# THE ELAMITE LANGUAGE 

by
ERICA REINER

## Foreword

The manuscript of this grammatical sketch was submitted to the publishers in January, I960.

I wish to express my thanks to them for the privilege of making a few changes and additions in the proof for the purpose of bringing the manuscript up to date. I also had the opportunity to add two sections, one containing a new treatment of certain parts of the phonology which were treated in a different or less complete manner in the grammar itself, and the other a translation of and commentary on the recently discovered Middle Elamite bilingual text.

Chicago, December, Ig66.

## Introduction

## Short History of Elamite Studies

It is well known to the historian and the philologist of the ancient Near East that the trilingual inscriptions of the Achaemenid kings served as the main starting point to the decipherment of the languages written in the cuneiform script. After G. F. Grotefend had identified in ISO2 the language of the "first column" as Old Persian-which he called Zend-and the writing as alphabetic script, and opened the path for the decipherment through comparison with Sanskrit and Avestan, it was soon recognized that the "third column" was in Babylonian, written with a different set of cuneiform characters in a syllabic script; the decipherment of this language steadily progressed from then on, aided substantially by comparison with the related languages of the Semitic family.

It was the "second column" of Darius' inscription that longest resisted the efforts of scholars, although study of it had begun even earlier than that of the Babylonian text. The language, variously called Median, Scythian, Susian, Elamite, etc., was found to be without linguistic kin,
and, in fact, has resisted successful comparison with any other known linguistic family up to the present day ${ }^{1}$ ). However, due to the efforts of the pioneers Westergaard, Hinciss, Rawlinson, Oppert, Norris and others, a first attempt to read and interpret the "second column" was soon made, and the Achaemenid royal inscriptions could be considered deciphered with the publication of F. H. Weissbach's "Die Achämenideninschriften zweiter Art", Leipzig iSgo (later superseded by the same author's "Die Keilinschriften der Achämeniden" [Vorderasiatische Bibliothek III, I9II]). About that time, when the French excavations at Susa, the capital of Elam, turned up a number of texts written in the same language, decipherment and understanding were given fresh impetus, largely due to the ingenuity of that most imaginative and original of scholars, Father Vincent Scheil.

The interest of scholars working on the Elamite texts has as a rule been centered on one or the other of the main periods and text groups. Royal Achaemenid Elamite, i.e., the Elamite of the royal texts written by the Achaemenian Darius and his successors (henceforth abbreviated as $R A E$ ), was the first to claim the attention of scholars, and has had a renewal of interest in recent years since the excavations of the Persian Expedition of the Oriental Institute at Persepolis, under first E. Herzfeld, then Erich Schmidt, yielded not only additional royal inscriptions, but also over two thousand administrative tablets found in the fortification wall (hereafter called Fortification tablets), and in the Treasury (the so-called Treasury tablets) ${ }^{2}$ ). In fact, it is the only period-resp. dialect-of Elamite that has been made the subject of descriptive linguistic analysis ${ }^{3}$ ). The earlier Elamite material (i.e., the texts from Susa, most of which are published in the Mémoires de la Délégation en Perse, especially MDP III, V, and XI) was first interpreted by the Assyriologists Scheil and Weissbach, and attracted the non-Assyriologists Hüsing, Bork and König, whose understanding of Elamite was usually biased by their attempt to establish affiliations with Caucasian languages or with Dravidian. In more recent years, important contributions on detail were made by W. von Brandenstein, and by J. Friedrich and W. F. Hinz (for details see the bibliography), and a succinct

[^0]but excellent and critical analysis of Elamite based on both the Susan and the RAE material was given by René Labat in his Structure de la langue élamite (henceforth referred to as Labat). Repeated collations of the Bisutun inscription by G. G. Cameron in I948 and 1957 and his excellent publication of the Treasury tablets in 1948 spurred new interest in the interpretation of Achaemenid Elamite; here the works of Cameron himself, and several studies pertaining to grammar based on the as yet unpublished Fortification texts by R. T. Hallock have to be mentioned; for details, see again the bibliography.

Although speaking a language related neither to Sumerian nor to Akkadian, the Elamites were under the cultural influence of neighboring Babylonia. They borrowed its writing system and used Akkadian in the redaction of both royal and private documents. Scribes were trained, as in Babylonia, by copying vocabularies and, later on, literary texts, in the Mesopotamian scribal tradition. Periods of closer cultural dependence alternated with periods when linguistic independence follows a surge of political power, bringing to expression a strong and persistent native strain of tradition which manifests itself even under the Akkadian garb.

Before the Mesopotamian writing system was taken over in Elam, there existed in the region a different system of writing, which for a while coexisted with cuneiform script but was subsequently abandoned. This writing system is as yet undeciphered, and the language it represents is also unknown although it is usually called Proto-Elamite. It first appears on clay tablets-of economic nature-which are most probably to be dated to the Jemdet Nasr period (cca. 3000 B.C.), a little after the time when Sumerian writing first appears. Subsequently, in the Old Akkadian period (cca. 2200 B.C.), a more developed form of this writing was used to engrave on stone the earliest inscriptions of the native rulers of Susa. However, simultaneously, inscriptions in Akkadian and using the cuneiform system of writing, appear in Elam; some of these are on one and the same monument, side by side with an inscription in Proto-Elamite (e.g., MDP VI pl. 2 No. I) ${ }^{1}$ ).

With the introduction of the cuneiform system of writing Proto-Elamite disappears, and with a single exception, the so-called "Treaty of NarāmSin" (see below p. 57), no inscription is composed in the native language until the XIII ${ }^{\text {th }}$ century. Until that time, all cuneiform texts from Susa are in the Akkadian language, but in an Akkadian that, in a number of features of script, language, and content, differs from the Mesopotamian

[^1]dialects. This indicates that the scribal tradition, after having been adopted from the Babylonian, went its own way in Elam, whether this was due to a spirit of independence and innovation, or to a subsequent break in communication. The differences manifest themselves in matters of writing: both in the forms of the signs and in their values, as also in material deviations from Mesopotamian practice. For instance contracts from Susa often have the contestation clause not written on the clay, but impressed from a seal that was engraved with this recurrent formula. Another peculiarity: a clay tablet containing dream-omens, also from Susa but from a slightly later period, has on the obverse and reverse an arrangement of columns which is unique in cuneiform literature. As is to be expected, the difference in culture is reflected in the content of these texts, even when typologically they can be matched with Babylonian counterparts. Documents such as sales, bequests, adoptions, etc., contain clauses that are not known from Babylonian texts. This shows that in legal practice and terminology there was a native tradition in Elam ${ }^{1}$ ). From tombs come a few literary texts in Akkadian with prayers of the occupant of the tomb; aside from involing Elamite deities, their content too shows that they represent an expression of Elamite beliefs and not a Babylonian tradition. The few royal inscriptions written in Akkadian also present peculiar features; for an evaluation of these, see below p. 66.

Chapter One

## The Sources

Aside from a few Elamite words-such as personal names, names of professions or officials-in Akkadian documents from Elam, and another small group of words identified as Elamite (i.e., provided with the remark "in Elam") in Akkadian lists, the source material for the knowledge of Elamite is the body of texts written in the Elamite language.

The earliest text in Elamite, as mentioned above, is the "Treaty of Narām-Sin". The interpretation of this text, written on clay in six columns on each side of the tablet, and destroyed in several places, is very difficult; about all that we can recognize with certainty is the invocation to the gods of the Elamite pantheon at the beginning and, in a shorter form, several times in the text; the repeated mention of the name Narām-

[^2]Sin; and a curse-or blessing-formula at the end. The designation "treaty" is based on the one phrase which can be interpreted as "The enemy of Narām-Sin is my enemy, the friend(?) of Narām-Sin is my friend(?)". However, there can be no doubt that the language of this tablet is the same-although perhaps belonging to an earlier stage or to a different dialect-as that of the Elamite texts known to us from later periods.

Although texts of economic nature were composed in Sumerian and Akkadian in Elam in the Ur III and Old Babylonian periods, no Elamite text is attested again until the XIII ${ }^{\text {th }}$ century. An apparent exception consists of two fragmentary inscriptions of Siwepalarhuppak, ruler of Elam approximately contemporaneous with Hammurapi (about 1750), which were signalled by Scheil in RA XXXIII 152, and published by M. Rutten in MDP XXXI 162 and 164 . Although Siwepalarhuppak is the speaker in this text, both the fact that this would be the only text extant from the Old Babylonian period, and the fact that the writing and language is similar to Middle Elamite (henceforth abbr. ME), lead me to suspect that the texts were composed at a later date. The small fragment Lenormant, Choix No. 4I, previously considered to come from the Old Akkadian period, can now likewise be attributed to the XIII ${ }^{\text {th }}$ century, see Reiner, "The Earliest Elamite Inscription ?", JNES XXIV (1965), 337-40.

The first of the Elamite rulers to record his building activities was Humban-umena. From his time on, until the end of the XII ${ }^{\text {th }}$ century (Hutelutuš-Inšušinak), there is a rich inscriptional material of dedications of temples and cultic objects, from Liyan, from Susa, and from ChogaZambil, 40 kms . to the south-east of Susa, where stood a monumental temple-tower, built by Humban-umena's son Untas̆-Napriša ${ }^{1}$ ). The inscriptions are on bricks and range from four to ten lines, recording the name of the king and his titles, the name of the temple or part thereof, or the designation of the cult object, and the name of the god to whom it was dedicated, with occasional mentions of the work done on that construction by the king's predecessors and the purpose of the dedication, and often ending with a short wish for the welfare of the dedicating king

[^3]and his family. The text of any single ling is styled very much in the same way; there are usually only minor spelling variants, and in many instances the only words that change are the name of the temple and the god. Beside these baked bricks, glazed bricks and stone objects bearing the name of the king or of the god have been found in ChogaZambil. Of a stela of Untaš-Napriša only a few fragmentary lines are preserved (see Pézard, RA XIII ingff., Rostovzeff, RA XVII imbff.). The bronze statue of Napir-asu, wife of Untaš-Napriša, is inscribed with an Elamite curse formula. Since the material is only seemingly abundant, but is in fact very scanty-hundreds of bricks bear the same or similar inscriptions-not much information can be gained from it as to the structure and the vocabulary of the language. In fact, in the few instances when the inscriptions deviate from the stereotype, they become extremely difficult to interpret.

Little help is gained for the study of these texts from the Middle Elamite period from Akkadian parallels and bilingual texts. The only Akkadian inscriptions extant are several copies of one brick inscription of Humban-umena (MDP XXXII 13 f., I) and another of his son Untas̆Napriša (ibid. I4ff., II), and the Akkadian curse formulae added by Untaš-Napriša on a statue which he brought home as booty probably from [Tup]liaš and on two statue-fragments (MDP XXVIII 32f.), also on a brick (MDP XXXII p. $7+$ No. XXV/2) where they follow the Elamite inscription. This juxtaposition of Akkadian and Elamite parallels the practice attested in the Old Akkadian period, when an Akkadian inscription was engraved upon two statues inscribed in Proto-Elamite (cf. above p. 56). The first-and only-actual bilingual from the Middle Elamite period is a brick inscription from Choga Zambil, published as TZ 3 I/32 (previous number: TZ 46/47) by M. J. Steve, Iranica Antiqua II (1962), 72 ff.; a translation and rumning glossary of this text is found below, pp. II6 ff.
Under the successors of Untaš-Napriša, there are not even such virtual bilingual texts any more to give help toward the understanding of unilingual Elamite texts. Only one short votive inscription from Šutruk-Nahunte (ca. 1207-IIJI), and Kutir-Nahunte (ca. II70-II66) each are extant in Alkadian, whereas inscriptions in Elamite of these lings are in abundance. Neither the greatest king of this dynasty, ŠilhakInšušinak (ca. II65-II5I), nor his son Hutelutuš-Inšušinak, with whose reign the Elamite empire is eclipsed, have left any Alkkadian inscriptions, Many of the inscriptions of the days of this "empire" are votive inscriptions on bricks similar to the ones discussed above, and are intelligible to
the same extent, interpretation being based on the repetitive context, on deviating clauses that can be singled out on the basis of permutation, and also, to a lesser extent, on Akkadian parallels. Aside from building inscriptions ${ }^{1}$ ), Šutruk-Nahunte left us records of his conquests (cf. below) engraved on stelae or statues he brought back as trophies from Babylonia (for this Elamite custom cf. above p. 59). The stela with the Code of Hammurapi was likewise effaced in part to provide room for such a triumphal inscription, which was then never engraved on the stone. Sutruk-Nahunte also recorded his transporting of the stelas of his predecessors Humban-umena and Untaš-Napriša to Susa. The longest text of Šutruk-Nahunte is a stela (described by Lenormant Choix No. 32 as "une sorte d'obélisque de pierre"), which presents great difficulties because it is on the one hand fragmentary, and on the other hand, the key words in it still defy interpretation. In it the king describes how his predecessors took (conquered?) certain objects(?) which are termed husa litek ${ }^{2}$ ), and which he himself brought to the acropolis of Susa. Here we experience anew the difficulties that arise when no parallel text in another language can give a clue to the general tenor of an Elamite inscription.

His successors, Kutir-Nahunte and Šilhak-Inšušinak, continued the tradition of votive inscriptions, similar in phraseology to the earlier texts. The longest such inscription is one written in nine columns on a bronze beam by Šilhak-Ins̆ušinak, yet it is not different from the usual styling, and only adds a long and elaborate curse-formula. However, we may observe the stylistic tendency of this king to commemorate his building activities and ornamentation of temples and sanctuaries in "collective documents", that is, beside bricks which record the dedication of a building, and objects inscribed with their dedication, one of his inscriptions enumerates all the temples he built throughout the land or to several deities. Sometimes these individual achievements are separated by an invocation to the deity, which introduces each section. A similar stylistic device is used for the one inscription of Šilhak-Inšušinak which is a historical record, wherein he lists the cities he conquered, divided in several groups, perhaps in an annalistic style. The last king of this period

[^4]of Elamite power, Hutelutuš-Inšušinak, keeps the style of the traditional Elamite inscriptions, even shows a preference for archaizing sign-forms, but his language already indicates linguistic changes that will predominate in the later period.

The stylistic innovations of Šilhak-Inšušinak create difficulties for us in understanding his language. His inscriptions deviate more and more from the types we know from the Sumero-Babylonian tradition and which enabled us to draw at least rough parallels in content. Hence his vocabulary and linguistic structure indicate that he was independent, powerful, or bold enough to break away from the "western" tradition and create his own, "national" style. It is therefore the more unfortunate that, after his reign, for about 400 years we have no records written in Elamite. If we had, they would at the same time testify to the admission into literacy of native Elamite types of expressions, and to the evolution of the language which shows a great leap from the Middle period to the next attested Late Elamite period.

In the VII ${ }^{\text {th }}$ century, our records consist no more solely of royal, votive, or historical inscriptions. Along with these, economic and literary documents written in the native language appear. Among the kings, Šutruk-Nahunte II (717-699), Hallušu-Inšušinak (699-693), SilhakInšušinak II (ca. 68I-662) ${ }^{\text {1 }}$ ), Tepti-Humban-Inšušinak (ca. 663-653), and Atta-hamiti-Inšušinak ( $653-648$ ), who reigned in this troubled period until the conquest and destruction of Susa by Assurbanipal (640 B.C.), continued to record their dedications in the traditional manner, although a change in spelling and language is manifest. Other approximately contemporary display texts include the stela of Šutruru, and a recently discovered bronze plaque from Persepolis (Schmidt, Persepolis II 64f.), studied by Cameron, but the exact tenor and purpose of which is yet unknown. The stela (MDP V No. 86) usually considered as an inscription of a priest named Šutruru (see Cameron HEI p. 159) should, according to my interpretation, be considered a stela (or boundary-stone-no indication as to the actual shape of the monument is available) recording a royal grant of Sutruk-Nahunte II to the priest Šutruru; and the districts mentioned in it may. refer to the districts to which either an exemption was granted, or which were supposed to deliver cattle and sheep and other produce to the temple of Inšušinak in which Šutruru was priest. It should then be possible to interpret certain formulas by

[^5]comparison with the formulas of contestation known from Middle- and Neo-Babylonian boundary stones.
Rock inscriptions (usually called Malamir inscriptions from the name of the nearby plain) by a local ruler Hanni found east of Susa show that the culture and literacy known hitherto only from royal inscriptions from Susa and Choga-Zambil had extended outside the immediate range of the capital. In fact, style and vocabulary of Hanni's inscriptions are very close to that of the last known royal documents, particularly those of Hallušu-Inšušinak and Atta-hamiti-Inšušinak. It is customary to look for the origin of Elamite penetration in the region of Malamir by connecting the rock reliefs of Hanni with sixteen Akkadian legal texts thought to originate in that provenience. However, in the introduction to MDP XXII, p. v, Scherl states that the tablets in question have been bought from "un notable persan originaire du pays de Mâlamir". Notwithstanding the fact that the origin of the seller could not have any bearing on the provenience of the tablets themselves, Scheil seems to have let himself be influenced by it and assumed that they represent a different archive, coming from Malamir. As proof, he adduced certain personal names that occur only in these texts. However, in the subsequent volumes of the MDP (XXIII, XXIV, and XXVIII), other legal texts from Susa were published, and in their inventory of personal names the same names as in the so-called Malamir tablets ("tablettes dites de Mâlamir' Scheil l.c.) occur, so Scheil's contention cannot be upheld. Moreover, one of the scribes of the "Malamir tablets", a certain Jae, is also the scribe of a legal text found at Susa (No. 29). The allusion of Jéouier, MDP III p. 134, to Elamite contracts coming from Malamir now in the British Museum, refers to the group of letters that will be discussed below; the attribution of these to the site of Malamir results from a confusion of "Malamir tablets" with "Malamir script and language", as can be seen from the remarks of Weissbach, BA IV 168. Having thus established ${ }^{1}$ ) that the site of Malamir is not known to have yielded cuneiform tablets either in Elamite or in Akkadian, and that the earliest occupancy of this site is not known, I would like to add however that Hanni, whose inscriptions appear on the rock-reliefs, calls himself ruler of Ajapir, and this geographic name is attested in the probably contemporary economic texts from Susa (see presently).

[^6]It is also from the VII ${ }^{\text {th }}$ century that records which have no public character, i.e., are not display or votive inscriptions, make their appearance for the first time. They consist of economic documents, letters, and literary texts (omens).

The economic texts come from Susa; they record deliveries of various commodities to the palace or some other economic center. They are about 300 in number ${ }^{1}$ ). These texts have been assigned to the period immediately preceding the rule of Nebuchadnezzar in Susa ${ }^{2}$ ). An interesting feature of these texts is that some are case tablets-while in Babylonia proper no case tablets exist after the Old Babylonian period-and that at least two of them are sealed with a Babylonian cylinder seal inscribed with a short prayer in Akkadian, a feature typical of the Kassite period.
Probably contemporary with these texts is a group of 25 letters now in the British Museum. Although their provenience is by no means certain, they have been catalogued with the Kouyundjik collection, which would indicate that they were found in Nineveh and thus date before 612 B.C., when Nineveh was destroyed. Since among the economic documents from Susa there is a similar letter (MDP IX No. 88), and another letter of that type has been found in Susa (published by Paper, MDP XXXVI p. 79), their dating in the second half of the VII ${ }^{\text {th }}$ century is very likely, although the provenience indicated by the Catalogue number given to the letters in the British Museum does not necessarily indicate that they actually come from Nineveh-see the reserves of Sayce, Actes du $6^{e}$ Congrès . . p. p. 756. Many of these letters are fragmentary and very difficult to understand. A collation in the British Museum in May 1958 resulted in only a few corrections to the copies of Weissbach (BA IV I7fff.). However, since the syllabary of these texts resembles very closely that of the Treasury and Fortification tablets from Persepolis, a better reading, and, eventually, better understanding of the letters may be achieved in the future.
Presumably from the same period comes the only literary text in Elamite, a tablet with astrological omens, now in the Louvre, published by Scheil, RA XIV 2gff. The reverse of the tablet, badly damaged, may contain omens of a different type. The only other text that could be compared is a small fragment of a tablet which, according to Scheil, has two columns-no economic text is written on two columns in this period -and published in MDP XI No. 300 . Whether this latter is an omen text, another type of literary text, or, as Scheil considers it, a building

[^7]inscription, can as yet not be decided ${ }^{1}$ ). Another fragment that cannot be placed, either chronologically or as to its genre, is a cuneiform inscription on a sherd from Susa ("un fragment de vase susien en terre cuite"), published by Scheil, RA XXIV 43.

In the VI ${ }^{\text {th }}$ century, while Elam was under Babylonian rule, a group of seven texts (MDP XI Nos. 301-307), and probably one more, published in RA XXIV 40, represent Elamite formulations of contracts similar in pattern to those of contemporary Babylonia. One of the tablets has a case with the statement of the subject matter, indicating the persistence of the tradition of the case tablet (cf. above) in that region. Two fragmentary tablets published by Paper, MDP XXXVI p. Sof., Nos. 2 and 3, may belong with the above group. Since the next group of Elamite texts, the Fortification tablets from Persepolis, begin with the year I4 of Darius, the mentioned economic and legal texts from Susa, whose exact dating is uncertain, may well represent the bridge between the Elamite kingdom and the much better documented Achaemenid period.

As this survey shows, the tradition of writing in the native language was unbroken in Elam, both in its periods as national state and through those of foreign domination, even if there are gaps in the preservation of materials. It is therefore not surprising that the Achaemenid kings used in their public documents Elamite as one of the official languages of the kingdom, and that the language-or one of the languages-of the administration continued to be Elamite, in Persepolis under Darius and his successors, as it was in Susa from the VIIth century on ${ }^{2}$ ).

For the royal inscriptions of the Achaemenid kings, a convenient bibliography is given in R. G. Kent, Old Persian, (2nd ed., Revised,

[^8]1953) pp. IO7ff. ${ }^{1}$ ). The first trilingual inscriptions-Old Persian, Elamite, and Akkadian-date from Darius ${ }^{2}$ ). The most important inscription is the Bisutun inscription of Darius, on which one copy of the Elamite version contains 323 lines, the second copy, recently read by G. G. Cameron, only a few lines less. On this latter copy, see the articles of Cameron, $J C S$ V 47 ff . and JCS XIV 59ff. This inscription contains over 3,000 words, while all the other royal inscriptions contain together less than 2,600 words, and are mostly repetitive. Hence the Bisutun inscription is the most important source for Achaemenid Elamite, see Hallock, JNES XVII 256 ff .

The excavations of the Persian Expedition of the Oriental Institute at Persepolis have brought to light several thousand clay tablets representing the accounting of the Achaemenid administration. Of these, the Treasury tablets (II4 in number) have been published by Cameron (PTT [ $\left.=O I P 6_{5}\right]$ and twentyfive additional texts in JNES XVII I72ff., JNES XXIV (I965), 167-92). About 2,000 so-called Fortification tablets -found in the fortification wall-still await integral publication, although several of them have been partially published or quoted in various articles by Cameron and Hallock.

Aside from the two major groups of royal inscriptions and economic documents, only a few seal impressions, enameled ornamental nails and decorative tiles inscribed with a royal name, fragments of a gold plaque with remains of a few lines of inscription, and the Achaemenid inscribed weights contain additional Elamite material. For a complete bibliography of the sources, I refer to my forthcoming corpus of Elamite texts.

Today the Achaemenid trilingual texts are basically still the most easily accessible and understandable and the largest body of sources for the understanding of the Elamite language, as they were over a hundred years ago when the first decipherment was made. They have furnished us the key to the grammar of Elamite and provided much of the known vocabulary. On this basis, the interpretation of unilingual texts has been attempted. In spite of the reservations that we shall present below in detail as to the reliability of the trilingual inscriptions in matters of grammar, it must be said that hardly any word appearing in a unilingual text, which is not attested with its Old Persian or Babylonian equivalent in the Achaemenid texts, can be more than approximated as to its

[^9]meaning, on the basis of guesses inferred from the context. Unfortunately, Elamite words appearing in Akkadian lists (see Frank, MAOG IV 39ff.), with one or two exceptions only, never appear in Elamite contexts. Thus, the Elamite inscriptions of the Middle and of the Late-the Pre-Achaemenid-periods, as well as the Achaemenid texts from the Treasury and Fortifications at Persepolis, will always retain uncertainties. However, there is a possible method, not yet sufficiently applied, which may further the understanding of the Middle Elamite texts. Although there is only one bilingual text from the Middle Elamite period, the Akkadian inscriptions of Humban-umena and Untaš-Napriša mentioned above may be considered virtual bilinguals, in that they probably represent the Akkadian counterpart of the Elamite votive inscriptions. By juxtaposing certain phrases of the Akkadian and Elamite texts respectively, we can gain some clues to the meaning of the Elamite text. This method has been used by Hinz in ArOr XVIII/I-2, 288ff. Another possibility is a comparison of the Elamite inscriptions with similar dedications written by Elamite rulers in Akkadian in earlier periods. If we single out the Akkadian phrases that are not stereotyped in Sumero-Akkadian votive inscriptions, we find a number of topoi that must correspond to Elamite styling. Substituting these unusual Akkadian phrases in similar Elamite contexts, we can arrive at translations of whole sentences that, considered in themselves, would be difficult to understand. The method can and should be applied in a similar fashion to "ungrammatical" constructions in those inscriptions from Elam which are written in Akkadian. Just as the grammar of the Akkadian of the Achaemenid inscriptions shows foreign influence (for the whole question see O. Rössler, Untersuclutngen iiber die akkadische Fassung der Achämenideninschriften, Diss. Berlin 1938), we have to assume that the grammar of the Akkadian of the inscriptions of the Elamite kings is likewise influenced by their native language.

## Evaluation of the Source Material

The informativeness of the source material varies greatly with the historical periods and the type of texts. Leaving aside OE (Old Elamite) which is too scantily attested, we may say that of greatest reliability for grammatical analysis are the ME (Middle Elamite) texts, that is, the texts written at the time of a flourishing period of political independence of Elam. The royal inscriptions of this period are numerous, but owing to their narrow topical range are of very limited morphological usefulness.

The ME economic texts-from the end of the ME period-also have a very limited morphological usefulness, since their verb-inventory is quite poor; these texts are valuable for their rich inventory of names of objects, which, however, are very difficult to identify.

The Achaemenid material can be divided into two groups: unilingual, and bi- or trilingual texts. The unilingual texts-usually referred to as Treasury and Fortification texts-being of economic nature, have therefore the same shortcomings as the earlier economic texts. However, it is to be expected that the eventual publication of the Fortification texts by R. T. Hallock will provide a wealth of material for grammatical investigations, over and above the lexical importance of these documents ${ }^{1}$ ).

The most important source material nevertheless is Royal Achaemenid Elamite (RAE), i.e., the bi- and trilingual royal inscriptions. They are, first, easy to understand on the basis of the OId Persian, and, to a more limited extent, of the Babylonian version. Then they contain a wide variety of grammatical forms and syntactical constructions that are not found in the texts from the earlier periods.

However, an important reservation must be made as to their reliability, As has been pointed out only recently by H. B. Rosén, IE J VII (1957) r3off., they represent a translation language. It is well known that the RAE inscriptions contain many Old Persian loanwords, and even what may be termed "loan-transcriptions", i.e., inflected Old Persian words or groups of words simply transposed into the cuneiform syllabary. It is furthermore possible to show that the syntax, and even the morphology of RAE, often reflects Old Persian constructions. For examples that bear out this character I have to refer to my article in BSLP LV 222 ff ,

In view of these facts, the following grammatical analysis is based on ME texts. These texts cover a period stretching roughly from the XIII ${ }^{\text {th }}$ to the VII ${ }^{\text {th }}$ century. Although there can be no doubt about the fact that a language does not remain unchanged for 600 years, the differences that appear over this period of time can be considered negligible for the purpose of this description, while the differences in grammar between ME and RAE are important enough to warrant a separation of the two dialects.

However, information that can be gained from RAE will be used for the reconstruction of such forms as are not, or not sufficiently, attested in ME, and will be identified as RAE forms in each instance. Also, the changes that can be observed between ME and RAE will be pointed

[^10]out, and the features characteristic of RAE will be treated under separate sub-headings.

I am aware of the shortcomings of this grammatical analysis. Since many ME texts are imperfectly understood, certain forms could not be properly classified. Word-formation of adverbs and various particles has not been investigated for lack of sufficient evidence. Also, I found it inevitable to resort to a normalization of certain endings, whenever the ambiguity of the writing system did not allow to conclude to the presence or absence of a final vowel. I consider this grammar only as a first step towards a structural presentation of the Elamite language which will have to be completed and corrected as new texts come to light and as our understanding of the old texts grows.

## WRITING SYSTEM AND PHONOLOGY

## Chapter Two

## System of Writing

When the cuneiform system of writing was borrowed to write texts in the Elamite language, originally both the sign-forms and the sign-values were taken over. The sign-forms of the oldest text, the "Treaty of Narām-Sin", are those of the Old Akkadian syllabary, used presumably with the same syllabic values as in contemporary Akkad. The further development of cuneiform in Elam seems to parallel the development in Babylonia. In the XIII ${ }^{\text {th }}$ century, from which the next group of Elamite inscriptions dates, monumental inscriptions, i.e., inscriptions engraved in stone or bronze, are written in the monumental script in use in contemporary Babylonia which continues in the tradition of the Old Babylonian sign forms. Inscriptions on bricks partly use the just mentioned monumental script, but partly also a more cursive script which follows its own line of development, parallel to, but different from, the cursive type of cuneiform script used in Babylonia itself for private documents written on clay tablets. This local evolution of the cuneiform syllabary led to more and more simplified and standardized sign forms as well as to changes in syllabic values, which makes it impossible for an Assyriologist untrained in the Elamite syllabary to read Elamite texts with ease ${ }^{1}$ ).

Just as the forms of the signs evolved in a way specific to Elam, so the system of writing itself underwent a change-in the direction of

[^11]simplification-affecting both the syllabic values, and the use of signs for purposes other than phonetic notation. Such signs are determinatives, that is, markers that indicate that the word belongs to a certain class, and logograms, that is word-signs, standing for Sumerian words but used as word-signs in Akkadian. Among the determinatives borrowed from Akkadian are: DINGIR (symbolized as ${ }^{\mathrm{d}}$ ), that precedes names of divinities, GIS, that precedes names of trees and wooden objects, and the vertical wedge (symbolised as $m$ ) that precedes personal names. The latter is used in Elamite also before personal pronouns and words denoting certain classes of humans (see below § 6.I), and in Achaemenid texts is sometimes written in the form of a double horizontal wedge.

Moreover, two new determinatives came into use: a horizontal wedge before place-names, and the sign MES, which is used as a plural marker in Akkadian, served to indicate that the preceding sign or sign-group was a logogram, thus becoming a marker for logograms.

Of the Akkadian logograms, only very few remain in use in Elamite texts, such as the signs for the word for "god", "temple", "woman"; moreover, in the economic texts, words for commodities, such as "flour", "barley", "silver", etc. The Elamite equivalences of these words are not always known. Apart from these, and apart from the use of signs peculiar to Elam to write "king" and "man", a small number of Elamite logograms and pseudo-logograms came into use, which can be identified as such because they are followed by the Elamite marker for logograms, MES. Some of these logograms may be only an abbreviated writing of an Elamite word, such as MU.MEŠ probably stands for murun "earth". The psendo-logograms, such as ha-al MES゙, ul-hi MEŠ, are just Elamite words to be read phonetically, as the occurence of simple ha-al and $u l$-hu in older texts shows; for reasons unknown they were provided with the marker for logograms.

Among the syllabic signs, a selection was made that achieved a simplification in both function and form. The tendency that can be observed is that of elimination of polyphony and homophony. Polyphony was retained only in a few cases, such as the sign TUM having, as in Babylonian, the readings both $t t m$ and $i p$; other signs acquired a specifically Elamite value, e.g., the sign LÁH came to be used with the value nall in writing the name of the god Nahunte, and the sign EL with a value that cannot be read with certainty yet, but which is most probably ram or lam, or both; present evidence bears out only the value $\mathrm{ram}^{1}$ ).

[^12]The homophony of the Babylonian syllabary was considerably reduced. Of the signs that represent phonemically distinct syllables in Babylonian, but due to the different phonemic system were homophonous in Elamite, only some were retained, usually the sign which was simplest to write. For instance, of the signs $g a, k a$, and $q a$ which are still used side by side in Middle Elamite, $q a$, which requires only three strokes with the stylus, is by far the most common, and is the only one that remains in use in the Achaemenid period. In spite of these simplifications, the Elamite syllabary never reached the stage where it completely gave up either homophony or polyphony ${ }^{1}$ ).

Another simplification of the writing system in Elam has led scholars to draw certain conclusions of a phonetic nature. This feature, known from the Achaemenid period, is the so-called "broken writing", which consist of writing $\mathrm{CV}_{1}-\mathrm{V}_{2} \mathrm{C}$, instead of $\mathrm{CV}_{1}-\mathrm{V}_{1} \mathrm{C}^{2}$ ), e.g., -uut-iš, -gi-ut-, $-p a-i p-$, etc. for $-n u-u s^{5}-$, -gi-it-, (or $-g u t-u t-$ ) -pa-ap-. This way of writing has been alternatively considered as an attempt to indicate the quality of the vowel or as a step towards alphabetization.

To my mind, the first explanation has to be rejected, since a comparison between the syllabary in use in the early ME period and the RAE syllabary shows that the stock of signs representing syllables for every vowel plus every consonant was reduced towards the end of ME. A comparative chart of the VC signs will illustrate this:

|  | ME texts |  | RAE texts |  | Loss |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $V+k$ | ak ik | $u k$ | $a k \quad i k$ | $u k$ | $\varnothing$ |
| $V+\mathrm{n}$ | an in | un en | an in | un en | $\emptyset$ |
| $V+r$ | ar ir | $t r$ | ir | ur | $a+C$ |
| $V+t$ | at it | ut | at | ut | $\left.\mathrm{i}+\mathrm{C}^{3}\right)$ |
| $V+m$ | am im | 11 m | ant | um | $\mathrm{i}+\mathrm{C}$ |
| $V+\check{s}$ | ás ${ }_{\text {ss }}$ | uš | $d^{\prime \prime}{ }^{\text {c }}$ is |  | $\mathrm{u}+\mathrm{C}$ |
| $V+s$ | as is | $u s$ | as is |  | $\mathrm{u}+\mathrm{C}$ |
| $V+p$ | $a p$ ip | $u p$ | ap ip |  | $\mathrm{u}+\mathrm{C}$ |
| $V+1$ | al il | ul el |  | ul el | $a+C, i+C$ |

Wherever a sign became obsolete-for which the RAE column shows a blank slot-another VC sign replaced it for writing the syllable. Thus

[^13]$i s$ took over the function of $u s$, $u t$ that of $i t$, etc. This feature is purely graphic and to my mind does not indicate a phonetic difference ${ }^{1}$ ). As to those instances when the "broken writing" is used in spite of the availability of a VC sign beginning with the same vowel as that of the preceding CV sign, (such as -pa-ip- when - $a-a p$ - would be equally possible), I am inclined to consider them analogical.

## Chapter Three

## Phonology

### 3.0. General.

Phonological analysis of Elamite is greatly hampered by the fact that the language is written by means of a syllabary that was not devised for it. Since Sumero-Akkadian cuneiform, which was borrowed by the Elamites, is inadequate even for expressing all phoneme distinctions of Akkadian, it is not astonishing that it should be inadequate to provide reliable information concerning a language for the writing of which it was subsequently borrowed. In the case of analysis of other languages written with this syllabary, comparative linguistics provided an important tool: for Akkadian, comparison with other Semitic languages, for Hittite, comparison with Indo-European. In fact, the analysis of Hittite could advance only from the moment its relation to the Indo-European linguistic family was established; this helped to differentiate between phonologically relevant and merely graphic features. Lack of such comparative basis still hampers the interpretation of Hurrian and Urartian.

For Elamite, we do not have the auxiliary means of comparative linguistics to establish the phonemes of the language. Therefore, the analysis must be based on comparisons of graphic habits alone. While it is easy to determine the meaning of larger units of speech, mainly on the basis of the translations, and even relatively easy to break these down into morphemes, phonological analysis must remain uncertain. A rigorous analysis based on the assumption that distinctions that are not consistently carried out in writing are phonemically irrelevant will isolate a minimal number of phonemes, but in all likelihood not all the phonemes ${ }^{2}$ ).

[^14]
## 3.I List of phonemes

On the basis of the above assumption, Paper, p. 36, \$3.16, extracted the following chart of phonemes for RAE:

|  | $p$  $t$  $k$   <br> $m$  $s$ $s$ $c$  $i$ | $u$ |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  | $n$ | $r$ |  |  |  |  |  |
|  |  |  |  |  |  |  |  | $a$ |

## 3.I.I $|i|$

E. Hamp, Word, XIII (I957) 502, proposed to consider " $y$ " in the above chart as a non-syllabic allophone of $|i|$. See also below $\S 4.6 .2$.

## 3.I. $2|h|$

Analysis of ME requires the addition of another consonant, |h|, which can be isolated from such pairs as hutlaš/hutlahš, lutlat/huttaht, and others (see $\S 3.5$ ). This consonant is written by means of the syllabic signs representing the Akkadian laryngeal fricative $x$ (written $h$ ), but the phonetic character of the Elamite $/ h /$ was no doubt different. Towards the end of the ME period this $/ h /$ had a tendency to be lost, in absolute final, initial, and often also in intervocalic position as is shown by lexical comparisons between ME and RAE: e.g., for initial $|h|$, luussi $>u$ ussi, hiyan $>$ iyan, hunsa $>$ unsa. In RAE the syllabic signs Vh and hV are still used, but they alternate with the corresponding vowel signs ${ }^{1}$ ), a fact which indicates that by RAE /h/ had lost its phonemic character.

### 3.2 Many-to-one correspondence of signs to values

The Elamite writing system uses far more signs than there are different sequences of phonemes (conventionally termed "values") to be established for the Elamite language, due to the fact that this system was based on and borrowed from the Sumero-Akkadian syllabary. In this syllabary, a sct of three signs exists for nearly every stop plus vowel (namely, one each for the voiced, the voiceless, and the emphatic stop) ; a set of four for sibilant plus vowel (namely, one each for the voiced, the voiceless, the emphatic, and the palatal sibilant). In the Elamite system, the signs belonging to the same set are used indiscriminately; and thus three, respectively four, signs correspond to one Elamite value. It can be established on this basis that Elamite has only one set of stops (here symbolized as $p, t, k)$. The distribution of sibilants represented by the

[^15]set of four signs cannot be deduced with such certainty. Paper's analysis, mainly based on ,transcriptions of Old Persian sibilants, isolates from' the set of four only three sibilants, symbolized as $\check{s}, s, \check{c}$.

### 3.3 One-to-many correspondence of signs to values

It is less easy to find out whether the same sign represents more than one value, that is, whether more phonemes than those expressed in the Sumero-Akkadian syllabary existed in Elamite. Such might be the case for vowels other than $i, u, a$, and $e$, and consonants other than $p, t, k$, $b, d, g$, ("emphatic") $t$ and $q, s, s, z$, ("emphatic") $s, m, n, r, l, y$, and $x$. If it had been the case that one sign was used for two syllables which differed in one of their phonemes, this lost information could not be recaptured unless the differentiation was expressed either in Elamite loanwords into other languages and writing systems, or in surviving dialects. In the absence of such additional information, we cannot establish whether Elamite had labial fricatives, or laterals, or rounded front vowels, or the like.

### 3.4 One-to-one correspondence

Since in an ideal writing system there is a one-to-one correspondence between elements of the writing system (graphemes) and those of the language (phonemes, strings of phonemes, morphemes), scholars have been inclined to interpret many-to-one correspondences as one-to-one correspondences, and have assumed for Elamite, e.g., the "sounds" [0], [i], and others. The existence of these "sounds" was deduced from the over-differentiation of the syllabary, to account for the use of signs homophonous in Akkadian ( $u$ and $u$, etc.) or homophonous in Elamite, such as $b a / p a, d u / t u_{4}$, etc.

### 3.4.I [ $\hat{l}]$

As to the controversial problem of the existence of a lateral affricate phoneme $/ \hat{1} /$, Paper, p. $33 \S 3.14 .1$, denies the existence of such a phoneme, which would be based only on the alternation of spellings in the single word Hatamti/Haltamti "Elam" in RAE. The Akkadian transcription of the name of the Elamite king Hutelutuš(-Inšušinak) as Hulteludiš cannot be cited as evidence for the existence of such an affricate, since [î] would not be represented in Akkadian by the sequence -lt- but rather by its inverse -tl-. The two spellings hal-tam-ti and hal-la-tam-ti beside ha-tam-ti in RAE could also only indicate the existence of a cluster -lt-. For the variant spellings, especially for hal-la-tam-ti representing older hal-ha-tam-ti, see now König, Die elamischen Königsinschriften, p. 37 n. 3 .

### 3.4.2 Homophony in the syllabary

However, it is more probable that the alternation of spellings with various homophonous signs is a survival of the syllabary borrowed from Babylonia. The homophonous signs used in ME are far greater in number than those of the RAE syllabary, but in spite of the later simplification (see p. 70) the system of writing did not reach the stage where it completely dispensed with syllabic signs carrying distinctions that were not phonemic in the language.

### 3.5 Consonant Clusters

The cunciform syllabary is inadequate for writing consonant clusters in initial or final position. As in Hittite, such clusters are dissolved by an epenthetic vowel which is purely graphic. A list of examples of writing initial and medial clusters is given by Paper, p. I2 ff., § 2.10, where the purely graphic character of the epenthetic vowel is demonstrated on the basis of transcriptions of Old Persian words on the one hand, and on variations in spelling of RAE words on the other hand. Actually, the cuneiform syllabary does provide means for writing medial clusters of two consonants, and only for clusters of three consonants is the mentioned graphic device necessary; the use of the epenthetic vowel, even when the cluster could be written without resorting to it, may stem from the frequency of the instances in which this device was required.

Since nothing indicates that Elamite did not have any final clusters, we may assume that the same device applies in this case too, and that the final vowel of a syllable combination $\mathrm{VC}_{1}-\mathrm{C}_{2} \mathrm{~V}$ is also purely graphic, and that the end of the word thus written has to be phonemicized $/ \mathrm{VC}_{1} \mathrm{C}_{2} /$. Evidence for this are the different ways of writing the second person suffix of verbs, depending on whether the stem ends in a vowel or a consonant, such as |huttat| written /ut-ut-ta-at, but |hapt/ and |tent| written $h a-a p-t i$ and $t e-e n-t i$.

Another example of final clusters is at the same time a proof for the consonantal character of ME $/ h /$. The personal suffix of the third person plural /hš/ is written, when this morpheme is followed by |ta|, both $k u-s \check{s}-i l_{l-s ̌ i}-t a$ and $k u-s ̌ i-i l_{l-i s ̌-t a}$ with which can be compared the writing ta-al-lu-uhl-ši-ta-ma, also ku-lu-uht-šu ak ku-ši-ihl-ši, which indicates that the endings have to be phonemicized $\mid-l\langle s|$ and $|-h s ̌ t a|$.

There is of course no way of proving in any particular case whether the final vowel was phonemic or graphic only. And even if we assume that after a consonant cluster the vowel was graphic, we have no right to disregard in the phonology the final vowel when it follows one consonant
only. However, alternations between the signs ri/ra, mi/na, tiltelta, ki/ka, $p e ́ / p i / p a$, after consonant clusters and single consonants make it seem likely that the morpheme is represented by the consonant only, and the last vowel is a graphic device to write the consonant cluster or a writing habit resulting from forms where this writing is necessary.

I have taken the short cut of setting up such morphemes in their consonantal form only, provisionally considering the vocalic ending as purely graphic ${ }^{1}$ ). It is, however, not excluded that the difference between a vowel $|a|$ and $|i|$ in many cases is a morphemic difference. Since this difference cannot be discerned in the present state of our studies ${ }^{2}$ ), I have neglected it, except in cases where a consistent writing with the same syllable-as in the case of the endings -ni and -ta-indicates that the vowel was pronounced.

### 3.6 Geminated Consonants

Although many intervocalic consonants are written double (type VC-CV), alternance of such writings with simple consonants (V-CV) indicates that consonant gemination has no phonemic significance in Elamite (see Paper, $§ 2.7$ ), i.e., there is no contrast in the language between double, or long, and simple, or short, consonants. Certain words are, however, consistently written with geminated consonants, e.g., the verb most frequent in Elamite, hutta "to do" is written hu-ut-ta- and never lu-ta- ${ }^{3}$ ). This, and other similar cases, may be orthographic conventions, but it is not excluded that such consistent spellings are an attempt to indicate a phonetic feature or phonemic distinction, just as Hittite and Hurrian use double writing to distinguish between voiced and voiceless stops (Sturtevant, A Comparative Grammar of the Hittite Language, I95ㄹ, New Haven, Yale University Press, p. 26).

## MORPHOLOGY

Chapter Four
Form Classes; Inflection for Person and Gender

## 4. 0 General

There are three morphological classes in Elamite: verbs, nominals ${ }^{4}$ ), and indeclinables. This division is based on the class morphemes that

[^16]occur or not with each of these three classes; moreover, this classification based on strictly morphological criteria coincides with a semantic and functional classification as well.

## 4.I Personal suffixes

Two sets of suffixes occur in the language. One set is customarily called personal suffixes. There are six personal suffixes, for each of the three persons (first, second and third) singular and plural respectively. They are:

| sg. \|lil | I pl. \|hut |
| :---: | :---: |
| 2 sg . lt | 2 pl . $\mid$ hit |
| 3 sg. \|s/ | 3 pl . $\mid h \stackrel{s}{ }{ }^{\text {c }}$ |

The last three may be morphophonemically analyzed as:

$$
\begin{aligned}
& h+h \\
& h+t \\
& h+s
\end{aligned}
$$

These personal suffixes classify the morphemes with which they occur as verbs. Morphemes followed by a personal suffix will be called verbally inflected.

## 4.I.I RAE personal suffixes

Due to the loss of $|h|$ in RAE, the RAE personal suffixes take the following form:

| I sg. \|0| | I pl. $\|u\|$ |
| :---: | :---: |
| 2 sg. \|t| | $2 \mathrm{pl} .\|t\|$ |
| 3 sg . $\mid \stackrel{s}{\text { / }}$ | $3 \mathrm{pl} . \mid s{ }^{\text {a }}$ / |

Consequently, instead of the six formally differentiated suffixes of ME, there remain only four $|\sigma, t, \check{s}, u|$, and the second and third persons coincide in the singular and the plural. It so happens that no second person form of the verbal inflection is attested in RAE; our paradigm assumes a $|t|$ morpheme for the second person by analogy with the third person, thus, if ME $\mid s ̌ /$ and $/ h s ̌ /$ both are represented by $/ \bar{s} /$ in RAE, ME $|t|$ and $|h t|$ both are expected to be represented by $|t|$ in RAE.

### 4.1. 2 Verbal inflection

The following comparative table will illustrate the verbal inflection:

|  | ME | RAE |  | ME | RAE |
| :---: | :---: | :---: | :---: | :---: | :---: |
| I sg. | luttah | utta. | I pl. | Inttalut | uttan |
| 2 sg . | huttat | * uttat | 2 pl . | huttaht | *uttat |
| 3 sg . | huttaš | ultaš | 3 pl . | huttahš | uttaš |

### 4.2 Gender suffixes

The second set of suffixes identifies the word which it accompanies as the speaker, or the person addressed, or the person or thing about whom or which something is said. The last mentioned, the so-called "third person", is differentiated according to whether it is animate singular, animate plural, or non-animate. This form-class is difficult to label, since it comprises the category of gender (animate versus nonanimate), number (animate singular versus animate plural), and person (speaker versus person addressed versus "third person"), where the two first mentioned categories are in binary opposition, but the last in the relation of a triangle. Mainly to avoid confusion with the category of person that belongs to the class of verbs, this second form-class will here be called gender; this name can also be justified by reference to the languages which have several genders that control concord, such as many African languages. Elamite genders also control concord, see below § 8.2.2.

The following gender suffixes occur:
locutive ${ }^{1}$ ) (speaker or "first person") $\mid k /$
allocutive (person addressed or "second person") $|t|$
delocutive (person or thing spoken about) $\begin{cases}\text { animate sg. } & |r| \\ \text { animate pl. } & |p| \\ \text { non-animate } & |O: m e|\end{cases}$
The two allomorphs of the non-animate gender suffix, $/ O /$ and $/ m e /$, occur in the following distribution: /me/ occurs ( I ) in possessive constructions (see below § 8.3) and (2) if the lexical meaning of the word refers to an animate being; e.g., swnki- "king", but sunki-me "kingship"; for further references see below $\S 5.2 .6 .2$. In other positions the allomorph /O/ occurs.

The gender suffixes classify the morphemes with which they occur as nominals. Nominals followed by a gender suffix will be called nominally inflected.
4.2.I Example of nominal inflection

| locutive allocutive |  | sunki-k | "I (the )king" (not attested) |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | ( animate sg. | sunki-r | "he (the) king" |
| delocutive | animate pl . | sunki-p | "they (the) kings" |
|  | (non-animate | sunki-me | "kingship, kingdom" |
|  |  |  | (suffix /me/) |

[^17]| murun | "earth" |
| :--- | :--- |
| sijan | "temple" |
| kuk | "protection" |
| etc. | (suffix $/ O /$ ) |

### 4.3 Indeclinables

A morpheme which occurs with neither set of suffixes will be called uninflected, and classed as indeclinable.

### 4.4 Bases

A morpheme which occurs with either the set of personal suffixes or the set of gender suffixes is called a base. Two types of bases can be distinguished: bases which do not occur with personal suffixes, and bases which do occur with them. The first type may be called nominal base; the second may be called verb-base, since this class will exclude all morphemes which occur with the set of gender suffixes only.

### 4.4.I Nominal derivation

The addition of the suffix $/ n /$ or $/ k /$ to a verb-base changes it into a nominal base, since personal suffixes do not occur after the suffixes $|n|$ or $|k|$. These suffixes may thus be called nominal derivation morphemes. For details and examples see below $\$ \$$ 5.I.I and 5.I.2.

### 4.5 Verb-base

The verb-base may be simple, reduplicated, or compound. All these types may be enlarged, see below $\S 4.5 .2$.
4.5.I Simple verb-base

The most frequent forms of the simple verb-base are CVCV (e.g., tali-), CVCCV (e.g., melka-), also, though more rarely, CV (li-, ta-) or VCV (uri-), thus, in the most frequent forms the verb-base always ends in a vowel. A phonetic explanation for RAE exceptions to this feature has been advanced by Hallock, $J$ AOS LXXVI (I956) 44 f. In ME, verb-bases that end in a consonant are ten- and hap-, both attested only in the second person ( $/ t e n t /$ and /hapt/). An alternate analysis is given by Paper, p. 38, §5.I; the forms with vocalic endings are treated as verb-base and stemvowel; such an analysis creates, however, a separate morpheme, the so-called "stem-vowel", to which no specific function or meaning can be assigned (see E. Hamp, Word XIII [I957] 502ff.).

### 4.5.I.I Reduplicated verb-base

The verb-base may be modified by reduplication, through which a base $\mathrm{C}_{1} \mathrm{VC}_{2} \mathrm{~V}$ becomes $\mathrm{C}_{1} \mathrm{VC}_{1} \mathrm{C}_{2} \mathrm{~V}$, e.g., peli- > pepli-, hapu-> hahpu-, etc. These bases do not differ structurally from bases of the form CVCCV, e.g., halpi-, tenke-, or titki- and others; the last cited, however, may be a reduplicated base, although no base *tiki- is attested. Simple and reduplicated bases occur side by side; there is no sufficient evidence to state their contrast, if any.

### 4.5.I. 2 Compound verb-base

The base may also be compound, e.g., mur + ta-, šal + hupa-, which seem to be composed of a nominal and a verbal base, and others, like $s u k k a+t a-/ s u s k a+t a$ - which are composed of two verb-bases.

### 4.5.2 Enlarged verb-base

Any base, whether simple, reduplicated, or compound, may be enlarged. Enlarged bases are of the following forms:

```
verb-base + ma
verb-base +r + ma
verb-base + nu
```

The name "enlarged base" is used in order to avoid labeling the elements /ma/, |rma|, and $/ m u \mid$ "aspect" or with some other semantic term, since the available evidence does not allow us to assign a meaningclass or function to these elements, For a discussion of the proposed meaning of the element $/ \mathrm{ma} /$ see Hallock, JNES XVIII (1959) IS.
4.5.2.I Base enlarged with $-m a$ and $-r+m a$

Not all enlarged bases are attested with all personal suffixes. Of the three types of enlarged bases, only verb-base $+m a$ is attested in all or most verbally inflected forms; verb-base $+r+m a$ is attested only in the verbally inflected forms pepsi $+r+m a-l l$, saliti $+r+m a-l_{l}$ (beside salti $i+m a-h$ ), and $k i t i+r+m a-h$, all from ME; in addition, from the inflected nominal derivatives (see below 5.0) zukki $+r+m a$ $-n(i)$ and $m i s ̌ i+r+m a-n(a)$ (also $m i s ̌ i+r+m a-k)$, the existence of two more such enlarged bases can be deduced.

### 4.5.2.2 Base enlarged with -nut

A base enlarged with $/ m u /$ is attested in only one inflected form: $k i t i+n u-h$; however, this morpheme can be extracted from the nominal derivatives turu $+n u+n$-(ME turu $+n u-n-k)$ and $u t t i+$ $n u-n-(\mathrm{RAE} u t t i+n u-n-p)$.


#### Abstract

From the verb-base tiri- "speak", there is an RAE form /tirimanun/, attested in two inscriptions in the same context, and corresponding to an Old Persian first person plural. This was interpreted by Halmock, JNES XVIII 18, as $t$. pl. of "Conjugation IIIm", i.e., verb-base tiri- $+m a+$ 1. pl. sufiix -nun. The only other attestations of a suffix -nun are the 1 . pl. forms written hu-ut-fi$n u-u n-h u-b a$ and $h u-u t-t i-n u-u n-1 i-b a$. The form, phonemicized as /uttinunupa/, was termed "purposive" by Paper, p. $57, \S 5.8$, but analysed as a 1 . pl. with the personal ending -nun by Hallock, 1. c. p. 16. 1 n my analysis, the form is /uttinunpl, i.e., $u t t i+n u-n-p$ (see below 5 5.1.3), and so there is no need to posit a 1. pl. suffix -nun. The form tirimanun would rather be a base enlarged with both the elements $m a$ and $n u$, with the derivational suffix $-n$, and would be reconstructed as *tirimanunp, a plural belonging to the nominal class. For the omission of the gender suffix in certain RAE forms, see below $\$ 8.5$. If this analysis is correct, we would have to add to the types of enlarged bases the type tiri $+m a+n u-$, i.e., the bases of the form verb-base $+m a+n u-$.


## 4. 6 Clitics

Four endings occur after either a personal suffix or a nominal derivation suffix; these may be subsumed under the general term "clitics". The following clitics may occur in this position:

$$
\begin{aligned}
& |l i: n i: n a| \\
& |a| \\
& |t a| \\
& |u t|
\end{aligned}
$$

The name "modal suffixes" sometimes given to this class is only justifiable for the morpheme $/ l i: n i: n a /$ which can be identified in ME (through parallels from Akkadian) with certainty as the precative morpheme.

### 4.6.I $|m i|$

The precative suffix has the forms $n i, n a$, and $l i$, that occur in free variation. In OE, the only occurring form is $|l i|$, in ME $|n i|,|n a|$ and $|l i|$ are attested as precative endings, occurring with the same stem and inflected forms, and in RAE only / $u i /$ occurs, e.g., OE hura-k-li, kuru-k-li, haša-k-li (all uncertain), ME hi-h-li and hi-h-na beside more frequent hi-h-ni, RAE halpi-š-ni, etc.

Not to be confused with the precative suffix /na/ is the ending /na/ attested in ME, e.g. in the form miširmana, which has to be analysed as miši-r-ma-n-a, i.e., nominal derivative $|n|+$ "connective" $|a|$, for which see below.

### 4.6.2 |a|

The ending |a| was convincingly analyzed for RAE by Hallock, JNES I8 5 f ., as a "connective" which occurs when the verb is not in absolute final, but another verb or another clause follows. This analysis and interpretation is equally valid for ME. In this connection the ending |ya|, previously considered a variant of the first person suffix, may be
reanalyzed. This ending occurs in RAE after a base ending in $-i$; it is also sporadically attested in ME in the same position, but there |ya| alternates with /ha|, as in, e.g., pepšiya beside pepšiha. This "first person suffix" can be analyzed as the first person singular suffix $|h|+$ connective $|a|$. When towards the end of the ME period final and intervocalic $|h|$ was lost (see above § 3.I.2), the first person singular of a verb-base ending in $-i$ with the connective $|a|$ became -ia, thus pepšilha $>$ pepšia. This ending /ia/ was written $i$ - $y a$, possibly to reflect a pronunciation with a glide ${ }^{1}$ ). The few exceptions in RAE when $-y a$ occurs at the end of a paragraph-thus when no connective is expected-may be considered analogical forms based on the much more frequent occurrence of the ending $-y a$ after bases ending in $-i$. If the explanation of an analogical transfer is rejected, this may affect the interpretation of the suffix $|a|$ as connective, but not the interpretation of $|y a|$ as an allomorph of $|a|$ after $|i|$.

### 4.6.3 |ta|

The ending |ta/ has variously been interpreted as a pluperfect (Hinz, ArOr XVIII/T-2, 284), as a nominal suffix $-t$ followed by the enclitic determinative -a (Labat p. 38, § 3I), as a relative (Paper, p. 49, § 5.4.2), and as final, i.e., occurring when the verb "expresses a complete and final action" (Hallock, JNES XVIII 6f.). Whether any of these interpretations is adequate cannot be said as yet. Against the interpretation as a relative see Hinz, loc. cit., Hallock, loc. cit., and below § 7.2.
4.6.4 |ut|

The assignment of the RAE' ending $|u t|$ to the clitics is uncertain. It has been isolated from its occurrences (a) after the first plural personal suffix $|h u|>$ RAE $|u|$, i.e., from the ending -hut; (b) after the "locutive" gender suffix $|k|$, i.e., -kut, and (c) after the animate plural gender suffix $|p|$, i.e., -put. As will be noted, only in the occurrence sub (a) does it occur in the same position as the other clitics. However, unless we regard $|u t|$ as a separate morpheme, the forms put and kut cited sub (b) and (c) must be interpreted as another set of personal suffixes, namely another first plural /hut| -so Hallock; in our phonemicization /ut/from $u+u t$ -as was done by Hallock, JNES XVIII 2f. He assigned /hut/ as "I. pl." ending to his "Conjugation I" and $|k i t|$ and $/ p u t /$ as respectively "I. sg." and "I. pl." endings to his "Conjugation II". Note, however, the ending $u t$ after nominal first persons and plurals in huttu-k-ut, mitu-

[^18]$k-u t$, hupa-k-ut, lilu-k-ut and in šalu-p-ut, sunki-p-ut, and after phrases, in sunki + appini-k-ui (all RAE). The meaning of this ending is difficult to see; possibly it has an emphatic function.

## 4.7 "Moods"

Among the above clitics, only $\mid \mathrm{mi} /$. as mentioned above, can be called modal. Of the two categories usually called "moods" which are not covered by the morpheme analysis discussed above, the prohibitive will be discussed under $\S 7$.I.I since it is formed with the prohibitive particle ani followed by a nominally inflected form; only the imperative mood need be taken up here.

### 4.7.I ME Imperative

There has to be made a differentiation between ME and RAE. As already intimated by Labat, p. 36, $\S 26$, the category of the imperative does not obtain in ME. Forms functioning as imperatives are morphologically not different from the 2 . sg. and pl. respectively. They also may, but need not, be preceded by the personal pronoun, as any other verbally inflected form. There is, so to speak, no difference in ME between "you do" and "(you) do!" Moreover, in similar contexts, the precative form (i.e., and person $+n i$ ) alternates with the simple and person form.

### 4.7.2. RAE Imperative

The situation is different in RAE. Old Persian imperatives, and in one case a Babylonian imperative, are translated by mite (var. mita) for the singular, and mite-š, hutta-š, halpi-š, hapi-š, nuški-š and turu-š, the latter group coinciding with 3rd person forms, for both singular and plural. For a discussion, see Paper, p. 55f., § 5.7. Beyond this simple statement of fact, no interpretation can be advanced. If one may be allowed to speculate, it could be alleged that in the attempt to render the Old Persian forms, the missing category of the imperative was approximated by either the verb-base itself (formally also the 1 . sg.), or by the 3rd person form, in this period identical for both singular and plural.

## Chapter Five

## Nominals

### 5.0 General

Morphemes which do not occur with the set of personal suffixes, but with the set of gender suffixes only, constitute the class of nominals. They may be divided into two sub-classes.


#### Abstract

Due to the nature of the corpus, it happens that second person forms, both in the verbal and in the nominal inflection, are very scantily attested. In the verbal inflection, second person forms oecur only in contexts where they can be interpreted indifferently as imperatives or second person finite forms, see above $\S_{4.7 .1}$. In the nominal inflection, the gender suffix $-t$ of the second person, i.c., the allocutive, is attested only with participles, see below $\S 5$.1.3.1 and $\S$ 5.1.3.2. The forms of address to deities that occur, in ME texts, after the interjection $c$ are the only nominals that might be expected to take the allocutive ending $-t$, if this interjection be interpreted, as has been done, as a vocative exclamation, and translated "oh". The ending of these words is, however, $-r$, i.e., that of the delocutive animate singular. This fact has led J. Friedrich, Or. NS XII p. 30, to assume that $-r$ is the suffix of both the second and third person. While it is possible to state, with Friedrici, that nominals, with the exception of participles, have the same gender suffix, namely $-r$, in both the allocutive and the delocutive animate singular, I prefer to account for this use of -r by assuming the syntactical rule that after the interjection $c$ only delocutive forms are used; in doing so, we leave $-* t$ corresponding to the participial inflectional endings $-n-t$ and $-k-t$ in the allocutive, just as $-r$ corresponds to $-n-r$ and $-k-r$ in the delocutive, and preserve a neat parallelism throughout the nominal inflection.


### 5.0.I Derived nominals

The first sub-class comprises the nominals that are derived with the morphemes $/ n /$ or $/ k /$ from verb-bases (see above $\S 4.4 . \mathrm{I})$; they may be given the name active participles (form: verb-base $+n$ ), and passive participles (form: verb-base $+k$ ).

### 5.0.2 Other nominals

To enumerate the morphemes of the second subclass would amount to listing the greater part of the lexicon. The following subdivision attempts to group them by a labeling according to meaning only in order to facilitate a description. A further differentiation in this subclass may also be made on the basis of whether they are free forms or bound forms; however, this distinction will not be the primary one in the following because our evidence, owing to accidents of attestation, may not be conclusive on this point. The following groups can be identified:
I. The indefinite morpheme $a k k a$;
2. The negative morpheme $i n$ - (bound form);
3. the numeral $k i$ "one";
4. The quotation morpheme ma-: man- (bound form);
5. In RAE only, the demonstrative $/ u p i /$;
6. All other words that are neither verb-bases, nor indeclinables, nor included in the above enumeration, and which, for convenience sake, will be called nouns. Note that in morphology no distinction can be drawn between nouns and adjectives.

## 5.I.I Active Participles

Active participles are formed by the addition of the morpheme $|n|$ to any verb-base. Example: talu-nt-"writing", hali-n- "toiling", turu-nu-n.

### 5.1.2 Passive Participles

Passive participles are formed by the addition of the morpheme $/ k /$ to any verb-base. Example: Iutta-k- "done", turu-k- "said", Iutla-k"messenger" (lit. "sent"), miši-r-ma-k "ruined(?)".

### 5.1.3. Inflection of participles

Since the inflected forms of the active and passive participles have been, in previous studies, incorporated into the verbal paradigm as inflected verbal forms, I shall anticipate here briefly my treatment of nominal constructions ( $\$ 7 . \mathrm{Iff}$.) to single out these inflected forms that lend themselves to an interpretation as finite verbs, and to point out the difference between this form-class and the verb-class.

It is the great merit of R. T. Hallock to have extricated the inflected forms of the participles from the baffling looking paradigms of RAE, by assigning them to two supplementary "conjugations" (II and III). It was, however, Labat, pp. 37 ff ., $\S \S 3 \mathrm{I}$ and 33 , who first recognized the nominal character of these "conjugations".

On a number of points in detail, 1 take exception to the inflected forms that appear in Hallock's paradigms of conjugations II and III. They are: Conjugation II r. sg. ending -kit (example: sinnu$k i t$ ) I take as šinnuk $+k+u t$, see above $\S 4.6 .4$; ibid., for 3 . pl. and r . pl. only one form is needed, the form should be huttak-p; the form quoted by Hallock, sinnup, is a nominal inflected for the plural, i.e., šinnu-p, parallel to such RAE forms as salu-p, tahu-p, hutti-p, etc., and to ME kilu-p, meni-p, etc. The 3 . sg. form huttak is actually the non-animate form, although in RAE it is increasingly used in replacement of the animate singular. In Conjugation III, i. pl, should be deleted: the form huttinun there quoted is actually huttinunp, i.e., hutti-nu-n-p, and not different from the "3. pl." turnampi, i.e., turna-n-p; the form tirimanun I interpret as a mistake for tirimanunp, i.e., tiri-ma-nu-n-p, a form corresponding to hutti-nu-n-p, but from the enlarged base with -ma(see above §...5.2.2). The Conjugation 11 and person form is correctly cited, but incorrectly analyzed as katu-kt instead of katulk-t; in the one occurrence where the base is not a passive participle (XPh 40), the parallelism with halpi-nt in the same sentence-as katu-k-r is parallel to halpi-k-r in the next sentence-shows that the correct form should have been katu-nt.

## 5.I.3.I Inflection of the active participle

Inflected forms of the active participle are (only attested forms are cited) :
locutive
allocutive
delocutive $\left\{\begin{array}{l}\text { animate singular } \\ \text { animate plural } \\ \text { non-animate }\end{array}\right.$

Base Enlarged Base
huttan-k šilha-ma-n-k (Fort. šeramanka)
huttan- $t$ (not attested)
huttan-r lutta-ma-n-r
huttan-p tiri-ma-n-p
huttan talli-ma-n

## 5.I.3.2 Inflection of the passive participle

Inflected forms of the passive participle are (only attested forms are cited) :

| locutive |  | Base | Enlarged Base |
| :---: | :---: | :---: | :---: |
|  |  | šinnik (<*šinnik-k) | (not attested) |
| allocutive |  | katuk-t | (not attested) |
|  | ( animate singular | katuk-r | (not attested) |
| delocutive | animate plural | katuk-p | (not attested) |
|  | ( non-animate | huttak | siya-ma-k |

## 5.I.3.3 Paradigms

Compare the paradigms set up by Hallock as "Conjugation II" (inflected passive participle) and "Conjugation III" (inflected active participle). In the following, Hallock's paradigms from JNES XVIII i are given after re-ordering the persons to facilitate comparison with the above two tables of inflected forms, and his "Conjugation I" (for which compare above § 4.I. 2 ) adduced to exemplify his system.

Conjugation I
I. sg. hutta
2. $\overline{\text { luttaš }}$
I. pl. huttaluut

Conjugation II
I. sg. šinnukit
2. sg. katukta
3. sg. huttak
I. pl. -
3. pl. šinnup

Conjugation III
nanki
huttanti
huttanra
Inttinun
turnampi

It is easy to see how the inflected forms of the participles, taken as a paradigm, resemble the verbal paradigm. The basic difference lies, however, in the categories according to which the forms inflect. The participles inflect for the form-classes here called gender, whereas the verb inflects for person; there are five genders whereas there are six persons. The absence of the "second person plural" in the inflection of the participles ("Conjugation II and III" above) could not provide the clue to this difference, since in RAE this person is missing from the verbal conjugation, along with the second person singular. On the other hand, the distinction of a "first person plural" and a "third person plural" in "Conjugation III" results from, in one instance, wrong analysis, in the other, from a probable scribal mistake (see above § 5.I.3).

### 5.2 Nominals of the second sub-class

The nominals belonging to the second sub-class will be taken up here by the groups distinguished in $\S$ 5.0.2. Their inflection will be illustrated in the subsequent paragraphs and in the discussion of concord, sub §§ 8.2.2, 8.3, and 8.4.

### 5.2.1 Indefinite

Attestations are restricted to delocutive animate singular and animate plural, viz. akka-r and akka-p "any". Example: sunki-p urpu-p akka-r "kings olds any-he", i.e. "any of the old kings"; RAE akka-r "anyone" (see Paper p. 99, § 7.2.4.1) ; akka- $p$ is attested in ME only once, in an obscure context. The lack of the two other genders (locutive and allocutive) is probably due to the definition of the indefinite itself, since the speaker and the person addressed are never indefinite. The "pronouns" usually grouped with the indefinite $a k k a$ - and called relative pronouns, i.e., $a k k a$ and $a p p a$, are in reality interrogatives and belong to the class of indeclinables (see below $\S 6.2$ sub d and $\S 7.2$ ).

### 5.2.I.I RAE akka

In RAE, the originally indeclinable interrogative akka forms the plural $a k k a-p$ when "who" functions as a relative (see $\S 7,2$ ). Since animate singular is $a k k a$ and not $a k k a-r$ in RAE, the interrogatives must not be taken as inflected and belonging to the class of nominals in RAE.

### 5.2.2 Negative

The base of the negative is in-. It is only attested in the inflected forms ink "I not", $i n r$ "he not", inp "they not", and imme (<in-me). This last form, imme, also inni, which according to the other nominal patterns should refer only to non-animate, is used already in ME for any of the other inflected forms. In RAE the form $i n n i$ is generalized for all genders.

### 5.2.3 The numeral $k i$

The only numeral that is written syllabically is the numeral "one". Its form is $k i$ when it refers to non-animate, e.g., pel-ki-ma "in one year", $k i-r$ when it refers to animate singular, e.g., ruh ki-r "one man". Other inflected forms do not occur. Of course, by definition, animate plural can not occur with this numeral. For the use of the numeral "one" as indefinite article as calque from Old Persian, see BSLP LV 225.

### 5.2.4 Quotational morphemes ma-: man-

Quotational words are used at the end of citations from direct speech; they indicate that the preceding is a direct quotation, even if the quotation is not introduced by a verbum dicendi. Two such morphemes are attested: ma- and man-, but most probably they are allomorphs of the same morpheme. Attested are forms inflected for the locutive: mank, for the allocutive: mant, for the delocutive animate singular: manr and mar, and the animate plural: manp and map (see below §8.4).

### 5.2.5 The RAE Demonstrative $/ u p i /$

This demonstrative, meaning "that" ("there-deixis", see Paper, $\S \S 7.2 .4 .7,7.2 .4 .8,7.2 .4 .9$ ) is widely used in RAE. In ME, only the writing $l_{u t-u h-b e ~ o c c u r s, ~ i n ~ t w o ~ p a s s a g e s ~ i n ~ t h e ~ l a t e r ~ M E ~ t e x t ~ f r o m ~}^{\text {m }}$ Malamir (see above p. 62), and in one of the contexts this form is replaced in the same text by lutull. Elsewhere in ME, only the form $h u$ is attested, but very rarely, probably with a demonstrative meaning. It may be assumed that a ME demonstrative |hul| or |huh/ was replaced in later periods by an enlarged stem $|h u p i|>|u p i|$, when the loss of $|h|$ made this demonstrative indistinguishable from, e.g., the first person pronoun $/ u /$.

The RAE inflection of this demonstrative is /upir/ for animate singular, $|u p i p|$ for animate plural, and $/ u p i \mid$ for non-animate.

### 5.2.6 Nouns

Nouns can be divided into primary nouns and derived nouns.

### 5.2.6.I Primary nouns

Primary nouns have no explicit characteristics. It is the lack of such characteristics that identifies them as primary nouns. They include, besides native Elamite words, loan words from Akkadian, OId Persian, and possibly from other languages.
5.2.6.2 "Nominal derivation"

A noun which by its lexical meaning denotes an animate being, upon taking the non-animate gender suffix /me/ (see §4.2)-instead of one of the gender suffixes that indicate animate gender, as the suffix of the locutive, allocutive or delocutive animate singular or plural-passes into the class of non-animates, which usually results in an abstract meaning. Thus sunki- "king" but sunki-me "kingdom, kingship", šatin"priest" but šatin-me "priesthood", lipa- "slave" but lipa-me (RAE) "servitude"; for other words that take the ending /mc/ the base word is either not attested or their meaning is uncertain. Such words are sit-me (cf. sit-tak-me), tak-me (also takki-me) "life", lika-me, šut-me, šat-me, kutri-me, sammi-me (uncertain), mani-me (beside a verb-base mani- and a plural mani-p). Some loanwords take this ending, e.g., tuppi-me "tablet, inscription" from Babylonian tuppi "tablet", beside endingless tuppi or tipi. This suffix has been characterized as the "abstractive nominal derivational suffix" by PAPER, §6.10.I, and its lexical function may be in accordance with this term. However, in terms of our morphological
analysis, there is no reason to separate this ending /me/ from the nonanimate gender suffix. For examples of this ending in context, see §§ 8.2.2.2 and 8.3.

### 5.2.6.3 "Case system"

Contrary to previous grammatical descriptions, Elamite has no case system, except for personal pronouns (see § 6.I.I). Postpositions expressing direction can be added to any inflected form to express relations that other languages express by means of a case system or prepositions. These constructions will be discussed in §§ 8.I and ff.

## Chapter Six

## Indeclinables

### 6.0 General

To this class belong
a) personal names, personal pronouns, and kinship terms;
b) various words that have a grammatical function in the sentence.

### 6.1 Personal names, personal pronouns, and kinship terms

The indeclinables mentioned above under a) can also be defined as words on which nominal concord does not operate in the constructions where such concord normally obtains, such as appositions or included phrases (see below §§ 8.2.2.I and 8.2.2.2). In positions where other words are classified as belonging to one of the five genders they are not thus classified because their lexical meaning already identifies them as belonging to one of these genders. A personal name carries its own identification, and so does a personal pronoun which by its lexical form differentiates the person or persons spoken to or of, from the speaker or speakers. The kinship terms šak "son", amma "mother", rutu "wife", ike "brother", šutu "sister", rulušak "nephew", etc., are self-identified when they refer to a particular relationship to a person named and need no classification as to gender, except for the plural, but are not identified when they refer to anybody's kinship relationship; only in the latter case are they nominally inflected ${ }^{1}$ ). An indication that the personal pronouns and kinship terms were classified with personal names by the

[^19]Elamites is the fact that in the writing-sporadically in ME, consistently in RAE--they are determined by the same marker, the vertical wedge, as the personal names.

Of this group, only the personal pronouns will be taken up here, because they constitute the only word-class in Elamite which has a case system. The case system assumed for Elamite nouns by Paper, p. 6gff., §§ 6.0 ff ., applies only in one particular instance of RAE, and will be treated under § 8.3.3.

## 6.I.I Personal pronouns

Personal pronouns have a nominative, an accusative, and, besides these, some irregular forms that cannot be sufficiently interpreted as yet and which may be forms of a third case.

Nominative
I. sg.
2. sg. $\quad n u$ (beside $n$-, bound form ?)
3. sg. $\quad r$ - (bound form ?)
I. pl. nuku: nika
2. pl. num : nun
3. pl. $p$ - (bound form?)

## Accusative

## un

nun
$r$ : ir (probably both writings represent $/ r /)^{1}$ ) nukun
numu!
apun $>$ apin
6.x.I.I "Irregular" forms of the first person pronoun

In RAE, the following forms of the first person personal pronoun, not classified above, occur: written $u$ - $i$ in two references; in one of them, (DB § 21) it is the only occurrence with the verb pepti- which elsewhere is construed with a locative, and the expected form is $u$-ikkimar, this then may be a mistake; in the other (DB § 13) the context is one in which the narration shifts persons: after third person forms, a direct quotation with first person forms follows, and the first of these is written $u$ - $i r$; this again may bè thought a confusion between $u n$ first person and $i r$ third person.

The forms $u$-na-in (DNa 4), $\mathfrak{i}-n a-k a-i n(D S i ~ 5)$, and $i$ i-na-un-ku (DSf 9, I6), which appear to be accusatives, have been discussed by Paper, p. 95f., § 7.2.1.4. They occur always in the phrase (u) sunki $u$ i-na-(hat)-inl ú-na-un-ku huttaš, to be interpreted either as "(as to me) king me(?) he made" (so Paper, loc. cit.), or "(me) king . . . he made" where the forms in question could correspond to appini "of them", or to another lexical

[^20]item. (The Old Persian version has only "made me king".) No explanation of these forms can be offered.

For the use of the form $u$, i.e., the nominative, in accusative contexts, as a calque on Old Persian, see BSLP LV 223 f.

## 6.I.I. 2 Resumptive pronoun

In agreement with the characteristic of the indeclinables, i.e., that they are self-identifying, the third person personal pronoun is used only as a resumptive, that is, only in a context where the person to whom it refers has already been identified by name or some other means (demonstrative, article, etc.); thus, ir murtal "I placed him" refers to the god just mentioned by name. Most occurrences of this resumptive pronoun in RAE can successfully be interpreted in this way; for examples, see Paper, p. Ioof., § 7.2.4.4, sub "here-deixis personal singular", and p. 74 f ., §6.3, sub "accusative".
The corresponding plural pronoun has in ME the forms apu:api, apun: apin; in RAE and in the Achaemenid economic texts, three forms: ap, apir, apin are attested. Of these, apin is used as direct object (accusative), $a p$ and apir as indirect object (dative).

## 6.I. 2 RAE possessive pronouns

In conformity with the RAE "genitive case" with genitive ending $-n a$, see $\S 8.3 \cdot 3$, the first person singular and the third person plural pronouns also appear in this case, the forms being unina/unini and $a p p i n i$, i.e., $u n i+n a / n i$ and $a p p i+n a / n i$, functioning as independent possessive pronouns "mine" and "theirs".

## 6.I. 3 The ME pronominal system

In ME, the situation is different. There, a certain number of morphemes, that seem formally to be connected with the pronouns, occur before both verbally and nominally inflected verb-bases. The following forms are attested:

|  | 0 | $r$ | $n$ | $p$ |
| :--- | :--- | :--- | :--- | :--- |
| $i$ | $i$ | $i r$ | in | $i p$ |
| $u$ | $u$ | $u r$ | $u n$ | $u p$ |

The difficulty lies in the fact that most of the contexts are ambiguous, and the forms just cited may be attributed to any person, and their function may be that of subject or of object.

Hence, two classifications are possible: according to the vowel, in which case we would classify the horizontal row with $i$ as third persons, the horizontal row with $u$ as first persons; or according to consonant, in which case the classification would be in vertical rows, the forms with $r$ as animate singulars, the forms with $p$ animate plurals, and the forms with $\varnothing$ or $n$ as non-animates.

It is tempting to assume, in view of the parallels from the nominal inflection, that the forms in the above table are the bound forms $|r|$ and $|p|$ of the personal pronouns (see above $\S 6.1 . \mathrm{I}$ ), and that they are construed with the nominally inflected base, i.e., the participle, just as they are with directional elements, e.g., in $r$-ukku-rir and $p-u k k u-p i p$ (see §8.1.4). If we also assume a bound form $|n|$ of the second person pronoun, this interpretation can apply to the following attestations:
animate sg.: ur-tumpan-ra (phonemic $\mid r$-timpan-r|?) and similar forms from other bases, e.g., ur-tahan-ra.
animate pl.: ip-tahan-pi (phonemic $\mid p$-tahan- $p /$ ?)
allocutive : $\begin{cases}\text { in-kalik-ti } & \text { (phonemic } / n-\text { kalikk-t } \text { ?) } \\ \text { un-hišan-ti } & \text { (phonemic } / n-\text { hišan-t } t \text { ?) }\end{cases}$
However, we have to seek another explanation for the case when the base is verbally inflected. While in the above examples the pronominal forms can be interpreted as belonging to the same gender as the gender suffix of the participle, in the verbal inflection the pronouns represent a person different from the one indicated by the personal suffix of the verb. Thus they may be analyzed as independent pronouns in the accusative, functioning as (direct or indirect) object. Most of the occurrences of verbs preceded by pronouns can be satisfactorily accounted for in this way; pronominal objects would then be $i r$ for animate singular, $i p$ and $u p$ for animate plural, and $i$ and $i n$ for non-animate. In this system, the form $u n$ (ur does not occur with verbs) as pronominal object would represent the accusative of the first person singular, parallel to, e.g., nun, with which it shares position and distribution pattern. Some of the clear examples are:

| up šammiš | he . . . them | parallel: un šammilhs they . . . me; |
| :---: | :---: | :---: |
| ir hanih | I love him | parallel: un haniš he loves me; |
| $i$ simatalk | I dedicated(?) it |  |
| $i$ tunih | I gave it | beside in tunih, but also un tunih; |
| $i$ tahat | you ... it | beside in tahat, and nominally in- |


also nominally inflected $i$ tumpan beside in tumpan, and itumpaka.

The other occurrences are too uncertain to either confirm or contradict this interpretation. Ambiguous are verbs which are inflected for the second person and are preceded by $u n$ or $i n$, or for the third person and are preceded by $i r$, i.e., where the pronoun and the personal suffix could denote the same person, and hence the pronoun may be classified as either subject pronoun or as object pronoun. Such forms are:

| un-tuni-t-(ni) | (phonemic /u-tuni-t-/ or /un tuni-t-1) |
| :---: | :---: |
| in-talua-t-(na) | (phonemic /n-tala-t-/ or /in taha-t-l) |
| ir-lanini-šri | (phonemic \|r-hani-š-r| or /ir hani-š-r|). |

### 6.2 Other indeclinables

Indeclinables that are neither personal pronouns nor personal names or kinship terms can hardly be discussed in the grammar. An exhaustive list of these belongs in the dictionary, but they may be referred to here, grouped under the following headings:
a) the conjunctions $a k$ "and" and "but", /kuta/ (written ku-ud-da), "and"';
b) the prohibitive $a n i$;
c) the interjection $e$;
d) the interrogatives $a k k a$ "who" and $a p p a$ "which";
e) directional elements;
f) words denoting temporal, local, or modal specifications, usually translated as adverbs;
g) the RAE demonstrative $/ i /$.

Constructions with (b) (the prohibitive ani), (d) (the interrogatives), and (e) (directional elements) are discussed below, §§ 7.1.I, 7.2, and 8.I and ff. respectively; for constructions with (c) (the interjection e) see above $\S 5$.o.

## SYNTAX

## Chapter Seven

## Sentence Types

### 7.0 General

In this chapter and the next will be treated sentence types and constructions involving more than one word, such as locative constructions, possessive constructions, and matters of concord.

The organization of this section is based on the structural patterns peculiar to Elamite and thus diverges from customary treatments of syntax. Moreover, certain matters of syntax that are usually discussed in the traditional presentations cannot receive attention here because of the uncertainties remaining in our present state of knowledge of the language.

## 7.I Sentence Types

I shall be concerned only with a distinction of sentence types according to their predicates, since such a distinction corresponds to definite functions that can be recognized in Elamite. I do not propose to define the sentence or its parts; the terms sentence, clause, predicate, subject, etc., are used in their customary acceptation.

If we examine whether the morphological distinction between the two inflections, i.e., the verbal inflection of the base and the nominal inflection of the nominal derivative ( = participle) distinguished above §§ 4.I and 5.I.I and following, corresponds to any distinction on the syntactical level, we find that verbally inflected forms occur at the end of a text and nominally inflected forms, with certain exceptions to be discussed presently, do not. Where a verbally inflected form ends a text, I shall, without further definition of what is a sentence, consider this form the predicate and the sentence it ends an independent sentence. The appearance of a verbally inflected form will hence be the criterion for delimiting sentences, even though not every verb necessarily ends a sentence ${ }^{1}$ ).

Sentences or clauses with verbal predicate need not be discussed further, except for the interrogative clause, which will be taken up in $\S 7.2$, because establishing such a category sheds light on other syntactical constructions.

Since nominal forms do not normally occur as predicates of independent clauses, the conditions under which they so occur and their function in other positions will have to be discussed.

In final or predicative position as defined above, a nominal occurs only if
a) it is preceded by the prohibitive particle $a n i$;
b) it is preceded by the negative $i n n i$;
c) it is followed by the precative ending $-n i$;
d) it is a noun (as defined in $\S 5.0 .2$, sub 7).

[^21]Clauses with a nominal form to which none of the above conditions apply will be considered and treated as included clauses ${ }^{1}$ ).

For the discussion that follows, I will consider each type of occurrence of a nominal predicate as determining the type of the clause, i.e., speak of
a) prohibitive clauses,
b) negative clauses,
c) precative clauses,
d) nominal clauses,
e) included clauses.

It may be stated here that Elamite has no relative clauses distinct from the above enumerated ones. Relative function is expressed in ME by means of the included clause (see § 7.I.5), and only in RAE by a secondarily developed relative marker (see § 7.2).

## 7.I.I Prohibitive clauses

The prohibitive clauses have as predicate an inflected nominal derivative in $-n$ (active participle) preceded by the prohibitive particle ani:
locutive ani in-kutu-n-k
allocutive ani un-hiša-n-t, RAE anu kutta-n-t, etc.

In prohibitive clauses, the animate singular and the non-animate genders coincide, i.e., the animate singular does not take the gender suffix $|r|$.

### 7.1. 2 Negative clauses

The negative clauses have as predicate an uninflected nominal derivative in $-n$ (active participle) preceded by inni. The form inni (delocutive non-animate, see $\S 5.2 .2$ ) makes it likely that the active participle is inflected for delocutive non-animate, with gender suffix $\varnothing$, which of course is indistinguishable from the uninflected participle, and that negative clauses have as predicate an inflected nominal.
Verbal sentences and included clauses with the negative also occur, but these conform to their respective sentence types.

[^22]
### 7.1. 3 Precative clauses

Precative clauses have as predicate a nominal derivative in $-k$ (passive participle) followed by the precative ending -mi. Examples:
hatti . . ukku-rir ta-k-ni "may the terror (emanating from the god or the king) be placed upon him"
huttak lualik-u-me lina tela-k-ni "may my work (lit. my what-has-been-done-and-toiled) be accepted(?) by (you)", etc.
Since the precative ending may follow a verbally inflected form, precative verbal sentences also occur:

RAE Uramasda un niški-s-nii "may Ahuramazda protect me"
ME petir-u-ri ni-pat rurta-t-ni "may you trample(?) my enemy under you".

### 7.1. 4 Nominal clauses

Nominal clauses have as predicate a noun as defined in § 5.0.2 sub 7 , inflected in ME, not always inflected in RAE (see below). Example:
$u$. . sunki-k "I am king", nukk sunki-p "we are kings" (RAE).
The clitic -ut sometimes appears after nouns, see § 4.6.4.
In RAE, the interrogatives $a k k a$ and $a p p a$ are used, as a calque on Old Persian, to introduce an appositive or predicative noun; in this usage, $a k k a$ and $a p p a$ can be translated either by the definite article or by the relative plus copula, e.g., kammata akka makuš" "Gaumata the 'Magian"' or "Gaumata who is a 'Magian'" corresponding to Old Persian Gaumäta hya maguš. This function of the interrogative eliminates the necessity of inflection, while in ME nominal concord was the sole means to indicate syntactical relationships.

## 7.I. 5 Included clauses

Included clauses by definition never occur at the end of a text or a sentence, and their subject is different from the subject of the main sentence. In such a clause the subject can be named or not; in the latter case, the subject is named in the main clause where it functions as object or locative.

For examples see § 8.2.2.2, where the concord which obtains between the subject and the predicate of an included clause is illustrated.

### 7.2 Interrogative clauses

Only one interrogative sentence is attested in the Elamite corpus. The reference is from RAE ( $\mathrm{DNa} \S 4$, line 32): appa hamak dayauš appa

Tariyamauš sunki marrišta "How many (?) are the countries which King Darius held?" (after the Old Persian, Kent OP² p. I38).

This sentence gives an example of the interrogative $a p p a$ (non-animate), both in its use in the main clause (appa liamak dayauš) and in the dependent clause (appa Tariyamauš sunki marrišta), and at the same time identifies clauses that are introduced by $a p p a$ (or for animate, by akka) as interrogative clauses, functioning, as in other languages, as relatives.

In some of such relative clauses, as in the one cited above, the verb is followed by the clitic -ta, which has, for that reason, been regarded as the relative morpheme (see above $\S 4.6 .3$ ). However, other similar occurrences lack the ending -ta, and, moreover, the most common construction of the "relative" is not with the interrogatives akka and $a p p a$, but with included forms, for which see below $\S 7 \cdot 5 \cdot 2.2$. For inflected akka in RAE, see § 5.2.I.I.

## Chapter Eight

## Constructions

## S.o General

A justification for treating the possessive and the locative as syntactical constructions instead of including them in the morphology as caseendings, can be found in the following distributional facts:
a) The directional elements (formerly called "case-endings", e.g., Paper § 6.0.2) occur after the verb as well as after a nominal;
b) The morphemes $|p|$ (plural of the nominals) and $|r|$ (formerly taken as third person or "substantivizing" | $r \mid$, Paper § 6.1o.3) occur after the verb as well as after a nominal.

## 8.I Locative constructions

A locative construction is a word or phrase followed by a directional element. Directional elements can be simple or compound.

| ma | "in" |
| :---: | :---: |
| $u k k u$ | "upon, over" |
| pat | "under" |
| kuk (RAE kik) | "with" or "after" |
| ikku (ikki) | "to(ward)" |
| imma : inni : ni: ya | "out of (a material)" |
| šara | "over" (possibly: "under') |

lina
si
mar (RAE only)
itaka (RAE only)
"for (?)"
?
"from (a place)"
"with"
S.I. 2 List of compound directional elements
šarama "over" (=šara $+m a)$; see, however, §8.I. 4
ikkimar (RAE only)
"from (a person)" $(=i k k i+$ mar $)$

## S.I. 3 Construction of directional elements

Directional elements form locatives with personal pronouns, nominals and groups of words.
8.I.3.I Locatives formed with personal pronouns

```
ni-pat
u-kik
ir-kuk "with (?) him"
nu-ukku
upir-ikki
un-li-na and in-li-na ')
u-ikki
t-ikki + mar
ir-ma
ap-ma
"under you (sg.)"
"with (?) me" (RAE)
"with (?) him"
"over you (sg.)"
"to(ward) this person" (RAE)
"for (?) you (sg.)"
"to me" (RAE)
"from me" (RAE)
"against him" (RAE)
"against them" (RAE)
```

8.1.3.2 Locatives formed with nominals
siyan-ma
Ariya-ma
kukunnum-ikki
Mala-p-ikki
akka-r-ukki
Nalunte ak Napir šarama
"in the temple"
"in Aryan (language)" (RAE)
"to(wards) (?) the sanctuary"
"to(wards) the Medes" (RAE)
"to anyone" (RAE)
"under the Sun and Moon" (lit. "the Sun and Moon (being) over (him)?)
8.I.3.3 Locatives formed with groups of words
napi-r-tu-ri-ikki
siyan appa kušilh-ma
"to(wards) my god"
"in the temple which I built"

[^23]| Parti čana Tariša-r ikki | "to Parti, Lady of Tariša" |
| :--- | :--- |
| NUMUN nuka-mi $i k k i+$ mar | "from our family" (RAE) |
| murun hi ukkui | "over this earth" (RAE) |
| ruh hariki-p itaka | "with few men" (RAE) |

S.I. 4 Constructions with ukku, šara, and si

Certain locatives composed of personal pronoun (3. person singular and plural) and the directional elements ukku, šara, and si, take a suffix at the end:

```
\(r-u k k u-r i r\) (wr. ri-uk-ku-ri-ir)
\(p-u k k u-p i p\) (wr. pi-uk-kut-pi-ip)
\(r\)-šara-ra (wr. ir-ša-ra-(ir)-ra)
\(r\)-si-ra (wr. \(i r\)-si-ra)
```

All these forms may be analyzed as pronoun (written with the syllable $r i$ or $p i$ before a vowel but with the syllable $i r$ before a consonant to express the initial consonant cluster, see $\S 3.5$ ) + directional element + a suffix, which may be interpreted either as the same pronominal element that occurs at the beginning, or as a gender suffix.

If we consider the endings $-r$ and -rir gender suffixes of delocutive animate singular and $-p i p$ of the plural, we must class the directional elements $u k k u$, sarara, and si with the nominals, since they seem nominally inflected, and not with the indeclinables, as was done in $\S 6.2$ sub e. However, the syntactical construction of the above forms is ambiguous, and the reduplication of the gender suffix as -rir and -pip unparalleled in the nominal inflection. We may also compare the forms ukku-rir and pat-pup-in which -pup possibly represents the ending -pip-and the forms kiri-pup and kiri-pip, which are all uncertain in meaning and construction. Forms with the ending -me which, if a gender suffix, represent delocutive non-animate also occur: ukku-mi-na, pat-mi-ua, and $u k k u-m e$; the latter may be a variant of $u k k u+$ + ma (also attested) and comparable to the compound directional element šara + ma-unless s̆arama should be taken as another inflected directional element, standing for šara-me.

### 8.1.4.I Constructions with lina

Beside the form $n$-lina posited above § 8.I.3.I, the directional element lina (also lima) occurs with the pronoun following it, contrary to the normal order: pronoun + directional element, illustrated above § S.I.3.I and ff.

Attested forms are:
lina-(a)pun
lina-ทитиии
lima-nu

```
"for (?) them"
"for (?) you (pl.)"
"for (?) you (sg.)"
```

Note that in the above examples the pronouns are in the accusative, not in the nominative, as in the normal construction. On this basis, it is possible to assume that the endings -rir, -pip or $-p u p$, and $-m e(n a)$ discussed in § S.I. 4 likewise represent accusatives. However, this evidence is too little to set up a special category of suffixes; it can safely be said only that ukku, šara, pat, si, and lina, under undefinable conditions, behave differently from the other directional elements.

## S.2 Concord

Two types of concord operate: concord of subject and verbal predicate, and nominal concord.

### 8.2.I Verbal concord

Concord of subject and verbally inflected predicate is not completely symmetrical, since to the six categories of the verbal predicate correspond only five categories of the nominal class. The concord can be illustrated as follows:

Subject Verbal Predicate
locutive $\mid k /$
allocutive (not attested)
delocutive $\begin{cases}\begin{array}{l}\text { animate singular }|r| \\ \text { non-animate }|O: m e|\end{array} & \left\{\begin{array}{l}3 . \mathrm{sg} .|\Sigma /| \\ \text { animate plural }|p|\end{array}\right. \\ \begin{array}{ll}\text { I. pl. }|h u| \\ \text { 2. } & \mathrm{pl} .|h t| \\ \text { 3. } \mathrm{pl} .|h s|\end{array}\end{cases}$


## S.2.2 Nominal concord

Nominal concord obtains between nominally inflected forms-or indeclinables of the first group, i.e., personal names, personal pronouns, etc.-that have reference to the same class of nominals. This concord requires that the last of the sequence of the nominals take the mark of the class that they belong to obligatorily; the other nominals, optionally. Phrases in which concord operates are a) a noun and its appositions; b) included phrases; c) possessive constructions; and d) quotations.
8.2.2.I Examples of concord between a noun (or proper name) and its appositions
locutive $\quad$...sunki-k "I, king"
animate sg. sunki-r peti-r ak tari-r "a king, enemy and..."
( $=$ an enemy and . . . king),
Inšušínak napi-r riša-r "Inšus̆inak, great god"
animate pl. sunki-p urpu-p "old kings"
wri-p šckpi-p meni-p Hatamti-p"old (?) ... -s, leaders of Elam"
non-animate siyan tulin
In RAE, the apposition is very often joined to the noun by the interrogatives akka and $a p p a$, as calque on the Old Persian definite article, e.g., Uramašta akka rša-r napi-r "Ahuramazda, the great(est) of the gods", where ME says Inšušinak rša-r napi-r. For this feature, see above § 7.I.4, also BSLP LV 225.
8.2.2.2 Examples of concord in included phrases (see § 7.I.5) locutive and delocutive animate singular:
u...Nalunte kulan-k kula-a r-tumpan-r ak turun-k luttan-r "I having prayed to Nahunte, he having heard this (?) prayer and having done as I said" (concord with locutive (pronoun $l l$ ) in $/ k /$, with animate singular (god Nahunte) in $|r|$ ).
u. . . sunkime-na human-k Inšušisinak napi-r-u-r r-tahan-r" "I having taken the kingship, Inšušinak, my god, having helped (me)"
locutive:
huttah halen-k "I made it at great pains" (hutta-ll: predicate; halen-k: included form, locutive)
allocutive:
halpin-t irtama nen-t "when you are dead, you will be blessed" (RAE)
animate singular:
akka melkan-r "who will change (the inscription)"
sunki-p urpu-p akka-r . . in-r hutlan-r "none of the old kings having made (it)" (concord: animate singular in $|v|$; literally: "kings olds who-he not-he making-he")
akka . . melkan-r hatid Inšušinak r-ukku-rir tak-ni "may the terror of Inšušinak be placed upon him who changes (the inscription)" (Example of concord on all members): akka şalmu-u-me human-r
akka hutun-r akka tuppi-me melka-n-r akka his-tu-me sukun-r (concord with animate sg. in $|r|$ ). Note however akka huma-s ak hal itiya-ra temen-r akka huna-š ak man-r hillan-r akka huma-š ak muru-r. This case is an unexplained exception, where the modifying phrase contains an inflected verb: Iutha-š; we expect-as elsewhere -huma-n-r for these forms too.
animate plural:
DN ak $\mathrm{DN}_{2}$ huttan-p "(the gods) DN and $\mathrm{DN}_{2}$ having done"
non-animate:
siyan Inšušinak-me upat-imma kušik-Ø ak miširman-O-a u erentumimma kušīl "the temple of Inšušinak was built of (unbaked) bricks and, having fallen in ruins, I rebuilt it of baked bricks" (concord: siyan . . . miširman-O)
siyan kuši-š ak miširman-O-a u kuši-h"(king RN) built the temple, and it being fallen in ruins, I rebuilt (it)"
20 siyan lusame mišir-mak-O (concord with siyan, non-animate).

### 8.3 Possessive constructions

Concord also operates in the possessive constructions. The order is regens-rectum, and both the regens and the rectum are followed by the gender-suffix of the regens. When the regens is an indeclinable of the first group, it remains ummarked, but a gender-suffix corresponding to its gender-class appears after the rectum, to indicate that the construction is a possessive. The allomorph /me/ of the suffix of the non-animate gender is used in the possessive construction (see $\S 4.2$ ). When the rectum is an indeclinable, the fact that a gender suffix appears after it indicates that the gender-suffix does not identify the rectum as to gender, but that the construction is a possessive one. When the rectum participates in the nominal inflection, the fact that a second gender suffix appears after the inflected rectum indicates that the construction is a possessive one. In other cases, where both regens and rectum are inflected, for the same gender, the construction can be analyzed as either an appositional construction (see $\S 8.2 .2 . \mathrm{I}$ ), or as a possessive; in these cases it was probably the word-order that indicated which was the case. E.g., risa-r napi-r "great of the god(s)" seems to be a possessive, because "great god" is elsewhere expressed as napi-r riša-r, while riša-r napi-p-r, with two gender suffixes after the rectum is definitely a possessive, meaning "great of the gods". Examples:
locutive:
u Untaš-Napriša šak Humpanumena-ki "I, RN, son of $\mathrm{RN}_{2}{ }^{\prime}{ }^{1}$ ). sunki-k Ančan-Šušun-ka "(I), king of Anzan and Susa"-the morpheme $-k$ is usually written $-k a$, also $-k i$, after this word which ends in a consonant.
allocutive:
Not attested (see also § 5.0).
delocutive animate sg.:
Šutruk-Naluute šak Hallutuš-Inšušinak-ri-the late construction (pre-Achaemenid and Achaemenid)- $\mathrm{NN} \mathrm{NN}_{2}$ šak-ri-is under the influence of the Old Persian genitive construction rectum-regens (see BSLP LV 223), but uses the same morpheme.
Kiviriša . . amma napi-p-r "Kiririša, mother of the gods" sunki-<r> murun hi ukku-ra-ir-ra "king of this earth" (RAE)
delocutive animate plural:
nappi-p Hatanti-p "gods of Elam" (or: "Elamite gods")
nappi-p Šušen-p "gods of Susa" (or: "Susian gods")
delocutive non-animate:
kukunnum Inšušinak-me "sanctuary of Inšušinak"
takki-me Hutelutuš-Inšušinak-me "the life of Hutelutuš-Inšušinak".
In a later period of Middle Elamite, a change of $-m e$ to $-m i$ can be observed, but, perhaps due to scribal tradition, -me persists alongside of $-n i$.
8.3.I Possessive constructions with personal pronoun

In the same way possessive construction with a personal pronoun as rectum expresses personal possession, this construction standing for the possessive adjective of other language types. Examples:
takki-me u-me
kullak 1t-me
puhu kušik u-p ak Nalunteutu-p
"my life"
"my prayer"
"my offspring (lit. offspring created -of-me) and that of (my wife) Nahunteutu"

[^24]> kullak nika-me
> a-a-ni-ip nika-p
> takki-me pulu nika-me
> u sunki appini-k-ul

hiyan ap-me
"our prayer"
"our relatives (?)"
"the life of our offspring"
"I (am) their king" ${ }^{1}$ ) (see
§ 4.6.4)
"their..."

### 8.3.2 Possessive constructions with a clause

Possessive constructions also occur with the rectum being a clause with verbal predicate. Examples:
peti-p luk limmaš-p (also: limma-š-p-na)
tari- $p$ šali siraš- $p$
pulıu... inni pahaš-p-na

### 8.3.3 The RAE genitive

In Achaemenid Elamite, the possessive construction of the above structure was replaced by a genitive "case-ending" in -na, which is indifferent to person and number, e.g., akka r(i)šar nap-na (or napi-p-na) "who (is the) great(est) of the god(s)" but the old possessive construction is also attested in akka r(i)śar nap-r, parallel to ME rišar nap-r (or napi-p-r), see §8.3.

### 8.4 Quotations

Concord operates also between an inflected word and the quotational word (see §5.2.4) : e.g., with the verb-bases tiri- "to say" and na- "to speak", RAE locutive: tiviya . . mank, mank. . . mank, delocutive animate singular: tiriš . . mar and nanr . . . mar, allocutive: nant . . mant $(\mathrm{DNa} \S 4)$; Fort. delocutive animate plural nan $p \ldots$ map $(a)$ cited Hallock, JNES XVIII IS n. 32 ; and without verbum dicendi, ME delocutive animate singular: Kutir-Nahunte . . . siyan Inšušinak-me ahan kušin-k-mar ak imme kušiš "Kutir-Nahunte (said) 'I want to build there the temple of Inšušinak' -mar but did not build (it)".

## S. 5 Features pointing to grammatical change in $R A E$

The features discussed under $\S \S 5.2$. I.I, 5.2.2, 5.2.5, 6.1.2, 7.1.4, 8.3.3, point to a trend of grammatical change in RAE. If we consider, in spite of the new RAE patterns evolved under Old Persian influence which I discuss in a separate article (BSLP LV 222ff.), that the Achaemenid

[^25]texts were still written by native speakers, this trend may be summarized as follows:

While the persons of the verbal inflection continue to be used as in ME (although the absence of attestation of the second person and the peculiar construction of the imperative, see $\$ \$+7.2$ and 5.0 , must be noted here), the categories of gender undergo a simplification. The nonanimate does not participate in any inflection, and in the animate category only the opposition plural-non-plural is consistently marked. The plural marker $|p|$ appears also on words not inflected in ME, and is opposed to a "singular" marker $/ r /$, which often refers to the "first person", the speaker (former locutive), as well as to the "third person". The suffix $\mid k /$ is preserved only in frozen forms, such as $-k-u t$, and possibly others. The suffix $|t|$ of the "second person" appears only with the nominal derivatives.

I have purposely avoided the use of the terminology established for the category of gender above $\S+2$, and speak of animate-non-animate, singular-plural, first person-third person oppositions, since the formal elements $p$ and $r$ are vestiges only of the ME gender categories, and form a different system in RAE.

## Appendix

SAMPLE TEXTS
A. Middle Elamite

Brick of Untaš-Napris̆a (MDP XXXII No. XXIII/I = MDP III No.S) Transliteration:
í mUn-taš-AN.G.AL ša-ak maHu-um-ban-nut-me-na-ki sut-un-ki-ik An-za-an Šu-šu-un-ka
Transcription:
u Untaš-Napriša šak Humpanumena-k sunki-k Ančan-Šušun-k Transposition: ${ }^{1}$ )

I Untaš-Napriša son Humbanumena-LOCUTIVE king-LOCUTIVE Aušan Susa-LOCUTIVE

[^26]Transliteration:
si-ya-an "Šimut a-ak "NIN-a-li-me ki-pa-at lutus-si-ip-me ku-[si-ilic]
Transcription:
siyan Šimut ak Bēlet-ăli-me upat hussi-p-me kuši-h
Transposition:
temple Šimut and Bēlet-äli-it brick baked-PL-it built-I
Transliteration:
"Ši-mull a-ak "NIN-a-li la-an-si-ti-ip-pa a-pu-un a-ha-an mutur-tah
Transcription:
Šinut ak Bēlet-āli lan + siti-p apun alıan mur + ta-h
Transposition:
Simut and Bēlet-äli new(?)-PL them there earth + placed-I
Transliteration:
hu-ut-tak ha-li-ik-ut-me "Ši-mut a-ak "NIN-a-li si-ya-an-ku-uk-pa li-na tc-la-ak-ni
Transcription:
hutta-k hali-k-u-me Šimut ak Bēlet-äli siyan + kuk-p lina tela-k-ni Transposition:
ma|de toil|ed-I-it Simut and Bēlet-āli temple + heaven-PL for-you accept|ed(?)-may

## Translation

I, Untaš-Napriša, son of Humbanumena, king of Anšan and Susa, built the temple of Šimut and Bēlet-āli of baked bricks. I installed there new (?) (statues of) Šimut and Bēlet-āli. O Šimut and Bēlet-āli of the acropolis (?), may what I made and toiled (?) be acceptable (?) to you!

## B. Royal Achaemenid Elamite

$$
\mathrm{DNa} \S 4
$$

Old Persian text from Kent Old Persian p. 137, 11. 30-47.
Babylonian and Elamite text from Weissbach KIA pp. 88ff.; see also Weissbach, $Z D M G$ 9I 86 and Friedrich, Or. NS XII 25.
Old Persian:
Oātiy Dārayavauš xšāya0iya Auramazdà ya0ā avaina imām būmèm yaudation pasāvadim
Babylonian:
Dariyamuš šarru iqabbi Alurmazda kî imntru mātāte annīti nikrama ana libbi alıāmes summulut

Elamite:
${ }^{m} D a-r i-y a-n a-u-i s{ }^{\prime} m_{s u n k i} n a-a n-r i ~ a U-r a-m a s ̌-d a \quad$ sa-ap si-ya-ša hi mu-ru-un pir-ra-um-pi-ram ha ul-lak
Transcription:
Tariyamauš sunki na-n-r Uranašta sap čiya-š-a hi murun prampram ha ulla-k

Transposition:
Darius king speaking-SG Ahuramazda as (?) saw-3RD-CONNECTIVE this earth confusion through + give|n (?).
Old Persian
manā frābara mām xšāyatiyan akunauš adam xšãya0iya amiy
Babylonian:
arki anāku iddannašinīti u anāku ina muhlhišina ana šarrūtu ipleqidanni anãku šarru

Elamite:

Transcription:
meni u tuna-š u sunki u-nan hutta-š u sunki-k-ut
Transposition:
then I gave-3RD I king I-of-it (?) madc-3RD I king-LOCUTIVEindeed (?)
Old Persian:
vašnā Auramazdāhā adamšim gä0avã niyašādayam tyašām adam aOalıam ava akunava

Babylonian:
ina șilli ša Alurmazda anāku ina ašrišina ultēšibšinātu u ša anāku aqabbaššinātu ippuša
Elamite:
za-u-mi-in ${ }^{a} U-r a-m a s ̌-d a-n a \quad m_{u} i s-k a_{4}-t e-m a \quad$ mur-da ap-pa $m_{u}$ ap tur-vi-ra hu-be lut-ut-taš

Transcription:
čaumin Uramašta-na u iskate-ma mur + ta appa u ap tiri-r hupi hutta-š

Transposition:
grace Ahuramazda-of I fetters-in earth + put-I what I them say-SG that-one made-3RD

Old Persian:
yäā mām kāma āha yadipatiy maniyähaiy tya ciyakaram āha avā dahyäva
Babylonian:
libbū ša anāku șebâka u kî taqabbû umma mätāte annitu akkā̉ iki ibšâ
Elamite:
sa-ap ${ }^{m} \dot{\text { h ha-ni-ra síla an-ka ša-rak ram(?)-man-da ap-pa ha-ma-ak }}$ ${ }^{m} d a-a-y a-u-i s ̌$ lut-be
Transcription:
sap u luni-r čila anka šarak rama-n-t appa hamak dahyāvaš hupi
Transposition:
as I wish-SG so . . think|ing-you "which times countries tlat-one
Old Persian:
tyā Därayavauš xšāyatiya adãraya patikarā dīdiy
Babylonian:
ša Dariyamuš šarru kullu ṣalmãnišunu amur
Elamite:

Transcription:
appa Tariyamauš sunki marri-š-ta na-n-t čalme či-š
Transposition:
which Darius king took-3RD-TA" say|ing-you, relief look!
Old Persian:
tyaiy gä0um baratiy avadā xšnāsāhy adataiy
Babylonian:
ša kussi attūa našû ina libli tumassiššunūtu
Elamite:
$a k-k a_{4}-b e$ GIŠ ka $a_{4}$-at ku-ut-ma-um-pi ha-mi tur-na-in-ti
Transcription:
akka-p kat kut(i)-ma-n-p ami turna-n-t
Transposition:
who-PL throne carry-MA-ing-PL there know|ing-you
Old Persian: azdā bavātiy Pārsahyā martiyaltyā dīraiy arštiš parāgmatā adataiy

Babylonian:
ina ūmušuma imnindakka ša amèlu Parsãya asmarūšu rūqu illik
Elamite:
hu-pi-me-ir tur-na-in-ti mruhl.MEŠ-ir-ra mPar-sir-ra-na ša-da-ni-ka GIS゙ si-rutum lii pa-ri-ik
Transcription:
upi + mer turna-n-t ruht-r Parsi-r-na šatanika sirum $i$ pari-k
Transposition:
then knowo ing-you man-SG Persian-SG-of far spear il go|ne
Old Persian:
azdā bavātiy Pārsa martiya dūrayapiy hacã Pārsā
Babylonian:
ina ūmušuma innuindakka ša amēlu Parsāya vūqu uluu mātišu
Elamite:
Iut-pi-me-ir lur-na-in-ti mruh.MEŠ mPar-sir-ra s̊a-da-ni-ka $a_{4}$ MPar-sin $i k-k a_{4}-m a r$
Transcription:
upi + mer turna-n-t rult Parsi-r satanika Parsin ikka + mar
Transposition:
then know|ing-you man Persian-SG far Persia from
Old Persian
partaram patiyajatā
Babylonian:
saltam épuš
Elamite:
be-ti-za-ma-in-da
Transcription:
petiča ma-n-t
Transposition:
fought QUOT $\mid$ ing-you.

## Translation (of the Elamite)

King Darius says: when Ahuramazda saw that this earth was in confusion, then he gave (it) to me, he made me king over it, I am king. By the grace of Ahuramazda I restored order (lit. put in its place); what I said to them, that they did as I wished. If you wonder, saying, quote:
"How many are the countries which King Darius held?" look at the reliefs (of those) who carry the throne, from that you will know. Then you will know: "The spear of the Persian has gone forth far", then you will know: "The Persian has fought far (indeed) from Persia"-end of quote.

## Notes to DNa § 4

Friepricn, in Or. NS XII 25 cites this paragraph in support of his thesis that the quotation form of the "second person" is nanda (nenda); this has been accepted by Paper, p. 58, 55.9. I prefer to take na-in-da with Weissbach, KlA p. 90 n. y, as allocutive of na- "to say", for which see also the refs. from the Fortification texts cited by Hatlock, JNES XVIII tof., and take as the quotation form the last three syllables of the paragraph: ma-in-da. This necessitates a different interpretation of the word immediately preceding, which was formerly read peti-zama-n-ta, and translated "du schlägst" (the enemy, peti), by Weissbacii, ZDMG 9186 , "hat . . . den Feind geschlagen" by Friedrici, loc. cit. "Enemy" camiot be expressed by pefi alone, the word should have the gender suliix $|r|$ or $|p|$ for singular or plural; hence 1 prefer to cut pefiza-manta, and interpret petiza either as a compound of pefi, or possibly as a trauscription of Old Persian patiyajatã, contracted to *patijatä, and rendered petiza in Elamite transcription.

## Abbreviations

| Afk | Archiv fuir Keilschriftforschung |
| :---: | :---: |
| ArOr | Archiv Oricntalni |
| AS | Assyriological Studies |
| BA | Beiträge zur Assyriologic |
| Borger Lisarh. | R. Borger, Dic Inschriften Asarhaddons 'Königs zon Assyrien (Archiv für Orientforschung Beiheit 9), Graz 1956. |
| Cameron, HEI | G. G. Cameron, Histgry of Early Iran (1936) |
| Cameron, PTT | G. G. Cameron, Pcrsepolis Treasury Tablets ( $=$ Oriental Institute Publications, Volume L.NV), 1948 |
| [1] J | Israel Exploration Journal |
| JAOS | Journal of the American Oriental Society |
| jus | Journul of Cunciform Studies |
| JNES | Journal of Near Eastern Sludies |
| Lenormant Chois | F. Lenormant, Choix de Tintes Cuniforme's, Paris, 8873 |
| MAOG | Mitteilungen der Altorientalischen Gesellschaft. |
| MDP | Memoires de lu Mission Archeologique en Iran. Dėlégation en Perse. |
| (1) | Oriontal Insitute Publications. |
| Or. | Oricntalia (NS = Nova Series) |
| KA | Revot d'Assyriologic at l'Archoologic Oricntate |
| VD1 | Vestnik Drevncj Istorii. |
| Weissbach, K1A | F. H. Weissbacif, Die Keilinschriften der Achämeniden (Vorderasiatische Bibliothek III), Leipzig 19 II |
| WO | Dic Welt des Oricnts |
| WZK3 | Wiencr Zeitschrift für die Kunde des Morgenlandes |
| ZA | Zeitschrift fiir Assyriologic |
| ZDMG | Zeitschrift der Dentschen Morgenländischen Gescllschuft |

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Ideally, a bibliography compiled today should continue these lists, preferably in the manner -numbered and in chronological order-established by Weissbach and Hüsing. Such an approach is however not only beyond the scope of this publication, but would prove confusing, and should be replaced by a critical bibliography which tries to separate the chaff from the wheat. An attempt at such a bibliography will be made in my edition of Old and Middle Elamite texts.

I shall have to restrict the following bibliography to major text editions, and grammatical analyses. Lexicographical articles and studics on the Persepolis Treasury and Fortification texts and their contribution to Old Persian linguistics and history will be omitted. The reader interested in these will be easily brought up to date by the material listed after 19.48 -the publication date of Cameron's Persepolis Treasury Tablets-in the Keilschriftbibliographie published by A. Poul in Orientalia Nova Series and the bibliography published by E. Weidner in Archiv für Orientforschung. A selected bibliography of text editions and studics on grammar is included in the Bibliography given by Paper, (1955), p. 112 ff .

## A. TEXT EDITIONS

(for details, see Introduction)

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## 2. Studies on detail:

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## ADDENDA

to Chapter Three

In Chapter 3, I have elicited for Elamite, as a minimal system, only one series of stops, and I have symbolized them, as customary, with the voiceless set $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$. Similar assumptions have been made previously; however, H. H. Paper was the first to exhaustively collect variant spellings to show that Elamite has no more than one series of stops. The variants collected tended to indicate the equivalence, in the writing of Elamite words, of syllabograms which, in the transliteration of Akkadian, represent phonemically distinct sequences. I had similarly accepted, on the phonological level, another conclusion resulting from Paper's distributional analysis regarding the status of geminate consonants. According to this, all consonants, whether written single or geminated, were normalized as single consonants (Paper, p. $7, \S 2.7$ ).

This conclusion was based on the variation between CV and VC-CV in the writing of some lexical items. In fact, this variation applies to one part of the corpus only. With regard to consonant gemination, the corpus falls into three classes: I. words which are always spelled with a single consonant, i.e., (C) V-CV, 2. words which are always spelled with a double consonant, i.e., (C) $\mathrm{VC}_{1}-\mathrm{C}_{1} V$ or $\mathrm{CV}-\mathrm{VC}_{1}-\mathrm{C}_{1} V^{1}$ ), and 3 . words which are spelled at times with a single, at times with a double consonant, i.e., sometimes (C) V-CV, sometimes (C) $\mathrm{VC}_{1}-\mathrm{C}_{1} \mathrm{~V}$ or $\mathrm{CV}-\mathrm{VC}_{1}-\mathrm{C}_{1} \mathrm{~V}$. The spelling variation of the third class should not be taken as characteristic of the whole corpus. To extend the range of variation over the whole corpus is to make the description of the orthographic system weakly adequate only: not only are thus graphically geminated consonants phonemicized as single, but, as a corollary to this feature, any intervocalic consonant phoneme may be spelled geminated. This description disregards the constraints operating on members of classes I and 2 , and will allow gemination in members of class I -where no gemination is present-as well as absence of gemination in members of class 2 -where gemination is not absent-thus describing non-existent spellings. Such a description which treats three classes as one does not carry any information about the constraints imposed upon the structure of the Elamite spelling system. The constraints define a variety of three, i.e., a choice from three possibilities, whereas a description of the corpus without constraints

[^27]shows a variety of one, i.e., no variety, no choice, no information content.
As opposed to this minimal variety system, a strongly adequate description will take the double spelling practice as its basis, and describe the maximal variety system. The maximal variety system can be reduced at any time to the minimal variety system by an optional orthographic rule simplifying a double consonant. In other words, what is to be described is under what conditions the Elamite writing inserts a VC sign in front of a CV sign when the latter alone is sufficient to indicate the consonant. It is all the more necessary to explain this "redundancy" because the general trend of the Elamite writing system is to reduce the number of signs borrowed from the Sumero-Akkadian syllabary (see p. 7of.) ; the use of redundant signs in the writing would run counter to this trend of simplification.

The correct procedure is to collect the forms showing the maximal orthographical variety, establish the maximal orthographic system, and examine whether they express phonological distinctions which are necessarily lost in the minimal system.

I suggest that the spellings with geminated vs. non-geminated consonants in Elamite loans co-vary with spellings of two different kinds of consonants in the source language; e.g., in the transcription of Old Persian names and words geminated consonants correspond to other segments of Old Persian words than do non-geminated consonants. Since there is a convenient collection of transcription equivalents in Paper's book, I will first show on the basis of Paper's examples what relevant conclusions I think can be drawn from this variation for the phonology, and then add from the corpus of ME further examples which corroborate my conclusions. ${ }^{1}$

These conclusions are as follows: intervocalic consonants spelled geminated can be equated with Old Persian voiceless stops, and those spelled single with Old Persian voiced stops. Consequently, in a maximal system of Elamite phonology, we should posit for Elamite two series of stops (and perhaps sibilants as well), distinguished by a feature whose exact phonetic nature can, of course, not be specified. The evidence for this comes ultimately from the writing system, for which the following spelling conventions can be deduced:
I. In non-intervocalic (initial, final, or pre-and post consonantal) position no distinction is made, e.g., OP Bagabuxša- = ba-ka-pu-uk-šá,

[^28]OP Pātišuvari- = ba-ut-ti-iš-mar-ri-iš, OP Cišpi- = și-iš-pi-iš; OP Artavardiya- $=$ ir-du-mar-ti-ya, OP Marduniya- $=$ mar-du-nu-ya; OP haumavarga- = u-mu-mar-ka-ip.
2. An OP or Bab , voiced intervocalic consonant is rendered with a sequence (C)V-CV, e.g., OP Bābiru-, Bab. ${ }^{\text {F Bābili }=\text { ba-pi-li, OP Arabāya-, }}$ Bab. a-ra-bi $=$ har-ba-ya; OP Naditabaira-, Bab. Nidintu-Bel $=$ nu-ti-ut-be-ul, OP tigraxauda- = ti-ik-ra-ka-u-da; OP Asagarta-, Bab. sa-ga-ar-ta-a-a = áš-śá-kar-ti-ya, OP Eatagu-, Bab. sa-at-ta-gu-ú = sa-ad-da-ku-iš, OP Bāgayādi- = ba-gi-ya-ti-iš, OP magu-, Bab. mağušu = ma-ku-iš.
3. An OP or Bab, voiceless intervocalic consonant is rendered with a sequence VC-CV, e.g., OP Kāpišakāni- = ka-ap-pi-iš-ša-ka-nu-iš; OP Gaumāta-, Bab. Gu-ma-a-tu $=$ ka-ma-add-da, OP Anāhitā-, Bab. a-na-ah-i-tu-u' $=$ an-na-hi-udd-d.da, OP Autiyāra-, Bab. ú-ti-ya-a-ri $=$ ha-ut-ti-ya-ru-iš, OP Dātuvahya- = da-add-du-man-ya; OP Vahauka- = ma-u-uk-ka, OP Saka- = sá-ak-ka.
4. The spelling correspondence can be meaningfully interpreted only for the stops, although the graphic renderings of non-stops (especially s̆) also show non-random gemination, e.g., OP xşaçam = šá-iš-šá-um, OP Asagarta-, Bab. sa-ga-ar-ta-a-a = ás̆-šá-kar-ti-ya.
5. A sequence $C V C$ is not necessarily equiphonemic to $C V-V C$ in a sequence CVC-CV or VC-CVC, ri.e., CVC-CV or VC-CVC is not equal to $C V-V C-C V$, and consequently in a sequence $C_{1} V C_{2}-C_{2} V$ or $V C_{2}-C_{2} V C_{1}, C_{2}$ does not necessarily represent gemination. E.g., OP Nabunaita-, Bab. Nabū-na'id $=$ na-pu-ni-da-na and nap-pu-ni-da-na (but not *na-ap-pu-ni-da-na), OP Patigrabanā- = pát-ti-ik-ráb-ba-na (but not ${ }^{\text {P }}$ pát-ti-ik-ra-ab-ba-na) ; OP Garmapada- = kar-ma-pát-taš, OP Kiuganakã- = ku-uk-kán-na-ka-an; OP Ragā-, Bab, ra-ga-a' = rak-ka-an (but not *ra-ak-kaan) ; and, for non-stops, OP paruzanānām $=$ pár-ru-ṣa-na-na-um and ba-ru-ṣa-na-na-um.

Sporadic deviations occur in single items, as follows:
I. OP voiced intervocalic consonants are spelled geminated, i.e., with a sequence of VC-CV, e.g., OP Dubāla- is written du-ib-ba-[la];
2. OP voiceless intervocalic consonants are spelled single. Most frequent is the absence of gemination in the OP endings -zāti, -yāti, and -vati, written -za-ti-iš, -ia-ti-iš, -ma-ti-iš, etc.; OP intervocalic -tis often written V-ti-. Moreover, OP intervocalic -p- is written sometimes as CV-ba-, -t- as CV-du-, CV-da-, and -k- as CV-ka (with the sign $\mathrm{ka}_{4}$ normally used for the sequence ka) or as CV-kar-, CV-kán-.

Since in the vast majority of examples there is a covariation of graphic gemination in Elamite with the feature of voicing in Old Persian words
in such a way that, as stated above, the distinction in the writing between geminate and non-geminate consonants corresponds to the distinction between voiceless and voiced consonants in Oid Persian, we can assume that in native Elamite words the difference in spelling likewise corresponds to a distinction of some feature, which may or may not be that of phonemic presence or absence of voice. Note again, in this connection, that nonstops also show non-random gemination.

There remains to be found a solution to gemination and the lack of it in the same lexical item. Two hypotheses may be envisaged: I. geminate spellings are to be considered basic or normalized, and single spellings deviant or defective, as is often the required solution in Akkadian for similar variations; 2. gemination and single spellings may be taken as a graphic rendering of a conditioned feature, such as length or stress in a particular syntactic environment. What the nature of this feature was cannot be determined until the vocabulary, and hence the segmenting of Elamite is better known.

The orthography of Akkadian words or loanwords occurring in ME texts does not contradict the evidence gained from the transcription of Old Persian words in RAE; Akkadian voiced stops in intervocalic position are rendered by single consonants, as in the proper names:

Ebih
Nīribu-
Bit-ridûti
Kudur
Kadašman
Ṭāb-migiršu
Ugar-
Rigim-Adad
Lagamal
gigunù
written e-be-ih
written ni-ri-pu
written pi-it-ri-t-tu-ti
written ku-ti-ir
written $\mathrm{ka}_{4}$-ta-aš-ma-an
written ta-ap-mi-ki-ir-šu
written ú-la ${ }_{4}$-ar
written ri-ki-im-4IM
written la-ga/ka $a_{4}$-ma-al/ar
written ku-ku-un-nu-um

Examples are less numerous for the writing of an Akkadian voiceless stop; in all examples the spelling with double consonant corresponds not only, as posited, to a voiceless stop in Akkadian, but also to a geminate (or long) voiceless stop, the orthography being further incapable of expressing both the voicelessness and the gemination (length) of the consonant simultaneously.

Bit-Nappāhē
Sippar
tuppi
written pi-it-na-ap-pa-he-e
written si-ip-par
written tu-up-pi, ti-ip-pi

Puratitu
Alekadu
written pu-ra-at-tum
written ak-ka $a_{4}$-tum/du-um

A pair of words in a recently excavated text from Choga Zambil (TZ 46 and 47, König 13a, I3A, 13B) is in my opinion to be interpreted as Akkadian, in spite of the fact that one of the pair violates the just established spelling convention. The pertinent phrase is: (hulhun) ki$t u_{4}-u m-m a \quad a-a k$ pi-tu $-u m-m a$ (also written: ku-du-ma a-ak pi-tu $u_{4}-m a$, ku-du-um-ma a-ak pi-tut - -um-ma, ki-du-um-ma a-ak pi-du-um-ma), which I translate as the "outer and inner wall"; "outer", ME ki|ku-dul|tut $-u m$ -(-ma), corresponds to Akkadian kidu, "outside"; "inner", ME pi-dultu $u_{4}-$ um-(-ma) to Akkadian bitu "inside" (lit. "house'). We expect, for the first word of the pair, the actually attested spelling, but for the second we would expect a spelling with a double consonant, such as "pi-it-lu-tum-ma, to render the Akkadian /t/. However, since these words form an assonance, rhyming in the vowels, it is not unusual to find them even more closely rhymed - in this case, rhyming in their intervocalic stops, too. An almost identical example can be adduced from Hungarian; the pair of spatial adverbs kiviil-beliil, meaning "outside and inside", have been made more similar in popular style by introducing redundant alliteration in their rhyming ending: kiviill-béviil; the second member bévill has been derived after the pattern of the first kiviil, exactly as in Elamite.

Obviously the situation described above is similar to the spelling practice called "Sturtevant's law" in Hittite; Sturtevant's observations were based on alternant spellings comparable to those in Elamite. In a recent study, "A propos de la 'règle de Sturtevant' en hittite cunéiforme", Lingustic Research in Belgium, ed. Yvan Lebrun (1966), pp. 23-32, Louis Deroy gives a model for this law, presenting the example of the transposition of Sanskrit loanwords into spoken and written Tamil.

In Tamil, there is morphophonemic and phonological opposition between tense and lax; tense consonants are realized as simple voiceless stops initially and as geminate voiceless stops intervocalically; lax consonants are realized as simple voiceless stops postnasally, and as simple (usually voiced) fricatives intervocalically. The orthography renders the phonetically simple consonants with single graphemes, the phonetically geminate consonants with double graphemes. In Sanskrit loanwords, the Sanskrit intervocalic voiceless consonants are spelled double, the same as the Tamil intervocalic voiceless consonants, whereas the Sanskrit initial and postnasal (both voiced and voiceless) and the intervocalic voiced consonants are spelled single. Thus only in intervocalic position is the Sanskrit opposition voiced vs. voiceless maintained.

The Tamil spelling of Sanskrit words provides a model for spelling practices observable in ancient written languages, not only in Hittite but, as I have tried to show above, in Elamite too, and, in the absence of another model, it may be suggested that the phonological system of Elamite and possibly, but not necessarily, even its phonetic realization, might have been analogous to that existing in contemporary Tamil.

As far as I can see, these revisions to the Chapter on phonology have no bearing on, and do not necessitate a revision of, the morphological analysis.

## ADDENDA

## to the Appendix:

Since the recently discovered Choga Zambil bricks TZ 46 and 47 (according to the edition of M. J. Steve, Irancia Antiqua II [Ig62] 68ff.)' constitute the first Middle Elamite bilingual, I will here translate the lines which exist in both an Elamite and an Akkadian version. A first parallel transliteration was given in the mentioned article of Steve, pp. 72 f. ; a transliteration and translation was then given by M. Lambert, Iranica Antiqua V ( 1965 ) 26f. A transliteration and notes, but no translation, is also given in F. W. König, Die elamischen Königsinschriften, p. 66ff., as Nos. I3A and I3B.

Translation of the Akkadian version:
he who will shoot an arrow against the wall of Siyankuk, make a breach (in it), strip its brickwork, burn its [. . .], or an enemy who will approach and wage battle against the wall, let the wrath of Napriša, Inšuš(i)nak, and Kiririša of Siyankuk be upon him and let his descendance not prosper under the sun.

Running glossary:

| Elamite <br> akka | Akkadiant <br> [ša] | who |
| :--- | :--- | :--- |
| huhun | dūru | wall |
| siyankuk | Siyankuk | Siyankuk |
| -ma | ana | to |
| - | ša | of |
| ku-ta-a | qanû | arrow |
| ahar | - | there |
| li | nasälku | throw |
| (akka linra | ša inassuku | who throws) |


| $\begin{aligned} & \text { tul(l)in } \\ & \text { ahar } \\ & \text { ta } \end{aligned}$ | niksu <br> nakāsu | breach <br> there <br> breach (v.) |
| :---: | :---: | :---: |
| Elamite | Akkadian |  |
| upatipi | libittašu | its brickwork |
| tuha | nasāḩu | tear out |
| haltete | - | - |
| lumu | qalû | burn |
| a-ak | 1 | and |
| peti | nakru | enemy |
| $\sin (\mathrm{n}) \mathrm{i}$ | țehû | approach |
| hu-EL | șaltu | battle |
| ahar | - | there |
| tumpa | epēšu | do |
| ha-at | hattu | wrath |
| ri-ukku-rir | ina muḩhišu | upon him |
| ta | šakānu | place |
| Nahunte | Samaš | Sun (god) |
| ir-šara-ra | ina šupal | under |
| par | zëru | descendance |
| ani | la | not |
| kutu | ešērı | prosper |

Notes to the lexical equivalences
A. Lexicon. New equivalences are: huthun $=$ düru 'wall', see Steve, Iranica Antiqua II 73; ku-ta-a = qavit 'arrow' (lit. 'reed'); llu-EL= saltu 'battle' (this latter equivalence is based on the reading se-el-tu (!) instead of sc-el-lu (?) given in the previous transliterations; seltu would thus correspond to Akkadian sseltu, a variant of șallu, 'battle', well attested in the idliom şalta (șelta) epēšu 'to wage battle', see CAD i6 (Ṣ) p. 88a).

Other equivalences cannot be narrowed down with such precision, since they enter into idiomatic constructions, both in the Akkadian and in the Elamite version. In the Elamite version, the verb ta 'place' is used with $\operatorname{tul}(l)$ in and hat; only in the latter case is the Akkadian translation šakänu 'place' the equivalent of the Elamite verb; in the first case, the Akkadian uses the etymological figure niksa nakāsu 'to breach a breach'. Another idiom is Elamite $h u-E L \ldots$. . tumpa, translated by Akkadian șalta epēśu 'to wage battle'. In this case, it is the Akkadian
expression that is idiomatic; and thus we are not permitted to equate tumpa with cpēsu; most likely, tumpa expresses a meaning in the general range of 'to direct, lead', or the like, corresponding to Akkadian šutēsurru, a meaning that would more or less fit the other attestations of tumpa, conveniently collected by König, op. cit., p. 223, and M. Lambert, Iranica Antiqua V $36 f$.
B. Grammar. The grammar of the Elamite text, controllable now on the Akkadian counterpart, is as expected and as described in this grammar. An exception is the form si-in-mi, where we would expect an ending /r/ of the delocutive animate singular, in concord with the preceding word petir (peti-r); of the two fragments on which this word is preserved, one breaks off after sii-in-ni, and it is possible that the sign -ir is to be restored in the lacuna; the other fragment has pe-ti-ir si-ni. A unique exception to the gender system of the nominal declension is found in the form $u$-pa-ti-pi which corresponds to Akkadian libitlu 'brick'. Elsewhere, the word occurs as upat, and it has already been suggested that its meaning is 'brick' (see M. Lambert, RA XLIX [1955], 42). Here, the word appears with an ending / $\mathrm{p} /$ that is otherwise restricted to animate plural; since in other texts upat is qualified by lussip, likewise with a / $\mathrm{p} /$ ending (a concord feature that in the contexts in which the expression occurs must refer to upat), we are forced to the conclusion that the word for brick, upat, belongs in Elamite to the class of animate nouns.


[^0]:    ${ }^{1}$ ) For an account of the decipherment, see A. J. Boorn, The Discovery and Decipherment of the Trilingual Cuuciform Inscriptions, London 1goz; Parrot, Archeologie mésopotamicnuc. I. Les ¿tapes, Paris 1946, pp. Iogfi.; S. A. Pallis, The Autiquity of Iraq, Copenhagen 1956, Chapter III, pp, 9.4if.
    2) A better term for these administrative documents would be, according to a suggestion of G. G. Cameron, Achaemenid warehouse records.
    ${ }^{3}$ ) H. H. Paper, The Phonology and Morphology of Royal Achaemenid Elamite, Ann Arbor, 1955, hereafter abbreviated Paper.

[^1]:    ${ }^{1}$ ) An attempt at the decipherment of the Proto-Elamite royal inscriptions by W. Hinz, Iranica Antiqua II (1962), I-2I, has not found general acceptance.

[^2]:    ${ }^{1}$ ) After the studies of Paul Koschaker, for recent literature on Elamite legal practices see J. Klima, "Le droit élamite au II me millénaire av. n. è. et sa position envers le droit babylonien", ArOr XXXI ( 1963 ), 287-309; id., "Donationes mortis causa nach den akkadischen Rechtsurkunden aus Susa," Festschrift J. Friedrich, 229-59.

[^3]:    ${ }^{1}$ ) The name of the king, previously read as either Untaš-Humban or Untaśagal, has been demonstrated to be Untaš-Nap(i)risa by Hinz, JNES XXIV (1965), 351-54. The Sumerogram AN.GAL does not stand as a logogram for the god Humban, but is a compound of the Sumerograms DINGIR "god" (or AN "highest god") and GAL "great" and is to be read in Elamite as napir risar. Note, however, that the god of Dér, whose name is also usually written with the Sumerogram AN.GAL, is tramslated into Akkadian as Anum rabiu "great Anu" in the time of Esarhaddon, see Borger Esarh., p. 74: 20, also p. 84 r. 42, and (with variant 4KA.DI) p. 122, Chron. $680 / 79$.

[^4]:    ${ }^{1}$ ) New brick inscriptions of Šutruk-Nahunte were discovered at the modern village site Deh-iNow, across the river from Chogha Zambil, see R. Ghirshman, Iranica Antiqua III (1963), 8 (in all, five fragments, known to me through the courtesy of M. J. Steve).
    ${ }^{2}$ ) Cameron, HEI p. to6 and n. 26 suggested that the word means "precious wood", Hinz, ZA 50252 , translates "Beutekrieger". More recently, Hinz suggests that the words lusa hitek mean "Hörner-Kíieger", see Or. NS XXXI (1962), 34 ff.

[^5]:    ${ }^{1}$ ) Contemporary of Esarhaddon in Assyria; dating uncertain since Assyrian sources mention in his stead the puppet kings Humban-Haltas II ( $68 \mathrm{I}-675$ ) and his successors who have left no inscriptions.

[^6]:    ${ }^{1}$ ) For a more detailed presentation, see Reiner, "Malamir", RA LVII (1963), 169-74. The suggestion of this article, that the texts come from Susa or its vicinity, has been confirmed by the find of Akkadian legal texts in Susa, which contain the same oath formula (by Ruluratir) as the socalled Malamir texts.

[^7]:    ${ }^{1}$ ) Published in MDP IX; add one in MDP XI (No. 309) and one in MDP XXVIII (No. 468).
    ${ }^{2}$ ) An early Achaemenid date is proposed by Cameron, PTT p. 2.4 n. 2.

[^8]:    ${ }^{1}$ ) The existence of an omen text composed in Elamite is unique, but omen texts composed in Elam in Akkadian language are known: one is a tablet with dream omens (MDP XIV pl. 45 f., see Oppenimerm, Dream-book 257ff.), another with astrological omens (Scheil, RA XIV iqo). Besides these, writing habits peculiar to Elam indicate an Elamite provenience of some Babylonian copies of omen texts, for these see Weidner, $A f K$ I p. 6 and n. 2.
    ${ }^{2}$ ) Recently it has been advanced by W. von Soden (WZKM LV [1959] 49f.) that Elamite was a living language under Cambyses, on the strength of a Neo-Babylonian document from Opis (Camb. r43) concerning the sale of a slave girl, in which it is specified that the customary marking on the slave's hand, i.e., the name of the owner, is written both in Akkadian ( $a k$-ka-dta-at-tum) and in Elamite (c!-la-mal-at-fi). This passage however cannot be used as argument for either the survival of Elamite or for the assumption that the owner's name was written in the "simplified late Elamite cuneiform" (Von Soden, loc, cit. p. 50), because the signs in question should be read, on the paleographic evidence of the copy and of the collation as given in the cited article, as abtla$m a-a t-t i$, this word being the standard term for the Aramaic language in the Neo-Assyrian documents of the previous century. Although up to now the term Ahlamit was not found attested in Neo-Babylonian, it is much more likely to suppose that the term was equally in use in the NeoBabylonian period, and that the marking of the owner's name, besides being done in Akkadian cuneiform, was also done in an Aramaic alphabet.

[^9]:    ${ }^{1}$ ) Since that date, new fragments were published by Borger and Hinz, ZDMG 109 (1959) 117 ff . (DMa), and by Cameron, WO 11 (1959) 470 ff. ( $\mathrm{XPh}=$ Daiva).
    ${ }^{2}$ ) The trilingual "Cyrus" inscription CXtb has been assigned to Darius by Hallock, JNES XVII (1958), 256 n .2 , and by R. Borger and W, Hinz, "Eine Dareios-Inschrift aus Pasargadac," ZDMG CIX (1959), 117-127.

[^10]:    ${ }^{1}$ ) A close investigation of this material has already enabled R. T. Hallock to write several penetrating studies about morphological points; for references, see Bibliography.

[^11]:    ${ }^{1}$ ) For a discussion of the origin of the Elamite sign-forms, see CAMERon, PTT 7I fi ,

[^12]:    ${ }^{1}$ ) Latest discussion with bibliography by J. Harmatta, Acta Linguistica Hungarica V (1955) 28 Iff .

[^13]:    ${ }^{1}$ ) For a discussion of this problem, see lastly Cameron, PTT zof., also Hallock, JNES XVII 257 ff.
    $\left.{ }^{2}\right) \mathrm{C}=$ consonant; $\mathrm{V}=$ vowel.
    ${ }^{3}$ ) For a reintroduction of the sign it in the Treasury and Fortification tablets, see Hablock, JNES XVII $260 \mathrm{n}, 8$.

[^14]:    ${ }^{1}$ ) For an interesting suggestion see Rosén, IEJ VII (1957) 132 f .
    ${ }^{2}$ ) For the writing system, see the excellent presentation of Paper, Chapter 2, pp. \&ff.; see also above.

[^15]:    ${ }^{1}$ ) An exception is the consistent writing $d a-a h$ and never $d a$ alone in the Fortification Texts, see Hallock, JNES XVifi 8.

[^16]:    ${ }^{1}$ ) A notation that would take into account "ambiguous graphs that have been phonemicized as far as possible" was proposed by E. Hamir, Word XIII (1957) 506.
    ${ }^{3}$ ) For an interpretation of final $/ a /$ and $/$ if as carrying aspect distinctions, see Hinz, ArOr XVIII/ 1-2 p. 282 ff , and the criticism of Labat, p. 39.
    ${ }^{3}$ ) In the paradigns below, this verb will be transcribed as ( $h$ )utta, with double $t$, in order to respect the Elamite orthography.
    ${ }^{4}$ ) For the distinction in our terminology between nouns and nominals, see 5.0.2.

[^17]:    ${ }^{1}$ ) The terminology is that of Damourette and Pichon (Des Mots a la Pensic, esp. vol. III \$5 813ff.), cited J. Fourouet, Les Efudes Philosophiques No. 4 (1058) p. 43 r.

[^18]:    ${ }^{1}$ ) Thus also Hallock, JAOS LXXVI 4,4 n, 6 , and JNES XVIII 5 f ,

[^19]:    ${ }^{1}$ ) In a number of languages kinship terms, along with certain other words, belong to the grammatical category dubbed inalienable possession (possession inaliénable) by Lévy-Bruin, and difier in their morphology and syntactical construction from other nouns of the language. For this group of terms see lastly H. B. Rosén, Limgua VIII (1959) 267 fit and V. Krupa, bSOAS XXVII (1964) 434 f .

[^20]:    ${ }^{1}$ ) Formally, all resumptive pronouns are written $i r$, in one case only in.

[^21]:    ${ }^{1}$ ) Segmentation of a text into sentences this way is confirmed by the corresponding Old Persian or Babylonian versions wherever such can be adduced.

[^22]:    ${ }^{1}$ ) From examples cited by Hallock, JAOS LXXVI 45, it appears that in the Fortification texts nominal predicates occur at the end of a sentence. The problem can be investigated further only when the pertinent material is published. Nominal predicates, inflected for animate plural only, are attested otherwise only in the apodoses of the only extant Elamite omen text (see above p. 63), in positions where Akkadian parallels use the present-future tense of the verb.

[^23]:    $\left.{ }^{1}\right)$ Perbaps $n$-lina, see §̧ 6.t.3., also assimilated to ullina, illita.

[^24]:    ${ }^{1}$ ) $-k i$ stands for the locutive gender suffix /k/, but this suffix is written -ki-ik if the preceding word ends in a consonant, e.f., šak Hallutuš-Tnšušinak-ki-ik, sak Attarkitah-ki-ik, but note sak Sutruk-Nahuntc-ki-ik (once even -ki-ik-ki) as against frequent sak Sutruk-Nahuntc-ik/ki. This |k| morpheme seems to have become a spirant in late ME, since, in the inscriptions of Hallutuš Inšusinak, Šutruk-Nahunte II and Hanni, we find: Šak Hupan-tahrah-ha, sak Tahhi-hi, šak Hutran-tepti-ha, and, with hypercorrection, s̆ak Hupanimena-ki-ik-ki.

[^25]:    ${ }^{1}$ ) The gender suffix of the first person which is often omitted in RAE after the nominal to which it refers reappears in concord situation.

[^26]:    ${ }^{1}$ ) The "transposition," as different from the connected sentence-for-sentence translation given at the end, is a morpheme-for-morpheme translation. Grammatical morphemes which have an English equivalent are so translated; for example, the personal suffixes after verbal forms as "- 1 " (the-h or zero suffix for the ist sg.), "-you" (the -t suifix for the and sg. and pl.), etc. Norphemes for which no such English equivalent exists are identified by their meaning, i.e., by the name of the grammatical category to which they refer, such as the gender morphemes LOCUTIVE, singular (SG), plural (PL), 3rd person (3RD), CONNECTIVE, or by their Elamite form, such as MA, TA. The "quotational morpheme" is rendered by QUOTE. When the English gerund or past participle ending translates the corresponding Elamite endings, these endings (-ing, -ed, etc.) are separated from the verb stem by a vertical bar. Compounds are divided by a +- sign.

[^27]:    ${ }^{1}$ ) In the text printed above I have indicated the "graphic" gemination in the transcription of those Elamite words which are, as a rule, written with a double consonant, both in the examples and in the paradigms (sce p. $75 \mathrm{n}, 3$ ).

[^28]:    1) The transcription of Old Persian names in the Elamite Persepolis tablets, listed in E. Benveniste, Titres et noms propres in iranien ancien, Paris, 1966, 77-97, does not contradict these conclusions.
