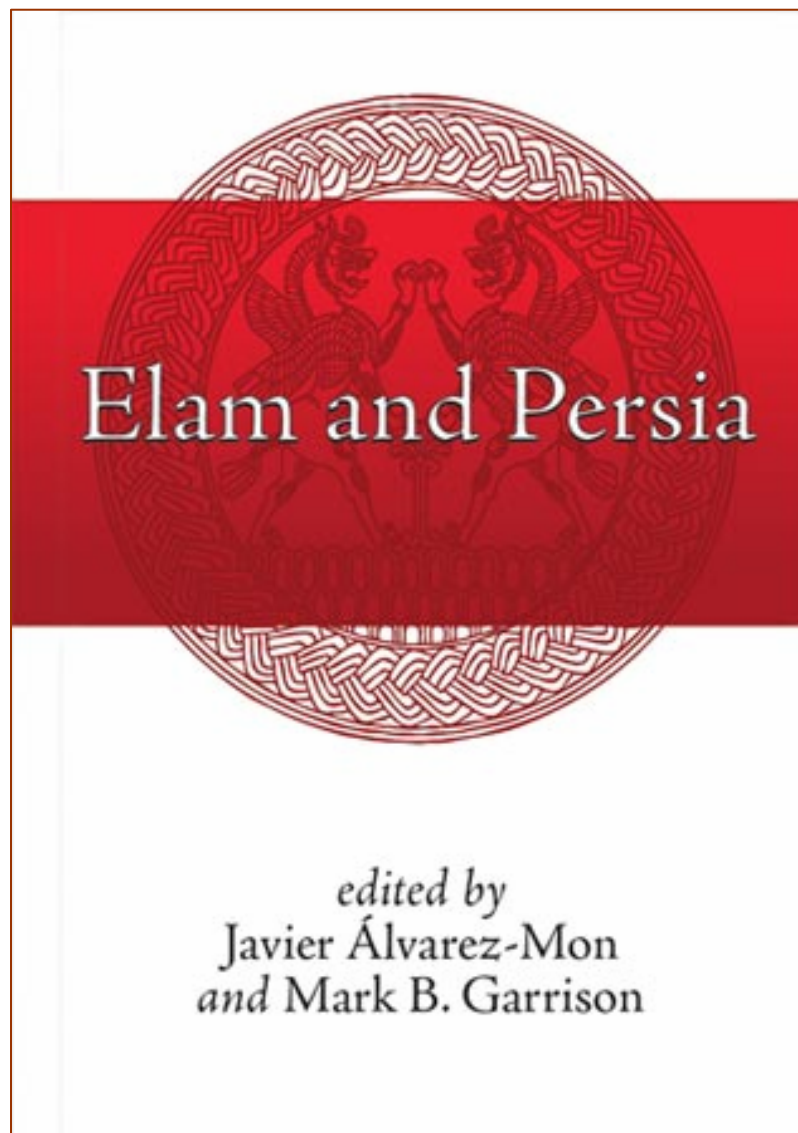Elamite as Administrative Language:
From Susa to Persepolis
by Gian Pietro BASELLO

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Elamite as Administrative Language:
From Susa to Persepolis

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1. Introduction

The use of Elamite as an administrative language is first attested in the texts from Tall-e Malyān, ancient Anšan, dated ca. 1000 B.C.[1] These texts mainly record disbursals of finished goods and supplies for the production of metal objects (Stolper 1984b: 13–14). Previously, in Susiana at least, Akkadian was the language used for recording administrative activity in Elam. Administrative documents in Akkadian are known from Susa (Šuš), dating back to the first half of the 2nd millennium B.C., and from Haft Tepe and Abu Fandowa from around 1400 B.C.[2] The major corpus of Elamite texts after those from Tall-e Malyān are the 298 tablets from the Acropolis at Susa (found near the temple of Inšušinak built by Šutruk-Nahhunte II).[3] One more tablet of unknown origin clearly pertains to the same administrative lot.[4] The dating of these tablets is much discussed, with opinion ranging from as early as the late 7th century B.C. down

Author's note: For sake of convenience, transcription of Elamite follows conventions established in Hallock 1969.

1. Leaving aside proto-Elamite documents and the isolated linear Elamite clay tablets; for a general introduction on proto- and linear Elamite, see Englund 1998 and Salvini 1998, respectively. There are 111 tablets (TTM I 1–114, excluding the fragmentary copies of royal inscriptions, TTM I 100–102) from Tall-e Malyān, published in Stolper 1984b. A minor group of administrative texts concerning animals, hides, and foodstuffs is still unpublished (Stolper 1984b: 3).

2. For a general introduction on Akkadian texts in Elam, see Lackenbacher 1998 (where reference to Sumerian administrative texts found at Susa and Tall-e Malyān is also made). On bilingualism in Elam, see Malbran-Labat 1996. The Akkadian administrative and legal documents from Susa are published in several volumes of the series Mémoires de la Délégation en Perse (see Lackenbacher 1998, for bibliography); the Akkadian documents from Haft Tepe are published in Herrero 1976 (drawings and transliteration), Herrero and Glassner 1990, 1991 (including the four tablets from Abu Fandowa, nos. 160–163), 1993, and 1996 (only drawings; the transliteration and translation is now being edited by O. Houtan and N. Bahrami) and Beckman 1991 (a stray tablet). For a general introduction to Haft Tepe, see Álvarez-Mon 2005: 152–53, with further bibliography.

3. The texts, MDP 9, 1–298, are published in Scheil 1907. The texts were re-edited in Jusifov 1963. Unfortunately, the exact archaeological context is undocumented: see Scheil 1907: I; Morgan et al. 1905: 34–36 (see also fig. 66), likely contains a reference to these tablets (especially when mentioning "chambres élamites renfermant une grande quantité de tablettes en terre crue"), as remarked already in Cameron 1948: 24 n. 2.

4. MDP 11, 309 (Scheil 1911).

to the time of Cyrus II.[5] The Acropolis tablets record movements of goods such as textiles, containers, tools, and weapons, involving approximately 355 individuals, both administrative officials and receivers of goods. Cameron had already noted not only that Assyrians and Babylonians are mentioned in the Acropolis tablets but also that there were some individuals having Iranian names (and thought to be Persian).[6] Cameron realized that the Acropolis tablets were forerunners of the Elamite documents from Persepolis, both the Persepolis Fortification tablets and the Persepolis Treasury tablets, but he did not pursue this analysis in any detail.[7]

This study will explore possible areas of continuity that may exist between the Elamite tablets from Susa and those from Persepolis through an examination of select categories of words and administrative formulae.

2. Areas of Comparison

2.1. Nominal Classes of Proper Nouns

A systematic comparison within the nominal classes of proper nouns occurring in the Acropolis texts and in the Fortification texts has produced the following results.

According to Hinz, 65 anthroponyms in the Acropolis texts are Iranian, nearly 10% of the total number of anthroponyms (Hinz 1987: 128). Since in the texts approximately 470 different undamaged or reasonably restored anthroponyms are attested, the exact percentage should be 14%. Conversely, nearly the same percentage seems to be natively Elamite in the Persepolis texts (Mayrhofer 1973: 310). Elamite theophoric elements are nearly the same in both corpora—the deities Šati, Humban, Šimut, Hutran, and Haltaš constituting the bulk of the named deities.

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5. Steve 1992: 19–24 dated the texts to his Neo-Elamite III B, group 1. Scheil 1907: III, "Je propose sans hésitation de fixer la date de ces tablettes à la fin de la monarchie élamite, antérieurement à la domination babylonienne qui a été rétablie en Susiane peu après la chute de Ninive, soit par Nabopolassar, soit au plus tard par Nabuchodonosor"; Miroschedji 1982: 60, ca. 650–550 B.C.; Stolper 1984b: 8, "no earlier than the late seventh century B.C."; Hinz 1987: 125, also *ElW* 1327, 'S', 680 B.C.; Cameron 1948: 24 n. 2, "It is barely possible that these tablets were written in the last years of the Neo-Elamite kingdom, say between 650 and 630, or during the Neo-Babylonian occupation of Susa (roughly 600–560) when Persian influence was entering into the area (cf. Cameron 1936: 211 and 220–221) but when a 'Treasury' could have functioned at the site. It is just as possible, and perhaps more probable, however, that they were inscribed at a time when Medes or Cyrus the Great and Cambyses were in control there—that is, in the early years of the Achaemenids"; Vallat 1996: 389, neo-Elamite IIIB, ca. 585–539 B.C.; Tavernier 2004: 30–32, ca. 590/580–565/555 B.C.

6. Cameron 1948: 24 n. 2. Actually, all the occurrences of ^AŠ/BE*áš-šu-ra-ap/ip-pè* could be translated as 'products in the garb or manner of the Assyrians'. Tablet MDP 11, 308, mentioned by Cameron, is now fully assigned to the Achaemenid period (see Steve 1986: 8, no. 4). Cameron's statement "'Persians' and 'Medes' are often designated, sometimes in the same text" is probably incorrect (see Henkelman 2003: 199–211, especially 210–11).

7. The Persepolis Fortification tablets are published mainly in Hallock 1969 (PF 1–2087), then in Hallock 1978 (PFa 1–33); Fort. 6764 is published in Cameron 1942. Many tablets and fragments from this archive are still unpublished. Hallock transliterated some 2294 texts; these documents are not taken into account in the following analyses and statistical counts. The texts from the Fortification archive are dated from the 13th to the 28th regnal year of the king Darius (i.e., from 509 to 493 B.C.). The Persepolis Treasury tablets are published mainly in Cameron 1948 (PT 1–84), then in Cameron 1958 (PT-1957 1–5) and 1965 (PT-1963 1–20). The documents are dated from the 30th year of Darius to the 7th year of Artaxerxes I (i.e., from 492 to 459 B.C.). See Garrison and Root 2001: 32–34 for a reassessment of the archaeological context of the Persepolis tablets. Stray tablets similar to Persepolis tablets are published in Scheil 1911: 101 (MDP 11, 308), Grillot 1986, Jones and Stolper 1986: 247–53 (YBC 16813), Vallat 1994; see also Paper 1954: 81–82 (MDP 36, 3), Walker 1980: 80, fig. 4 (BM 56302; only drawing), Helms 1997: 101 (SF1399).

Only six toponyms are attested both in the Acropole texts and in the two Persepolis archives: Šušun (i.e., Susa), Huhnur, Hidali, Anzar, Šullaggi, and Kurdušum. A total of 27 (including three fragmentary names) can be attained considering toponyms and choronyms attested only as collective designations in the Acropolis texts, such as *Paršip* (i.e., 'Persians' in the Acropolis texts) from *Parša* (i.e., 'Persepolis' in the Persepolis tablets).[8] The referencing of individuals grouped under a topographic, gentilic, or ethnic name is a common feature in both groups of administrative documents.[9]

The Acropolis texts were consistently dated with the short logographic writing of the standard Babylonian month-names, while in the Persepolis documents two different groups of month-names, "Old Persian" and "Elamite," are attested.[10] There is, however, one month-name that occurs in both places: *Rahal* occurs 14 times in the Acropolis texts and at least 7 times in the Fortification texts from Persepolis.[11] At Susa the month name is commonly considered an alias of the seventh Babylonian month-name, which is otherwise unattested. *Rahal* occurs also in a date formula in the Ururu bronze plaque.[12]

Extending the search to common nouns of products and provisions dealt with by the administrative documents produces few overlaps between the two archives, despite the large number of the Fortification tablets. Nearly all the products listed in the Acropolis texts are not elsewhere known in Elamite texts.

2.2. Administrative Formulae

Administrative formulae that are used in administrative archives potentially provide important comparative data. What is formulaic is codified. A complex formula occurring in two different administrative corpora that are not far removed in time and space generally cannot be the result of independent internal developments but suggests a direct and uninterrupted administrative tradition.

In most Acropolis texts, it is not difficult to isolate formulaic syntagmas, iterated in the same form and in similar contexts. For example, the syntagma PAP *huttukki kurman* [BE]PN *humaka* is attested in 97 Acropolis texts, PAP *huttukki kurman* [BE]PN *lipka* is attested in 41 texts. PAP *huttukki lipka kurman* [BE]PN is attested in other 14 tablets, the inversion *lipka-kurman* granting the unity of the group *kurman* [BE]PN.

A detailed analysis of the textual structure of the Acropolis and Persepolis documents shows very little convergence among them. At a formulaic level, there are substantially no matches in the clauses recording the main administrative action of the text through a standardized verbal form. Only some basic features are comparable with each other, such as some verbal forms (*humaka*, *ullaka*) or seldom attested verbal bases (*mu(h)ša-*, *mazzi*).

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8. For the correct reading (with /s/ instead of /š/) of the signs constituting the names 'Persia' and 'Persians' in Elamite, see Vallat 1987b.

9. See Vallat 1992 and my lecture "Pre-Achaemenid Persians: An Elamite Point of View," delivered at the Erstes Italienisch-Österreichisches Iranistisches Symposium, Cagli, 2005 September 19, available on the Internet at the address [http://www.elamit.net].

10. See Panaino 1990: 658−60 and Basello 2002: 22−24, with further bibliographical references.

11. Basello 2002: 20−21 for the Acropole texts; Hallock 1978: 111, updating Hallock 1969: 75 for the Fortification texts.

12. Ururu, line rev. 11. The text is unpublished; see the contribution by Cameron in Schmidt 1957: 64−65 and pls. 27−28. See also Waters 2000: 87−89.

The verbal form *humaka* 'acquired, withdrawn' occurs in several Acropolis tablets in connection with PAP *huttukki*.[13] This formula is regularly followed by the dating and a toponym, which comes at the end of the text. The context of *humaka* (generally written *um-ma-ka₄*) in the Persepolis tablets is completely different. The only possible comparison is between PF 1585 and two Acropolis texts (MDP 9, 11 and 69), where *humaka* appears in an unusual context (Table 1): in both MDP 9, 11 and 69, *humaka* is not preceded by *huttukki* and is followed by a syntagma with the verb *du-* 'to receive'; the text of MDP 9, 69 is more fragmentary, but the form of the verb *du-* is singular as in PF 1585 (notwithstanding the plural subject). The spelling *hu-ma-ka₄* in PF 1585, while constantly employed in the Acropole texts, is not attested elsewhere among the Persepolis documents.

Table 1: Comparison of tablets MDP 9, 11 and PF 1585.

MDP 9, 11	PF 1585
amount PN *du-iš*	
amount PN *du-iš*	
amount PN *du-iš*	amount product
PAP sum product	
kurman PN	*kurman* PN
humaka	*humaka*
ᴬˢGN *ku-ut-ka₄*	
ᴮᴱ*pár-sìp* ᴬˢ*za-am-pè-gìr-ip*	ᴴᴬᴸ*kur-taš-pè*
du-uh-iš-tá	*du-iš-tá*
date GN	date GN

Another instance of close correspondence between two rarely-attested formulaic structures is exemplified by PF 76 and MDP 9, 1, where a list of products is followed by the verbal form *ullaka* 'delivered', then the individuals subject of *du-iš-tá*, the main verbal form of the texts. The use of *ullaka* in PF 80, 112, and 119 (all belonging to Hallock's category B, "Delivery of commodities") is somehow comparable with that of MDP 9, 65, 143, 296, and especially MDP 9, 73. Even if the Achaemenid Elamite particle *ha* derived from Neo-Elamite *a-ah* 'here' (compare *a-ha* at Tall–e Malyān), the formula *ha duš ullaka*, characteristic of Hallock's category G, "Providing of provisions," seems not comparable to *a-ah ul-lak* in MDP 9, 7, 113, 117, 146, and 228.

The verbal base *mu(h)ša-* 'to account for, compute' is attested already in the tablets from Tall–e Malyān (as *mu-uh-ša-ak* and *mu-ši-im-ma-ka₄*).[14] At Susa it appears as *mu-uh-šá-ma-na* in three tablets with a similar structure, MDP 9, 17, 21, and 35. In the Persepolis tablets, several spellings are attested, beginning with *mu-šá-*, *mu-ši-*, and also *mu-iš-šá-*. Despite the continuity of usage, the formulaic contexts are not comparable.

Similarly, the verbal form *mazzika* (from a base meaning 'to remove, withdraw') is attested at Tall–e Malyān as *ma-si-i-ka₄*, then at Susa and Persepolis, and also in earlier stages of the

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13. Translations given in this section are partially speculative. See the corresponding entries in Hinz and Koch 1987, for a survey of the suggested meanings.

14. Hinz 1970: 304; Hallock 1969: 374 ('to account for, compute').

Elamite language (even in one of the two 3rd-millennium B.C. texts) across several documentary genres.[15]

In summary, the extent of the matching elements in administrative formulae between these two corpora is limited, the statistical relevance low.

2.2.1. Opening Formulae of Administrative Letters

A total of 166 administrative letters have been published from the Fortification archive (Hallock's category T) and the Treasury archive.[16] The opening formula is highly standardized and follows the "double-saying" pattern known from Akkadian letters:[17]

$$^{\text{DIŠ/HAL}}\text{PN1 } tu_4\text{–}ru\text{–}iš \text{ }^{\text{DIŠ/HAL}}\text{PN2 } na\text{-}an \text{ KI.MIN}$$

Hallock suggested the translation '(To) PN1 speak, PN2 spoke the saying' (Hallock 1969: 50). As in the Achaemenid royal inscriptions, where the king is acknowledged to have uttered the engraved words, *scripta* were regarded as permanent impressions of *verba*. Was it the text that "magically" had to speak to the addressee, or, rather, to the scribe sorting the mail, who had to read it to an illiterate addressee?[18]

Variations are few but allow a better understanding of the standard formula. In some instances, the scribe either omitted the addressee, writing KI.MIN immediately after *turuš* or started the text with $^{\text{HAL}}$PN *na-an* KI.MIN, as in PF 1829. According to Hallock, these variations prove the stereotypical nature of the formula (Hallock 1969: 50). A morphosyntactically determined variant for *na-an* is attested in PF 1849 and PF 1850, where a plural form of the verb is required by the two subjects:

$$^{\text{DIŠ}}\text{PN1 } tu_4\text{–}ru\text{–}iš \text{ }^{\text{DIŠ}}\text{PN } a\text{-}ak \text{ }^{\text{DIŠ/HAL}}\text{PN3 } na\text{-}an\text{-}pè$$

While only one administrative letter—unfortunately, fragmentary—is known among the Acropolis tablets, further evidence is provided by other late Neo-Elamite documents (see Table 2, p. 66): two letters found at the "Ville des Artisans" in the surroundings of Susa (MDP 36, 1 and 3);[19] the so-called "letters of Ninive" (Nin 1–25);[20] a letter from Scheil's private collection (MLC 1308);[21] two texts from Susa (Sb 13080 and 13081) (see Table 2, p. 66).[22] According to the evidence in Table 2, the clearest and most attested late Neo-Elamite opening for letters is PN1 *nan turuš* PN2, which Vallat (1998b: 96) translated as 'À PN1, PN2 tient le discours (suivant)', literally, 'À PN1, PN2 dit les paroles (suivantes)'.

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15. Hallock 1969: 729, s.v. *mazzi–*. König 1965: 200; Grillot 1974: 181; Lambert 1974: 11, no. 2:9 (*mas-si-i-ih*).

16. PF 1788–1860, 2067–2071, and PFa 27–28 (84 tablets). Cameron 1948: 25 (82 tablets, including fragmentary texts).

17. Cameron 1942: 217; see also Bork 1906.

18. Giovinazzo (personal communication) has suggested that the imperative *turuš* was addressed to the receiver with the meaning 'reply!'

19. Published in Paper 1954 (MPD 36, 1 and 3). MDP 36, 1 is re-edited in Hinz 1986 and Vallat 1998b.

20. Published in Weissbach 1902 (Nin 1–25; only drawings) and Hinz 1986 (Nin 1, 5, 10, 13 and 14; transliteration and translation); a small fragment has to be joined to Nin 14 according to Walker 1980: 79, drawing on p. 80, figure 4. On these tablets, whose origin is much debated, see Sayce 1890, Bork 1906, Vallat 1988, Reade 1992, Vallat 1998b, Reade 2000, and Waters 2000: 89–92.

21. Published in Jones and Stolper 1986 (MLC 1308).

22. Published in Lambert 1977, who dates them to the end of the 7th century B.C.

Table 2: Summary of the opening formulae of late Neo-Elamite letters.

DIŠPN1 DIŠPN2 *na-an-ki*	Sb 13080 (unclear)
DIŠPN1 DIŠPN2 *na-an tu₄-ru-iš*	Sb 13081 (unclear)
DIŠPN1 *na-an tu₄-ru-iš* PN2	Nin 1, 2, 5, 10, 13°, 14; MDP 9, 88 (restored); MDP 36, 1
DIŠPN1 *tu₄-ru-iš* DIŠPN2	MDP 36, 3
DIŠPN1 [*tu₄-ru*]-*iš* DIŠPN2 [*na-a*]⌈*n* KI.MIN⌉	MLC 1308 (restored); Nin 22 (unclear) and 23 (unclear)

The opening formula of the Persepolis tablets appears to be absolutely stereotyped and out-side the free creative sphere of the scribe. It is also substantially different from the less-standard-ized formulae found in the late Neo-Elamite documents. As a sequence of words, the opening formula at Persepolis adds KI.MIN, but in the meaning it duplicates *turuš* before the older *nan turuš*. Considering the cross-language spread of the double-saying formula in the ancient Near East (known, for example, at Ugarit and in Palestinian Aramaic letters), it is not possible to state an exclusive Elamite development.[23] The restored readings in MLC 1308, Nin 22, and Nin 23 probably ought not to be weighted too heavily. Consequently, the opening formula in the Per-sepolis tablets seems to represent a new standard introduced by the Achaemenid chancellery.[24]

2.2.2. *Date Formulae*

The need for dating, today so obvious and even automatically performed by digital equip-ment with an exaggerated precision, implies a complex chain of steps: e.g., the definition of a calendrical system; the maintenance and monitoring of that system (i.e., the refinement of methods and tools to count time uniformly even in remote places); the selection of a common set of labels and names to refer to dates; the standardization of a date formula in written texts. Dating fulfils various needs, including marking out events for ideological purposes, keeping track of astronomical phenomena, recording the period of time covered by a disbursement of provisions, establishing time intervals for paying wages, etc. Each of these usages required a dif-ferent precision in splitting time, recording one or more contiguous instances of a few basic units such as reigning king, regnal year, month-name, day number, and part of the day. Among the different groups of Elamite documents, date formulae show variations both in internal ar-rangement and in morphosyntactic construction. The choice of the units to be recorded re-flects the peculiar needs of each administrative system.

The Achaemenid administration required the recording of the regnal year, which is attested in 82% of the Persepolis Fortification tablets published in Hallock 1969 (not counting fragmen-tary texts where the date formula is lost). In comparison with the texts from Tall-e Malyān and Susa, whose date formulae do not indicate regnal years, the temporal horizon of the administra-tive process at Persepolis appears to have been substantially broader. The bureaucratic pro-cedure was more complex or, at the minimum, attempted to safeguard the ability to verify data even after a long time span. Thanks to the seven Treasury tablets that specify a distinct work

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23. For Aramaic letters, see Lindenberger 1994: 6–7.

24. Surely Gershevitch would have suggested a calque from an Old Persian scribal habit. For Gershevitch's theory of the alloglottography of Old Persian in Elamite, see especially Gershevitch 1979; further bibliograph-ical references in Gershevitch 1994: 66 n. 12. See also the recent review of the theory in Rossi 2006: 77–84.

period and date of the writing of the text (coincident with the disbursal?), we learn that the administrative delay could reach six months.[25] Vice versa, the "life" (i.e., the administrative usefulness) of the tablets from Tall-e Malyān and Susa should have been very short; even the largest extant tablets have only one date formula and, therefore, they do not seem to be summary texts.[26]

The only date formulae recording both the regnal year and the name of a Neo-Elamite king occur in the legal tablets in Akkadian dated to the reign of Hallušu.[27] No king's name is ever indicated in the Persepolis documents, except for the two tablets written in Akkadian.[28]

Month-names are always recorded at Tall-e Malyān and Susa, while at Persepolis they occur only in some 54% of the Fortification tablets published in Hallock 1969. At Susa, the usual date formula providing the month-name alone could not refer to the month as a time span because it is always followed by UD 'day' (perhaps with the meaning 'in the fixed day').[29]

The diverging administrative textual typologies should also be taken into consideration. Date formulae at Tall-e Malyān and Susa recorded the month or the day in which the listed products were received or delivered, while at Persepolis they generally pertained to the work period related to the administrative disbursal. Several periods of time and sequences of two or more months are documented in the Persepolis texts; sequences of alternating months and fractions of months were also sometimes required in order to accommodate a wider range of needs. The definition of formulae capable of recording time spans reflects the ability to manage a continuous control or at least periodical inspections over work in progress. Periods of time had to be dealt with also by the administrations at Tall-e Malyān and Susa, but they should have been more regular: a slightly greater frequency of day numbers divisible by six is attested at Tall-e Malyān whereas the occurrences of UD without day number at Susa point perhaps to an agreed day, as, e.g., the market-day.

The Persepolis documents were dated with a day number only very rarely. In this, the Persepolis documents are similar to those from Susa, where only one of the Acropolis texts is so dated. The Acropolis texts are also formally comparable to the Persepolis Treasury texts, where reference is always made to the month, without adding a day number (Cameron 1948: 35). This practice stands in clear contrast to the texts from Tall-e Malyān, where the use of day numbering was a constant.

Although marginally related to date formulae, the "deification" of the names of the Old Persian month-names represents an innovation in the Persepolis documents.[30] The slightly smaller percentage of "deified" Elamite month-names could be explained by similitude (or alloglottography, in Gershevitch's view).[31]

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25. Cameron 1948: 34–35. A sort of "advance" from peripheral storage centers is also possible (see Giovinazzo 1989, especially p. 21).

26. Except for TTM I 84, where each of two consecutive day numbers follows a list of products.

27. Three texts published separately (AnSt 33, 153, in Leichty 1983; VAS 4, 1, in Ungnad 1907; PTS 2713, in Stolper 1986), and one still unpublished (A 33248; see Weisberg 1984: 215). See also Waters 2000: 27–28.

28. Published in Cameron 1948: 200–203 (PT 85:1, an administrative document from the Treasury) and Stolper 1984a (Fort. 11786:23, upper edge, a legal text from the fortification wall).

29. Even if in only eight tablets (MDP 9, 13, 41, 59, 70, 77, 85, 97, and 296), a day number is explicitly written. Giovinazzo (personal communication), for the meaning of UD.

30. So Razmjou 2003; see also Schmitt 1991b: 112–13. On the deity *Sākurrizziš*, compare Koch 1991: 95, 'i'.

Date formulae completed with day number in the Persepolis documents can be compared to the standard Old Persian formula known from the Bīsotūn inscription. The Elamite form *pirka* corresponds to Old Persian *θ-k-t-a*. Moreover, even the order of the temporal units is often the same. In the Elamite versions at Bīsotūn, the position of month-name and day number is inverted in the date formulae. The absence of *pirka* in the date formulae from Tall-e Malyān and Susa is not, however, sufficient to exclude the opposite hypothesis of a syntactical calque from Elamite in Old Persian. In this connection, a comparison with the verbal form *is-su-uḫ* (from *nasāḫu*) after the day number and UD in the Middle Elamite administrative tablets written in Akkadian from Haft Tepe is of great interest (Table 3).[32]

Table 3: Comparison between date formulae with day number in Elamite and related sources.

ITI month name day number UD *is-su-uḫ* MU year name	Tablets from Haft Tepe[a] (in Akkadian)
(AŠ)ITI month name AŠUD day number KAM/KÁM	Tablets from Tall-e Malyān[b]
ITI month name *na-na* day number KAM	König 1965, no. 74:45–46
ITI month name UD day number KAM(-*ma*)	MDP 9, 13:10; 41:5–6; 59:5–6; 70:6; 77:6; 85:5–6; 97:8; 296:5–6
: month name in genitive case : *m-a-h-y-a* : day number : *r-u-c-b-i-š* : *θ-k-t-a*	DB OP (in Old Persian)
day number d*na-an* dITIMEŠ month name-*na* pi-ir-ka₄	DB El
(AŠ*pè-ul* year number-*ummemana*)* dITIMEŠ (d)month name-*na* day number (d)*na-an* pír-ka₄	PF 272:13–15; 1384:12; 1388:8–10; 1390:10–12; 1781:12–14 *: PF 664:12–15; 1797:8–10; 1802:10–13; 2067:17–20; 2068:19–22

a. Herrero 1976: 113, no. 6, "L. 10," and n. 5.
b. Stolper 1984b: 14. The day number is written alone in TTM I 10:7 and 84:5.9.

In Neo-Elamite the logogram UD 'day' occurs constantly in administrative texts; in Achaemenid Elamite the phonetic spelling *na-an* is always preferred, both in the Bīsotūn inscription and in the Fortification texts.[33] This usage appears to be an extension of *na-na* attested in the unique Neo-Elamite date formula from a monumental inscription (König 1965, no. 74: 45–46). The logogram ITI 'month' (marked with the determinative MEŠ in Achaemenid Elamite) persisted, while the word for 'year' is always written phonetically. In the tablets from Tall-e Malyān and Susa, the determinative KAM (and KÁM at Tall-e Malyān) follows the day number, while at Persepolis the phonetic spelling for the ordinal morpheme suffixed to the regnal year is preferred, notwithstanding its writing, which required three or four signs. In the Fortification texts, the day number is not followed by suffixes or determinatives, confirming a mean-

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31. Basello 2002: 16. Assuming that the so-called "Elamite" month-names from Persepolis do not seem to be theonyms. Incidentally, two stray Elamite month-names are preceded by the divine determinative: d*ki-zìr-zu-ka-li-ku* (three times in MDP 22, 165, a tablet in Akkadian from Susa) and GAMITI d*ši-mut-na* (on line rev. 23 of the Neo-Elamite omen text published in Scheil 1917).

32. E.g., see the text published in Beckman 1991, lines rev. 8–9. On the date formulae at Haft Tepe, see Herrero 1976: 113, no. 6, "L. 10," and n. 5.

33. Compare UD-*da* in PF 1342:8 and 1566:7; according to Hallock, it "evidently represents *naranda*," i.e., 'daily' (Hallock 1969: 766, s.v. UD*da*).

ing of 'elapsed' for *pirka*;[34] the preceding *nan* seems, however, to be singular. In the Persepolis texts, *nan* follows the day number, while the corresponding logogram UD precedes it in the administrative documents from Tall–e Malyān and Susa.

The determinative AŠ preceding some elements in the date formulae seems to be characteristic of Tall–e Malyān and Persepolis (see Stolper 1984b: 14). The suffix *-ma*, attested at Susa in 16% of the date formulae, could partially represent the temporal-locative value expressed by AŠ at Tall–e Malyān. In the Persepolis documents, *-ma* is also attested, but its usage is too variable to assume formulaic connotations.

2.3. *The Administrative Designation* kurman

The most promising bit of continuity in the Elamite administrative documentation is the designation *kurman*. Its formulaic context is, however, so variable that only the syntagma *kurman* [HAL]PN*-na* can be isolated.[35]

Attested in the Persepolis Treasury texts and throughout the administrative categories defined by Hallock, *kurman* should be a nominal form or a verbal form with nominal function, since it is followed by an anthroponym suffixed with the morpheme *-na*; otherwise, it would have been preceded by the anthroponym without suffix, as happens with a verbal form such as *šaramana*. Assuming an "enlargement" with the infix *-ma*, the verbal base should be *kur-*. In one instance, the usual spelling *kur-mán* is followed by the sign MEŠ (PF 354:1);[36] other attested spellings are *kur-man* and, rarely, *kur-me*, *kur-me-in*[?], and *kur-mi*.[37] There is also an almost homophonous product written [GIŠ]*kur-mi* in PF-NN 2351:13 (Fort. 9030), corresponding to [GIŠ]*kur-mín* (*mín* = *mán*) in MDP 9, 131:1.[38]

The interpretation of the administrative function related to *kurman* is much debated.[39] Since in the Bīsotūn inscription Elamite *kur-pi* means 'hands', a syntagma parallel to *kurman* seems to be represented by Aramaic *lyd*, known from the Aramaic documents from the Treasury.[40] In PF 422:7, 'hand' is written with the Akkadian logographic spelling ŠU[MEŠ].[41] Therefore, the supposed "enlarged" verbal base *kurma-* could mean etymologically 'to pass through one's hands', or simply 'to have in hand, handle'. In the administrative documents, *kurman* became, however, a permanent part of a formulary assuming a figurative meaning.

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34. As for the year number followed by *pirka-na* in PF-NN 840:11 (= Fort. 3108; according to ElW: 213, s.v. *pír-qa*). See also PF 1334:12–13 and 1335:11–13, where a month-name is followed by *pirka*.

35. As above, in order to track correspondences between the Acropolis texts and the Persepolis texts, the formulaic contexts often have to be reduced to their smallest constituents.

36. Steve 1992: 163, no. 554; *kur-min* in the simplified transliteration by Hallock; *kur-mín* in ElW.

37. *kur-me*: PF 285:14, 417:3 and 2046:1 (the latter occurrence not listed in Hallock 1969: 716b, s.v. *kur-min*); *kur-me-in*[?]: PF-NN 1343:2 (Fort. 5045); *kur-mi*: PF 248:2.

38. Transliterated "(giš) KUR+ŠAL" in Scheil 1907: 116, although the signs were the same as in *kurman* (transliterated 'GIR'); Scheil was aware of this (see Scheil 1907: 4). See also ElW: 528, s.v. GIŠ.*kur-mín*.

39. Poebel 1938: 133 n. 8; Cameron 1948: 48–49; Hallock 1969: 10–12, "*Kurmin*"; Hinz 1970: 422; Hallock 1985: 598–99; Grillot 1986: 149; ElW: 528, s.v. *kur-mín*.

40. DB El III:62 (= DB OP §54), transliterated and translated in Grillot-Susini et al. 1993: 35, 55. Already Cameron 1948: 49, and Hallock 1969: 11. See also ElW: 529, s.v. *kur-pi*. Delaunay 1974: 211 compared it to Akkadian *ša qāt*, 'under the control of', 'in power of', from *qātu*, 'hand'; revived in Grillot 1986: 149. Cf. Bowman 1970: 32 and n. 55.

41. A similar occurrence is found in the Achaemenid royal inscription DSe El §5:35 (ŠU[MEŠ]*-ma hu-ut-tuk-ka₄*).

In the Acropolis tablets, *kurman* is written invariably *kur-mán* (GIR in Scheil's translitera-tion) and occurs in 194 tablets out of 298, including three tablets with more *kurman* designa-tions: in MDP 9, 114 and 124, Kuddakaka and Barriman are designated as *kurman*; in MDP 9, 5, five *kurman* designations occur. These instances are not, however, transactions controlled by several individuals designated as *kurman*, but several transactions happening or recorded in the same time span, each related to its own *kurman*.[42] While in the Persepolis documents many in-dividuals are designated as *kurman*, in the Acropolis texts there are only fourteen, among whom Kuddakaka prevails with at least 165 occurrences (Tables 4–5).[43]

Table 4: Tabulation of the occurrences of anthroponyms designated as *kurman* in the Acropolis texts from Susa. Occurrences partially or entirely restored according to Jusifov 1963 are counted separately.

anthroponym	occurrences	status
ku-ud-da-ka$_4$-ka$_4$	165	
	7	nearly entirely restored
	7	entirely restored
hu-ban-nu-kaš	3	
tal-lak-ki-tin	3	
bar-ri-man	2	
si-ik-ka$_4$-ka$_4$	2	
tak-ku-ku	2	
hu-ban-[. . .]	1	
ra-ma-[. . .]	1	
za-[. . .]	1	
ku-tur-te-ir	1	
ha-mi-ti-ti	1	
um-man-da-da	1	
pír-ri	1	
hu-ban-ki-tin	1	
[. . .]	1	

In MDP 9, 86, 164 and 285, Kuddakaka is designated as *kurman* in a rather unusual formulaic position and then named again in the last section of the text;[44] in the last tablet, the second oc-currence of the anthroponym is followed by the title(?) *araš hutlak* (see Table 5).[45]

Further comparative data for *kurman* could be provided by the administrative tablets from Tall–e Malyān. Stolper considered, but ultimately rejected, the idea that the syntagma PI+PÍR [DIŠ]PN had a similar sense and function (Stolper 1984b: 11). The contextual position and its frequency of *kurman* in the Acropole texts are comparable to those of *kurman* in the Persepolis texts. Like *kurman*, PI+PÍR is never attested in concomitance with the verb *du-* as the main ac-tion of the administrative record (except for *sirak ak duka*, which possibly has to be considered

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42. MDP 9, 5 is perhaps more questionable: after four single transactions, each with its own *kurman*, PAP *huttukki* [. . .] *Huban-kitin* DUMU EŠŠANA [. . .] follows, the first gap being legitimately restored with *lipka kurman* in Jusifov 1963: 202, no. 6.

43. Compare Steve 1986: 13–14.

44. In MDP 9, 164:2, the restoration of the anthroponym Kuddakaka is probably correct, since no other anthroponyms begin with the sign *ku* and are designated as *kurman* in the Acropolis tablet, except for the once-attested Kuturter.

45. See Waters 2000: 94 for a discussion of this title.

Table 5: Tabulation of the occurrences of the anthroponyms designated as *kurman* in the Acropolis tablets grouped by the month occurring in the date formula of the tablet.

anthroponym	month													sum
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	*Rahal*	
bar-ri-man								1		1				2
hu-ban-ki-tin										1				1
hu-ban-nu-kaš								1		1		1		3
ku-ud-da-ka$_4$-ka$_4$	9	11	16	16	15	5		5	13	9	13	15	11	138
ku-tur-te-ir				1										1
pír-ri					1									1
ra-ma-[. . .]										1				1
si-ik-ka$_4$-ka$_4$								1					1	2
tal-lak-ki-tin		1			1					1				3
um-man-da-da										1				1
Sum	13	15	16	18	21	7		9	14	15	19	17	14	

as a whole). In the documents from Tall-e Malyān, no other individual is, however, involved besides the one designated as PI+PÍR (Table 6, p. 72). The contrary is the case with the Acropolis texts.

Seven tablets from Tall-e Malyān list more than one anthroponym designated as PI+PÍR: TTM I 66 (Šala-miriš, Kuk-zana, Kisišak, Tempipi), 67 (Napupu and Huban-mirriš), 68 (Napupu, Huban-mirriš), 70 (Appume, KI.MIN Haltir-akšir), 73 (Sirikiš, Akkamen, Kuk-zana, Akkamen, Akkamen *a-ak* Kisišak *a-ak* Kuk-zana), 76 (*i tak* Kidin-naku, Kidin-[. . .]), 90 (Napupu *a-ak* Huban-mirriš).[46] In some cases, we are facing more single transactions, each with a PI+PÍR (once written as KI.MIN 'ditto') followed by an anthroponym; elsewhere, two or more anthroponyms are linked by *a-ak* 'and'. The latter instance is never attested with *kurman*. The fact that an anthroponym following PI+PÍR in one text may also be the subject of the verb *du-* in another proves that PI+PÍR is not a permanent title but a designation strictly related to the administrative action recorded in the tablet. Similarly, Kuddakaka is not the *kurman* of Susa but simply the most commonly mentioned person designated as *kurman* in the Acropole texts.

For *kurman*, Hallock alternated between 'supplied by' and 'entrusted to' in his translations.[47] For PI+PÍR, Stolper was inclined to 'entrusted to' and specifically to 'transferred (for accountability) to', following the Mesopotamian administrative action expressed by the syntagma *piqitti* PN.[48] This reading is strengthened by the logographic writing SIG$_5$, attested for *piqittu* in a wide range of Mesopotamian documents (Old Babylonian and later lexical texts, Ur III administrative texts, and occasionally even in Neo-Babylonian legal texts).[49] PI+PÍR at Tall-e Malyān and *kurman* at Susa and Persepolis are, however, so pervasively attested that they probably

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46. On *i tak*, see Stolper 1984b: 109: "here, *i tak* evidently amplifies, repeats or perhaps even glosses PI+PÍR."

47. Hallock 1969: 11. See also Stolper 1984b: 11: "N[eo-]E[lamite] and A[chaemenid]E[lamite] administrative texts identify disbursers with *kurmin* PN-*na*, 'by the hand of, entrusted by PN'."

48. Stolper 1984b: 11–12. For example, in the Neo-Assyrian administrative records published in Fales and Postgate 1992 (SAA 7) and 1995 (SAA 11), *piqittu* occurs three times in formulaic contexts similar to the Elamite ones (i.e., following a product list and followed by an anthroponym): SAA 7, 64, I:3 and 10; SAA 7, 65, I:2′.

Table 6: Tabulation of the occurrences of anthroponyms designated as PI+PÍR
in the texts from Tall-e Malyān.

anthroponym	occurrences
Akkamen	14
Huban-mirriš	7
Tempipi	6
Kuk-zana	5
Napupu	4
Sunkiki	4
Kisišak	3
Ururu	3
Haltir-akšir	2
Kir-akšir	2
Lakaka	2
Appume	1
Baliri	1
Beruru	1
ENpipi	1
Kidin-naku	1
Kidin . . .	1
Maštikšir	1
Na . . .	1
Nakuhahpu	1
Sirikiš	1
Šala-miriš	1
Šušnaki	1
Te . . .	1
Tem . . .	1
Temmeme	1
U . . .	1
Unukaš	1

represent an indigenous Elamite development. Vallat regarded, however, PI+PÍR as a local graphic variant for GIR, representing in turn a writing equivalent to GÌR, a well-known logo-graphic writing in the Mesopotamian administrative tradition for Akkadian *šēpu* 'foot', with the meaning of 'under responsibility of', literally, '(at) the foot of'.[50]

A similar formulaic expression from an Elamite context is provided by an Akkadian administrative tablet found at Haft Tepe and dated ca. 1400 B.C.:[51]

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49. I.e., IGI+PÍR, which differs from PI+PÍR by only a single corner wedge. Stolper 1984b: 11–12; see also ElW: 207, s.v. PI+PÍR. The sign PÍR printed in Stolper 1984b: 12 ends with a single vertical wedge instead of two placed one upon the other; compare Stolper 1984b: 178, no. 383.

50. Vallat 1987a; cf. Steve 1992: 160, no. 444: "Vallat propose de lire GÌR le PI + PÍR des textes élamites de Malyan, avec le sens reconnu à ce terme dans les tablettes économiques"; Stolper 2003: 204–5. See CAD Š/II: 367a, s.v. *šepu(m)*.

51. Published in Beckman 1991.

46 GU$_4$ *ša i-še-pi-il-ti-ir-ra*
30 GU$_4$ *ša ta-aš-ri-ti*
ŠU.NIGIN$_2$ 76 GU$_4$ *pi-ḫa-at*
at-ta-na-pir

46 oxen of PN1, 30 oxen of PN2—total: 76 oxen, administrative responsibility of PN3

The term *piḫātu* points to a general responsibility and is less specialized than *piqittu*. It is worth noting that the graphic appearance of the signs *pi-ḫa* on the tablet resembles that of PI+PÍR in the documents from Tall-e Malyān.

In the first edition of the Acropolis tablets, Scheil transliterated *kurman* as 'GIR', i.e., GÌR of current syllabaries. In his introduction, Scheil (1907: 4) gave the following reason for his choice:

> Je propose d'y voir le signe ANŠU ou GIR si usité dans les anciens textes babyloniens, pour désigner le tabellion. Il diffère légèrement de ANŠU-(KUR-RA) (passim) et de NIR-(GAL), tabl. 238, 3. Mais on sait assez combien peu logiquement tous les signes dérivés de l'ANŠU archaïque ont évolué, en se partageant ses significations. Je rends provisoirement le signe KUR + ŠAL par GIR.

Scheil thus anticipated for *kurman* the suggestions advanced by Vallat for PI+PÍR; i.e., the dilemma between a logogram borrowed from the Mesopotamian tradition (GIR at Tall-e Malyān according to Vallat, GÌR at Susa according to Scheil) and an Elamite phonetic rendering (*kur-mán* at Susa and Persepolis). The variants in spelling at Persepolis point to the latter solution, the evidence from Susa to the former.

Steve (1988) was able to connect with the Akkadian syllabary an Achaemenid Elamite sign whose correct readings had already been singled out by Hallock: the readings are *šab*/*šap*, the related Akkadian sign GÌR, the readings being derived from the logographic use of the sign for writing *šēpu*. This sign is known also from Tall-e Malyān, where it is clearly distinct from PI+PÍR.

An additional piece of evidence is the "forme curieuse" of the sign KAR in MDP 9, 154:11, closely resembling PI+PÍR from Tall-e Malyān (fig. 1).[52] Excluding the graphic appearance attested in a text of Šutruk-Nahhunte II—chronologically closer to the documents from Tall-e Malyān, but pertaining to the diverging epigraphic tradition of royal inscriptions—it would be attractive to suggest an internal development from PI+PÍR.[53] In this case, the sign KAR could assume the Elamite phonetic value *kur*$_e$, being either a shortened, or not "enlarged," form of *kurman*, or even a spelling for 'hand', notwithstanding the isolated middle Elamite plural form *ki-ir-pi*.[54]

We thus are back to the Elamite 'hands' (*kurpi*) going through the Akkadian 'foot' (*šēpu*). Aramaic *lyd* probably represents a parallel to, but not an origin for, the designation *kurman*. It should be stressed that, even assuming that PI+PÍR and *kurman* are equivalent designations, the

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52. Steve 1992: 113, N III B, 1, 'a', and 156, no. 376*. Stolper noted that PI+PÍR occurs also in MDP 9, 277:3, but the context is too fragmentary for any useful comparison (Stolper 1984b: 12 and n. 28).

53. For the royal inscription, see Steve 1992: 111, no. 376*, 'N II 3'; König 1965, plate 34, no. 80. The text was published in König 1965: 147–48 and plate 10, no. 72:11.

54. "Verbs with the auxiliary (-)*ma*- occur only in forms with final -*ka*" at Tall-e Malyān (Stolper 1984b: 24); compare the verbal form *hu-ma-ak*. For *ki-ir-pi*, see König 1965: 121–22, no. 54, I:54; ElW: 469, s.v. *ki-ir-pi*.
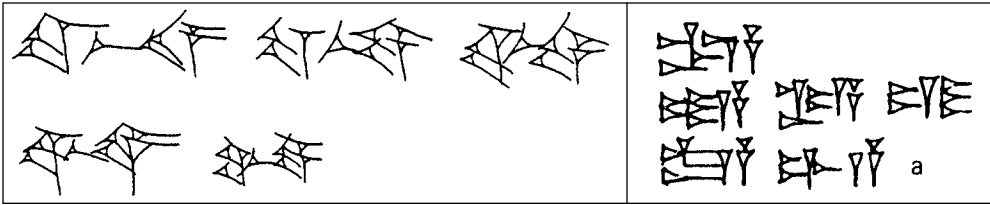
Figure 1. Graphic appearances of the sign PI+PÍR in the tablets from Tall-e Malyān (after Stolper 1984b: 178) and the sign *kar* in the Acropolis tablets (after Steve 1992: 113, no. 376*). The letter "a" marks the anomalous appearance occurring in MDP 9, 154:11.

actions performed by the related administrative functions could have changed diachronically. Considering the enlargement of the Achaemenid administration as attested by the Persepolis texts, it appears unlikely that an individual designated as *kurman* in a text from Susa carried out the same tasks or exerted the same authority as the one so designated in a Persepolis text. Documents provide a codified designation; formulaic context, not etymology, provides a better understanding of the function of a word/phrase.[55] The formulaic language itself may, however, be an impassable hindrance. Even if the meaning of *kurman* is in some way related to 'hand', it is unlikely that Kuddakaka handled all the *kukti* clothes that he had to manage as *kurman* at Susa.

2.4. The Importance of Formulary Exceptions

Is it possible to reconstruct the administrative practice through the study of the stereotyped bureaucratic formulary? This question arises even for Neo-Assyrian administrative texts, which are, as a whole, much better understood than Elamite administrative texts.[56] By focusing especially on the rare instances of the exception in the formulary, such as *i tak* interposed between PI+PÍR and the anthroponym at Tall-e Malyān, we may be able to gain a better understanding.[57] The exceptions are tiny breaking points where the formulaic language failed to express fully the complexity of a concrete situation. Exceptions are relevant even when exceptional only for our knowledge, which is mainly molded by the chance of archaeological discoveries. Two texts, MDP 9, 165 and PF 335, are conspicuous for their anomalies with respect to the corpus of tablets to which they belong. At the same time, MDP 9, 165 closely resembles texts from the Fortification archive and PF 335 resembles texts from the Acropole archive. These resemblances suggest that the differences between Susa and Persepolis are not due primarily to different administrations or historical periods but to different administrative compartments.

2.4.1. MDP 9, 165

MDP 9, 165 is the only document from the Acropolis of Susa where the amount of a product is followed by measures of capacity (GUR and QA).[58] Unfortunately, the text is fragmen-

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55. See also Hallock 1969: 11: "The possible range of significance for such an expression as *kurmin* PN–*na*, as for PN *damana* and PN *šaramana*, even when the literal meaning is known, is very wide because there is no outward indication of the nature of its relationship to the surrounding context."

56. Fales and Postgate 1992: xvi; Radner 1997.

57. This is true even when the exceptional may be due simply to archaeological chance.

58. Scheil 1907: 146; on GUR, compare Steve 1992: 147, no. 111. The indication of measures of capacity is, of course, the standard adminsitrative practice at Persepolis (Hallock 1969: 72; however, GUR is not attested in the Persepolis tablets).

tary: the product name cannot be easily restored, and both the date and the place are lost. The verbal forms *du-iš* and *li-iš-tà* are recognizable, but not the main action verb. The attested anthroponyms are *hapax legomena* in the Acropolis tablets, except for ᴮᴱ*um-ba-nu-nu*, qualified as DUMU *su-un-ki*[–x]–*na* and preceded by EŠŠANA;[59] it is likely that the other two occurrences of this anthroponym in the Acropolis tablets refer to a different individual.

Despite these lacunae, MDP 9, 165 proves that the administration of Susa dealt not only with textiles, weapons, and tools but also with other types of products whose transactions were recorded by means of a separate administrative formulary.

2.4.2. PF 335

PF 335 is a rectangular tablet (3.6 × 6.7 × 1.6 cm) that carries no seal impressions; its text contains no date formula. Even a hasty look at its content reveals the peculiarity of the text among the Fortification documents. Lines are short, amounts are low and not followed by units of measure, the meanings of the items listed are almost all unknown, the formal structure is linear, and the wording concise. The listed items are grouped under the label *huttukki*, a word that occurs in no other place in the published Fortification texts. Other anomalies were noted by Hallock, who included PF 335 in his category D, "General receipts," without firm conviction. In the introduction to that textual category, Hallock (1969: 18) wrote:

> PF 335 makes a rare reference to something non-edible and inanimate; although the meanings of the other terms are unknown, the presence of *like*, "spike", makes it probable that work materials are involved.

Together with *kurman* and *Šušun* 'Susa', one of the most attested words in the Acropolis tablets is *huttukki*, occurring 150 times after a PAP sign grouping the listed products; the only exception is MDP 9, 6: rev. 5, where *huttukki* is preceded by the determinative for vegetable products and wooden tools in a seemingly non-formulaic context. The concomitance with PAP, together with an apparently clear nominal derivation from the verb *hutta-* 'to do, make', led Hallock to suggest the meaning 'manufactured (objects)'.[60]

Notwithstanding the resemblance, it is not easy to explain this derivation from *hutta-*. While *hu-ut-tuk* is a verbal form of Hallock's conjugation II ('it has been done') with function of verbal adjective ('made'), and *hu-ut-tuk-ka₄* is the same form with a connective *-a* (both forms well-attested but only in Achaemenid Elamite), the final *-i* in *huttukki* allows very few comparisons. One of these should be *du-ka₄-ki*, which, according to Hallock, corresponds to *dukkak, a conjugation II form from the verbal base *dukka-*.[61]

While *huttuk* and *huttuka* were written both as *hu-ut-tuk*(-) and *hu-ut-tá-*, the spelling of *huttukki* is invariably *hu-ut-tuk-ki*. It thus seems possible to split *huttukki* into the compound word *hut-tukki,* where *hut* could be a shortened form of the verb *hutta-* followed by the verbal base *tukki-*. The element *hut* can be compared to the reduplicated form *huthut* '(royal) stores, materials', attested at Persepolis with different spellings, among which are *hu-ut-*KI.MIN and *hu-ut-tù-*KI.MIN, sometimes with AŠ as determinative.[62] According to Hallock, the base

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59. See Vallat 1998a: 311 for the historiographic relevance of this epithet.
60. Hallock 1969: 700, s.v. *huttukki*. Cf. ElW: 734–735, s.v. *hu-ut-tuk-ki*, ". . . angefertigte Gegenstände, Geräte. In den Susa-Täfelchen oft einfach Sachen."
61. Hallock 1969: 682, s.v. *dukaki*; perhaps rather to be connected to *duka* (form of the verb *du-*). *dukaki* occurs only in Fort. 8628:9 (not numbered as PF-NN).
62. Hallock 1969: 699, s.v. *huthut*.

tukki- (perhaps not by chance always written *tuk-ki*) means 'to cut, engrave'.[63] The word probably implies, however, a wider semantic spectrum, if it is in some way connected to the syntagmas *hupe in tukkime* (always written *tuk-ki-me* in Achaemenid Elamite) or *in tik-ka₄* (oc-curring in "Middle" Elamite votive formulae), both possibly meaning 'for this reason'.[64]

The syntagma PAP *hu-ut* GN in MDP 9, 66:5 and the occurrences of *tuk²-ki* listed in the glossary by Scheil strengthen the compound-form hypothesis:[65] among the compound words with *tukki*, *te-ib-ba-tuk-ki* and *me-iš-tuk-ki* occur in the same text (MDP 9, 37:2, 6). The first element in *me-iš-tuk-ki* seems to be attested also in *me-iš-ra-ti* on line 4.[66]

If we consider the formulae with *lipka* (including the two "envelopes" MDP 9, 2 and 293), *huttukki* is omitted only in MDP 9, 175, where PAP 59 *li-ip-te* (the number 59 corresponding to the sum of the amounts of the various products listed above) is written instead. Similarly, the other two occurrences of *lipte* in the Acropolis texts are not accompanied by *huttukki* (MDP 9, 73:1 and 264:4).[67] In the formulae with *humaka*, *huttukki* does not occur in three tablets: in MDP 9, 11 and 229, where only amounts and anthroponyms are written in the product list, thus the product name is written after the total (PAP amount) instead of *huttukki*; a similar for-mal context is attested in MDP 9, 22, even if in the list two clauses (including a mention of the title GAL É.GAL) appear instead of the expected anthroponyms.[68] In MDP 9, 3, with *ud-da-ka₄* as verbal form of the main action formula, *huttukki* seems to be replaced by *pa-me-ka₄*, a *hapax legomenon* in Elamite, immediately following PAP.

Generally, no number is written between PAP and *huttukki*. If a number follows PAP, the number is not followed by *huttukki*, but by a product name. At Tall-e Malyān, the only pos-sible formal parallel to *huttukki* is PAP *an-nu*, attested four times, in two cases followed by PI+PÍR.[69] Otherwise, PAP is always followed by a number.[70] On the basis of the evidence from Tall-e Malyān, PAP *an-nu* marks a grouping, while PAP.PAP a grand total. According to Stolper, *annu* is a loanword from Akkadian *annû* 'this' or an Akkadian logogram for an Elamite determinative pronoun. It seems to recall PAP *hi* 'this (being a) total of', known from the Persepolis tablets (Stolper 1984b: 119). The formulaic context, apart from the absence of a number, is, however, different.

Scheil (1907: 3) assigned a more specialized meaning to *huttukki*:

Le sens de ḫuttukki sont "ce qui a été fait" et "ce qui a été envoyé." Ce dernier sens s'appli-que mieux ici.

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63. Hallock 1969: 763, s.v. *tukki-*.

64. Grillot 1982: 8–9, "seconde formule"; *in* in place of the pronominal form *ir* (Hallock 1969: 702a, s.v. *intukkime*). Compare also *ku-uk-tuk-ka₄* (Hallock 1969: 715a, s.v. *kuktukka*).

65. Scheil 1907: 229, s.v. *tuk (?)-ki*.

66. See also the occurrences of *meštukki* (MDP 9, 95:8) and *mešrati* (MDP 9, 74:3, 117:10, and 173:15).

67. Judging from the royal inscription DNd and its bas-relief, the meaning of *lipte* should be 'bow' (Hallock 1969: 721, s.v. *lipte*). The corresponding Old Persian word remains, however, of uncertain etymology (Kent 1953: 206, s.v. *vaçabara-*), leaving room for Hinz's interpretation as 'clothes, clothing' (Hinz 1973: 57, and ElW: 824, s.v. *li-ip-te*; see also Jusifov 1963: 248, s.v. *lipte*, and Schmitt 2000: 46). This latter meaning agrees with the occurrence in MDP 9, 175, where *lipte* seems to be a common noun suitable for referring to different articles of clothing. On the other hand, *huttukki* occurs both after articles of clothing and weapons such as *ap-ti* 'axe' (Hallock 1969: 670, s.v. *apti*), or *sa-ah* 'point of an arrow'.

68. É written in place of È as remarked in Steve 1992: 152, no. 308.

69. TTM I 84:6′, 85:5, 86:10, 20. The occurrences in the last tablet are followed by PI+PÍR (but the first is restored). PAP is a distinctive feature of Stolper's category B.

70. See the list of occurrences with their respective context in Stolper 1984b: 201, s.v. PAP.

The occurrence of *huttukki* in PF 335, the only occurrence of the word in the thousands of texts from the Fortification archive, may support arguments for a specialized meaning for the word (i.e., neither 'item' nor 'thing'). The text can be divided into four sections, each corresponding to a grouping (Table 7). The first grouping is marked by PAP amount *hu-ut-tuk-ki* PN *du-iš*. The second grouping is identical, except for the writing KI.MIN 'ditto' replacing *huttukki*. This also applies to the third grouping, even if the sum is omitted and the verbal form *duš* is replaced by *id-du-nu-ik* 'it was given'.[71] In the last grouping the sum is written, but the anthroponym representing the subject of the action is not preceded either by *huttukki* or KI.MIN, and it is not followed by a verbal form (perhaps an oversight, or to be inferred from the preceding grouping). The text is thus closed, rather unusually, by an anthroponym.

Table 7: Text of tablet PF 335 arranged in vertical columns in order to facilitate a structural comparison. Signs marked by double underline were written over erasure.

(1) 1 *ba-is-ra-um*			(17) 1 *ba-is-ra-um*
(2) 1 *li-gi*	(8) 1 *li-gi*	(13) 1 *li-gi*	(18) 1 *li-gi*
(3) 1 *el-pi* [a]	(9) 1 *el-pi*	(14) 1 *el-pi*	(19) 1 *el-pi*
(4) 1 *at-ti hi-pi-iš*	(10) 1 *at-ti*		
(5) 1 *šu-ul-lu*			
(6) PAP 5 *hu-ut-tuk-ki*	(11) PAP 3 KI.MIN	(15) PAP KI.MIN	(20) PAP 3
(7) HAL⌈*ráš-nu*⌉*-te-*⌈*da*	(12) HAL*na-an-ku-ba-li-ir*	HAL*na-a-šá-a-ya*	HAL*pu-uk-te-iz-z*[*a*]
du⌉*-iš*	*du-iš*	(16) *id-du-nu-ik*	

a. Here and in the following lines, the sign *el* was transliterated as EL! by Hallock, since it begins with a corner wedge instead of a vertical wedge; it can be considered to be an unusual graphic appearance of *el* (Steve 1992: no. 564, and ElW: 395, s.v. *el-pi*).

The structure of the text is simple and invites comparison with the Acropolis texts, especially those having a list of products followed by the verbal form *lipka*.[72] It should be remarked, however, that *duš* is the action verb only in the first two sections of PF 335; the main action verb seems to be lacking. Since here the PAP signs seem to mark the groupings and not the main action formula, the true anomalies, unparalleled at Susa, are *huttukki* after a grouping and the amount between PAP and *huttukki*. If *huttukki* had been missing, we would have faced the structure, common in the Acropolis texts, of a list of products followed by *duš*; however, the main action verb of these tablets is *humaka*. In addition, groupings are not frequent in the Acropolis tablets, except in the largest ones.[73] It may also be noteworthy that the scribe made several erasures on PF 335.

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71. Hallock 1969: 683, s.v. *dunuk*. Compare ElW: 742, s.v. *id-du-nu-ik*.

72. In PF 335 *lipka* is, however, replaced by *duš*, and, conversely, in the Acropolis texts *huttukki* is never attested in tablets having *du-* as main action verb (placed after the products and referring to all of them).

73. For example, in MDP 9, 23, 24, 28, 38, and 47; also with only one grouping PAP alongside the PAP in the main action formula as in MDP 9, 31, 33, and 37.

With one exception, *li-gi*, the listed products are *hapax legomena* in Elamite documentation.[74] The term *li-gi* is attested three times in the texts from Tall-e Malyān (always followed by determinative MEŠ) and several times in the Acropolis texts.[75] In Achaemenid Elamite, *li-gi* (always preceded by determinative AŠ and qualified by a following ^AŠ*ik-nu-maš-na*) is also known from the trilingual royal inscriptions DPi and XPi, where *li-gi* and its lexical equivalents in Old Persian and Babylonian stand out at the beginning of each textual unit.[76] These inscriptions are ideological labels (the three languages are presented as a status symbol, even and especially for illiterate people) and the objects over which the text is engraved provide us with real instances of *li-gi*. Unfortunately, even with a concrete object in hand, we cannot point out with certainty its function: the object is commonly described as a peg or a door-knob.[77]

Regarding the anthroponyms mentioned in PF 335, one (^HAL⌈*na-a-šá-a-ya*) is a *hapax legomenon*, two (^HAL⌈*ráš-nu*⌉-*te*-⌈*da*⌉, ^HAL*na-an-ku-ba-li-ir*) are attested with an alternate spelling in other Fortification texts (PF 2003:2 and 325:6−7, respectively), and the last (^HAL*pu-uk-te-iz-z*[*a*]) occurs at least in eight other texts.[78] Except for ^HAL*na-an-ku-ba-li-ir*, an Iranian origin has been proposed for each of them.[79]

PF 335 is thus extremely relevant in discussing possible continuity in administrative formulary from Susa to Persepolis. Some elements (*huttukki*, *li-gi*, and the concise spellings) suggest that the tablet may even have been brought by chance from Susa to Persepolis. Its formulaic structure has, however, no exact equivalent in the Acropolis texts. Moreover, the anthroponyms in the text are mostly Iranian, and three of them are attested in other Persepolis texts. PF 335 suggests that different administrative departments, each dealing with a particular class of goods, operated around Persepolis.[80] The text of PF 335 further suggests that administrative recording of the same type as found at Susa may be preserved in the Persepolis archives.

3. Continuity and Change

The rise of the Achaemenid Persian dynasty and the establishment and expansion of its empire has fascinated historians since antiquity. The biblical concept of a succession of empires, but

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74. In Hallock's transliteration, *li-ke* (*ke* = *ké*); *lu-gi* in Scheil 1907; *li-kí* according to the *Achaemenid Royal Inscriptions Project* (Chicago Oriental Institute).

75. Tall-e Malyān: TTM I 24:2, 25:3, 67:6, translated as 'bolts' or 'pegs'. On the determinative MEŠ, see Stolper 1984b: 20, "Logograms." Acropole texts: MDP 9, 30:1, 49:9, 130:7 (next product in the product list: *sir-me*), 141:7 (next product: *sir-me*); 145: rev. 4 (next product: [*si*]*r*¹*-ri-me*); 186:1 (next product: *sir-me*); 80: rev. 2 (next product: ^GIŠ*sir-ri-me*).

76. DPi: in four exemplars from Persepolis; another fragment was found at Susa (note the comments of Schmitt 2000: 65). To my knowledge, two exemplars are at the National Museum of Iran (Tehran) and two at the Oriental Institute Museum (Chicago); see Herzfeld 1938: pl. 7 (top and middle); Schmitt 2000: pl. 34; Schmidt 1957: 50, fig. 4. XPi: in one exemplar, now at the Oriental Institute Museum, with the Akkadian text entirely damaged; see Herzfeld 1938: pl. 7 (bottom).

77. Schmitt 2000: 65. A comparison with middle-Elamite inscribed pegs could show further elements of continuity.

78. ElW: 239, s.v. *bu-uk-te-iz-za*.

79. See Zadok 1977: 79a for ^HAL*na-an-ku-ba-li-ir*. For the others: **naisāya-* (Hinz 1975: 172); **rašnudāta-* (Hinz 1975: 200); **buxtaiča-* (Hinz 1975: 68).

80. See also Hallock 1973: 321 and 323; Garrison and Root 2001: 29 ("the isolated 'Tools' text" is PF 335).

wrapped in an historiographic consciousness, still lives in handbooks where the history of the ancient Near East ends at the Mesopotamian–Persian nexus.[81] According to Harmatta (1971: 3),

> . . . the foundation of the Old Persian Empire was undoubtedly an important link in the development of the ancient world. It happened for the first time in the history of humanity that the huge territory stretching from Libya to the Pamir, from Sudan to the Syr Darya was incorporated into a relative unity by an empire, which was practically a historical summing up of the results achieved by the earlier Near Eastern states in social-economic, technical and cultural fields, and which with its two centuries long existence exerted a significant influence on the further historical development.

As Briant remarks, the historian cannot restrain himself from focusing on the premises of such an "event":

> L'historien qui travaille sur la longue durée sait bien qu'un règne illustre et un événement décisif s'inscrivent dans une histoire qui plonge ses racines dans un passé fécond.[82]

Ghirshman (1968) already noted the critical "rôle de la civilisation élamite" in the elaboration "de celle des Perses." For him, the two cultures interacted as two distinct elements in contact.[83] A dozen years earlier, Ghirshman had developed the complementary hypothesis of a Persian element in Neo-Elamite Susa, codified in the archaeological label "Village perse–achéménide."[84]

Recent scholarship has reconsidered the impact of Median rule in the ancient Near East in the first half of the 1st millennium B.C.[85] If Median rule (whatever form it may have taken) did not produce a political aggregation capable of turning the western "periphery" of the Iranian highlands into a new "center," its founding role with respect to the subsequent Achaemenid "empire" was negligible. From a historiographic perspective, this reevalution has left room for a kind of less ethnically or linguistically characterized continuity. As Dandamaev (1989: 1) observed:

> The country where the Persians settled was the native land of the Elamites. This people has built up an extremely old and original civilization, which exercised considerable influence upon the material and intellectual culture of the Persians.

Archaeological data for settlement continuity in the Kur river basin and in the Persepolis area during the first half of the 1st millennium B.C. is, however, scarce.[86] According to Carter (1994: 67, 76), Elamites and Persians met in an intermediate zone between Fārs and Susiana, probably in the intermontane plains of Ram Hormuz and Behbehān. Textual evidence gives some support to the idea that these plains functioned as both geopolitical poles and trading

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81. Compare Liverani 1991: 934–948, "Epilogo."
82. Briant 1996: 23; already in Briant 1984: 72.
83. See also the treatment of Elam in Ghirshman 1951 and Frye 1963: 66–68, especially 67.
84. Ghirshman 1954, especially 71–74. Compare Stronach 1974; see also Dandamaev 1989: 2–3.
85. Sancisi-Weerdenburg 1988, 1990; Liverani 1991: 918, 928–30. From an archaeological perspective, see Genito 1986, 1995, and 2005; Muscarella 1987; and also Razmjou 2005. From a linguistic perspective, see Rossi 1981: 115–60 and, recently, Schmitt 2003. See also the historiographic remarks in Lanfranchi et al. 2003: 397–406, "Afterword."
86. Carter 1984: 179, 181; 1994, especially 67. See also Sumner 1994, especially 102.

nodes. In these plains may be located some of the places mentioned in both the Acropolis texts and in the Fortification texts. Candidates include Kurdušum, Huhnur, and especially Hidali;[87] the last is mentioned also in the Assyrian Annals as a royal city *qereb šadê rūqūti* 'in the middle of the far mountains'.[88]

For Miroschedji (1985: 295), it was this meeting of Elamite and Iranian that gave birth to the "Persians" as people with an ethnic consciousness. Potts (1999: 351) referred to it as "one of the most interesting cases of ethnogenesis and acculturation in Iranian history."[89] Steve (1991: 7–8) recognized in the millenary history of Elam a strong component of continuity and originality, which became unrecognizable only with the fusion of Elamite and Iranian: "les sujets élamites du roi Darius ne se sont pas aperçus sans doute que l'Elam venait de disparaître."[90] Perrot (1981: 79–80) suggested, however, that continuity was assured in four domains:

> Par sa langue, ses scribes, ses administrateurs, ses soldats, l'Élam jouera un rôle de premier plan dans la réorganisation et la conduite des affaires de l'empire [perse].

While some other scattered texts supply scraps of further evidence, the Acropolis tablets from Susa and the Fortification tablets and Treasury tablets from Persepolis stand as milestones in marking the shift between continuity and change in Elamite language and writing, socio-economic life, administrative practice, onomastics, toponymy, deities, and religious ritual.

The administrative system documented by the Fortification texts is quantitatively and qualitatively exceptional. Administrative documents became more complex and new elements entered into their structure. The shape of tablets changed. The designation *kurman* was maintained, but new specialized occupations appeared: the form *šaramana* seems to point to an old administrative action embodied at Persepolis in a newly established office.

The discontinuity in scale between Susa and Persepolis is exemplified by the lack of correspondence in administrative textual typologies. Isolated cases, such as MDP 9, 165 and PF 335, suggest traces of continuity. Our perception of the administrative typologies may not, however, match that of ancient scribes. This may be indicated by the wide spectrum of Hallock's categories grouped in one and the same "Journal" (Hallock's category V) and possibly by the storage arrangement of the Fortification tablets.[91]

Perhaps the most significant proof of continuity is the use of the Elamite language itself. The fact that Elamite was chosen as one of the three languages of Achaemenid monumental epigraphy most likely indicates a direct linkage with Middle and Neo-Elamite royal ideology. At the same time, the inclusion of the long Elamite inscriptions at Bīsotūn, well beyond the traditional boundaries of Elam, paradigmatically marked the new role of the Elamite language in the Achaemenid period: it was no longer simply a language of a king and his people but a lan-

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87. Kurdušum: Koch 1986: 144–45; 1990: 163–64; cf. Hallock 1977: 132. Huhnur: Duchene 1986; Koch 1987: 268; 1990: 198–99; Vallat 1993: 102, s.v. Huhnur. Hidali: Hinz 1961: 251; ElW: 656, s.v. h.*hi-da-li*; also Miroschedji 1986: 217; cf. Koch 1986: 142–43; 1987: 266; 1990: 208–13; Vallat 1993: 96, s.v. (H)idali; cf. Waters 2000: 33 and n. 13.

88. See the textual references listed in Parpola 1970: 160–61, s.v. *Ḫidalu*, and ElW: 656, s.v. URU.*hi-da-la*. See also Carter 1994: 75.

89. See also Henkelman 2003: 190.

90. Cf. Amiet 1992 on the ethnic dualism of ancient Elam.

91. See Garrison and Root 2001: 27–28, with further bibliographical references, on the findspot of the Fortification tablets.

guage in service of a new political ideology wherein the king ruled over multiple peoples envisioned as cooperating for the welfare of the state.

The same development appears in the choice of writing administrative texts in Elamite at Persepolis. On one hand, the Elamite administrative tradition of Tall-e Malyān and Susa was revived in the face of the increased use of alphabetical Aramaic.[92] On the other hand, Elamite came to be side by side every day with other languages, especially Aramaic (sometimes physically on the same tablet as a gloss) and Old Persian, in an evolving social context.

The adoption of the Elamite language in Achaemenid royal inscriptions and administrative texts is thus not only an evident token of continuity but also a substantial indication of change. Languages and writing systems that were more suitable to the new communicative environment were spreading quickly in the Near East, exploiting the international net created by the Achaemenids; Elamite as a politically endorsed language was on the brink of disappearing definitively from written documentation.[93]

Cicero's "historia magistra vitae" assumes a general continuity in human processes.[94] Science has proved that the intellectual faculty of humans has been the same since prehistorical times. The Achaemenid administration exploited human resources and current technologies to maintain the state as any modern administrative system does. Migrations and earthquakes, wars and cultural contacts happened just like today. Therefore, talking about continuity and change could appear of scarce relevance. What is relevant is to distinguish what offices and processes were maintained and what were changed (in function, if not in name).

Acknowledgments

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92. The Greek and Phrygian texts from the fortification wall of Persepolis (Balcer 1979 and Friedrich 1965, respectively) and the Greek graffiti found in the stone quarries around Persepolis (Pugliese Carratelli 1966: 31–34) may suggest the increased awareness of other alphabetic scripts.

93. On the Elamite substratum in later periods, see Potts 1999, chapters 10 and 11. On the language *khuzi* as a possible late development of Elamite, see Cameron 1948: 18 n. 115; Spuler 1952: 243; Rossi 1981: 163; Diakonoff 1985: 24; Potts 1999: 415. *Khuzi* is mentioned by Arab geographers: see the textual references in Schwarz 1896: 406, and the text from the *Fihrist* by Ibn al-Nadim (ca. 377 A.H./A.D. 987) as reported by Ibn al-Muqaffaʿ (died in 139 A.H./A.D. 757) translated in Lazard 1971: 361.

94. Cicerone, De Oratore, 2, IX (§36): "Historia vero testis temporum, lux veritatis, vita memoriae, magistra vitae, nuntia vetustatis, qua voce alia nisi oratoris immortalitati commendatur."

Abbreviations

/	separates alternative spellings in transliteration
DB OP	Old Persian text of Darius's Bīsotūn inscription published in Schmitt 1991
DB El	Elamite text of Darius's Bīsotūn inscription published in Grillot-Susini et al. 1993
CAD	*The Assyrian Dictionary of the University of Chicago*, Chicago
ElW	Hinz and Koch 1987
Fort.	Tablets from the Persepolis Fortification archive, partially renumbered as PF (correspondences in Hallock 1969: 12) and almost entirely renumbered as PF–NN (correspondences in Hinz and Koch 1987: 1370–92)
GN	geographic name
MDP 9	298 tablets from the Acropolis of Susa published in Scheil 1907. Published also in Jusifov 1963 (correspondences in Jusifov 1963: 261)
MDP 11	Texts published in Scheil 1911
MDP 22	Texts published in Scheil 1930
MDP 36	Three tablets from the "Ville des Artisans" (Susa) published in Paper 1954
Nin	Twenty-four tablets published in Weissbach 1902 (Nin 1–25; drawings) and Hinz 1986 (Nin 1, 5, 10, 13, and 14; transliteration and translation). Nin 8 and 9 are fragments of the same tablet (Walker 1980: 79, "III. Late Elamite")
MN	month–name
PF	2,087 tablets from the Persepolis Fortification archive published in Hallock 1969
PFa	33 tablets from the Persepolis Fortification archive published in Hallock 1978
PF–NN	Unpublished tablets from the Persepolis Fortification archive transliterated by Hallock (see Hallock 1978: 109)
PN	personal name
PT	Persepolis Treasury tablets published in Cameron 1948
rev.	Reverse of a tablet
TTM I	114 tablets from Tall–e Malyān published in Stolper 1984b

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Addendum

The following important studies came to the author's attention after this volume was already at the proof stage.

Briant, P.; Henkelman, W. F. M.; and Stolper, M. W., eds.

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