element /b/ preceding $\hat{g}a_2$ - $\hat{g}a_2$). The morphemes that tie the individual words into a sentence were probably there in the mid-third-millennium version of the saying; the writing system had the capability of expressing them, but it was not deemed necessary to do so. By the Old Babylonian period, however, Sumerian had become a scribal language, one that was nobody's mother tongue, and thus the explicit morphology was needed for comprehension.

Second, the introduction of an obligatory sign order around the middle of the third millennium created a straightforward iconic relationship between the visual text and its aural representation. Early third-millennium texts are written in columns, with each column divided into cases. Each case usually contains a single word, but the placement of the signs within the case is free. Around the middle of the third millennium, the order of signs within a case or line reflects the correct linguistic order of the lexemes and morphemes they represent.

During the third millennium the cuneiform writing system had thus developed into a device that was capable of recording the Sumerian language through a mix of word signs (logograms) and syllable signs (syllabograms). Although the inventory of signs changed over time (mainly through splits and mergers), the number of distinct signs always remained at a modest level (about 600 to 1,000), and almost every sign had various logographic and syllabographic values (see also Krebernik 1998).

Before the middle of the third millennium, scribes in Northern Babylonia started to write Akkadian, a Semitic language, in cuneiform. Initially, the writing system hardly changed—the same logographic signs were simply read in another language. As a result it is occasionally hard to judge whether a text is in Akkadian or Sumerian, even though the two languages are very different in grammatical structure, vocabulary, morphology, and phonemics (Rubio 2006, with earlier literature). Over time, however, Akkadian writing introduced many new syllabic readings and other changes in the use of the cuneiform symbols. The sign SAĜ, for instance, originally a depiction of a head (Sumerian *saĝ*), was employed in Middle Babylonian and later Akkadian with the syllabic value *riš*, as in *šam-riš*, “violently.” The value *riš* is derived from the Akkadian word for “head,” *rēšu*, which may be written with the logograph SAĜ.

The sign inventory for Sumerian and Akkadian was more or less the same at any period of time, although the way these signs were used could be very different. The syllabic value *riš* (SAĜ), for instance, was never used in Sumerian of any period. Akkadian orthography was much more flexible than Sumerian. Almost any given word could be written logographically, in

syllables, or in a combination of both, as the following example demonstrates. The term *šarru* (the nominative form of “king”) may be written:

LUGAL	logographic
<i>šar-ru</i>	syllabographic
LUGAL ^{ru}	combined

These three writings are equivalent and may be found as variants in duplicate manuscripts of the same composition. In the third writing, the syllable *-ru* indicates that the logograph LUGAL represents the nominative form of the word *šarru* (rather than genitive *šarri* or accusative *šarra*). Although these three were probably the most common ways to write *šarru*, there are, in fact, numerous other logographs and syllabographs that were used to write the Akkadian word. In contrast, Sumerian *lugal* (king) was virtually always written with the sign LUGAL.

The flexibility of Akkadian writing and the wide range of choices that it presented led to the development of various chronologically, geographically, and generically defined sets of conventions. Thus, the Old Assyrian letters from Kaniš (a colony of Assyrian traders in present-day Anatolia) in about 1900 BCE used a restricted set of logographs (representing very common words, such as E₂ = *bētum* “house”) and were otherwise entirely written syllabically, with little room for choice between alternate signs. Applying the same basic system, Old Babylonian texts from about the same period used a wider range of logograms and a different set of syllable signs, with much more choice between homographs.

Over the millennia many other languages were written in cuneiform: Hittite, Elamite, Hurrian, and Urartian. In all cases the adoption of this writing system resulted in a more or less rigorous adaptation of it—often resulting in an orthography that used a mix of Sumerian and Akkadian words as logograms, as well as syllabic writing.

Changes in the cuneiform writing system were often bound to a specific genre or class of texts. Perhaps the most extreme example is the body of divination texts. These texts list ominous appearances and their meaning in a highly technical language. Because of their repetitiveness and high level of predictability, they gradually developed their own set of logograms—often new and esoteric inventions that may be understood only by virtue of the strict rules of the genre. Rather than a technical jargon, as in modern specialized literature, these texts display a technical orthography. Although particularly true for divination, specialized orthographies were in fact a widespread phenomenon in cuneiform.

Finally, changes in the form of cuneiform signs may be attributed to writing surfaces. The overwhelming majority of texts were written on clay. Other surfaces on which cuneiform was inscribed were stone, wax boards, and metal. If papyrus, leather, or wood surfaces were used, they did not survive. Although we know that wax boards existed—some have indeed been found—there is little opportunity to compare wax board paleography with clay paleography, and there is perhaps little reason to suspect an important difference. Writing on stone tends to be archaic and monumental because stone was precious and prestigious. Occasionally, stone monuments preserve sign forms and subtle distinctions between signs that properly belong to a much earlier period (see Veldhuis 2008a).

Unlike alphabetic writing, the mixed logographic/syllabographic system allowed for different uses that were more or less scholarly, advanced, or specialized. The Old Assyrian evidence demonstrates that cuneiform could do with a little more than one hundred signs, but in fact such a reduced system is the exception in the history of cuneiform. More intricate uses of the system presumably carried more prestige, and one may observe conscious attempts to add complexity to the system by introducing new sign values or using little-known or obsolete signs. The cuneiform writing system allowed for different orthographic registers, and this flexibility may have been an important reason for its survival after the introduction of alphabetic systems such as Aramaic.

The developments and changes described above belong to the regular life of the cuneiform writing system, adapting to different linguistic, social, and scholarly challenges. Cuneiform was an open-ended system that allowed the introduction of new signs or sign values and that could adapt to new languages without major changes. Although such changes may make the life of modern-day students exceedingly miserable because one has to learn new orthographic rules for every new genre, period, and geographic area, they are not very remarkable by themselves. More remarkable and puzzling are two changes in the system—one small and one big—that are described in the following section.

ORTHOGRAPHIC CHANGES DURING THE UR III DYNASTY

In the third year of Šu-Su'en, the fourth king of the powerful Ur III dynasty, the royal administration went through a number of reforms, including changes in the calendar and administrative terminology and a few detailed ones in orthography.

The Ur III empire (about 2100–2000 BCE) was founded by Urnamma and established as a true empire by his son, Šulgi. Through most of the

third millennium, Babylonia consisted of independent city-states that shared cultural and religious characteristics but competed for power and influence. Šulgi made these city-states into provinces of his kingdom and established his rule far to the east and to the north of the traditional Babylonian heartland. Šu-Su'en inherited the empire from his immediate predecessor, Amar-Su'en.

The Ur III period has left tens of thousands of clay tablets, primarily documenting administrative transactions such as the flow of goods through the empire. The largest numbers of documents come from three sites in the heartland: Puzriš-Dagan, Umma, and Ğirsu. The latter two were provincial capitals that had enough independence to use their own calendars; their archives represent the provincial administration. Puzriš-Dagan was a royal administrative center; its records reflect the interests and activities of the state as a whole.

In addition to administrative records, the Ur III period has left us royal inscriptions, often inscribed on bricks used for prestigious building projects. Moreover, a large body of Sumerian literature that is believed to go back in essence (though not in every detail) to Ur III times has been preserved in copies from the Old Babylonian period (ca. 1800 BCE). This literary corpus includes several dozen hymns in praise of the five kings of the Ur III dynasty.

Notwithstanding the enormous mass of evidence, our grasp of social and political developments during the Ur III period is often very limited. The administrative documents simply do not answer the kinds of questions that we would like to ask. Particularly frustrating, in this respect, is the transition in government from Amar-Su'en to Šu-Su'en. Several pieces of data suggest that Šu-Su'en worked hard to erase the memory of his predecessor. The month name “festival of Amar-Su'en,” which had been part of the Umma calendar for several years, was replaced by its old name (“two shrines”) in Šu-Su'en's third year. At the same time, a festival for Šu-Su'en was introduced in the Puzriš-Dagan calendar, whereas other local calendars did not include either the new month name or festival at any time (Cohen 1993). Amar-Su'en was skipped in the list of recipients of royal offerings, and a temple named after him in Ğirsu returned to its old name. No hymns to Amar-Su'en have been preserved, and he is hardly mentioned in other literature (see Sallaberger 1999a:167).

There are reasons to suspect that, in addition to the calendar reforms, there were important administrative changes in Šu-Su'en year 3, in particular changes related to taxes received by the state (see Sallaberger 1999a:170). How extensive these changes were and what realities were hidden

TABLE 1.1

Two paleographic innovations

	Before Šu-Su'en 3	After Šu-Su'en 3
<i>adda</i> = carcass	 LU ₂ xBAD ¹	 UDUxBAD
<i>kur</i> = to enter	 LIL (KWU no. 147) ²	 ŠE.ŠU (KWU no. 636)

1. LU₂xBAD is a conventional sign name that means “the sign BAD inscribed inside the sign LU₂.” Similarly, UDUxBAD, LIL, and ŠE.ŠU are sign names or sign descriptions conventional in Assyriology.

2. KWU refers to Nikolaus Schneider, *Die Keilschriftzeichen der Wirtschaftsurkunden von Ur III* (1935)—still the standard paleography for the period.

behind simple changes in administrative terminology remain hard to establish (no overall attempt has been made so far). What is interesting for our present purposes is that at least two, perhaps three, orthographic changes took place at the same time, as shown in table 1.1 (de Maaijer and Jagersma 1997–1998:280–281; Veldhuis 2008b).

The evidence for *kur* (to enter) and *adda* (carcass) suggests that the introduction of these new writings was sudden at some places but more gradual at others and might have been related to changes in personnel at critical places in the administration.

The change in the writing for *adda* (carcass) can be linked to a single individual named Lukalla, who regularly received carcasses at Puzriš-Dagan. He entered office around the beginning of the year Šu-Su'en 4 and consistently uses the writing UDUxBAD (the sign for SHEEP inscribed with the sign for DEAD), whereas his predecessor, Nūr-Suen, had used LU₂xBAD (the sign for MAN inscribed with the sign for DEAD). The new orthography was adopted at Umma a few years later.

The sudden change in the writing of *kur* (to enter) during Šu-Su'en 3 takes place primarily at Puzriš-Dagan.² The evidence suggests that the new writing ŠE.ŠU (the sign for GRAIN followed by the sign for HAND) was not so new at all but was the orthography in use at the royal court at Ur. The introduction of this sign use at Puzriš-Dagan most probably represents the replacement of local clerks by trusted servants recruited from the royal court.

The details of a few signs and their distribution are discussed here to illustrate a potential area of research in which politics, administration, and orthography are closely linked. In the period in question, writing was

primarily (though not exclusively) a matter of official administration. At the same time, writing is by necessity bound to individuals and traditions of teaching. Thus, we can tie the change in the writing of *adda* (carcass) to a named individual, Lukalla. The influence of high officials on the writing system and its orthography hardly took the form of edicts prescribing the future form of the sign for the word for “to enter.” The power to replace clerks or bureaucrats at one place with loyal servants from another, however, is a time-proven tool of government and one that in this situation may well have influenced orthography. It is no coincidence, then, that the writing for *kur* (enter), introduced at Puzriš-Dagan around Šu-Su'en 3, had a history at the royal court of Ur.

The changes in orthography described in the present section take place on a microlevel and are detectable because administrative texts are usually carefully dated and the period in question has a high density of documentation. Although the underlying causes for such changes may be political (as suggested above), the changes themselves are most likely carried out by individuals.

UR III TO OLD BABYLONIAN: A REVOLUTION IN WRITING

A much more drastic change took place between the Ur III period (ca. 2100–2000 BCE) and the Old Babylonian period (ca. 1900–1600 BCE). The collapse of the Ur III empire resulted in a period of political fragmentation in which local dynasties at Uruk, Isin, Larsa, and other places vied for power. It was not until 1760 BCE that Hammurabi of Babylon succeeded in establishing his rule over Southern Mesopotamia, after defeating Elam, Larsa, Ešnunna, and Mari. In comparison with Ur III practices, the Old Babylonian innovations in the writing system include changes in the style of writing (semi-monumental versus cursive), the language of writing (Sumerian versus Akkadian), the uses of writing (official versus private), the teaching of writing (informal versus formal), and the format of some key text types (linear enumeration versus table). These changes are much harder to grasp because much of the documentation is undated (that is, dating takes place primarily through paleography) and many of the changes that will be described took place in a period for which we have little evidence.

Collectively, these changes may be described as a revolution in writing, one that is related to developments in the linguistic landscape (the demise of Sumerian), politics (the fragmentation of Babylonia), and ideology (Sumerian as a symbol of a golden age). Before discussing this revolution and its historical context, we will discuss each of the various aspects of change that took place in this period.

Writing Style

All through the third millennium, cuneiform writing used highly standardized sign forms that are clearly distinguished from each other—even if the difference between one sign and another may reside in some easily overlooked detail. Old Babylonian writing, on the other hand, tends to be crowded, with little care for details. Although the Ur III period yielded tens of thousands (if not hundreds of thousands) of mostly administrative texts, the quantity factor did not lead to a significant trend towards cursive writing, even though the formulaic character of many text types would certainly have allowed competent clerks to read cursive hands confidently and with ease. Each Ur III document is very carefully executed, with sign forms so standardized that no attempts have been made so far to distinguish between individual hands. This Ur III writing style, which may be labeled semi-monumental, is no doubt related to its being a tool of officialdom, an aspect of government.

Although there is a difference between the paleography of Ur III administrative tablets (fig. 1.1) and that of contemporaneous royal inscriptions (primarily on bricks), this difference is minor compared with the variation between the two forms in Old Babylonian and later periods, when royal inscriptions are usually written in archaizing or very archaizing sign forms. Old Babylonian scribes had the opportunity to choose between more or less cursive forms of writing or, to put it otherwise, between different registers of writing (fig. 1.2). Such options were hardly available to Ur III scribes.

Language

Sumerian and Akkadian had existed side by side for several centuries, and both languages, linguistically unrelated, were written in cuneiform on clay tablets. However, throughout most of the third millennium, Sumerian was the dominant written language. To some extent this dominance may be an artifact of the incident of discovery. Akkadian was more at home in the northern part of Babylonia, and Sumerian dominated the southern regions. Large third-millennium text finds come predominantly from southern regions. However, even in Akkadian-speaking areas Sumerian was often used as the language of prestige and government—the opposite was only very rarely the case.

Writing Akkadian, therefore, was not new to the Old Babylonian period, but the extent to which Akkadian was used was new. Sumerian had died out as a spoken language (Sallaberger 2004, with earlier literature), which may well be one, but hardly the only, explanation.

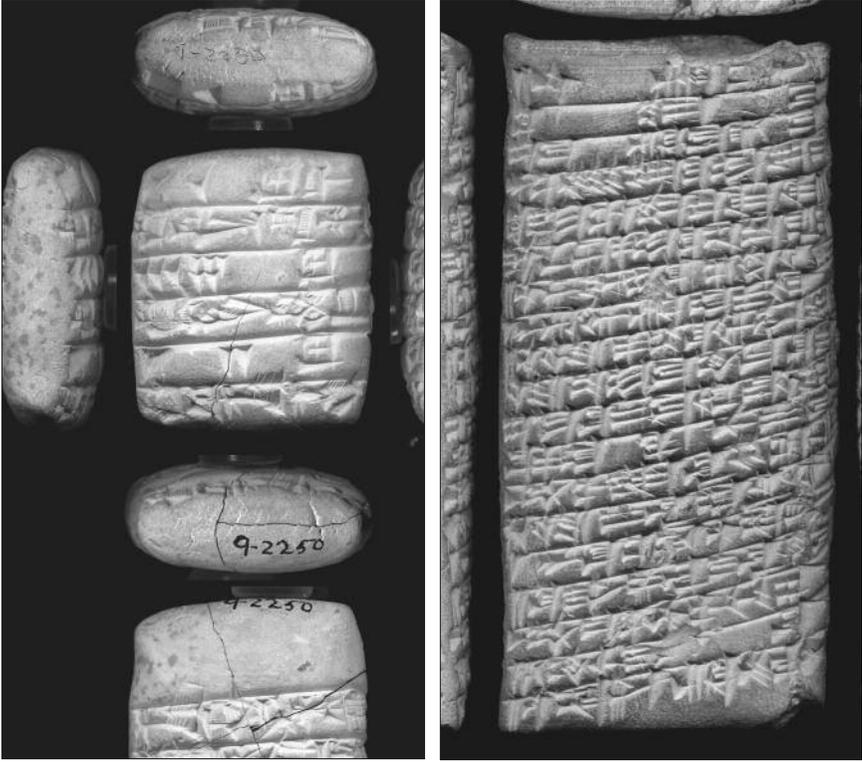


FIGURE 1.1

Ur III tablet from Drehem (Hearst Museum of Anthropology [HMA] 9-2250). The text deals with the payment of a total of 167 sheep to various individuals. Published by Foxvog (1996:74, Text 1). Photograph published online at <http://cdli.ucla.edu/P102630>.

FIGURE 1.2

Old Babylonian letter (HMA 9-1848); see <http://cdli.ucla.edu/P247940>. A translation appears later in the chapter.

Several of the new text types in the Old Babylonian period (see below), such as divination compendia, mathematical problem texts, medical handbooks, and royal edicts, were consistently written in Akkadian. Incantations, legal documents, royal inscriptions, law collections, and literary texts existed in both Sumerian and Akkadian. Ritual laments were almost without exception written in Sumerian. Perhaps most tellingly, by this period letters were always written in Akkadian, using a style that is much less formalized or bureaucratic and more persuasive or rhetorical in nature than their Sumerian equivalents from the Ur III period.

The Uses of Writing

The very extensive Ur III text corpus consists primarily of administrative documents, with smaller groups of legal documents, court proceedings, and letters and very few literary or sub-literary texts. Ur III letters (in Sumerian) are short and formal; they usually contain brief instructions from a superior and hardly ever exceed ten lines. A typical Ur III letter reads as follows: “Tell Ur-Šara that he should give one work basket to the messenger of Lukalla, the overseer. The issue should not come up again.”³ The letter follows standard patterns and phraseology, including the final statement of authority. The tablet bears seals all over, emphasizing this authority.

Old Babylonian letters are in Akkadian and are rhetorical in character. Rather than simple instructions, they contain arguments and attempts to persuade. Even letters by the king to a subordinate do not have the quality of simple orders that one expects in Ur III letters but provide arguments and warnings. Administrators wrote letters, but private persons also did so. These messages were very much instruments of business and government—one very rarely reads anything private in the modern sense of the word—but a much more personal sense of involvement transpires through these texts. The number of Old Babylonian letters is very considerable; a recent estimate counted more than 3,000 (Sallaberger 1999b).⁴

The letter illustrated in figure 1.2 (HMA 9-1848)⁵ reads as follows:

Say to Šin-[...], thus Šin-magir. May the Sun god keep you alive for 3600 years! When I received your letter I left Maškašapir and entered Sabum. Rim-Šin-atpalam came to inspect the troops and he inspected all of them. Thus he said: the city of Tubqum is your encampment....As for the town that I entered, the enemy destroyed its harvest so that the men are hungry. Send me the silver that you have on hand, send it to me, before the grain at the quay falls short, so that I can buy barley and we will not be hungry. By the Sun, you know my case! Speak to the gentleman so that I may come and may meet the gentleman, and he may investigate the matter. Now I have sent to you PN and Silli-[...]. Do not withhold the silver from them. Seal it with your seal and give it to them so that they can bring it here.

The letter refers to incidents in the war between Rim-Šin of Larsa and Hammurabi of Babylon that would eventually lead to Hammurabi’s dominance over the entire area. Rim-Šin’s troops were being moved to Sabum,

which might well have been a border garrison.⁶ Although many details remain frustratingly unclear, the letter contains a clear plea to send money so that the harvest destroyed by enemy action could be replaced. The letter contains details about the sender's life and circumstances, supporting his plea, and attempts to establish and reinforce the relationship between sender and recipient. The sense of urgency is heightened by the repetition: "Send me the silver, send it to me!" Such elements are common in Old Babylonian letters (Sallaberger 1999b) but almost entirely absent in third-millennium writing.

Letters are only one example of the extraordinary explosion of writing in the Old Babylonian period. Documents such as loans and house and field sales (that is, legal documents of a private character), rare or absent in the Ur III period, became common. In addition, divination experts started to use texts for a variety of purposes (omen compendia, omen reports, liver models with omens, and divination prayers). There is good evidence that divination was practiced extensively in the Ur III period and before, but the use of writing (always in Akkadian) for this purpose was new. Mathematical problem texts are another such area (see Robson 2007, 2008). Although the corpus is not very large, it is significant because, despite a vocabulary that is heavy with Sumerian loanwords and despite the strong association between Sumerian and high culture, these texts are always written in Akkadian.

Sumerian literature derives almost in its entirety from Old Babylonian scribal schools, and the first sizable corpus of literary texts in Akkadian dates to this period as well. Various other text genres might be mentioned here, medical texts and royal edicts, for instance.

Official use of writing by the administration did not stop in the Old Babylonian period. The period has yielded only one palace archive (Mari), but this one example makes perfectly clear that writing was extensively used for running a state. Uses of writing for private purposes were not entirely new; we encounter such texts (sales, loans) in earlier periods as well. The balance, however, had fundamentally changed. Whereas Ur III writing was primarily official with secondary use by private persons, in the Old Babylonian period there seemed to be no restriction at all.

Scribal Education

The little that is known about Ur III writing education points to an informal setting in which writing was learned "on the job," in an apprentice relationship with an experienced scribe—basically the same way other crafts were taught. For the Old Babylonian period we have abundant

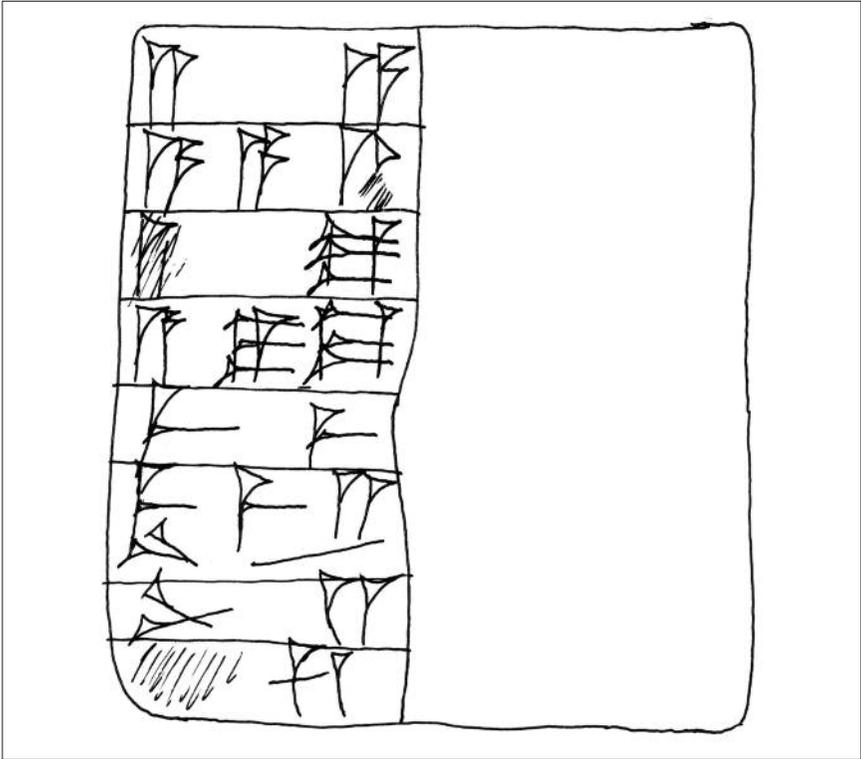


FIGURE 1.3

Elementary Old Babylonian exercise. Teacher's model with the beginning of a traditional, standardized list of signs and sign combinations, to be copied to the right by a pupil. N 5147. University of Pennsylvania Museum. Nippur.

evidence for formal scribal training in which a student went through a well-defined curriculum to learn, first, how to write a number of frequent signs properly, then how to combine them into names and words, and then how to use these names and words in sentences (Veldhuis 1997).

After initial exercises in handling clay and styli, students would start copying the elementary sign list that is now called “Syllable Alphabet B,” which familiarizes the pupil with a number of common signs by listing them in mostly meaningless combinations. The tablet in figure 1.3 has the first few lines of this exercise and may be transliterated as follows:

AA
AAA

A KU
 A KU KU
 ME ME
 ME ME A
 PAP PAP
 PAP A
 [MAŠ] MAŠ

This extract introduces five individual signs that are frequently used and consist of a small number of strokes. Every three to five lines, a new sign is added, and earlier ones appear in combination with the newly introduced ones. The full list has several hundred lines, but the only copies we possess are school extracts. In many cases these extracts exhibit oversized signs so that every detail of the design can be properly practiced.

Slightly more advanced exercises introduced Sumerian vocabulary and orthography and the more complex aspects of cuneiform writing. An important set of vocabulary exercises has a thematic organization, including lists of trees and wooden objects, reeds and reed objects, clay vessels, hides and leather objects, and so on. These lists of words are usually in Sumerian only, but in a few cases Akkadian translations are added. We must assume that the pronunciation of the Sumerian words and the Akkadian translations were part of the teaching process and that the students memorized them.

Full Sumerian sentences were introduced by having students copy model contracts and proverbs. The proverbs often use little-known sign values and thus also function to reinforce the pupil's knowledge of the Sumerian writing system. All this training was preparation for copying literary texts of a broad variety, including hymns to gods and rulers, narrative texts that feature gods and mostly legendary kings, and whimsical texts such as the debate between Hoe and Plow.⁷

The textbooks used in Old Babylonian education were loosely standardized. Every teacher seems to have had his own version, but the main elements of the curriculum were more or less the same all over Babylonia. A detailed analysis of the curriculum demonstrates that it was a well thought-out sequence of materials, with plenty of repetition of the same material from slightly different angles. A student who went through this curriculum had a thorough knowledge of the cuneiform writing system, Sumerian, and the Sumerian heritage as preserved in the literary corpus.

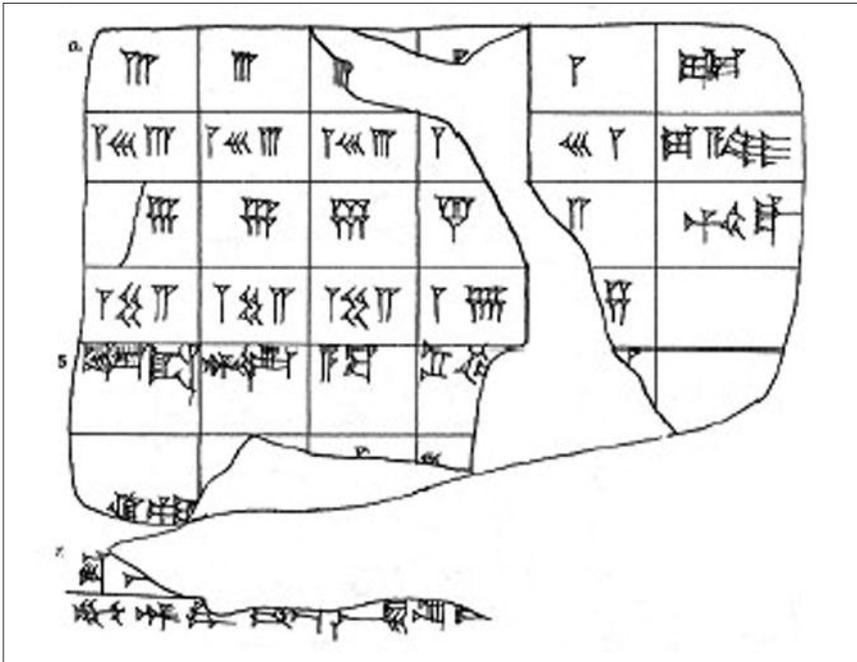


FIGURE 1.4
AUCT 1, 56—the only Ur III administrative table known so far. Published by Sigrist (1984:Text 56).

TABLE 1.2
Ur III administrative text in table form

3	3	3	2	1	Fat-tailed sheep
93	93	93	62	31	<i>Aslum</i> sheep
6	6	6	4	2	Billy goats
102	102	102	68	34	
Puzur-	Šul-	Aba-	Sisa	[...]	
From the shepherds [...]					

Although this curriculum did integrate elements that came from the Ur III period, including many royal hymns, in its main outlines it is a creation of the Old Babylonian scribes and a manifestation of the Old Babylonian writing revolution.

Tables

A truly remarkable innovation of the Old Babylonian period is the two-dimensional table (Robson 2003, 2004). Numerous Ur III texts have a data structure for which the table format would have been extremely effective. There is, however, only a single example of an Ur III administrative text in tabular format (fig. 1.4; table 1.2).⁸ The table is largely filled with numbers. The rightmost column has animal names. In the fourth row the various kinds of animals are added up. The fifth row contains abbreviated names of the people who received these animals from shepherds. The reverse of the tablet (mostly uninscribed) contains a month (broken) and year name. The preserved section shows that it was written during the reign of Ibbi-Su'en, the successor of Šu-Su'en and the last king of the Ur III dynasty.

To comprehend how remarkable this tablet is, one may compare it with the yearly summary of animals delivered by Abbašaga and received by Utamišaram in the year Amar-Su'en 6 (Erm 14995 = <http://cdli.ucla.edu/P212247>; Cuneiform Digital Library Initiative), written in the linear style characteristic of the period:

1	gukkal ḡiš-du ₃ babbar	1 uncastrated fat-tailed white ram
2	3 u ₈ gukkal babbar	3 white fat-tailed ewes
3	ud 11-kam	day 11
4	1 gukkal ḡiš-du ₃ babbar niga	1 uncastrated fat-tailed white fattened ram
5	ud 22-kam	day 22
6	1 udu giggi niga	1 black fattened ram
7	ud 25-kam	day 25
8	6 udu	6 sheep
9	iti maš-da ₃ gu ₇	month of the eating of the gazelle
10	1 sila ₄	1 lamb
11	ud 7 kam	day 7
12	1 sila ₄	1 lamb
13	ud 15-kam	day 15
14	2 udu	2 sheep
15	iti šeš-da gu ₇	month of the eating of the piglet
16	1 gukkal ḡiš-du ₃	1 uncastrated fat-tailed ram
17	ud 10-kam	day 10
18	1 udu a-lum	1 <i>aslum</i> sheep
19	ud 12-kam	day 12
20	1 gukkal ḡiš-du ₃	1 uncastrated fat-tailed ram
21	2 u ₈ gukkal	2 fat-tailed ewes
22	ud 14-kam	day 14
23	2 gukkal ḡiš-du ₃	2 uncastrated fat-tailed rams
24	2 gukkal ḡiš-du ₃ babbar	2 uncastrated fat-tailed white rams
25	ud 22-kam	day 22

26	3 u ₈ gukkal	3 fat-tailed ewes
27	ud 24-kam	day 24
28	1 gukkal babbar niga	1 fattened fat-tailed white ram
29	1 udu a-lum niga	1 fattened <i>ashum</i> sheep
30	ud 25-kam	day 25
31	1 gukkal niga	1 fattened fat-tailed ram
32	ud 27-kam	day 27
33	1 gukkal niga	1 fat-tailed fattened ram

Here the first column ends, but the text continues in much the same way for six more columns (covering twelve months). This list is followed by several columns of totals: subtotals for each individual category, grand totals, and a colophon with the date and the names of the officials responsible for these transactions. The large document, a copy of data from daily tablets (some of which have been identified, Veldhuis 2005:118), does not distinguish between different types of data at all. Numbers, commodities, and dates are all entered in a linear fashion. The result is much harder to grasp and to deal with than when presented in a table.

When the tabular format was introduced in the Old Babylonian period, its usefulness was quickly recognized and applied to a variety of documents. The earliest group of administrative tables comes from Nippur and is dated between 1871 and 1795 BCE. The texts record deliveries for regular offerings to various gods and divine objects residing in the temple of Ninurta. Over time, tables became more complex and were used not only for administrative purposes but also for astronomical data, explanations of signs and words (lexical texts), multiplication tables, and so forth.

The use of tables for organizing data does not seem to be a significant achievement. In fact, archaic scribes working shortly after the invention of writing had already done similar things. What is remarkable here is that Ur III scribes chose not to introduce tables, instead continuing to prepare accounts in a linear fashion. Robson (2003) has argued that the absence of tables in the Ur III period may be an indicator of bureaucratic stress or the absence of incentives for innovation.

The Old Babylonian Writing Revolution

The distinctions between writing in the Ur III period and in the Old Babylonian period may well be labeled revolutionary—even though the transformation clearly did not happen overnight. Kraus (1973:18) discussed and described in some detail the problem of the dramatic change in the uses of writing in the Old Babylonian period, but his cautious mode of arguing

prevented him from coming to any conclusions. More than thirty years after his contribution, we may see things in a somewhat broader perspective.

The political, social, and cultural changes immediately after the fall of the Ur III empire—a period for which relatively few sources are available—may be summarized under three headings: political fragmentation, ideological nostalgia, and the demise of Sumerian. These three developments contributed to the creation of a new class of scribal professionals, independent, proud of their craft, willing to experiment, and having a strong interest in the history of their discipline.

In the final years of the Ur III empire, the governor of Isin, Išbi-Erra, established himself as an independent monarch (Charpin 2004). The dynasty that was thus established in Isin was important and at times very powerful, but it never succeeded in controlling the entire area. From the outset, other cities, such as Ešnunna in the north, declared independence, and Larsa became a strong competitor for power in the south. Only Hammurabi of Babylon succeeded in the last decades of his reign in controlling all of Babylonia—but that was several centuries later.

The rulers of the Isin dynasty saw themselves as successors to the great Ur III kings and expressed this continuity in various ways. We have dozens of hymns to Isin kings, several of which read as calques of Ur III royal hymns (Klein 1990; Ludwig 1990). Administrative texts of the time look in many ways like Ur III texts, although it has been remarked that several aspects of sentence structure typical of Sumerian seem to have been lost to these later scribes (Sallaberger 2004).

The Isin kings, by identifying themselves as successors to the glory of Ur III, legitimized their attempts to control the entire southern region of Mesopotamia. In the famous Sumerian King List, a list of dynasties that goes back all the way to the mythological past when “kingship descended from heaven,” the history of the area is imagined as a rotating kingship.⁹ At all times there was a single dynasty, and one city in Sumer functioned as the dynastic seat. Although many of the kings listed are lost in the fog of history or were created in the imagination of the scribes, in several instances we are able to prove that kings listed as belonging to successive dynasties were actually contemporaries competing for power. By imagining themselves as the last in a long succession of dynasties, the Isin kings produced a kind of history that de-emphasized differences between the ancient Babylonian city-states and emphasized their unity. One powerful symbol of this unity was Sumerian, the language of this glorious past, shared by all the city-states. As a symbol of this imagined, unified past, Sumerian was also the

symbol of the Isin kings' ambition to dominate all of Babylonia—an ambition they never fulfilled, but one that could easily be adopted by dynasties in other cities.

Walther Sallaberger (2004) has argued that spoken Sumerian did not slowly fade but rather collapsed. The language had already retreated from the northern parts of Babylonia, and with the fall of the Ur III empire it received its final blow. The importance of Sumerian as the language that symbolized the glorious heritage of Sumer, the past to which the future must return, explains the extraordinary amount of energy and time that was spent in preserving this language from oblivion—with the result that Sumerian continued to be used in one way or another for some two millennia.

The development of a new, thoroughly organized curriculum for teaching cuneiform and Sumerian was an answer to the ideological, political, and linguistic developments of the post-Ur III era and created a class of scribes who were truly special—educated in the ancient language, competent in the cultural heritage, aware of their connection to the past. This self-conscious class of scribes, clerks, and scholars was educated to serve the king, but in the fragmented political landscape of the time, the relative political weakness of their patrons left them with more freedom to innovate in their craft, to experiment with new textual genres and formats, and to develop less formal, more cursive hands.

CONCLUSIONS

The cuneiform record offers an almost continuous record of a writing tradition that extended over more than three millennia. For much of this history, writing was a tool of royal and administrative control, and changes in the writing system may thus be understood as changes in how or why this tool was employed.

That writing systems change over time is a common everyday experience. The handwriting of our grandparents differs from that of our own and our contemporaries. It may be more important, however, to note that the role of handwriting has changed fundamentally and that much of its niche has been taken by the telephone, email, and text messaging. Changes in what writing is used for, the place that it occupies in society, and the functions that it fulfills are tied to both social and technological changes. Writing, therefore, is to be studied in a larger context in which its uses become understandable. The cuneiform evidence shows that frequent, daily use of writing for mundane purposes does not necessarily lead to simplification or the introduction of cursive forms. In the Ur III period the connection between officialdom and writing was strong enough to

keep in place a semi-monumental type of writing, even for routine transactions. The evidence also demonstrates that complexity, under the right circumstances, may be an asset rather than a handicap. Ancient scholars asserted their claims of pre-eminence by listing rare, obscure, or antiquated words and sign values or by downright inventing new ways to increase the complexity of the system. Such pieces of evidence, rather than exceptions to general rules, demonstrate that writing is a truly social phenomenon, to be understood as a tool used by social agents in their daily negotiations of status, power, and control.

Notes

1. This and other examples appear in Civil and Biggs 1966:3. The latest edition of *The Instructions of Šuruppak* is Alster 2005, chapter 1, in which this saying is line 15.

2. See Sallaberger 1999a:170, with previous literature given in note 170. For the history of the orthography of this word and the paleography of the signs involved, see Krecher 1987.

3. HMA 9-2700, published as <http://cdli.ucla.edu/P136076> (Cuneiform Digital Library Initiative); edited by Sollberger (1966:No. 271).

4. This number excludes the several thousand letters from Old Babylonian Mari that belong to a royal archive and therefore do not fall into the category of “Alltagsbriefe” according to Sallaberger’s criteria.

5. The letter was studied by Marchant (1990:90). The present translation is based upon Veldhuis 2008c, text no. 7.

6. The exact location of Sabum remains unknown, but it was evidently close to Kisurra in central Babylonia and may well have been right on the border between Larsa and Babylon.

7. For an overview of Sumerian literature, see Michalowski 1995. The great majority of Sumerian literary texts (including proverbs) may be found in translation (with preliminary editing) at the Electronic Text Corpus of Sumerian Literature (<http://etcsl.orinst.ox.ac.uk/>).

8. A photograph of the tablet is available at <http://cdli.ucla.edu/P102902>.

9. The Sumerian King List was not an invention of the Isin kings; the earliest copy known today dates to the Ur III period (Steinkeller 2003). The list was adopted by later dynasties to suit their own legitimating needs.