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## ON THE GENETIC AFFILIATION OF THE ELAMITE LANGUAGE

### **Introduction**

The Elamite language has long been considered as a particularly irritating "white spot" on the ever increasing language map of the Ancient Near East and Mesopotamia. Whereas most of the cuneiform languages discovered on those territories throughout the last two centuries have turned out to be of Semitic origin (Akkadian, Ugaritic, etc.), Indo-European origin (Hittite and other Anatolian languages), or Caucasian origin (Hurro-Urartian and possibly Hatti), Elamite, as well as its 'neighbour', Sumeric, presents no obvious connections with any of the aforementioned families.

Until recently, the most widespread and heavily supported hypothesis about the genetic relationship of Elamite has been that of the "Elamo-Dravidian" theory, which suggests that Elamite is most closely related to the Proto-Dravidian language and should even be grouped together with it into a single Proto-Elamo-Dravidian (PED) family. This idea, having originated as early as the mid-XIXth century - it was even mentioned in the pioneering work of Robert Caldwell on Dravidian linguistics (Caldwell 1856) - found its main supporter in David W. McAlpin, whose works on the subject (McAlpin 1974; McAlpin 1975; and particularly PED) practically shaped the entire theory in its modern form. In his works, McAlpin presented and explicitly described a large number of language features that are in common between the different stages of the Elamite language, on one hand, and the reconstructed system of Proto-Dravidian, on the other. The main emphasis from the very beginning has been placed on the similarity between the Elamite and Dravidian morphological system; however, a set of phonologic correspondences and a certain number of lexical comparisons have also been suggested.

On the surface, the "Elamo-Dravidian" theory seems rather convincing: indeed, the number of similarities between the two 'branches' cannot be explained by sheer coincidence. Consequently, the theory has been embraced by multiple researchers, mainly among specialists in ancient languages of the Near East (cf., for instance, Diakonoff 1979) as well as specialists in long range comparison.

Recently, however, an alternate theory of the Elamite relationship has been put forward by Vaclav Blažek (Blažek 1992). Having expressed a particular concern about the lack of credible lexical comparisons between Elamite and Dravidian (while at the same time never discarding the morphologic evidence), Blažek suggests a close relationship between Elamite and another huge language family, namely, the Afroasiatic one. Contrary to McAlpin, Blažek does not focus as much on the comparison of the Elamite and the Afroasiatic grammar systems as he does on lexical evidence; his article quotes more than a hundred lexical correlations between Afroasiatic and Elamite, which is quite a significant number if we consider the relative scarcity of the known

Elamite lexicon.

Blažek, however, does not view his theory as 'opposed' to McAlpin's; as he writes himself, he doesn't 'exclude a remote relationship with Dravidian', and essentially sees no major obstacles in grouping all the three families together.

That said, both the evidence presented by McAlpin and Blažek certainly cannot be viewed as a final, totally convincing stage of establishing a certain genetic relationship. Instead of solving the problem, in fact, all these works seem to raise several additional ones. The most obvious question is - WHAT exactly is necessary to firmly establish the genetic relations between two different languages? This problem, well-known and well-described by many researchers, still does not receive a uniform answer, and it is present in an even more complex form when we have to deal with a language as poorly described as Elamite.

Another problem is that language relationship is not an absolute value; some languages are related more closely than others, and some represent distant offshoots from branches of a single proto-language that had diverged quite a long time ago. How closely, then, is the Elamite language related to Proto-Dravidian, or Proto-Afroasiatic? Does it form an 'equal' branch with other branches of those families, or does it represent a much earlier offshoot? (Even in these cases it is often hardly possible to give a straightforward answer - cf., for instance, the uncertain position of the Anatolian branch within Indo-European, sometimes regarded on par with the other Indo-European branches, sometimes joined with the other branches into a more archaic 'Indo-Hittite' family).

### **Preliminary evaluation of existing hypotheses**

As I have already pointed out above, on the surface the Elamo-Dravidian hypothesis of McAlpin looks well-backed up. His PED reconstruction is performed within the strict formal requirements of the classic comparative method, being based on regular phonetic correspondences and featuring a set of reconstructed morphologic markers as well as lexical entries.

However, a more detailed analysis of McAlpin's comparisons is able to show that the similarities between the two families (branches?) are, in fact, somewhat exaggerated. Being somewhat limited by the allowed volume of the article, I will only quote one major example of McAlpin's approach to morphologic comparison, which is of crucial importance to his reconstruction of PED and, in fact, quite typical of the work in general. This is his reconstruction of the nominal declension system.

(a) For PED, McAlpin reconstructs the following cases: nominative (zero ending), accusative (\*-*Vn*), adessive/dative (\*-*əkkə*), possessive (\*-*a*), adnominal (\*-*in*), oblique/locative (\*-*tə*). All of these case endings have regular correlations in Elamite and Dravidian, and based on this, McAlpin proudly states that the case endings 'match as complete paradigms' (PED 112).

This can hardly be so. First of all, the functions and syntactic usage of these morphemes rarely match in both families. This may not be a major problem, as there is no special requirement for

related morphologic elements to coincide in their functions in all related languages. However, a far more important problem is that the compared elements *rarely present common Elamo-Dravidian isoglosses*. Accepting the Nostratic theory that relates Dravidian to other large language families of Eurasia, such as Indo-European, Uralic, Altaic and Kartvelian, we will clearly see that most of these grammar elements are quite common in other Nostratic languages as well. Let us consider this situation in a more detailed aspect:

1) The Dravidian suffix *\*-Vn*, *\*-an*, commonly used to express the accusative case, is compared to the Elamite suffix *\*-n*, used to express the same case in personal pronouns (cf. *u 'I'*, obl. case *un*). This is a nice match, but not an exceptional one; in Elamite this marker is clearly just a relict, while in Dravidian it is used all over the place. Note, however, the similarity of this marker with the Common Nostratic marker for the accusative case, reconstructed by V. M. Illych-Svitych as *\*-mA* (ND II 285). In the light of this comparison, it is interesting to note that in Old Kannada the accusative ending, besides the obvious *-an*, is also regularly featured in the form *-am*. Considering a frequent alternation of word-final resonants (cf., for instance, the irregular realisation of the same ending as *\*-m* in some Indo-European dialects, such as Indo-Aryan or Italic, and *\*-n* in others, such as Hittite or Greek), one can safely assume these markers being related; the Dravidian-Elamite parallel is thus irrelevant for establishing a close relationship.

2) The Dravidian suffix of the dative case/indirect object *\*-kkV* is compared to the Elamite postposition *ikku*, *ikka* indicating movement towards an object. Again, this is not an exact match, but more significant is the fact that the Dravidian suffix also has a Nostratic etymology: in (ND I 245) it is compared to Proto-Uralic *\*-kkA/-\*kA* (marker of the dative case) and Proto-Altaic *\*-kA* (postposition with essentially the same meaning as in Elamite). The Elamo-Dravidian comparison is thus irrelevant once again.

3) The PED morpheme *\*-in* is reconstructed on the basis of Dravidian *\*-in* (genitive marker) and Elamite *-inni* (a somewhat rare Middle Elamite ending of the genitive; note that for all stages of Elamite but the Achaemenid Elamite, "genitive" is normally restricted to denoting the 'material' out of which something is made). Again, the morpheme has a valid Nostratic etymology (ND II 314), namely, PN *\*-n*, a suffix used to form indirect bases of nouns and pronouns. It should be noted that the meaning of the genitive case, secondary in Dravidian (the original meaning of "indirect base formative" was still preserved in Old Tamil), is also present in Uralic, where *-n* functions as the regular suffix of the genitive in many languages. Again, the Elamo-Dravidian parallel turns out to be irrelevant.

4) McAlpin himself admits that the PED reconstruction of the 'locative/oblique' marker *\*-tə* is approximate, as it is based on the comparison between PD *\*-t-*, marker of the indirect stem of certain nouns, and Elamite *-ta/-da*, an adverbial (sic!) suffix with an approximate locative meaning. Even if the comparison can be accepted, one cannot neglect the Nostratic morpheme *\*da* (ND I 11), reconstructed with an approximate 'locative' meaning: Proto-Altaic *-da/-dä*, *-du/-dū* (locative markers), Proto-Uralic *-da/-dä* (ablative markers), Proto-Indo-European *\*-d* (ablative marker), Proto-Kartvelian *-da/-d/-ad* (adessive case). Here, the matches from other Nostratic languages correlate to the Elamite meaning even better than the Dravidian comparison.

5) The only comparison that does not seem to have an exact Nostratic parallel is PED \*-a, the marker of the possessive case (PD \*-ā, the genitive suffix, and Middle Elamite -(y)a, similar in use to -*inni*, cf. above). It goes without saying that such a weak match cannot serve as a convincing argument for establishing a close relationship or a 'match of complete paradigms' between Elamite and Dravidian.

It should, in fact, be noted that the very term 'complete paradigm' is rather questionable when applied to either the Proto-Dravidian or particularly the Elamite language state. Apart from these case endings, Dravidian has certain other declinational morphemes which cannot always be successfully etymologized on Dravidian territory. As for the Elamite noun, it does not even have a real 'paradigm' to speak of, as the only *cases* in Elamite are the accusative (used exclusively for pronouns) and the genitive -*na* which seems to be an Achaemenid innovation. We can only speak of postpositions fulfilling the functions of cases, whereas for Proto-Dravidian we can with certainty reconstruct a full-fledged case system.

Such an approach is rather typical for the morphological comparisons offered in PED. It should be noted, though, that I am in no way trying to *reject* any of them as false, coincidental, etc.; the only thing that I wanted to state was that, even if all of them are based on solid ground, they cannot qualify as evidence for a special Elamo-Dravidian relationship. At best, they present Elamite as a potential candidate for the Nostratic macrofamily; at worst, similar morphemes could also be found in *other* Eurasian macrofamilies (some of them definitely have parallels in Afroasiatic, for instance), making the comparison even more feeble and undecided than it is.

It gets even worse when we get to analyzing the proposed set of lexical cognates between Elamite and Dravidian. As I already said, the established phonetic correspondences mostly work, although we could certainly question the probability of some of the changes - like, for instance, the development of PED \*š- to Proto-Dravidian \*t- before a subsequent apical liquid and to Proto-Dravidian \*0- in other cases (PED 90). However, a close analysis of the 'cognates' reveals a striking lack of semantic similarity between the compared entries; out of eighty proposed comparisons, less than a third can boast a distinct semantic identity, most of them usually indicating abstract notions like 'love' or 'collect, gather'. Far more often, we are offered comparisons like Elamite *hiš* 'name' - PD \*ey- 'to know how to, understand', going back to a PED \*heš- 'to know how to'. Sometimes the comparisons can border on absurd, as PED \*šin- 'to arrive, yield' > mE *šinni*- 'to approach, arrive', achE *šinnu*- 'to come', but PDr \*īn- 'to yield, yeap, bear' (PED 102); the Dravidian protoform clearly means 'to bear young', and comparing it with the main Elamite word for 'approach, come' is a bit of a stretch (not to mention that the comparison involves the questionable PED phoneme \*š-).

Furthermore, some of the lexical entries presented by McAlpin could easily be explained as results of cultural interference and cross-borrowing; reconstructing PED \*upat 'brick' on the base of mE *upat* 'brick, brickwork' and Proto-South-Dravidian \*uppar- 'bricklaying, plastering' (PED 96) is, in fact, a far more dubious thing to do than to suppose a borrowing from Elamite into Proto-Dravidian.

All of the above considerations make me seriously question the validity of a special 'Elamo-Dravidian' theory. Simply put, the evidence presented by McAlpin, while definitely valid and interesting from a 'global' comparative point of view (apart from some truly dubious lexical comparisons), is not enough for establishing a separate Elamo-Dravidian language family as opposed to, say, Elamo-Uralic language family.

Turning now to the theory of V. Blažek on Afroasiatic-Elamite relationship, it is easy to see that it has its serious drawbacks, as well. Unlike McAlpin, Blažek does not focus on the questions of morphology, which is quite understandable, considering the rather poor state of affairs in Afroasiatic reconstruction at the present time; trying to establish a joint "Elamo-Afroasiatic" morphological system would inevitably result in chaos, as among the endless sea of Afroasiatic languages it would be possible to find suitable parallels to just about any particular Elamite morpheme.

Unfortunately, the same problem is evident in lexical comparison. Blažek approaches the lexical comparison problem with far more caution than McAlpin does, and generally, when we deal with his comparisons, both the phonetic correspondences between Afroasiatic (or different branches of Afroasiatic) and Dravidian, on one hand, and the semantic differentiation between the two branches, on the other, are quite evident and plausible. However, the one hundred or so comparisons that he quotes all have different degrees of reliability.

Thus, it goes without saying that one cannot simply bypass such interesting parallels as Elamite *el/t/* 'eye' - PAA *\*?il-* id., or Elamite *kassu* 'horn' - PAA *\*kVsw/y-* id., or the parallels between Elamite and Afroasiatic pronominal systems (which actually turn out to be just as strong as McAlpin's Elamo-Dravidian 'pronominal ties'). But too many of the proposed cognates have their own weaknesses, mainly due to their being underrepresented in Afroasiatic. For instance, parallel number 55 compares mE *kumaš* 'he-goat' to PAA *\*kVm-* 'cattle, cow', represented only in Central Cushitic and one West Chadic language; parallel number 66 compares mE *malu* 'wood' to PAA *\*mal-*, represented only in a few West Chadic and one Berber language, etc.

It goes without saying that the scarcity of material is only a testament to the relatively poor state of the Afroasiatic reconstruction in general and can in no way serve as a definite argument for lack of relationship (close or distant) between Afroasiatic and Elamite. However, it also makes the issue of the Afroasiatic-Elamite comparison itself rather unstable and dubious, not to mention that if Elamite really constitutes a separate branch of Afroasiatic, we would probably expect a far higher number of lexical parallels (considering that the Elamite dictionary of Heinz-Koch, used by Blažek in his research, contains at least a thousand identifiable Elamite roots).

All the critique presented above seems to convince me that not only is there not enough evidence to establish a direct Elamo-Dravidian or Elamo-Afroasiatic at the present time, but that it is simply a near-impossible task to establish a close relationship of Elamite with any of the currently known families or macrofamilies. On an intuitive level, Elamite does not disclose any specific ties with any known languages (and one should certainly not underestimate the

importance of intuitive perception of relationship); however, when we try to apply a purely scientific method, we face the usual problems that often accompany similar cases of isolated languages, most notably Sumerian - scarcity of lexical data, lengthy, unclear history of development, and "isolated language" status are serious impediments in establishing a proved relationship through strictly formal methods.

### **General lexicostatistic comparison**

Some "preliminary" measures, however, can be taken, and one of these measures would be a tentative lexicostatistical analysis of the available Elamite data. An approximate comparison of the Swadesh-established 100-list for Elamite, on one hand, and for the most important of its neighbouring macrofamilies, on the other, could, if not necessarily clear the position of Elamite, at least point us in a certain direction for further research.

Below I will give a list of all Elamite words from the 100-words whose meanings can be more or less considered established, and try to find possible cognates for these words among the reconstructed roots of three macrofamilies whose relationship to Elamite, at least, from a geographical and chronological point of view, would seem most probable: Nostratic, Afroasiatic, and Sino-Caucasian. It should be noted that I support the variant of the Nostratic theory that counts Afroasiatic as a different macrofamily, as well as the hypothesis that all three macrofamilies have a high probability of going back to a single "Eurasian" macrofamily. However, these assumptions do not actually play any crucial role within the limits of this work.

Since at the present stage of studies in long range comparison it is usually extremely hard, and often impossible, to determine the exact "main" word for a certain entry in the Nostratic, Afroasiatic, or Sino-Caucasian list, the following principle will be assumed: if the Elamite root matches a root that serves or may serve as the "main" word for a certain 100-word list entry at least in one major subbranch of Nostratic (Afroasiatic, Sino-Caucasian), such as, for instance, Dravidian or Kartvelian (or Semitic, or North Caucasian, etc.), the entry will be marked with a "+" sign, denoting an exact match, and will be included in the final count. Dubious matches (with extreme phonetic problems, underrepresented in compared families, or with semantics that do not match) will be marked with a question sign.

Thus, in entry N 12 the Elamite root *mak-* 'to eat' is considered to form a match with Nostratic, due to its having the same meaning in an archaic subbranch of Dravidian (Kurukh-Malto) and in certain subbranches of Altaic. However, it does not match the Afroasiatic root *\*muk-* due to semantic problems (in Afroasiatic, the common meaning is undoubtedly 'to suck').

Needless to say, there arise additional problems here. One of these problems is that the entire Elamite dictionary has been subjected to this analysis, with lexical entries taken from every period of Elamite, from Old Elamite (oE) to Middle Elamite (mE), New Elamite (nE) and Achaemenid Elamite (achE), which violates the principle of wordlist creation. Fortunately, an absolute majority of the entries are represented by New Elamite and Achaemenid Elamite entries, and most of the Old and Middle Elamite entries are also represented in the newer forms of Elamite. Out of all the

comparisons, only four words are found in documents not younger than Middle Elamite, and since no clear lexical replacements for these words have been established in New Elamite, we can assume that they were simply not attested in that period.

Another problem is the incompleteness of the wordlist - out of the basic 100 words, only about 60 can be established for Elamite with a certain degree of assuredness. This is, however, not as relevant as it may seem, given that the final count will be given in percentage of coincidences rather than in absolute numbers.

Finally, the most difficult problem is the establishment of the very fact of relationship between the Elamite word and the correlate in the compared macrofamily. It is a well-known fact that lexicostatistics and glottochronology are primarily used in determining the level of relationship between languages already *known* to be related, with an already established set of phonetic correspondences. Here, the only way to effectuate the comparison is by relying on the somewhat vague and somewhat subjective criterion of 'phonetic similarity', which may eventually result in matching genetically unrelated forms with a secondary similarity, or, more probable, in denying the matching of genetically related forms that have diverged so much they do not have any obvious phonetic similarity any longer. This, in its turn, leads to incorrect lexicostatistic results.

However, it should be noticed that the main object of the comparison given below is not as much to establish a genetic relationship of Elamite with a given family as it is to delineate the *probability* of its relationship with certain language families, with 'relativity' as a key factor - it is obvious that if the principle of 'phonetic similarity' yields, for instance, twice as many matches of Elamite with Nostratic as it does with Afroasiatic, the probability of Elamite closely related to Nostratic becomes far higher than its probability of being closely related to Afroasiatic, etc.

Furthermore, the very critique of McAlpin's theory given above is enough to prove that Elamite *is* related, at least in some way, to some families within the huge 'Eurasian' branch. The morphological matches quoted by McAlpin, if not necessarily speaking in favour of the Elamo-Dravidian theory, are certainly enough to tie Elamite in with Nostratic; in a similar way, Blažek's Afroasiatic-Dravidian comparisons cannot be overlooked and can hardly be explained by mutual borrowings alone. It remains, then, to demonstrate the relative validity of these ties, and preliminary lexicostatistic analysis is an excellent way to do that.

All Elamite data are given according to the dictionary of Heinz-Koch (HK). Multiple sources have been drawn on for other data. For Nostratic, the primary source of data are the works of V. M. Illych-Svitych (NE, ND). Additionally, Dravidian references and etyma are taken from (DED), with numeration given according to the number of entry in the dictionary (Proto-Dravidian reconstructions, all of which are available online as part of the "Tower Of Babel" project, are given according to my own interpretation of the PDR phonological system). Altaic etyma are for the most part drawn from the Altaic Etymological Dictionary by A. Dybo, O. Mudrak, S. Starostin, currently in print and also available in the form of a WWW database. Uralic references are quoted according to the reconstructions in (Redei 1986); Kartvelian references are taken from (Klimov 1964).

Most Afroasiatic data in the article are taken from V. Blažek's article (Blažek 1994) and the

dictionary of Orel-Stolbova (HSED). Additionally, I have consulted the 100-wordlists of selected Afroasiatic languages, compiled by A. Yu. Militaryov. I am also extremely grateful to A. Yu. Militaryov in person for checking out the main body of this article and helping out on certain interpretations of Afroasiatic data.

Sino-Caucasian data are for the most part taken from computer databases on Sino-Caucasian languages, compiled within the international "Tower of Babel" project; most of the actual forms can be found in NCED (North Caucasian), STED (Sino-Tibetan) and YD (Yenisseian).

### Wordlists

1. **"all"**: nE *kut-ti-na*, achE *kut-tin-na*, *kut-tan*, *kut-tan-na* (der.: mE *ku-ut-ti-na* 'altogether').

No exact wordlist matches have been found in any of the analysed macrofamilies.

? Nostratic: assuming a semantic change 'much, a lot' > 'complete, all', the root can be compared to Alt. *\*két'o* 'much, many, excessively', Drav. *\*kaṭ-* 'much, great, exceeding', also 'bitter, intense' (DED 1135).

? Afroasiatic: An alternate comparison is PHS *\*gid-/\*gud-* 'be big, be many' (HSED 919), suggested by V. Blažek.

2. **"big"**: achE *ir-šá-na*, *ir-šá-an-na*, subst. *ir-šá-ra* 'the big one = great person, chief'. In older texts usually spelled as *ri-ša-*, cf. oE *ri-ša-a-ri* 'the big one', mE *ri-ša-ar* id., etc. This probably accounts for a syllabic *r* (= *\*rša*).

+ Sino-Caucasian: a perfect match exists in Proto-East-Caucasian *\*iršV* 'big, large, thick'. The main NC root for 'big' seems to have been PNC *\*fāχE*, with outside Sino-Caucasian correspondences (PY *\*χc?* 'big', etc.). However, PEC *\*iršV* has an exact meaning big in languages of at least two different subgroups (Avaro-Andian and Tsezi) and cannot be excluded from view despite not having obvious Sino-Tibetan or Yenisseian correlations.

McAlpin compares the form with PD *\*iray* 'great person, lord' (DED 527) > Tam. *irai* 'anyone who is great, king, lord, etc.', Kan. *ere* 'state of being a master, master', OTe. *era* 'lord'. The comparison is plausible if the Dravidian form indeed goes back to a PD *\*ir-/\*er-* and not to PD *\*id-/\*ed-* (the latter variant allows me to compare it to Altaic *\*edV* 'host, husband', with even better semantics). However, even if we accept McAlpin's comparison, it cannot at all be proclaimed an exact match.

In a somewhat similar manner V. Blažek compares the form to Proto-Afroasiatic *\*riʔs-* 'head, chief' > Proto-Semitic *\*raʔiš-* 'head', Eg. (Med) ;ys 'brain', etc. This is somewhat better phonetically than McAlpin's comparison, but very vague from a semantical point of view.

3. **"blood"**: nE *sa-an*. The form is rare, and its meaning slightly dubious, but so far, it is the only Elamite word for 'blood' that has been possible to suggest.

+ Afroasiatic: V. Blažek offers a credible comparison in AA *\*₃Vn-(P-)* > Eg. (Pyr.) *znf* 'blood', Copt. *snof*, Berb.: Ifoghas *azeni*, Ghat *azəni*, Ayr *azni*, Ahaggar *ahčni* id., WChad. *\*zanyam* id.;



isolated parallels can also be found in Omotic. Cf. also HSED 2626, with Egyptian and Hausa data, where the root is reconstructed as *\*ʒin-*. According to A. Yu. Militarev, the root functions as the main word for 'blood' in Egyptian and certain Berber and Chadic languages. The comparison therefore looks perfectly justified and can be qualified as an exact match.

? Nostratic: An alternate route would be to compare the root with Indo-European *\*es(H)ar-/\*es(H)an-*, which has also been compared to Proto-Kartvelian *\*zixL-* 'blood' and Proto-Altaic *\*sēgu* 'healthy; blood' in reference to a supposed Proto-Nostratic *\*Vs(V)x-* 'blood'. The Elamite comparison is extremely dubious as it would be based on the Indo-European suffixal (i.e. heteroclitic) form, but it is not altogether out of the question nevertheless.

4. **"burn(tr.)"**: The basic form for 'burn' in mE is *li-im-ma-*, obviously a derivative of *li-im* 'fire', on which see below.

However, in certain texts we also find a verbal root *kura-* whose meaning in the Elamite dictionary is given as 'versengen' ('to sear, bake') as opposed to 'verbrennen' ('to burn') for *li-im-ma-*. It is regularly used as a 'pair-word' together with *li-im-ma-* in relation to "devastative" activities, cf. *li-ma-[a]k ku-ra-ak pa-at-pu-up ra-ap-pa-ak-na* '(the enemies) should be burnt, seared, at my feet be bound!' (HK 518), etc. In oE and mE, the word is found in the past participle form *ku-ra-ak*, as well as in the 2nd p. sg. form *ku-ra-at*. Apparently, the meaning of "versengen" was attributed to the word because of the derivative *ku-ra-am-ma*, *ku-ra-na* with the meaning 'furnace'. However, on a fair basis the context does not allow us to make a clear distinction, and it is not excluded that the verbal base *kura-* has to be reconstructed as the basic word for 'burn' in middle Elamite.

+ Nostratic: obviously, the most apparent comparison would be to Proto-Indo-European *\*g<sup>w</sup>her-* 'hot, to burn' (the Slavic forms, where the root is represented in its verbal form, are intransitive, but one cannot exclude the possibility of it being used with causative suffixes in Indo-European, where differences between transitive and intransitive conjugation are often extremely thin). The Nostratic root, reconstructed as *\*gUrA-* by V. M. Illych-Svitych (see ND 95) with the supposed meaning 'hot coals', is also based on a tentative Altaic *\*gur/V/-* 'hot coals, to enflame'. We could, however, also point out a possible comparison with Proto-Uralic *\*korpe-* 'to burn' (Redei 186), which further indicates that the word could have had an exact verbal meaning 'to burn' in Proto-Nostratic.

? Afroasiatic: For Nostratic *\*gUrA-* Illich-Svitych further suggests a comparison with PAA *\*g/w/r* 'fire, coal' > late Egyptian *dr* 'fire', Beja *gūr* 'to boil, roast', etc. The meaning 'to burn' is represented in Sidamo *gir-*. For Chadic parallels with the meaning 'ashes, coal' see also Stolbova 1996, p. 67. An alternate comparison is suggested by V. Blažek, who compares the Elamite root to Proto-Semitic *\*kawr-* 'furnace' and East Cushitic *\*kar-* 'to boil'. Both comparisons, however, can hardly qualify for an exact wordlist match.

5. **"claw, nail"**: nE *pu-ur* (found in the expression *pu-ur hw.hu-ban.a-h-pi-na ha-rák-qa* 'the fingernail of Humban-ahpi is pressed (i.e. to seal the letter)').

+ Nostratic: excellent parallel in *\*p/a/t/ä/* 'finger, fingernail' (ND III 362). The Indo-European (*\*per-*, *\*prst-*) and Altaic (*\*para-ŋa*, new reconstruction *\*p̣jari*) forms normally carry the meaning 'finger', but Proto-Kartvelian *\*p̣rcxa* is the basic Kartvelian form for 'fingernail'. From the Dravidian part, the usual correspondence pointed out it *\*ver-al-* 'finger' (DEDR 5409), but the initial *v-* can hardly correspond to a Nostratic voiceless stop; a more probable correlate is PDR *\*par-and-* 'to scratch' (DEDR 4023), further pointing out the 'fingernail' semantics.

+ Afroasiatic: apparently, the same root can be seen in what is reconstructed as *\*pr-*, *\*prs-* 'finger, fingernail' in ND III 362 and *\*par-* 'finger' in HSED 1953 (cf. also the corresp. entry in V. Blažek's article). The meaning 'nail' is present in Chadic (Hausa *fār-čē*, etc.), where it is one of the primary roots denoting the object. In ND III 362, an attempt is also made to trace Proto-Semitic *\*tupr-* 'fingernail' (Akk. *šupru*, Hebrew *šipporen*, etc.) to an original combination of the root *\*pr-* with a special preformative marker, but the attempt is somewhat dubious (especially considering the parallels in other Afroasiatic languages given in HSED 513). Nevertheless, the Chadic forms still give us an exact match.

6. **"come"**: achE *ši-in-nu* 'coming', *ši-in-nu-ik* 'he comes', *ši-in-nu-ik-ni* 'he should come', etc. This seems to be the most basic word for the idea of 'coming' or 'arrival', although a couple other roots can occasionally carry a similar idea.

? Afroasiatic: Cf. PAA *\*sani?-* 'to go, run' (HSED 2197). The root is the closest in semantics and phonetics that one could find, however, it is not very reliable within Afroasiatic itself (too little material) and does not correspond an exact match.

McAlpin compares Elamite *šinnu-* to PDR *\*in-* 'to yield, yean, bear' (McAlpin 102); we are, however, forced to reject that comparison, since the semantical similarity is very vague and the phonetical comparison involves the rather dubious Proto-Elamo-Dravidian phoneme *\*š-* (> Elam. *š-*, PD *0-*). Furthermore, the Dravidian root has an ideal match in Proto-Altaic *\*ina* 'younger sibling', going back to a Proto-Nostratic root *\*inV* 'young, bear young' of a far more reliable character.

7. **"die"**: Elamite *\*halb-*, cf. nE *hal-pi-ik* 'he died', etc. The root is the same as for 'kill'; since all the possible external parallels are primarily connected with that meaning, we will discuss them under the entry for 'kill'.

8. **"drink"**: achE *si-kaš-da* 'he had drunk'; cf. also nE *si-ki-tu-um* 'state of being drunk, durnkedness'. The verb is extremely rarely met and the meaning is somewhat dubious, but so far, it is the only known equivalent for 'drink' in Elamite.

+ Afroasiatic: cf. PAA *\*sek-* 'to drink, give a drink' (HSED 2220). The distribution of the root is not very wide, but it is one of the main roots for 'drink' in Central Chadic (PCCh *\*syaxwa-*). In Semitic, the root has the meaning 'give a drink' (Akk. *šaqû*, Hebrew *hišqā*, etc.), but the primary non-causative meaning may have been preserved in Ugaritic *šqy* 'drink'. Plausible comparison.

? Nostratic: cf. Proto-Altaic *\*soga* (~ *-u-*) 'drunk, alcoholic drink'.

9. **"dry"**: cf. achE *zī-ti-qa* 'dried' (used in conjunction with 'grapes'), also achE *zī-ut* '(dried) fodder'. Both words can account for a common Elamite root *\*zit-* 'dry'. However, no more or less apparent matches or even possible cognates for the root can be found in any of the surrounding macrofamilies.

10. **"ear"**: nE, achE *si-ri*.

A totally mysterious root - although it is certainly among the better established Elamite lexemes, it has no reliable cognates in the surrounding macrofamilies whatsoever. A very weak comparison can be found in V. Blažek's article, where he relates it to certain Central Cushitic (Waag *šər* 'to hear'), late Egyptian (*sy*; 'to recognize, know') and Central Chadic (Zelgwa *tsaraka* 'to hear') forms; however, these are isolated and unclear forms with no reliable group etymologies, and even so, none of them carries the meaning 'ear'.

Likewise, within Nostratic one could compare the root with forms like Proto-Altaic *\*sāri* 'to know, feel', or Proto-Dravidian *\*čūr-* 'to see' (?), but such comparisons would not be of much use due to phonetic, semantical and distributional features.

11. **"earth"**: mE, nE, achE *mu-ru-un*.

This word was apparently used in both the meaning 'element (soil)' and 'world/territory'. Cf. for the first meaning: *zu-ul mu-ru-un a-ak li-im* 'water, earth and fire'; for the second meaning: *ak-qa h.mu-ru-un da-āš-da* 'he who had created the Earth'.

The word itself is usually seen as a derivative of the Elamite root *mur-* with the meaning 'to put, set in place; to sit'. The entire wordfamily is compared by McAlpin with PDR *\*ūr* 'native place, village, town' and traced back to a hypothetical PED *\*vur* 'place'. The comparison could be acceptable if the semantics of the root were not so vague; also, this is the only example of an Elamite *mu-* : Dravidian *\*ū-* correspondence, which makes it even less reliable.

On the other hand, we have a reliable Afroasiatic comparison:

+ Afroasiatic: cf. Tigrāi *māret* 'earth' (Semitic), Ghadames *ta-mmur-t* id. According to A. Yu. Militaryov, the word is one of the primary roots for 'earth' in Berberic and has outside connections as well.

12. **"eat"**: achE *mak-*.

A somewhat dubious entry, as the word is present mostly in an official meaning (cf. the usual German translations 'verzehren, verbrauchen' rather than 'essen') and used in contexts of the type "X consumes Y measures/portions in Z days". However, so far it is the only root for 'eating' at our disposal, and there are no valid arguments to suggest the presence of a different 'colloquial' root in Elamite.

+ Nostratic: in Dravidian, a similar root for 'eat' can be found in Proto-North-Dravidian *\*mōq-* 'to eat' (Kurukh *mōxnā*, Malto *mōqe*), with a further parallel in Malayalam *mōkuka* 'to drink, sip' (DED 5127). The root can further be compared with Proto-Altaic *\*muk'c'* 'to suck', which is given

this meaning based on Proto-Mongolian *\*mɛkɛ* 'to suck, chew' and Proto-Tungus *\*muku-* 'to fill mouth with liquid'; cf., however, Proto-Korean *\*mək-* 'to eat, drink' and Proto-Japanese *\*maka-nap-* 'to feed' (causative formation?). This can hint at a tentative meaning "to eat (of liquid food)" in Proto-Nostratic, with further generalizations in several language groups. The match is not thoroughly exact (unclear vocalism correspondences), but acceptable.

? Afroasiatic: Cf. PAA *\*muk-* 'suck, drink' (HSED 1790). If the root is indeed of PAA character, it most certainly belongs here, but the weak distribution (Arabic + West Chadic) and the lack of exact semantic parallels (the meanings 'suck', 'sip', and 'chew' are attested) do not make this an exact match in any case.

13. **"eye"**: mE *el-ti* 'eye', nE *el-ti-pi* 'eyes', achE *el-te* 'his eye'.

+ Afroasiatic: PAA *\*ʕil-* 'eye' (HSED 1101) is one of the main roots for 'eye' in Cushitic (well-established Agaw and Eastern Cushitic parallels) and in Central Chadic languages. V. Blažek also adds Egyptian *;r.t* 'eye' to the compared forms, but, according to (HSED 112), this rather belongs to PAA *\*ʕir-* 'eye' (with further Chadic parallels), so the comparison is dubious; however, further parallels can be also found in Berber (Ghadames *a-wəll* id.). Cushitic, Chadic, Berber and possibly Egyptian evidence all point out that the root is a strong candidate for the main PAA root for 'eye'.

+ Sino-Caucasian: cf. Proto-North-Caucasian *\*ʔwilʔi* 'eye', which may be further compared with Proto-Sino-Tibetan *\*ʕa(H)* 'to look' and Proto-Yenisseian *\*de-s* 'eye'. This is obviously the main root for 'eye' in this macrofamily.

? Nostratic: cf. Proto-Nostratic *\*jela* (ND I 148) 'light, bright' > Proto-Kartvelian *\*el-* 'to shine, lightning', Proto-Uralic *\*jela* 'light, bright', Proto-Dravidian *\*el-* 'to shine'. The newly established Altaic root *\*ila* > Proto-Turc *\*iler-* 'to be dimly visible', Proto-Mongolian *\*ile* 'known, evident', Proto-Japanese *\*arap-ar-* 'to appear', if it belongs here indeed, could probably correct the original semantics from 'light' to 'visible, appear', in which case the comparison with Elamite *el-ti* is fully justified. However, the Nostratic root does not present an exact wordlist match in any case.

14. **"fire"**: mE *li-im*, *li-mi-in*, hence also the verb *limma-* 'to burn' (see above).

+ Nostratic: the most obvious comparison is with one of the main Kartvelian roots for fire, well-represented in Swan dialects: Upper Bali *lemesg*, Lashkh *lemes*, Lentekh *lemesḳ* < Proto-Kartvelian *\*lemeč-* 'fire'. A reliable Uralic parallel can be found in Proto-Uralic *\*lom3* 'warmth, flame'. While the distribution of the root is not very wide, the correlation between Uralic and Kartvelian is strong enough to propose a Nostratic character for it.

? Sino-Caucasian: cf. Proto-Sino-Tibetan *\*luam* 'burn, blaze, heat' > Old Chinese *\*l̥əm*, *\*lham* 'to heat, blaze', Tib. *slam* 'to roast slightly, to parch', etc.

15. **"foot"**: mE, nE *ba-at* (also spelled *pa-at* in mE).

+ Nostratic: obvious parallel in Proto-Nostratic *\*patʌ* 'foot' > Proto-Indo-European *\*ped-*, Proto-Dravidian *\*paṭ-* (NE 368). Taking into account the new Altaic reconstruction *\*p'ágdī* 'foot,

sole', the Nostratic root may have to be reinterpreted as *\*paGd-* (where *\*-G-* represents an unknown velar), but that doesn't really afflict the excellent quality of the comparison.

? Afroasiatic: V. Blažek offers several correlates for the word, including Semitic (Akk. *padānu* 'way, path', Arab. *wafada* 'to come, travel'), Egyptian (*p;d, pd* 'knee, to run'), Berber (Mzab *fud*, Ghat *afud*, Zenaga *offud* 'knee'), and East Chadic (Mubi *fúudi* 'thigh'). There may actually be several roots involved here, but none of them seem to share the meaning 'foot', so no exact match can be established.

16. **"full"**: achE *pu-*, found in verbal forms like *pu-qa* 'was full', also in the nominal derivative *pu-pu-man-ra* 'he who fills'. The root may stem from an earlier *\*pun-*, cf. nE *pu-un-qa-ak*, *pu-un-qa-qa* 'it was full, filled'.

No reliable external correlations have been found for the root. One could consider a comparison with Proto-Indo-European *\*pl̥ne-* 'full', if the Elamite form goes back to an earlier *\*pul-n-*, but this is a very vague probability.

Cf. also PST *\*phoH* 'to fill in'. The root, however, has no Caucasian or Yenisseian parallels and does not qualify as an exact match.

17. **"give"**: mE *tu-ni-h* 'I gave', mE, nE *du-ni-h* id., achE *du-na-áš* 'he gave', etc.; the common Elamite root is *\*tun-*.

A second root for 'give' is also fixed in documents, with unclear differentiation in semantics: cf. oE, mE, nE *li-h* 'I gave', der. oE *li-e* 'his gift', mE, nE *li-en-ra* 'he who gives', etc. The verb could seem to be more archaic than *tun-*, since the former is missing in Old Elamite; however, both verbs are present in New Elamite and the difference in functions between the two is unclear. We will, therefore, subject both roots to comparative analysis.

+ Afroasiatic: V. Blažek compares the Elamite Root with PAA *\*d[i]n-* 'to give', well represented in Semitic (Akk. *nadānum* 'to give', etc.; the initial *\*n-* has possibly to be taken as a prefix), and in Egyptian *wdn* 'to make sacrifice'. Although the root is hardly met in the meaning 'give' anywhere outside Semitic, within that particular branch it is one of the main roots denoting that activity. Not an exceptionally strong match, considering also some phonetic problems (a strange variant with voiceless *-t-* in Hebrew and Aramaic *ntn*, for instance), but generally acceptable.

For Elamite *li-*, Blažek quotes the following forms. Semitic: Arab (Ta'izz) *mā ?allōs* 'there is not', Amhara *?all-* 'to be'. Cushitic: Qwara *lee* 'to give', Proto-East-Cushitic *\*leh-* 'having', etc. Chadic: Logone *lii* 'to be', Mokilko *?el-* 'to give'. I have a hard time trying to imagine these forms as going back to an even hypothetical PAA *\*le-/\*?ele-* 'to give'; forms with the meaning 'give' are isolated and cannot pretend to be archaic.

+ Sino-Caucasian: on the contrary, Elamite *\*li-* seems to have an excellent match in the common PSC root for 'give', represented by PNC *\*iL V* and PST *\*lǎ?*.

? Nostratic: certain parallels can be traced with the common Nostratic root for 'give', namely PN *\*to/H/Λ* (NE 338) > PIE *\*dō-* (*\*deH<sup>w-</sup>*), PA *\*tā-* (new reconstruction *\*t'uja*), PU *\*tōye-*, PD

*\*tā-/\*ta-*). This would, however, presuppose, that the Elamite base *tuna-/tuni-* is derived from an older *\*tu-* with a nasal suffix. As indirect evidence in favour of this hypothesis we can quote such occasional achE forms as *id-du-iš* 'they gave out, issued', *id-du* 'give out!, issue!'. However, these considerations are somewhat speculative.

18. **"good"**: oE, mE, nE *ba-ha*.

? Afroasiatic: a perfect match for the root could have been PAA *\*bahuy-* 'be good' (HSED 191). Unfortunately, the root is extremely weak, being reconstructed on the basis of Arabic *bḥy* 'be beautiful' and Zime (Central Chadic) *ḥay?* 'good'. Besides being so drastically underrepresented, the root presents further problems with semantics and phonetics (metathesis? in which subgroup?). It cannot therefore qualify as an exact match.

? Sino-Caucasian: a tentative, but by no means, exact cognate might be found in PNC *\*bVHV* 'big, many', PST *\*phāH* 'vast, wide', PY *\*bəj-* 'many'.

19. **"green"**: nE *hu-la-ap-na*.

The meaning reconstructed tentatively; according to HK, the word denotes a certain colour and is used exclusively for describing clothes. The meaning 'green' is suggested due to an alternate form *hu-ra-ap-na* which is then compared to the root *hura-* 'to bloom, become green (of trees)'; in this case, *hu-ra-ap-na* may be an erroneously contaminated form.

No reliable external parallels can be found. It would be interesting, however, to compare the form to PAA *\*ḥVčeb-* 'be green' (HSED 1385), particularly to Proto-Semitic *\*ḥVṣib-* > Akk. *ḥṣābu* 'to be green', Arab *ḥḍb* 'to paint'. Considering that Proto-Semitic *\*-ṣ-* is usually reconstructed as a lateral affricate, it is not excluded that the Elamite form is, in fact, an old borrowing from a dialect of Proto-Semitic.

20. **"hair"**: nE *šc-e* 'his hair' (?).

A very uncertain form attested in one extract, where it is furthermore dealt with *animal* (goat) hair. No reliable parallels have been found for this root.

21. **"hand"**: mE *ki-ir-pi* 'hands', achE *kur-pi* id. (The original vowel of the root is unclear due to a regular confusion of *-u-* and *-i-* from Middle to Achaemenid Elamite).

No exact matches in any of the macrofamilies. V. Blažek suggests an Afroasiatic parallel in PAA *\*kar-* 'arm, shoulder' > Somali *qarqar* 'upper part of shoulder' (East Cushitic), Egyptian *qʔḥ* 'arm, shoulder'. Not only does the root not represent an exact match, it is also extremely weak and underrepresented on its own.

? Sino-Caucasian: potential correlates for the Elamite root can be seen in Proto-Yenisseian *\*gVʔVr* 'hand', PST *\*Kh<sup>w</sup>ār* 'fist, handful'; however, if these two are related to PNC *\*kwīlʔi* 'hand' (NCED 706-7), the original consonant of the root should be reconstructed as *\*-l-* and can hardly qualify as a reliable phonologic match for Elamite. Cf. also PY *\*xīre* 'arm'.

22. **"head"**: mE, nE *uk-ku*. Judging by Elamite material, the word is usually seen as related to the postposition *uk-ku* with the meanings 'upon; because, due to, according to' (HK 1210). The meaning 'head' is probably primary here, with a later semantic derivation ("head" => "top, above"=> later development as in Greek *kata* 'downwards; according to').

+ Nostratic: An exact match exists here in Uralic *\*uk3* 'head' (Redei 542). McAlpin compares the root in its abstract meaning with PDr *\*uk-a-* 'to ascend, jump up' (DEDR 559); we could also add PA *\*jāga* 'to rise, fall over' > Proto-Japanese *\*á(n)ká-* 'to raise; to give', Turkic *\*iāg-* 'to rise; to fall over', etc. One might suggest two different and often contaminated roots within Nostratic itself ("to rise, ascend", "head, summit"), or, more probably, suppose a certain polysemy within Nostratic dialects themselves.

V. Blažek rejects McAlpin's comparison assuming the Elamite form to be borrowed from Sumerian *ugu* 'head, skull, upper side, on'. This cannot be excluded, but the basic character of the lexeme (it forms part of Yakhontov's "ultra-stable" 35-word list) makes such a probability somewhat doubtful, considering the vast usage and semantical differentiation of the root in Elamite.

23. **"hear"**: oE, mE, nE *\*hap-*, *\*hahp-*. Certain problems with establishing an exact meaning here, as the majority of the attested forms are usually assigned the meaning 'to listen' (*ha-ap-hu* 'we listen', *ha-h-pu-un-ra* 'listener', etc.). However, certain phrases like nE *ku-ul-lak.ú-me ha-pu-it-ni* 'may you hear my prayers' suggest that the word could be used in both the functions of 'listen' and 'hear'.

In any case, the word has no apparent cognates in any macrofamilies. V. Blažek's Afroasiatic comparisons (East Cushitic *\*hub-* 'to know, be sure', Dahalo *huw-at-* 'to know') are scattered and unreliable.

24. **"heart"**: mE *bu-ni*.

The syllabic notation *bu* is extremely rare in Elamite; in fact, apart from proper names, it is only met in this particular lexeme. It cannot be excluded that the word was actually dissimilated from an earlier *\*muni*, with a specific graphic change to mark the process (while normally any old sequences of the *\*bu-* type were marked in Elamite as *pu-*, whether it was just a graphical formality or reflected a real phonetic development).

If Elamite *buni* indeed goes back to *muni*, the word finds excellent parallels in most macrofamilies:

+ Nostratic: PA *\*mjónú* 'heart, breast' > Proto-Tungus *\*miańam* 'heart', Proto-Korean *\*mańam* 'heart', Proto-Japanese *\*múná-i* 'breast'.

+ Afroasiatic: PAA *\*mun-* 'heart, liver' (HSED 1794); the entry serves as the main word for 'heart' in Dahalo (*muna*) and Proto-South-Cushitic (Proto-Rift) *\*mun-*.

? Sino-Caucasian: cf. PNC *\*mōnqī* 'breast, bosom'. The root does not present an exact wordlist match, but most certainly belongs here.

Overall, this common Eurasian root (*\*mun-*, *\*munqi-*) was not well preserved in daughter

languages, which is due to it already possessing 'abstract' connotations on the Proto-Eurasian level. However, the exact parallels between Altaic, Cushitic, and North Caucasian make it a strong candidate for the common Eurasian word for 'heart'.

V. Blažek suggests an alternate comparison with PAA *\*b[u]n-* > Akk. *abunnatu(m)* 'navel, umbilical cord', Eg. (Med) *bn.tj* 'female breasts', Gulfei *fana*, Makari *fiṇa* 'breast' (Central Chadic). While these parallels do not presuppose any phonetic changes in Elamite, the suggested forms are scattered and do not present any exact matches.

25. **"hom"**: mE, nE *qa-as-su*, nE *kás-su*.

+ Afroasiatic: V. Blažek compares the root with PAA *\*kVsw/y-* 'horn' > Beja *koos*, Proto-Omotiic *\*kúsim*; Senhaja *a-qaššaw*, Matmata *qiš*, Harawa *kiišu* (Berber), Logone *kaāšú*, with the meaning 'horn' preserved everywhere. The root can certainly pretend to be of Common Afroasiatic origin, and is thus a perfect match for the Elamite entry.

26. **"I"**: oE *ú*, mE *ú*, *ù*, nE *ú*, achE *hu*, *ú*.

Any observations on the connection between this Elamite pronoun and corresponding pronouns in other macrofamilies would be highly speculative. Thus, McAlpin reconstructs a Proto-Elamo-Dravidian *\*i* > Proto-Dravidian *\*y-* in *\*y-ān* 'I'; in Elamite he supposes that the usual vowelshift *\*i* > *u* has taken place. However, this shift has a sporadic character, and in most cases, both variants are attested (cf., for instance, oE *ni*, but mE *ni*, *nu*, nE, achE *nu* 'thou'). The 1st person pronoun, on the contrary, shows a stable and regular *\*u* at all stages, and there is little ground to doubt its primary character, which annulates the Dravidian comparison.

Blažek compares the Elamite pronoun with various 'labialized' forms of the Afroasiatic 1st person pronoun, scattered in various languages and dialects; some of these forms, like Eg. *iw*, later *wy* 'I' (dependent series), or the Chadic forms for 1sg possessive pronoun (Hausa *-wa*, etc.), look promising, but nevertheless, none of them constitute an exact match.

To this, we could certainly add the PIE form *\*wei-*, *\*wei-es* 'we', the main root for 1st person pl. pronoun. All of these comparisons point at a very archaic state of the Elamite pronoun, however, none allow for establishing any direct matches within the 100-word list.

27. **"kill"**: achE *hal-ba-*, cf. forms like *hal-ba-qa* 'is killed', *hal-ba* 'dead, killed', *hal-pi-iš* 'he struck down' (the meanings 'to strike' and 'to kill' go hand in hand for the root). Cf. also the forms for 'die'.

+ Nostratic: assuming that Elamite *-b-* is of suffixal nature, one could compare PA *\*āIV* 'to destroy, kill' > Proto-Turkic *\*Alk-* 'to finish, destroy, be exhausted', Proto-Mongolian *\*ala-* 'to kill', Proto-Tungus *\*āli-* 'to crumble; to kill an animal'. Cf. also in Dravidian, Proto-Kolami-Gadba *\*al-ŋ-* 'to kill' > Kolami *alŋ-*, Naikri *aŋ-* id. (DED 309), maybe also Parji *andkip-* 'to destroy, kill', Salur *anukci key-* id. (DED 277; a few cases of irregular nasalisation of lateral resonants are found in this subgroup, cf. PDR *\*kal* 'stone' > Ollari *kaṇḍ*, Salur *kaṇḍu*, etc.).

? Afroasiatic: Blažek compares the root with PAA *\*ḍ-b-l* > Semitic *\*ḍbl* 'to ruin, destroy', Eg.



(Pyr) *ḏb*; id. Very weak comparison (not an exact wordmatch, besides supposing a metathese in Elamite). Cf. also PAA \**ḡal-* 'to kill' (HSED 1004), with, however, an extremely weak representation (meaning 'kill' in only two Central Chadic languages).

28. **"know"**: mE, achE *tur-*, *turna-* (mE *du-ur-na-áš* 'he knew'; achE *tur-na-iš* id., etc.).

? Nostratic: cf. PA \**t'erk'o* 'to think' (> Proto-Turkic \**TerKe-* 'to observe, research'; Proto-Mongolian \**taraki* 'brain, mind; head'; Proto-Tungus \**terge-* 'to think, to doubt') and particularly PD \**ter-i-* 'to be seen, clear', with constant meaning shifts to 'know' (DED 3419; cf. Tamil *teru!* 'to know', Malayalam *teriyuka* 'to understand, know', etc.). However, nowhere in Dravidian does the meaning 'know' seem to be original.

29. **"liver"**: nE *ru-el-pa-mín*. An unclear word with, furthermore, a not wholly established meaning. No apparent cognates.

30. **"man"**: achE *ru-h*, cf. also mE, achE *ru-hu* 'offspring' and other derivatives.

? Afroasiatic: cf. PAA \**reḥ-* 'man' (HSED 2106) > Eg. (Pyr) *rḥy.t* 'men', Proto-West-Chadic \**ryaH-* 'male' (Bokkos *re*). The match is perfect phonetically, but the root is so drastically underrepresented that an exact match is out of the question. Blažek compares the root to Akkadian *raḏū*, *reḏū* 'to beget, pair', as well, but this is questionable from both phonetic and semantic points of view.

31. **"many"**: achE *ir-še-ik-ki* (\**ršekki?*). A derivative of \**rša-* 'big', see above.

32. **"meat"**: nE *i-iš-ti*.

+ Afroasiatic: cf. PAA \**ʔač-/ʔič-* 'meat' (HSED 13) > Gisiga *ʔiše* (Central Chadic), Proto-Agaw \**ʔVč-*, Proto-Omotiic \**ʔač-* 'meat, body'. Not quite reliable for phonetic reasons, but the root's wide distribution in Omotic makes this a somewhat exact match.

33. **"name"**: mE, nE, achE *hi-iš*.

Comparisons have been offered for the word by both McAlpin and Blažek, but both remain dubious. McAlpin compares it with PD \**ey-* 'to know how to, understand' (DED 806), reconstructing a Proto-Elamo-Dravidian \**heš-* 'to know how to' (?).

Blažek draws on the Elamite derivative *hiša* 'praise, glory', and compares both words with PAA \**ḥaS-*, \**ḏaS-* > Akk. \**ḏasāsu* 'to remember', Ugarite *ḏss* 'to feel', Arabic *ḥassa* id.,; Proto-East-Cushitic \**hašaw-* 'to chat'. This comparison looks somewhat more plausible than McAlpin's, but is still nowhere near an exact match.

34. **"neck"**: nE *ti-pi* (meaning approximate).

? Afroasiatic: Blažek proposes a correlation with PAA \**duby-* 'back, tail'; according to HSED 731, where the root is reconstructed as \**dub-*, the primary meaning of the root is 'tail' and

'buttocks' rather than 'back'; either way, this is not an exact match. No other cognates have been found.

35. **"night"**: oE, mE *šu-ut-me*, cf. oE *su-dē-it* 'at night'.

+ Afroasiatic: according to Blažek, this root corresponds with one of the main Omotic roots for 'night', cf. Dime *suut-u*, Galila *šoyt-i*, Ari *soyt-i*, Hamer *soyt-i*, *soot-i* 'night'; he further suggests comparisons with Arabic *swd* 'to be black' and Beja *sootay*, *suutay*, *sooday* 'of dark colour'. The Omotic entry, however, constitutes an exact wordlist match.

36. **"nose"**: achE *ši-um-me* 'his nose' < \**šin-e*?

V. Blažek analyzes the form as \**šin-me*, with a suffixed *-me* as in *tit*, *tit-me* tongue and subsequent assimilation. From a "pure Elamite" point of view, though, such a hypothesis is highly questionable, considering that there exist other examples of roots ending in *-n-* with the same suffix and no assimilation: cf., for instance, mE *murun-me* 'arable land', achE *nan-me* 'day'. Much more probable is the 'traditional' interpretation of the form as \**šin-e*, where *-e* is the possessive suffix of the 3sg pronoun.

On the other hand, reconstructing the initial form as \**šin-* would help bring in many reliable external cognates, such as PAA \**san-/sin-* 'nose' (HSED 2194); PD \**čund-* 'beak, snout' (DED 2664); PU \**s'apk3* 'smell; to smell' (Redei 462); PNC \**šhwin-ṭ* 'to smell', PST \**siāḡ* or \**sug* 'to smell'. All these forms certainly point to a common Eurasian root; however, our not being able to satisfactorily rationalize the change \**šin-* > *šin-* prevents us from accepting the comparisons.

Elsewhere, cf. PA \**suma* 'nose, part of nose' > Proto-Turkic \**sum-/sim-* 'nose' (Chuvash *śmza*), Proto-Mongolian \**samsaya* 'wing of nose', Proto-Tungus \**songgi-* 'nose, nose ring'. Unfortunately, the root is only represented in the meaning 'nose' in Chuvash and one Tungus dialect and has no reliable Nostratic parallels.

37. **"no"**: nE, achE *in-na*; oE *a-ni*, mE *a-ni*, *a-ni-i*, nE *a-ni*, *a-nu*, achE *an-nu*, *a-nu* (the second root used in prohibitive constructions).

+ Nostratic: PA \**āni* 'not', probably related to the well-known Nostratic negative/prohibitive particle (PIE \**ne*, PU \**ne*, PK \**nu*, cf. ND p. 17).

+ Afroasiatic: PAA \**ʕin-* (Blažek): Akk. *yānu* 'isn't', Hebrew *ʔayin*, *ʔēn* id., etc. (the basic Semitic verb for negation), etc.; Eg. *n* 'not'; parallels also exist in Cushitic.

38. **"one"**: achE *ki*.

+ Afroasiatic: while one can hardly speak of a common PAA root for 'one', the comparisons of Blažek look quite plausible. Cf. particularly the Omotic forms (Dizi *qōy*, Sheko *k(w)oy* 'one') and East Cushitic \**kaww-* 'one; alone'; other parallels include Eg. (Pyr) *kyy* 'another', Beja *kwo* 'unit' and a few tentative Chadic parallels.

No other parallels have been found for this numeral in Nostratic or Sino-Caucasian; connections with forms such as PU \**ükte* 'one' would be extremely tentative.

39. **"rain"**: nE *te-ip*.

? Afroasiatic: cf. PAA *\*tíf-* 'drop, rain' (HSED 2470) > Sem. *\*típp-* 'drop', West Chadic *\*taf-* 'rainy season', Central Chadic *\*ta-tVf-* 'drizzle'. Despite the root's rather weak representation in language branches, the parallel looks convincing, although not constituting a wordlist match.

Blažek compares the root to PAA *\*dib-/\*dub-* > Rendille *dubbat*, Hadiya *duuba* 'cloud' (East Cushitic), Dizi *diab* 'to rain', Kafa *dup* id., Dime *deeb* 'rain', Ari *doob* id. (Omoti), Jimbin *dabuna* 'rainy season' (West Chadic), Kera *dubueni* 'rain' (East Chadic). The comparison is also acceptable, but the distribution of the meaning 'rain' is too scarce in languages to present a convincing match.

40. **"say"**: achE *na-* (*na-áš* 'he said', *na-an-be* 'they are saying', etc.)

+ Nostratic: the only more or less solid Nostratic parallel for this verb is found in Dravidian. McAlpin compares Elamite *na-* with PDr *\*en-* 'to say, speak', noting a very close similarity in syntactic use between the two roots. One should, however, note certain serious phonological problems: the reduction in Elamite (McAlpin presumes a Proto-Elamo-Dravidian *\*ena-* > Elamite *na-*), and also the fact that the etymon presented in DED 868 should actually be reconstructed as *\*yan-* due to untrivial vocal correspondences between Dravidian languages. Even so, the comparison is still acceptable.

+ Afroasiatic: cf. PAA *\*ʔan-* 'to speak' (HSED 40) > Berber *\*ʔVn-*, West Chadic *\*ʔan-*, East Chadic *\*ʔan*; cf. also Blažek's comparison to certain West Chadic forms (Fyer *ne*, Bokkos *ni*, Sura *naa*, Bolewa *ni na*, Tangale *naa*, etc., all with the meaning 'say'. Whether we are dealing with one or more roots in PAA is hard to tell, but there definitely is some kind of proto-language match with Elamite.

+ Sino-Caucasian: cf. PST *\*ǵǵʔ* 'to speak', PY *\*ǵa-* 'to speak, say'.

40. **"see"**: *siya-/\*ziya-* (both in the meanings 'look' and 'see'; cf. achE *zí-ya* 'I saw', but mE *si-ya-h* 'I watched', etc.).

No evident matches can be found in any macrofamilies, unless certain untrivial phonetic changes have to be supposed. ? Cf. maybe PST *\*siə(H)* 'to know, think'.

41. **"sit"**: cf. nE *mur-da-am-pi* 'they are sitting down', achE *mur-da-ak* 'he was residing, sitting'; nE *mur-tin* 'seat (n.)'. The same root as in *mu-ru-un* 'earth', see above.

42. **"skin"**: nE *ha-te-en*, achE *ha-tin*.

No matches. If *-in* is historically a suffix, one could compare the root with PAA *\*ʔad-* 'skin' (HSED 15), *\*ʔadam-* id. (HSED 17); that would, however, suppose a correspondence of PAA *\*ʔ=* Elamite *h-*, which is questionable; also, the AFro-Asiatic root is very weak, being only represented in a couple of Cushitic languages (*\*ʔad-*) and Arabic (*\*ʔadam-*).

43. **"stone"**: achE *h.har.lg*.

? Nostratic: cf. PD *\*ar-ai* 'rock' (DED 321).

? Afroasiatic: Blažek compares this with PAA *\*har-* 'mountain, rock' (Semitic: Hebrew *har*, *herēḥ* 'mountain', Phoenician *hr* id.; East Cushitic: Yaaku *hāārɔ* 'big rock'; Berber: Ahaggar *ahor* 'accumulation of rocks'). Not an exact match.

44. **"sun"**: oE *na-hu-te*, mE *d.na-h-hu-un-te*, *d.na-h-hu-te*, nE *d.nah-hu-un-te*. The word is usually interpreted as *\*nan-hunte* 'keeper of day', and can therefore be considered as a euphemistic substitute for the original Elamite word for 'sun', which is unknown.

45. **"that"**: mE, nE, achE *ak-ka*, *ak-qa*.

If the final *-ka* can be considered as suffixal (cf. the similar pronoun *ap-pa* 'what, that'), the root can easily be compared with Common Eurasian deictic particles:

+ Nostratic: PN *\*a* 'that' (ND I 121) > PA *\*a/\*o* 'that', PU *\*a-/\*o-* 'that', PD *\*a* 'that', PK *\*/h/a* 'this'.

? Afroasiatic: cf. the parallels in ND I 12, where Illich-Svitych compares the Semitic definite article (Aramaic *-ā*, Hebrew *ha* with secondary *h-?*) and a few Cushitic forms. Cf. also Blažek's comparisons: PAA *\*?ak/k/-* > Semitic: Akkadian *akkā?i*, Hebrew *?āk*, Aramaic *?akam* 'how', *?aka* 'why', Ugaritic *ik*, Mehri *ūkō* id.; East Cushitic: Oromo *aka* 'like', *akka* 'that, in order to, like'; Omotic: Yemsa *akka* 'thus, how?'; West Chadic: Ngamo *aka* 'how', etc. Note, however, that while the forms are certainly comparable, the meaning 'that' (demonstr. pronoun) in any of the Afroasiatic languages is exceedingly rare and cannot pretend to be of proto-language origin. Thus, it does not constitute an exact match.

? Sino-Caucasian: cf. PNC *\*hǎ*, a base used for near deixis as opposed to *\*?ǒ*, used for far deixis. It is unclear whether it is PNC *\*?ǒ* that corresponds to Elamite/Nostratic *\*a-* or PNC *\*hǎ* with a later shift in meaning, so an exact match cannot be guaranteed.

46. **"this"**: mE *hu*, nE *hi*, achE *hi*, *hu*; oE, mE, nE, achE *i*. The basic form is *\*i*; forms with *-u-* show the usual Elamite graphic (phonetic?) variation between *-u-* and *-i-*.

+ Nostratic: PN *\*?i/\*?e* (ND 134) > PK *\*(h)i* 'that', PU *\*i-/\*e-* 'this', PD *\*i-* 'this', PA *\*i* 'this'.

+ Sino-Caucasian: PNC *\*?i* 'this', PST *\*?ǐ* id.

It is interesting to note that, while the basic deictic particles *\*a-* and *\*i-* are so widespread within Nostratic and Sino-Caucasian, they are nowhere near as strongly distributed among Afroasiatic languages. Reliable parallels certainly can be found, but there is no talk about reconstructing a stable PAA *\*a-* or *\*i-* in their basic deictic meanings. (cf., for instance, the scattered parallels that Illich-Svitych gives in ND 134, most of them having to do with the 3sg m. personal marker in verbal conjugation).

47. **"thou"**: oE *ni*, mE *ni*, *nu*, nE, achE *nu*.

+ Nostratic: McAlpin's classic comparison with PDR *\*nī* 'thou' is still working (although a

more correct PDR reconstruction would be *\*njān* for the direct stem). To this one should also add PA *\*nā* 'thou' > Proto-Turkic *\*-ŋ* (ending of the 2nd person), Proto-Korean *\*nə* 'thou', Proto-Japanese *\*nā* id. While the basic Nostratic stem for 2nd person sg. is usually reconstructed as *\*ti/\*si*, the Altaic-Dravidian isogloss is too serious to go unnoticed.

? Afroasiatic: Blažek quotes North Omotic *\*ni*, *\*ni-ni* 'thou' (cf. Kefa *ne*, Welamo *nena*); these forms, however, have no parallels in other branches and do not even qualify as a solid Proto-Omotic root, much less Proto-Afroasiatic.

+ Sino-Caucasian: cf. PST *\*nǎ-* 'thou, you' (the main Sino-Tibetan root for 'thou', although it has no Caucasian or Yenisei parallels).

48. **"tongue"**: achE *ti-ut*, *ti-ut-me*.

? Nostratic: cf. Proto-North-Dravidian *\*taṭ-qā* 'tongue' (> Kurukh *tatxā*, Malto *tarte*; DED 3064). The root has no other Dravidian or Nostratic parallels, however, and cannot be taken for an exact match.

49. **"tooth"**: mE *si-h-ha*.

Two different self-exclusive comparisons can be offered in the case of this root. On one hand, mE *\*sihha* can go back to an earlier oE *\*sihhan*, preserved as a proper noun and interpreted by Heinz-Koch as 'tooth'. This is the etymology accepted by Blažek, which makes it possible for him to compare the root with:

+ Afroasiatic: *\*si[h]n-* 'tooth' > Sem. *\*šinn-*, South Cushitic *\*siḥn-*, Ahaggar *esiin* (Berber), West Chadic (Sbauchi) *\*sin*, Ngizim *yaanau*, etc. (In HSED 2250, the root is reconstructed as *\*sin-*).

On the other hand, even if the Old Elamite proper name *si-h-ha-an* does belong here (which is not obvious), the final *-n* can well be a suffix. Assuming a possible assimilation, we can then trace *\*sihha-* back to *\*silha-* and compare it with:

+ Sino-Caucasian: PNC *\*čřfiV* 'tooth', PST *\*C'Vj* 'tooth, fang';

+ Nostratic: PU *\*c'il3-m3* 'fang', PA *\*sřla* 'sharp stick, tooth' > Proto-Turkic *\*sřl-* 'tooth, sharp stick'; Proto-Mongolian *\*sidü* 'tooth', etc.).

50. **"tree"**: nE, achE *GIŠ.hu-sa*.

+ Afroasiatic: PAA *\*ʕüç-* 'tree' (HSED 1126) > Sem. *\*ʕiṣ* 'tree', East Chadic *\*ʔuç-* 'fig tree' (?). This is the main Semitic etymon for 'tree', and thus looks quite reliable.

? Nostratic: cf. PIE *\*ʔōsA-* 'a k. of tree' (Lith. *úosis* 'ash tree', Proto-Slav. *\*asb* id.

51. **"two"**: nE *ma-ir*, *mar-ra*, achE *mar*.

No reliable parallels for this root can be found. Blažek presumes a development *\*w- > m-* in Elamite (i.e. Proto-Elamite *\*wari*), comparing it with PAA *\*wary-* (Beja *wari* 'other', Proto-Cushitic *\*wäri* 'or', Hausa *waari* 'a pair'). Even assuming that his hypothesis for Elamite is correct, the comparison does not constitute an exact match.

An alternate comparison would be to Proto-Dravidian *\*mar-* 'other, next' (DED 4766); however, according to the hypothesis expressed in (Starostin 1998), the reconstruction for the Proto-Dravidian root should rather look like *\*mad-* (with an alveolar stop) which further complicates the comparison. In any case, this cannot be judged as an exact match.

52. **"walk"**: nE, achE *izza-/izzi-* (*iz-zí-iš* 'he went', achE *iz-zí-man-ra* 'the walker', etc.).

The root has no exact semantic matches in any of the major macrofamilies, but can be easily compared to quite a few forms anyway:

? Nostratic: cf. PA *\*iče* 'to reach, follow, go' > Proto-Turkic *\*Eč-* 'to follow'; Proto-Mongolian *\*iču-* 'to go back, get ready to go back'; Proto-Tungus *\*is-* 'to reach'; Proto-Japanese *\*isua(n)k-* 'to hurry, get ready to'. Cf. also Proto-South-Dravidian *\*Is-aŋ-/\*Ij-aŋ-* 'to move, go' (Tamil *iyaŋku*, *icaŋku*, Kannada *esagu* 'to drive'; DED 469).

? Afroasiatic: cf. PAA *\*si-* 'go, come' (HSED 2225) > Eg. *sysy* 'hurry, hasten'; WCh *\*siy-* 'return', CCh *\*si-* 'come'.

? Sino-Caucasian: cf. PNC *\*išA* 'to move, come' (Proto-Avaro-Andian *\*š:<sup>w</sup>V-* 'to come, reach'; Proto-Lak *\*aj-š:u-* 'to retreat, go away'; Proto-Dargwa *\*aš:-* 'to come', Proto-Lezghian *\*iš:ā-* 'to be, to come'; Proto-West-Caucasian *\*šə* 'to move, come').

53. **"water"**: mE *zu-ul*.

No exact parallels for this root can be found, except for words with rather remote semantics, such as PAA *\*sayal-* 'water flow, current' (HSED 2213), PA *\*žīōl[u]* 'river bed', etc. The relationship remains unclear.

54. **"we"**: oE *ni-ka*, mE *ni-qa*, nE, achE *nu-ku*.

+ Nostratic: PN *\*nΛ-* (ND I, p. 7) 'we (excl.)'. This base in Nostratic is represented by PD *\*nām* 'we (excl.)', PIE *\*ne-/\*nō-* 'we (oblique stem)', PK *\*naj* 'we'. (Note that this is yet another case of potentially close Elamite-Dravidian relationship undermined by data of other Nostratic languages).

+ Afroasiatic: PAA *\*nV-* 'we' (cf. the forms given in Blažek's table of Afroasiatic pronouns).

+ Sino-Caucasian: PST *\*gā-* 'I, we' (Old Chinese *\*ghā* 'I, we'; Tib. *ga* 'we', Burm. *ga* 'I', etc.).

### Conclusion

As can be seen from the wordlists above, despite the scarcity of known lexics with well established meanings, Elamite still presents sufficient surface evidence to help relate it to some of the surrounding macrofamilies. A particularly striking discovery is that Elamite seems to share a significantly lesser number of cognates among the 100-wordlist with Sino-Caucasian (7-8 pluses) than with Nostratic (14-15 pluses) or Afroasiatic (15-16 pluses). This would mean that, in case all of those three macrofamilies were interrelated, Sino-Caucasian would have to be considered more distant from the other two.

As for the Nostratic and Afroasiatic parallels, given the highly approximate reliability of the overall procedure in this particular case, it is nigh impossible to determine which of the two families is closer related to Elamite. Afroasiatic seems to give somewhat better parallels within the "ultra-stable" 35-word list, and such exclusive Afroasiatic/Elamite matches as "blood", "earth", and "horn", look extremely promising. On the other hand, in most of the cases Elamite forms match a certain protoform of one, maximum two Afroasiatic subbranches, which does not give us the possibility to claim an exact match with Proto-Afroasiatic as such.

That said, there are certain things we can say for almost certain, based on the above comparisons. First, that there is absolutely no sufficient evidence whatsoever to claim a specific Elamo-Dravidian relationship (apart from the usual - and quite common - matches in personal and demonstrative pronouns, there are only 2 direct matches between Elamite and Dravidian in the entire wordlist). Second, that despite this, Elamite presents us with a far more clear case of relationship than Sumerian, lexicostatistical results for which look far more grim in general; both the lexical and the morphological evidence of Elamite find enough parallels in Eurasian macrofamilies to exclude the possibility of chance similarities.

At this point, I would probably describe Elamite as a "bridge" between Nostratic and Afroasiatic, perhaps a sole remnant of an old subbranch of the global "Eurasian" or "Boreal" family that also includes Nostratic and Afro-Asiatic. This would explain much of the lexical and morphological parallels proposed by both McAlpin and Blažek as well as by myself in the present article. As a working hypothesis, this solution seems rational to me, and unless further evidence from Elamite (or Afroasiatic) comes up to sever the ties between these two families, I think this is the most plausible way to deal with the current situation.

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