

LOAN-WORDS IN ACHAEMENID ELAMITE: THE SPELLINGS OF OLD PERSIAN MONTH-NAMES



❶ Do you know this object?

I hope so. It is perhaps the most stimulating object found in the entire Ancient Near East, even if handbooks on Mesopotamian art do not talk much about it. It is a three-dimensional bronze model whose base measures 60 x 40 cm, excavated in the 1904-1905 campaign by the French mission at Susa. The scene is focused on two squatted human figures: one stretches its hands out, the other seems to be pouring water over them from a jug. Around them, there are possibly some kinds of altars, a large vessel, two basins, a stela and three trunks of trees. This

act, perhaps a cultic scene which took place in the second half of the 12th century BC, was fixed for eternity by will of Šilhak-Inšušinak (1140-1120 BC), king of Anšan and Susa, according to the short inscription in a corner of the base.

❷ If you are so lucky as to run into a picture of it (unless you are directly visiting the Louvre museum), looking at the caption you would learn that the name commonly given to this object is *sit šamši*. Actually, this name, meaning “the rising of the sun, sunrise” in Akkadian, appears in lines 5-6 of the inscription. But only in the unlikely event that you are both in front of the Louvre showcase with the *sit šamši* in and an “Elamist”, i.e. a specialist in Elamite studies, you could go further in reading the inscription, though even an Elamist, having been ready to interpret the most stereotyped Akkadian inscription – you know, Akkadian was very spread in Susiana –, so even an Elamist will jolt becoming aware of the language of the text. Apart from brushing up the revered edition by Scheil (1909) or König (1965), this is the only way to learn that the inscription is compiled in Elamite language. So, an Akkadian name for an Elamite object in an Elamite inscription!

Leaving out that I almost agree with M. Rutten who, in a forgotten note written in 1953, compared the words *sit šamši* to middle Elamite votive formulae, this is what one can precisely define as an Akkadian loan-word in Elamite. Palaeographically speaking, the shape of the signs is Elamite, but the **same cuneiform signs** could have written *sit šamši* in Akkadian (even if a skilled Akkadian scribe would have preferred the usual logographic spelling ^dUTU.È!).

* * *

❸ A sign-by-sign transcript of an Akkadian word in Elamite is possible because the Elamite syllabary is a selected subset originated from the Akkadian **one**. At most, one could ask oneself what would have happened if a required Akkadian sign was not otherwise attested in the Elamite syllabary.

Perhaps, if the foreign word was so peculiar of the foreign culture and its need was not occasional, a new sign could be added to the syllabary. This is what just happened, partly in the economic tablets from Tall-i Malyān (11th century BC), then systematically in the *omina* tablet and in the neo-elamite economic tablets from Susa (7th or even 6th century BC), for some logograms of Babylonian month-names. However, there is at least an exception: in the Susa tablets, the common sign *KAM* was preferred to the correct, but unusual for the Elamite syllabary, sign *GAN*.

OLD PERSIAN LOAN-WORDS

Let us add another language to our bilingual puzzle, making a leap to the 6th century BC when a strong and powerful ruling class was setting up a new empire. While speaking what we call today Old Persian, they relied upon scribes writing in Elamite for bookkeeping purposes. If we pass to the other side (and soul) of Elam, the ancient country of Anšan, we are not astonished to find in the Persepolis Fortification (509-494 BC) and Treasury (492-458 BC) economic tablets a lot of Old Persian loan-words, especially proper nouns, but also offices, professions, administrative technical terms and objects.

The Old Persian month-names in Elamite

④ However, the Elamite and Old Persian scripts are quite different, as well as the phonetics of the two languages. So Old Persian words had to change their dressing, and none of the new clothes were made to measure. Skimming through the “Glossary” by R.T. Hallock in his impressive volume *Persepolis Fortification Tablets*, some particularly “wealthy” entries stand out: they make up the wardrobe of Old Persian month-names when they have to linger scattered in Elamite grammar. In fact they have not a standard Elamite spelling, but each can be written down in a lot of alternating syllabic sequences. For example, the painstaking inventory of the spellings and occurrences of the month *miyakannaš* takes up nearly an entire column.

Lankelli Database

⑤ For this research I queried the second release of the *Lankelli* survey, available online. The database embraces all the published texts, including references to unpublished material drawn from glossaries. Damaged occurrences, providing no reliable data on the spelling, were excluded from statistical counts.

Spellings and occurrences

⑥ According to the *Lankelli* database, there are 18 different extant spellings for a total of 202 occurrences of the month-name *miyakannaš*: the most attested spelling, *mi-ya-kán-na-aš*, occurs 55 times, followed by the 54 occurrences of *mi-kán-na-iš*. Then there are 4 spellings occurring between 15% and 5% of total occurrences. Under 5% there are 12 spellings, 8 of which are attested only once.

Miyakannaš is the most attested month-name and it is, probably not by chance being accounting tablets, the last month of the year. The less attested month is *karmabataš* with 109 occurrences. *Turmar*, *sakurriziš* and *samiyamaš* have even 28 different spellings each, while *karmabataš* only 8.

order	Old Perian month-names	spels	DB occs	Persepolis occs	ISP	Elamite month-names	spels	occs	ISP	ISP OP - EL
1	hadukannaš	15	1	162	0.092	zikli	3	34	0.088	0.004
2	turmar	28	4	158	0.173	zarpakim	5	28	0.179	-0.006
3	sākurrižiš	28	1	139	0.200	hadar	1	5	0.200	0.000
4	karmabataš	8	3	109	0.071	hallime	3	14	0.214	-0.143
5	turnabaziš	13	0	125	0.104	zillatam	5	13	0.385	-0.281
6	karbašiyaš	26	0	127	0.205	belilit	1	14	0.071	0.133
7	bakeyatiš	10	1	128	0.078	manšarki	11	19	0.579	-0.501
8	markašanaš	9	(lacuna OP) 1	122	0.073	lankelli	8	24	0.333	-0.260
9	hašiyatiš	12	2	136	0.087	šibari	5	39	0.128	-0.041
10	hanamakaš	18	4	144	0.122	šermi	5	38	0.132	-0.010
11	samiyamaš	28	0	127	0.220	kutmama	3	22	0.136	0.084
12	miyakannaš	19	3	202	0.093	aššetukpi	9	34	0.265	-0.172
		17.83	20	1679	0.126		4.92	284	0.226	

The Index of Spelling Perseverance (ISP)

In order to have an immediately meaningful number representing the ratio between attested spellings and occurrences, I devised the Index of Spelling Perseverance (ISP), obtained for a given word dividing the number of spellings by the number of occurrences. An ISP equal to 1 means that each occurrence of the word is written down with a different spelling from the others. The more the ISP approaches to zero, the less the attested spellings and the more the occurrences, i.e. the ISP of a month-name attested a lot of times with few spellings is lower than **that** of a proper noun attested just a couple of times with the same spelling.

The average ISP of the Old Persian month-names in Elamite writing is 0.13, with a minimum of 0.07 for *karmabataš*, whose spellings are the most persevering, and a maximum of 0.22 for *samiyamaš*, the most variable in writing.

The Elamite month-names in the Persepolis Fortification Tablets

According to G.G. Cameron, this considerable variability in Elamite transliterations of borrowed month-names can be expected.

While 33% of Persepolis tablets having a dating formulae use Old Persian month-names, a minority equal to 6% (the remainder is dated only by year) provides another set of month-names. Since R.T. Hallock defined them as “presumably Elamite in origin”, we might expect that their spellings were more persevering. Nevertheless/unfortunately the ISP of the “native Elamite” group is equal to 0.23, 10% closer to 1 than that of the Old Persian month-names. So, either an ISP close to 1 does not mean that a word is borrowed, or we might surmise that the “Elamite” month-names are not so much Elamite. Obviously we should first come to an agreement about what we mean by being Elamite, if R.T. Hallock with “months of Susa” meant the Babylonian month-names in the Elamite economic texts from Susa. Nonetheless, some of these month-names really seem related to those attested some five centuries before in the accounting tablets from Tall-i Malyān, the capital of the Anšan district.

⑦ But dating formulae were required not only for accounting purposes but also in order to support the strong royal ideology. In the Bīsotūn inscription (520-518 BC) it is stated several times in all the languages that we came across so far, Old Persian, Elamite and Akkadian/Babylonian, that king Darius did all that is reported there in “one and the same year”. Though it is neither a chronicle nor a plain report, 20 dates are included in the text, attesting 9 different month-names. In fact, before the discovery of the Persepolis tablets in the ‘30s, eight of the Old Persian month-names were already known both in Old Persian language and Elamite transcription from Bīsotūn. A ninth, *mar-ka₄-za-na-iš* according to the Elamite version, unfortunately occurred in a damaged passage and is unreadable in Old Persian. The Babylonian version prefers the corresponding Babylonian month-names written in the standard short logographic form, so it is not relevant here, although it is noteworthy that Old Persian loan-words were not needed in Babylonian and the two calendars were both lunar and in synchrony (at least at that time).

The original Old Persian month-names were studied etymologically by F. Justi, until A. Poebel was able to fill in the gaps and fix the relative order thanks to the Persepolis tablets discovered in the meantime. Then R.G. Kent, G.G. Cameron, E. Benveniste, M. Mayrhofer, W. Hinz engaged in the challenge to reconstruct the missing Old Persian words and guess the related etymology, as F. De Blois and R. Schmitt are doing more recently.

EVALUATING THE ELAMITE SPELLINGS OF OLD PERSIAN MONTH-NAMES

Bīsotūn spellings in the Persepolis tablets

Bīsotūn remained an extraordinary but unfortunately isolated case. For nearly ten years we have no further mention of month-names and when we meet them once again in the accounting tablets, they do not reappear in other textual typologies any more. So it could be interesting to look for Bīsotūn spellings in the Persepolis tablets.

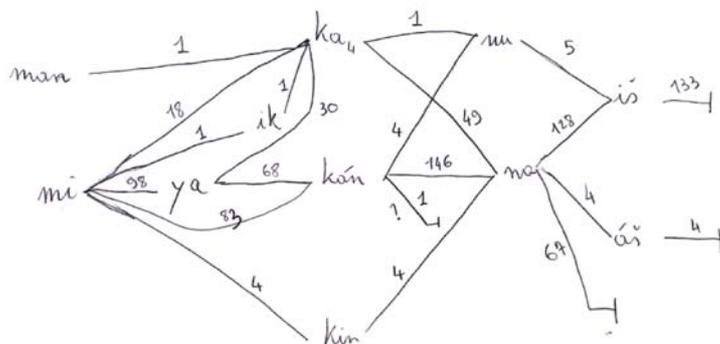
⑧ For example, let us take the first occurrence of a month-name in the Bīsotūn inscription: in Elamite it is written *mi-kán-na-iš* corresponding to Old Persian *vi-i-y-x-n-h-y*. This month-name is attested two more times in the Bīsotūn inscription but, while the Old Persian spelling remains unchanged, we find a slightly different spelling in Elamite: *mi-ya-kán-na-iš*, which is moreover the most attested spelling in the tablets. *mi-ya-kán-na-iš* is the only unpersevering spelling in the Bīsotūn inscription and, if *mi-kán-na-iš* was not attested in the tablets only once less, we would surely think of a scribal omission for *-ya-*.

The Bīsotūn spellings are the most attested in the Persepolis tablets for 3 other month-names: *hadukannaš*, *bakeyatiš*, *sākurrižiš*. For 3 month-names it is the second most attested in the Persepolis tablets: *turmar* has a little gap (18 occurrences against 22) with the most attested spelling (*tu-ru-ma-ráš*), the difference being the added final *š*, while *hanamakaš* and *karmabataš* have a big gap: 15 occurrences against 88 (but the difference is merely in writing, being *ma-ak-kaš* and *ma-kaš* probably identical in pronunciation; evidently it was not a trouble for the Bīsotūn scribes write one more sign), 12 occurrences against 84 for *karmabataš* (the difference being more meaningful: the use of a CVC sign, *bat*, instead of CV, *ba*). The Bīsotūn spelling

of *markašanaš* is attested only once, in Fort. 3126, the difference being the sign *za* instead of *šá*. The month-name *hašiyatiš* in the Bīsoṭūn inscription has a particularly “long” spelling not attested in the Persepolis tablets: in respect to the most attested form, it has *ha-iš-ši-* instead *ha-ši-* and *-ti-ya-iš* instead *-ti-iš*; other spellings have these two characteristics but they do not occur at the same time. Moreover it is the only Bīsoṭūn spelling differing from the most attested one in the Persepolis tablets by more than one sign.

⑨ In 6 cases (we include *turmar* in view of the minimal gap and *hanamakaš* being equivalent the variation) out of 9 the Bīsoṭūn spelling is the preferred one in the Persepolis documents, too. It should not be a mere chance: should these spellings be considered as the most correct? But correct in what respect? Because they are more accurate in rendering the Old Persian pronunciation? But a scribe should have preferred the fastest spelling to write, at least in an accounting tablet.

The tree of spellings



⑩ In order to perform an in-depth analysis of each month-name spelling, it was necessary to reduce the many variant spellings to single variant couples of signs, even if not all the possible combination of couples are attested in sequence. Therefore I developed the “tree of spellings”, a graphic device useful for viewing at a glance all the attested spellings of a month-name, linking with lines (from left to right) the attested couples of signs in sequence. The numbers above lines provide the number of occurrences of the two-sign sequence; lines ending with a short vertical stroke mark the end of the spelling. The tree of spellings is useful also to compare the Elamite renderings to known Old Persian spellings or to reconstruct the missing ones.

Relationships between different spellings

A sequence of signs in any word position can be in one of the following relationships with an alternative sequence, aligned in the corresponding vertical segment of the tree:

- ◆ equivalent, being irrelevant to Elamite pronunciation, as a result of variable orthography of the target language (Elamite) writing. (Variable orthography could be due to syllabic combinatory alternatives, unpronounced geminated consonants, irrelevance of voiced/unvoiced stops, unpronounced written final vowels, or, to a much lesser extent, to homophonous signs) This is the case of spellings such as CV-C₁V(C) and CV-VC₁-C₁V(C) or CVC₁-C₁V(C) (ma-na, ma-an-na, man-na; the gemination being purely graphic); hV-C₁V(C) and VC₁-C₁V(C) at the beginning of a word (like *ha/an-na-makaš*, the *h* being a graphic device for word beginning in vowel, since the sign *A* was unusual in this position in Achaemenid Elamite); CV-V₁C and CV-V₂C (broken-vowel writing); CV₁C and CV₂C (*kur/kar*) at

most. One of the two alternants can be considered “more accurate”, such as *mi-ya-kannaš* instead of *mi-kannaš*. The other alternant could be defined as less accurate, abbreviated or defective.

- ◆ complementary, in order to render the nuances of the sounds in the source language not known to the target language, i.e. different adaptation of Old Persian sounds in Elamite. We do not know if complementary spellings were pronounced differently (by monolingual Elamite speakers) or were masks of the same Old Persian pronunciations (by Persian and bilingual speakers). This is the case of spellings such as *tu* and *šu* alternating for Old Persian *θ-u*;
- ◆ alternative, recording different pronunciations or different morphemes (declined cases) of the source language.

However, if we think at the different spellings as in a consonantic writing with *mater lectionis* (such as signs *ya* for *i* or *a* for the diphthong *ai*) – otherwise inaccurate in noting vowel quality –, nearly all the spellings could be considered as equivalent. Moreover, it should be noted that the most persevering signs in noting vowel quality are the same having inherent *i* or *u* in Old Persian.

CONCLUSION

The question we are trying to answer is: “why are there so many, too many, different Elamite spellings for the Old Persian month-names?”. First of all, I think that the Elamite spellings of Old Persian month-names are so variable because, being recent loan-words, they were not fixed/codified by a long scribal tradition. Compared to foreign proper nouns and other loan-words, they are exceedingly more attested, since they were used in economic texts nearly wherever a dating formula is required, so it is obvious that a greater number of variant spellings occurred in the known texts.

Thanks to the tablets dated also by year, we can exclude a diachronic evolution in the preferred (i.e. most attested) spelling, since the more a spelling is attested, the more it is distributed over the years proportionally to the total number of tablets dated to that year.

Neither they seem to be regional variants, both in pronunciation or scribal writing habits, supposing that the tablets were not written in the same place (Persepolis?); however no relationship could be drawn from the place names occurring in the same tablets.

Likewise I cannot single out a dialectal form reflected in spellings, looking for similar spelling developments in other concomitant words.

Some spellings can be regarded as abbreviated writing, but they remain isolated occurrences.

At last, no correlation can be deduced from Hallock’s categories which, though being a modern catalogation, keep/set apart formal (category T, “Letters”) or related to high rank officials (category H, “Receipts by Officials”) documents, supposed to be more accurate. That seems to prove untrue, even if only in these categories the name of the scribe is written, followed by the forms *talliš* and *tallišta* of the verb *talli*, “he wrote (the tablet)”.

Elamite scribes?

❶ It is often said that the scribes operating in the Persepolis administration were Elamite, probably from Susa, in connection with a long scribal tradition whose last extant documents are the neo-elamite economic tablets published in *Mémoires de la Délégation en Perse* IX (1907). How many scribes were working in Persepolis or elsewhere? Were they all Elamite in origin? Were not Persians trained as scribes? After 25 centuries we still have some chances to know them, even by name!

In fact we know 42 scribes' proper nouns. While G.G. Cameron took it for granted, at least for some of them, that being Elamite the scribes, the etymology would be Elamite as well, M. Mayrhofer found an Old Persian etymology for the most of them. According to M. Mayrhofer only 10% (out of 2000 names) of the onomastics attested in the tablets is Elamite. Nearly the same ratio is pointed out from the names of the 42 known scribes: 12% Elamite, 76% Persian, the remainder is uncertain.

However, it could be that some Elamites adopted an Old Persian name, so the onomastics does not help so much. So we can continue to think that scribes were all Elamites. Surely some do not feel obliged to change name.

Scribe perseverance

17 scribes out of 42 are attested as authors of more than one tablet. In the tablets written by 7 of these 17 scribes, for a total number of 70 tablets, the same month-name occurs in different tablets. In only 3 cases the spelling is unpersevering.

Moreover, even if we hadn't had the scribes' proper nouns, on the 107 tablets (especially Hallock's category V *Journals*) where the same month-name is attested more than once, only 8 times it is written with different spellings: in 3 cases a final sign *iš* is added; in 2 cases a final *ya* is replaced by *iš*; in 4 cases there is one alternant against two or more identical spellings of the same month-name. Evidently, the scribes did not want or did not feel free to vary the spelling of a month-name in the same text, save in the rarest cases which we can consider exceptional.

* * *

Waiting for new data or, better, for digitalization of already known data (since a corpus of thousands of economic texts is highly suitable to be thoroughly investigated using a computer), the only certainty is that the different spellings of Old Persian month-names are due to different scribes or, better, each scribe had a preferred spelling, a personal standard, to which he conforms, more or less consciously. The creativity is not exercised from time to time, but once and for all, perhaps at the first need to write an Old Persian month-name. Therefore, the scribes were not taught at school how to write Old Persian month-names: nobody imposed a standard, save perhaps the use of Old Persian month-names as a whole.

Thank you.

Short References

- Basello**, Gian Pietro (2002) 'Babylonian and Elam: the Evidence of the Calendars', in Antonio C.D. **Panaino** (ed.) / Giovanni **Pettinato** (ed.), *Ideologies as Intercultural Phenomena. Proceedings of the Third Annual Symposium of the Assyrian and Babylonian Intellectual Heritage Project Held in Chicago, USA, October 27-31, 2000*, pp. 13-36, Milano.
- Benveniste**, Émile (1966) *Titres et noms propres en iranien ancien*, Paris.
- Blois**, François de (unpublished) 'Lunisolar Calendars of Ancient Iran'.
- Brandenstein**, Wilhelm / **Mayrhofer**, Manfred (1964) *Handbuch des Altpersischen*, Wiesbaden.
- Cameron**, George G. (1948) *Persepolis Treasury Tablets (Oriental Institute Publications 65)*, Chicago.
- König**, F.W. (1965) *Die elamischen Königsinschriften (Archiv für Orientforschung, Beiheft 16)*, Berlin / Graz.
- Gautier**, Joseph-Étienne (1909) 'Le 'sit šamši' de Šilhak-In Šušinak', *Recueil des travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes* 31, pp. 41-49.
- Gershevitch**, Ilya (1969) 'Iranian Nouns and Names in Elamite Garb', *Transactions of the Philological Society*, pp. 165-200, Oxford.
- Hallock**, Richard T. (1969) *Persepolis Fortification Tablets (Oriental Institute Publications 92)*, Chicago.
- Hinz**, Walther (1973) *Neue Wege im Altpersischen (Göttinger Orientforschungen 3/1)*, Wiesbaden.
- Justi**, Ferdinand (1897) 'Die altpersischen Monate', *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 51, Wiesbaden.
- Kent**, Roland G. (1953) *Old Persian. Grammar Texts Lexicon*, New Haven, Connecticut. [50th anniversary!]
- Mayrhofer**, Manfred (1973) *Onomastica Persepolitana. Das altiranische Namengut der Persepolis-Täfelchen*, Wien.
- Rutten**, Margaret / **Contenau**, G. (1953) *Les documents épigraphiques de Tchogha Zambil (Mémoires de la Délégation en Perse 32)*, Paris.
- Panaino**, Antonio C.D. (1990) 'Calendars, i. Pre-Islamic Calendars', in *Encyclopædia Iranica* 4, pp. 658-668, London/New York.
- Poebel**, Arno (1938) 'The Names and the Order of the Old Persian and Elamite Months during the Achaemenid Period', *American Journal of Semitic Languages and Literatures* 55 pp. 130-141, Chicago.
- Rossi**, Adriano V. (1981) 'La varietà linguistica nell'Iran achemenide', *Annali del Dipartimento di Studi del Mondo Classico e del Mediterraneo Antico dell'Istituto Universitario Orientale. Sezione linguistica* 3, pp. 141-196, Napoli.
- Scheil**, Vincent (1907) *Textes élamites-anzanites, troisième série (Mémoires de la Délégation en Perse 9)*, Paris
- Scheil**, Vincent (1909), see Gautier 1909.
- Scheil**, Vincent (1917) 'Déchiffrement d'un document anzanite relatif aux présages', *Revue d'Assyriologie et d'Archéologie Orientale* 14, pp. 29-59, Paris.
- Schmitt**, Rüdiger (1985) 'Adukanaiša', in *Encyclopædia Iranica* 1, p. 471.
- Schmitt**, Rüdiger (1985) 'Āçiyādiya', in *Encyclopædia Iranica* 1, p. 430.
- Schmitt**, Rüdiger (1987) 'Anāmaka', in *Encyclopædia Iranica* 2, p. 1, London/New York.
- Schmitt**, Rüdiger (1989) 'Bāgayādiš', in *Encyclopædia Iranica* 3, p. 408.
- Schmitt**, Rüdiger (1996) 'Drnabājiš', in *Encyclopædia Iranica* 7, p. 554.
- Stolper**, Matthew W. (1984) *Texts from Tall-i Malyan I. Elamite Administrative Texts (1972-1974) (Occasional Publications of the Babylonian Fund 6)*, Philadelphia.
- Tallon**, Françoise (1992) 'Model, called the *Sit-Shamshi* (sunrise)', in Prudence O. **Harper** (ed.) / Joan **Aruz** (ed.) / Françoise **Tallon** (ed.), *The Royal City of Susa. Ancient Near Eastern Treasures in the Louvre*, pp. 137-141, New York.
- van Coetsem**, Frans (1988) *Loan Phonology and the Two Transfer Types in Language Contact*, Dordrecht, The Netherlands.
- Weinreich**, Uriel (1974) *Lingue in contatto*, Torino.
- Zadok**, Ran (1984) *The Elamite Onomasticon (Supplemento agli Annali 40)*, Napoli.

29 references

Gian Pietro **Basello**

Università degli Studi "L'Orientale", Napoli, Italia

✉ <elam@elamit.net>

🌐 <www.elamit.net>

Ravenna, 2003 October 10th

5th European Conference of Iranian Studies

Societas Iranologica Europæa

Persia and Elam: the Evidence of the Calendars

Persepolis, around 500 BC. A strong and powerful ruling class speaking Old Persian (as it is called now) relied upon scribes writing Elamite for bookkeeping purposes.

As expected, in the Persepolis Fortification (509-494 BC) and Treasury (492-458 BC) administrative tablets a lot of Old Persian loanwords can be found, especially proper nouns, but also offices, technical terms and objects. Moreover, the imperial ideology which had made a detailed account of king Darius' accession to the throne engraved in the rock of Bisotūn (ca. 520 BC), required that the time were stated in the Persian way, also in economic accounts.

However, the Elamite and Old Persian scripts are quite different, as well as the phonetics of the two languages. So Old Persian words had to change their dressing, and none of the new clothes were made to measure. Skimming through the Glossary by R.T. Hallock in his volume *Persepolis Fortification Tablets* (1969), some entries especially “wealthy” stands out: they make up the wardrobe of Old Persian month-names when they have to linger scattered in Elamite grammar.

But, though scantily attested, a group of so-called “native Elamite” month-names still survived...