

The Proto-Elamite Tablets from Tape Sofalin

Jacob. L Dahl^{1*}, M. Hessari² & R. Yousefi Zoshk³

¹ University of Oxford, UK.

² Department of Archaeology, Art University of Isfahan, Iran

³ Department of Archaeology, Islamic Azad University, Varamin-Pishva Branch, Iran

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Twelve proto-Elamite tablets and fragments were found during the 2006-07 excavation at Tape Sofalin in the northern Central Iranian Plateau. The form and content of these tablets is entirely consistent with that of the standard and late proto-Elamite tablets from Susa, except TSF 11, which we date to the Susa II/GodinV Period. Although all of the inscribed objects from Tape Sofalin published here are very fragmentary, they document the existence of a developed administration system.

Keywords: *Early Writing; Proto-Elamite; Early Bookkeeping; Pishva; Tape Sofalin*

Introduction

The site of Sofalin lies in the eastern Ray Plain of north-central Iranian plateau, at Lat. 51° 44' 06 N., Long. 35° 18' 58 E., at about 966 meters above sea level. This Site is north of Pishva city, 35 kilometers south-east of Theran (fig. 1).

Tape Sofalin was excavated during 6 seasons of work (2006-2011) by a team of the Archaeological Service of Islamic Azad university of Varamin-Pishva and Tehran¹ under the direction of Morteza Hessari, in cooperation with the Iranian Center for Archaeological Research. The extensive remains of Tape Sofalin, in an area about 500 meters long and 400 meters wide with 10 meters high consists of material cultures whose sequence extends from the late-4th millennium to the Iron Age III (fig. 2), (Hessari 2006; 2007; 2011).

The first volume detailing late Fourth Millennium settlement Periods has been published (Hessari and Akbari 2007). Some of the trenches opened during the excavations, contained examples of proto-writing, proto-Elamite tablets, tablet blanks, seal impressions, beveled-rim bowls and polychrome pottery fragments with strong parallels to Susa II-III and Late Plateau in Khuzestan and Central Iranian

Plateau (Hessari and Akbari 2007; Hessari 2011).

The late Fourth Millennium settlement periods were published in the first volume of excavation reports (Hessari and Akbari 2007). Whereas TSF 11, dated to the Susa II=Uruk Period², was found during season one (Hessari and Akbari 2007:176-77, Fig.11), the first remains of the standard proto-Elamite material culture were recovered during the second season (Hessari 2007). In the main trench at the southern front of the mound (fig. 3), we found most of the administrative controlling material, containing proto-Elamite tablets, tablet blanks, cylinder sealings (Hessari 2011).

The eleven proto-Elamite tablets recovered in the second season were first presented at a one-day conference on the achievements of the excavations at Tape Sofalin, at the Islamic Azad University of Varamin-Pishva. The form and content of these eleven tablets is entirely consistent with that of the standard and late proto-Elamite tablets from Susa. Although a majority of the inscribed objects from Tape Sofalin are very fragmentary, they document the existence of a developed administration system and bookkeeping techniques. However, only a limited number of tablet-content categories are present in the current sample of texts and fragments. Texts 1, 2, 4, and perhaps 7 and 8 all relate to

*Corresponding author. E-mail address: jacob.dahl@orinst.ox.ac.uk

¹H. Akbari, F.

² For more information about Susa II=late Uruk and Susa III= Jamdat-Nasr see: Dittmann 1986a: 76-147.



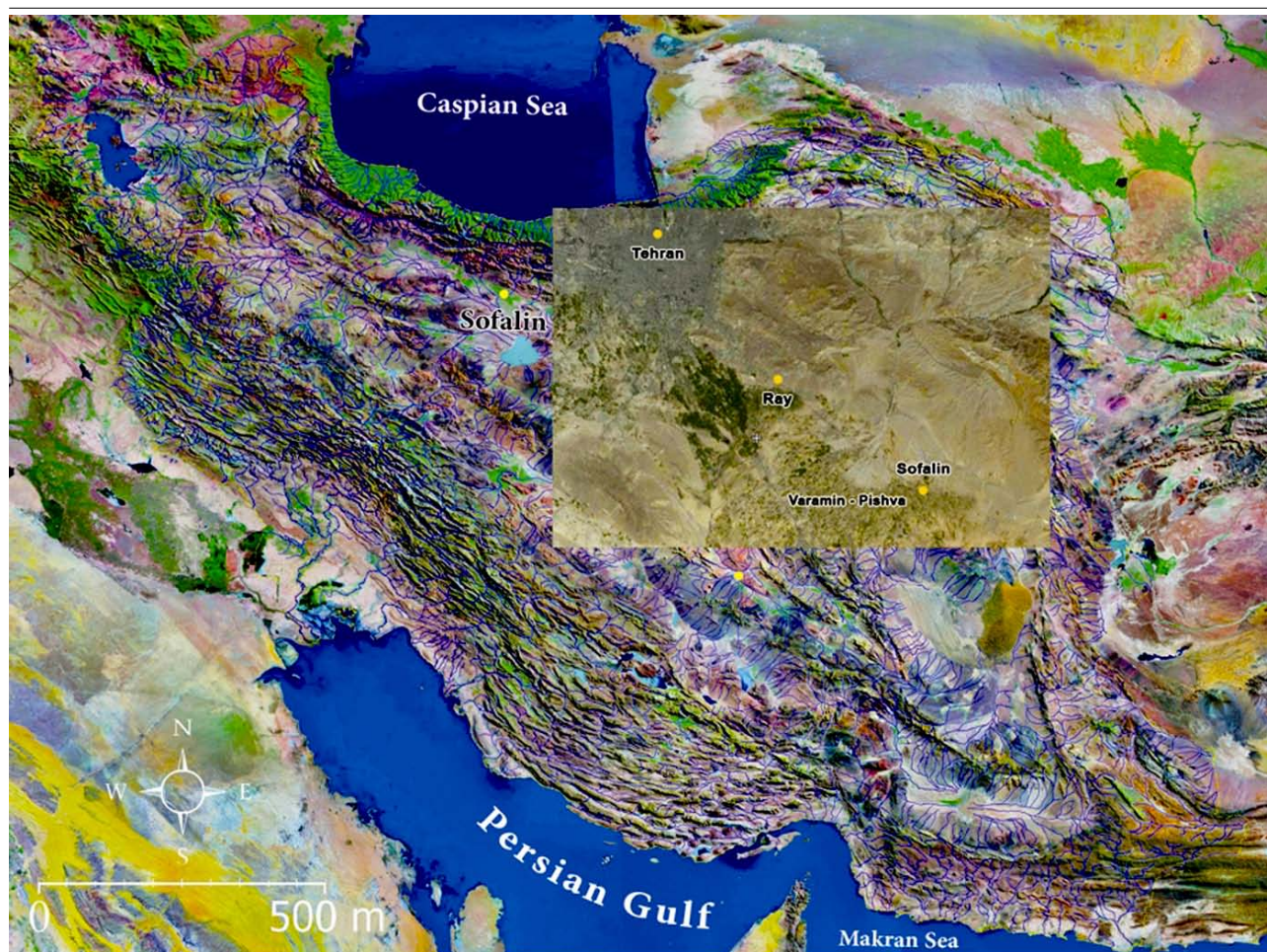


Fig.1: The location of Tape Sofalin.

workers and rations. Text 9 deal with cattle (sheep). Texts 3, 5, 6 (a complex text), 10, 11, and 12 are of uncertain content.

Many more tablets were found in subsequent excavations, these will be published as soon as possible.

All the texts published here, except number 11, and perhaps number 6 (an early proto-Elamite text?) date to the late (standard) period of the proto-Elamite writing system (TSF 12 is so poorly preserved that we wish not to make any statement on its date). A majority of the signs on the twelve tablets from Tape Sofalin published here are found in the Susa repertoire as well; tablets from subsequent seasons reveal more variation.

All of the numerical signs in the texts from Tape Sofalin are known from the Susa texts (a tablet found during season four, 2009, appears to have a new numerical system using the same signs found in Susa and beyond). The seals on the tablets and sealing's from Tape Sofalin are strikingly similar to seals found at Susa as well. Tape Sofalin therefore provides a particularly good illustration of cultural interaction in the late 4th and early 3rd millennia between the different parts of the Central Iranian plateau and the more densely populated settlements on the alluvial plains of Khuzestan.

The Proto-Elamite Phenomena

The study of the processes and reasons for change is a central topic in archaeology. In particular, change from a village community to a more complex society has caught the interest of scholars.





Fig.2: General View of Tape Sofalin and Satalit Image of Rey Plain 3D Reconstruction of Tape Sofalin.

During last decades, research focus has shifted from central Mesopotamia to its borderlands. This change in research has been highly valuable to the study of change, and in Iran, much recent research into this problem has been concerned with a set of manifestations that can be loosely lumped together as the proto-Elamite phenomenon (Nicholas 1980: 5). In the processes of ancient Iranian proto-

writing knew two phases. The first phase of ancient Iranian proto-writing are Susa II clay tablets. The Susa II tablets found from Susa (Vallat 1986:336-338), Choga Mich (Kantor and Delougaz 1996: 120), Godin (Weisse and Young 1975; Young 1986: 217) and Sofalin (Hessari 2012: fig.54). The Second phase is proto-Elamite. Archaeologists have variously used the term proto-Elamite to mean



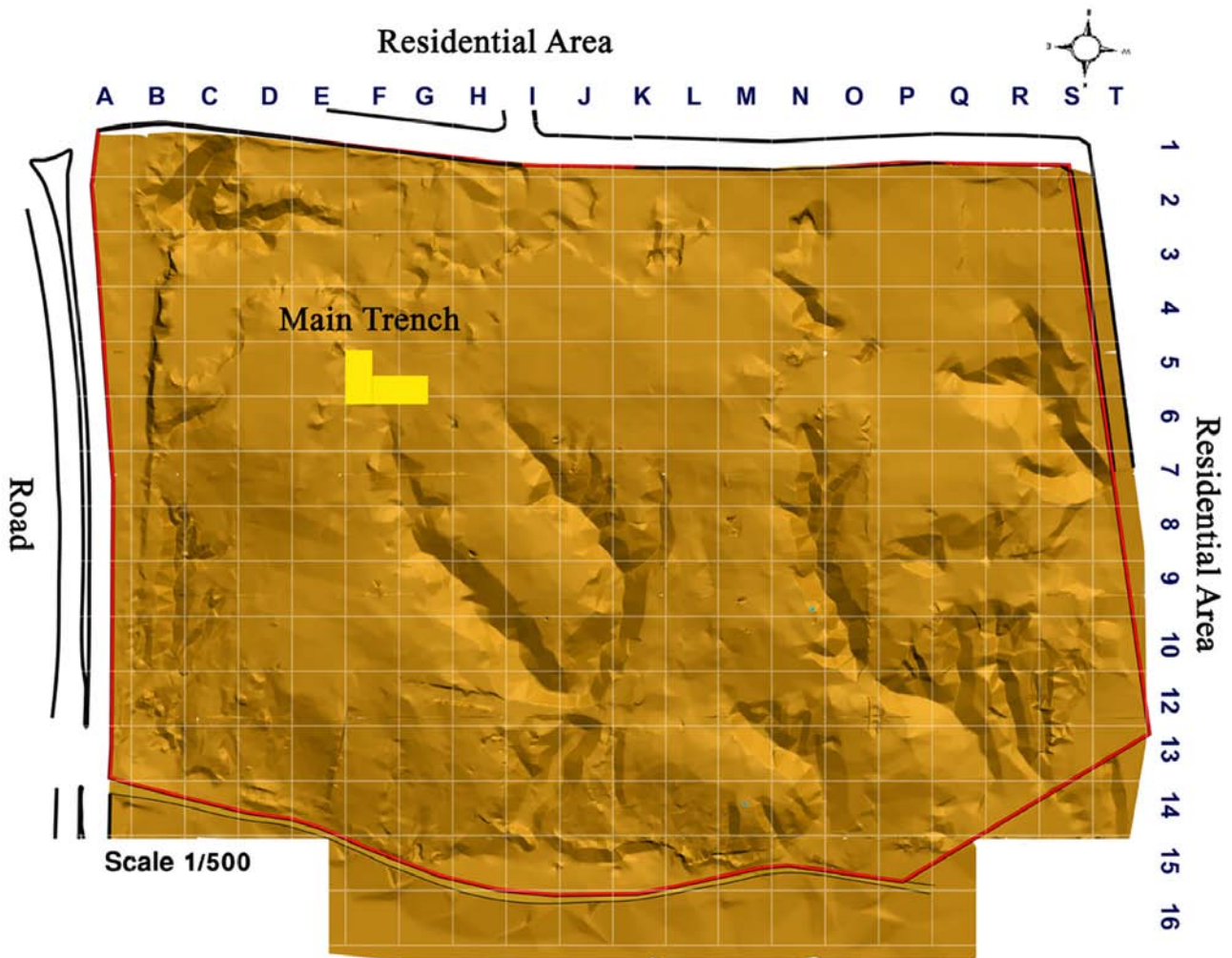


Fig.3: 3D Map of Tepe Sofalin; Main Trench.

a people, a scripts, a material culture and a time period; in addition, the term seems to carry inherent geographic implications (Alden 1982, Potts 1999, Carter 1980, Dittmann 1986a; 1987).

The label was first applied to a pictographic script found at the site of Susa in the province of Khuzestan, southwestern Iran (Scheil 1905, Brice 1962). Susa was known to be the historical capital of the Kingdom Elam, where numerous records written in Elamite had been recovered from the upper levels of that site. It was therefore inferred that the tablets coming from the lower levels at Susa represented early attempts at writing made by the ancestors of the later Elamites; accordingly, the script was designated as proto-Elamite (Nicholas 1980:7).

However, no link between the proto-Elamite writing system and the Elamite language can be established, and indeed the proto-Elamite script has now been recovered over an area considerably more extensive than the known borders of ancient Elam (Biscione, Salvatori, and Tosi 1977). Labeling individual sites as proto-Elamite should thus at present only be done on the basis of the presence of tablets written in the proto-Elamite script (Dahl 2005b).

Scholars date the proto-Elamite period to sometime around 3100 BC, or contemporary with Uruk III or the Jemdet-Nasr period in southern Mesopotamia (Englund 2006, Hessari 2012).

The proto-Elamite writing-system was used over a very large geographical area covering most of present day Iran. Tablets have been found at



Tape Sialk (Ghirshman 1938), Tape Sagzabad (Talai 1999: 5)¹, Tape Ozbaki (Majidzadeh, 2010: 160) and Qoli Darvish (Sarлак 2010: 114-116) and Hesar (Yaghmaie 2012) in the north; Shahr-i-Sokhta (Amiet and Tosi 1978) Tape Yahya (Lamberg-Karlovsky 1971) in the east; and Malyan (Nicolas 1990; Stolper 1985) in the south; and Susa (Carter

1980, Dittmann 1986b: 173-75; 182; 1986c: 347; Le Brun, 1971) and Ghazir (Geser) (Caldwell 1968; Whitcomb 1971) in the Southwest (fig.4). This vast geographical range of the proto-Elamite script has been explained as gradual cultural diffusion, traders' settlements or perhaps demographic developments (Alden, 1982; Tosi 1984).

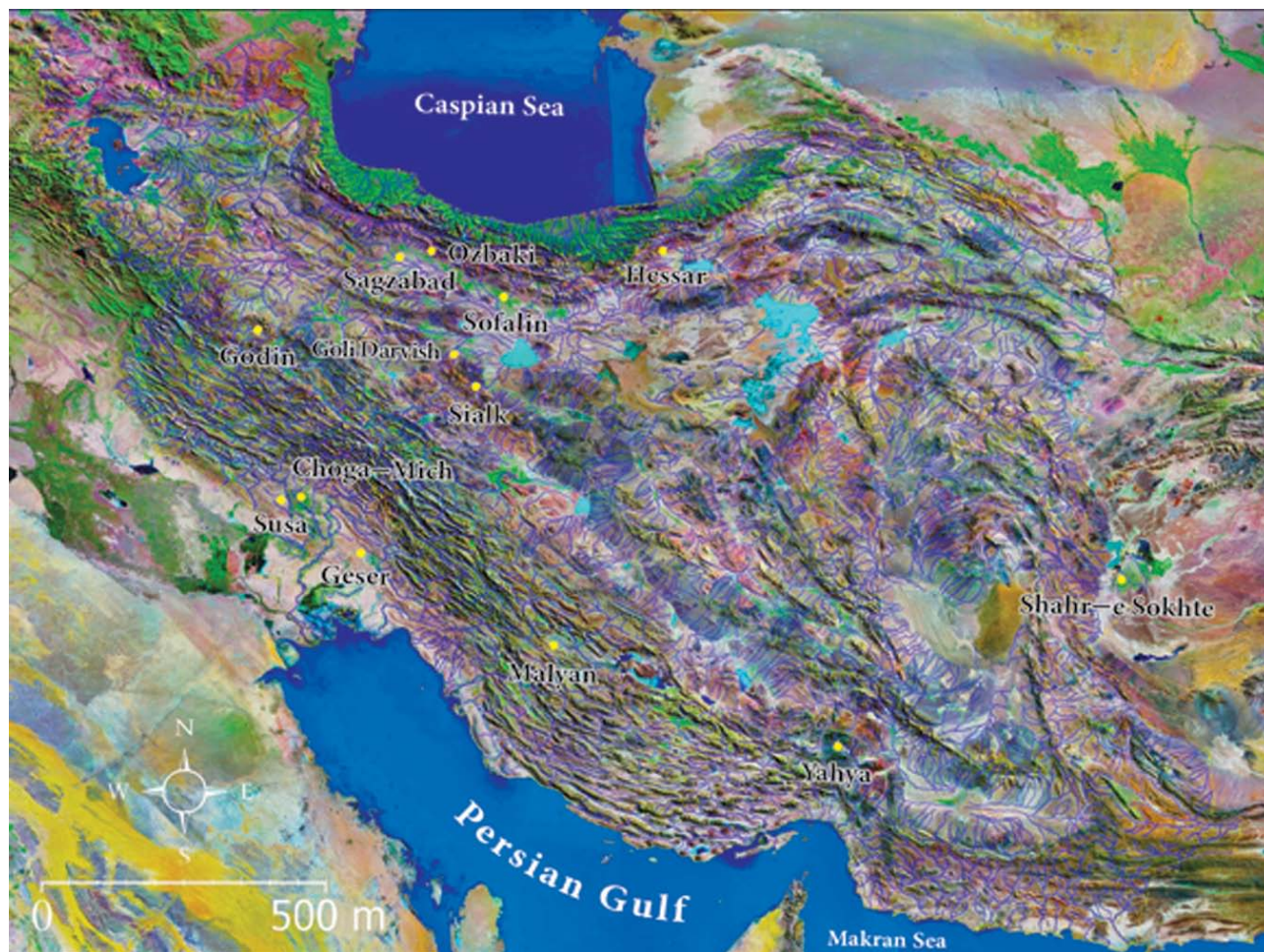


Fig.4: *Distribution of Proto-Elamite Sites.*

For two recent discussions of the state of the decipherment of proto-Elamite see Dahl 2005b, and Englund 2004. The transliterations below were made using a modified version of P. Meriggi's sign-list (Meriggi 1974), available on-line from the Cuneiform Digital Library Project (<http://cdli.ucla.edu/s.v/sign-lists>). All tablets are presented turned 90 degrees counter-clockwise according to the original direction of writing conforming with

the standards in the study of texts from the Ancient Near East in general.

The proto-Elamite texts from Tape Sofalin: (Table.1)

TSF 1 (fig.5)

TSF 1 preserves the upper half of a small, sealed, proto-Elamite tablet. The only remaining parts of the inscription is the header and parts of two entries. Most proto-Elamite tablets begin with a header indicating the "institution" to which the transaction recorded in the following related. The first sign of

¹Talai found of c. 60 badly damaged tablets.



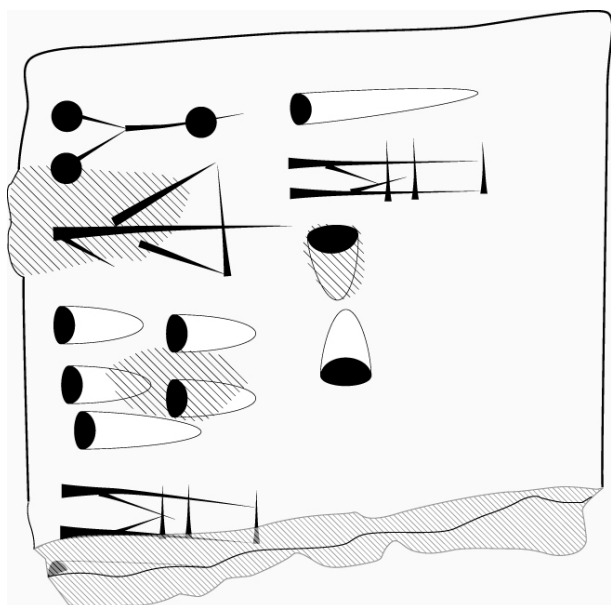


Fig.5: Proto-Elamite Tablet No 1.

TSF 1, M376, is a graphic variant of a well-known sign in the Susa repertoire, M375, which represents a category of workers (Damerow and Englund 1989: 57-58). M376 is found in only two Susa texts (MDP 17, 455 and MDP 26, 210), whereas M375 is found in about 100. In TSF 1 and several other texts from Tape Sofalin M376 takes the place of an “owner” sign (for a preliminary set of definitions of sign categories see Dahl 2005a and Dahl 2005b). In simple texts, such as TSF 1, header and first owner are often identical.

TSF 1 most likely recounts the rations for two groups of workers. The category of the first group has been preserved, it is written with the common sign M124 (found in c. 130 Susa texts). The category of the second may, based on a comparison with TSF 4 (see below), have been M388. Due to the fragmentary nature of the text it is not possible to calculate the size of the rations (recorded in the grain capacity system as units of M288) (for examples of this see Damerow and Englund 1989; and Dahl 2005b).

We suggest reconstructing the texts as follows:

TSF 1

observe

1. M376,
2. M124, 5N1
3. /M288 , 1N1\ [...]
4. [X M124, n] + 1N1
5. M288, 1N24

reverse

blank

The text appears to be from the latest period of the use of proto-Elamite writing. There are however no obvious Susa parallels as M124 is rarely recorded in the same way there (see perhaps MDP 26, 358). The reverse is sealed with a seal showing a billy-goat with a floral-motive behind it. For the seals see Legrain 1921 numbers 125 and 154. Note also the seal with a goat with turned head, and together with



lions (Legrain 1921 number 173), see also Hessari 2012: fig.30; for Susa tablets dealing with sheep and goat see Dahl 2005b (including information on the seals).

TSF 2 (fig.6)

TSF 2 is a small fragment of the top left corner of a small tablet. The content of this document appears to be identical to text 1. However, only one entry can be reconstructed:

TSF 2

Observe

1. M376,
2. M124, 4N1
3. M288, [...]

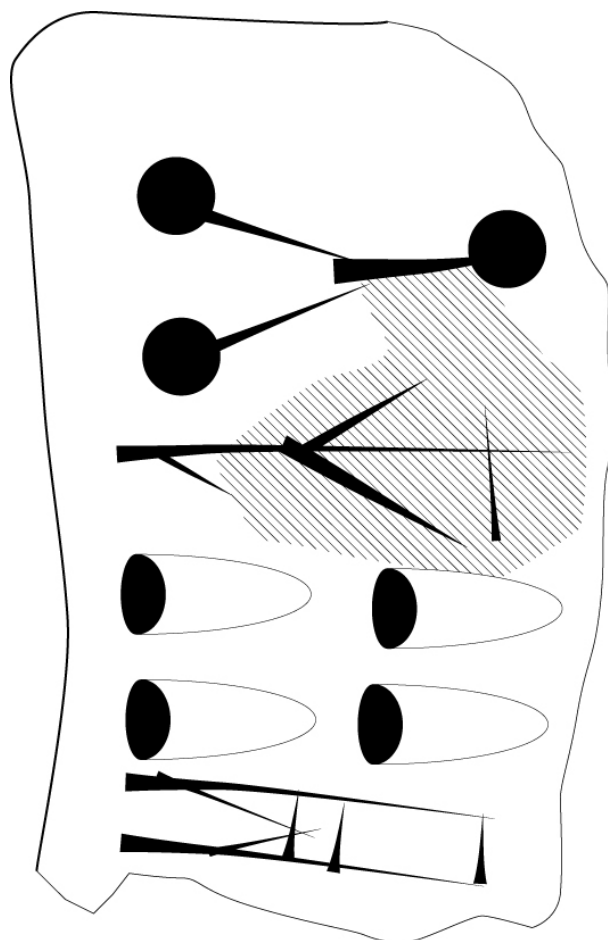


Fig.6: Proto-Elamite Tablet No 2.

TSF 3 (fig.7)

TSF 3 is the lower half of a small tablet. The text perhaps lists the commodities or animals belonging to several “owners”. The only preserved non-numerical sign, M388(a) and 1N1, is found in a number of Susa texts (MDP 26, 88; 138; 379; MDP 17, 124); variants of the same sign are also common. It is similar to a sign known from the seals published in MDP 16, 336 and 338 (Legrain 1921) as numbers 336 and 338. In the preserved entries of TSF 3 the object is inferred: it was probably recorded in the first entry.



TSF 3

Observe

1. [...],
2. [...], 1N1
3. M383a, 1N1
4. [...], [...]
5. [...], 1N1

Based on format and on the fact that the text is ruled it is likely that this text can be dated to the last period of proto-Elamite writing (see Dahl, Petrie, and Potts, forthcoming).

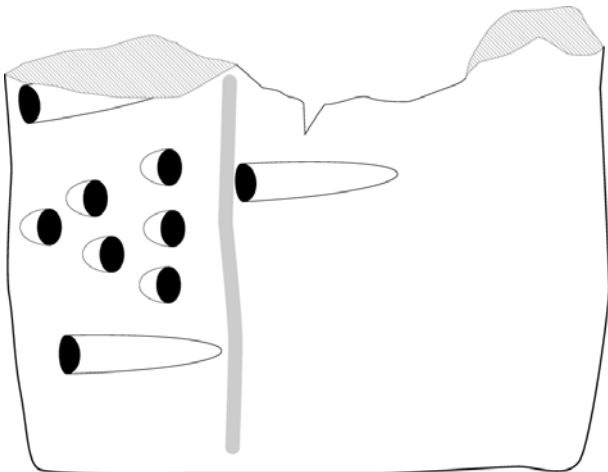


Fig.7: Proto-Elamite Tablet No 3.

TSF 4 (fig.8)

TSF 4 is a small fragment of a record of workers and rations. The first partly preserved entry records six workers of the special category M124 (also found in texts TSF 1 and 2). The corresponding notation of cereal is missing. The second entry records eleven workers of the category M388, followed by a subsidiary entry recording the grain allowance or rations of the worker. This is expressed by an object sign, M288, thought to represent a large grain container, followed by a notation on the capacity system. This notation is unfortunately missing in our text, but it can perhaps be reconstructed using the hypothesis that one M388 received one N24 of M288 for the period of accounting of this text (see also TSF 1)

TSF 4

Observe

- 1'. M124, 6N1
- 2'. [...], [...]
- 3'. M388, 1N14 1N1
- 4'. M288, [x]



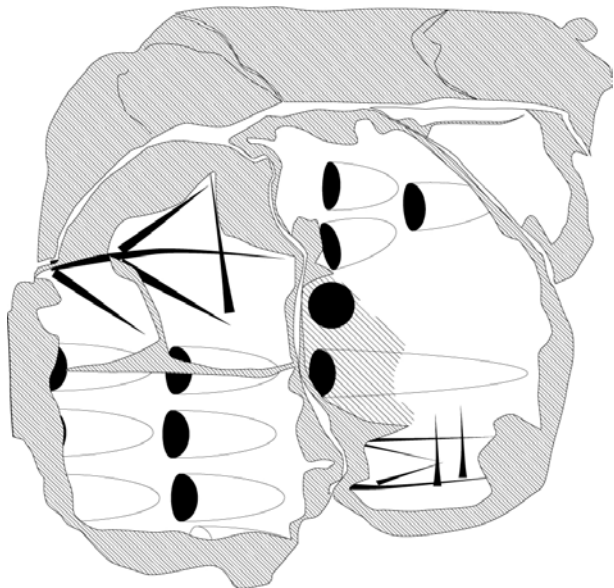


Fig.8: Proto-Elamite Tablet No 4.

TSF 5 (fig.9)

TSF 5 is a fragment of a proto-Elamite tablet. The preserved sign M201 is known from the Susa corpus (MDP 2, 343 and perhaps CahDAFI 1, 58 06). It is normally thought to symbolize an “owner” and is often found as a header.

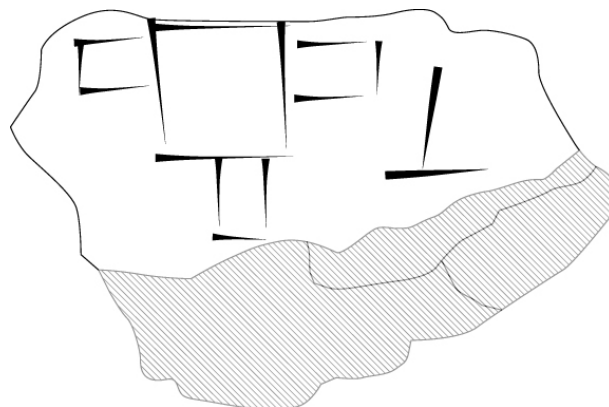


Fig.9: Proto-Elamite Tablet No 5.

TSF 6 (fig.10)

TSF 6 is a Fragment of a large proto-Elamite tablet, with about 8 signs preserved. This may, judging from the sign-forms, date to an earlier period than the rest of the corpus.

1'. X [...], [...]

2'. [...], 1N1

3'. M157 a M317+X, 1N1

4'. [...], [...]

5'. [...] X, 1N1

6'. M351+X M102 a?, /1N1\

7'. [...], /2N1\



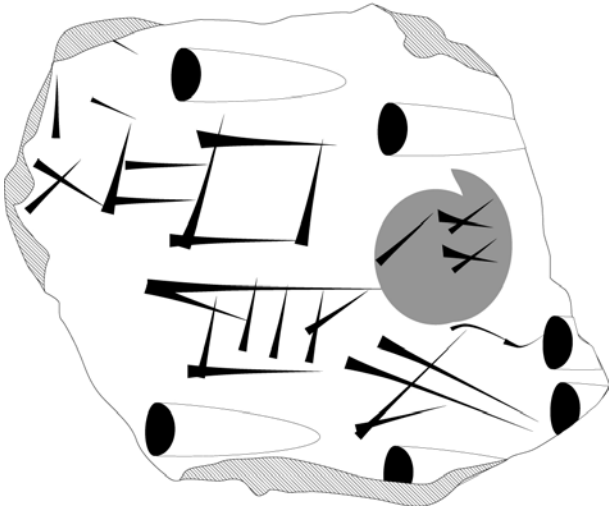


Fig.10: Proto-Elamite Tablet No 6.

TSF 7 (fig.11)

The surface of TSF 7, a small fragment of a standard proto-Elamite tablet, is very damaged. It is presumably an account of female workers (M72, the proto-Elamite version of Mesopotamian SAL) and their rations (a partially preserved M288 is perhaps visible in the last line). The text seems to have a double line on obverse close to the top edge. This is a feature which in the Susa material is usually reserved for the late tablets (see Dahl 2012, on scribal marks in the proto-Elamite tablets).

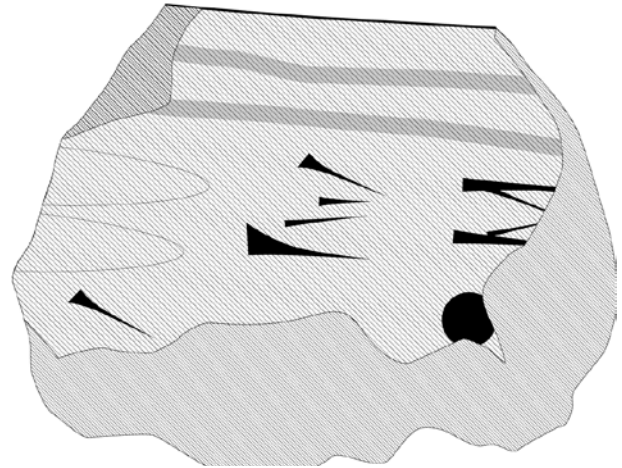


Fig.11: Proto-Elamite Tablet No 7.

TSF 8 (fig.12)

TSF 8 is a small fragment of a tablet with two broken entries. The only preserved non-numerical sign is M375b?. The text has a double line on obverse close to the top edge. This is a feature which in the Susa material is usually reserved for the late tablets. (See also TSF7, above)

TSF 8

Obverse

1'. /M386\ , [...]

2'. [...], 3N14



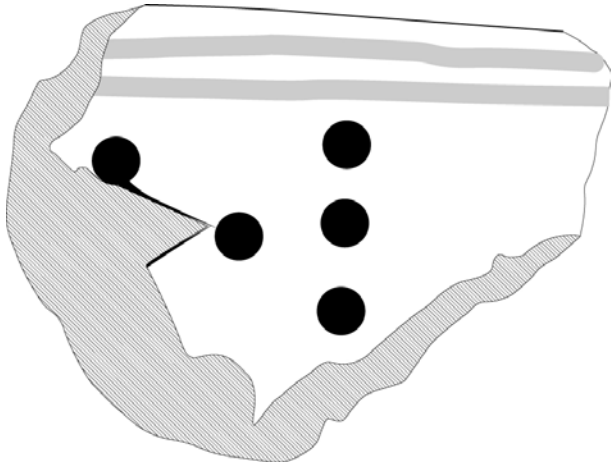


Fig.12: Proto-Elamite Tablet No 8.

TSF 9 (fig.13)

TSF 9 is a small fragment of tablet with two broken entries. The only preserved non-numerical sign is M346, a well-known proto-Elamite sign generally believed to represent a (female adult) sheep (Dahl 2005a). The text seems to have a double line on obverse close to the top edge. (see above under TSF 7).

TSF 9

Observe

1'. [...], 5N1

2'. [...], 3N1

3'. M346, [...]

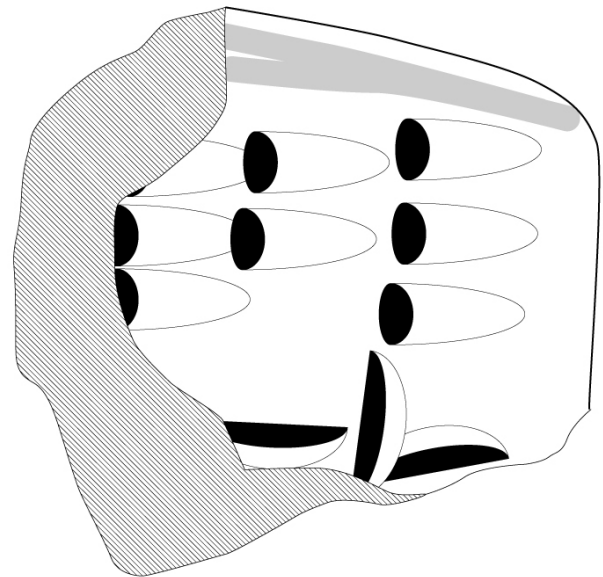


Fig.13: Proto-Elamite Tablet No 9.

TSF 10 (fig.14)

TSF 10 is a fragment of a mid size tablet with four non-numerical signs all of which are known from the Susa repertoire as well. It is presumably another text concerning workers (and their rations?). M53b is generally believed to be a variant of M54 a sign which Damerow and Englund (1989: xxx) suggested to interpret as a graphical representation of a yoke. It is believed to represent an able-bodied worker, as it is often listed first in worker accounts, and appear in certain "plough" texts (Damerow and Englund 1989: 57-58). M72 is among the that which can be described as either direct loans from Uruk, or of a common-origin. It is believed to represent a female worker, since it can be equated with proto-cuneiform SAL (later munus, female, in Sumerian). M143d is an owner sign found in other texts from Tape Sofalin (later seasons), as well as one or a few Susa texts (MDP 26, 63). M317 remains a difficult sign to understand (see for example MDP 6, 390 or MDP 17, 112). The closest Susa parallels to TSF 10 may be MDP 26, 194; and 214.

TSF 10

Observe

1'. [...] M54? M72, 1 (N01)

2'. X /M317\ [...]



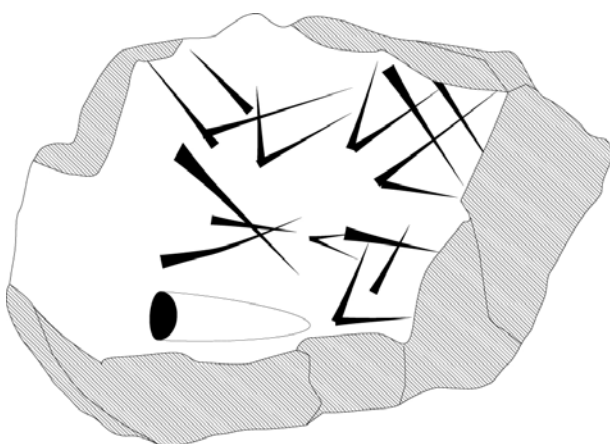


Fig.14: Proto-Elamite Tablet No 10.

TSF 11 (fig.15)

TSF 11 is the only completely preserved tablet from the first two seasons of work at Sofalin. It is an oblong tablet with only numerical signs. Since some tablets from the proto-Elamite period proper were inscribed with numerical signs only, it is not entirely certain whether this tablet should be dated to the Uruk IV period. According to the format it is perhaps contemporary with the early proto-Elamite

tablets from Susa (the so-called Susa 17ax tablets, see Dahl, Petrie, and Potts, forthcoming).



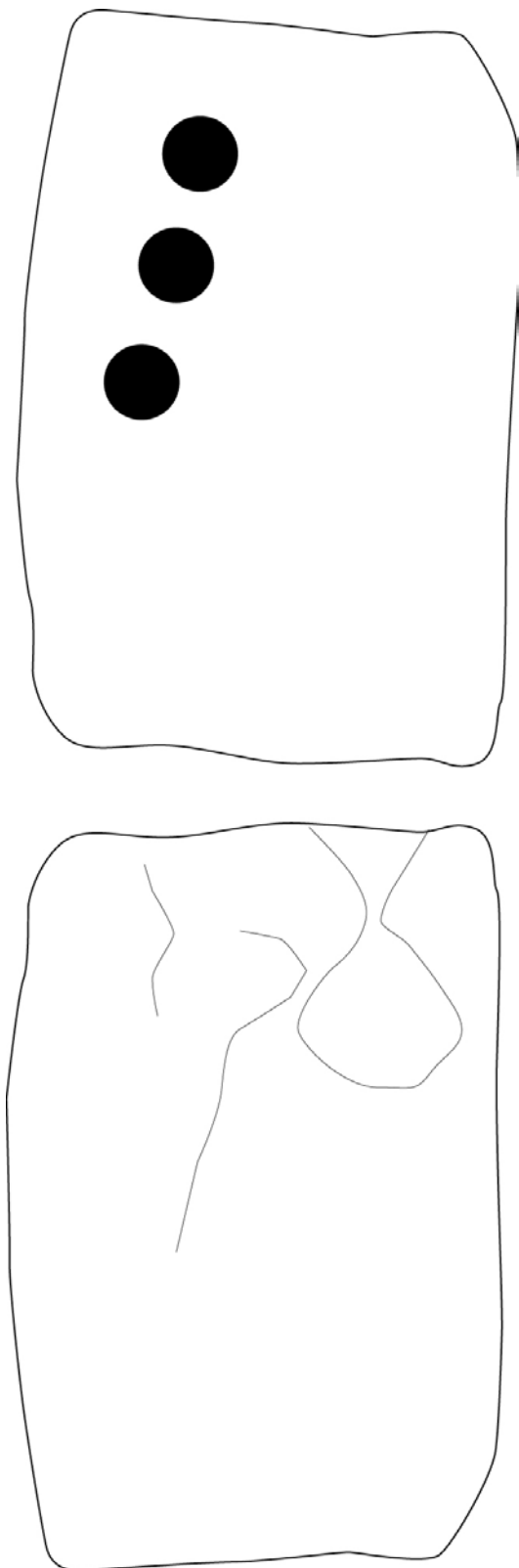


Fig.15: Proto-Elamite Tablet No 11.

TSF 12

A poorly preserved fragment of a tablet presumably from the proto-Elamite period. Due to the state of preservation we have not attempted to produce a copy of this text.

Conclusions:

The corpus of proto-Elamite texts from Tape Sofalin presented in this article is too small to allow for a final statement about the nature of administrative system in this settlement in the northern Central Iranian Plateau. It should be noted that making a comparison between the texts from Tape Sofalin and those from other proto-Elamite sites such as Susa and Malyan will help us to gain a better understanding of the emergence and development of urban centers in Iran based not only on analyses of contextual sign usages, but also on the structure and format of administrative documents.

All of the central features of the Tape Sofalin tablets are shared with texts from the other major proto-Elamite sites, most notably Susa, indicating the existence of a shared set of administrative formats

and signs. The sign M383(a) (), for example, can be shown to designate an owner in both Susa and

Sofalin texts; the sign M228 () can be shown to represent a container sign for cereals in both Susa and Sofalin, based on its structural function in the texts.

In the same way M124 () and M388 () can be shown to have designated certain types of low ranking workers in Sofalin as well as in Susa.

The form and content of the proto-Elamite tablets from Tape Sofalin is indicative of the same kind of self-sufficient community which has been suggested for the other sites with proto-Elamite tablets such as Tape Yahya and Tape Malyan (see for example K. Lamberg-Karllowsky in Damerow and Englund 1989: x). The numbers of animals and humans, and the amounts of grain recorded in the Tape Sofalin texts are without exception entirely within the range of a local administration. However,



No	Cdli no	Registration No	Provenance	Locus No	Elevation	Sieve	Description
1	P393079	SF1029	Trench 3	302	TDP;-37.6		Baked clay tablet, yellowish cream, No visible inclusion, upper half of Proto-Elamite tablet with seal impression on its reverse with five entries preserved
2	P393080	SF1045	Trench 3	302	TDP;-40.1		Baked clay tablet, pale yellowish cream, No visible inclusion, upper half of Proto-Elamite tablet with three entries preserved
3	P393081	SF1017	Trench 3	302	***	*	Baked clay tablet, Orangish cream, No visible inclusion, lower half of Proto-Elamite tablet with one entry preserved
4	P393082	SF1044	Trench 3	302	***	*	Unbaked clay tablet, yellowish orange, No visible inclusion, upper half of Proto-Elamite tablet with three entries preserved
5	P393083	SF1009	Trench 3	Surface	***	*	Unbaked clay tablet, Dark Brown, No visible inclusion, one entry preserved
6	P393084	SF1226	Trench 3	302	TDP;-22.0		Baked clay tablet, pale greyish cream, No visible inclusion, upper half of big Proto-Elamite tablet with four entries preserved
7	P393085	SF1219	Trench 3	303	TDP;-25.3		Unbaked clay tablet, buff, No visible inclusion
8	P393086	SF1311	Trench 3	303	TDP;-33.5		Baked clay tablet, yellowish cream, No visible inclusion, one entry preserved
9	P393087	SF1119	Trench 3	302	TDP;-30.3		Unbaked clay tablet, yellowish cream, No visible inclusion, one entry preserved
10	P393088	SF1603	Trench 3	304	***	*	Unbaked clay tablet, yellowish orange, No visible inclusion, three entries preserved
11	P393089	SF2455	Trench 2	204	TDP;-68.8		Baked clay tablet, Dark Grey, No visible inclusion, the only economic tablet of Uruk IV style with three numerical notations on obverse

Table.1: Tablets Description.

the iconography and the sign-forms suggests close links, and perhaps even a dependency on a larger political entity centered in Susa¹. The discovery of 2 “tablet blanks” in the same main Trench as the twelve tablets discussed above strengthen the position that all these tablets were indeed written in Sofalin, and not brought in from afar.

The agricultural production at Tape Sofalin in the proto-Elamite period appears to have been undertaken by low-rank workers who obtained rations in return for their labor (TSF.1, TSF.2, TSF.4, TSF.8). Only agricultural products have so

far been isolated in the proto-Elamite signary, and there is therefore no evidence in the texts for trade or crafts production.

The study of the tablets from Tape Sofalin suggests the arrival of low-land (?) material culture or a cultural contemporary evolution in northern Central Iranian Plateau at Tape Sofalin during Susa II=Uruk V or IV period (TSF.11 perhaps belong to this period), in the following period regionalized complex societies appeared in the north and the northeastern parts of the Central Iranian Plateau. People using the proto-Elamite writing system inhabited Tape Sofalin, and probably other sites such as Tape Shoghali in Ray Plain, Tape Ozbaki and Tape Ghabrestan in Qazvin Plain. They introduced a social technology of control which was previously unknown to the region: tablets, seals and

¹The discovery of almost 3000 sealing fragments during the 2008-09 season, of which more than 80% have a close analogy with Susa seals, indicates that the proto-Elamite occupation at Tape Sofalin was not only inspired by, but probably in direct contact with Susa.



sealings, standard measurements of volume defined as beveled-rim bowls. The reason for the spread of the proto-Elamite writing system and the material culture associated with this system to the northern part of the Central Iranian Plateau remains an enigma.

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