

ON THE SUMERO-INDO-EUROPEAN LANGUAGE CONTACTS

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ABSTRACT: Albeit the genetic affinity of the Sumerian language is still lacking consensus, some vocabulary related to Sumerian may be found from various language families including Indo-European, Kartvelian, Semitic, Dravidian and Uralic. Where the Semitic contacts are well attested, contacts to other families have often regarded controversial.

In this paper I will present and briefly review 30 words attested in the Sumerian and Indo-European languages which may share a common etymology, including some which have already been proposed by J. Pokorny and G. Whittaker. Of the presented lexical data, ~9 words can be tentatively considered as direct borrowings and 6 as a proto-historical adstrate. The rest can be regarded partly as wanderworts or perhaps even as relics of the debatable Nostratic macrofamily. However, in some cases the semantic and phonetic resemblance may be purely coincidental.

Introduction

Sumerian language was spoken in ancient Mesopotamia from the 4th millennium BC to the Old Babylonian period (1900 BC) during which the Sumerians gradually assimilated into Akkadian speaking Babylonians. By the end of the 17th century BC Sumerian was no longer spoken as a first language but it was still studied by Akkadian scholars as a classical language and its literary tradition continued for almost two millennia. The latest written memorials of the Sumerian language date back to the post-Seleucid era 1st century AD (Hayes 1997: 4).

In the 1850s after the rediscovery and partial decipherment of the Sumerian language by Henry Rawlinson and Edward Hincks, arose an intriguing question of its genetic affinity. Although the typological features of Sumerian reflect those found in many agglutinative languages

of Eurasia¹, finding any genealogical links to other languages proved to be an insuperable task. Regardless of numerous attempts to connect Sumerian with Caucasian, Semitic, Ural-Altai², (Elamo-)Dravidian, Basque and Indo-European languages, by the vast majority of scholars it is still regarded as a language isolate with no known relatives (Edzard 2003). It has also been suggested that the Sumerian language descended from a late Paleolithic creole (Høyrup 1992). However, no conclusive evidence, excluding some typological features cannot be found to support Høyrup's view.

Even though Sumerian has no known genealogical relatives, some Sumerian vocabulary can be identified from various languages such as Akkadian and Assyrian³, and also from their modern relatives e.g. Arab. *هَيْكَل* (*haykal*) 'temple' ← Akk. *ekallum* ← Sum. *é.gal* 'palace'; Hebr. עיר (*'ir*) 'town' ← Sum. *iri* 'city; town'. Where the language contacts with Semitic languages are well studied and practically undeniable, it becomes more complicated to find convincing evidence on Sumerian language contacts with families located outside Mesopotamia, such as Indo-European. The main problem is, that due to distribution of possible Sumerian adstrate in IE languages the contacts must have taken place before the diverging of the Proto-Indo-European language (PIE), which according to the present knowledge⁴ took place before the Sumerian migration into Mesopotamia (4000 – 3100 BC). Consequently, in order to explain the distribution one is tempted to assume that (1) Sumerian or its earlier language stage was once spoken in the proximity of the PIE urheimat located in the Pontiac-Caspian Steppe, or (2) that the common vocabulary was not directly transmitted from Sumerian to PIE (or vice versa), but was transmitted by unknown prehistoric languages spoken between the PIE and Sumerian homelands, and perhaps partly even originated from them.

Despite the location of the Sumerian original homeland is still lacking consensus, Kramer's (1963) hypothesis of their migration into Meso-

- 1 Features include a developed case system, lack of grammatical gender or articles, complex finite and non-finite verb conjugation, extensive use of compounding etc. See Edzard 2003: 1; Hayes 1997: 6–7 or Thomsen 1984: 48–51 for a synopsis of the general characteristics of the Sumerian language.
- 2 Bobula 1951; Zakar 1971; Gostony 1975; Parpola 2007 (work in process).
- 3 See Lieberman 1976.
- 4 See Kurgan hypothesis by Gimbutas 1956.

regarding the phonemic inventories of the compared languages. Where the Proto-Indo-European sound system is completely based on reconstruction and thus reflects the pronunciation on an abstract level, also the exact quality of the Sumerian phonemic inventory is uncertain. The uncertainty is a result of the decipherment process based on the Akkadian phonetic values of the Sumerian cuneiform signs, whereupon misleadingly the phonemic inventories of these languages seem to be almost identical. By internal reconstruction it is possible to reveal some of these lost phonemes, but unfortunately it is often impossible to locate their distribution among the vocabulary on a larger scale. E.g. we know that the Sumerian language had a phonemic labio-velar stop /g^w/ and two liquids /l₁/ and /l₂/ but there are only a handful of words where they are known to exist for certain. Even more complicated is the case of Sumerian vowel inventory of which only four vowels <i e a u> are distinguished on graphemic level, but where each of these graphemic vowels hide a subset of vowel phonemes tentatively reconstructed as <i> = /i/; <e> = /e ε/; <a> = /a/ and <u> = /o ɔ u/ (Smith 2007).

Nevertheless, in this paper I assume that the current reconstructions of the Sumerian and PIE sound systems are accurate enough to be satisfactorily used for lexical comparison. In general, Sumerian words are represented in their graphemic forms, but also more detailed phonemic reconstructions are presented in cases they are available.

Vocabulary

This section consists of 30 Sumerian and Proto-Indo-European words and roots, which could possibly share a common etymology. Arrows (→) refer to the direction of borrowing, tilde (~) stands for “possibly corresponds with”. In the case of borrowing, the arrows point rather to language families than individual languages. For example OCS *osl*; OE *assa*; → Finn *aasi* 'donkey' means that the word has been borrowed to Finnish from Indo-European languages, not from Old Church Slavonic or Old English.

(1) Sum. *anše* 'equid; donkey; ass' ~ Hitt. (ANŠE) /?/; HLuw. (ASINUS)-*na* 'donkey; mule'; Arm. *ēs*⁷ 'donkey'; Lat. *asinus*; PCelt. **assin* 'ass'; Lith. *asilas*; OCS *osl*; OE. *assa*; → Finn. *aasi* 'donkey'

The word dates back to the domestication of the African wild ass in North-East Africa around 4500 – 4000 BC wherefrom it was introduced to Mesopotamia and Levant ca. 2800 – 2500 BC. By this time the Proro-Indo-European had already diverged and consequently the word was only borrowed into western IE languages through Anatolia. Unfortunately, despite Hittites and Luwians wrote 'donkey' using a Sumerian logogram ANŠE, the word is unattested syllabically and thus the actual pronunciation is unknown.

Phonetically *anše* seems to be a plausible source of borrowing for western IE languages. In the eastern IE branch this word was inherited from a different source: Tocharian B **kercapo*; Middle Persian *xar*; Sanskrit. *khara*.

It is unclear if the Sumerian word is original or borrowed. It may be of African origin (compare to Egyptian *āa*⁸ 'donkey'), but also a native etymology has been suggested by Halloran (1999): {AN} = 'sky; high', {ŠE} = '(terminative) to' = 'to lift up; carry'.

ED IIIa/b, OA, Lagaš II, Ur III, OB⁹. (ANŠE)¹⁰. [2957×, AF 48]¹¹

(2) Sum. *bur(u(d).)* 'breach; hole; depth; to perforate' ~ PIE **b^her(ed^h)*- 'to cut; breach'; OInd. *bhárvati* 'chews'; Lat. *forāre* 'to bore; pierce' ON *bora* → Finn. *póra*- '(to) drill'

Often suggested as a wanderwort or a Proto-Nostratic etyma: PN **burV* 'to break' (Bomhard 2008). Due to its first attestation in the OA period, Sumerian word is possibly a loan from Akkadian *būrum* 'pit; well; cistern' and its relation to PIE is very difficult to analyze.

OA, Ur III, OB (U) [49×, AF 0]

7 Most likely derived from PIE **h₁ekwos* 'horse' and thus not related.

8 Also transcribed ʾ3 possibly pronounced *[ʕa:].

9 Periods the word is attested in Sumerian literature, cf. the abbreviations in the end.

10 Logographic writing.

11 Total attestations in PSD corpus and archaic frequency (before the ED III period) of the logogram. Figures are based on ePSD and Halloran 1999.

(3) Sum. *dub* 'clay tablet' → Akk. *tuppum*; NA *tuppu* id. → Hitt. *tuppi* id.

Borrowed to Hittite through Akkadian or Assyrian.

ED IIIb, OA, Lagaš II, Ur II, EOB, OB (DUB) [1183×, AF 229]

(4) Sum. *erin*; (*h*)*u*₁₁-*rí-in* 'eagle; standard' ~ PIE **h₃er-*; **h₃or-no-* 'eagle'; Hitt. *ḫaran*; Arm. *arcui*; Gk. *órneon* (ὄρνειον); Lith. *erelis*; ON *ari*.

Both Sumerian variants are also found in Akkadian as *erû* and *urinnu* (CDA 80, 426). PIE **h₃* is omitted in Sumerian similarly to (12) and (26), but there are also forms where the word initial /h/ was possibly preserved as HU can be read *ḫu* or *u*₁₁.

In contrast to *^sburu*₄ 'crow' (9), this word is not necessarily onomatopoeic.

ED IIIa, OB (HU.URU.IN^{MUŠEN}) [23×, AF 25]

(5) Sum. *gan(a)* 'to bear young; give birth' ~ PIE **ǵenh₁-* 'to give birth'; Hitt. *genzu*; Skr. *jāti* (जाति); TochB *kän*; Lat. *genus*, *gignere*; Goth. *kuni*.

In Sumero-Akkadian lexical lists translated into Akkadian as *walādu(m)* 'to give birth'. Affinity of these words is unclear. More frequently attested word with same meaning is *utud*.

ED IIIb to MB+ (GAN) [12×, AF 125]

(6) Sum. *géme*; ES *gi₄-in* ~ *ge₄-en₆* 'fem. worker' ~ PIE **ǵ^{wh}en-* 'woman'; Hitt. **kuu*; Luw. *wanatti*; Skt. *gnā* (गना); TochB *šana*; Gk. *gunē* (γυνή); OCS *žena*; Ir. *bean*; ON *kona*.

Logogram compound SAL.KUR (woman + foreign land) implies that the word was borrowed into Sumerian and denoted to foreign female slaves. In lexical lists translated with Akkadian *amtu* 'female slave'. Halloran (1999) has also suggested a Sumerian etymology {ĜEŠ} = 'tool' + {MI₂} = 'woman', but the IE origin is to be considered more plausible.

ED IIIb, OA, Lagaš II, Ur III, EOB, OB (SAL.KUR) [4025×, AF 0]

(7) Sum. *gigir*₂(*a*) 'chariot' → PIE **k^wek^wlo-* 'wheel'; Luw. *kaluti-*; Skt. *čakrās* (चक्र); TochA *kukäl*; Gk. *kyklos* (κύκλος); Lith. *kāklas*; ON *hvel* ~ PSD **tikVr* 'wheel; circle; chariot'; Tam. *tikiri* ~ Zyr. *gegil* 'wheel'

This comparison is controversial due to both, semantic and phonetic inaccuracy. Nonetheless, the PIE word may be of the Sumerian origin as it represents an important Mesopotamian cultural innovation. Similar word is also found in Dravidian languages and Zyrien (Parpola 2007).

ED IIIa, OA, Ur III, EOB, OB (^{ĜEŠ}LAGAB×U/^{ĜEŠ}LAGAB×BAD), [437×, AF 37]

(8) Sum. *gud'*, *gu*₄ 'ox, bull; cattle'. ~ PIE **g^wou(s)*- 'cow; ox'; Hitt. **kuuāu-*; Skr. *go* (गो), Gk. *bous* (βούς); TochB *keÿ*; ON. **kú*;

Having almost perfect phonetic and semantic correspondence, this is one of the best cognates available (also proposed by G. Whittaker [2005]). Exact quality of the Sumerian word final phoneme /d'/ is uncertain, but a dental fricative or some kind of flap or tap has been suggested (Thomsen 1984) /**guθ*/ or /**gur*/.

I consider it probable that the Sumerian word originates from some older Mesopotamian language, as domestication of cattle predates the Sumerian migration for at least three millennia. Possibly related word is found in Egyptian *ka* 'ox' → fem. *kaut* 'cow'.

ED IIIa/b, OA, Lagaš II, EOB, OB, MB+ (GUD), [17947×, AF 182]

(9) Sum. *gu-úr(u)*, *buru*₄ 'crow; vulture' ~ PIE **kórw-eh*₂ 'crow'; Skr. *śāri* (शारि); Lat. *corvus*. Lith. *krauklys/šárka*; OE *hræfn*.

Sumerian word is attested in numerous different forms, *buru*₄^{mušen} and *gu-úr(u)*^{mušen} being the most frequent. Graphemic *g~b* alternation has been explained to represent a labiovelar stop /*g^w*/ (normally transcribed /^s*b*/ in Sumerology). Similarity may also be a result of onomatopoeia, which is fairly common in bird names. Compare with words meaning 'crow' in Turkish *karga*, Japanese *karasu*, Kiswahili *kunguru*, Navajo *gáagii* etc.

ED IIIa, Ur III, OB (NU₁₁.BUR^{MUŠEN}), [13×, AF 0]

(10) Sum. *gu*₇(.r²) 'eat' ~ PIE **g^wer-* 'devour'; Skt. *girati* (गिरति); Av. *jaraiti*; Gk. *bora* (βορά); Lith. *gerti*; Ir. *bráighid*; ON *krás*.

Reading with final **r* is controversial and based on alternative reading *kur*₈. Forms a possible minimal pair with Sum. *gur*₁₆ ~ PIE **g^wer-* thus possibly belonging to the same layer of borrowings (cf. 14).

ED IIIa/b, OA, Lagaš II, Ur III, EOB, OB (KAG×GAR); [1672×, AF 236]

(11) Sum. **gúr** '(to) circle; ring; loop; to curb, subdue' ~ PIE **ǵ^her-* 'to enclose'; Hitt. *gurtas*; Skt. *harati* (हयति); TochB *kerccī*; Gk. *khórtos* (χόρτος); ON *gaðr*.

Very poorly attested. More frequently attested word for 'to enclose' is *niĝin*. Relation between these words is unclear, if one ever existed.

Rare (GAM), [?*, AF ?]

(12) Sum. **igi** 'eye; face'; ES. **i-bi** ~ PIE **h₃ek^w* - 'eye'; Skt. *akṣi* (अक्षि); Toch. *aklek*; Lat. *oculus*; OCS *oko*; ON *auga*.

Similarly to (4) and (26), PIE **h₃* corresponds to Ø in Sumerian. Relation unclear.

ED IIIb, OA, Lagaš II, Ur III, EOB, OB (IGI), [1133×, AF 21].

(13) Sum. **izi** 'fire; brazier' → Akk. *išātu* id. ~ PIE **h₁eus-* 'to burn'; Skt. *oṣati* (ओषति); Lat. *ūrō*; Lith. *usnis*; ON *usli*.

Controversial due to phonetic and semantic inaccuracy. Possibly coincidental.

ED IIIb, OA, Lagaš II, Ur III, OB (NE), [257×, AF 303]

(14) Sum. **kur** 'mountain; netherworld; (foreign) land; east (wind)' ~ PIE **ǵ^wer-* 'mount; ridge of hills'; Skt. *giri* (गिरि); Gk. *deiras* (δειράς); Arm. *leř*; OCS *gora* ~ GZ **gora-* 'mount; hill' ~ PU **wōre* < **woxri* 'mountain; forest'.

Has also phonetic values *gur*₁₆¹² and *kir*_{2/5}. This is an ancient, areal word (cf. Bomhard [2008] PN: **borV*) found from numerous languages including Kartvelian and Uralic. In some Uralic and IE languages this word has also a meaning "woods; forest". In the Sumerian *kur* written with a determinative (GIŠ.KUR) means a "log" or "wood"; Akkadian *kiskibirru* 'kindling wood' (ePSD: *kur*₍₄₎).

Meanings 'foreign land' and 'east (wind)' are possibly of later secondary development and refer to the Zagros Mountains east of the Sumerian heartland in Mesopotamia.

Halloran (1999) has suggested a native Sumerian etymology for *kur*: {KI} = 'place'; {UR_{2/3}} = 'roof; mountain pass; root, base', but I consider it controversial due to Kartvelian, IE and Uralic evidence supporting its

12 I consider it possible that this word may have included a labio-velar stop /^ʕbur/ as in *buru*₁₄(EN×GAN₂@t) ~ *gur*₁₆(KUR) 'harvest' → Akk. *ebûru* id.

areal origin.

ED IIIa/b, OA, Lagaš II, Ur III, EOB, OB, MB+ (KUR), [2494×, AF 145]

(15) Sum. *luḥ(u)* 'to wash; clean' ~ PIE **leh₂w-* 'to wash'; Hitt. *lahhu* 'to pour'; Gk. *lousis* (λοῦσις); Lat. *lavō*; ON *laug*.

Also rarely attested *lih* and *lāh*. Words are very likely related due to their phonetic and semantic resemblance, however the direction of borrowing is unclear.

ED IIIb, OA, Lagaš II, Ur III, OB (LUH), [164×, AF 0]

(16) Sum. *maḥ(a)* '(to be) great; powerful; numerous' ~ PIE **mag^h-* 'to be able; to have power'; Skt. *magha* (मघ); Gk. *mēkhos* (μῆχος); ON *mega*; Lith. *magėti*; → Finn. *mahtaa* 'to be able', *mahti* 'might'.

Very well attested in literary and lexical texts. Relation of these words is probable but difficult to analyze.

ED IIIb, OA, Lagaš II, Ur III, EOB, OB (MAH), [3271×, AF 6]

(17) Sum. *musara* 'inscription; seal' → Akk. *musarûm* ~ PIA **mudra-* 'seal'; Skt. *mudrā* (मुद्रा).

Borrowed only to Indic branch. Sumerian etymology {MU} = 'name'; {SAR} = 'write' proves the Sumerian origin.

ED IIIb, OA, Lagaš II, Ur III, OB (MU.SAR.RA), [55×, AF -]

(18) Sum. *nu* 'no; not (to be); without; un-' ~ PIE **ne-* 'no'; Hitt. *natta* 'not'; Lat. *non*.

Found from various languages and often regarded as a Proto-Nostratic etyma. Sumerian *nu* also functions as a negative verb: *nu-ù-me-en* 'I am not', **nu-me-en* 'you are not', *in-nu-ù* 'he is not', **nu-me-en-dè-en* 'we are not' etc.

ED IIIb, OA, Lagaš II, Ur III, EOB, OB (NU). [785×, AF 101]

(19) Sum. *sí-sí* 'horse' ↔² Akk. *sisium* 'horse' ← Hurr. *issi(a)* 'horse' ~ PIE **h₁ekwos* 'horse'; Hitt. *ašuwās*; CLuw *a-aš-šu*; Skt. *áśva* (अश्व); PIA. **ačwa-*; Lat. *equus*; Alb. *sasë*.

Probably borrowed into Sumerian from Hurrians, who populated the northern parts of Mesopotamia¹³ from ca. 2400 to the first millennium BC.

13 Hurrian lands were called *Išuwā* 'horse-land' by the neighboring Hittites.

It is unclear from which Indo-European language Hurrians borrowed the word, but the source language had definitely undergone satemization, thus being most likely of the Indo-Aryan group. The problematics of the PIE root **h₁ekwos* and its possible connection to Hurrian *issia* is discussed further in Ivanov (1999).

Ur III, OB (^{ANŠE}SI₂.SI₂, ^{ANŠE}KUR), [90×, AF 0]

(20) Sum. *šáh(a)* 'pig; boar' → Akk. *šahû* 'pig'; Ug. *šehû* 'pig' ~ PIE **suh₁-* 'swine'; Skr. *sūkara* (सूकर); TochB *suwo*; Lat. *sūs*; Goth. *swein*.

Variants: *šah*, *šúh*? (ŠUBUR). The reading with <a> is more widely accepted and supported by the Akkadian correspondent. Similar word is also found from Kartvelian languages, GZ *ešw-* 'wild boar, pig'. All these words probably share a common prehistoric etymology.

Halloran (1999) has suggested a (somewhat controversial) Sumerian etymology for *šáh* based on his hypothesis of the Proto-Sumerian articulatory symbolism: {ŠE} = 'grain'; {A} = 'water'; {H} = 'numerous; offspring' (see also Halloran 2005).

ED IIIa/b, OA, Lagaš II, Ur III, EOB, OB, MB+ (DUN), [1117×, AF 39]

(21) Sum. *še* 'barley; grain' ~ PIE **seh₁-* 'to sow; seed(?)'; Hitt. *šai-* 'to thread'; Skt. *sāyaka* (सायक); TochA *sāry*; Lat. *serere*; Goth. *saian*.

Despite their semantic inaccuracy, these words possibly share a common etymology. Sumerian word for 'to sow' is *uru₄/*oru/* (see 28).

ED IIIa/b, Ebla, OA, Lagaš II, Ur III, EOB, OB, MB+ (ŠE), [28315×, AF 639]

(22) Sum. *še₂₁.d* 'to lie down (of animals); to rest; to sit' ~ PIE **sed-* 'to sit'; Skt. *sīdati* (सीदति); Av. *nišaḍayeiti*; TochA *sātk*; Gk. *hezomai* (ἕζομαι); OCS *sěděti*; Gaul. *essedum*; ON *sitja*.

Poorly attested. Translated into Akkadian as *rabāṣu* 'to sit; be recumbent (of animals)'. Relation of these words is unclear.

ED IIIb, OB (HU.NA₂), [9×, AF ?]

(23) Sum. *šeg*, 'snow; frost; cold weather' ~ PIE **sneig^{wh}* 'snow'; Skt. *sneha* (स्नेह); TochB *šīñcatstse*; Gk. *nipha* (νίφα); Lith. *sniegas*; ON *snjór*.

Possible connection to Sumerian *šeg* was first introduced by Pokorny (1959). However, differing from Pokorny, I consider it possible that the

Sumerian word was not originally pronounced /šeg/.

Sumerian word is alternatively written with a compound A.ŠU₂.NAGA traditionally read šeg₄. In my interpretation, this represents the original pronunciation: Sign A stands for a semantic complement {water}¹⁴ where ŠU₂ represents a phonetic complement indicating, that the last sign should be pronounced with a syllable initial consonant cluster /*šneg/. This would be similar to the way Hittites scribed their consonant clusters in cuneiform e.g. *pa-ra-a* /prā/ 'to; forth'. Because syllable initial consonant clusters were prohibited by Sumerian phonotactics, /*n/ was dropped in the later language stages and word was simplified into /šeg/ (ŠEG₉) as shown in OB syllabic writing *še-eg*¹⁵.

ED IIIb, Lagaš II, Ur III, OB (ŠEG₉), [11×, AF 10]

(24) Sum. *tag(a)* 'to touch; take hold of' ~ PIE **tag-* 'to touch'; Gk. *tetagōn* (τεταγών); Gaul. *Taximagulus*; OE *þaccian*.

Semantic and phonetic resemblance is flawless. Sumerian *tag(a)* is possibly somehow related to Sumerian verb *tuku* 'to have; to acquire'. Similar words are also found from Dravidian and Turkic languages: Proto-North-Dravidian **tak-* 'touch; Proto-Turkic *değ* 'to touch; to reach'. Possibly an areal wanderwort. Also often suggested as a relic of the Proto-Nostratic macrofamily.

ED IIIb, OA, Ur III, OB, MB (TAG), [266×, AF 48]

(25) Sum. *ú-li-in* / *wu_x-li-in* 'colored twine/wool' → Akk. *ulinnu* id. ~ PIE **wel* 'wool'; Hitt. *hulana*; Skt. *ūrṇā* (ऊर्णा); Lat. *vellus*; Goth. *wulla*; → Finn. *villa* 'wool'

More common word for 'wool' in Sumerian was *mug* → Akk. *mukku*. Word *ú-li-in* was most likely borrowed into Sumerian, and denoted to some particular type of colored twine imported from an Indo-European language speaking region.

Syllabic writing alludes to late borrowing.

Rarely attested (U₂.LI.IN), [?×, AF 0]

14 Similarly to A.AN {WATER.SKY} = šēg 'rain'.

15 I have previously suggested that ŠE could have a phonetic value /*ašna/ or /*šne/ due to one of its alternative readings: *ášnan*; *šne-eg* ~ *ášna-ig*. Word initial /a/ in the latter could then be regarded as a prosthetic vowel.

(26) Sum. *u₈(a)* 'ewe'; also read *u₅* 'sheep' ~ PIE **owi*; **h₃owi(s)* 'sheep; ewe'; Hitt. *ḫawi*; Skt. *ávika* (अविका); TochB *āuw*; Lat. *ovis*; Goth. *awēpi*; → Finn. *uuhi* 'ewe'

Suggested also by Whittaker (2005). This pair is semantically credible, but difficult to validate due to absence of /w/ in Sumerian writing. PIE **h₃* seems to be omitted as in (4) and (12).

ED IIIa/b, OA, Lagaš II, Ur III, OB, MB+ (LAGAB×GUD+GUD), [4255×, AF 86]

(27) Sum. *urbara* 'wolf' ~ Akk. *barbaru* id. ~ PIE **wlk^wo-* 'wolf'; Hitt. *ulippana*; Skt. *vrka* (वृक); Lat. *lupus*; Av. *verhka-*; TochB *walkwe*; Alb. *ulk*; Lith. *vilkas*; ON *úlfr*.

Mostly attested in OB period but few ED IIIa attestations and a native etymology point to earlier Sumerian origin: {UR} = 'dog'; {BARA} = 'outside'. I consider it possible that the PIE word may have a Sumerian etymology regardless of its phonetic appearance, as names of carnivorous beasts were often tabooed and exposed to intentional euphemistic deformation (see Allan & Burridge 1991).

ED IIIa, OB (UR.BAR.RA), [33×, AF 0]

(28) Sum. *uru₄* 'to sow; cultivate' → Akk. *erēšu* id. ~ PIE **h₂erh₁-* 'to plow'; TochA *āre*; Arm. *arawr*; Lat. *arō*; Lith. *arti*; OCS *orati*; OIr. *airim*; ON *arðr*. → Finn. *aura* 'plow'.

Possibly pronounced /**oru*/. Regardless of the semantic inaccuracy, these words share likely a common prehistoric etymology.

ED IIIb, OA, Ur III, OB (APIN), [359×, AF 181]

(29) Sum. *urud(a)* 'copper' → Akk. *erû* 'copper' ~ PIE **h₁reud^h-ó-* 'red'; Skt. *rudhira* (रुधिर); Av. *raoðita*; TochA *rtär*; Gk. *eruthros* (ἐρυθρός); Lith. *raudonas*; Gaul *roudos*; ON *rjóðr*; PGerm. **hrauta(z)* 'iron' → Finn. *rauta* 'iron' ~ PSD **er-* 'dark-brown color'; Tamil **eruvai* 'blood; copper'.

Possibly pronounced /**oruda*/>¹⁶. Despite the semantic inaccuracy with the PIE these words probably share a common etymology. The Sumerian initial vowel <u> = /o²/ can be explained as a prosthetic vowel to overcome

16 See Appendix A in Smith 2007.

the phonotactic restriction disallowing syllable initial consonant clusters. /h/ may have dropped in later language stages similarly to laryngeal¹⁷ /*h/ in Sumerian: /*hid/ → íd 'river' (→ Hebr. *Hideqqel* 'Euphrates'; /*hey.gal/ → é.gal 'palace' (→ Ugaritic *hkl* 'palace').

ED IIIb, OA, Lagaš II, Ur III, EOB, OB (URUDA/DUB), [992×, AF 61]

(30) Sum. *úš* 'blood; gore' ~ PIE **ésh₂r-*, **h₁ésh₁r-* 'blood'; Hitt. *ēšar*; Skt. *ásrj* (असृज्); ToChA *ysār*; Arm. *ariwn*; Gk. *éar* (ἔαρ); Ltv. *asins*.

Relation of these words is unclear. Word *úš* (UŠ₂) is also used as a singular hamtu (preterite) stem of a suppletive verb *ug_{7/5}* 'to kill; to die; to be dead': *ba-úš-en* 'you died' ~ *ba-ug₅-en* 'you will die'. It is not certain to me if *úš* 'to kill; to die' is derived from *úš* 'blood' or vice versa, or if they are just coincidentally homonymous. In the case of homonymy Sumerian word could be a late loan (OB period) from some IE language; otherwise it is to be considered as an original word due to its existence in a suppletive verbal paradigm.

OB (UŠ₂), [50×, AF ?] in meaning 'blood'; ED IIIb, OA, Lagaš II, Ur III, EOB, OB (UŠ₂), [3556×, AF 65?] in meaning 'to kill; ~ die; death'.

Conclusion

Entries (1), (3), (7), (17) and (27) are probably loan words from Sumerian, (3) being intermediated by Akkadian and (7, 27) possibly by some unknown, now extinct languages. In contrary, entries (6), (19), (23) and (25) are certainly not of Sumerian origin, and most likely borrowed from the PIE, (19) being borrowed through Hurrian.

(8), (20), (21), (26), (28) and (29) represent mostly agricultural terminology predating the Sumerian migration. These words are not necessarily of the Sumerian or Indo-European origin, but relics of the local prehistoric areal vocabulary. Also (1) could be included in this group if the Sumerian etymology is not accepted.

The rest of the entries (2, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 18, 22, 24 and 30) are more problematic to analyze, even though some of the words show

¹⁷ Sumerian had also a pharyngeal fricative /ħ/ which retained in all positions.

a clear phonetic and semantic resemblance.

At present I consider both, the quality and the number of possible common etymologies satisfying enough to continue my study on this subject.

Abbreviations

Periods and language stages

ED IIIa	Early Dynastic IIIa (2750 BC)	Old Sumerian
ED IIIb	Early Dynastic IIIb (2550 BC)	“
OA	Old Akkadian (2340 BC)	“
Lagaš II	2 nd Dynasty of Lagaš (2093 BC)	“
Ur III	3 rd Dynasty of Ur (2050 BC)	Neo-Sumerian
EOB	Early Old Babylonian (2000 BC)	“
OB	Old Babylonian (1900 BC)	Post-Sumerian
MB+	Middle Babylonian and later (1500+ BC)	“

Languages

Akk.	Akkadian	Ltv.	Latvian
Alb.	Albanian	NA	Neo-Assyrian
Arab.	Arabic	OCS	Old Church Slavonic
Arm.	Armenian	OE	Old English
Av.	Avestan	OG	Old Georgian
CLuw.	Cuneiform Luwian	OIr	Old Irish
ES	Emesal Sumerian	ON	Old Norse
Finn.	Finnish	PCelt.	Proto-Celtic
Gaul.	Gaulish	PIA	Proto-Indo-Aryan
Gk.	Greek	PIE	Proto-Indo-European
Goth.	Gothic	PN	Proto-Nostratic
GZ	Georgian-Zan	PSD	Proto-South-Dravidian
Hebr.	Hebrew	PU	Proto-Uralic
Hitt.	Hittite	Skr.	Sanskrit
HLuw.	Hieroglyphic Luwian	Sum.	Emeĝir Sumerian
Hurr.	Hurrian	Tam.	Tamil
IE	Indo-European	TochA	Tocharian A
Ir.	Irish	TochB	Tocharian B
Lat.	Latin	Ug.	Ugaritic
Lith.	Lithuanian	Zyr.	Zyrien

Sources and referred literature

- ALLAN, KEITH, BURRIDGE, KATE 1991: *Euphemism & Dysphemism: Language Used as Shield and Weapon*. Oxford University Press.
- BLACK, J., GEORGE, A.; POSTGATE, N. 2000: *A Concise Dictionary of Akkadian* (CDA). SANTAG 5, Harrassowitz Verlag, Wiesbaden.
- BUDGE, E. A. WALLIS, Sir. 1889: *Easy Lessons in Egyptian Hieroglyphics with Sign List*. Republished in 1983: *Egyptian Language, Easy Lessons in Egyptian hieroglyphics*. Dover Publications, New York.
- BOBULA, IDA 1951: *Sumerian affiliations. A Plea for Reconsideration*. Washington D.C. (Mimeographed ms.)
- BOMHARD, ALAN 2008: *Reconstructing Proto-Nostratic: Comparative Phonology, Morphology, and Vocabulary, 2 volumes*. Leiden: Brill.
- CAVALLI-SFORZA, LUIGI; MENOZZI, PAOLO; PIAZZA, ALBERTO 1994: *The History and Geography of Human Genes*. Princeton University Press.
- CHONG, PETER 2003: *Uralic and Altaic etymological lexicon*.
- DIAKONOFF, I., STAROSTIN, S. 1986: "Hurro-Urartian as an Eastern Caucasian Language" - *Munchener Studien zur Sprachwissenschaft*, Beiheft, N.F., 12
- EDZARD, DIETZ OTTO 2003: *Sumerian Grammar*. Brill, Leiden—Boston.
- GIMBUTAS, MARIJA 1956: *The Prehistory of Eastern Europe, Part 1*.
- GOSTONY, C. G. 1975: *Dictionnaire d'étymologie sumérienne et grammaire comparée*. Paris
- GÜTERBOCK, HANS G., HOFFNER, HARRY A. 1997: *The Hittite Dictionary of the Oriental Institute of The University of Chicago*.
- HALLORAN, JOHN A. 2005: *The Proto-Sumerian Language Invention Process*. <<http://sumerian.org/prot-sum.htm>>
- HALLORAN, JOHN A. 1999: *Sumerian lexicon 3.0*: <<http://www.sumerian.org>>
- HARPER, DOUGLAS 2001: *Online Etymological Dictionary*. <<http://www.etymonline.com/>>
- HAYES, JOHN 1997: *Sumerian, Languages of the World/Materials LWM 68*, Lincom Europa.
- HØYRUP, JENS 1998: "Sumerian: The descendant of a proto-historical creole? An alternative approach to the Sumerian problem" in Published: *AIQN. Annali del Dipartimento di Studi del Mondo Classico e del Mediterraneo Antico. Sezione linguistica. Istituto Universitario Orientale, Napoli 14* (1992; publ. 1994), 21–72, Figs. 1–3.

- IVANOV, VYACHESLAV 1999: *Comparative notes on Hurro-Urartian, Northern Caucasian and Indo-European* in *UCLA I-Eur. studies* 1.
- KLIMOV, GEORGIJ A. 1998: *Etymological Dictionary of the Kartvelian Languages*. Trends in Linguistics Documentation 16. Mouton de Gruyter, Berlin, New York.
- KLOEKHORST, ALWIN 2007: *The Hittite inherited lexicon*. Leiden.
- KRAMER, SAMUEL N. 1963: *The Sumerians*. University of Chicago Press.
- LIEBERMAN, STEPHEN J. 1976: *The Sumerian loanwords in Old Babylonian Akkadian*. Scholars press for Harvard Semitic Museum. Missoula, MT.
- PARPOLA, SIMO 2007: "Sumerian: A Uralic language" in *Language in the Ancient Near East*. *Compte rendu de la 53^e Rencontre Assyriologique Internationale*, Moscow.
- POKORNY, JULIUS 1959: *Indogermanisches etymologisches Wörterbuch (IEW)*. Bern and Munich: Francke Verlag
- ROSSEL, STINE et al. 2008: "Domestication of the donkey: Timing, process and indicators" in *Proceedings of the National Academy of Sciences* 105(10):3715-3720.
- SLOCUM, JONATHAN 2010: *Pokorny Master PIE Etyma* in Linguistics Research Center, University of Texas at Austin.
<<http://www.utexas.edu/cola/centers/lrc/ielex/>>
- SMITH ERIC J. M. 2007: "[-ATR] Harmony and the vowel inventory of Sumerian" in *Journal of Cuneiform Studies* Vol. 59, (2007), pp. 19– 38.
- SJÖBERG, ÅKE; LEICHTY ERLE; TINNEY, STEVE 2006: *The Pennsylvania Sumerian Dictionary* <<http://psd.museum.upenn.edu/epsd>>
- SPEISER, EPHRAIM A. 1950: "The Sumerian problem reviewed" in *Hebrew Union College Annual*, XIII, 1 (1950), 339-355.
- THOMSEN, MARIE-LOUISE 1984: *The Sumerian language, an introduction to its history and grammatical structure*. Akademisk Forlag, Copenhagen.
- WHITTAKER, G. 2005: *Ethnicity, writing, and the Sumerian Question*. Paper read at the 48th Rencontre Assyriologique Internationale, Leiden.
- ZAKAR, ANDRÁS 1971: "Sumerian – Ural-Altai affinities". In *Current Anthropology* 12/2: 215-225.
- ZISKIND, JONATHAN R. 1972: "The Sumerian Problem" in *The History Teacher* vol. 5, No. 2. (Jan., 1972, pp. 34–41). Society for History Education.
- Wiktionary: List of Proto-Indo-European roots:
<http://en.wiktionary.org/wiki/Appendix:List_of_Prot Indo-European_roots>

APPENDIX I – SUMERO-PIE VOCABULARY

From Sumerian to Indo-European

- (1) *anše* 'donkey; equid' → European **assin* 'donkey'
(3) *dub* 'clay tablet' → Akk. → Hitt. *tuppi* 'clay tablet'
(7) *gígir(a)* 'chariot' → (?) → PIE **k^wek^wlo-* 'wheel'
(17) *musara* 'inscription' → Indo-Iranian **mudra* 'seal'
(27) *urbara* 'wolf' → (?) → PIE **wlk^wo-* 'wolf'

From Indo-European to Sumerian

- (6) *gi₄-in* 'female worker' ← PIE **g^{wh}en* 'woman'
(19) *sí-sí* 'horse' ← Hurr. *issia* ← Indo-Iranian (*?)
(23) *šeg₉* / **šneg₄* 'snow' ← PIE **sneig^{wh}* 'snow'
(25) *ú-li-in* 'colored twine' ← Unknown IE language

Possibly of Proto-Historic origin

- (8) *gu₇(d')* 'ox; bull; cattle' ↔ PIE **g^wou(s)-* 'cow'
(20) *šáḥ(a)* 'pig' ↔ PIE **suh₁-* 'pig'
(21) *še* 'barley; grain' ↔ PIE **seh₁-* 'to sow'
(26) *u₈(a)* 'ewe' ↔ PIE **h₃owis* 'ewe; sheep'
(28) *uru₄* 'to sow; cultivate' ↔ PIE **h₂erh₁-* 'to plow'
(29) *urud(a)* 'copper' ↔ PIE **h₁reud^h-ó-* 'red'

Origin and Sumero-Proto-Indo-European relation unclear

- (2) *bur(u(d))* 'to perforate' ? PIE **b^her(e(d^h))* 'to perforate'
(4) *erin*; *hurin* 'eagle' ? PIE **h₃orno-* 'eagle'
(5) *gan(a)* 'give birth' ? PIE **genh₁-* 'to give birth'
(9) *^bgur(u)* 'crow' ? PIE **kór^weh₂* 'crow'
(10) *gu₇(r)* 'to eat' ? PIE **g^wer* 'to devour'
(11) *gúr* 'to circle' ? PIE **ǵ^her-* 'to enclose'
(12) *igi* 'eye' ? PIE **h₃ek^w-* 'eye'
(13) *izi* 'fire; brazier' ? PIE **h₁eus-* 'to burn'
(14) *kur* 'mountain' ? PIE **g^wer* 'mount'
(15) *luḥ(u)* 'to wash' ? PIE **leh₂w-* 'to wash'
(16) *maḥ(a)* 'to be powerful' ? PIE **mag^h* 'to be able; ~ power'
(18) *nu* 'no' ? PIE **ne-* 'no'
(24) *tag(a)* 'to touch' ? PIE **tag-* 'to touch'
(22) *šed* 'to lie down; to sit' ? PIE **sed-* 'to sit'
(30) *úš* 'blood; to die; to kill' ? PIE *(*h₁*)*ésh₂r-* 'blood'