The Proto-Elamite Script

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The ideographic writing system conventionally called Proto-Elamite was developed and used in western and southern Persia at the end of the fourth through the beginning of the third millennium B.C.E., a historical phase generally considered to correspond to the Jemdet Nasr and the Early Dynastic I periods in Mesopotamia (Le Brun 1971; Damerow and Englund 1989: 1-4). The region of Persia designated "Elam" in later Mesopotamian cuneiform sources lent its name by association to the language spoken there; Old Elamite/Old Akkadian bilinguals employing the partially deciphered linear Elamite and Old Akkadian cuneiform date this language of unknown linguistic affiliation (Reiner 1969) no earlier than ca. 2300 B.C.E. "Proto-Elamite" is the name used for the writing system of the earliest documents from the region—texts on clay tablets which are assumed to represent a precursor of Old Elamite (Hinz 1975; Meriggi 1971: 184-220; André and Salvini 1989). The earlier language has not, however, been identified; the phonological structure of the archaic script is thus entirely unknown. However, contextual analyses and the formal similarity of Proto-Elamite documents to better-understood proto-cuneiform tablets from Mesopotamia dating to ca. 3200-3000 B.C.E. make possible a substantive assessment of the ideographic nature and the fields of application of the indigenous Persian writing system.

History of decipherment

Since the first archaic texts were discovered at the turn of the twentieth century, some 1500 Proto-Elamite tablets have been published, the great majority excavated at Susa on the Kerkha river east of Babylonia, but including in smaller numbers tablets found in sites reaching to the southeast across to Shahr-i Sokhta on the Afghanistan border (Damerow and Englund 1989: 1–2). The tablets are administrative documents, to the near total exclusion of either literary or lexical texts.

Syllabic sign readings adduced from an assumed link between Proto-Elamite and the ostensibly related linear Elamite (see above) have not led to successful decipherment of the archaic script. A preliminary graphotactical analysis of the Proto-Elamite texts has also met with only modest success (Meriggi 1975: 105, 1971: 172–84; Brice 1962–63: 28–33; Gelb 1975). To be sure, scholars have with mixed success established some graphic and semantic connections between Proto-Elamite and proto-cuneiform, the first writing stage of which predates that of Proto-Elamite by some 100

Direction of script Obverse Reverse Axis of rotation for continuation Reverse Axis of rotation for summation

FIGURE 13. Complex rotation of the Proto-Elamite account Scheil 1905, no. 4997 (all figures depict tablets and signs in true orientation; see Damerow and Englund 1989: 11–12, n. 30). Proto-Elamite tablets were rotated around their horizontal axis to inscribe additional individual entries on the reverse, if necessary; summations were also entered on the reverse face of tablets, but in this case the accounts were rotated around their vertical axis.

years (Langdon 1928: viii; Mecquenem 1949: 147; Gelb 1963: 217–20; Meriggi 1969: 156–63; Damerow and Englund 1989: 11–28). However, a lack of necessary philological tools, above all a dependable sign list purged of redundant sign variants, continues to hinder progress in this work.

Basic characteristics of Proto-Elamite script and texts

A preliminary study of the entire text corpus suggests that the Proto-Elamite sign repetory was comparable to that of proto-cuneiform, using less than 1000 individual

Sexagesimal System S

Decimal System D

Used to count discrete animate objects, in paticular domesticated animals and human laborers

Used to count discrete inanimate

Bisexagesimal System B

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

Bisexagesimal System B#

Derived from System B, used to count rations(?) of an unclear nature



Capacity System C↓

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

objects "3,600"

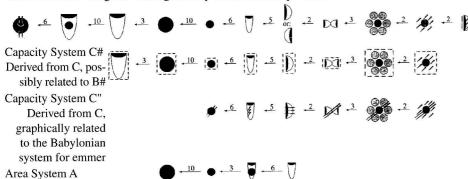


FIGURE 14. Numerical sign systems attested in the Proto-Elamite text corpus (Damerow and Englund 1989: 18-30; the numbers above the arrows indicate how many respective units are replaced by the next higher unit). In the capacity system, the basic sign (middle column; = "1" in the systems qualifying discrete units) may have represented ca. 25 liters of grain.

signs and thus in the range of logo- or ideographic writing systems (Damerow and Englund 1989: 4-7). Superficially, a large number of signs seem entirely abstract which, considering the probability that the script developed explosively during the Jemdet Nasr Period (ca. 3050-3000 B.C.E.), suggests that its developers consciously chose geometric and other nonpictorial shapes and introduced them into conventional usage. The extent to which pictography may have been represented in a dead script is, however, difficult to discern.

The first serious work on a formal description of the Proto-Elamite texts was done in the 1960s and early 1970s (Brice 1962-63, 1963; Meriggi 1971-74; Vaiman 1972). Proto-Elamite documents were written in a linearized script from right to left,

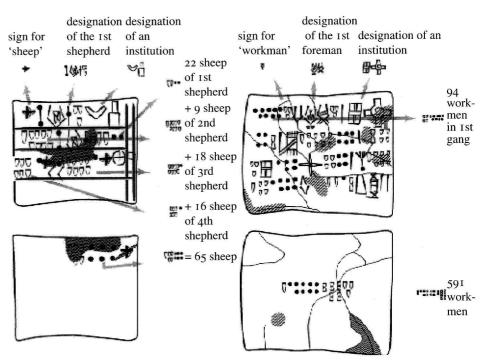


FIGURE 15. Proto-Elamite administrative accounts. Left: Account of four sheep herds (Scheil 1905, no. 212). The graphic form and the large numerical notations, as well as the association of the crossshaped ideogram with other signs that bear a strong graphic resemblance to proto-cuneiform signs known to represent domestic animals (the circled cross and derived signs), make plausible the interpretation of this sign as 'sheep and goats'. The fact that the signs are on the whole abstract forms may be suggestive either of a set of symbols commonly shared in Mesopotamia and Susiana for domestic animals prior to the inception of written documents (so-called tokens), or—and this seems more likely—of a defective borrowing of signs already in use in Uruk (Schmandt-Besserat 1992; Damerow and Englund 1989: 53-55). Right: Account of seven labor gangs (Scheil 1923, no. 45). The sign for 'workman' is the most common sign used as a symbol qualifying Proto-Elamite names. All the names in a text may be introduced by this sign; for the most part, however, only the first entry of a text is (Damerow and Englund 1989: 53-55).

in lines from top to bottom. The first signs on a Proto-Elamite tablet generally express the purpose and acting person or institution of the text, followed by individual entries, without the formal arrangement of the tablet into the columns known in proto-cuneiform (see FIGURE 13). Each entry normally includes an ideographic notation representing persons/institutions or quantified objects or both, followed by a numerical notation. That all entries in Proto-Elamite texts seem to contain a numerical notation suggests they represent more the structure of a system of bookkeeping than the division of a spoken language into distinct sentences or comparable semantic units. Continuing analysis of the Proto-Elamite numerical systems (see FIGURE 14), which derived from the systems developed earlier in Mesopotamia, has been a powerful tool in recent semantic identifications of a number of signs and sign combinations, includ-

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ing those for animals, for grain products and, it seems, for humans (Meriggi 1971; Vaiman 1972; Friberg 1978; Damerow and Englund 1987: 117–21, 1989: 18–30, 53–55; Nissen, Damerow, and Englund 1993: 75–79; see FIGURE 15).

Bibliography

- André, B., and Mirjo Salvini. 1989. "Réflexions sur Puzur-Inšušinak." *Iranica Antiqua* 24: 53–72. Brice, William. 1962–63. "The Writing System of the Proto-Elamite Account Tablets of Susa." *Bulletin of the John Rylands Library* 45: 15–39.
- Carter, Elizabeth, and Matthew W. Stolper. 1984. *Elam: Surveys of Political History and Archaeology*. Berkeley and Los Angeles: University of California Press.
- Damerow, Peter, and Robert Englund. 1987. "Die Zahlzeichensysteme der Archaischen Texte aus Uruk." In Zeichenliste der Archaischen Texte aus Uruk, by Margaret W. Green and Hans Nissen, pp. 117–66. Berlin: Mann.
- ——. 1989. The Proto-Elamite Texts from Tepe Yahya (American School of Prehistoric Research Bulletin 39). Cambridge: Harvard University Press.
- Friberg, Jöran. 1978. The Early Roots of Babylonian Mathematics, vol. 1. Göteborg: Chalmers Technical University, University at Göteborg.
- Gelb, I. J. 1963. A Study of Writing, 2nd ed. Chicago: University of Chicago Press.
- Hinz, Walter. 1975. "Problems of Linear Elamite." Journal of the Royal Asiatic Society 106-15.
- Langdon, Stephen. 1928. Pictographic Inscriptions from Jemdet Nasr (Oxford Editions of Cuneiform Texts 7). London: Oxford University Press.
- Le Brun, Alain. 1971. "Recherches stratigraphiques à l'Acropole de Suse, 1969–1971." Cahiers de la Délégation Archéologique Française en Iran 1: 163–216.
- Mecquenem, Roland de. 1949. *Epigraphie proto-élamite* (Mission de la Délégation en Perse 31). Paris: Presses Universitaires de France.
- Meriggi, Piero. 1969. "Altsumerische und proto-elamische Bilderschrift." Zeitschrift der Deutschen Morgenländischen Gesellschaft Supp. 1: 156-63.
- . 1971-74. La scrittura proto-elamica. 3 vols. Rome: Accademia Nazionale dei Lincei.
- 1975. "Der Stand der Erforschung des Proto-elamischen." Journal of the Royal Asiatic Society 105.
- Nicholas, Ilene. 1981. "Investigating an Ancient Suburb." Expedition 23: 39-47.
- Nissen, Hans, Peter Damerow, and Robert Englund. 1993. Archaic Bookkeeping: Writing and Techniques of Economic Administration in the Ancient Near East. Chicago: Univ. of Chicago Press.
- Reiner, Erica. 1969. "The Elamite Language." In *Altkleinasiatische Sprachen* (Handbuch der Orientalistik division 1, vol. 2, part 1–2, fascicle 2), pp. 54–118. Leiden: Brill.
- Scheil, Vincent. 1900. *Textes élamites-sémitiques* (Mission de la Délégation en Perse 2). Paris: Leroux.
- ——. 1905. Documents en écriture proto-élamite (MDP 6). Paris: Leroux.
- ——. 1923. Textes de comptabilité proto-élamites (MDP 17). Paris: Leroux.
- ——. 1935. Textes de comptabilité proto-élamites (MDP 26). Paris: Leroux.
- Schmandt-Besserat, Denise. 1992. Before Writing. Austin: University of Texas Press.
- Stolper, Matthew W. 1985. "Proto-Elamite Texts from Tall-i Malyan." Kadmos 24: 1–12.
- Sumner, William. 1976. "Excavations at Tall-i Malyan (Anshan) 1974." Iran 14: 103-14.
- Vaiman, A. A. 1972. "A Comparative Study of the Proto-Elamite and Proto-Sumerian Scripts" [in Russian]. *Vestnik Drevnej Istorii* 1972–73: 124–33. English summary, p. 133; German translation in *Baghdader Mitteilungen* 20 (1989): 101–14.