Ancient Mesopotamian Lexicography

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LISTS OF WORDS are a characteristic feature of ancient Mesopotamian culture. In fact, the whole of its "science" consists in the enumeration and classification of all natural and cultural entities. These are then compiled in lists. Some of the lists focus on the elements of the writing system or represent an inventory of the lexicon of the languages (mainly Sumerian and Akkadian) used in the area. These are the lists that are considered "lexical."

Many hundreds of clay tablets of word lists of a lexical nature written in cuneiform script have been recovered in excavations of ancient cities. They have been unearthed not only in Mesopotamia proper but also in all peripheral areas where cuneiform writing was used at one time or another: Elam, Anatolia, Syria, Palestine, and Egypt.

HISTORY OF LEXICAL TEXTS

Lexical lists appear among the earliest cuneiform tablets, at the beginning of the third millennium BCE, and they continue to be written as long as cuneiform writing was in use, until Hellenistic and Roman times. The history of Mesopotamian lexical texts can be divided into four periods. The Archaic period extends from the invention of cuneiform writing until the end of the third millennium and is subdivided into the following phases: Uruk; Fara (Fara, Abu Salabikh, Nippur); Sargonic (including the texts from Ebla); and Ur III. The Old Babylonian period runs from the end of the Ur III Empire to the end of the first Babylonian dynasty and is subdivided into the following phases: Isin-Larsa; Early Old Babylonian (Kings Hammurabi and Samsu-iluna of Babylon); and Late Old Babylonian (after Babylon's loss of the southern provinces). The Middle Babylonian period lasts until the twelfth century. Finally, the Canonical period extends from the twelfth century to the disappearance of cuneiform. (See "The History of Ancient Mesopotamia: An Overview" in Part 5, Vol. II.)

Development and Elaboration

The lexical texts and the educational system of scribes associated with them are the backbone of Mesopotamian culture. Despite local, political, and cultural differences, and their changes through time, the body of lexical compilations tends to be extremely uniform. The very same compilations that are first attested in the earliest Uruk tablets were copied, with very minor changes, for more than one millennium. They are found not only in southern Mesopotamia, their place of origin (besides Uruk, the bulk of recovered material comes from Fara and Abu Salabikh), but also in a vast area that stretches from Elam in the east to Syria in the northwest. The body of lexical texts excavated at Ebla (mod-

ern Tell Mardikh) is particularly significant because it offers data on the earliest known Semitic language and because it includes the earliest known instances of bilingual lists and phonological definitions of logographic cuneiform signs. Strangely enough, the Ur III Empire, which represents a period of intense scribal activity, has left us practically nothing of a lexical nature. Word lists must certainly have been used in the training of the hundreds of scribes known by name from this time. Archaeologists have not been able to excavate any place of scribal training of Ur III times. Lexical fragments found in Nippur (modern Nuffar) seem to indicate that the oldest traditional lists were still in use.

When lexical tablets again appeared, with most of the material dating from the eighteenth century, the word lists differed from the ones used until then. In contrast with the textual stability of the oldest lists, schools of this time, while keeping the same general system, tended to freely adapt the new lists to local needs. Some recensions were more successful than others either because of the prestige of the school in which they were created or because of their intrinsic quality. When the south—where Nippur and Ur were the centers of scribal culture—was lost, shortly after the end of Hammurabi's reign, the scribal schools emigrated north to the Babylon area. There the lists received their final Old Babylonian form.

After the destruction of Babylon, the history of lexical lists in southern Mesopotamia is obscure for several centuries. Scribes seem to have emigrated north and northwest, and the Babylonian lists traveled with them to peripheral areas such as Boğazköy, Alalakh (modern Tell Atchana), Ugarit (modern Ras Shamra), and Emar (modern Meskene). It is likely that there was a local, ancient, lexical tradition in the northwest and in the Asshur area, possibly related to the type of texts found at Ebla, but nothing certain can be said at present about it. The texts recovered from these areas are of Babylonian origin, as shown by the names of cities mentioned in them and by their zoological and botanical terminology. The lexical tradition continued in Kassite Babylonia, under conditions unknown to us.

Around the twelfth century, the text of the lexical lists becomes standardized, in the so-called canonical versions. Until then, the lists show the influence of oral tradition and a good deal of local variability; frequently we find two or three different but parallel recensions of the same list in Ugarit and Emar. In the "canonical" period, the lists are meticulously copied from tablet to tablet, with variations among models and damaged passages carefully noted. The pedigree of a tablet is often given in a colophon. These standardized texts are copied and recopied everywhere, virtually unchanged, until the demise of the cuneiform script in Roman times. Among the latest recovered school exercises with copies of lexical lists, a few exist with the entries transcribed into the Greek alphabet.

Modern Scholarship on Cuneiform Lexicography

When in the nineteenth century modern scholars deciphered the cuneiform writing system used in the tablets and inscriptions that were being discovered in great numbers at the time, they found many lexical lists among them and used them to better understand how the ancient languages of the region worked. These scholars were faced by two tasks: the textual reconstruction of the native lists that were recorded on clay tablets and the compilation of dictionaries to be used by modern students of these languages. For several decades, the list reconstruction advanced by leaps and bounds, but no full series was restored except for the simplest syllabaries. From the 1930s on, Benno Landsberger, a European scholar who also worked in Turkey and in the United States, provided a comprehensive overview of the lexical lists and began their systematic publication.

Today all the major lexical texts are published in the monumental *Materials for the Sumerian Lexicon*, started by Landsberger. Additionally, there are now two modern dictionaries of the Akkadian language. W. Von Soden's *Akkadisches Handwörterbuch* (1965–1981) is a three-volume work that was completed in 1981. What is commonly cited as the *Chicago Assyrian Dictionary*, or simply as the CAD, is nearing completion. Von Soden's work is a compact dictionary with minimal information: a suggested meaning for a word, a basic citation of where it occurs in cuneiform texts, and brief phonological and etymological proposals. The CAD additionally excerpts from the documents all significant passages where a word occurs.

For the Sumerian language, except for incomplete glossaries such as Friedrich Delitzsch's *Sumerisches Glossar* (1914), there is not yet a modern dictionary available. The first volume of the *Sumerian Dictionary of the University Museum of the University of Pennsylvania* was published in 1984 and the second in 1992. Because of its problematic nature as a language with no known linguistic relatives and with a mainly logographic writing system, Sumerian makes the task of compiling a dictionary a daunting enterprise.

LEXICAL LISTS AND SCRIBAL TRAINING

Although some carefully edited "library" copies of the lists have been preserved—especially from the "canonical" period—the great majority of sources used to reconstruct lists consists of school exercises. Scribal education essentially involved repeated copying and memorization of traditional word lists. It is possible to reconstruct a curriculum of such lists since a "catch line" at the end of one list often gives the name of the list that follows it.

Scribal training must have produced a staggering number of clay tablets that were filled with student exercises. Such by-product tablets were "melted" and reused, a practice that accounts for the scarce remains of school activities in certain places and at certain times. Only when a war or a natural calamity brought such activities to a sudden halt have significant numbers of such school exercises been preserved.

We may assume that there was a certain level of competence among the teachers of southern Mesopotamia. The situation is not the same in peripheral areas. Even tablets that belonged to the large "library" collections at Ebla, Ugarit, and Emar in Syria or at Boğazköy in Anatolia, show severe errors of comprehension and a poor understanding of the Sumerian and Akkadian languages. In some cases, unfavorable conditions can justify poor results, as when a jailed Emar scribe wrote a tablet, full of mistakes. But the real reason for problems is that most word lists were originally drawn up in southern Mesopotamia and were full of references that were alien to the scribes beyond its borders. Such scribes not only spoke different languages, but they must have found very limited use for items they inherited with these lists, for example, names of canals in the Babylon region or terms for fish found only in south Mesopotamian marshes.

The modern textual reconstruction of ancient lexical lists is based to a large extent on school exercises. The Assyriologist must therefore account for such frequent errors of the apprentice scribes as malformed, omitted, or confused signs and incorrect spellings of words. On the positive side, these errors can have, linguistically speaking, a diagnostic value; a misspelling, for instance, may be a clue to the pronunciation of a word.

DESCRIPTION OF WORD LISTS

We refer to the lexical lists by following the practice of ancient scribes who labeled them by their opening lines (incipits). Major lists, especially when they span several tablets, are called lexical "series." In the examples given below, we observe the following conventions:

Sumerian words are given in lowercase roman transliteration, syllable by syllable separated by hyphens (as in ga-ša-an) or continously (gašan). (Editor's Note: Small capital letters are used for Sumerian in all other essays in the four volumes.)

Akkadian words are given in italic transliteration separated by hyphens (as in *e-ze-bu*) or continuously (*ezēbu*).

Transliteration in capital letters (as in DU) designates a given cuneiform sign, regardless of its actual pronunciation. In the case of two or more syllables, periods are used to separate them (as in U.AD). The accents and subscripts on individual signs are used by Assyriologists to distinguish signs that share both the same consonant and vowels but which may have been pronounced differently. Diacritics, such as a macron or circumflex, indicate length when placed over vowels in Akkadian words.

Types of Lists

External Classification The lexical lists are written on clay tablets, prisms, or cylinders of various sizes, shapes, and formats. Only the most important are mentioned here:

Type I refers to generally large tablets, found in all periods, with a full lexical list or a substantial part thereof and nothing else.

Type II is limited to the period of the Old Babylonian schools. Such tablets contain divergent material on each of its two sides. To the left of the flat side (II/1) there is a carefully written lexical passage extracted from a fuller list, apparently the work of an instructor, while to the right the passage is copied by a student. On the convex side (II/2) of a Type II tablet, there is a multicolumn excerpt from a longer list.

Type III tablets are found in all periods and contain just one column with material extracted from a longer list.

Type IV are plano-convex (flat on one side and convex on the other) round (lenticular) tablets that come from the Old Babylonian and, less frequently, the Middle Babylonian periods. On the flat side, they have two to four lines of text written by the instructor and copied underneath by the student. On some of them, the convex side gives the reading of the signs in syllabograms and/or their Akkadian translation.

Type V are small, oblong tablets, from the Middle Babylonian or early New Babylonian times, with a literary citation written parallel to the longer axis on one side, and a lexical excerpt, written at a ninety-degree orientation, on the other side.

Type VI are small, one-column tablets, first encountered in the Neo-Babylonian era, with several lines with a literary quotation, followed by several sections, from four to six lines long, with excerpts from successive tablets of a lexical series.

Type VII, also Neo Babylonian and later, is a large tablet with several columns. On the obverse, it contains part of a lexical list; on the reverse, there are multiple columns with varied matter that includes model contracts, brief and repeated literary quotations, verbal forms, personal names, and short lexical excerpts, often repeated several times.

Lexical lists can be unilingual or multilingual. The first type contains words that in most cases were Sumerian. The majority of bilingual lists give words in Sumerian and in Akkadian, but there are also unique examples of Kassite-Akkadian and Egyptian-Akkadian bilinguals. In multilingual lists, this core can be expanded to include one or more additional languages, such as Hittite, Ugaritic, or Hurrian.

The lexical tablets can also be classified according to the number of subcolumns for each entry. In the tablet descriptions it has been found to be useful to designate the subcolumns as follows:

0: A cuneiform vertical wedge that opens the entry (at the left margin) in some types of lists; it may have made the line-count easier.
1: The phonological description of the word represented by the logogram in subcolumn 2 given by a set of simple "basic" syllabograms. It can be present as a formal subcolumn through the entire tablet, or it can be added only to selected entries as a gloss (frequently in smaller-size signs).
2: The Sumerian logogram, the essential part of the entry.
3: The names used by the scribes to refer to the logogram in subcolumn 2. This procedure is first attested in the Middle Babylonian period.
4: The Akkadian translation.
5: Translation(s) into additional languages, for example, Hittite.

When materials are transliterated into the Roman alphabet, items in gloss size are given as superscripts; optional items are enclosed in parentheses.

All these elements appear in the fullest form of an entry. The majority of lists lack one or more of the subcolumns. For example,

0	1	2	3	4	5
(a)					
I	du-u	KAK	gakku	*banû*	—
(b)					
—	tak-tak	$TAK_4.TAK_4$	tak minnabi	*ezēbu*	*arḫa dalumar*

These entries are to be interpreted in the following manner:

Example (a): when pronounced du, the Sumerian logogram called gakku (but transliterated KAK by today's Assyriologists) means in Akkadian *banû*, "to build." The "I" at the left edge represents a vertical wedge, without any linguistic significance.

Example (b): when read tak-tak, the Sumerian logogram $TAK_4.TAK_4$ called "double (minnabi) tak" means in Akkadian *ezēbu*, "to abandon," and in Hittite *arḫa dalumar*, "forsaking."

Lists that have only subcolumns 1 and 2 are called "syllabaries," since their function is to give the pronunciation of the logogram in subcolumn 2 with the help of simple syllabic signs in subcolumn 1. The other lists are usually called "vocabularies."

Internal Classification According to the contents, the lexical lists can be sorted into: lists organized according to shape, or some other characteristic, of the cuneiform signs (or logograms); lists organized thematically, according to the meaning of the logograms; lists organized phonologically, following the reading of the logograms; etymological lists; synonym lists; and miscellaneous lists.

In bilingual and multilingual lists, the entries are ordered according to one of the languages. Although the physical arrangement of the subcolumns in bilingual lists is always the same—Sumerian to the left, Akkadian to the right—the contents of the lists can be ordered according to either one of these languages. There are thus Sumero-Akkadian lists (the great majority) and Akkado-Sumerian ones. In the multilingual glossaries derived from traditional Sumero-Akkadian ones, the more exotic languages are located in the right subcolumn. Akkadian is found at the right in the exceptional cases of the Kassite-Akkadian and Egyptian-Akkadian bilingual glossaries.

Sign Lists or Syllabaries The earliest sign lists appear in the Fara period. The ordering criterion is not apparent; it includes compound signs alongside simple ones. A sign may be repeated several times to account for its different readings, but those are not given on the tablet. One Ebla sign list gives for the first time the pronunciation in the form of semiticizing sign names (the Sumerian pronunciation + the Semitic ending *-um*). This list is unique in that the signs are selected from existing lists (an archaic list of dignitaries and a list of domestic animals), with no regard to shape or sound. The explanatory nature of the list is shown by the presence (side-by-side) of easily confused signs corresponding to a single sign in the primary list. Thus, the very similar signs EDIN and BAḪAR in the sign list correspond only to BAḪAR in the list of dignitaries. Examples of entries follow (note the unusual format 2-1):

BAḪÁR	*ba-ḫa-ru$_{12}$-um*	(= *baḫar* + *um*)
TIR	*ti-i-ru$_{12}$-um*	(= *tir* + *um*)

The major sign list (with the opening entry: "Ea = *nâqu*") appears, in the Early Old Babylonian period, in the form of a 918-line list (known as "Proto-Ea"), which is preserved in school exercise tablets with only the logograms (format 0-2) or with their pronunciation added (format 0-1-2). Only rarely is the Akkadian translation included (format 0-1-2-4). Examples:

su-un	BÚR
bu-ur	BÚR
du-un	BÚR
ù-šu-um	BÚR

And with the Akkadian translation:

mu-ul	MUL	= *kakkabu*	"star"
		= *šiṭirtu*	"written document"
		= *napāḫu*	"to shine"
		= *nabāṭu*	"to be bright"
sú-ḫúb	MUL	= *šuḫuppu*	"shoe"

The signs are arranged according to the stylus strokes needed to write them. The Nippur recension of this list is quite uniform, but there are local variations in other schools, especially in Late Old Babylonian times. One of these recensions, which was much shorter, was standardized in the Syllabary A (format 1-2-[3]), and it was used as a didactic tool until the end of cuneiform writing. A variant recension of this syllabary with Akkadian translations added (Vocabulary of Syllabary A, format 1-2-4) was the main "textbook" during Middle Babylonian times in Assyria and in Syria and Anatolia in the northwest. Proto-Ea was expanded during the Late Old Bab-

ylonian and Middle Babylonian periods until it became a series of forty-two tablets (Aa = *nâqu*) with about 14,400 entries; its companion is a condensed recension of eight tablets (Ea = *nâqu*) of about twenty-four hundred entries (70 percent preserved). The format is 0-1-2-(3)-4. The main difference between the two series is that while Aa = *nâqu* lists all known translations of a Sumerian word, Ea = *nâqu* gives, as a rule, only a single translation, rarely more. For instance,

Ea II 152–53:	bu-ru	U	*šup-lu*	"depth"
	[same]	U	*pil-šu*	"hole"

is compared with,

Aa II/4 86–137:	bu-ru	U	*pa-la-šu*	"to pierce"
			pi-il-šu	"hole"
			šu-up-lum	"depth"
			šu-pa-lum	"beneath"
			ša-pa-lum	"to be(come) low"
			ḫu-ub-tum	"cavity"
			bu-rum	"well"
			ka-lak-ku	"pit"

In this instance there are fifty-two translations. The compilers added—next to genuine, independent meanings—derivations from the same root, synonyms, and divine names and place-names, often at great length. Thus, one reading of the sign TAR receives no fewer than 73 translations in Aa = *nâqu*, and the sign BAR receives 195 in Aa = *nâqu*.

Like all the major lexical series, the Ea/Aa = *nâqu* list took its "canonical" form around the twelfth century. In its final form it was the main reference work of the Mesopotamian scribes; it was the object of school commentaries and was provided with an index according to the Sumerian readings of the entries. In later times, Syllabary A was partially replaced by Syllabary B, a list 743 lines long in two tablets, as a way of learning the writing system without the complexities of the full Aa = *nâqu* series.

The lists of the Ea-family include only single cuneiform signs. Many Sumerian words are represented by a combination of several cuneiform signs. The constituents of these compound logograms may keep their original pronunciation, or the whole may have a pronunciation different from that of its constituents. In the first case, they are called "Izi-compounds"; in the second, "Diri-compounds," from the titles of the major series in which they are collected. For instance, the compound EN+NU+UN, read en-nu-un, "watch, guard," is an Izi-compound; KI+KAL, read ḫirin, "a plant," is a Diri-compound. The Izi-compounds are collected in the series Izi = *išātu* and in the so-called acrographic (or less precisely "acrophonic") lists, ordered according to the initial sign of the (compound) logogram.

Acrographic lists are found for the first time in Ebla in rather large compilations (the major one has about twelve hundred lines) and are frequently provided with Semitic (Proto–Old Akkadian or local dialects) translations. Thus, the first 132 lines are entries, of which the first sign is GAR; the next 35 lines have GAR (or its derivations PAD and SUR) in noninitial positions. The next sixty-three entries start with the sign KA and are followed by some with KA in the secondary position. These mid-third-millennium texts are the ancestors of the Old Babylonian acrographic compilations, although there is no direct textual dependency between them.

"Proto-Izi" is an Early Old Babylonian series, 1,072 lines long, that is organized in a sequence which is basically graphic but with many thematic and phonological associations. For instance, one section lists eight terms for "road," with no common initial sign. It is followed by a twenty-line section with ŠID, purely acrographic, and then, by phonological association with the reading sid, comes sig_4, "brick," and its various types. This in turn attracts a section about walls, which is followed by terms for "shadow" by conceptual association. More rigorously acrographic are the series "Ká-gal = *abullu*" (542 lines), "Nig-ga = *makkūru*" (579 lines), and "Sag = *awīlu*" (312 lines) of the same period. These series only partially survived the Old Babylonian period.

The series "Diri = *watru*" of the Diri-compounds appears for the first time in Early Old Babylonian as a list of about seven hundred entries. In its final, canonical form, it becomes a series of seven tablets with at least eighteen hundred entries, not counting the seventh tablet, which is a list of divine names that has not been satisfactorily reconstructed.

Thematic Lists Collections of logograms grouped solely according to their meaning are found among the oldest cuneiform tablets in the Uruk period. There are lists of animals, trees, and metal objects. Alongside exhaustive monographic lists there appear, already in the Fara period, "practical vocabularies" with the more frequently used terms of material culture: stones, metal objects, garments, wooden implements, containers, and perfumes, collected on a single large tablet. The tendency to write encyclopedic compilations culminates in the series "ḪAR-ra = *ḫubullu*."

Known in Early Old Babylonian times, the canonical recension of "ḪAR-ra = *ḫubullu*"—now restored in almost its entirety—has twenty-four tablets with close to ten thousand entries. Tablets 1 and 2 contain terms needed for writing legal and administrative documents. They are followed by a list of trees (tablet 3); wooden objects (4–7); reeds and objects made of reeds, an important construction material in southern Mesopotamia (8–9); clays and pottery (10); skins and leather objects (11); metals (12); domestic animals (13); wild animals (14); meat cuts (15); stones (16); plants and vegetables (17); birds and fish (18); textiles (19); geographic terms (20–22); and food and drink (23–24). Considering that each tablet in this series is 300 to 400 lines long, the value of this series for reconstructing the natural resources, technology, and geography of Mesopotamia, on the one hand, and for understanding of technical terms in Sumerian and Akkadian texts, on the other, is enormous.

The "ḪAR-ra = *ḫubullu*" series is completed by a compilation of kinship terms, social classes, and human conditions (series "Lú = *ša*"). An archaic list of dignitaries is already found in Uruk. Lists of professions are known from the Fara period. There are two such lists in Early Old Babylonian times. One, "Proto-Lú" or "Lú = *šu*," has 846 lines, the other, "Azlag = *ašlakku*," has more than 500. The first is the ancestor of the canonical series "Lú = *ša*," which has at least four tablets that have yet to be fully recovered. The second, with a wider anthropological outlook than the first, contains mostly terms and phrases describing psychological qualities, bodily characteristics, morbid states, and human activities that are usually of a nonprofessional nature. This series did not survive after Middle Babylonian times.

More restricted in scope is an Early Old Babylonian thematic list of parts of the human body (more than 270 entries) that includes:

nundum-mu	"my lips"
nundum-an-ta-mu	"my upper lip"
nundum-ki-ta-mu	"my lower lip"
ka-mu	"my mouth"
eme-mu	"my tongue"
zú-mu	"my teeth"
zú-ga-mu	"my milk tooth"
zú-kinkin-mu	"my molar"

Worth noticing is the presence of the first-person possessive suffix (mu); the Sumerian names of the parts of the body belong to the linguistic category of "obligatorily possessed," that is, to a class of words that should normally be provided with a possessive.

Lists of divine names appear in the Fara period and are very frequent after Early Old Babylonian times. The final, standard compilation with about eighteen hundred divine names is the series "An = *Anum*." Its first line means "AN represents the name of the god Anu." Complicated syncretistic processes—many local deities were assimilated to the ones of politically dominant towns—and the personification of divine epithets resulted in an extended synonymy of divine names. This series arranges the names in families and households. The left column is the main entry; the right gives a synonymous name, the kinship relation with other deities, or the role of a given deity in another deity's court or household.

Long lists of place-names are part of the thematic series "ḪAR-ra = *ḫubullu*." Extensive onomastic listings—both Sumerian and Akkadian—with many hundreds of personal names were often copied as an exercise in the schools.

Phonological Lists An elementary teaching exercise in the Early Old Babylonian schools was a list of triplets of the most basic syllabograms of the form: consonant + vowel, vowel + consonant, or $consonant_1$ + vowel + $consonant_2$. One finds there series of syllables such as tu-ta-ti, ub-ab-ib, and pur-par-pir. The only other list ordered by sounds is an index to

Ea = *nâqu* (format 0-1-2-(3)-4), infrequently attested and only partially preserved, that is the ancient equivalent of a modern list of homophones. Following are examples that are somewhat modified by placing in parentheses the Assyriologists' transliteration and by omitting the Akkadian translation that is found on the tablet:

gi-ir	LAGAB	(gir_8)	"to roll over"
	U.AD	(gir_4)	"oven"
	DU	(gir_7)	"to run"
	KAS_4	(gir_5)	"to run"
	GÌR	(gìr)	"foot"
	IN	(gir_{12})	"a rodent"
	GÍR	(gír)	"knife"
	NE	(gir_{10})	"angry"
	ÁBxŠÀ	(gir_{16})	"a pot"
	GIR	(gir)	"pig"
	KÉS	(gir_{11})	"to tie"

Etymological Lists The series "SIG_7.ALAN = *nabnītu*" is divided into paragraphs that deal with an Akkadian root and its Sumerian equivalents. It is an Akkado-Sumerian vocabulary and was presumably used in translating Akkadian texts into Sumerian. The Akkadian roots themselves are organized within a general semantic theme of names of body parts from head to feet, and activities associated with them. The Mesopotamian scribes had a much more elastic concept of "root" than that of the modern linguist, and often only a vague phonological similarity connects the entries within a paragraph. For instance, we find the following entries mixed in the same paragraph: *kamāmu* "to nod," *kamû* "to roast," *kummu* "inner room," *kumû* "a bird," *kamû* "to capture," *kamû* "outside," *kimtu* "clan," *kamūnu* "truffle," and *kamānu* "a type of cake." The series can be reconstructed, with considerable gaps, up to tablet 32. Starting with tablet 31 there seems to be a shift to a thematic organization. An ancient catalog compiled by a Sippar scribe indicates that the series had as many as fifty-four tablets. Rather surprisingly, though apparently nothing is preserved from tablets 33 to 54, it is possible that tablets usually assigned to other series were considered part of *nabnītu* in Sippar. In any case, considering that the better-preserved tablets have well in excess of three hundred lines, the original must have had more than fifteen thousand lines: an impressive amount of lexical material.

Synonym Lists Late post–Old Babylonian lists have been found that have normal Akkadian words in the right subcolumn, while in the left column are unusual, poetic, obsolete, or foreign synonyms. The main compilation of this type is "Malku = *šarru*," a collection of at least eight tablets. It seems to be continued by two or three tablets with the title "An = *Anum*." This happens to be the title of the main god-list series, mentioned above, and perhaps these tablets were considered its continuation. "Malku = *šarru*" must have held at least two thousand entries in total. The entries are organized along themes, such as kinship terms and names of weapons. Following is an excerpt from the list:

iššu	= *sinništu* "woman"
ašbutu	= [same meaning]
umāmatu	= *umāmtu* "female animal"
muḫterkun	= [same meaning] in Elamite
aštu	= [same meaning] in Hurrian

The first synonym of *sinništu* is northwest Semitic or Canaanite (compare *iššu* to Hebrew *'iššâ*). The second is a word of unknown filiation, reported only here. This list is purely philological and is reminiscent of the lexicographic work of Hesychius of Alexandria many centuries later (fifth century CE). But there are also Mesopotamian "dictionaries of ideas," more in the style of our own modern thesaurus. The series "Erimḫuš = *anantu*" (meaning "battle") consists of six tablets with 1,450 lines divided in paragraphs of mostly three (sometimes two, rarely four or more) lines containing one group of synonyms or otherwise closely related words, sometimes with an antonym added at the end. "Antagal = *šaqû*" is a similar, though longer, series that is not too well preserved; apparently it was used only in Assyria. Here is a brief extract from Erimḫuš:

kuš-è	= *kâṣu*	"to skin"
zil	= *qalāpu*	"to peel"
gar-ra	= *šaḫāṭu*	"to remove clothing"

Slightly more complicated is the following sequence:

a-tar-lá-lá	= *šuteṣû*	"to quarrel"
lú-kúr-dug_4-dug_4	= *qābi šanīti*	"one who says hostile things"
zú-bir	= *ṣuḫḫu*	"to deride"
pe-el-lá	= *qullulu*	"to ridicule"
dugud	= *kubbutu*	"to respect"

Miscellaneous Lists A dialect known as "emesal" in Sumerian and *lurû* in Akkadian (the exact meaning of these terms is unknown) is characterized by a different articulation of certain sounds and by some variations in the vocabulary. In literary texts, this dialect is used in women's speech, regardless of the gender of the addressee (see "Sumerian Literature" earlier in this volume). A class of temple cantors also used this dialect, at least in liturgical songs. Written forms of this dialect found in literary tales and liturgical songs were collected in a three-tablet series with the title "dimmer = dingir = *ilu*." It has three subcolumns, the left has the "emesal" form, the central the standard Sumerian form, and the right the Akkadian translation. This series, with close to five hundred entries, is a late one; it seems to be the creation of Neo-Assyrian scribes. Here are some examples of entries:

ga-ša-an	= nin	= *bēltu*	"lady"
u_5-mu	= ì-giš	= *ellu*	"vegetable oil"
zé-èg	= šúm	= *nadānu*	"to give"

In addition to the large, well-established lexical compilations that are preserved in several copies, one finds many tablets that were created for some specific purpose, never gained much popularity, and were hardly ever copied. Among the more remarkable examples are the two brief bilingual lists of words in Kassite-Akkadian and Egyptian-Akkadian. The latter was found at al-Amarna in Egypt, where it may have been created to train the scribes of the Egyptian chancellery.

Some practical manuals for teaching how to give orders related to the performance of some craft or activity are known from the Early Old Babylonian period. There was a time when the supervisors or instructors were expected to conduct their duties in Sumerian. Whether this was still true in Early Old Babylonian times or whether it was an old tradition, by then a memory, we cannot say. In any case, there are tablets with instructions on how to prepare malt for brewing and another that teaches how to examine the intestines of a lamb sacrificed for divination. There are fragments with instructions on such matters as how to prepare a tablet on which to write and how to harvest grain.

INTERPRETATION OF THE LISTS

Although the majority of entries in the Mesopotamian lexical lists are simple and direct, there are limitations inherent in the system as well as scribal conventions that must be taken into account if we are profitably to use the lists.

Owing to the nature of the writing system or to scribal conventions, there are restrictions in how to represent the sound of words. Thus, the syllabic nature of the script makes it impossible to represent clusters of consonants in an initial or final position; for instance, a word starting with two consonants and followed by a vowel (C_1C_2V) can only be represented by creating two separate syllables, either by adding a superfluous vowel before the first consonant ([V]C_1-C_2V-) or after the first consonant (C_1[V]-C_2V-).

When the words or grammatical elements represented by the cuneiform signs come in contact with other elements of the language, their phonological shape may be altered. For instance, the Sumerian verbal modal prefix of the optative mood—used in the verbal forms expressing a wish or a polite order—changes its vowel to harmonize with the vowel in the syllable right after it. For example, it becomes ḫu- before a syllable with u and ḫa- before a syllable with a. This type of phonological modification is often not overtly indicated in the lists.

The lists may also give alternative forms of the phenomenon just described in such a way that they seem to be dealing with entirely different words. For example, the Sumerian word "dug" means "good"; but it has a short form that is found only when it is in combination with other elements, such as in du(g)-ga. The lists,

however, can give this word as du-u *and* as du-ug, and we must realize that these are two forms of the same word.

The cuneiform writing system evolved over a long period. As a result, the value of some signs changed and occasionally it is difficult to determine how to read them. Thus, in Old Babylonian texts, the sign MU is used to represent not only the syllable "mu," but also the syllable "gu." Later on, however, the sign GU is used for "gu." The ambiguity now shifts because GU can now also be read as "qu." In a related phenomenon, some Sumerian sounds were not used in Akkadian and so are represented by two or more approximations. Thus, "to gore" was pronounced something like "d^{r}u"; but the vocabularies split it into two, probably spurious, forms giving it as du-u "to gore, said of a bull" *and* as ru-u "to gore, said of a ram."

We must also take into account scribal conventions that might affect our understanding of the entries. Scribes did not always indicate whether a form belonged to the women's dialect (emesal) mentioned above. A potential problem arises from the fact that Sumerian has a very high number of compound words but scribes sometimes assign to a single, isolated component of a compound the meaning that is correct only for the compound form. Thus, the compound ki-ág means "to love," but in some lists this meaning is given to the element "ág" alone, even if ág by itself does not have this meaning. This particularly insidious feature has often caused problems for Assyriologists.

Somewhat related are two other pitfalls. Scribes often fail in Sumerian to indicate that different verbal roots could have the same meaning, one form for the singular and another for the plural. Thus, tuš means "to sit down," said of one person, but durun is used when referring to several subjects. The meaning scribes assign to a given word may be correct only for certain grammatical constructions with particular subjects or objects. In the following examples, all Sumerian entries are translated by Akkadian *nakāpu* "to gore, to knock down," but qualifications (the subject, object, or synonym) are entered to establish distinctions:

sag-ta-dug$_4$-ga	= *nakāpu*, "(said) of the head"
sag-sìg-ga	= [same meaning]
du$_7$	= *nakāpu*, "(said) of oxen"
ru$_5$	= *nakāpu*, "(said) of rams"
si-tu$_{10}$	= *nakāpu*, "(said) of oxen/bulls"
kur-ku	= *nakāpu*, "(said) of a flood"
ru-gú	= *nakāpu*, "(said) of a finger"
si-ga	= *nakāpu*, "(said) of a garment"
si-ga	= *nakāpu*, "(said) of a woman's sex organ"

Note that the last entry properly belongs not to *nakāpu* but to *naqābu*, "to deflower." The two Akkadian verbs themselves were at times confused by the scribes. In any case, the scribes did not use definitions proper.

As the world's oldest body of lexical material, the Mesopotamian lexical lists are of enormous linguistic and historical interest. In addition, they help us reconstruct the Mesopotamian view of the world and are indicators of cultural, and even political, change in the ancient Near East.

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General

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SEE ALSO **The Use of Knowledge in Ancient Mesopotamia** (Part 8, Vol. III); **The Sumerian Language** (Part 9, Vol. IV); **The Scribes and Scholars of Ancient Mesopotamia** (Part 9, Vol. IV); and **Sumerian Literature: An Overview** (Part 9, Vol. IV).

Epic Tales from Ancient Sumer: Enmerkar, Lugalbanda, and Other Cunning Heroes

BENDT ALSTER

THE ORIGIN OF EPIC POETRY IN SUMER

With the progress made over the last fifty years in understanding Sumerian literary texts, it is now possible to trace not only sacred literature, such as hymns, myths, and lamentations, but also epics, literary debates, love songs, proverbs and proverb collections, didactic poems, folktales, and animal tales, back to the beginning of the second millennium BCE, and in some cases even back to the Early Dynastic period (approximately 2600–2500). The question has naturally been raised whether some of these types of literature, including epics, actually originated with the Sumerians and spread from them to other geographical areas. However, such an avenue would probably be much too simple.

What we can learn from the Sumerian sources is really what common sense might already have told us, namely, that proverbs, folktales, and storytelling are much older than the oldest written sources known to us, and, in fact, may already have existed thousands of years prior to the world's oldest written sources. Yet, in the case of heroic epic poetry it is true that we may be able to fix the approximate date when this phenomenon first appeared, and, although we may not accept the idea that the genre as such spread from Sumer to the rest of the world, then at least there are good reasons to debate whether the appearance of such poetry in different countries was conditioned by similar cultural developments.

Students of Mesopotamian epics are in a favorable position compared to classical scholars, because their sources cover a long span of time and represent various stages of a tradition. We are able to see, at least in glimpses, how the Akkadian *Epic of Gilgamesh* came into being. We have fragments of an Old Babylonian version preceding the Neo-Assyrian one, and still earlier epic tales in the Sumerian language. We know that parts of these were incorporated in the Akkadian Gilgamesh epic, but other parts disappeared from the literary tradition of the second and first millennia. (See the chapter on the Gilgamesh epic below.)

Most of the Sumerian sources come from the scribal schools of Nippur (modern Nuffar) and