

Gian Pietro Basello
“L’Orientale” University, Naples

AN INTRODUCTION TO ELAMITE LANGUAGE

Elamite, attested in writing from the Old Akkadian period (second half of the 3rd millennium BCE) to the end the Achaemenid dynasty (4th century BCE), was the language spoken in south-western Iran (ancient Elam) until the spreading of Iranian languages. Together with Sumerian and Akkadian in Mesopotamia, with which Elamite shares the cuneiform writing, it is one of the oldest languages to be written in the history of mankind, spoken by hundreds of thousands people throughout its bimillenary history. The largest part of the documentation is represented by administrative documents on clay tablets and royal inscriptions on bricks and stone. Both textual typologies were issued by representatives of the territorial states led by Elamite rulers first and the Achaemenid kings later (concisely: Álvarez-Mon 2012, Potts 2012, Basello 2016; exhaustively: Potts 2016, Álvarez-Mon et al. 2018). Few letters, legal documents, and a omen text have also survived. Literary texts are lacking, perhaps because Akkadian was the preferred language for this textual genre in Elam.

Susa (Elamite *Šušun*, modern Shush in Khuzestan province) is the city, settled uninterruptedly at least since 4000 BCE (Steve et al. 2002-2003), where hundreds of Elamite inscriptions and tablets were found. Susa lies in the lowland, a fertile south-eastern extension of the Mesopotamian plain, fed by the great rivers originating on the Zagros range. A dozen of sites in Susiana have provided further royal inscriptions dated to the second half of the 2nd millennium. Among them, the cultic and ceremonial complex of *Al Untaš-Napiriša* (the modern site of Chogha Zanbil) stands out with its monumental ziqqurat, temples, palaces, and three surrounding walls (the exterior one encompasses ca. 90 ha) (Mofidi-Nasrabadi 2013); more than 5200 inscribed bricks (corresponding to ca. 50 different inscriptions)

were found there. Susiana is conventionally considered the western, lowland, part of Elam, that, probably, corresponded in origin to the mountainous highland of the Zagros range to the east. The main highland centre was the ancient city of Anshan (Elamite *Anšan*, under and around the modern town of Malyan), which lies in the wide and fertile intermontane plain of Marvdasht (Fars province), ca. 450 km to the east of Susa as the crown flies; few fragmentary royal inscriptions and ca. 200 administrative tablets were found there (114 published). Royal inscriptions mark the political extent of Elam in the 2nd millennium; beyond Susiana, Anshan, and the land in between (the last only with few isolated textual finds and still waiting extensive archaeological excavations), it included the ancient city of Lian (on the southern periphery of Bushehr) on the Persian Gulf coast. Textual finds beyond the Elamite cultural and political area consist in a double dozen of letters allegedly from Nineveh and three tablet fragments from the site of Armavir-blur, near the ancient Urartian fortress of Argishtiḫinili in Davt'i-blur (Armenia).

The chancellery of the Achaemenid kings chose Elamite as the second language of their trilingual royal inscriptions, after Old Persian (an Old Iranian language) and beside Babylonian (a variety of Akkadian), probably because it was the language of the previous kings of Anshan and Susa. Most of the inscriptions are in the name of Darius the Great (reigning 521–486 BCE) or Xerxes I (reigning 486–465) and come from Susa, Persepolis (*Parsa* in Elamite and Old Persian, the site of Takht-e Jamshid on the western limit of Marvdasht plain), Naqsh-e Rostam (the site of the Achaemenid rock-cut tombs ca. 7 km north of Persepolis), and Pasargadae (the last three in Fars province). As a consequence of this display usage, Elamite inscriptions were engraved also in remote places like the cliff of the citadel of Van (Turkey), a pass on mount Alvand to the west of Hamadan (Iran), the famous cliff of Bisotun (Kermanshah province, Iran), and along the Achaemenid course of the Suez canal (Egypt). The Elamite text of the greater inscription of Darius at Bisotun (DB/El., dated to 518 BCE ca.) is one of the longest Elamite inscriptions. Elamite was adopted also as one of the languages of

the royal administration beside Aramaic (Tavernier in Jacobs et al. 2017), at least in Persepolis, where thousands of Elamite tablets were discovered. Isolated exemplars of similar tablets were found in Susa and Old Kandahar (Afghanistan; Fisher and Stolper 2015).

The first Elamite texts to become available to western scholars were Achaemenid royal inscriptions from Persepolis, published during the 18th century CE (e.g., by C. Niebuhr in 1778). The decipherment of cuneiform writing progressed in 19th century, followed more slowly by the understanding of Elamite language. A great contribution to the knowledge of the language was given by the archaeological excavations of the French *Délegation en Perse (en Iran* after World War II), established in 1897 and operating on the field until 1979, which brought to light nearly all the written documents from Susa (excavated nearly uninterruptedly) and Chogha Zanbil (excavated in 1951–1962). No less relevant has been the discovery of the administrative archives of Persepolis in 1933 (Fortification tablets) and 1936–1938 (Treasury tablets) by the Oriental Institute excavations led first by E. Herzfeld and then E.F. Schmidt. New texts and inscriptions are surfacing from excavations in Iran, museum storerooms, and the antiquity market. Many Elamite artefacts, several of them inscribed, are on display in the Louvre museum; a remarkable collection of Elamite inscriptions and tablets is in the National Museum of Iran (Tehran). Most of the Persepolis tablets are on loan at the Oriental Institute of Chicago.

Notwithstanding nearly two centuries of history of study, Elamite remains one of the less-understood languages of the ancient Near East (Stolper 2004: 64–65, §1.4). It is not linguistically connected to Sumerian, Akkadian, or other ancient Near East languages, either Semitic or Indoeuropean, remaining a language isolate. A relationship with the Dravidian language family (today attested especially in southern India) has been advanced as soon as 1855 (in the first edition of DB/El. by E. Norris) on phonological considerations. The derivation from a remote proto-Elamo-Dravidian language has been supported with emphasis by D.W. McAlpin (1981) and it is now taken for

granted by some scholars (e.g., Khačikjan) and neglected by others (see Starostin 2002). Be as it may, this linguistic affiliation has not helped in the grammatical or lexical understanding of the language (Zadok 1995: 243).

Comparison with the Old Persian and Babylonian versions of the Achaemenid royal inscriptions remains the main method towards the understanding of Elamite. The few Akkadian royal inscriptions from Susa and Chogha Zanbil, partly corresponding to later or coeval Elamite inscriptions, are still to be fully exploited. Many words remain hapax legomena. Convergence among Elamite grammatical sketches (the more recent ones are Khačikjan 1998, Stolper 2004, Krebernik 2005, Grillot-Susini 2008, Tavernier 2011, Quintana 2013, and Tavernier in Álvarez-Mon et al. 2018: 416–449) is shown only at a lower degree. Besides the glossaries in EKI (pre-Achaemenid royal inscriptions) and PF (Achaemenid Elamite), a full dictionary in transliteration is available to scholars (Hinz and Koch 1987), even if several texts have been published afterwards. Collections of toponyms (Vallat 1993) and anthroponyms (Zadok 1984) are also available. The exhaustive bibliography in Hinz and Koch 1987: 1332–1368 is supplemented by Rossi 2008 and 2017 for Achaemenid Elamite.

Elamite is a language of agglutinative and SOV (subject-object-verb) type. Its nominative-accusative vs ergative-absolutive character is debated, even if the first seems to prevail. In origin the core of the morphology was probably the noun; it seems that the categories of adjective, adverb, and postposition were developed from nominal bases. In the 1st millennium the organization of the sentence is progressively reorganized towards the verb (Grillot-Susini 2008: 7). The same base could be used to form nominal and verbal forms, depending on the suffixes.

1. The glottonym “Elamite”

Unfortunately it is not known how this language was called by its own speakers. In Sumerian, “Elamite” (<eme elam> i.e. “the language of Elam” [for the reading elam of the sign NIM, see Michalowski 2008: 109–110]) appears in a hymn (C:124.126)

attributed to the Ur III king Sulgir (i.e. Shulgi, reigning 2000–1953), where he boasts to know the Martu language and Elamite just like Sumerian (used every time as a comparison and therefore appearing as his mothertongue [cf. Rubio 2006: 50, where Akkadian, being not listed among Sulgir’s language skills, is considered as his native language]): “Also I know the Elamite language as well as I do Sumerian. in Elam, they greet me and I reply in Elamite” (*The Electronic Text Corpus of Sumerian Literature*, <<http://etcsl.orinst.ox.ac.uk>>, hereafter ETCSL). However, the hymn is a literary composition and the king who speaks many languages is probably a topos; in this frame, “Elamite” could be a generic reference to some foreign languages in the east (other languages were spoken in the Zagros, known mainly from their onomastics in Mesopotamian sources [Zadok 1994: 48–50, §3]). A reference, which is also quite vague, to the language spoken in Elam is in Sulgir hymn B:206–208: “When I like a torrent with the roar of a great storm, in the capture of a citadel (<ḫi-il-zum^{ki}>) in Elam, I can understand what their spokesman answers” (ETCSL). This passage is part of a section (B:206–220) where different levels of language skills are accurately assigned to five languages: Elamite, Sumerian, the language of the black mountains, the Martu language (Amorite), and Subartean.

“Elamite” (<eme elam(-ma)^(ki)>) appears also in the language section of the Sag-Tablet (Civil 1986), a Sumerian acrographic lexical list; in the bilingual exemplars (Sag A IV:32 and B VI:244) the corresponding Akkadian readings are <e-lam-ti> and <i-la-mi-t[um]>. Elamite is mentioned as part of the sequence Sumerian, Akkadian, Elamite, Amorite, and Subartean; in Sag B Sutean and Gutian are also listed (the sequence is paralleled in the bilingual country lists; see Horowitz 1998: 322–324).

In the Babylonian Talmud (4th–5th centuries CE), *Shabbath* 16, fol. 115a, rabbis questioned whether the sacred scriptures could be saved from fire even if they are written in Egyptian (i.e. Coptic), Median, Aramaic, Elamite (*‘ēlāmīt*), or Greek. In *Megillah* 18a, the reading of the book of *Esther* (which is set in

Susa) in Elamite or Median is questioned (Basello 2004: 18 and fn. 181). It is difficult to state if this was actually Elamite as intended today. As a spoken language, Elamite probably started its decline in the 4th century BCE or even earlier, if one judges the use of Elamite in the Achaemenid royal inscriptions as ideological or traditional (Black 2008: 61–65; cf. its use in the administrative tablets).

In the 10 century CE, the Islamic geographers al-Istakhri and Ebn Hawqal report that one of the languages spoken in Khuzestan is Khuzi, which is not Arabic, Persian, Aramaic, or Hebrew (PT: 18, fn. 115). In the *Fihrist* of Ibn al-Nadīm (c. 377 AH/987 CE), quoting Ebn al-Moqaffa' (†139 AH/757 CE), Khuzi is defined as the private language of kings and nobles (Lazard 1971: 361). Starting from B. Spuler, some scholars, including G.G. Cameron and G. Lazard, have more or less emphasized that Khuzi is a late form of Elamite. The lacking of an Elamite substratum in south-western New Persian, as pointed out by F. De Blois (1994), seems to be against this suggestion (Potts 2016: 410).

After its re-discovery around 1800 CE, several names were proposed for Elamite language: “Scythian”, “Amardian”, “Median” (as in one of the first monographs devoted to the language, written by J. Oppert in 1879), “Proto-Medic”, “Susanian”, “Anshanite”, until the use of “Elamite” around 1900 (Basello 2004: 2–11; Lindner 2015). The Elamite version of the Bisotun inscription (DB/El.) was firstly published using the glottonym “Scythian”, considering it as a non-Indoeuropean language. Later V. Scheil, using “Elamite” as a cultural label, referred to Elamite texts as “élamite-anshanites” and to the Akkadian texts found in great number in Susa as “élamite-sémitiques”. F. Desset has recently proposed to use “Hatamtite” instead of “Elamite”, using the indigenous name for “Elam” (*Hatamti*) as a base (Basello and Rossi in Desset 2012: XVI–XVII). In the country/people lists of the Achaemenid royal inscriptions, Elamite *Hatamti* corresponds to Babylonian *Elamtu* (written logographically) and Old Persian *Uja* (<u-v-j>, perhaps surviving in Middle Persian *Khūzistān* [Schmitt 2014: 263, s.v.

Ūja¹]; cf. the Old Persian spelling <u-v-a-r-z-mi-i-š> for Chorasnia and its Young Avestan cognate *Kh^vāirizama-*).

2. *Proto-Elamite and linear Elamite writings*

It is still unknown if proto-Elamite and linear Elamite writings were used to record Elamite language, even if it is especially likely for linear Elamite.

Proto-Elamite (Dahl in Potts 2013: 233–262 and in Álvarez-Mon et al. 2018: 383–396) was written by few scribal generations around 3000 BCE, being attested slightly later than the roughly coeval proto-cuneiform writing system in Mesopotamia (Dahl et al. 2013). Ca. 1800 administrative documents related to agricultural products, labor, and animal herding are known, coming mainly from Susa (ca. 1564 tablets and fragments). The other centres were spread on a vast area around the Iranian plateau and include (from Susa going clockwise): Tepe Sialk (5 tablets), Tepe Ozbaki (1 fragment found in 1999), Tepe Sofalin (ca. 137 found in 2007–2009, 12 published), Shahr-e Sokhta (1 tablet found in 1975), Tepe Yahya (26–27 tablets), Tall-e Mal'yan (32 tablets and fragments), and Tall-e Ghazir (1 fragmentary tablet), with variations in signary, format, structure, and content (Desset 2012: 3–19; Dahl in Potts 2013: 238–239). It is debated if the diffusion of this writing corresponded to a unifying political power (Abdi 2003). Proto-Elamite is largely independent from proto-cuneiform, except for some numerical systems and the comparable form of a small number of signs, but its creation may have been prompted by the spreading of proto-cuneiform in Mesopotamia. Proto-Elamite texts are now partially understood on internally comparative and logical grounds, without a phonologic knowledge of their language.

Linear Elamite (Desset 2012 and in Álvarez-Mon et al. 2018: 397–415) is attested in ca. 30 inscriptions, 18 of which coming from Susa on stone monuments or clay cones, some of which (inscriptions A–C and I) were engraved side by side Akkadian inscriptions of the last king of the dynasty of Awan, Puzur-Inshushinak (21st century BCE), and therefore are datable after the adoption of cuneiform writing in Susa. An inscription on a

silver beaker (Q) was found in the neighbourhood of Persepolis in 1966. A jar with five linear Elamite signs on the inner rim (S) was found in a grave of cemetery A (dated to the whole second half of the 3rd millennium BCE) at Shahdad (Kerman) on the edge of the Lut desert in 1970. Further Linear Elamite inscriptions are surfacing from the antiquarian market and private collections (e.g., X–Z = EAC 12–14 and F' = CUSAS17 87). In 2006, two tablets (B' and C') were found near Konar Sandal South (in the Jiroft plain, Kerman) in the frame of the regular excavations led by Y. Madjidzadeh, after a villager brought the chance discovery of a first tablet (D'); all these tablets bear also longer inscriptions in an unknown geometric script (Desset 2014). Decipherment attempts by P. Meriggi, W. Hinz, and, recently, F. Vallat (unpublished), F. Desset, and M. Mäder have been based on proper names, leading to the reading of some syllabic phonograms (Desset 2018; Mäder et al. 2018).

3. *Elamite cuneiform writing as a visual representation*

Elamite is written in cuneiform characters, i.e. three-dimensional graphemes obtained pressing a stylus with a sharp vertex on a soft surface, usually wet clay moulded in the shape of a thick tablet. Tablets could be moulded in different sizes and shapes according to their content and textual typology (e.g., the memorandum MDP9 6 from Susa measures ca. $7.5 \times 2.4 \times \text{max. } 2$ cm and is cigar-shaped; the single-issue memorandum PF 2 from Persepolis measures $2.9 \times 2.1 \times 1.3$ cm and is tongue-shaped; the register PF 1947 measures ca. $22 \times 17 \times 2.5$ and is a thin parallelepiped). The choice, preparation, and shaping of the clay for writing were the result of a long-lasting tradition. Each impression of the stylus produced an elongated triangular groove which is conventionally called wedge (*santakku* in Akkadian, i.e. “triangle”); wedges were combined together to form graphemes commonly called signs. In monumental inscriptions, a stylized imitation of wedges was carved on stone or painted on glazed bricks, resembling the modern way of representing wedges on a bidimensional surface like a paper sheet.

The oldest texts are palaeographically identical to the coeval Mesopotamian (Old Akkadian) writing. It is likely that the Old

Akkadian dominion over Elam (confirmed by Old Akkadian royal inscriptions from Mesopotamia, a brick inscription of the Old Akkadian king Naram-Sin (IRS 1) and a text mentioning him (EKI 2), probably a treaty, both found at Susa) established a cuneiform school in Susa, as suggested also by ca. 90 Old Akkadian administrative documents found there and related to a self-sustaining Akkadian enclave (Basello and Giovinazzo in Álvarez-Mon et al. 2018: 484–485).

Afterwards, the forms of the signs underwent local developments (Steve 1992: 8–13), remaining the same in Elamite and Akkadian royal inscriptions from Elam until the second half of the 2nd millennium. Starting from the administrative tablets from Tall-e Malyan, dated around 1000 BCE, Elamite signs underwent relevant changes, reducing the number of wedges, preferably avoiding their crossing (especially in monumental writing), and composing them according some regular patterns. The monumental form of Elamite signs in the Achaemenid royal inscriptions is different from the Babylonian one and, probably, could not easily read by a Babylonian scribe without some training.

Writing goes left to right in horizontal lines, as the result of a 90° counterclockwise rotation of the signs with respect to the earliest period, where lines were vertical and arranged from right to left. This is revealed by inscriptions written on object with a fixed orientation in the space like statues. The debate around the chronological turning point should be soften, since the archaic orientation (attested in 3rd millennium bricks from Susa in Akkadian and Sumerian) was retained in the 2nd millennium in some bricks from Susa and also Anshan, and in bronze artefacts from Susa, including the famous statue of Napir-asu (EKI 16).

Cuneiform writing is a *scriptio continua*. While in Sumerian and Akkadian documents words usually are not broken at the end of the line, in Elamite inscriptions this is common.

4. Elamite cuneiform writing as a system

Cuneiform was not devised at once but is the result and combination of long historical processes. As a system of writing, it is both phonographic and logographic: a grapheme could write one or more phonemes (phonogram) or an entire word (logogram).

Phonograms represent vowels (e.g., in scholarly transliteration, <a>, <e>, <i>, <ú> or <ù>) or syllables (CV, VC, CVC; V = vowel, C = consonant). However, it is not entirely correct to define cuneiform writing as syllabic since not all the possible syllables are attested as graphemes: e.g., “earth” (*murun* in scholarly transcription) had to be written <mu-ru-un> since there was not a syllabic sign *<run>. Moreover, in actual word composition, a syllabic sign did not necessarily correspond to a syllable and could cross syllable boundaries: e.g., *huta-k* “done” could be written in a redundant way <hu-ut-ta-ak>, with the last phoneme of each syllabic sign repeated in the following syllabic sign. Redundancy was a device probably devised originally as an aid to the reader in a system with many graphemes like a syllabic writing; it was not applied systematically, even if surely there were cases in which it had to be used or avoided by rule or school tradition, and not all the compositional combinations are attested for a given word. This led to another feature of cuneiform writing, the variable orthography: e.g., <hu-ut-tak>, with the CVC sign <tak>, is attested as an alternative writing for *huta-k*. So there were shorter and longer spellings for the same word; while longer spellings were an aid for the reader, the choice could also be determined by the available space.

In the course of 1st millennium, some VC signs became obsolete (e.g., <ar> in the example below) probably as a consequence of some school practices aimed at reducing the signary. This resulted in the so-called broken writing, where a redundant V_1C sign that was no more used was replaced by another, not redundant, V_2C sign, whose vowel V_2 was not phonologically relevant: e.g., in Achaemenid Elamite <ir-ša-ir-ra> probably rendering *ršara* or *ṛšara* (with initial vocalic *r*?) “great”, previously spelled as <ri-ša-ar(-ra)> or <ri-ša-(ar-)ri>. Another or-

thographic practice was the abrupt spelling (C)VC-VC, used to mark internal word boundaries, like the one between lexeme and suffix in morphological spellings (e.g., <ba-at-ip> *pat-(i)p* ‘feet’), besides rendering consonant clusters or helping the reader with the redundancy of the so-called phonetic complements (Tavernier 2016).

Logograms (transliterated in capital letters; their transliteration usually tries to render the original Sumerian reading or the name of the sign provided by Mesopotamian lexical lists, even if they should be rendered in a more symbolic way) represent their referent without the mediation of a phonological layer, like numbers written through digits: e.g., <DUMU> “son”, derived from Sumerian and common in Akkadian cuneiform, is rendered as *šak* in Elamite transcription, being sometimes replaced by the phonographic writing <šá-ak>; <EŠŠANA> “king”, probably originated in the Akkadian of Susa (the transliteration, using the name of the sign provided by a gloss in a Neo-Assyrian astrological report, is unrelated to its logographic meaning, based on one of its numerical values, 3600, a number read *šāru* in Akkadian and phonologically close to Akkadian *šarrum* “king”), is rendered as *sunki* in Elamite transcription, being sometimes replaced with the phonographic writing <su-un-ki>; <Ì> “oil”, whose referent is known being the same in Sumerian and Akkadian, while its reading in Elamite remains unknown.

The relationship between graphemes and referents was mostly pictographic in origin, but the pictographic origin was subsequently lost both graphically and semantically, transforming pictograms in phonograms; the same development remains productive for logograms, which can take also phonographic values corresponding to their readings (and therefore losing their original referent). This accumulation of different phonographic and logographic values for a same grapheme is a feature of cuneiform writing known as poliphony; conversely, the same reading can be shared by different graphemes, a feature known as homophony (distinguished in transliteration through accent marks and subscript indexes).

Some signs were used also as **lexical classifiers** (usually called “determinatives”, placed in superscript in transliteration), i.e. graphemes marking the lexical category of the following word: e.g., the divine classifier <DINGIR> which precedes the names of gods, the personal classifier <DIŠ> (with the graphic variants <GAM>, <BE>, and <HAL>, attested especially on clay) which precedes male anthroponyms, the feminine classifier <MUNUS> which precedes the female anthroponyms, the place classifier <AŠ> which precedes toponyms and choronyms. This practice was already known in Mesopotamian cuneiform and some (e.g., <DINGIR>, <DIŠ>, and <MUNUS>) derived directly from it, but other are typical of Elamite (e.g., <AŠ> and <HAL>, chosen for the basic forms of these signs); furthermore, in Elamite some classifiers had an extended usage, e.g. <DIŠ> marks also common nouns referring to persons like *ruh* “man” and *sunki* “king”). Lexical classifiers served as an aid for the reader and probably were silent; their use was not mandatory, but otherwise it would be difficult to understand where proper nouns started (especially in lists of toponyms or anthroponyms); from this point of view, the personal, place, and divine classifiers acted just like the uppercase initial in the Latin script used to write many languages today.

As a consequence of the difficulties of such handwritten script, showing synchronic and diachronic varieties and preserved often on damaged textual carriers, cuneiform texts are usually presented in **transliteration** (here notated within angle brackets) using Latin characters, with syllabic signs separated by hyphens and words by spaces; the correspondences between transliterations and cuneiform graphemes are provided by modern syllabaries (due to polyphony, a grapheme can have different transliterations but a transliteration corresponds to only one grapheme). As a consequence of features like redundancy, variable orthography, and homophony, a **transcription** (here in italics) is sometimes provided, aiming at unifying alternative orthographies (attested in different texts or different copies of the same text) and approximating the postulated pronunciation. There are no shared rules for the transcription of Elamite; here a minimalist approach is conventionally followed, usually choos-

ing a voiceless consonant in stead of a voiced one (see the section “Phonology” below) and avoiding gemination.

5. *Diachronic and synchronic varieties*

Elamite is attested with discontinuity in the written record. Sources are conventionally splitted according to the tripartite paradigm used also for Elamite political history: Old Elamite (from the Old Akkadian period to the first half of the 2nd millennium BCE), Middle Elamite (second half of the 2nd millennium), Neo-Elamite (first half of the 1st millennium), to which Achaemenid Elamite (from the second half of the 6th century to the end of the Achaemenid dynasty) has to be added. This periodization is more historical than linguistical, in the sense that the four periods correspond to historical variations in the distribution of the extant documentation rather than evident linguistic changes.

Achaemenid Elamite shows heavy influences from Iranian languages, especially the one today called Old Persian, in lexicon and syntax. Many words attested only in Achaemenid Elamite are loans from Old Persian; a good part of the Old Iranian lexicon is reconstructed thanks to these loans, representing otherwise unattested Old Iranian words (collected in Tavernier 2007), even if disguised in cuneiform spellings which are, inevitably, quite different from the spellings attested in later Iranian languages written in Aramaic or Arabic script; see, e.g., the reconstructed Old Iranian word **umrūta-* ‘pear’ on the ground of the coeval Elamite spellings (<^{GIŠ}hu-ma-ru-ud-da>, <^{GIŠ}ú-ma-ru-ud-da>, <^{GIŠ}u-mi-ru-ud-da>, and <^{GIŠ}ú-um-ru-ud-da>, probably pointing to the same pronunciation) and the Middle Persian (*urmōd*) and New Persian (*amrud*) developments (Tavernier 2007: 460, no. 4.4.20.18; Rossi 2015). In the Achaemenid royal inscriptions, Elamite syntax often follows the corresponding Old Persian text. This influence is so strong that I. Gershevitch considered Achaemenid Elamite as an allo-glottography of Old Persian (see the reassessment in Rossi 2006: 78–82), i.e. a way to record Old Persian in writing; a similar practice is attested in the Aramaic writing used to write

Middle Iranian languages in the 1st millennium CE, retaining Aramaic words as logographic writings to be read with the corresponding Iranian word. This would imply quite fixed patterns of correspondences actually not attested in the texts, which show rather a large number of variants in spellings and syntactical constructions, pointing more to a substantial case of heavy linguistic interference, as can be expected in a multilingual socio-cultural context like Achaemenid Persia (Henkelman 2011: 588–595) and the ancient Near East in general.

Areal varieties (dialects) have been postulated by scholars in some cases but still need to be investigated systematically. Proposed indications of areal variation are: vowel variations as in, e.g., <tu₄/tur-ru-> and <ti-ri-> “to speak” (Grillot-Susini 1987: 11); <in ti-(ik-)ka/ka₄> and <in tuk-ki-me> (“for this reason”, postpositive causal conjunction) (Khačikjan 1998: 47, fn. 129), even if the diachronic distribution is quite sharp with the first attested in Middle Elamite and the second in Achaemenid Elamite; Achaemenid Elamite <ku-iz-za> for <ku-ti-(iš-)šá> “(they) carried, brought” and <kur-zap>, <kur-za-ip/ap>, or <ku-ir-za-ap> (notice the broken writings) for <kur-taš-be> “workers”; also <be-ip-si-h ku-si-h> (in the brick from Anshan published by Lambert in 1972, but also in IRS 53:7’ from Susa) instead of <pi-ip-ši-h ku-ši-h> “I renovated (or the like) (and) built”.

However, it remains problematical to recognize synchronic variations only on the ground of spelling variations, which could be due to different scribes or schools, without pointing to actual different pronunciations. The Persepolis Fortification tablets (see the section “Sources” below) are especially suited for dialect studies since a part of them was written in peripheric centres around *Parsa* and especially in the mountainous area towards Susa; they are also dated so that possible microdiachronic variations could be recognized too.

6. Sources

The oldest documents in Elamite are the treaty of Naram-Sin and two stray tablets from Susa that can be dated back to the

Old Akkadian period (ca. 22nd century BCE). The cuneiform writing, especially elaborate in the tablets, is the same attested in the Old Akkadian documents from Mesopotamia. The treaty of Naram-Sin (EKI 2), on a big tablet now in the Louvre, mentions several Mesopotamian and Elamite deities as witnesses of a treaty where the Old Akkadian king Naram-Sin (reigning ca. 2120–2084) seems to be in a dominant position; being found in Susa, the other king, whose name is lost, should be one of the Awan dynasty. The two tablets from Susa (publication data for unreferenced sources can be found in Steve 1992: 19–24) are considered school texts (Tavernier 2011: 338) or incantations (Krebernik in print).

Only few Elamite texts are known until ca. 1400 BCE when royal inscriptions in Elamite became pre-eminent in Susiana: a tablet (Louvre AO 4325) found in Telloh, ancient Girsu, published only in cuneiform copy and dated to the Isin-Larsa period; two fragmentary tablets from Susa bearing the text of a same royal inscription (EKI 3) in the name of Siwepalarhupak (known also from the Old Babylonian tablets from Susa and the letters from Mari) where the titular and the *tak(i)-me ... in tika* formula (“for the life of ...”) that will become common in the last quarter of the 2nd millennium make their first appearance; three inscriptions (EAC 8, 9, and 10+11) on “gunagi” (perhaps to be read *kunanki*) silver vessels whose origin is debated, now in the Mahboubian private collection, in one of which (EAC 8, apparently a longer version of EKI 3) Siwepalarhupak qualifies himself as “*ruhušak* (a term which is rendered as “son of (his) sister” in Akkadian inscriptions from Susa) of Silhaha (<si-il-ha-ha>)” (column I:6; the name of Silhaha may be safely restored also in EKI 3:6); a fragmentary stela of unknown provenance where only the first sign (<si->) of the name of the king, restored as Siruk-tuh (attested in the Old Babylonian tablets from Susa, in a coeval Akkadian letter from Tell Shemshara in Iraqi Kurdistan, and in the later Elamite inscription EKI 48), is preserved, even if now it seems more likely that the name of Silhaha was engraved there; some incantations in Sumerian collections from Mesopotamia, dated to the Old Babylonian period, which seems to be rough transcription (or mumbo-jumbo?) of

spoken Elamite incantations (provisional list in Cunningham 1997: 156–159). Most of the documents dated to this period, including hundreds of legal and administrative tablets and some royal inscriptions on brick, are in an Akkadian dialect proper of Susa (De Graef in Potts 2013: 263–282); stray words and isolated texts seem to be linguistically Elamite (De Graef 2006: 39–40, §III.C.3; see also the microethnonyms or gentilic names, apparently marked with the Elamite plural suffix *-p*, in Scheil 1908, no. 104).

Around the half of the 2nd millennium, royal inscriptions (from Susa and Haft Tappeh) and administrative tablets (from Haft Tappeh, together with mathematical tablets and a omen text) are still written in Akkadian. Starting with king Humpan-umena, Elamite language largely spread in royal inscriptions; only few Akkadian inscriptions (e.g., IRS 32 and TZ I, IV, and V), partially rendering Elamite formulae, were found at Susa and Chogha Zanbil. The preferred textual carrier is the baked brick, found in thousands of exemplars corresponding to ca. a hundred different inscriptions, especially in the name of Untash-Napirisha and Shilhak-Inshushinak, dedicating various buildings, many called *sian* (a word usually translated as “temple”), to various deities. Most of the inscribed bricks came from Susa and Chogha Zanbil (IRS 21–31, 33–45, and 47–53; TZ 1–52), while some were found in other sites of Susiana (Tappeh Horreye, Tappeh Pomp, Deh-e Now, Deylam, Chogha Pahn West and East, Tappeh Gotvand, and Bard-e Kargar), few isolated sites in the highland (Tappeh Bormi in Behbahan plain, Tul-e Afghani in Han Mirza plain, Tol-e Spid in Fahlyan plain, Qale Geli in Shahr-e Kord area, and Tall-e Malyan in Marvdasht plain), and Lian on the Persian Gulf. Stone stelae (with longer texts mentioning also military conquests; e.g., EKI 47 and 48) and door sockets (e.g., EKI 48 A and B) are also known, besides some inscriptions impressed or carved on bronze (e.g., the statue of Napir-asu [EKI 16], the so-called Sit Shamshi [EKI 56], the “bronze aux guerriers” [EKI 69], the “barrières de bronze” [EKI 45]). Quite famous are the Elamite inscriptions added to the victory stela of Naram-Sin (EKI 22) and some Mesopotamian statues (EKI 24 a–c) brought to Susa as a booty

during the reign of Shutruk-Nahunte (reigning ca. 1190–1155). Few dedicatory inscriptions are known from objects, e.g., a glazed terracotta knob (TZ 57) and a mace head (TZ 58/160) from Chogha Zanbil, the agate of Kutir-Nahunte (“Lambert 1971” in Steve 1992, correctly 1970), and the chalcedony bead that Shilhak-Inshushinak gave to her daughter Par-Uli (British Museum ME 113886; see also Tavernier 2016: 281–282) which are, again, strictly related to the king. Several mace heads (TZ 58), some bronze items (TZ 59), and many wall knobs (TZ 60) from Chogha Zanbil represent properly ownership labels. Three clay beads or “olives” (TZ 61) found among the incinerated remains of tomb II in the Palais-hypogée at Chogha Zanbil are probably labels pertaining to the buried individuals, surely members of the royal family or the elite.

Around 1000 BCE, a group of administrative tablets in Elamite is known from Tall-e Malyan; ca. half of the original 200 tablets have been published by Stolper (TTM1). This administrative usage of Elamite continued in the ca. 300 tablets found on the Acropolis from Susa (MDP9), dated to ca. 600 BCE (possibly also later) where Iranian names and Persian groups of people are recorded. While Malyan tablets deal mainly with metals, Susa tablets are more related to clothing, weaponry, and containers, apparently delivered to groups of (allied?) people by the central administration of Susa. Some Neo-Elamite royal inscriptions on bricks and glazed bricks are also extant; longer texts like the rock-carved inscriptions of Hani, “*kutur* (protector, i.e. governor) of Ayapir”, in two different open air sanctuaries or ceremonial places around Izeh (Kul-e Farah with EKI 75 and Eshkaft-e Salman with EKI 76) can be considered royal inscriptions; EKI 75 is not too much different in content from an Achaemenid royal inscription like Bisotun (DB). Elamite ownership inscriptions are attested on few grave goods from the Neo-Elamite royal or elite burials found near Arjan (in Behbahan plain) (Álvarez-Mon 2010) and Jubaji (in Ramhormoz plain) (Shishegar 2015), and on dozens of metal vessels allegedly found in the Kalmakarra cave near Pol-e Dokhtar in Lorestan (Henkelman 2003). A short dedicatory inscription in the name of ‘Shutur-Nahunte son of Intata’ (named so also on a

golden clamp from Jubaji burial and, qualified as a king, in EKI 75:10) is engraved on a cornaline bead (CUSAS17 91). Several letters are roughly dated between the 7th century and the half of the 6th century i.e. the beginning of the Achaemenid dynasty: the so-called Nineveh letters, 24 tablets allegedly found at Nineveh and so attesting the existence of an Elamite enclave there during the last years of the Neo-Assyrian empire; two letters (one of administrative character) from the so-called Ville des Artisans at Susa published by H.H. Paper; two other letters from Susa published by M. Lambert in 1977; an administrative letter published by C.E. Jones and M.W. Stolper in 1986; a letter registered as coming from Sippar published by C.B.F. Walker in 1980 (British Museum BM 62783); a recently published letter written on a big vase fragment found at Marbacheh near Ramhormoz (*Elamica* 5) which, perhaps, has to be compared to an inscribed vase fragment from Susa published by V. Scheil in 1927. Three fragmentary tablets found during the excavations of Armavir-blur in Armenia have been interpreted in different ways and dated from the end of the Neo-Elamite period to the Achaemenid period (Badalyan & al. in print); probably they are letters.

The second quarter of the 1st millennium BCE has provided also several other typologies of texts, even if generally in a limited number of exemplars: seven legal tablets from the Apadana tell of Susa (MDP11 301–307); a list of witnesses published by V. Scheil; a list of officials (MDP11 299); a omen tablet (Louvre A 12801, including the translation of two sections of the Akkadian series *Iqqr ĩpuš*; Tavernier 2010b: 213–214) and an hemerology from Susa (Basello and Ascalone in Álvarez-Mon et al. 2018: 700–701), a bronze plaque found in the so-called Treasury of Persepolis probably representing a royal grant at the end of the Neo-Elamite kingdom (Basello in De Graef and Tavernier 2013: 249–264).

The first Achaemenid king whose titulary and/or (pseudo-)direct speech have been recorded in royal inscriptions is Cyrus the Great (reigning ca. 549–530 BCE); plurilingual inscriptions, including Elamite and Babylonian, in his name were engraved on the stone of the palaces of Pasargadae, some on reliefs dated

on stylistical grounds to the reign of Darius the Great by D. Stronach. For the scholars who consider these as historical fakes by Darius (in order to state the Achaemenid-ship of Cyrus), the greater and minor texts of Bisotun are the earliest trilingual Achaemenid royal inscriptions. Most of the trilingual inscriptions in Darius' name come from Susa, while Xerxes I is particularly attested in Persepolis. All the subsequent Achaemenid kings (except for the short-reigning Xerxes II and Sogdianus) left royal inscriptions, mostly trilingual. The latest Elamite texts are, perhaps, the labels to the throne bearers of the southern tomb at Persepolis, attributed to Artaxerxes III (reigning 358–338 BCE). Ownership inscriptions (in a broad sense, also as statements of origin – in case of gifts – or authority – in case of seals) on loose objects are known on stone vessels, weights, and seals (list in Schmitt 2009: 27–32).

More than 20,000 tablets and fragments were found in the north-eastern tower of the fortification wall of the platform of Persepolis in 1933 during the excavations led by E. Herzfeld on behalf of the Oriental Institute of Chicago (Stolper in Jacobs et al. 2017: XXXVII-LIX; Basello 2018: 219-225). They are internally dated to the regnal years 13–28 (509–493 BCE) of an unnamed king who was surely Darius the Great, being explicitly mentioned as the king Darius in a few tablets (e.g., Fort. 6764:3.11 in Henkelman 2010: 668–669). A total of 15,000 or more original documents in Elamite, of which 6,000-7,000 are still at least partially legible and meaningful (Henkelman in Potts 2013: 531; partially published in PF, PFa, and several articles [updated list in Basello and Giovino in Álvarez-Mon et al. 2018: 490]) has been estimated. As an archive, the tablets depict a complex administrative scenario, dealing with “the intake, storage, and notably the redistribution of locally produced food commodities” (barley, wine, beer, livestock, etc.) for individuals and groups (male and female workers, officials, members of the royal family, travellers, etc.), and also animals (Henkelman in Potts 2013: 530). Not all the documents are in Elamite: besides 259 Aramaic epigraphs (usually a single or a few words, numbers, or a date) among about 6,200 Elamite tablets and fragments examined (Azzoni and Stolper 2015: 4–5),

ca. 800 tablets are monolingual Aramaic, written in ink or incised (Azzoni in Briant et al. 2008: 253–274). Aramaic was evidently integrated into the bureaucratic system (Azzoni in Jacobs et al. 2017: 455–468).

The Persepolis Treasury tablets were found in the north-eastern part of the so-called Treasury of Persepolis, during the Oriental Institute excavations led by E.F. Schmidt in the years 1936–1938. According to Schmidt, 198 tablets and large fragments, 548 smaller fragments, and a number of chips and flakes were found, partially published in PT. The tablets dealt with (partial) payments in silver, sometimes in lieu of food rations (in sheep, wine, beer, barley), generally to groups of specialized craftsmen (Henkelman in Potts 2013: 534). The name of the king is not provided in the date formula, but through prosopographical reasoning (PT: 32–34) it was possible to date the tablets from the 30th regnal year of Darius the Great to the 7th of Artaxerxes I (not all regnal years in between are attested), i.e. from 492 to 457 BCE. The Treasury tablets are more homogeneous than the Fortification tablets. Handwriting in the Treasury tablets is less differentiated than in the Fortification tablets, suggesting that they were all drafted in Persepolis.

Elamite is attested also on seal inscriptions, especially in the 1st millennium BCE (previously Akkadian was employed): besides isolated exemplars of seals, several Elamite inscribed sealings are impressed on the Susa Acropolis and the Persepolis tablets.

Mesopotamian lexical texts and other sources (e.g., month-names lists) occasionally provide Elamite words, anthroponyms, and theonyms. In this way we know that “prostitute” (Akkadian *šamḫatu*) is *muhterkun* (<mu-ùḫ-te-ir-ku-un>) in Elamite (Frank 1928-1929: 39).

7. *Phonology*

The reconstruction of Elamite phonology is impeded by several factors: first of all, the status of Elamite as a dead language and the lacking of effective linguistic comparison; second, its long life and wide spread, leading to diachronic and synchronic varieties, even if still undefined; third, the ambiguities of a writing system which, furthermore, was not created to write Elamite (indeed like most of the languages, since languages are many more than writing systems) and not adapted to write distinctively its phonemes (at least to our knowledge). However, the latter factor implies that it is possible to read Elamite in some way (cf. the difficulties of Linear Elamite). Therefore Elamite phonology may be tentatively reconstructed evaluating its use of the Sumerian-Akkadian sillabary and the rendering of loans, especially the many Iranian anthroponyms and toponyms in Achaemenid Elamite. When more than one spelling is attested to render a loan, the comparison of the variants (evaluating also which ones are never attested) is meaningful.

Several Elamite phonological systems have been hypothesized by scholars, following either a minimalist or a maximalist approach. Regarding vowels, in a minimalist approach, H.H. Paper (1955, chapter 3) maintained only *a*, *i*, and *u* in Achaemenid Elamite, while otherwise *e* (being attested, e.g., in the suffixed possessive pronouns) and *o* or *au* (written in Achaemenid Elamite with the grapheme <u>, while <ú> was used for *u*) have to be introduced. Two series of labials, velars, and dentals, even if not univocally expressed in cuneiform writing, are usually recognized. The opposition is not necessarily voiced and unvoiced: E. Reiner and M. Khačikjan (1998: 6, §§2.1 and 2.2.1) suggested a tense-lax opposition as in Dravidian; J. Tavernier (2011: 320) suggested a fortis-lenis opposition; only Paper preferred a single (unvoiced) series. Tavernier (2010a) has recognized up to seven sibilants, while Paper distinguished two fricatives (\check{s} = \check{f} and *s*) and one affricate ($\check{č}$); M.W. Stolper (2004: 71, §3.1.2) has a voiced *z* and an unvoiced *s*, besides \check{s} . The sonorants *m*, *n*, *l*, and *r* are also widely recognized, while the fricatives *f* and *v* and the glides *w* and *y* are sometimes followed by a question

mark in the phonological inventories (e.g., Stolper 2004: 70, §3.1 and 72, §3.1.3.3). Khačikjan (1998: 7, §2.3.1), M.-J. Steve (1992: 14), and Stolper retained also *h* which was weaker than the Akkadian velar fricative *ḫ*.

8. Morphology and syntax

The noun is marked by the opposition animate/inanimate through gender suffixes (“suffixes nominaux classificateurs” in French scholarship) which vary also according to the person of the verb: “locutive” or 1st singular animate *-k*; “allocutive” or 2nd *-t*; “delocutive” or 3rd *-r*; 3rd plural *-p*; 3rd inanimate *-n* or *-me* (without providing indication on number). This peculiar combination of person and number in the same suffix produces the following examples: *sunki-k* “I (am) king”; *sunki-r* “he (is) king” or simply “the king”; *Anšan-(i)r* “Anshanite”, from the toponym Anshan, i.e. “the one of Anshan”; *Hatamti-p* “Elamites”, from the choronym Elam; *sunki-me* “kingship”, forming an abstract noun. The main syntactical relationships (e.g., noun and adjective; noun modified by a noun or a pronoun in a genitive construction) are expressed postponing the gender suffix of the modified noun to the modifier (“double case” or “Suffixaufnahme”; see Plank 1995): e.g., *nap-(i)r u-r* “(he is) my god”; *piti-r Naram-Sin-(i)r piti-r u-r* “the enemy of Naram-Sin (is) the enemy of mine” i.e. “my enemy” (EKI 2,III:10–13). Sometimes the modified noun has no apparent gender suffix, especially when its animacy class is clear from its semantics (e.g., in case of anthroponyms and kinship terms). Suffixes can be cumulated: *sian Kiririša Lian-(i)r-me* “the temple of Kiririsha the Lianite” or “of (the city of) Lian” (e.g., EKI 19:3; *-r* links “Lian” to “Kiririsha”, *-me* links “Kiririsha of Lian” to *sian*, apparently a crystallized form with an original *-n* suffix). In the 1st millennium, the “genitive postposition” *-na* (possibly only *-n*, spelled with the grapheme <na>), perhaps originally representing the inanimate gender suffix *-n*, gradually replaced the double case construction: e.g., *sunki sunki-p-na* “king of kings” (in the Achaemenid titulary) vs earlier *pahi-r sunki-p-r(i)* “protector of kings”.

The personal pronouns show an unmarked form opposed to an “accusative” form apparently ending in *-n*: 1st person singular *u* and accusative *u-n*; 2nd *ni* or *nu* and accusative *nu-n*; 1st plural *nika* or *nuku* and accusative *nuku-n*; 2nd *num* or *numi* and accusative *numu-n*. 3rd person pronouns are not easily distinguishable from deictic pronouns: animate singular *ir*; animate and inanimate (*h*)*i*; animate plural *ap(i)*. The relative pronouns are animate *aka* “who” (with the plural form *aka-p* in Neo- and Achaemenid Elamite) and inanimate *apa* “which, what” (used also for the animate object in Achaemenid Elamite).

Spatial and temporal relationships were expressed by postpositions such as *-ma* “in” (even if quite interchangeable with *-na*), *-mar* “from”, *-(i)ki* or *-(i)ka* “to”, especially in Achaemenid Elamite, but prepositions (e.g., *kuš* “toward, until”) are also known. Directional words, originated either as nouns (e.g., *uku* “on”, perhaps “head” in origin; *pat* “under” from “foot”) or verbs (e.g., *lina* “for”, probably from *li-* “to send, deliver”), were largely used combined with gender suffixes in pre-Achaemenid Elamite (Stolper 2004: 84–85, §5.1.1): e.g., *hat Napiriša Kiririša Inšušinak r²-uku-r ir ta-k-ni* “the terror/awe of the gods Napirisha, Kiririsha, and Inshushinak may be placed over him (who damages the statue of Napir-asu)” (EKI 16:7–9).

Only one proper verbal conjugation (“conjugation I”) is known, mostly of past tense: e.g., from *huta-* “to do”, 1st singular *huta-h* “I did”, 2nd *huta-t*, 3rd *huta-š*, 3rd plural *huta-hš*; *h* is no more spelled in Achaemenid Elamite conjugation, leading to 1st singular *huta* and 3rd plural *huta-š* (same as 3rd singular). Two “nominal” conjugations, apparently constructed on two “participles” (marked respectively by the infixes *-k-* and *-n-*) followed by the gender suffixes, were also largely used (Tucker 1998): e.g., from *na-* “to say” the *-n-* conjugation (“conjugation III”) *na-n-k(i)* “I say”, *na-n-t(i)* “you say”, *na-n-r(i)* “he says”, *na-n-p(i)* “they say”; this compositional pattern is not so easily recognizable in *-k-* conjugation (“conjugation II”). *-k-* conjugation is perfective in aspect and seems to be passive with transitive verbs and active with intransitive ones; *-n-* conjugation is durative, contemporaneous with another action: e.g., *Dariauš sunki*

u-(i)ki šera-š na-n-r(i): ... u nu-(i)ka šera-ma-n-k(a) ... “king Darius ordered to me saying: ... I order to you: ...” (*šera-* “to order” appears also with a modal infix *-ma-* whose function is not clear) (Persepolis fortification tablet Fort. 6764 in Henkelman 2010: 668–669). Modal meanings are also conveyed using suffixes: e.g., *-ni*, used with forms of conjugations I and *-n-* to express precative.

The order of the complements in the sentence is quite fixed. The subject (noun, anthroponym, or pronoun) is expressed at the beginning when it is not already mentioned before or the person is not indicated by the verb. Usually the indirect object follows unmarked (or marked by postposition *-na* in Achaemenid Elamite); then the object is written or recalled immediately before the verb by a pronoun having resumptive function: *Kiririša nap-(i)r u-r(i) i tuni-h* “I gave it (i.e. the cultic building *sian* mentioned above) to Kiririša my god(dess)” (IRS 34 and 37).

9. Word formation, lexicon and onomastics

Most Elamite nominal and verbal bases are of one or two syllables. According to F. Grillot-Susini, there is a number of nominal stems (“mots-racines”) with primary meanings (e.g., *nap* “god”, *hiš* “name”, *kik* “sky”, *pak* “daughter”), while bases usually end in a vowel, either part of the stem or suffixed to it (Grillot-Susini 2008: 14–27, chapter IV). Verb bases can also be compound (e.g., *mur-ta-* “to put in place”) or reduplicated (*pepti-* “to be enemy, to rebel”, *pepla-* “to put in place, establish”).

Loans are frequent in Elamite. The most frequent donor languages are Akkadian (especially for the 3rd and 2nd millennia BCE) and Old Iranian (in Achaemenid Elamite). Examples of loans from Akkadian are *alimelu* or *alimeli* “acropolis” from *ālum* “city” and *elûm* “upper”, *ḫattu* “fear, terror”, *zalmu* from *šalmu* “image, figure”, and *zuhmutu* perhaps from *asumittu* “inscribed slab”. In administrative texts, Akkadian loans for materials, manufactured objects, or animals could be logographic writings to be read with the corresponding Elamite terms or, more often, cross-cultural concepts (“Kulturwörter”) (TTM1:

21–22): e.g., *zapar* “copper” or “bronze” from *siparru*, *anaku* from *annaku* “tin”, *paspas* (written <pa-as-KI+MIN> where <KI+MIN> represents a ditto mark) from *paspasu* “duck”. Akkadian is used to name cult-related buildings or objects (e.g., *Nur Kibrat* [TZ 21:2.5] from Akkadian *nūr kibrāti* “light of the world”), including the gates of Chogha Zanbil (e.g., *Abullu Rabitu* “Great Gate”, *Abul Mīšari* “Gate of Justice” from Akkadian *mīšaru* “justice”, *Abul Šarri* “Gate of the King” [all variants in TZ 31:5], *Abul Kinūni* “Gate of the Kiln” from *kinūnu* “kiln (for firing bricks)” [TZ 36:2]). Some terms (e.g., *ipillatu* [TZ 23:2.4 and TZ 44:2], a building or part of a building dedicated to the god Nusku in Chogha Zanbil) seems to be linguistically Akkadian even if they are not known in Akkadian; probably they were borrowed from the Akkadian spoken in Susa (see, e.g., Akkadian *erimtum* “baked brick(s)” [e.g., in IRS 19:4], known only from Akkadian inscriptions from Susa, and Elamite *erintum*).

Several Elamite anthroponyms and few Elamite words survived in non-Elamite texts. Besides the Elamite glosses in Mesopotamian lexical lists, see, e.g., the name of the rulers of Parthian Elymais (a choronym taken from classical sources and constructed with a Greek derivational suffix, attesting the survival of the name “Elam” in later periods; see also *Acts of the Apostles* 2:9), Kamniskires (e.g., <ka-am-ma-áš-ki-i-ri> and <ka₄-bi-na-áš-ki-i-ri> in Babylonian sources, Aramaic <kbnškyr> and <kwmskyr>, and Greek *Kamnisk(e)iros* on coins [Stolper in *Encyclopædia Iranica*, s.v. Ganzabara, <www.iranicaonline.org/articles/ganzabara>, 2012]), which is probably derived from Elamite *kapniškir* (Potts 2016: 381), attested in the Persepolis tablets and usually translated as “treasurer”, while its etymological interpretation is “keeper (*niški-r*, agent noun from *niški-* or *nuški-* “to guard, protect”) of the *kap* (Kawase in De Meyer et al. 1986: 263–275).

Elamite onomastics is largely based on hypocoristica of the reduplicated type (e.g., <su-un-ki-ki>, <ki-li-li>, <um-ba-ba>, and <um-pu-pu>) and theophorous names (e.g., <un-taš-DINGIR-GAL> i.e. Untash-Napirisha, perhaps “the god Napiri-

sha has established [*ta-š*] me [*u-n*] [as king or the like]”) (Zadok 1991); the onomasticon of the Achaemenid administrative tablets is largely Iranian.

10. *Collection of texts, online databases, grammars, dictionaries, and general treatments of Elamite civilization*

Most of the Elamite royal inscriptions are published in the one-century-old series *Mémoires de la Délégation en Perse* (with variations in the title during the years). A comprehensive collection of (pre-Achaemenid) royal inscriptions is in EKI, with cuneiform copies in CIE, to be completed and updated with the full editions of Chogha Zanbil inscriptions (TZ) and Susa (and Chogha Zanbil) bricks in the Louvre (IRS). Some other Middle and Neo-Elamite royal inscriptions are published in MDP53.

The main trilingual collections of Achaemenid royal inscriptions are the ones by F.H. Weissbach (1911) and E. Herzfeld (1938). The Elamite texts are available in CIREA, to be updated with the Achaemenid section of MDP53; several other Achaemenid royal inscriptions are scattered elsewhere, mainly in the journal *Cahiers de la Délégation Archéologique Française en Iran*. A full bibliography is in Schmitt 2009: 7–32. The Elamite texts of the Bisotun inscriptions have been collated by S. Aliyari Babolghani in 2015 (DB/El.).

The main publications of administrative tablets are MDP9 (Susa Acropolis), TTM1 (Tall-e Malyan), PT (Persepolis Treasury), PF and PFa (Persepolis Fortification). Recent studies on the Persepolis Fortification tablets are available in Briant et al. 2008, Henkelman 2008, and Jacobs et al. 2017.

Miscellaneous Elamite texts (including proto-Elamite tablets, royal inscriptions like Bisotun, Persepolis Fortification tablets) are available online in the Cuneiform Digital Library Initiative database (<<http://cdli.ucla.edu>>). A collection of texts, quite exhaustive for royal inscriptions, is available in transliteration and Spanish translation at the website *Elamite* (<www.um.es/cepoat/elamita>) edited by E. Quintana. Published and previously unpublished Persepolis Fortification tablets are available on the Online Cultural Heritage Research Environment

(<http://ochre.lib.uchicago.edu/PFA_Online>) and InscriptiFact databases (<www.inscriptifact.com>) thanks to the efforts of the Persepolis Fortification Archive Project.

Hinz and Koch 1987 represents the main lexicographic tool, being a dictionary in transliteration listing all the attested spellings and their occurrences up to that time. Also useful are the glossaries in EKI: 181–228 (pre-Achaemenid Elamite royal inscriptions), TZ: 117–129 (inscriptions from Chogha Zanbil), PF: 663–776 (Achaemenid Elamite, in a conventional transcription). A collection of geographic and ethnic names in the texts from Elam (including Elamite, Akkadian, and Old Persian) is available in Vallat 1993. A glossary of anthroponyms is in Zadok 1984 and its companion article Zadok 1983.

The reference for the Elamite syllabary is Steve 1992 (previous signlists are listed there on pp. 1–2), presenting the forms and functions of the signs through time and providing their transliterations. An up to date list of transliterations for Achaemenid Elamite can be found in Henkelman 2008: XIX–XX.

There are no descriptive grammars of Elamite. The most exhaustive grammatical sketches are Khačikjan 1998, Stolper 2004, Krebernik 2005, Gril­lot-Susini 2008 (new edition of Gril­lot-Susini 1987), Tavernier 2011, Quintana 2013, to which some relevant detail studies like the ones by F. Gril­lot (references in, e.g., Stolper 2004: 92), Tucker 1998 (on Elamite verb), and Tavernier 2010a (on sibilant sounds) may be added. Relevant previous treatments were published by R. Labat in 1951, H.H. Paper (1955, on Achaemenid Elamite), I.M. D'jakonov in 1967, and E. Reiner in 1969 (references in, e.g., Hinz and Koch 1987: 1332–1368).

Exhaustive bibliographies on Elamite language, including publications of sources, can be found in Hinz and Koch 1987: 1332–1368 (until 1986) and Rossi 2008 (from 1979 to 2009) and 2017 (from 2006 to 2016). Lists of sources are available in Hinz and Koch 1987: 1317–1331, Steve 1992: 19–24, and Vallat 1993: XIII–XXXII, now requiring an update.

Besides the exhaustive studies on Elamite civilization Potts 2016 and Álvarez-Mon et al. 2018, the following entries/chapters from encyclopedias/handbooks can be read: “Elam” (1998) in *Encyclopædia Iranica* (available also online at <www.iranicaonline.org>), Steve et al. 2002-2003, Álvarez-Mon 2012, Potts 2012, and Basello 2016.

Among the miscellaneous volumes, the most relevant to Elamite studies are De Meyer et al. 1986, Álvarez-Mon and Garrison 2011, De Graef and Tavernier 2013 (*Susa and Elam*), and Kozuh et al. 2014.

The most remarkable Elamite artefacts are collected in Amiet 1966 and Harper et al. 1992.

Primary texts

CIE = König, Friedrich Wilhelm. *Die altelamischen Texte. Tafeln* (Corpus Inscriptionum Elamitarum 1). Osnabrück: Biblio Verlag, 1975 (1st edition: 1925).

CIREA = Vallat, François. *Corpus des inscriptions royales en élamite achéménide*. Unpublished PhD dissertation, 1977.

CUSAS17 = Vallat, François. “IX. Textes historiques élamites et achéménides.” In *Cuneiform Royal Inscriptions and Related Texts in the Schøyen Collection* (Cornell University Studies in Assyriology and Sumerology 17 = Manuscripts in the Schøyen Collection. Cuneiform Texts 6), edited by A.R. George, 187–192 and pls. LXXIII–VII (plus shared references). Bethesda, MD: CDL Press, 2011.

DB/El. = Aliyari Babolghani, Salman. *The Elamite Version of Darius the Great’s Inscription at Bisotun. Introduction, Grammar of Achaemenid Elamite, Transliteration, Persian Translation, Comparison with other Versions, Notes and Index*. Tehran: Nashr-e Markaz Publishing Co., 2015 (in Persian; title according to the English title-page) = سلمان علی یاری
تحریر ایلامی کتیبه داریوش بزرگ در بیستون (1394) با بلفانی

EAC = Mahboubian, Houshang. *Elam. Art and Civilization of Ancient Iran. 3000 – 2000 BC*, title in the page following the title-page: *A Collection of Fine Decorated Ancient Ira-*

nian Silver Vessels 3000-2000 BC. S.l.: Mahboubian Gallery, 2004.

EKI = König, Friedrich Wilhelm. *Die elamischen Königsinschriften* (Archiv für Orientforschung, Beiheft 16), Graz, 1965.

Elamica 5 = Rezayi-Sadr, Hamid. “Ein neuelamischer Brief geschrieben auf einem Keramikfragment gefunden in Marbacheh bei Ramhormoz (Iran).” *Elamica 5* (2015): 53–57.

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MDP9 = Scheil, Vincent. *Textes élamites-anzanites. Troisième série* (Délégation en Perse, Mémoires 9). Paris: Ernest Leroux, Éditeur, 1907.

MDP11 = Scheil, Vincent. *Textes élamites-anzanites. Quatrième série* (Délégation en Perse, Mémoires 11). Paris: Ernest Leroux, éditeur, 1911.

MDP53 = Steve, Marie-Joseph. *Nouveaux mélanges épigraphiques. Inscriptions royales de Suse et de la Susiane* (Ville Royale de Suse 7 = Mémoires de la Délégation archéologique en Iran 53), Nice: Editions Serre, 1987.

PF = Hallock, Richard T. *Persepolis Fortification Tablets* (Oriental Institute Publications 92), Chicago, IL: The University of Chicago Press, 1969. Available in digital format at <https://oi.uchicago.edu/research/publications/oip/persopolis-fortification-tablets>.

PFa = Hallock, Richard T. “Selected Fortification Texts.” *Cahiers de la Délégation Archéologique Française en Iran* 8 (1978): 109–136.

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University of Chicago Press, 1948. Available in digital format at <https://oi.uchicago.edu/research/publications/oip/oip-65-persepolis-treasury-tablets>.

TTM1 = Stolper, Matthew W. *Texts from Tall-i Malyan I. Elamite Administrative Texts (1972-1974)* (Occasional Publications of the Babylonian Fund 6). Philadelphia: Babylonian Fund of the University Museum, 1984.

TZ = Steve, Marie-Joseph. *Tchoga Zanbil (Dur Untash)*, vol. III, *Textes élamites et accadiens de Tchoga Zanbil* (Mémoires de la Délégation Archéologique en Iran 41). Paris: Librairie Orientaliste Paul Geuthner, 1967.

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Achemenet, www.achemenet.com/en/tree/?/textual-sources/texts-by-languages-and-scripts/elamite, last visited 2017, April 17 (with some Persepolis Fortification tablets).

Cuneiform Digital Library Initiative (CDLI), http://cdli.ucla.edu/search/search_results.php?Language=elamite, last visited 2017, April 17 (texts in Elamite in CDLI, including Middle Elamite bricks, Persepolis Fortification tablets, and Malyan EDD tablets).

InscriptiFact, www.inscriptifact.com, last visited 2017, April 17 (photographs of Persepolis Fortification tablets).

Persepolis Fortification Archive Online, Online Cultural Heritage Research Environment (OCHRE), http://ochre.lib.uchicago.edu/PFA_Online, last visited 2017, April 17 (online access to the Persepolis Fortification tablets).

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Iranica et Elamica

IV

Gian Pietro BASELLO

STUDIES ON
ELAMITE &
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CUNEIFORM
CULTURE

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CONTENTS

Foreword.....	5
An Introduction to Elamite Language	7
Lead in Cuneiform Documents from Mesopotamia and Elam.....	49
<i>Non licet stare caelestibus</i> . Salvo De Meis (1930-2016) e l'astronomia culturale	79
«Ho posto qui il mio nome»: tre mattoni con iscrizione elamica del re Untash-Napirisha (XIV sec. a.C.) nella collezione Burri	97