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utā pavastāyā utā carmā grftam āha—Written on Clay and Parchment: Old Persian Writing and Allography in Iranian

History is often defined as starting when written records become available. While this is clearly not the whole story, it is certainly a valid definition in cases where every oral tradition has ceased to exist, either because the language or languages involved are no longer spoken, and may even have been entirely replaced by others (for example Gaulish), or simply because too much time has passed (for example Ancient Egyptian, with its four thousand years of written history, but with no real trace of any oral tradition that may have existed in the fourth millennium BC, for instance, being found in the late Coptic tradition).

The beginning of Iranian history in the sense of being written by (or for) Iranian speakers is fairly precisely datable only in the case of Old Persian. The other Old Iranian language known to us, Avestan, is transmitted in parts in a form which is clearly much older, probably concurrent with Vedic, but of course this does not permit precise dating. Apart from this, the texts are not what we would call *historical*, unless we allow considerable latitude in defining the term historical. In this contribution, religious texts—which is what the Avestan *Gāθās* are—will not be regarded as historical in the narrower sense, i.e. dealing with political events and occurrences. (There is a difference between texts that are historical and texts that are embedded in a historical context.) Naturally, there is always a difficulty in dealing with ancient cultures and their remains, including texts, that consists in our being necessarily somewhat biased by the intervening time and the (cultural and other) changes that this entails. All ancient cultures must be alien to us. 'The past is a foreign country: they do things differently there.'[1] 'Time, like water, refracts the image.'[2]

Taking, then, the first application of a writing system to reproduce in some way something that has been expressed in a spoken language as the starting point,[3] the next question to be asked is what effect, if any, this writing system may have had subsequently. The answer will depend on a number of factors. Does the language involved have a function beyond its normal community? Is its writing system then adapted to other languages? A positive answer to the first question would seem to be the prerequisite for a positive answer to the second. If the language has a func-

1 Hartley 1953.

2 Chesney 1970, 2.

3 Note that there may be other reasons to start writing, and that writing is not a one-to-one reproduction of speech in any case. Cf. Olson 1998, 89, 182, and generally; cf. also Grésillon 1995.

tion beyond the range of its normal community, then there is a certain probability that speakers of other languages who are influenced by the first-named community will also take over the writing system employed by the latter—unless, of course, they already have a writing system.

Examples are not hard to find. The Latin alphabet (which has its own prior history) spread in the course of the expansion of the Roman Empire, and was employed wherever Latin was spoken, whether as a first or an acquired language. Some tribes among the Celtic peoples of Central Europe adopted this alphabet to write their language, in particular some of the Gauls. Similarly, the Greek alphabet (or rather one of its variants) spread with Alexander's conquests to parts of the Middle East, notably Bactria, where the indigenous Iranian language of the post-Alexandrian rulers was written with Greek letters. Indeed, a similar situation obtained much earlier in parts of Asia Minor, where the Lydians, Carians, Phrygians, and Lycians (and doubtless others) used Greek letters or at least the template of the Greek alphabet. The Indian Brāhmī script was also exported to other lands and other peoples; the Iranian language Khotanese and the Tocharian languages were written with forms of it. This example shows, too, that political and military conquest need not always be involved in the process. Religion or other cultural phenomena may be at work.

The process of adoption and adaptation—and both are always present as facets of the process of taking over a writing system—is a highly complex one, which must be seen against the background of many other processes taking place at the same time. Some of these have been mentioned *en passant* above: political-military expansion, religious proselytisation, contact in the economic sphere. But one must distinguish, too, among a number of possible scenarios concerning writing itself. Alloglottography is by no means unkown, perhaps the best-known example being Japanese.[4] Indeed, the Old Persian writing system was likely created using the inspiration of the Elamite and Babylonian cuneiform systems. Anyone who has studied the Middle Iranian languages to any extent will be well aware of the so-called ideogrammes (actually Aramaic words or abbreviations) scattered generously throughout Parthian, Middle Persian, or Sogdian texts. We ourselves use Arabic[5] numeral signs in everday texts. These examples, furthermore, illustrate that alloglottography does not necessarily imply alloglottophasia (that is, writing foreign linguistic elements need not entail the actual spoken use of such elements), although the one does not exclude the other.

Contact between cultures is necessary, in whatever form, for a writing system to be transmitted from one to the other. But those adopting the script must feel some need for writing, too. The two most frequent triggers are economic and religious. These involve questions of prestige, or social standing, both with a view to the internal and to the external. The Celtic prince who could display Etruscan wine vessels

4 See Coulmas 1981, 57 ff.

5 A historically conditioned misnomer, of course.

was displaying his wealth as a symbol of power internally, to be sure, but at the same time he may well have been showing that he was not inferior to those who had made and brought said vessel.[6] Writing in one's own language was most certainly also an attempt to make a statement about the position of that language and its speakers. In Republican Rome, it was common for noble sons to learn Etruscan, as a prestige language of what we would call science and religion (though the separation of these concepts would have been quite alien to the Romans); but very early on it was felt necessary to adopt the Etruscan system of writing in order to express Latin, albeit with various modifications made over time.[7] Ironically, Latin itself was to suffer something of the same fate.

If the adoption and adaptation of a writing system is a complex affair in social terms, so, too, is the technical end of things. Writing materials[8] have had an influence on how things are written. For example, in North India the κάλαμος was used, whereas in South India the stylus was the more common choice; this led to differing styles of writing.[9] The Germanic runes would appear to have been designed specifically for inscribing on materials such as wood or bone.[10] Chinese script, famously, has been strongly influenced by the brush (although the oldest examples are clearly scratched, or rather carved, into bones, turtle shells, and the like). Cuneiform scripts are the result of impressing marks upon wet clay. The Roman practice of using wax tablets is well known, as is that of using strips of wood[11] (the latter being very widespread and certainly not limited to the Romans, as Tocharian and Sogdian examples show).

Yet some doubt is allowed here. There is no absolute predictability as to the form that a script may take, based solely on the writing materials originally used for it. The Latin alphabet (or the Greek, for that matter) was not originally intended for stone inscriptions, or at least not solely, but was later widely used for precisely that.

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6 See, for example, the comment by J. Biel in Biel/Frankenstein 1998[4], 166: "Letztlich dürfte auch das Entstehen dieser Fürstenschicht mit ihren Prunkgräbern eine Reflexion auf den Süden sein, die auch in anderen Kontaktzonen dieser Art zu beobachten ist…".

7 For example, the lack of voiced stop phonemes in Etruscan, reflected in the writing, made things difficult in Latin, where such voiced stops had phonemic status. The abbreviations C. and Cn. for Gaius and Gnaeus, respectively, are a case in point, as well as illustrating the conservatism inherent in writing.

8 Cf. Clarysse/Vandorpe 2008, 719–721 on writing materials in Classical Antiquity.

9 Cf. Bechert/Simson 1993, 45.

10 Cf. Krause 1970, 46, where Venantius Fortunatus, bishop of Poitiers in the 6th century, is quoted: *barbara fraxineis pingatur runa tabellis: quodque papyrus agit, virgula plana valet*. Cf. also Düwel 2001[3], 203, where the source for this quote is given more exactly: Carmina VII, 18, 19f., in Monumenta Germaniae historica, auctores antiquissimi IV.1, 173. See further Derolez 1990, 429–430.

11 The Vindolanda tablets are the best-known examples of Roman writing on wood. Very recently, similar such wooden writing tablets have been found at the remarkable archaeological site in Queen Victoria Street, London, cf. Kennedy 2013.

Cuneiform, i.e. a script consisting of wedge-shaped markings, is not the only possible outcome of making marks on wet clay, as Linear B clearly shows. Germanic runes are equally well written on signboards and paper, when it comes to that.[12]

Yet one cannot escape the feeling that the medium, in a way, does constitute a message, although not quite in the way that Marshall McLuhan meant.[13] A case in point is the Old Persian writing system, generally called cuneiform because of its physical similarity to the Mesopotamian cuneiform scripts, although the Old Persian script functions in a very different way. This script appears to have been invented specifically for the purpose of writing in Old Persian, and not, for instance, in the closely related Median, nor any other language, related or not.[14] What was written is known to an extent, although to what extent remains unknown. As a result, perceptions of Old Persian writing have been of a script used for purely monumental purposes—for show, not to put too fine a point on it. The Old Persian cuneiform inscriptions known to us are royal inscriptions, found on rock faces and stone buildings (the mountain at Bīsitūn, the royal tomb of Dareios I at Naqš-e-Rustam, various examples at Persepolis, and so on) or on various objects (the gold and silver tablets DHa^{G} and DHa^{S} from Hamadan, the remains of the stele inscription DZa from Suez, and so on).[15] In other words, this script appears to have been used almost exclusively for the purpose of royal display, whether in the form of a monumental inscription or on objects as an indicator of royal power and presence. This use is almost exclusive, but not entirely. A tantalising discovery made in 2006 means that we can no longer exclude the possibility that the Old Persian script was also used for non-royal purposes.[16]

Among the Persepolis Fortification Tablets, one has been found with Old Persian writing on it. If Fort. 1208–101 (the official designation of the tablet in question) is a unique example of the non-royal use of Old Persian writing, then there is the problem of explaining why on earth someone felt it necessary to create this tablet. Its content

12 To dispel possible doubt: I refer here not to any supposed use of ancient Germanic runes in modern times, but to the modern usage of one rune, albeit completely misunderstood, in Modern English—signs, for example, of the type *Ye Olde Village Shoppe* and the like, where what is now interpreted as <Y> is no other than the Old English rune *þ* (*Thorn*), presumably revived or taken over from old manuscripts by the early printers. It was written in a simplified form strongly resembling a cursive Latin *y*, a tendency apparently strengthened by the earliest type, which was imported and thus did not contain any such letter. Cf. Bischoff 1979, 119, on the continued use of this rune (and some others) as late as the 15th century.

13 I refer here to McLuhan's famous statement in McLuhan 1964.

14 The existence of a sign for the sibilant which, in Old Persian and nowhere else, had developed out of the consonant combination */θr/ (Proto-Iranian), is a powerful indication that the script was developed purely for this language and no other. Furthermore, this particular Old Persian symbol is among the morphologically simplest, which could be taken as an indication that it was among the earliest signs in the canon to be developed. Cf. Schmitt 2004, 722.

15 For a complete list of inscriptions and objects, see Schmitt 2009.

16 Cf. Stolper/Tavernier 2007.

is similar to the content of a myriad other tablets in the archive, purely a record of economic matters. The remarkable thing, as Stolper[17] points out, is not that this is a clay tablet with an Old Persian inscription in Old Persian writing, but that it is a 'practical text'[18] forming part of 'an administrative record'.[19] Parts of DSe and DSf are known from clay tablets; Dareios I himself says (DB IV 70) that '*utā pavastāyā utā carmā grftam āha*' ('it [the inscription] was written on clay and parchment [too]'),[20] but until now no non-royal texts have been found save this one. The sentence just quoted can be interpreted in different ways, of course. It may be that Dareios is, in fact, referring to Old Persian written with Aramaic script on parchment, rather than Old Persian cuneiform.[21] There is allegedly at least one inscription that uses Aramaic writing, but is apparently Old Persian in language. This is an inscription to the right of the entrance to the tomb of Dareios I at Naqš-e-Rustam.[22] But if Richard Frye is right in dating this to the late Achaimenid period,[23] then it does not necessarily follow that Aramaic was already used in the early Achaimenid period to write Old Persian, apart from the doubts surrounding the Old Persian nature of what is written in this particular inscription.

In view of the fact that most Middle Iranian languages are indeed written with some form of Aramaic script (the two major exceptions being Bactrian and Khotanese, see above), it would seem not improbable that Old Persian might have been written this way too. Yet that tablet written in Old Persian cuneiform will not go away. If, as it suggests, Old Persian was written for everyday purposes in Old Persian cuneiform, why did this system of writing not prevail? After all, from what we can tell, the script would appear to have been developed especially for the Old Persian language; it was, if not better suited for this purpose, quite certainly no worse than the Aramaic script. Indeed, at least in the very first inscription, that of Dareios at Bīsitūn, the Old Persian script uses special marks to divide what is written into discrete units. To a modern reader, it actually resembles a present-day text divided into what are termed (with considerable lack of clarity) 'words'.[24] The various texts in Aramaic script or its derivatives in Middle Iranian languages are also divided into discrete units, but

17 Cf. note 14.

18 Stolper/Tavernier 2007, (cf. note 14).

19 Stolper/Tavernier 2007, (cf. note 14).

20 Cited after Schmitt 2009.

21 This is the view taken by Bae 2008, 138–139.

22 This and the following are based on Frye 1982. The inscription appears to be the one mentioned in Kent 1953, 109, with reference there to Herzfeld 1924, 244 and to Cameron 1948, 29. See also Skjærvø 1996, 517.

23 Frye 1982, 90.

24 The vexed problem of the 'word' cannot be discussed here, but I would like to direct the reader's attention to Miller 1994, 85ff., where the confusion is demonstrated (although Miller himself believes that the term can be used), and most especially to Heger 1976, chapter 3, particularly §3.3.1.

these are units of a different nature. No modern reader confronted with one of these texts, for instance, the Manichaean Sogdian text of the Pearl Borer,[25] would recognise any great resemblance to the 'words' of a modern text. This is not to say that there is any reason to assume that the division into discrete units, however carried out, necessarily made reading easier (there is good reason to think that it does not). It simply illustrates that Old Persian writing was not in any way inferior to other scripts in use at the time. Nor should one assume that the Semitic scripts were all of a muchness. There is the highly interesting case of Ugaritic, which used a Northern Linear (Canaanite) script adapted for argillographic use under the influence of Mesopotamian cuneiform;[26] in effect, what we have in Ugaritic is a Semitic script (related to Aramaic script) refashioned as a kind of cuneiform. The opposite could have been done for Old Persian writing, i.e. it could have been transmuted into a form perfectly usable on, say, parchment, although admittedly there has been no indication of this. There is, in any case, no basis for arguing that the one or the other script was more suited in any way for either purpose, daily record-keeping or monumental display, epistolary (as it were) or inscriptional.

We see that the question goes both ways: theoretically, Aramaic could equally well have been written with Old Persian writing, or Old Persian with Aramaic writing. Aramaic writing could also be used to create monumental or quasi-monumental inscriptions; Old Persian writing could have been used to create texts other than monumental inscriptions. The form of the Old Persian script would not, then, have been in any way a hindrance. It must be pointed out, of course, that the Old Persian writing system was not entirely suited to Aramaic, but this would not have been a stumbling block either, at least from the purely technical standpoint of adaptation. After all, neither the Sogdians nor the Greeks, nor quite a number of other peoples, seem to have been unduly worried by any unsuitability in the Semitic writing systems they adopted. They simply modifed the scripts to more or less suit their needs. Technically, then, there seems to be no good reason why Old Persian cuneiform should not have continued in use after the Achaimenid period, and for languages other than Persian itself. It would exceed the bounds of this essay to undertake a closer examination of the Old Persian cuneiform writing system, but some remarks may nevertheless be made here.

The writing conventions used in Old Persian, by now well known, can be compared to those in similar systems; this could reveal something of the rationale behind these conventions. The following orthographical conventions are known to exist in Old Persian:[27]

25 See Henning 1945, 465–469.

26 Cf. Bright/Daniels 1996, 88–92.

27 After Schmitt 2004. The symbols generally used in scientific investigations of writing apply: [...] = phonetic representation, /.../ = phonemic representation; <...> = graphemic representation; C = any

1. Phonologically long and short vowels are not distinguished, with the single exception of /ā/ in word-initial position.
2. Proto-Iranian */a/ in word-final position is written with an additional <a>, i.e. as <Ca-a>. This may, in fact, represent an actually extant long vowel phoneme.
3. The vowel phonemes /i/, /ī/, /u/, /ū/ are written with the (purely) vowel signs <i> and <u>; in word-internal position, they are additionally indicated with <C^{i}> or <C^{u}>, respectively. If no such sign is present, then <C^{a}-i> or <C^{a}-u>, respectively, must be read in this position.
4. The vowel phonemes /i/, /ī/, /u/, /ū/ in word-final position are written with an additional semi-vowel <y^{a}> or <v^{a}> (the former for the i-phonemes, the latter for the u-phonemes): <-i-y^{a}>, <-u-v^{a}>.
5. The (presumed) short diphthongs /ai/ and /au/ are written as <-C^{a}-i-> und <C^{a}-u->, and are thus only partially differentiated from the simple vowels. <d^{a}-i> = [dai], but <d^{i}-i> = [di] or [dī], and <t^{a}-i> = [tai], [ti] or [tī]. In word-final position, an additional <y> or <v> is written.
6. The (presumed) long diphthongs /āi/ and /āu/ are written <C^{a}-a-i> and <C^{a}-a-u> and thus quite clear, except in word-initial position, according to (1) above.
7. Syllabic /r/ is written <r> in word-internal position: <C^{a}-r-C^{x}> = [CrC]. In word-initial position, it is written exactly as are [ar] and [ār], and cannot be distinguished from these.
8. The nasals /m/ and /n/ are written before the consonant in very few special cases, for example <k^{a}-m^{a}-n^{a}-> = /kamna-/ 'few'; apart from this, they are not written at all. <b^{a}-r^{a}-t^{i}-y^{a}> thus can be read both as /barati/ 'he/she/it bears, carries' and as /baranti/ 'they bear, carry'.
9. In word-final position, only the consonants <-m>, <-r> and <-š> are written. All others are not written in this position.
10. /y/ and /w/ are usually written <-i-y^{a}-> and <u-v^{a}>, respectively. <-C$^{i/a}$-i-y^{a}> = Ciy.
11. Iranian */*h*/ from Indo-Iranian */s/ is not written before ap. /u/, /ū/, /m/, and /r/. In the dialect known to us as 'Old Persian', /h/ in these positions seems to have disappeared.
12. Often the vowel /i/ is left out after the <h>-sign (but not always).

Now let us examine a similar, but older, system of writing, which is certainly of independent origin, to wit, Linear B. This, too, was not alphabetic in the sense that each symbol represented a phoneme of the language being written. Rather, it was a syllabary which used the occasional ideogramme.[28] Linear B would seem to have

consonant, V = any vowel; the inherent vowel in any sign is given in superscript form: <C^{a}>, <C^{i}>, and so on. Length of concrete vowel phonemes is indicated by a macron. (The question of what a consonant is, and what a vowel is, cannot be dealt with here.)

28 Cf. Bright/Daniels 1996, xliv.

been developed from an earlier writing system which also gave rise to Linear A (or 'Minoan') and to Cypriot. The entire group of scripts is commonly referred to as the 'Aegean scripts' for geographical reasons. Linear B was generally argillographic in application, but a few examples of brushwork on pots exist as well.[29]

The basic rules for writing are as follows:[30]

1. As far as can be ascertained, phonologically long and short vowels are not distinguished.
2. There is a symbol for each of the vowel phonemes (without regard to length, as mentioned in (1) above), used primarily in word-initial position: /a/, /e/, /i/, /o/, /u/. When one of these vowels occurs in non-initial position, following other signs, this probably indicates two syllables separated by hiatus or by the aspirate /h/ (for example: <ke-ke-me-**na**-**o**> = /k^{h}ek^{h}eme**nāhōn**/[31]). Vowels are otherwise inherent: <C^{a}> <C^{e}> <C^{i}> <C^{o}> <C^{u}>, with the exceptions of *<j^{i}>, *<q^{u}>[32], and *<w^{u}> (for phonetic reasons) and of *<z^{i}> and *<z^{u}> (for reasons unknown to us).
3. The occurrence of <u> **t** in non-initial position (<C^{a}-u>, <C^{e}-u>, <C^{o}-u>) seems to indicate the corresponding diphthong, e.g. <qa-si-**re**-**u**>, classical βασιλεύς.[33] On tablets from Mainland Greece, diphthongs containing /i/ are generally not written with Linear B <i>; on tablets from Knossos on Crete this <i> is generally written. Examples: Pylos (mainland) <ko-to-na> (PY Aq 64), Knossos (Crete) <ko-to-no-i-na> (KN Uf 1031), but also Knossos <a-na-ta> (KN Sf 4420) and <a-na-i-ta> (KN Sf 4419), Mycenae (mainland) <ko-no> (MY Ge 602) and <ko-i-no> (MY Ge 606); <e-u-me-de-i> (PY Fr 1184) shows two diphthongs.[34]
4. With the exception of the dental[35] plosive phonemes /d/ and /t/, voiced and voiceless plosives are not distinguished in the writing. There is one sign each for /k/ /k^{h}/ /g/, /p/ /p^{h}/ /b/, /t/ /t^{h}/ (classical κ χ γ, π φ β, τ θ).
5. The continuant phonemes /r/ and /l/ are represented by the same series of signs, i.e. they are not distinguished in the writing.

29 Cf. Bennett 1996, 1256, as well as Hiller/Panagl 1986, 50 ff.

30 Linear B tablet numbers are given as in Ventris/Chadwick 19732, Glossary; the list of tablets is not exhaustive; rather, the intention is to supply examples.

31 Cf. Bennett 1996, 130.

32 <q> represents the voiced and voiceless labiovelar sounds in Mycenaean, similar to <qv> in Classical Latin (qvi, qva, qvae, loqvi and so forth) and <gv> in Old Italian (e.g. from a document dated to 1158 *guaita* 'guard, Wacht', cf. Pulgram 1978, 345–346) or <gu> in Modern Italian and Spanish, e.g. *guerra*.

33 Cf. Ventris/Chadwick 1973, 576, under the heading *qa-si-re-u* for individual tablets as sources for this word.

34 Cf. Ventris/Chadwick 1973, 42–48 on the system of writing and the examples, and the glossary in Ventris/Chadwick 1973 for the individual tablets.

35 Possibly alveodental, but we can recognise only the general phonetic nature. Any phonetic conclusions drawn from extant forms of Greek are hardly applicable to a stage of the language as (imperfectly) recorded some 3000 years ago.

6. There are 9 signs altogether that represent consonantal /u/, i.e. /w/. Four of these form the w-series: <w^a> <w^e> <w^i> <w^o> (but, as noted above, no *<w^u>); four represent dental plosives followed by /w/: <dw^e> <dw^o> <tw^e> <tw^o>; and one represents the alveolar nasal /n/ followed by /w/: <nw^a>. (One may note in passing the phonetic similarity between, on the one hand, [alveo]dental plosives, voiced and voiceless, and, on the other, the alveolar nasal.)
7. The signs representing the diphthongs <ai> (<a_3>) and <au> occur in word-initial position only.
8. The palatal approximant /j/ (if it was this, cf. footnote 33) is consistently represented. Vowels following syllables with -i- are generally represented by <jV>, e.g. <i-je-re-u> (KN Am 821, PY Aq 218) = ἱερεύς; those following syllables with -u- are generally represented by <wV>, e.g. <ku-wa-ni-jo> (PY Ta 714 = κυάνεος).
9. Plene spellings are very common, and used to represent consonant clusters, e.g. <a-re-ku-tu-ru-wo> (PY An 654) for Ἀλεκτρύων. Usually the vowel of the syllable involved is used, as in this example, where the syllabification is [a :: le :: ktru :: ōn].
10. The basic structure of the syllables represented by the signs is V or CV; CVC does not occur.
11. Initial /s/ before a stop consonant is consistently omitted in writing.
12. Consonants in word-final position or in syllabic coda are not written. This covers those cases where a syllabic divide lies in the midst of what would otherwise be a consonant cluster, and the first consonant of the cluster is therefore not written. Examples: <ka-ko> (PY Jn 389, PY Sa 794) = χαλκός, χαλκῷ; <a-pi> (KN G 820, PY Ta 716) = αμφί; <pa-ka-na> (KN Ra 1540) = φάσγανα; <a-to-ro-qo> (PY Ta 722) = ἄνθρωπος, ἄνθρωποι; <pa-te> (PY An 607) = πατήρ; <a-ku-ro> (PY Sa 287) = ἄργυρος, ἀργύρωι.

A brief comparison of the orthographical rules of both systems yields a few similarities, some of which are interesting. These are:

1. Both systems use clay tablets as writing surfaces for the most part.
2. Both systems use signs representing syllables of the structures V or CV only. CVC and VC do not occur.
3. Both systems do not distinguish between phonologically long and short vowels.
4. Both systems represent /j/ and /w/ with a high degree of consistency.
5. Both systems tend to use plene spellings to represent consonant clusters and diphthongs, although not entirely consistently.
6. The aspirate /h/ tends not to be represented in the writing of either system. In both cases the very existence of this phoneme is uncertain.
7. The continuant phonemes /r/ and /l/ are represented identically within each system; there is no differentiation on the level of the syllable signs.
8. Significantly, both systems do *not* use *scriptio continua*. In Linear B, a word divider is used to denote separate words, or the signs change in height from word to word,

or there is a space between the words. In Old Persian, there is a word divider or a space between words.
9. Nasal phonemes /m/ and /n/ are often unwritten before other consonants.
10. Both systems are written from left to right.

Naturally these similarities are not necessarily all of significance; most are conditioned by the phoneme systems of the respective languages. Linear B is also influenced by evidently having been developed from a writing system originally intended for a quite different language, of which we unfortunately know next to nothing. Even so, the fact that there seems to be an awareness of certain units of speech in both systems is remarkable. In the later Greek and Roman classical world, for example, *scriptio continua* remained the norm for many centuries, before separate units became the standard.

Certain habits which appear clumsy to us are also common to both systems of writing, in particular the non-representation of consonants before other consonants. This would indicate that, in fact, such non-representation did not cause any difficulty at all.

The more obvious similarities in writing materials and direction of writing need not be examined, as they are highly likely to be trivial (although perhaps revealing something of the previous traditions). The main point here is that both systems were clearly intended to be read, not just written, and they were designed to be read with a fairly high degree of efficiency. One need only compare English orthography of the present day, for instance, to see that these ancient systems of writing are by no means inferior.

Most interesting is that these two systems display so many points in common, or at least partially so. This is surely indicative of a certain efficiency in fulfilling the intended task in each case.[36] Equally of interest to us is the fact that neither system survived to be used later. In the case of Mycenaean Greek, the dialect itself—evidently most closely related to the later Arcado-Cypriot complex—apparently did not survive the end of the palaces and their centralised economies.[37] Nevertheless, the writing might have survived under other circumstances. But it seems that the very centralisation of the economy in Mycenaean Greece may have entailed a corresponding specialisation in the matter of writing and scribal schools, among other things. The violent destruction of the Mycenaean centres meant also the destruction of much of the tangible and intangible infrastructure, including, very probably, all of that needed to support such specialist areas as scribal schools. The only Aegean script to survive into later, alphabetic times is the Cypriot variant, which was still in use in the Hellenistic

36 Cf. Miller 1994, chapter 2, for a detailed and enlightening analysis of Linear B and its effectiveness as a writing system.

37 Cf. Hiller/Panagl 1986, 315–328, and Heubeck 1966, 10–11.

period. This is oddly striking, as it would seem that the Greek adaptation of one or more Semitic writing systems also took place in the Eastern Mediterranean (perhaps on Cyprus itself).[38]

In the case of Old Persian, the language of the inscriptions clearly did not survive either. This statement may come as a surprise; yet the term 'survive' is what clouds the issue. We use it generally, as we do many metaphors relating to biology.[39] But we should not forget that languages neither survive nor die; only their speakers do so, with corresponding effects on their social organisations. Old Persian, in the form transmitted to us in the inscriptions (first and foremost the Bīsitūn inscription, as the most extensive and probably earliest in date), was no longer the language of the scribes of the Late Achaimenid tradition. This is shown by some of the late inscriptions, with their blatant grammatical errors.[40] In short, language change had made obsolete the written form that we might term 'classical' Old Persian, i.e. that language used in the inscriptions of Dareios I and his son Xerxes, itself perhaps a rather artificial form.

So, to sum up, both systems worked more than tolerably well from the standpoint of those who used them; both systems ceased to be used, although it is conceivable that they could have been further used. On the surface, one might point out that the Achaimenid Empire was also violently destroyed by Alexander's armies, but this is a different matter to the more ancient demise of the Mycenaean world. Individual cities and sites in Achaimenid Persia and elsewhere certainly suffered violent destruction (not least Persepolis itself), but clearly the infrastructure, tangible and intangible, did not, as a whole. Yet the Old Persian writing system had not been able to assert itself against other systems, notably the Aramaic; it ceased to be used altogether after Alexander's conquest, and slipped into oblivion. But was this really because it was not as good a system? The same question could theoretically be put with regard to Linear B—what if the Mycenaean world had not suffered such a catastrophic end as seems to have been the case?

We have seen above that the materials used for writing cannot have been the decisive factor, nor can the writing system itself be blamed, as it were. So what exactly were the important factors that played a part in the decline of the Old Persian writing system, and did these factors aid Aramaic in its ascendancy?

To try to answer this, we must again go a little further afield. To start with, there is the matter of the circles in which Old Persian writing was used. Clearly, no matter

38 Cf. Jeffery 1990, 5–12.

39 We talk, too, of 'genetically related' languages, but we do not refer to actual genetics. This entire area of issues and problems is, of course, conditioned by the history of science. It is useful to keep in mind that we are dealing with metaphors in such cases.

40 Cf. Schmitt 1999, 59–118: '5. Das spätachaimenidische Altpersisch', for an extremely detailed and valuable description and analysis.

what scenarios we construct on the basis of such finds as Fortification Tablet 1208-101 (see above), in the end we are faced with writing used for the purposes of a very limited social group indeed, namely that including the king. This conclusion, of course, is anything but new. However, the purposes themselves must be briefly examined, in that we postulate possible uses for written texts with regard to this social group or class.

We know that the administrative texts were part of a complex system of archiving and controlling various resources. Just as in modern administrations, copies were made, confirmations of receipt written, and files organised.[41] The Persepolis Fortification Tablets provide a unique window to the actual mechanics of rule under Dareios I for the period between approximately 509 and 494 BC.[42] The greater number of tablets is in Elamite; the next largest group is in Aramaic. We may thus presume that Elamite and Aramaic were both important, but we may not simply assume that other languages did not enjoy an importance approaching, or equal to, these two. In fact, we must content ourselves with establishing that the only clear facts are that the archive is multilingual, that Old Persian and other languages apart from Elamite and Aramaic do appear in it, and that the purpose of the archive is clearly and purely practical, serving the needs of Dareios' administration of the Achaimenid Empire.

A second use of the script is one that has been known much longer. Indeed, the main monument attesting this use was chronologically earlier than the Persepolis Fortification tablets. I refer here, of course, to the first and greatest of the Old Persian inscriptions, that of Dareios I at Bīsitūn. Ever since the decipherment of Old Persian,[43] there has been much discussion on the whys and wherefores of this inscription. If we distill what has been concluded thus far, we might say that the inscription was obviously not designed to be read *on the cliff face where it was carved*; we know that the Old Persian inscription was originally not intended at all (the Elamite and Achaimenid Akkadian versions were the original inscriptions);[44] and we have clear indications that the Old Persian writing system used at this site was, in fact, not the result of a long evolution,[45] but rather appears to have been the short-term, albeit relatively well thought-out, result of the work of a committee, for lack of a better word. The roots of the writing system may, of course, be older: there is some reason to think that the beginnings of it lie in the reign of Kyros.[46] Whatever the case may be, it appears that the entire ensemble of inscriptions at Bīsitūn was intended to impress, what one

41 Cf. Koch 1992, 32–36 for examples.

42 See Stein 2003–2004, 122.

43 This decipherment can be regarded as complete from 1846–1847, the date of publication of the inscription by Rawlinson 1850.

44 Cf. Schmitt 1991, 18–19; Koch 1992, 18–20; and Lewis 1996, 20 and note 16.

45 Cf. Testen 1996, 134.

46 Cf. Schmitt 2004, 721–722.

might almost call a 'secondary kind of iconicity'.[47] The idea will certainly have been to demonstrate the power of the king. This was achieved by the simple fact that a huge, widely visible 'sign' was set in the cliff face at Bīsitūn.[48] It was clearly not expected that anyone would read this particular text exemplar; equally, copies were distributed throughout the Empire and were available to read for those few who were literate—however, the one copy we have is not in Old Persian, but in Aramaic.[49] It is possible that copies in various languages were prepared; we are only certain of the Aramaic. That Aramaic should be the language of choice throughout non-Iranian (most especially, non-Persian) parts of the Achaimenid Empire is not surprising. By the end of the eighth century BC, it appears, Aramaic had already achieved a dominant status in the northern Levant and some parts of Mesopotamia;[50] the westward expansion of the Medes and later the Persians seems to have led these two ruling groups to adopt Aramaic for the purposes of the administration of the wider empire.

The Persian rulers, and the Medes before them, had no need for a written version of their own languages. One has the impression that bi- or multilingualism must, to some degree, have been usual among both the conquerors and the conquered. As administrative structures were already present—in Elam, but also further west in Babylon and other regions—there was at first perhaps no need for the Medes and Persians themselves to do any of the day-to-day work of governing. It will at first have been a matter of tribute, surely, much as had been the case with the Assyrian Empire. Only gradually may it have occurred to the new rulers that more control could entail more profit. In any event, it was not until the time of Dareios I that the need for a writing system for Old Persian seems to have been felt. It may be significant that the Persians had conquered Egypt by this time. Where the Mesopotamian conquests may not have been all that impressive from the point of view of written monuments (or monuments with writing on them), Egypt most certainly was. It cannot have been lost on the Persian kings, from Cambyses onward, that one of the keys to power in Egypt was certainly writing.

The basic system of Persian rule in Egypt during the first period of Persian dominance was, in effect, to have the Persian Great King declared Pharaoh, with all the usual rituals. Indeed, Cambyses carried out at least one very important ritual as part of a policy designed to give the natives no cause for resentment. Since the priesthood in Egypt was a major part of the administrative apparatus, and since the Persians wished to keep this apparatus in place more or less unchanged, as they had done

47 See Nöth 2000, 193 ff. on icons and iconicity.

48 There were doubtless sound reasons for Dareios to choose Bīsitūn, but these are not germane to the matter under discussion here.

49 First published by Sachau 1911. *Aramäische Papyrus und Ostraka aus einer jüdischen Militär-Kolonie zu Elephantine*, Leipzig, 1911. (Sims-Williams 1981, 1; note 1.).

50 Cf. O'Connor 1996, 96.

elsewhere, it made sense not to alienate the priests if at all possible. The Persian representative, the satrap (a sort of viceroy), was under close control of the Great King in the Persis; in turn, the satrap had a chancellor to take care of central government, and this chancellor had a staff of Egyptian translators, as the administration below this level was the old Egyptian one.[51] The Persian ruling class cannot have failed to notice the huge number of imposing monuments, virtually all of which had writing on them. They will have already noticed the power that the scribes in their own homeland possessed, and this power will have been demonstrated to them again in Egypt, indeed doubly so. Is it perhaps possible that the germ of an idea began to sprout? It is difficult to say.

We thus know that the script was used for royal purposes in the wider sense; administrative tasks on the one hand, monumental display on the other.

What we also see (or think we see, at any rate) is a situation where literacy was already present, but it was a foreign literacy from the Persian standpoint—Elamite, Aramaic, Greek, Akkadian, Egyptian, and possibly others. A large and very imposing monument is designed on the orders of the Great King; at some point during the construction of this monument, the Great King decides to have part of the inscriptions set out in his own native language. A writing system that may already have been in the course of development is thereupon created or finished, and is used for the Old Persian portion of the monument. Somewhat later, it is noticed that the script could perhaps be used for more mundane purposes, and it is also thus used. But these purposes are connected geographically with the Persis; there is no evidence from elsewhere in the Achaimenid world that the Old Persian script was ever used for other than monumental purposes. This is, however, an *argumentum ex silentio*, and should therefore not be trusted entirely. The scenario may have been more along the lines of an attempt at using the script which failed for lack of acceptance.

Basically, there was something equally good already available. As mentioned above, there is no reason to suppose that Old Persian could not have been written with Aramaic script, at least in daily situations of a non-royal nature; this would go some way towards explaining the ascendancy of Aramaic scripts in the Middle Iranian period. Old Persian writing as employed by Dareios I and his successors was simply too late on the scene to make much difference; cuneiform, whether Mesopotamian or Elamite, cannot have held all that much of its old prestige at this point either, as the political situation had not exactly changed in favour of the former powers that had used cuneiform. The Old Persian writing system may represent an attempt to continue an old tradition, in the sense that cuneiform (or something looking very much like it) would certainly be iconic in a secondary or indirect sense, i.e. it would be associated with power and strength. The winged bull-headed statues at Persepolis are a clear indication that Mesopotamian topoi were still effective. But it would have been clear,

51 This description of Egyptian history at this period after Lloyd 2000, 374–377.

too, that Mesopotamia and its empires had, for all intents and purposes, run their course. This may also explain why Elamite no longer appears regularly after about the middle of the fifth century BC, and the last few examples date from the time of Artaxerxes III (358-337 BC).[52] The old things had lost their lustre; new things were taking over the function of prestige.

Another point is that the Achaimenid Empire was of relatively short duration, only a matter of some two centuries. Yes, it did leave the idea of a united state or polity under Persian rule as a legacy, but the ruling dynasty and its immediate underlings may have made up too small a group to successfully impose a system of writing 'from above'.

Over four decades ago, Igor Diakonoff made the suggestion[53] that the Old Persian script was the result of using at least two very different writing systems as a template: Mesopotamian cuneiform on the one hand, and Aramaic on the other. This suggestion has not really been taken up in the meantime; it is, nevertheless, well worth considering. It would mean that Aramaic writing (and the Aramaic language) was well known to the Persians of the time, which is not at all improbable. Another factor is perhaps the desire to set themselves apart from the Elamites in this way: it has always been a matter of some puzzlement as to why the Persians did not, in the beginning, take over the Elamite version of cuneiform. Yet the Persian kings did call themselves, among other titles, 'King of Anshan', the old Elamite capital.

One thing that must be considered, too, is the relative importance or unimportance of semanticity in the matter of writing. For us, transmitting meaning is the primary purpose of written communication. Writing, for a long time, was part and parcel of overcoming distance in communication. It was the only way—for a very long time—of transmitting complex communications over distances (and over time). What we do tend to forget, however, is that reification[54] of spoken language, i.e. 'rendering material' that which seems immaterial, has more than one consequence. Among the various effects is a secondary iconisation. The piece of writing itself, the material upon which the communication is set down in writing, and thus the writing itself, come to signify something other than the communication contained. D. M. Lewis has made the cogent point that seals played an important role in Persian administration, so that the 'top people [did] not need to be able to write at all'.[55]

A key point in this connection must surely be the heterogeneous make-up of the Empire. When Pliny the Elder, in his *Naturalis historia*, liber VII, xxiv, mentions that '*Mithridates duarum et viginti gentium rex totidum linguis iura dixit, pro contione singu-*

52 Cf. Koch 2007, 181.

53 Diakonoff 1970. In the same essay, he claims that Old Persian cuneiform was only suitable for argillographic purposes. This is probably not true, see above.

54 See Nöth 2000, 358 for more on this and other terms.

55 Lewis 1996.

las sine interprete adfatus',[56] this reminds us of the situation under Achaimenid rule, too. It has always been apparent that Aramaic occupied a position of special importance within the Empire, and after it. Clearly there must have been relatively intensive contacts between Aramaic speakers (and writers) and the various peoples within the Empire who later wrote their own languages using scripts derived from the Aramaic.

A later parallel of sorts may be seen in the situation in Central Asia among the Sogdians and Uighurs. The Sogdian writing system comprised not just one, but at least three main variants of the original Aramaic script: one was the so-called 'Sogdian script', used in the Ancient Letters, the inscription of Kultobe,[57] the documents at Mount Muγ, and in Buddhist writings, where the writing developed into the 'formal' or 'sūtra' script; one was Manichaean Sogdian, possibly an offshoot of the Palmyrene variant of Aramaic writing; and one was 'Christian Sogdian', possibly an offshoot of the Edessan variant of Aramaic writing.[58] Some Turkic peoples appear to have taken over the Sogdian script quite early on; the Bugut inscriptions show the use of not only the Sogdian script, but also the Sogdian language.[59] The script remained in use for centuries; indeed, distant descendants of it exist today in the form of the classical Mongolian script and the Manchu script.[60] Mixed Turco-Sogdian documents are known, and the linguistic and ethnic assimilation of the Sogdians has become clearer, too.[61] In the main, one may maintain that politics played a major role; the Sogdian elements were never much concerned with more than local polities, as the evidence suggests; no major trading state or the like was ever founded by the Sogdians, nor was the Silk Road trade anywhere near as important as used to be assumed.[62]

The Turkic tribes, however, did establish polities, some of them of astonishingly wide extent. The contacts with China, on the one hand, and with India—via Buddhism—and the Iranian west on the other, led to various languages and scripts being used.[63] In the end, although China was long the focus of attack and conquest, and the source of much trade (in horses,[64] for example), the Chinese system of writing did not prevail over the Sogdian; Brāhmī was certainly of great importance in Central Asia (one may think of Tocharian in this context, for example), yet it, too, did not prevail.

56 'Mithridates, king of 22 peoples, gave judgements in as many languages, addressing each people in assembly without an interpreter.' (Plinius 1989). *Pliny. Natural History II. Books III* Harvard University Press, reprinted 1989.

57 See Sims-Williams/Grenet/Podushkin 2008 on Kultobe.

58 Cf. for orientation the following: Skjærvø 1996, 515–520; Skjærvø 1996, 529–535; Kara 1996, 536–558; Hitch 2010; Baumstark 1968.

59 Vaissière 2004, 182; Hitch 2010, 9–10.

60 Vaissière 2004, 182. Cf. also G. Kara 1996, 545–554.

61 Cf. Hansen 2012, 195–196; Vaissière 2004, 294.

62 Cf. in general Hansen 2012.

63 Cf. Zieme 1995, 153 ff. for some details of Old Turkish epic literature by way of illustration.

64 Vaissière 2004, 190–194; Hansen 2012, 81.

What in fact has remained of all this is the result of various adaptations—for manifold historical reasons—of Aramaic script, to wit, the above-mentioned Mongolian and Manchu scripts, and Arabic (modern-day Uighur is written with the Arabic script). This last is, of course, the result of the Arab conquests in Central Asia in the early period of Islam.

The parallel is a good one, because in both the Achaimenid Empire and the Turkish polities of Central Asia in the first millennium of our era, the control of the local populations was not that intensive. This is also true of Chinese domination in those areas of Central Asia where the Tang dynasty (618-907) ruled; when this rule came to an end during the An Lushan rebellion of 755-763, Chinese influence more or less ceased and Tibetan influence (which did not leave much of a mark either) began.[65] All this tells us that empires do not necessarily have any great influence on cultures, unless their control is very intensive indeed. The Achaimenid Empire was not the Roman Empire, and, although a relatively sophisticated administrative system seems to have existed generally, there is a distinct probability that it was not equally sophisticated in each and every part of the far-flung territories the Persian Kings called theirs. In many cases, local rulers will doubtless have been left pretty much to their own devices, as long as they delivered the required tribute and caused the Persians no trouble. Sogdiana is probably a case in point, but other regions and territories were likely quite similar. A military presence was all that was needed; it may even have contributed more or less significantly to local economies, as was the case with the Tang armies of China in Central Asia.[66]

In summary, we may conclude with quite a degree of justification that the Old Persian writing system never had a chance for two main reasons. It was designed for a limited application—only one language, and that language, albeit very important politically, was not widespread.[67] It was a latecomer to the world of writing at the time, Aramaic writing having already become established. A number of less important factors will have played a role, too. Aramaic writing may have been able to establish itself with such success precisely because it was not directly associated with political power, i.e. it was not the official language of any one group of rulers; rather, it was used for communications among different groups speaking different languages, something that Old Persian was not. Yet the very fact, too, that Aramaic was indirectly associated

65 Cf. Hansen 2012, 156–158.

66 Cf. Hansen 2012, 79 ff.; Hansen 2012, 94 ff.; Hansen 2012, 184 ff.; Hansen 2012, 237.

67 Cf. Schmitt 2011, 314: "Das Altpersische war die 'Sprache des achaimenidischen Königtums', die *ad maiorem regis gloriam* diente, während für den interregionalen Verkehr innerhalb des Reiches eine andere Sprache, nämlich das zu den semitischen Sprachen zählende Aramäische schon nach Ausweis der Verbreitung und der Art der Textzeugnisse die Hauptrolle spielte. Das Aramäische war die Sprache, die das Reich wie mit einer Klammer zusammengehalten hat."

with the Achaimenid kings may have given it a prestige which actually was of great help in establishing its writing system as a standard. Paradoxically, the attempts by the Persian kings to give their language its very own writing system apparently have led to a long history of xenography, culminating in the use of the Arabic script, itself of Aramaic lineage, being used for Modern Persian.

One might say that Old Persian cuneiform, for all its iconic status, lost out to semanticity, and then suffered the fate of those cuneiform languages which it was intended to dominate, being ousted by the very fact that its rival, Aramaic, had been so widely used by the creators of Old Persian writing themselves. Despite the material magnificence of their place of transmission, the proud words of Dareios I, cited in the title of this contribution, would thus have to wait for nearly two and a half thousand years before anyone was again able to read them.

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