

*Susa: Ancient Near Eastern Treasures in the Louvre*, New York, 1992a, pp. 68-70. Idem, "The Late Uruk Period," in P. Harper et al., eds., *The Royal City of Susa: Ancient Near Eastern Treasures in the Louvre*, New York, 1992b, pp. 48-57. E. Porada, *Tchoga Zanbil (Dur-Untash)*, Mémoires de la Délégation archéologique en Iran 42, Paris, 1970. E. Reiner, "Inscription from a Royal Elamite Tomb," *Archiv für Orientforschung* 24, 1973, pp. 87-102. M. Roaf, "The Diffusion of the 'Salles à quatre saillants,'" *Iraq* 35, 1973, pp. 83-91. R. M. Schacht, "Early Historic Cultures," in F. Hole, ed., *The Archaeology of Western Iran*, Washington, D.C., 1987, pp. 171-203. E. Schmidt, M. van Loon, and H. Curvers, *The Holmes Expeditions to Luristan*, Oriental Institute Publications 108, Chicago, 1989. U. Seidl, *Die elamischen Felsreliefs von Kūrāngūn und Naqš-e Rostam*, Iranische Denkmäler 12, Berlin, 1986. A. Spycket, *Les figurines de Suse: Les figurines humaines IVe-IIe millénaires av. J.-C.*, Mémoires de la Délégation archéologique en Iran 52, Paris, 1992a. Idem, "The Middle Elamite Period. Metal, Clay and Ivory Sculpture. Funerary Heads," in P. Harper et al., eds., *The Royal City of Susa: Ancient Near Eastern Treasures in the Louvre*, New York, 1992b, pp. 135-36. P. Steinkeller, "The Question of Marḥaši. A Contribution to the Historical Geography of Iran in the Third Millennium B.C.," *ZA* 72, 1982, pp. 237-65. Idem, "On the Identity of the Toponym LÚ.SU(A)," *JAOS* 108, 1988, pp. 197-202. Idem, "More on LÚ.SU(A)=Šimški," *Nouvelles assyriologiques brèves et utilitaires* 1, 1995, pp. 10-11. M.-J. Steve, H. Gasche, and L. De Meyer, "La Susiane au IIe millénaire. À propos d'une interprétation des fouilles de Suse," *Iranica Antiqua* 15, 1980, pp. 49-154. M. W. Stolper, "Preliminary Report on Texts from Tall-e Malyān 1071-1974," in F. Bagherzadeh, ed., *Proceedings of the IVth Annual Symposium on Archaeological Research in Iran*, Tehran, 1976, pp. 89-100. *Texts from Tall-i Malyan: Elamite Administrative Texts (1972-1974)*, Occasional Publications of the Babylonian Fund 6, Philadelphia, 1984. W. Sumner, "Excavations at Tall-i Malyān, 1971-72," *Iran* 12, 1974, pp. 155-80. Idem, "Excavations at Tall-i Malyān (Anshan) 1974," *Iran* 14, 1976, pp. 103-15. Idem, "Political History," in E. Carter and M. W. Stolper, eds., *Elam: Surveys of Political History and Archaeology*, Near Eastern Studies 25, Berkeley and Los Angeles, 1984, pp. 3-100. Idem, "Malijān, Tall-e," in *RIA*, 1988, 7/3-4, pp. 306-20. Idem, "Anshan in the Kaftari Phase. Patterns of Settlement and Land Use," in L. De Meyer and E. Haerinck, eds., *Archaeologia Iranica et Orientalis: Miscellanea in Honorem Louis vanden Berghe* I, Ghent, 1989, pp. 135-61. H. Thrane, "Tepe Guran and the Luristan Bronzes," *Archaeology* 23, 1970, pp. 26-35. L. Trümpelmann, "Eine Kneipe in Susa," *Iranica Antiqua* 16, 1981, pp. 35-44. F. Vallat,

"Kidin-Hutran et l'époque néo-Élamite," *Akkadica* 37, 1984, pp. 1-17. Idem, "Réflexions sur l'époque des *sukkalmah*," in F. Vallat, ed., *Contribution à l'histoire de l'Iran: Mélanges offerts à Jean Perrot*, Paris, 1990, pp. 119-27. L. Vanden Berghe, "La construction des tombes au Pusht-i Kūh, Luristān, au 3<sup>e</sup> millénaire avant J.-C.," *Iranica Antiqua* 14, 1979, pp. 39-49. E. de Waele, "Shutruk-Nahhunte II et les reliefs rupestres dits néo-élamites d'Iseh-Malamir," *Revue des archéologues et historiens d'art de Louvain* 5, 1972, pp. 17-31. Idem, "Travaux archéologiques à Šekāf-e Salmān et Kūl-e Farah près d'Izeh (Mālamir)," *Iranica Antiqua* 16, 1981, pp. 45-62. H. T. Wright, ed., *Archaeological Investigations in Northeastern Xuzestan, 1976*, Technical Reports 10, Ann Arbor, Mich., 1979. Idem, ed., *An Early Town on the Deh Luran Plain: Excavations at Tepe Farukhabad*, Memoirs of the Museum of Anthropology, The University of Michigan, 13, Ann Arbor, 1981.

(ELIZABETH CARTER)

### iii. PROTO-ELAMITE

"Proto-Elamite" is the term for a writing system in use in the Susiana plain and the Iranian highlands east of Mesopotamia between ca. 3050 and 2900 B.C.E., a period generally considered to correspond to the Jamdat Nasr/Uruk III through Early Dynastic I periods in Mesopotamia. This span is represented in Iran by levels 16-14B in the Acropole at Susa (Le Brun, 1971), as well as Tepe Yahya (Yahyā) IVC, Sialk (Sīalk) IV2, and Late Middle Banesh (Baneš). Proto-Elamite tablets are the earliest complex written documents from the region; the script consists of both numerical and ideographic signs, the latter sometimes assumed to represent a genetically related precursor of the Old Elamite language (see iv, below). This supposed precursor language is, however, unknown, and the script itself has been only partially deciphered. Nevertheless, conclusions about the contents of the Proto-Elamite texts can be drawn from contextual analyses and formal similarities to proto-cuneiform tablets from Mesopotamia. In particular, the structure of published documents containing accounts and the use of numerical signs and of certain signs for objects in bookkeeping can be somewhat clarified.

*History of decipherment.* Since the first Proto-Elamite documents were discovered at the turn of the century (Scheil, 1900, pp. 130-31; Friberg, I, pp. 22-26) approximately 1,450 Proto-Elamite tablets from Susa have been published. Recent excavations at other sites have proved that the script and numerical systems known from Susa were in use at administrative centers ranging across Persia as far as the Afghan border, including the sites of Sialk, Malyan (Maliān), Yahya, and Shahr-i Sokhta (Šahr-e Sūkta; Damerow and Englund, 1989, pp. 1-2; Stolper, 1985, pp. 6-8; Sumner, 1976; Carter and Stolper, p. 253;

Nicholas, p. 45). The texts, written on clay tablets, seem without exception to be administrative documents: receipts and transfers of grain, livestock, and laborers; rationing texts; and so on. There are neither literary nor school texts of the sort known as "lexical lists" from contemporary Mesopotamia. The earlier "numerical tablets" from Godin (Gowdin) Tepe V and Chogha Mish (Čoġa Miš, q.v.), generally dated contemporary with Uruk IVb and level 17 in the Acropole at Susa, lack ideographic signs and are thus not classified as Proto-Elamite (Weiss and Young, pp. 9-10; Porada, p. 58).

Some scholars have attempted to demonstrate a link between the Proto-Elamite and Linear Elamite scripts (see v, below; Hinz, 1975; Meriggi, 1971-74, I, pp. 184-200; André and Salvini), but adducing syllabic values proposed for Linear Elamite has not led to successful deciphering of Proto-Elamite. A preliminary graphotactical analysis of the Proto-Elamite texts has also met with only modest success (Meriggi, 1975; idem, 1971-74, I, pp. 172-84; Brice, 1962-63, pp. 28-33; Gelb, 1975). Other scholars have attempted to establish a connection between Proto-Elamite and proto-cuneiform, which first appeared in Uruk IVa (ca. 3200-3100 B.C.E.) and thus seems to predate Proto-Elamite by about a century (Langdon, p. viii; de Mecquenem, p. 147; Gelb, 1952, pp. 217-20; Meriggi, 1969; Damerow and Englund, 1989, pp. 11-28).

Advances in the decipherment of Proto-Elamite have been hindered to a certain degree by the absence of necessary philological tools. A first step would be a sign list sufficiently dependable and cleansed of redundant variants to offer an approximate idea of the number and frequency of signs in the scribal repertoire, as well as providing a transcriptional instrument for analysis of sign combinations and simple contexts. Such textual work is a prerequisite for a complete edition of the Proto-Elamite texts.

Sign lists provided by early editors (Scheil, 1905; idem 1923; idem, 1935; de Mecquenem; Meriggi, 1971-74) have proved wanting (Damerow and Englund, 1989, pp. 4-7). The first serious attempt at a formal description and decipherment of Proto-Elamite script was undertaken in the 1960s and early 1970s (Brice, 1962-63; idem, 1963; Meriggi, 1971-74; Vaiman, 1989a). Most recent advances have resulted from a new understanding of the structure of the numerical sign systems, which has provided a powerful tool for semantic identification of a number of ideograms, including those for grain products, animals, and, it seems, human beings (Vaiman, 1989a; Friberg, I; Damerow and Englund, 1989).

*Format and semantic hierarchy.* Proto-Elamite texts are written on clay tablets similar in general shape and proportions to Mesopotamian clay tablets of the 3rd millennium B.C.E., including Uruk III proto-cuneiform tablets of the later phase. The tablets are thick oblongs, their height and width

normally in a ratio of 2:3. Following the convention established in the earliest proto-cuneiform phase, Proto-Elamite scribes used both sides of the tablet. Regardless of the space remaining after two or more entries on the obverse, the scribe usually rotated the tablet around a vertical axis and recorded the totals along the upper edge of the reverse. Larger accounts could have a more complex format (Brice, 1962-63, pp. 20-21; Vaiman, 1989a, pp. 130-32; Damerow and Englund, 1989, pp. 11-13; Figure 1).

Three features distinguish Proto-Elamite tablets from proto-cuneiform documents, however. First, the Proto-Elamite documents were written in a linear script. Second, the first signs on a tablet, the heading, have approximately the same function as the proto-cuneiform "colophon," which is usually inscribed together with the final total on the reverse of the tablet; Proto-Elamite headings never contain numerical notations, however. Third, each entry normally includes an ideogram followed by a numerical notation, a divergence from the strict sequence of numerical sign followed by ideogram in proto-cuneiform texts.

The heading of a Proto-Elamite tablet generally specifies the purpose and authorizing person or institution; the best known such ideographic designation is the so-called "hairy triangle," which seems to represent a leading institution or possibly kin group in Elam. Qualifying ideograms were inscribed within this sign, apparently to designate subordinate institutions or groups (Dittmann, 1986a, pp. 332-66; Lamberg-Karlovsky, p. 210; Damerow and Englund, 1989, p. 16). Following these introductory sign combinations are the individual entries, in horizontal registers without regard to formal arrangement into columns (Figures 2-3). The ideograms in Proto-Elamite text entries seem almost exclusively to denote persons, quantified objects, or both; sign combinations seeming to designate persons invariably precede those designating quantified objects when both appear in one notation. A sign or sign combination representing a person or title is often introduced by a sign representing his position. Objects are generally designated by ideograms in combination with qualifiers; as yet, however, there are no statistical means of testing the probability that certain signs functioned as qualifiers of presumed substantives.

In Proto-Elamite documents there can be multiple entries with different levels of internal organization. A text may consist simply of a sequence of entries of exactly the same type; an example would be a list of grain rations for a number of different recipients. A text may also embody a hierarchical order of transmitted information, as in the oft-encountered alternation of two different types of entry, perhaps a number of workers followed by the amount of grain allotted to them. In this instance the two entries may be considered to be combined in a more comprehensive text unit. A text may also, however, be highly

structured, with many identifiable levels, reflecting, for instance, the organizational structure of a labor unit (Figures 2-3; Nissen, Damerow, and Englund, pp. 116-21).

That all entries seem to contain numerical notations suggests that they represent a bookkeeping

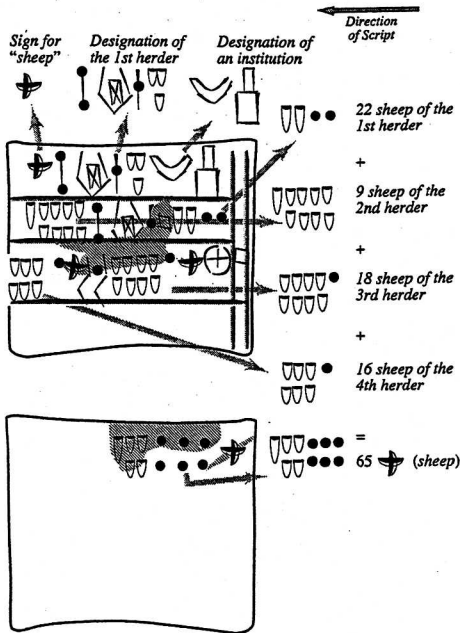


Figure 1. Proto-Elamite administrative account of four sheep herds. (Scheil, 1905, no. 212; scale 1:2).

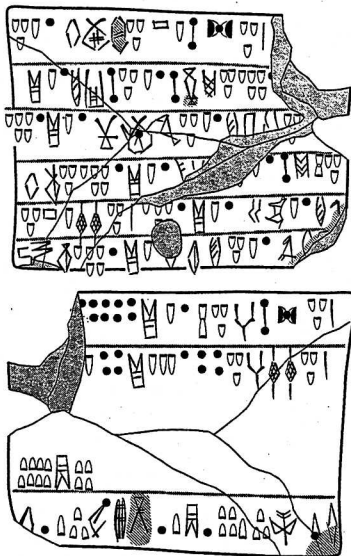


Figure 2. A proto-Elamite account of cereal rations for labor gangs of two supervisors (Scheil, 1905 no. 4997; scale 1:2).

system, rather than the distinct sentences or other comparable semantic units of a spoken language. This semantic structure is evidence of a close relation between Proto-Elamite and proto-cuneiform texts. Proto-Elamite headings correspond to the "colophons" that often accompany totals on proto-cuneiform texts. Entries in Proto-Elamite documents correspond to the physically encased notations on proto-cuneiform texts; curiously, the hierarchical structure of individual Proto-Elamite entries is not reflected in a syntactical structure, whereas in Mesopotamian texts this hierarchy continues to be represented in some measure by the graphic arrangement of cases and subcases. Despite different graphic forms, Proto-Elamite texts thus exhibit the same general semantic structure as that of proto-cuneiform texts. This relationship must be considered a strong indication of their relative chronology: The more developed linear syntax apparent in Proto-Elamite texts, in which the graphical arrangement of

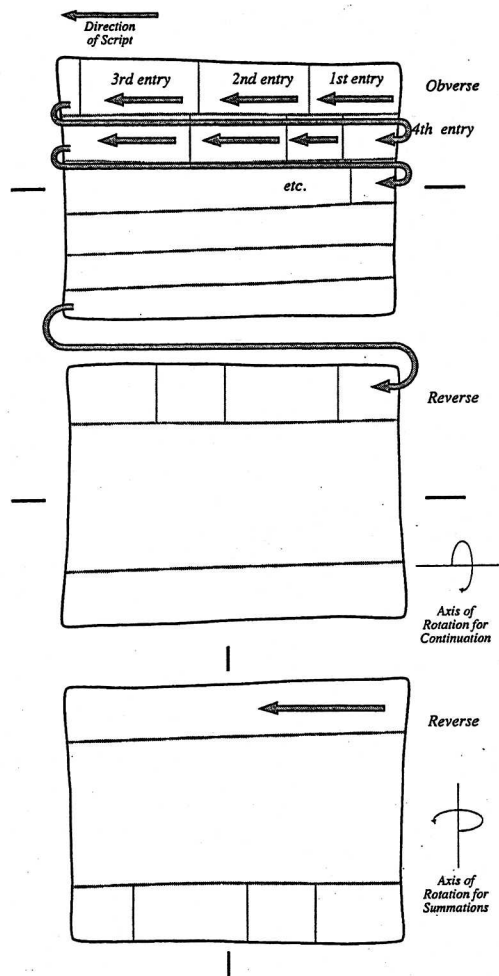


Figure 3. Complex rotation of the proto-Elamite account (Scheil, 1905, no. 4997).

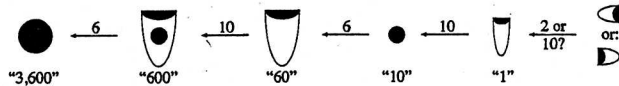
semantic units has been dispensed with, implies that proto-cuneiform is earlier. This conclusion is in full accord with the established stratigraphic correspondences between Susa and Uruk (Dittmann, 1986a, pp. 296-97, 458 table 159e; Dittmann, 1986b, p. 171 n. 1).

**Numerical sign systems.** Early work on the numerical notations in Proto-Elamite texts was hampered by inadequate identification of individual signs and in particular of sign systems, which were applied in Mesopotamia and Elam to record different types of objects. Initially there was an attempt to combine a large number of what are now recog-

nized as incompatible numerical notations into a single "decimal" system (Scheil, 1905, pp. 115-18; idem, 1923, p. 3). This attempt was abandoned in 1935, when it was recognized that different numerical systems had been in use in Mesopotamia, particularly for enumeration of discrete objects and for measuring grain by capacity (Scheil, 1935, pp. i-vi). It was, however, mistakenly assumed that the sign • had the same decimal value  $10 \times \nabla$  (instead of  $6 \times \nabla$ ) when representing grain measures as when representing numbers of discrete objects (Thureau-Dangin, p. 29; Langdon, pp. v, 63-68; Vaiman, 1989a), which prevented understanding of capacity notations until

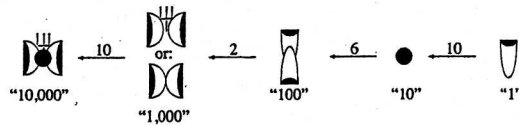
#### Sexagesimal System S

System used to count discrete inanimate objects.



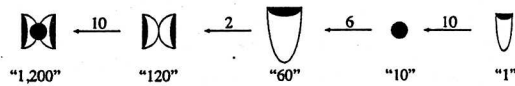
#### Decimal System D

System used to count discrete animate objects, in particular domesticated animals and human laborers.



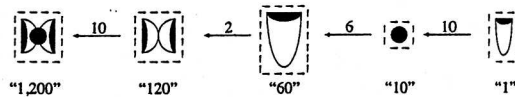
#### Bisexagesimal System B

System used to count discrete grain products; objects noted with this system may, as in archaic Babylonia, belong to a rationing system.



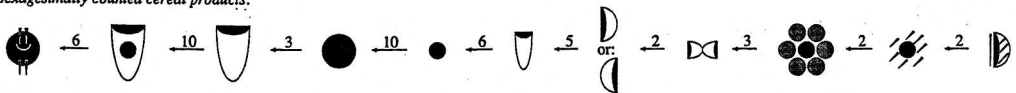
#### Bisexagesimal System B#

System derived from the bisexagesimal system B, used to count rations (?) of an unclear nature.



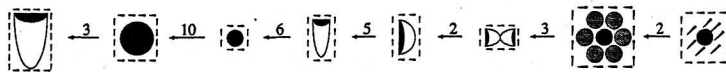
#### Capacity System C

System used to note capacity measures of grain, in particular barley; the small units also designate bisexagesimally counted cereal products.



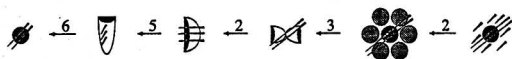
#### Capacity System C#

System derived from the capacity system C, possibly related to the system B#.



#### Capacity System C"

System derived from the capacity system C, graphically related to the Babylonian system used to measure emmer.



#### Area System A

System used to note area measures.

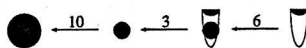


Figure 4. Numerical sign systems attested in the proto-Elamite text corpus (Damerow and Englund, 1989, 18-30; the numbers located above the arrows indicate how many respective units were replaced by the next higher unit). In the capacity system, the basic sign  $\nabla$  (= "1" in the systems qualifying discrete units) may have represented ca. 25 liters of grain.

the late 1970s (Friberg, 1978-79). Although detailed documentation of the various numerical systems has not yet been undertaken, the formal structure of these systems and their dependence upon the older proto-cuneiform systems are now clear (Damerow and Englund, 1987, pp. 117-21, 148-49 n. 12; idem, 1989, pp. 18-30).

As the semantic analysis of Proto-Elamite is largely dependent upon examination of the contexts in which signs are used, the close connection with proto-cuneiform sources in the numerical systems has been helpful in establishing correspondences between Proto-Elamite and proto-cuneiform ideograms. For example, the sexagesimal system used in Mesopotamia for most discrete objects, including domestic and wild animals, human beings, tools, products of wood and stone, and containers (sometimes in standard measures), is also well attested in the Susa administrative texts, though the field of application seems limited to inanimate objects like jars of liquid and arrows (Damerow and Englund, 1989, pp. 52-53). A decimal system used in Proto-Elamite texts for counting animals and human beings has no proto-cuneiform counterpart. Bisexagesimal notations qualify barley products, as in contemporary Mesopotamian documents. The numerical system for indicating grain capacity involves signs from the sexagesimal system but with entirely different arithmetical values. This system is well attested in both Proto-Elamite and proto-cuneiform sources and seems to have had the same area of application. In particular, the small units inscribed below  $\nabla$  are qualifying ideograms for grain products, thus denoting the quantity of grain in one unit of the product. The Proto-Elamite system differs from the proto-cuneiform system in that below the sign  $\nabla$  only units that are multiples of one another appear (e.g.  $1/2$ ,  $1/4$ ,  $1/8$ ), a simpler system than the somewhat cumbersome use of fractions in proto-cuneiform texts (Damerow and Englund, 1987, pp. 136-41). As with the proto-cuneiform texts, in the Proto-Elamite texts there are numerical systems graphically derived from the basic systems but perhaps applied to different sorts of discrete objects or grain (Figure 4). All these similarities together suggest that the Proto-Elamite systems, with the exception of the decimal system, were borrowed from Mesopotamia; even signs in the decimal system were apparently borrowed from the Mesopotamian bisexagesimal system to represent the higher values 1,000 and 10,000.

**Ideograms.** Semantic analysis of the objects counted by the decimal system has led to the probable identification of a number of ideograms. The most important are the two signs  $\nabla$  and  $\nabla$ . The graphic form, as well as the association, of the ideogram  $\nabla$  with other signs strongly resembling proto-cuneiform signs known to represent domestic animals, in particular sheep and goats ( $\oplus$ ), suggests the interpretation of this sign as "sheep" (Figure 1). In texts from the essentially rural economy of an-

cient Persia the large numerical notations qualifying this ideogram and related signs seem to confirm the identification. The fact that the signs are on the whole abstract forms may suggest either a set of symbols for domestic animals common in Mesopotamia and Susiana before the inception of written documents or, more likely, signs borrowed in altered form from Uruk (Damerow and Englund, 1989, pp. 53-55).

It appears that the very common sign  $\nabla$  was used to qualify personal names. All signs or sign combinations in a text may be introduced by it, though more commonly it introduces only the first entry (Damerow and Englund, 1989, pp. 53-55). The same sign was used as an ideogram for objects, together with decimal notations commonly used for counting animals. This double function suggests that the sign denotes a category of workers or slaves. The use of the sign in both ways is firmly established in the text illustrated in Figures 2-3 (Damerow and Englund, 1989, pp. 56-57; Nissen, Damerow, and Englund, pp. 116-21). In the same text numbers of objects represented by this ideogram correspond to a regular capacity measure of barley of  $1/2$   $\nabla$ , parallel to texts known from contemporary Mesopotamia. Finally, the sign is often used parallel to signs that may thus also be interpreted as referring to persons. One of them is a clear graphic equivalent of the proto-cuneiform sign SAL ( $\nabla$ ), so that both the graphic and semantic correspondences of proto-Elamite  $\nabla$  to proto-cuneiform  $\nabla$ , meaning "male slave/laborer" (Vaiman, 1989b), seem clear.

**Bibliography:** B. André and M. Salvini, "Réflexions sur Puzur-Inšušinak," *Iranica Antiqua* 24, 1989, pp. 53-72. W. Brice, "The Writing System of the Proto-Elamite Account Tablets of Susa," *Bulletin of the John Rylands Library* 45, 1962-63, pp. 15-69. Idem, "A Comparison of the Account Tablets of Susa in the Proto-Elamite Script with Those of Hagia Triada in Linear A," *Kadmos* 2, 1963, pp. 27-38. E. Carter and M. Stolper, *Elam: Surveys of Political History and Archaeology*, Berkeley and Los Angeles, 1984. P. Damerow and R. K. Englund, "Die Zahlzeichensysteme der archaischen Texte aus Uruk," in M. Green and H. Nissen, eds., *Zeichenliste der Archaischen Texte aus Uruk*, Berlin, 1987, pp. 117-66. Idem, *The Proto-Elamite Texts from Tepe Yahya*, American School of Prehistoric Research Bulletin 39, Cambridge, Mass., 1989. R. Dittmann, *Betrachtungen zur Frühzeit des Südwest-Iran*, Berlin, 1986a. Idem, "Susa in the Proto-Elamite Period and Annotations on the Painted Pottery of Proto-Elamite Khuzestan," in U. Finkbeiner and W. Röllig, eds., *Gamdat Našr: Period or Regional Style?* Wiesbaden, 1986b, pp. 332-66. J. Friberg, *The Early Roots of Babylonian Mathematics*, 2 vols., Göteborg, 1978-79. I. Gelb, *A Study of Writing*, Chicago, 1952. Idem, "Methods of Decipherment," *JRAS*, 1975, pp. 95-104. W. Hinz, "Persia ca.



2400-1800 B.C.," in *CAH* I/2, pp. 644-80. Idem, "Problems of Linear Elamite," *JRAS* 1975, pp. 106-15. C. C. Lamberg-Karlovsky, "Third Millennium Structure and Process. From the Euphrates to the Indus and the Oxus to the Indian Ocean," *Oriens Antiquus* 25, 1986, pp. 189-219. S. Langdon, *Pictographic Inscriptions from Jemdet Nasr*, Oxford Editions of Cuneiform Texts 7, Oxford, 1928. A. Le Brun, "Recherches stratigraphiques à l'Acropole de Suse, 1969-1971," *CDAFI* 1, 1971, pp. 163-216. R. de Mecquenem, *Épigraphie proto-élamite*, Mémoires de la Délégation en Perse 31, Paris, 1949. P. Meriggi, "Altsumerische und proto-elamische Bilderschrift," *ZDMG* Suppl. 1, 1969, pp. 156-63. Idem, *La scrittura proto-elamica*, 3 vols., Rome, 1971-74. Idem, "Comparaisons des systèmes idéo-graphiques mino-mycénien et proto-élamique," in M. Ruipérez, ed., *Acta Mycenaea* II, Minos 12, 1972, pp. 9-17. Idem, "Der Stand der Erforschung des Proto-elamischen," *JRAS*, 1975, p. 105. I. Nicholas, "Investigating an Ancient Suburb," *Expedition* 23, 1981, pp. 39-47. H. Nissen, P. Damerow, and R. Englund, *Frühe Schrift und Techniken der Wirtschaftsverwaltung im alten Vorderen Orient*, 2nd ed., Bad Salzdetfurth, Germany, 1991. E. Porada, "Iranian Art and Archaeology. A Report of the Fifth International Congress, 1968," *Archaeology* 22, 1969, pp. 54-65. E. Reiner, "The Elamite Language," in B. Spuler, ed., *Altkeleinsasiatische Sprachen*, Leiden, 1969, pp. 54-118. V. Scheil, *Textes élamites-sémitiques*, Mémoires de la Délégation en Perse 2, Paris, 1900. Idem, *Documents en écriture proto-élamite*, Mémoires de la Délégation en Perse 6, Paris, 1905. Idem, *Textes de comptabilité proto-élamites*, Mémoires de la Délégation en Perse 17, Paris, 1923. Idem, *Textes de comptabilité proto-élamites*, Mémoires de la Délégation en Perse 26, Paris, 1935. M. Stolper, "Proto-Elamite Texts from Tall-i Malyan," *Kadmos* 24, 1985, pp. 1-12. W. Sumner, "Excavations at Tall-i Malyān (Anshan) 1974," *Iran* 14, 1976, pp. 103-15. F. Thureau-Dangin, "Tablettes à signes picturaux," *RA* 24, 1927, pp. 23-29. A. Vaiman, "Die Bezeichnung von Sklaven und Sklavinnen in der protosumerischen Schrift," tr. T. Götzelt, in *Baghdader Mitteilungen* 20, 1989a, pp. 121-33. Idem, "Über die Beziehungen der protoelamischen zur protosumerischen Schrift," tr. I. Damerow, in *Baghdader Mitteilungen* 20, 1989b, pp. 101-14. H. Weiss and T. C. Young, Jr., "The Merchants of Susa. Godin V and Plateau-Lowland Relations in the Late Fourth Millennium B.C.," *Iran* 13, 1975, pp. 1-17.

(ROBERT K. ENGLUND)

#### IV. LINEAR ELAMITE

Linear Elamite was a system of writing used at the end of the 3rd millennium B.C.E. by Puzur-Inšušinak, the last of the twelve "kings of Awan," according to

a king list found at Susa (Scheil; Gelb and Kienast, pp. 321 ff.; see i, above). He ruled ca. 2150 B.C.E. and was a contemporary of Ur-Nammu, the first ruler of the Ur III dynasty in Mesopotamia, and Gudea, *ensi* of Lagash (Wilcke, p. 110). Linear Elamite (Meriggi, pp. 184-220, tables I-IV: "script B") may have been derived from Proto-Elamite script ("script A"; see iii, above), with which it has some signs in common; it may not have survived Puzur-Inšušinak. It was written either from left to right or from right to left.

There are only twenty-two known documents in Linear Elamite; they are identified by letters A-V (Hinz, 1969, pp. 11-44; Hinz 1971; André and Salvini, 1989, pp. 58-61); nineteen of them are on stone and clay objects excavated in the Acropole at Susa and are now in the Louvre, Paris (cf. André-Salvini, 1992). There is also a fine silver vase with a line of perfectly executed text, (Q) preserved in the Tehran Museum; its provenance is unknown (Hinz, 1969, pp. 11-28). Six linear signs, three of which are without parallel (hapax legomena) in known Linear Elamite writing, are engraved on the rim of a vase (S) from Shahdad (Šahdād) in Kermān (Hinz, 1971). Finally, on a marble stamp seal (V) of unknown origin there is a representation of a bull surmounted by three linear signs (two of them unattested variants), which probably hide a personal name (Glock, Auction Drouot, no. 466). A tablet bearing the only Susa Linear Elamite text (O) that does not come from the Acropole includes signs analogous to but different from those on the other objects and must be considered to represent a different and probably older system of writing.

The most important longer texts, appear in monumental contexts, and are partly bilingual. They are engraved on large stone sculptures, including a statue of the goddess Narunte (I), the "table au lion" (A; Figure 1), and large votive boulders (B, D), as well as on a series of steps (not steles! cf. Scheil, MDP X, pp. 9-11, pl. 3; F, G, H, U) from a monumental stone stairway, where they alternated with steps bearing texts with Puzur-Inšušinak Akkadian titles (cf. André

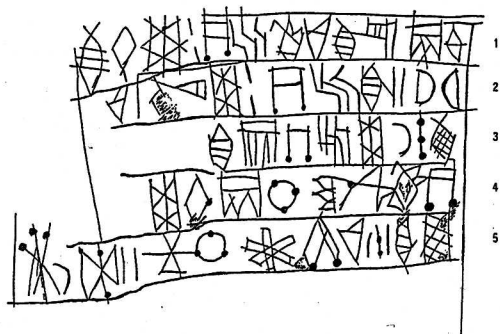


Figure 1. Linear Elamite text A, from the "table au lion" (Sb 17) in the Musée du Louvre, Paris. It is written from right to left and from top to bottom.