

# Comparing Sumerograms in Akkadian and Arameograms in Middle Persian

Behzad Moeini Sam, Sara Mohammadi Avandi

**Abstract**—Ancient scribes usually wrote an Akkadian word in Akkadian, spelling it out syllable by syllable. Sometimes, however, they wrote down the equivalent word in Sumerian for the Akkadians held Sumerian culture, from which they had inherited the cuneiform script, in high esteem. ‘Syllabic’ vs. ‘Sumerographic’ are the two forms of cuneiform writing. The Assyrian language was a branch of the Akkadian one that used the script and language of Aramaic throughout the whole of the empire. It caused the Aramaic language to apply as an Interlingua until the following periods. This paper aims to compare Sumerograms in Akkadian texts and Arameograms in Middle Persian texts to find a continuous written system that continued to apply from Akkadian to the Middle Persian. It will firstly introduce Sumerograms which are the earliest Akkadian texts, and will finally explain the Aramaic language, which continues its use by the Parthians and Sasanians as Arameograms. Thus, the main conclusion to be drawn is that just as the Akkadians who applied Sumerograms, Parthian and Pahlavi (including the inscriptions and the Psalter), too, employed a large number of, and more or less faithfully rendered, Aramaic words, also called Arameograms.

**Keywords**—Sumerogram, Mesopotamian, Akkadian, Aramaic, Middle Persian.

## I. INTRODUCTION

THE Sumerians were one of the ancient dynasties in Mesopotamia who left the written records in Mesopotamia. Having collapsed the Sumerians, the Akkadians ruled over Mesopotamia, and after them, Babylonians and Assyrians controlled the Mesopotamian territory until the sixth century B.C [1, p.14]. The Old Akkadian language was impressed by the characteristics of the Sumerian language, in particular in the broader context of Logograms or word signs, syllabic signs, and auxiliary signs. Only Sumerian logograms applied for nouns in the Old Akkadian language [2, pp.2-4], [3, p.3].

The Achaemenids employed the half-syllabic cuneiform and the Aramaic language for their communications after establishing the Persian Empire in place of Mesopotamian civilizations. Parthian (3rd century B.C) and Sasanian (2nd century A.D) applied the Aramaic language and script for their bureaucracy. It went into that of the Parthian and Sassanid empires since the Aramaic language had changed into an Interlingua. Parthians made use of the Greek language and script in their records, but *Vologases I* (51- 77AD) replaced

the Parthian language and used the Aramaic script along with Arameograms in the Parthian period [4, p.505]. Inscriptions and psalter of Parthian and Pahlavi used a written system called ‘*uzvārišn*’ in the Pahlavi language [5, p.197], [6, p.28].

We should also regard Mesopotamian civilizations as successive powers with a similar structure that the Median and Persian Empires came after them; that is, the ancient Empires founded under new leadership that their political power transferred from one nation to another. Strabo tells us about the statement mentioned; *the customs of the Persians are like those of the Assyrians* [7, p.174]. Since the ancient Iranian civilizations were strongly affected by those of the Mesopotamians, it is necessary to compare the Iranian morphology and structure with those of Mesopotamians in all respects. There are some essays and books which have considered the ancient Iranian languages with the Mesopotamian ones. But there is not an article about comparing the heterographic system among them. This paper merely pays attention to compare between Sumerograms in Akkadian and Arameograms in the middle Persian.

The purpose of this study is also to determine the following questions: Who were the first people to use the heterographic system in the ancient near East? Why did they use the heterographic system? Did the Arameographic system in the Middle Persian follow that of Sumerographic?

## II. SUMERIAN AND AKKADIAN

The Sumerians were from the ancient civilizations that founded some city-states in southern Mesopotamia. The Sumerians likely came to Mesopotamia from outside. They invented a cuneiform system dating from circa 3100 B.C.E [8, p.3], [9, p.7]. Some ancient languages such as Elamite, Hittite, Hurrian, and Urartian applied the cuneiform script [10, p.51]. The Sumerian language was employed for the scientific, ritual, and royal texts. There were several languages in Mesopotamia in the third millennium B.C.E, which did not connect with the Sumerian one. At that time, the Sumerians language was spoken around the Persian Gulf, and that of Akkadian from the northeast branch of the Semitic family was spoken around the area of the Euphrates and Tigris [8, p.3], [11, p.43]. The inhabitants of Babylonia and Assyria utilized the word of Akkadian for northern Babylonia [12, p.1], [13, p.11]. The Akkadian language refers to the Semitic lingual family, which is the oldest Semitic language in Mesopotamia. Afterward, the Akkadian language evolved into the Mesopotamian area and divided into Babylonian and Assyrian branches about 2400 B.C. [14, p.3], [3, p.3].

Many characteristics of Akkadian Grammar have also been

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impressed by the Sumerians [15, p.25]. It is worth paying attention to that the Akkadian language differed from Sumerian one; Sumerian was an agglutinative language in which words consisted of morphemes, arranged in a row, and each morpheme had a separate function including number, person, and tense [16, p.504]. In the morphology of Sumerian, nouns are simple and not inflected, but in the Old and Middle Babylonian, the singular nouns, and adjectives made use for nominative, accusative, and genitive cases [17, p.53]. The Sumerian language was one-syllabic, the Akkadian language was polysyllabic, the Sumerian language was no inflection, but that of Akkadian was an inflectional language; the Akkadians employed only one-tenth of Sumerograms and instead utilized the syllabic-graphs and definite adjectives [18, p.21].

Logograms coming in Akkadian texts are mono- or polysyllabic word or phrases borrowed from the Sumerian language [19, p.26]. It was essential to understand the cuneiform script worked in the Akkadian language. For example, the cuneiform sign for man was LU in the Sumerian language that the Akkadians read *awilum* in their language, or *Gal* in Sumerian meant "great" and was read *rabum* in Akkadian. The word Gal could sometimes present both as a syllable and as a word; also, 'KA' sign in Sumerian meant mouth, which the Akkadians used both *pum* as an Akkadian word and as a syllable or a phoneme in a word [13, p.22], [2, p.33]. In the Akkadian language, the king is written both as a logogram LUGAL/LUGAL-um/lugal and as a syllable *šar*, *šar-ru-um*, *šar-ru-um*. The king in Assyrian texts has been shown both with Akkadian *šarrum* and Assyrian *mal-ki* [20, p.100]. A seal remained from Ikun-samas, king (*en*) of Mari [21, p.237], who received the West Semitic Title of *en (malikum)*, while in his inscription on the statue, he introduced as LUGAL (*šarrum*), the Title used in the Babylonian [22, p.26]. Furthermore, Sumerograms are used for verbs: SAG.RI for *išruk* 'he offered ex-voto' [23, p.22].

Logograms are signs representing the whole words instead of syllables or part-syllables. In the transliteration of Akkadian texts, they are represented in Roman (non-italicized) capital letters and their Sumerian pronunciations rather than those of their Akkadian [15, p.107]. They are Signs, which had Sumerian graphic etymologies, but they showed Akkadian phonetic values [20, p.26].

### III. ARAMAIC AND MIDDLE PERSIAN

When the Assyrians extended their realm westwards, they took advantage of the Aramaic to communicate their bureaucracy, and it became the official medium of communication as a lingua franca [24, p.123], [25, p.87]. Indeed, it was the Aramaic script, which had influenced the peoples of the Middle East, and they were used as the bureaucracy script for their communications [25, p.84]. Consequently, Aramaic was utilized by the Neo-Babylonians for Administrative purposes by the Sixth Century B.C.E. Having conquered Babylon by the Persians from the Indo-European branch in 539 B, C. they employed the Aramaic script as an Interlingua [24, p.124]. The Aramaic script and

language also go into the Iran plateau and Central Asia [24, p.95]. Besides Aramaic, the Old Persian script was that of the official in the Achaemenid Empire that was invented during Darius the Great to record his deeds [26, p.6]. The most massive body of the official Aramaic letters belongs to papyri from Egypt concerning a Jewish military colony at Elephantine [27, p.57]. They contain the documents of *Arsham*, the Achaemenid governor in Egypt, which include the most significant material from the fifth century B.C. These Documents are composed of a hundred papyri found at Elephantine and the parchment letters that Arsham sent from the East to Egypt. The Aramaic script ceased to continue for a while after the collapse of the Achaemenid Empire. The Aramaic script, of course, was so pervasive that it remained after the fall of the Achaemenid Empire [10, p.95].


The word Pahlavi is used for the Middle Persian of Zoroastrian texts and most of the time for the Middle Persian. Probably, Pārsīg (Sassanid) and Pahlawānag 'Parthian' (found in a Manichean text) were the native words for these languages [28, pp.1-3]. Having collapsed the Achaemenid dynasty by Alexander the Great and his successors, the Aramaic language was not considered a national language anymore [29, p.32], and its importance was preserved as a spoken language and especially as that of literacy [27, p.56]. The Parthians ascended the throne in 247 B.C.E and used the Parthian dialect of the Middle Iranian languages, which was utilized for the Parthian kingdom [30, p.78]. Vologases I, the Arsacid king 51-77 A.D, was the first king of Parthian who applied the Pahlavi script derived from Achaemenid Aramaic. This Script was inscribed on coins and rock inscriptions during the Parthian and Sasanian periods [5, p.197]. The documents of the Parthian language consist of letters, economic and legal texts, and Manichean texts, which were written at a time between the 1<sup>st</sup> century B.C.E. to the 10<sup>th</sup> century A.D. [27, p.238], [31, p.440], but other non-Manichean Middle Persian texts were recorded in writing, which all derived from Achaemenid Aramaic [5, p.197].

### IV. SUMEROGRAMS AS LOGOGRAMS


Logograms were also written in Roman letters, and they were occasionally represented in letter spaced lower case Roman letters (dumu lugal/DUMU LUGAL for *mār šarrim* = son of the king). In normalization, phonetic complements are written either on the line or above the one, immediately after the logogram.

DUMU LUGAL *a-na É.GAL-lim i-ru-ub*; or *mār* (DUMU) *šarrim* (LUGAL) *a-na ekallim* (É.GAL-lim or É.GALlim) *i-ru-ub* [15, pp.107-9].

Logograms do not differ in syllabograms which means that there is no special sign to recognize it as a logogram rather than a syllabogram. Some of them are employed with both functions:


- The sign  has both a syllabic value *en* and a logographic one En (= *belum* or lord).

The logographic transliteration is different from that of the syllabic, however:


- The sign  is a syllabic one for *bu*, *pu*, and logographic

GID (= *arkum* or long).



In some cases, one Sumerian word with a single logographic value is equal to more than one Akkadian word:

- The sign  KUR is used for both *mātum* = country and *šadum* = mountain.








Many signs with logographic values in Sumerian have no syllabic values in Old Babylonian:

-  LU (*awilum* = person).

Besides, there are some combinations to represent a word that is used as an Akkadian word logographically. These combinations are called Compound logograms and enumerated as a single Akkadian word that is separated by a period:


-  DUMU.MUNUS (*mārtum* = daughter) which consisted of DUMU (*mārum* = son), and MUNUS (*simništum* = woman);  E.GAL (*ekallum* = palace) a compound consisted of E (*bītum* = house) and GAL (*rabūm* = large).

Sometimes, there is not a connection between the meaning of the compound logogram and that of the component signs:


-  A.ŠA (*eqlum* = field), which is made up of A (*mū* = water) and ŠA (*libbum* = heart) [32, p.14].
-  The sign MEŠ, which implies ‘they are’ in the Sumerian language, may be written after logograms to indicate plurality:
-  DINGIR.MEŠ (*ilū rabūtum* = great gods);  A.ŠA.MEŠ (*equlum* = fields).
- The sign of plurality after logograms is  HI.A (previously was transliterated by HA); the plurality sign of MEŠ is used with logograms, but HI.A is not used with logograms, and it denotes human beings or gods:
-  GUD (*aplum* = ox),  GUD.HI.A (*alpū* = oxen).


Some Assyriologists would like to use the sign of plurality with determinatives (A.ŠA<sup>meš</sup>; GUD<sup>bi.a</sup>).



Another way of plurality is the repetition of a logogram:

-  EN KUR KUR (*bēl mātātim* = master of the lands).



A logogram is sometimes followed by one or several syllabograms, which present the pronunciation of the last part of the word; these syllabograms utilized in this way are called phonetic complements:

-  An-u is used for *šamū* = sky, but DINGIR-*lum* is used for *ilum* = god.



Similarly, the sign  KUR, in addition to representing both *mātum* and *šadūm*, can be added a phonetic complement:

-  *i-na* KUR-*tim* (*ina mātīm* = in the country), but  *i-na* KUR-*i-im* (*ina šadīm* = in the mountain).

A phonetic complement can clearly explain the case of the noun which is added to a logogram:



-  A.SA-*um* or  A.SA-*lum* for nominative *eqlum* = field.

Besides, possessive pronominal suffixes are represented by syllabograms:

-  E-*su* (*bīssu* = his house);  E.MES DUMU-*ia* (*bītāt mārīya* = my son’s house).

In an Akkadian word, the 1cs (first person, common gender,

singular) allomorph *ī* is represented by a Ci, in which C indicates the final consonant of stem:

-  LUGAL-*ri* for *šarrī* = my king;  EN-*li* for *bēlī* = my lord [33, p.22].

Normalization:

DINGIR.MEŠ GAL.MEŠ KUR-*tam i-na qá-at*  
DUMU-*ka iš-ku-nu,*  
*ilū rabūtum mātam ina qāt mārīka iškunū*  
"the great gods place the land in your son’s hand" [15, pp.107-9].

In the following instances, some texts from Akkadian have been brought to show logograms:

Sar-ru-GI (Sargon) LUGAL (*šarru- m =king*) a-ka-de-<sup>kl</sup>(Akkad) MAŠKIM-GI (*rābišu- m = supervisor*)  
<sup>d</sup>INANNA (*Ištaru- m*) LUGAL (*šarru- m =king*) KIŠ (*kiššatu- m =world*) PA.ŠEŠ (*pašīšu- m/pašāšu- m = anointed priest*) AN (*Šamu- m =sky*) LUGAL (*šarru- m = king*) KALAM. MA.KI (*mātu- m =land*) ENSI (*iššiaku- m =ruler*) <sup>d</sup>enlil”

"Sargon, king of Agade, bailiff of the Goddess Aštar, king of the world, anointed priest of the god Anum, lord of the land, governor for god Enlil" [34, pp.19, 135, 361, 294], [35, pp.53, 59].

The Akkadian text of Rimuš, king of Agade son of Sargon, shows Sumerograms:

"*Ri-mu-uš* LUGAL (*šarru- m*) KIŠ (*kiššatu- m*) *su-ra- ma šar-ru- tam* <sup>d</sup>Enlil *i-di-nu-šum*"

"Rimuš, king of the world, the goddess Enlil did indeed give kingship to him" [36, p.65], [37, p.96].

"*a-na* <sup>d</sup>EN.ZU (Sin = goddess moon) *Ri-mu-uš* LUGAL (*šarru- m = king*) KIŠ (*kiššatu- m = world*) *i-nu NIM.KI* (*elamtu*<sup>kl</sup> = Elam) *u pa-ra-aḥ-šum*.<sup>kl</sup> SAG. GIŠ. RA-*ni* (*kašādum, iškud, kāšid* = conquered)"

"To the god sin, Rimuš, king of the world, when he conquered Elam and paraḥšum" [36, p.65].

A text refers to the Akkadian ritual from Ḫattuša:

NENNI DUMU NENNI *ša* DINGIR-*šu* NENNI *u* <sup>d</sup>INANNA-*šu* NENNI-*tu*

"N.N the son of N.N his god N.N and his goddess is N.N" [38, p.107].

Some Eblaite texts can be compared with the grammatical constructions in Akkadian:

DUG I <sup>giš</sup>GAB.LIŠ.ME *na-ba-ba-šum* (for *napāp-šum*)  
"A vessel of G-oil, to be sprinkled on him"

*Ḫa-sa-nu* BAR:KUG *sa-ḫa-da-šum* (for *šaḫād-šum*)  
"An Ḫ. of silver to be given to him" [39.p266].

<sup>d</sup>EN.KI ... LUGAL *iš<sub>11</sub>-gur-ma* MAḪ(?) *il-tum*  
<sup>d</sup>EN.LIL *a<sub>5</sub>(NI)-na* <sup>d</sup>EN.KI INIM.DI

"he summoned Ea, ..., the king, and then the exalted one (?) of the gods, Enlil, spoke to Ea"

*Wa* (*u*) I.NA.SUM-*kum* E *ba-da-a ša 2 li-im*  
"I am giving you property in Baytān by 2000 (people)" [40, p.270].

Evidence from Ebla about debt in an archaic palatial economy and rank at the court of Ebla:

60 *ma-na babbar.ku* PN I-*da-ar in-ti* Ab-*ra-mu* BE-*ti*  
*abba-abba Ir-ku-tuki še-KA*ḪA-*mul iti za-lul šu-ba-ti*

"60 mina silver PN *Ida'ar, Inti, Abranu Balti*, the elders of Irkutu have received in the ninth month as a debt with interest" [4, p.227].

*A-da-um-TUG-I A-mu-ru-um dumu-nita en Ma-ri*

"A son of (the king) of the city of Mari" [41, p.241].

A text from Sin-ahhe-riba (Assyrian king, son and successor of Sar3gun II (704–681), the king of Assyria:

*a-na LUGAL be-li-ia ARAD-ka PAB.MEŠ SU lu DI-mu a-na LUGAL be-li-ia DI-mu a-na KUR aš-šur.KI DI-mu a-na E.KUR.MES-te DI-mu a-na URU.bi-rat LUGAL gab-bu ŠA-bu ša LUGAL EN-ia a-dan-niš lu-u DUG.GA*

"To the king, my lord: your servant Sin-ahhe-riba. Good health to the king. My lord! Assyria is well, the temples are well, all the king's forts all well. The king, my lord, can be glad indeed" [41, p.28].

#### V. ARAMAOGRAMS

There was a cursive script of Book Pahlavi, which consisted of many ambiguities and ill forms [5, p.197]. This script contained fossilized Aramaic elements to varying degrees at different stages [42, p.90]. From the Parthians onwards, writers of Parthian and Sasanian texts used the Aramaic words, which are called ideograms; i.e., they wrote in Aramaic but pronounced into Pahlavi [16, p.198], [31,p.44].

Hormozdyar Mirza explains the ideographic system in Pahlavi inscriptions, coin-legend, and writings, including three categories [43, p.28]: (i) Ideograms with Aramaic origin, which had equivalents in the Middle Persian: They played an active part in Parthian and Pahlavi writings and the fact that their source evolved from the Aramaic ones in the Old Persian around the 5<sup>th</sup> century B.C.E. Afterward, these decrees and letters were translated into Aramaic to use satrapies (ii) Ideograms that had Iranian origin: There were words in the older Iranian languages which applied as ideograms, and they corresponded with words in Middle Persian dialects semantically, e.g., *vāzišt* in the Middle Persian from Avestan *θwant*, or *ādar* from Avestan *ātarš*. (iii) The spelling of some words in Old Iranian dialects when evolved into the Middle Persian corresponded with later, current spelling, e.g., *mitr* and *mih*r 'goddess name'; *štrr* and *šahr* 'city' [43, p.29].

In the following text, we display a Parthian inscription from *Shapuhr I* at *Haji-Abād*, which has been written in the Parthian language and their *Huzvārišns* (Arameograms) in the capital just like Sumerograms in the Akkadian language with capital letters in transliteration and their equivalent in italic transcription:

wydwōny ZNH LY msdysn šhyphwr MLKYN MLKA  
wryōn w anōryōn MNW šyhr MN yōztn BRY msdysn  
ALHA arthštr MLKYN MLKA...

*widāwan im man mazdēs*n šahpuhr *šāhān šāh* aryān ud  
anaryān *kē* čihr *až* yazdān *puhr* mazdēs *ba*Y artaxšīr  
*šāhān šāh*...

"It is my arrow-shout, (whom I am) worshipper of Mazda (and) Bay šāpuhr, king of kings of Iran and non-Iranian, and my descent is from gods, the son of Bay

Artaxšīr, king of kings of Iran and non-Iranian, the grandson of Bay Pāpak [44, p.122].

A text from the Middle Persian is referred to *Rivāyat Pahlavi of Dādīstān ī Dēnīg* (chapter 2: 2, 3):

1. Hwlsn Y BYN ZK h'nk Y HD-BBA hwlsn Y s'htk Y LHMA W BSYLA Y pwhtk W blystk W hwlytk ZK Y LA s'htk 'š 9 LYLYA W BRYH dlhn'd ME YHWWNyt.

1. 'whrmzd gwpt AYK AMT PWN h'myn BYN h'nk Y HD-BBA YMYTWNyt 'š 'wbš LA 'p'yt OZLWNtn PWN zmst'n OD 9 LYLYA BRA YHWWNyt 'š LA 'p'yt OZLWNt [45, p.40].

2. (As regards) cooked food, which is in the house with one door and that food which is uncooked, how shall the periods of nine nights and the month apply to it?

2. Ohrmazd said: if someone dies in summer in a house with one door, then until a month passes, one must not go into it; in winter, until nine nights pass, one must not go into it [45, pp.2, 6].

Therefore, the Akkadians, Babylonians, and Assyrians occasionally used words with Sumerograms and read them into their language, and the Persians did not hesitate to deal with those of the Aramaic [33, p.43], [35, p.101]. The most extensive text, the Behistun inscription, is referred to Darius I and was translated by equivalents in Elamite and Akkadian, partly by a version in Egyptian hieroglyphics [41, p.24]. Gerchevitch believes that the Achaemenid kings first wrote their inscriptions in the Elamite, Babylonian, and Aramaic languages but read into the Old Persian language and later added the Old Persian cuneiform to them [24, p.325].

#### VI. CONCLUSION

It became clear that the Akkadians were the first nation who applied the Sumerographic system in Mesopotamia because the Sumerian language was Interlingua before them. They used Sumerograms for their communications, and the following civilizations in Mesopotamia, too, continued to use them for themselves. Similarly, the Achaemenids came to use the Arameograms because they had changed into an Interlingua during the Assyrian period. Even the Persians, it seems, used the Assyrian language in general diplomatic correspondence. Aramaic continued to be used as an Interlingua in the Parthian and Sasanian ones, as it had done in Assyria. Therefore, this custom, Arameograms, is similar to and perhaps carried over from the Akkado-grams and Sumerograms in cuneiform and might have originated when Persian governmental offices, staffed by Aramaic-speaking officials, were converted from writing on clay to parchment in the time of Darius the Great. Indeed, Middle Iranian texts have survived in a large variety of different scripts nearly based on some version of the Aramaic script, a fact that reflects the role of Aramaic as the language of administration in the Achaemenid Empire on the one hand and maybe a policy against the Influence of the Greek language on the other hand. To sum up: Arameograms is a continuous written tradition, just like the Akkadians used the Sumerograms.

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