

A New Edition of the Proto-Elamite Text *MDP* 17, 112

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§1. Introduction: The Model Contracts

§1.1. *MDP* 17, 112, like most proto-Elamite tablets, was first published in the early part of the twentieth century when understanding of both the writing system and the society that produced it were still relatively poor. Recent advances in the study of early Iran and the proto-Elamite writing system in particular have prompted a re-evaluation of the corpus (Englund 2004; Dahl 2013).

§1.2. The very difficult text was published first by V. Scheil in 1923. The present article is based on a new collocation (Musée du Louvre, July 2011) that corrected several errors and helped illuminate the overall structure of

the text. *MDP* 17, 112, is a small clay tablet from Susa, inscribed on both its obverse and reverse in the proto-Elamite script. Dating of proto-Elamite tablets is problematic; however, based on certain criteria established for determining the relative chronology of proto-Elamite texts (such as the thickness of the tablet, the format of the text, and the sign forms), it is likely a relatively late text (Dahl et al. 2013). *MDP* 17, 112, is an administrative document—with two exceptions the only genre identified in the proto-Elamite corpus thus far—and most likely records a roster or inventory of dependent workers belonging to a particular household or institution.

§2. The text

Header

0. M327+M342

(Concerning the institution/household) “M327+M342.”

Entries

1. M217_h M59[†] M387_c M218 M370[‡]

(Group 1:) “M218 M370,” (who is the) “M217_h M59 M387_c,” (has:)

1a. M317, 1N₁

1 M317,

1b. M54, 2N₂

2 M54,

1c. M72, 1N₁

(and) 1 dependent female worker.

2. M323 M124 M386_a M240

(Group 2:) “M386_a M240,” (who is the) “M323 M124,” (has:)

2a. M72, 2N₁

2 dependent female workers.

3. M210_d M111_l M388 M32 M387 M218

(Group 3:) “M32 M387 M218,” (who is the) “M210_d M111_l M388,” (has:)

3a. M317, 1N₁

1 M317,

3b. M54, 2N₂

(and) 2 M54.

4. M112_n M388 M218 M386_a

(Group 4:) “M218 M386_a,” (who is the) “M112_n M388,” (has:)

4a. M317, 1N₁

1 M317,

4b. M54, 2N₂

(and) 2 M54.

5. M93_a M388 M285_{ba1}

(Group 5:) “M285_{ba1},” (who is the) “M93_a M388,” (has:)

5a. M317, 1N₁[†]

1 M317,

5b. M54, 2N₂

2 M54,

5c. M72, 1N₁

(and) 1 dependent female worker.

6. M387_l M372_a M388 M49_{c1} M230_{a1}
 M371

(Group 6:) “M49_{c1} M230_{a1} M371,” (who is the) “M387_l M372_a M388,”
 (has:)

6a. M317, 1N₁

1 M317,

6b. M3_b, 1N₁

1 M3_b,

6c. M54, 1N₁

1 M54,

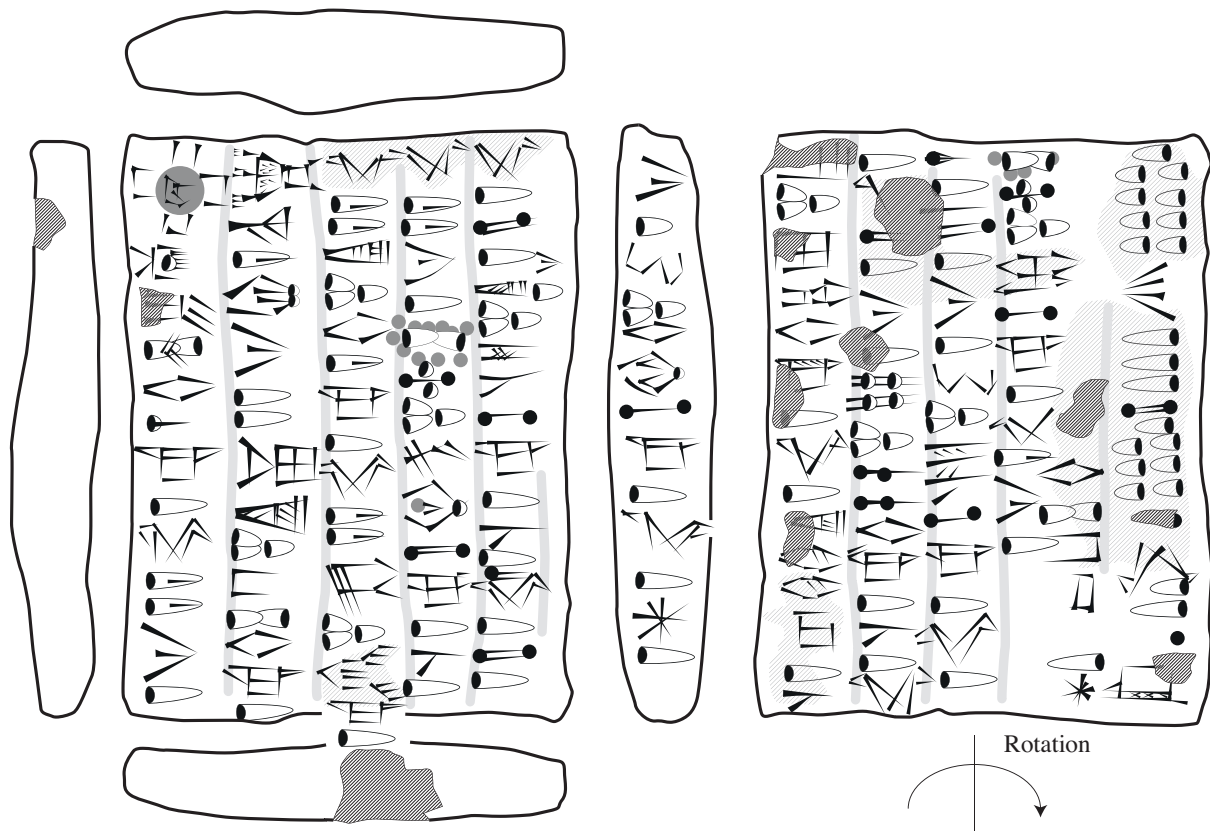


Figure 1: MDP 17, 112

Note that these images reflect the tablet being rotated around its long, vertical axis, not its shorter, horizontal axis.

6d. M373, 1N ₁	1 M373 ...
6e. M72, 1N ₁	(and) 1 dependent female worker [scribal error!—written after l. 7d]
7. M112 _o M388 M241 M33 M371	(Group 7:) “M241 M33 M371,” (who is the) “M112 _o M388,” (has:)
7a. M317, 1N ₁	1 M317,
7b. M3 _b , 1N ₁	1 M3 _b ,
7c. [†] M373 [†] M54, 1N ₁	1 M373 M54,
7d. M373, 1N ₁	1 M373,
7e. M72, 1N ₁	(and) 1 dependent female worker.
8. M51 _a M388 M218 M229 _c M371	(Group 8:) “M218 M229 _c M371,” (who is the) “M51 _a M388,” (has:)
8a. M317, 1N ₁	1 M317,
8b. M54, 1N ₁	1 M54,
8c. M46, 1N ₁	(and) 1 M46.
9. x M388 x M295 _a [?] M218	(Group 9:) “x M295 _a [?] M218,” (who is the) “x M388,” (has:)
9a. M317, 1N ₁	1 M317,
9b. M54, 1N ₁	(and) 1 M54.
10. M112 _p M66 _a M66 _a	(Group 10:) “M66 _a M66 _a ,” (who is a) “M112 _p ,” (has:)
10a. M317, 1N ₁	1 M317,
10b. M3b, / 1N ₁	(and) 1 M3b.
10c. M54 [†] M372 [†] x	“M54 M372 x,” (who is also a) “M112 _p ,” (has:)
10d. M72, 1N ₁	1 dependent female worker.
11. M377 _c +M377 _c M388 M4 M4 M218	(Group 11:) “M4 M4 M218,” (who is the) “M377 _c +M377 _c M388,” (has:)
11a. M317, 1N ₁	1 M317,
11b. M3 _b , 1N ₁	(and) 1 M3 _b .
12. M54 / M370 [†] M386 _a [?] [†] M386 _a	(Group 12:) “M386 _a [?] M386 _a ,” (who is the) “M54 M370,” (has:)
12a. M373, 1N ₁	1 M373,
12b. M72, 1N ₁	(and) 1 dependent female worker.
13. M51 _a M388 [†] M24 [†] M33 M371	(Group 13:) “M24 M33 M371,” (who is the) “M51 _a M388,” (has:)
13a. M317, 1N ₁	1 M317.
14. [†] M218 M373 [?] [†] / M387 M372 _a M388	(Group 14:) “M297+M296 M371(?),” (who is the) “M218 M373 [?] M387
M297+M296 M371	M372 _a M388 (?),” (has:)
14a. M317, 1N ₁	1 M317,
14b. M54, 1N ₁	1 M54,
14c. M72, 1N ₁	(and) 1 dependent female worker.

Summary

1. M317, 1N ₁₄ 2N ₁	(Total:) 12 M317,
2. M54, 1N ₁₄ 7N ₁	17 M54,
3. M373, 3N ₁	3 M373,
4. M72, 9N ₁	9 dependent female workers,
5. M46, 1N ₁	(and) 1 young dependent worker.
6. M139 [?] M32 M387 M218	(Postscript:) M139 [?] M32 M387 M218

§3. Text Commentary

§3.1. Header

§3.1.1. Most proto-Elamite tablets begin with a sign that acts as a header for the entire text, and *MDP* 17, 112, is no exception. Headers are single and, often, complex graphemes that may represent the individual, household, or institution to which the document or entities recorded belong (Englund and Damerow 1989: 13). These signs correspond to similar information recorded at the end of some proto-cuneiform texts (Englund 2004: 106 n. 12).

§3.1.2. The header in *MDP* 17, 112, is M327+M342¹, which corresponds to sign M327a in Meriggi’s sign list (1974). This sign occurs in at least 35 published proto-Elamite texts (including *MDP* 17, 112). It is the head-

¹ The sign designations used in this article are based on the working sign list produced by Jacob Dahl, itself based on Meriggi’s sign list published in 1974 but with some variations. See <http://cdli.ucla.edu/tools/cdlifiles/prE_sign-list.zip>.

er in all of these texts except for *MDP* 17, 132, and *MDP* 17, 146, in which it occurs in the body of the texts and appears to be modifying an entry that is being counted.

§3.1.3. Only four tablets containing the header M327+M342 are sealed, and they do not all bear the same seal. The seals associated with M327+M342 are: PES 198 (*MDP* 6, 233), PES 103 (*MDP* 17, 489), and an unidentified seal (*MDP* 17, 50; *MDP* 26, 52) (Legrain 1921; Scheil 1935; Amiet 1986).

§3.2. Entries

§3.2.1. The main entries in this text start on the obverse and continue onto the reverse, rotating the tablet on its vertical axis. *MDP* 17, 112, is a complex text compared to the standard proto-Elamite corpus because each entry in this text contains at least one, and sometimes several, sub-entries. Each main entry consists of a long string of non-numerical signs that can be analyzed as consisting of signs from two distinct sub-groups of the signary: owner signs and signs for which a syllabic value has been suggested (Englund 2004: 127; Dahl 2013). Almost all of the owner designations mentioned here occur in other proto-Elamite texts, indicating that they might indeed be standard professions or titles that are common among the proto-Elamite households or institutions that used this writing system.

§3.2.2. Many of the sub-entries do not occur in any other proto-Elamite text, which would be unusual if they represented positions or titles. Instead, based on the structure of the strings of signs there is a high likelihood these are syllabically written words or names, which could either designate the individual who fills the position or title preceding the personal name, or indicate an individual who is responsible to the individual holding the position or title preceding the personal name.

§3.3. Total

§3.3.1. Most proto-Elamite texts contain a total of all account entries. This total is always written on the reverse of the tablet, rotated around its vertical axis (Englund 1996: 161). Proto-Elamite totals can be comprehensive and complex, with each product individually totaled, or they can be simplified totals in which some of the entries being counted on the obverse are subsumed into another group of counted entities on the reverse.

§3.3.2. As expected, *MDP* 17, 112, ends with a total on the reverse of the tablet. In the main body of the text, there are seven groups of entries on the obverse and seven on the reverse. The total on the reverse of this tablet draws

attention to a common feature of the proto-Elamite writing system: the sub-grouping of certain signs as other signs in the totals of the texts. The total on the reverse only contains five entries: M317, 1N₁₄ 2N₁; M54, 1N₁₄ 7N₁; M373, 3N₁; M72, 9N₁; M46, 1N₁. Therefore only five items (or groups of items) are being totaled. This suggests that some of the items counted in the main body of the text are being grouped with other entries and therefore totaled under a different sign in the summary. All the entries and numbers in the total of the text correspond to the numbers of the entries in the main body of the text except for M54. There are seventeen M54 in the total but only thirteen in the main body of the text. However, there are four M3_b in the main body of the text that are not accounted for in the total. If one counts these towards the M54 total then the numbers add up and there are no numerical entries in the main body of the text that are unaccounted for in the summary, and vice versa. Since M3_b is subsumed under M54 in the summary we can conclude that these two signs are likely to be semantically related.

§4. General Commentary

MDP 17, 112, is a typical proto-Elamite text in many ways. It begins with a header, ends with a total, and contains a number of entries and sub-entries that include numerical notations. There are, however, several features of this text that make it unusual and that are worth noting. These include the use of the numerical notation N₂ (which in this text count the objects or individuals being represented by the sign M54), the presence of a scribal error, and the inclusion of a postscript.

§4.1. N₂ in Proto-Cuneiform

§4.1.1. N₂ occurs in both proto-Elamite and proto-cuneiform. In the proto-cuneiform corpus, this sign belongs to the derived sexagesimal System S' and has the numerical value of "1." A quick look at the proto-cuneiform corpus informs us that the System S' was used in a limited number of contexts: lexical lists concerning animals (W 20266,55), fish (W 21916,2; W 14777,b; W 21208,49), geography (W 21208,50), general vocabulary (W 14337,a+), and one lexical list of undetermined type (W 20266,175); texts concerning liquids (Nissen et al. 1993: 28), particularly beer and beer products; animal husbandry texts; texts possibly concerning foodstuffs; and a few texts of unknown content.

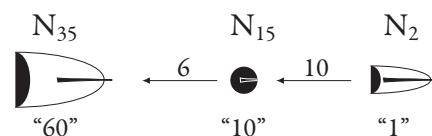


Figure 2: Sexagesimal System S' in Proto-Cuneiform

§4.1.2. The precise meaning and function of N_2 in proto-cuneiform is not known. It has been suggested that N_2 in proto-cuneiform is the precursor to the sign BAD, with the later readings $u\check{s}_2/ug_7$ attested in the Ur III and Old Akkadian periods (Damerow and Englund forthcoming), including at Ebla (Butz 1981: 338), and in these later texts it is clear that it bears the meaning “sacrificed,” or in the case of humans, simply “dead.” In order to evaluate whether or not N_2 could mean “dead” or “sacrificed” in the proto-cuneiform texts as well, we must look to the animal husbandry texts; the precise meaning “dead” or “sacrificed” cannot realistically be applied to lexical lists, foodstuffs, or beer products. Even in these texts, the function of N_2 is not obvious. Therefore the evidence we have to connect N_2 with “dead” animals is suspect. It comes from texts that are 1000 years younger than the proto-cuneiform texts, and from a proposed connection between N_2 and later BAD. The proposed sign evolution that led the trend to associate N_2 with BAD—and therefore with the meaning “dead”—is diagrammed below.

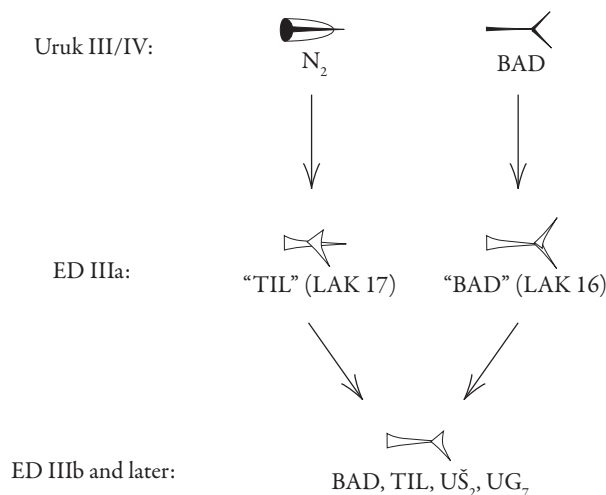




Figure 3: The Early Convergence of N_2 and BAD.

§4.1.3. The only possible evidence for the derived sexagesimal System S' being used to denote dead or sacrificed animals in the Uruk corpus comes from Green's (1980, 7-8) observation on Uruk animal husbandry texts:

The other two subtotals included in the grand total are designated ŠU and X [viz.  and ]. Unfortunately, the poor state of preservation of the tablets hinders the interpretation of these entries. The only tablet with both obverse and reverse preserved (no. 48) includes only the subtotal ŠU, which clearly is the sum of the subcases in obv. i. In comparison, text no. 39 has two types of subcase entries, one with additional remarks and one with only a numeral and no remarks, these perhaps corresponding to the subtotals ŠU and X, respectively.

A peculiar numeral sign—like the normal impressed circle or semicircle but with a horizontal wedge through it—is used for these entries. In texts with preserved subtotals it is used only for the subtotal X, never for the subtotal ŠU. Comparison of subtotals and totals shows this numeral to be equivalent in value to a numeral without the horizontal wedge. An examination of the bookkeeping remarks associated with the subtotals ŠU and X points to a cultic significance. Where legible they include SIG-^dINANNA, ^dINANNA, and E_2 -NUN. Perhaps comparable is UDU-ŠU mentioned in two Old Babylonian texts as selected for, or on the occasion of, a “great festival.” If indeed these entries do record animals designated for cultic purposes, a guess for the identification of the sign X is SIZKUR, ‘sacrificial animal.’

§4.1.4. Even if N_2 is used to denote dead or sacrificed animals in the Uruk corpora, the evidence for this is weak and the texts themselves are inconclusive. It is more likely that N_2 in proto-cuneiform denotes the entities it counts as “other” or “special.” The meaning “dead” may then have been later attributed to it due to the confluence of the N_2 / “TIL” and “BAD” signs.

§4.2. N_2 in Proto-Elamite

§4.2.1. In MDP 17, 112, N_2 is used to count M54 in four different entries (lines 1b, 3b, 4b, and 5b), and in each occurrence two N_2 's are listed (in other entries, however, M54 is counted with N_1). Based on the total on the reverse, each of these N_2 's must be equal in value to the sign N_1 in order for the total to equate the entries on the obverse. When totals are present on the reverse of tablets, N_2 's are always counted towards the summed totals (versus being subtracted from them) and objects counted with N_2 are never totaled separately from the same objects being counted by N_1 . Therefore there is no total in the proto-Elamite corpus that includes the sign N_2 .

§4.2.2. As demonstrated in MDP 17, 112, N_2 and N_1 do not occur in exclusive contexts: the object represented by the sign counted with N_2 can also be counted with N_1 , even in the same text. This holds true for all objects counted by N_2 in the proto-Elamite corpus, including the following signs in ten texts (for the graphic forms of these signs, cf. figure 5 at the end of the article):

M106₂+M288 (MDP 6, 252: 2, 6; 26S, 5212: 2, 4)
M– or M72? (MDP 6, 290: 6)
M72 (MDP 6, 316 + 322 + 234 + 26S, 335 + Sb 15247: 40'; 26S, 336: 35)
M54 (MDP 6, 316 + 322 + 234 + 26S, 335 + Sb 15247: r. 21'; 17, 112: 2b, 3b, 4b, 5b; 26S, 335: r. 11)
M3_b (MDP 6, 316 + 322 + 234 + 26S, 335 + Sb 15247: r. 40'; 26S, 335: r. 24)
M57_a (MDP 6, 383: 8)

M388 (*MDP* 6, 290: 2; 17, 120: 16, 30, 36)

M346 (*MDP* 17, 350: 4)²

Every sign listed above most likely represents some kind of dependent worker (except M346, if that is indeed what is being counted in *MDP* 17, 350). Therefore it appears that N₂ is used exclusively, or almost exclusively, to count various types of dependent workers – as opposed products, commodities, or animals as in the proto-cuneiform corpus. If this is true, then proto-Elamite N₂ and proto-cuneiform N₂ have nothing in common apart from their graphical similarity.

§4.2.3. If we look at the text *MDP* 17, 120, we can see that N₂ is used to count M388 in line 36, as well as M66 and M371 in lines 16 and 30, respectively. On closer inspection though, the sign M388 also occurs in every entry that N₂ is present. There are two possible explanations for this: 1) M66 and M371 are in fact the entities being counted and it is a coincidence that M388 occurs in every entry; 2) M388 is being counted in all instances and the presence of other signs after M388 indicates that these signs are most likely modifiers or personal names, and can occur either before or after M388 possibly according to their linguistic class (i.e. personal names, adjectives, etc.) The second possibility is most likely. In fact, if we look at the “syntactic” structure of proto-Elamite entries, we can see a pattern where signs that are most likely modifiers or “adjectives” occur before the noun they are modifying, and strings of signs that are more likely personal names occur after the noun they are governing. Line 20 of *MDP* 17, 120, illustrates this pattern when compared to line 4 of the reverse (part of the total):

20) M387_i M387_i M388 M272 M66 M371 , 1N₁

4') M387_i M387_i M388 , 2N₁₄ 5N₁

In this text the entity “M387_i M387_i M388” is being counted, as indicated in the total on the reverse, so those three signs act as a single unit in line 20 on the obverse. Based on other proto-Elamite texts, we know that M388 is a type of dependent worker, so M387_i M387_i must act as a modifier indicating that the three signs together denote a particular type of M388. The final three signs, which are all likely candidates for signs with syllabic values, might be the syllabically written personal name of this particular “M387_i M387_i M388.”

§4.2.4. In addition to acting as a numerical sign, N₂ also has a non-numerical value (transliterated as M386_a); such

polyvalence is not uncommon in proto-Elamite (Englund 2004: 113). M386_a is classified as one of the 80-120 signs that are likely to carry a syllabic value. It occurs as a non-numerical sign in over 50 texts.

§4.2.5. As is illustrated above, the precise meaning and function of the sign N₂ in the proto-Elamite corpus is also not entirely understood. Similar to the proto-cuneiform corpus, N₂ carries a numerical value in proto-Elamite and is a graphical variant of N₁ with the addition of a single vertical stroke inside the body of the sign. It seems to carry the same numerical value as N₁, which represents one unit in both the decimal and sexagesimal numerical and metrological systems. Proto-Elamite N₂ on the other hand only exists in the decimal system. It is possible that proto-Elamite N₂ is a borrowing from proto-cuneiform, like most other proto-Elamite numerical signs were, and we could therefore look to proto-cuneiform to help deduce how N₂ was being used in proto-Elamite. There are several problems with this, however. The first is that the rest of the proto-cuneiform System S' (N₁₅ and N₃₅) is not attested in proto-Elamite. Second, as was already mentioned above, N₂ in proto-Elamite only operates in the decimal system so far as is attested, while N₂ in proto-cuneiform operates in the sexagesimal system. Third, the function of N₂ and the rest of the System S' in proto-cuneiform is not well established, as was illustrated above. Last, the types of entities being counted with N₂ in proto-cuneiform (animals, beer jars, foodstuffs, and lexical entries) are incongruent with what N₂ is being used to count in the proto-Elamite corpus (dependent workers).

§4.2.6. There is another explanation, however. Derived signs are common in the proto-Elamite script, and can be made by modifying basic signs by the addition of single wedges, dots, lines surrounding the sign, dots surrounding the sign, small wedge-like impressions surrounding the sign, or by other means. The derived signs most likely represent semantic or phonological variants on the original sign. Their prevalence in the writing system indicates that we should not assume that proto-Elamite N₂ was necessarily a direct borrowing from proto-cuneiform. I suggest that proto-Elamite N₂ was an independent development derived from proto-Elamite N₁ (which, along with the other basic numerical signs, was a direct borrowing from proto-cuneiform). Regardless of whether or not it was an independent development in proto-cuneiform and proto-Elamite, it is clear that N₂ was used to designate whatever it was used to count as “other,” or distinct from the usual or majority object being counted. In the case of proto-Elamite this could possibly indicate a difference in gender, in worker status, or in type or amount

² Or perhaps this text is counting M388 or another similar dependent worker. The tablet is too broken to accurately identify what is being tallied.

of rations to be received. In proto-cuneiform, perhaps N₂ indicated that a different type of grain was used to make the beer or different additives were infused into the beer in the case of beer texts, that certain animals were already designated for a certain purpose or function in the case of animal husbandry texts, and similar designations in lexical lists.

§4.3. A Scribal Error

§4.3.1. The addition of one M72 in the bottom margin of the obverse (in line 6e of the transliteration, actually in the middle of group 7), which Scheil mentions in his initial publication of the text (1923: 16) can only be interpreted as an emendation to the previous group of entries. Since this tablet maintains a fixed order of count-

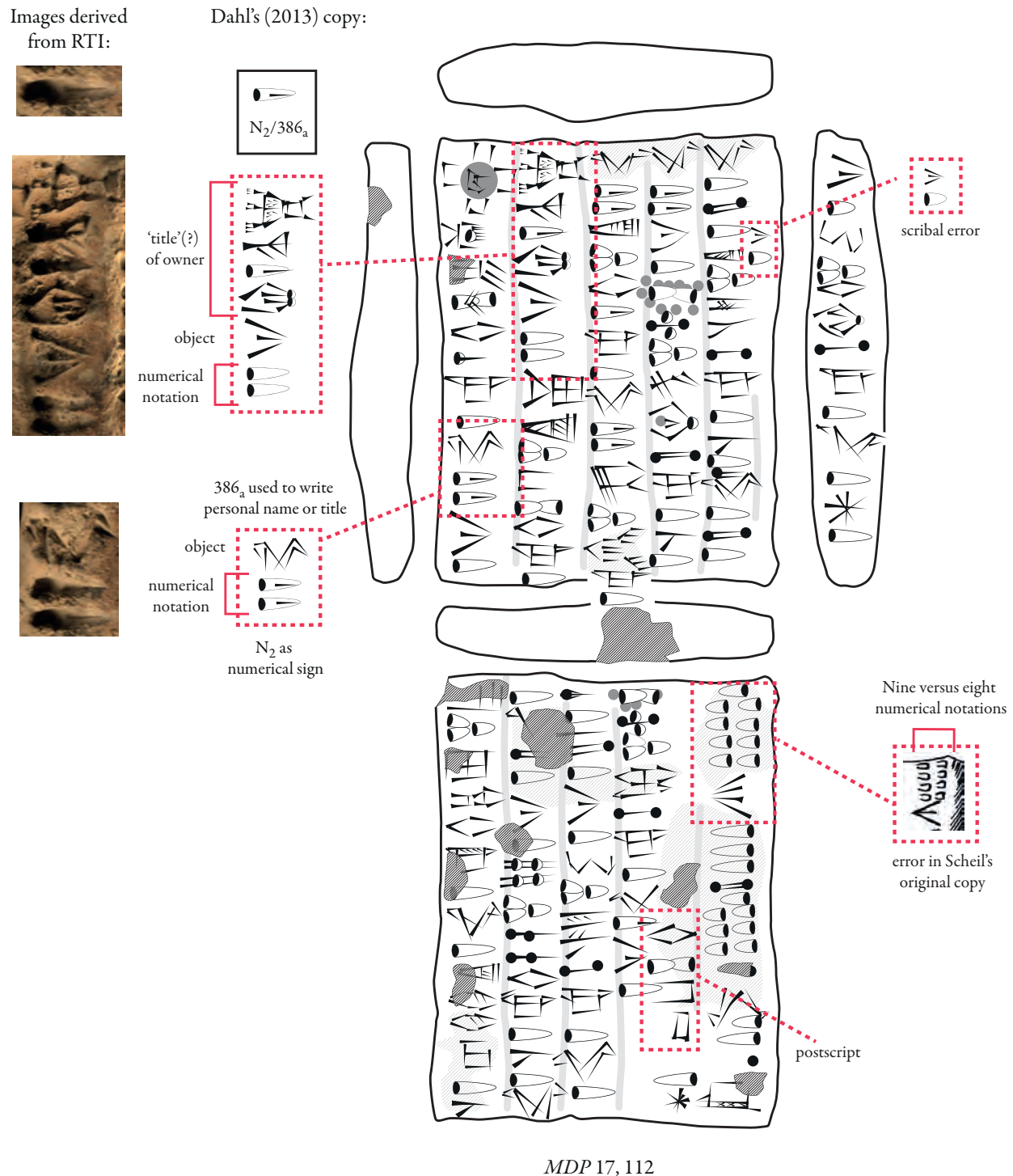


Figure 4: The Peculiarities in MDP 17, 112


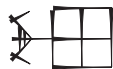





















<i>Meriggi sign designation</i>	<i>Dahl sign designation</i>	<i>Sign form</i>	<i>Meriggi sign designation</i>	<i>Dahl sign designation</i>	<i>Sign form</i>
1	M1		210 _b	M210 _{ab}	
3 _b	M3 _b		218	M218	
9	M9		272	M272	
38 _a	M38 _a		317	M317	
38 _d	M38 _d		327 _a	M327+M342	
46	M46		346	M346	
54	M54		371	M371	
57	M57		373	M373	
57 _a	M57 _a		386 _a	M386 _a /N2	
66	M66		387 _i	M387 _i	
72	M72		388	M388	
—	M106 ₂ +M288				

Figure 5: List of Relevant Proto-Elamite Signs

ed entities in each entry, we can ascertain that M72 was written directly below the position in which it should have been written if it had been originally included in the chain of entries for group 6; that is, as the last entry in the sequence.

§4.3.2. Scribal errors of this sort are very rare in the proto-cuneiform record. This text therefore provides a rare example of such a situation, and from it we can conclude that one method of correcting scribal errors—at least in

the proto-Elamite writing system—is to insert the missing sign(s) in the lower margins of a line, directly beneath where the entry should have been written in the first place.

§4.3.3. Scribal errors occur more commonly in the proto-Elamite corpus than in the proto-cuneiform corpus (for examples of errors in proto-cuneiform, see Nissen, Damerow, and Englund 1993: 42), especially as arithmetical incongruities between the entries and the total.

For example, if we look at *MDP* 6, 361, we can see that there are three entries counting M376 (in the second entry M376 must be implied even though it is not expressly written) on the obverse totaling 39 units; on the reverse, the total was originally written as being 59³ units of M376. At least one of the N₁₄'s appears to be erased, but there is still one more than we would expect to find based on the entries on the obverse, which leaves the apparent total at 49 units.

§4.4. *Postscript*

§4.4.1. The presence of postscripts (also called subscripts in other publications, see Dahl 2012; 2013) in the proto-Elamite corpus is rare, found in only about 100 out of over 1500 published proto-Elamite texts. Postscripts range from a single sign to a string of six signs, and it is still unclear what information they contain, what purpose they serve, and why some texts include them and others do not. The postscript in *MDP* 17, 112, is written after the total and consists of the following four signs: M139³ M32 M387 M218. This combination of signs does not occur in any other published proto-Elamite tablet, either as a postscript or otherwise.

§4.4.2. Although at this stage in the decipherment it is not possible to explain the presence of postscripts on

certain Proto-Elamite tablets, preliminary investigations suggest that there may be a relationship between the postscript on a tablet and the header. Otherwise, there does not appear to be any relationship between postscripts and the presence or type of seal on the tablet, the entities being recorded, or other such markers. Due to the wide number of different postscripts, it is unlikely that they all represent a calendrical date, though they could reference festivals or other events. Another possibility is that they are a syllabic or pseudo-syllabic rendering of the name of the scribe who wrote the tablet.

§5. *Conclusion*

In many ways the text *MDP* 17, 112, is typical of the proto-Elamite corpus; however, it also illustrates a number of peculiarities of the proto-Elamite writing system (see figure 4), such as the use of the numerical value N2, how proto-Elamite scribes accommodated a scribal error, and the presence of a postscript (illustrated in figure 4). While further research is necessary to fully understand how these features operate in the proto-Elamite writing system, I hope this article has demonstrated that these are indeed interesting aspects of the writing system that do warrant future study.

³ Some of the N₁'s are broken on the reverse. We can see the remnants of at least eight, and we can assume that one more was written where the break now is.

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