The City-State of Umma in the Pre-Sargonic Period New Tablets from the Iraq Museum

Abstract: Twenty hitherto unpublished Pre-Sargonic cuneiform tablets from the collections of the Iraq Museum in Baghdad are studied in this contribution. The tablets, which stem from illicit excavations and were confiscated by the Iraqi authorities in 2005, originate from the Umma region and can be dated to the Early Dynastic IIIb period.

Keywords: Umma region, Early Dynastic period, Sargonic period, administrative texts, Iraq Museum

Introduction

The Pre-Sargonic documents published in the present article belong to a large group of cuneiform tablets received by the Iraq Museum in Baghdad in 2005. Apparently, the tablets were purchased from clandestine diggers by an antiquities dealer in the same year, although the exact time when they had been originally looted from archaeological sites of southern Iraq remains unclear. According to the information provided by the anonymous dealer, among more than one thousand tablets acquired by the museum, those originating from sites located in the Umma region were the most numerous.

Since 2006, with the edition of hundreds of documents kept in three major collections—Banca d'Italia, Rosen Collection, and Schøyen Collection—, the corpus of Early Dynastic and Sargonic cuneiform tablets from the Umma region has increased exponentially. Furthermore, dozens of texts scattered among several small private collections all over the world and countless confiscated tablets now kept in the Iraq Museum have been published in recent years or studied by Iraqi scholars in MA theses and PhD dissertations.²

Regrettably, the overwhelming majority of these artifacts come from illicit excavations and are thus devoid of any archaeological and archival context. The only notable exceptions are the epigraphic material—mostly ED IIIa/b cuneiform tablets—discovered by an expedition of the Iraqi State Board of Antiquities and Heritage (SBAH) during the 1999–2002 and 2008–2010 campaigns at Umm al-Aqarib (Almamori 2013, 2014a, 2014b), a few ED IIIb tablets excavated at Shmet in 2001–2002 (Abdulraheem 2003–2004; Fahad—Abbas 2020), and nine Sargonic tablets found at Jokha in the second and third seasons of the joint Slovak Archaeological and Historical Institute-SBAH archaeological project (Mittermayer 2018, 2020).³

The small group of selected administrative records studied here are characterized by the use of the *mu-iti* dating system (Sallaberger–Schrakamp 2015, 36–40): three texts are dated by year only (nos. 1, 3, and 20), one text by year, month, and day (no. 9).⁴ None of the date formulae include the name of the ruler of Umma (ensi₂ Ĝiš.KUšU₂^{ki}) and/or of the chief administrator of the temple household

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¹ Acknowledgements. Abbreviations follow the Cuneiform Digital Library Initiative (CDLI) conventions [http://cdli.ox.ac.uk/wiki/abbreviations_for_assyriology], with the addition of DCCLT = Digital Corpus of Cuneiform Lexical Texts [http://oracc.museum.upenn.edu/dcclt/].

² For a complete list of published and unpublished tablets belonging to the corpus, see Notizia-Visicato 2016, 1–2; Bramanti 2017a; Notizia 2019. New Pre-Sargonic texts were published in Ceccarelli 2018 (no. 3); Feliu 2019 (nos. 1–2); Foster 2020 (nos. 8–22, 35); Notizia 2020 (nos. 1–15). For the confiscated Sargonic documents in the Iraq Museum, see, among others, Abdalmukrim 2014 and Alkhafaji 2019.

³ TJ19_2A_K19_T1 and TJ19_2A_K54_T1 are perhaps to be assigned by palaeography and layout to the Early Dynastic-Early Sargonic transition. To the best of our knowledge, not a single genuine ED IIIb cuneiform tablet has been unearthed at Jokha so far.

⁴ Sahar Dawod Atta studied thirty additional *mu-iti* tablets from the same collection in her MA thesis (Dawod Atta 2011).

of Inanna at Zabalam (saĝĝa zabalam_{5/6}^{ki}). This omission and the lack of strong prosopographical links with other published documents make it extremely difficult to attribute these cuneiform tablets to the reign of any known city-ruler. Nevertheless, based on palaeography, tablet shape, and text layout, they can be safely dated to the ED IIIb period. Although it is virtually certain that this rather homogeneous group of texts belongs to one and the same archive, as almost all of the records are dated to months 8–12 of the same year, at present they cannot be tied to any specific site of the Umma region and their possible findspot remains unknown.

Most of the tablets are well preserved. They are small, round, almost spherical, in shape, with rounded corners and edges, and a pronounced curvature of the writing surface. The text is arranged in two columns in the obverse, within rectangular cases of irregular size. As a rule, the date is freely placed in the otherwise uninscribed reverse. When two or more columns are present in the reverse (nos. 1, 6?, 8, and 20), they can be of unequal size, with the date usually written in a column larger than the other(s). No. 20, the largest tablet in this group, is square in shape with rounded corners, and less curvature of the writing surface.

Palaeographically, some of the tablets may look slightly older than the others at first glance. In particular, the sign MU presents two variants. The first sign form is the one commonly attested in the published Pre-Sargonic documents of the Umma region; the second one, which might look older, shows two pairs of crossed oblique wedges (see nos. 2, 6, 11, 12, 16, 18[?], and 19) and closely resembles the shape of the sign MU in Pre- and Early Sargonic tablets from Adab (Such-Gutiérrez 2015, 442 and 451). It is attested also in the undated legal document CUSAS 33, 225 obv. ii 2 and, more importantly, it occurs in UA-1441 (IM 163476), a tablet excavated at Umm al-Aqarib (Almamori 2014a, 18 n. 35) and dated to the 19th year of an unknown ruler, possibly Meanedu. On the other hand, a carpenter named Uruni, appears here in tablets which exhibit both variants of the sign (nos. 4 and 11). Therefore, rather than suggesting an earlier dating for some of the edited documents, the presence of two variants of the sign MU in cuneiform tablets mostly dated to the same year simply indicates different scribal hands.









Table 1 Variants of the sign MU

Other remarkable features of the Iraq Museum tablets regard the use of the /a(l)/- prefix as a passive marker—up to now documented only in Northern Old Sumerian and mainly in texts from Nippur and Adab⁵—and the preference for fully conjugated verbal forms (e.g. an-na-šid, an-na-la₂) in the administrative terminology as opposed to the massive use of past participles (e.g. šid-da, šum₂-ma) in the majority of the published ED IIIb archival records from the Umma region, with the significant exception of sale and legal documents.

We suggest that most if not all of the tablets edited here were probably stored in a single place, as indicated also by their content. They deal with the activities of an organization involved in the administration (delivery, expenditure, and distribution) of a variety of commodities (foodstuff, raw materials, and finished products), but also in the management of personnel, agriculture, animal husbandy, and textile production. Furthermore, several documents point to the existence of a craft workshop, which employed different skilled artisants and specialists involved in the manufacture of wooden implements, metal tools, and leather objects.

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⁵ See, most recently, Keetman 2017, with previous literature.

Catalogue

Text	IM	Size (h×w)	Date			Content
			mu	iti	U4	
1	204518	5.2×5.0	3			Distribution of sandals and boots to shepherds
2	204520	6.2×6.7	[]			Account of flour
3	204560	4.0×4.2	4			Expenditure of goat hair and wool
4	204568	4.6×4.5	4	8		Expenditure of <i>LAM</i> -trees for a carpenter
5	204569	4.8×5.0	4	10		Delivery of oil, bread, and baskets to the shed (for) sheep
						(and) nanny goats
6	204573	8.2×6.6*	4	8		Account of wool
7	204574	4.0×4.2	4	10		Expenditure of hides for an animal flayer
8	204575	4.2×4.5	4	8		Delivery of sandals and boots by a leather worker
9	204582	4.0×4.4*	4	5	15	Account of bricks
10	204589	4.0×4.2	4	8		Account of garments and wool
11	204590	4.0×4.2	4	5		Expenditure ofgarments for a carpenter
12	204596	4.0×4.2	4	8		Expenditure of ropes and nets for two barbers
13	204605	4.4×4.2	[]	[]	[]	Account of copper agar-tools
14	204609	4.2×4.0	4	10		Expenditure of a copper ax
15	204611	3.8×4.0	4	6		Expenditure of pulses for the farmers
16	204620	4.0×4.2	4	12		Delivery of jars of oil to the cattle pen and the shed (for)
						sheep (and) nanny goats
17	204621	4.0×4.2	4	8		Turning over of bowls
18	204623	4.8*×5.0	4	10		Expenditure of copper <i>aĝar</i> -tools and axes to a barber
19	204636	4.0×4.2	4	10		Account of flour
20	204654	9.0×9.2	4			Wool allotments for workers

Nota bene: roman type = curviform/round numbers; italics type = cuneiform/pointed numbers.







obv.

i 1 esir_x(LAK173) 5(LAK135) bu-bu

2 1 5(LAK135) ^ršum₂⁷

3 1 diĝir-bad₃

4 1 ur-IN

5 1 diĝir-aja₂- $\hat{g}u_{10}$

ii 1 1 fdumu¹ tug2-du8

2 1 diĝir-lu₂-mah

3 1 suhub₂

Translation

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1 (pair of) sandals (with) five (...): Bubu.
1 (pair of sandals with) five (...): Šum.
1 (pair of sandals): Diĝirbad.
1 (pair of sandals): UrIN.
1 (pair of sandals): Diĝirajaĝu.
1 (pair of sandals): the son of the felter.
1 (pair of sandals): Diĝirlumah.
1 (pair of) boots: Ekiduga.
1 (pair of) boots: Diĝirdamahdi.
[  ]
Shepherds who have received sandals.
Year 3.
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Commentary

The text records the distribution of sandals (esir_x) and boots (suhub₂) to nine shepherds.⁶ Both articles were manufactured and delivered to a central organization—most likely the palace or a temple household—by leather workers (ašgab; see text no. 8 below) employed at a craft workshop.⁷ Interestingly enough, the word esir_x, "sandal", usually spelled (kuš e) esir_{4/5} in Pre-Ur III times, is written here—without the kuš classifier—with a peculiar variant of the sign LAK173 (Steinkeller 1981–1982), which also occurs in a handful of tablets from the Mesag Archive.⁸

obv. i 1–2 In the Pre-Sargonic tablets from the Umma region, the combined use of round and pointed numbers, as well as the different orientation of the very same numerical signs, was a practice adopted by the scribes to distinguish amounts and quantities associated with different types of commodities or animals occurring in the same line. In our text, however, there is no clear indication of the product issued to the named shepherds together with the sandals. Unless one assumes that number "five", written here with five horizontal wedges (= LAK135), refers to pairs of boots—a very unlikely possibility in our opinion—, the only other explanation is that it identifies a specific feature or decoration of this kind of footwear, i.e. "sandals (with) five ...".

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⁶ On footwear in third millennium Mesopotamia, see Civil 2008, 120 (sandals), 124–125 (boots), and Paoletti 2012.

⁷ References to a craft workshop/craftsmen (ĝiš-kiĝ₂-ti) in the Pre-Sargonic sources from the Umma region are the following: RIAA 53 obv. i 3 (*barley* ĝiš-kiĝ₂-ti); CUSAS 14, 34 obv. 1 (*barley* ĝiš-kiĝ₂-ti), 135 obv. ii 5 (*flour* 「ĝiš-kiĝ₂-ti kun 「E₃¹), 142 obv. ii 1 (*semolina/barley flour* ĝiš-kiĝ₂-ti), 201 obv. i 6 (*semolina/barley flour* ĝiš-kiĝ₂-ti), 222 rev. i 1 (*semolina/barley flour* [ĝiš]-「kiĝ₂¹-[ti]); CUSAS 35, 381 rev. (*teams of skilled workers* ĝiš-kiĝ₂-ti ša₃ e₂-gal), Notizia 2020, 526 no. 8 rev. i 1–2 (*goat hair* ĝiš-kiĝ₂-ti-ta šum₂-ma). Contrary to Notizia 2019, 102 and upon a new collation of the line, CUSAS 14, 136 rev. i 2 correctly reads 「naĝar¹ kiĝ₂ ak:šubur.

⁸ Bridges 1981, 398–399. Written ^{kuš}esir_x(LAK173): BIN 8, 132 rev. ii 7, BIN 8, 267 obv. i 6′, BIN 8, 280 obv. i 2′, 6′, MC 40, 40 obv. 6, 13, rev. 5′. On the Mesag Archive see also Schrakamp 2015, 255–256 and Schrakamp 2020, 646–649, with previous literature.

⁹ See Notizia 2020, 519 and cf. CUSAS 33, 139.

¹⁰ The interpretation of LAK135 as an element of the two personal names, i.e. i-bu-bu and i-šum₂, seems even more improbable.

obv. ii 1 An unnamed dumu tug₂-du₈, "son of the felter", attested also in text no. 20, is included among the shepherds. Alternatively, it may perhaps be interpreted as a personal name (dumu-tug₂-du₈) of the type dumu + professional designation, for which compare dumu-sipa of Pre-Sargonic Lagaš (Blake 2017, 124, "Das Kind (ist) ein Hirte").

obv. ii 2 For the variant spelling diĝir-lu-mah and the possible reading of this anthroponym as $DI \hat{G} IR^{lu/lu2}$. MAH = ilu(m)-rabi, see the commentary to CUSAS 33, 80 rev. i 3.

obv. ii 3, iii 1 To the best of our knowledge, these are the earliest attestations of MUL = suhub₂, "boots", in Pre-Sargonic sources (cf. Civil 2008, 124–125).

No. 2 (IM 204520)





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obv.
i
             1
                           3(bariga) 2(ban<sub>2</sub>) zi<sub>3</sub> mes-pa<sub>3</sub>
             2
                           2(bariga) lugal-mu-\(\text{r\tilde{g}}\)al2\(\text{1}\)
             3
                           1(gur) unu<sub>3</sub> gu<sub>4</sub>
                           2(bariga) 2(ban<sub>2</sub>) sipa amar-<sup>[</sup>ku<sub>5</sub>]
ii
             1
                           [ ] [sipa] AMA.GAN
                           2(gur) zi<sub>3</sub> gur-saĝ-ĝal<sub>2</sub>
             2
             3
                           šu ĝal<sub>2</sub>-la
             4
                           lu<sub>2</sub>-zi
rev.
                           du_6-\lceil la^2 \rceil-lu_2-lu_2-du_3-a
                               ] 「mu¹
                                ] 「iti<sup>¬</sup>
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Translation

3 bariga 2 ban of flour: Mespa.

2 bariga (of flour): Lugalmuĝal.

1 gur(saĝĝal of flour): the herdsman in charge of oxen.

2 bariga 2 ban (of flour): the herdsman in charge of castrated calves.

[] (of flour): the herdsman in charge of breeding female (equids).

2 gursaĝĝal of flour: available to Luzi.

(The agricultural district) Dulaluludua.

¹¹ Cf. the Early Sargonic wool account from the Umma region CUSAS 23, 71 (obv. 2: lugal-a₂-na dumu tug₂-du₈-gal).

Year [], month [].

Commentary

In this account, six people, including three unnamed herdsmen, are allocated different amounts of flour. The reading and interpretation of the sign sequence on the reverse of the tablet is tentative. Based on a group of toponyms constructed with the element du₆, "mound", in the Pre-Sargonic and Sargonic sources from the Umma region (Table 2), we understand du₆-\(\Gamma_1\)la²\(\Gamma_1\)lu₂-lu₂-du₃-a as the name of an agricultural district. \(^{12}\)

Toponym	Text
du ₆ -amar	TCBI 2/1, 4 obv. iii 4'
du ₆ -amar-an-na	CUSAS 14, 35 obv. i 3;
du ₆ -amar- ^r ezem [?]	TCBI 2/1, 4 obv. iii 3'
du ₆ -amar- ^d inanna	TCBI 2/1, 4 obv. iv 2'
du ₆ -amar- ^d TUR	TCBI 2/1, 4 obv. ii 3, iv 1', v 5'
du ₆ -amar- ^r x ¹	TCBI 2/1, 4 obv. i 9
du ₆ -amar-[x]	TCBI 2/1, 4 obv. ii 4
du ₆ -dam-gal-nun	CUSAS 23, 39 obv. ii 3
du ₆ -la	CUSAS 33, 169 rev. ii 5
du ₆ -eš ₃	MAD 4, 156 rev. 5; TIMA 1, 56 rev. ii 12
du_6 - $^{\Gamma}NU_{11}$ 1 .BUR. $[(SU)]$. $^{\Gamma}MU\check{S}EN^{1}$	TCBI 2/1, 5 obv. i 1; CUSAS 35, 385 rev. ii 2, 13 391
NU ₁₁ . 「MUŠEN 1.SU.「LAK248 [?] 1	obv. i 1
SU.MUŠEN.NU ₁₁ .BUR	
du ₆ -sahar(-ra)	CUSAS 23, 39 obv. iii 4; Anonymous 390445
	(CDLI no. 390445) rev.
du ₆ -še	CUSAS 33, 152 obv. i 6
du ₆ -teme(ŠE.NAĜA _{inversum}) ^{sar}	MAD 4, 66 rev. 6

Table 2 Toponyms constructed with the element du₆ in the Pre-Sargonic and Sargonic texts from the Umma region

obv. i 3–ii 1 A similar sequence of professional designations is attested in CUSAS 33, 197 obv. iv 9'-v 2: kurušda $gu_4 \rightarrow sipa$ anše-AMA.GAN $\rightarrow sipa$ amar-ku₅.

obv. ii 3 This expression occurs in the land texts CUSAS 23, 39 obv. iii 3 and CUSAS 33, 154 obv. iii 4–5.

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¹² Cf. also the field name da-du₆, "side of the mound", attested in Bramanti 2017, 244 no. 22 (= MVN 3, 87; CDLI no. P215739) obv. i 2, ii 2, a text from the time of Lugalzagesi.

¹³ Reading follows Bartash's transliteration. Note, however, that the sign SU is not clearly visible in the photograph available in the CDLI online database (CDLI no. P251871). The text requires collations.

No. 3 (IM 204560)





obv.

i 1 10 ma-na siki maš₂

2 3 ma-na siki zi

ii 1 「lugal¬-「ezem¬

2 an-na- $^{\Gamma}$ la₂ †

rev.

4 mu

Translation

10 *mana* of goat hair, 3 *mana* of ... wool: they were weighed out for Lugalezem. Year 4.

Commentary

obv. i 1 Normally written siki ud₅ in third millennium sources. ¹⁴ Sheep wool and goat hair are among the raw materials regularly received by felters (tug₂-du₈) and employed for the production of threads, ropes, straps, webbed mats and other braided materials (cf. text no. 12 below). ¹⁵ In the recently published tablet Notizia 2020, 526 no. 8 (CDLI no. P270832), dated to year 30 of Meanedu's reign, amounts of goat hair (siki ud₅) are supplied to various individuals, assigned to hirelings (lu₂-huĝ-ĝa₂), and delivered to the palace (e₂-gal de₆) from the workshop (ĝiš-kin-ti-ta šum₂-ma), under the authority of the (chief) felter Lugala. MIRnu. ¹⁶ In all probability, the account records the return of surplus material.

obv. i 2 Possibly an abbreviation of siki maš₂ zi-da, for which compare the animal designation udu maš zi-da (Kress 150 rev.; CDLI no. P390448) and maš₂ zi-da (MAD 4, 156 rev. 2), attested in Sargonic tablets from Umma.

 $^{^{14}}$ Cf. the lexical list ED Plants (Veldhuis 2014, 96–102; DCCLT no. Q000020) line 44 (siki maš₂), whereas the Ur III manuscript (6N-T933 = IM 61702; see Civil 2013, 66 fig. 3) has siki ud₅. Cf. also the Sargonic account of siki maš₂ galgal ("hair of adult goats") STTI 147, from Ĝirsu.

¹⁵ Cf. Van de Mieroop 1987, 35–36; Waetzoldt 2007; Molina 2019, 91.

¹⁶ For LugalA.MIRnu tug₂-du₈(-gal) see also Anonymous 271238 (CDLI no. P271238) obv. i 6–7 and CUSAS 35, 424 obv. ii 5–6.

No. 4 (IM 204568)





obv.		
i	1	21 ^{ĝiš} lam tur-tur
	2	25 ĝiš gal-gal
	3	5 ĝiš gid ₂ -gid ₂
ii	1	uru- ^r ni ¹
	2	naĝar
	3	an-na-šid
		
rev.		
		iti 8
		4 mu

Translation

21 (logs/trunks of) small *LAM*-trees, 25 (logs/trunks of) large (*LAM*)-trees, 5 (logs/trunks of) long (*LAM*)-trees: they were counted for Uruni, the carpenter. Month 8, year 4.

Commentary

In this record, the carpenter (naĝar) Uruni—for which see also text no. 11 below—is provided with logs/trunks of wood most likely as raw material for manufacturing implements, doors, furniture, and vehicles (wagons and boats).¹⁷ The term ^{ĝiš}LAM refers to types of nut-bearing trees.¹⁸ While the sign LAM is omitted in lines 2–3, we understand tur-tur, gal-gal, and gid₂-gid₂ as qualifications of the trees, perhaps related to the age of the plants.¹⁹

¹⁷ Cf. Van de Mieroop 1987, 26–27; Molina 2019, 170.

¹⁸ Steinkeller–Postgate 1992, 58–60; Veldhuis 1997, 168; Nesbitt–Postgate 2001; Civil 2008, 103–104.

¹⁹ Cf. Heimpel 2011, 82 and 91.

No. 5 (IM 204569)





obv.		
i	1	10 dug i ₃
	2	3(gur) gur ninda
	3	2 pisaĝ
	4	ur- ^d šara ₂
ii	1	ul ₃ -li ₂
	2	ĝa ₂ -udu-ud ₅
	3	$ni-ku_x(DU)$
rev.		
		<i>10</i> iti
		4 mu

Translation

10 jars of oil,

3 gur(saĝĝal) of bread,

2 baskets: Ur-Šara.

Uli brought them into the shed (for) sheep (and) nanny goats.

Month 10, year 4.

Commentary

The tablet deals with amounts of oil and bread, and two containers; either these commodities were provided by Ur-Šara and ultimately brougth into the ĝa₂-udu-ud₅-administrative unit (cf. text no. 16 below) by a certain Uli, or Ur-Šara *and* Uli were both responsible for the delivery.

obv. ii 1 This personal name is probably related to Ula—usually spelled ul₃-la—, an anthroponym attested a few times in the Pre-Sargonic tablets from the Umma region.²⁰

²⁰ CUSAS 33, 4 obv. i 2–3 (ul₃-la munu₄-mu₂); CUSAS 33, 101, obv. ii 6 (ul₃-la); CUSAS 33, 228 obv. iii 3' (ul₃-la niĝir), Foster 2020, pl. VI no. 9 obv. iii 6'. Cf. also the Ur III personal name arad₂-ul₃-la.

No. 6 (IM 204573)





obv.		
i	1	12 siki ma-na
	2	dumu lugal-kur šu-ma-la
	3	3 la ₂ 5 gin ₂ ur-saĝ-utu
	4	$4^{1}/_{3}$ ab-ba-tur
	5	ur- ^d šara ₂
	6	8 la ₂ 10 gin ₂
ii	1	me-zu-an-da
	2	8 ¹ / ₃ lugal-saĝ-i ₃ -rtuku ¹
	3	gala
	4	si-sa ₂ -bi
	5	3 ab-ba-tur
	6	niĝ ₂ -hu-bu7 ^{bu}
	7	$2^{2}/_{3}$ ku-li
	8	AN.KI
iii		(column entirely missing; uninscribed?)
rev.		
iv		(missing column?)
\mathbf{V}		<i>4</i> mu
		8 iti

Translation

12 mana of wool: the son of Lugalkur, the ... 3 (mana) minus 5 shekels (of wool): Ursaĝutu. 4 ¹/₃ (mana of wool): Abbatur.

Ur-Šara.

8 (*mana*) minus 10 shekels (of wool): Mezuanda. 8 ¹/₃ (*mana* of wool): Lugalsaĝituku.

Gala.

(Measured according to) the regular (weight standard).

3 (mana of wool): Abbatur.

Niĝhubu.

 $2^{2}/_{3}$ (mana of wool): Kuli.

At KI.AN.

[]

Year 4, month 8.

Commentary

obv. i 2 The meaning of the term šu-ma-la is unclear to us. It may perhaps indicate a title/professional designation or, less likely, it can be understood as a phonetic variant of the administrative expression šu ĝal₂-la (cf. no. 2 above).

obv. i 4, ii 2, 7 The writings of the fractions of the *mana* attested in this document and in text no. 18 are characteristic of the Umma scribal tradition (Bartash 2019, 45–47).

obv. ii 4 Based on the context, si-sa₂ may be interpreted here as a defective writing of na₄-si-sa₂, "regular stone weight" (Bartash 2019, 127–131; 1 ma-na = ca. 480 g) and connected to the weighing of wool. However, it remains unclear to us whether the wool accounted for in obv. ii 5 and 7 was measured according to a different standard, that is, by using the na₄-siki-ba, "stone for wool allocations" (Bartash 2019, 132–133; 1 ma-na = ca. 680 g). The weighing operations were likely performed under the supervision of Ur-Šara (obv. i 5), Gala (obv. ii 3), and Niĝhubu (obv. ii 6). Remarkably, in the case of Kuli (obv. ii 7), the weighing seems to have taken place at the city of KI.AN. If our understanding of the administrative procedure behind this entry is correct, the fact that the scribe had to specify that the transaction occurred elsewhere implies, by itself, that the record was *not* redacted at KI.AN.

obv. ii 6 For this personal name in the Fara documents see Pomponio 1987, 111–112 s.v. GAR.HU.DÚR.BU.

obv. ii 8 Probably the ancient name of Tell Shmet (Warka Survey, no. 168). This site, which lies only four kilometers to the west of Ibzeikh (ancient Zabalam; cf. Molina 2017) and about ten kilometers northwest of Jokha, was excavated by an Iraqi team in two seasons between 2001 and 2002, who uncovered an extended residential quarter of the Early Dynastic period (Abdulraheem 2003–2004; Fahad—Abbas 2020).







²¹ Cf. CUSAS 33, 221 obv. i 5: 10 siki ma-na si-sa₂.

²² For the context of weighing and officials acting as weighmasters in third millennium Mesopotamia see Bartash 2019, 152–168.

obv.		
i	1	2 kuš ab ₂
	2	2 kuš amar
	3	2 kuš ma-gi
ii	1	[zur]-zur
	2	su-si
	3	an-na-šid
rev.		
		<i>10</i> 「iti [↑]
		<i>4</i> mu

Translation

2 cow hides.

2 calf hides,

2 ... hides:

they were counted for [Zur]zur, the preparer of cleaned hides. Month 10, year 4.

, 2

Commentary

obv. i 3 The meaning of ma-gi₄ remains unclear to us. Although ma-gi₄ is documented as an abbreviated personal name of the type X(-e)-ma-(an-)gi₄ (cf. Limet 1968, 82 and 246) in later Ur III texts, in the present context an animal designation is expected. In this connection, it is tempting to speculate that ma-gi₄ here is a defective writing for /margi/, a previously unattested word related to Akkadian $marg\hat{u}$ (see CAD M/1, 278 s.v. margû A), possibly denoting a bear or an exotic animal. The closest parallel is the unique Old Babylonian bilingual proverb N 3395 (discussed by Civil 1998), which equates dim_3 -šah₂ mar-ha-ši^{ki} to ma-ar- gi_4 pa-ra-ah-[ši].²³

obv. ii 2 For the professional designation su-si(-ig) in third millennium Mesopotamia, see Such-Gutiérrez 2020. This specialist was involved in the preparation of hides for tanning, a task performed by leather workers (ašgab). Although the su-si(-ig) is frequently attested in administrative documents together with other craftsmen, he was not employed at the craft workshop (ĝiš-kiĝ₂-ti) but operated in a different building or area of the city (Such-Gutierrez 2020, 11–12).







²³ Cf. also CUSAS 17, 22, an Old Babylonian copy of a Gudea inscription, which mentions a *ma-ar-gi-a-am* (rev. iv 4c) brought down "from the mountain of Tilmun, the land of Amorites". For a new interpretation of this passage, see Gabbay–Wilcke 2012.

obv. 10 la₂ *I* ^{kuš}suhub₂ gal-gal anše e₂-ba i 1 6 kuš suhub₂ tur-tur anše e₂-ba 2 ii 1 10 esir_x(LAK173) anše e₂-ba 2 amar-dezinam3 3 ašgab rev. iii mu-de₆ iti 8 iv 4 mu

Translation

9 pairs of big boots (made of) donkey (hides), 6 pairs of small boots (made of) donkey (hides), 10 pairs of sandals (made of) donkey (hides): Amarezinam, the leather worker, delivered. Month 8, year 4.

Commentary

Deliveries and expenditures of donkey hides are attested in CUSAS 33, 102 and 107; see also CUSAS 33, 103, an account concerning four kuš [anše]-DUN.GI assigned to the leather worker Kaskalnidu.

No. 9 (IM 204582)





obv. i 1 170 sig₄ sar 2 $u_4 8$ 3 e_2 -an-da-mu $_2$ ii 1 [136] sig₄ [sar] 2 u₄ 7 3 lugal-ezem rev. iti 5 u₄ 15 e-ta-zal 4 mu

Translation

170 brick-*sar*, 8 days: Eandamu. 136 brick-*sar*, 7 days: Lugalezem.

(From) month 5, day 15 having passed, year 4.

Commentary

Brick-making was usually performed during the third month (cf. CUSAS 33, 137); around the same period of the year started the construction season (Heimpel 2009, 32). In ancient Mesopotamia, the counting unit for bricks of all sizes was the brick-*sar*, which conventionally corresponded to 720 bricks (Powell 1987–1990, 491). According to Englund (2012, 449), the standard production-rate for bricks was ¹/₃ brick-*sar* (= 240 bricks) per worker per day. Assuming the use of these standards and rates, it follows that Enadamu and Lugalezem were in charge of two work crews counting ca. 60 men each.

No. 10 (IM 204589)





```
obv.
                    4 tug2šu
          1
          2
                    5 ma-na siki-bi
          3
                    5 <sup>tug2</sup>šu
ii
          1
                    4 ma-na siki-bi
          2
                    nin-e<sub>2</sub>
                    5 「dam¹ 「šubur¹
rev.
                    iti 10 la<sub>2</sub> 2!
                    4 mu
```

Translation

4 *šu*-garments,

the wool (used for their manufacture weighed) 5 mana (= 2.5 kg);

5 4 *šu*-garments,

the wool (used for their manufacture weighed) 4 mana (= 2 kg): Nine.

5 (*šu*-garments/*mana* of wool): the wife of Šubur.

Month 8, year 4.

No. 11 (IM 204590)





obv.

 $\begin{array}{cccc} i & 1 & 8 \ tug_2\text{-}ur_3 \\ 2 & uru\text{-}ni \\ 3 & na\^gar \\ ii & 1 & an\text{-}na\text{-}\'sid \end{array}$

rev.

5 iti 4 mu

Translation

8 ...-garments: they were counted for Uruni, the carpenter. Month 5, year 4.

Commentary

obv. i 1 Possibly an abbreviated form of ^{tug2}šu-du₈-ur₃, "heavy garment", for which see Civil 2008, 94. Cf. also RTC 221 obv. vi 7 (Lagaš II): tug₂-ur₃ sig₅, translated by Lehmann (2016, 645) as "gutes (textilernes) Dach" and by Maiocchi–Visicato (2020, 66 no. 16) as "textile ... of first quality".

No. 12 (IM 204596)





obv.

i 1 11 eš₂ saĝ-keše₂ 2 50 la₂ 2 eš₂ sa

3 2 šu-i ii 1 an-na-šid

rev.

iti 8 4 mu

Translation

11 *saĝkeše*-ropes, 48 carrying nets: they were counted for the two barbers. Month 8, year 4.

Commentary

obv. i 1 This term is attested also in the unpublished Sargonic tablet of unknown provenance CDLI no. P274892 obv. 5–6: 1 eš₂ saĝ-keše₂ ki-la₂-bi ¹/₂ ma-na, "1 *saĝkeše*-rope weighing ¹/₂ *mana*".

obv. i 2 Most likely an abbreviation of eš₂ sa-HAR, for which see Civil 2008, 117.

obv. ii 1 Note the form an-na-šid in place of the expected an-ne-šid. For the socio-economic status of male and female barbers in Pre-Sargonic Lagaš, see Karahashi 2016, 49–55.





obv.

rev.

(completely destroyed)

Translation

1 heavy copper *aĝar*-tool, 1 small copper *aĝar*-tool: LugalanDU.

[]

Commentary

A similar, though larger, account of copper implements (*aĝar*-tools and axes) has been recently published by Foster (2020, pl. XX no. 35). The text may be safely attributed to the Umma region on palaeographical and prosopographical grounds.²⁴ In this regard, compare also the "dossier of the metals" dated to the time of Lugalzagesi (Bramanti 2017, 98).

obv. i 1-2 For this tool, see PSD A/2, 60 s.v. a₂-gar A.

²⁴ See commentary to CUSAS 33, 125.

No. 14 (IM 204609)





obv.

i 1 1 urudaha-zi 2 saĝ-peš₂ ii 1 NI.HA 2 ba-de₆

rev.

iti 10 4 mu

Translation

1 copper ax: Saĝpeš. NI.HA took it away. Month 10, year 4.

Commentary

onb. i 1 This object was used both as an agricultural tool and as a weapon (Civil 2008, 91–92; Paoletti 2012, 152).

obv. i 2 For this personal name at Fara, see Pomponio 1987, 210 s.v. saĝ-nar_x(LAK 244). For the sign PEŠ₂ in third millennium sources, see Mittermayer 2005, 74–80.

No. 15 (IM 204611)





obv.

i $1 \quad 10(gur) gu_2-gu_2$

2 lu₂-kal

3 engar engar

ii 1 ba-de₆

17

rev.

^riti¹ 6 4 mu

Translation

10 gur of pulses: Lukal.

The farmers took them away (for sowing).

Month 6, year 4.

No. 16 (IM 204620)





obv.

i 1 6 dug i₃

2 ab-ba-tur

 e_2 -tur $_3$ e-de $_6$

4 8 dug i₃

ii 1 NIN-da-mah-di

2 ĝa₂-udu-ud₅

 $e-de_6$

rev.

iti 12 4 mu

Translation

6 jars of oil: Abbatur delivered them (to) the cattle pen.

8 jars of oil: NINdamahdi delivered them (to) the shed (for) sheep (and) nanny goats.

Month 12, year 4.

Commentary

One would expect the cattle pen and the shed (for) sheep (and) nanny goats be the source of the (butter) oil (= ghee) rather than the destination of the goods (cf. text no. 5 above).²⁵ Another possible interpretation is that Abbatur and NINdamahdi were "(man of) the cattle pen" and "(man) of the shed (for) sheep (and) nanny goats" respectively, that is, a herdsman and a shepherd.

obv. ii 1 For the reading /ereš/ of NIN, with the meaning "lady, queen", as a theophoric element in Sumerian personal names, see Marchesi–Marchetti 2011, 158 n. 25, with previous literature.

²⁵ Note that in the Pre-Sargonic texts from the Umma region, the terminative case marker is not usually written. Cf. the following examples: e₂-gal-ta šum₂-ma, "provided from the palace" (CUSAS 33, 137 rev. 2); ĝanun-mah-ta šum₂-ma, "provided from the main storehouse (CUSAS 14, 29 obv. ii); e₂-gal de₆, "delivered to the palace" (CUSAS 33, 102 rev. i 2), ĝanun-mah de₆, "delivered to the main storehouse" (CUSAS 33, 15 rev. i 3).

No. 17 (IM 204621)





obv.

i 1 230 la₂ 3 bur-sila₃!?-Aš.U₂. $^{\Gamma}BA$?//ZU?1

2 e₂-mah-da

ii 1 šu-a bi₂-gi₄

rev.

iti 8 4 mu

Translation

227 ...-bowls: Emahda turned them over.

Month 8, year 4.

Commentary

In this record, a surprisingly large number of bowls are returned (šu-a gi₄) by Emahda to the central organization. Due to the poor quality of the available photographs, it is difficult to read the other signs in the first line of the tablet and thus to correctly identify the type of vessel involved in the transaction.

obv. i 1 Cf. the following entries in the *bur*-section of the lexical list EDPV B₍₂₎ (Veldhuis 2014, 119–123): SF 20 obv. iv 8–9 (sila₃-eren-bur, an-dul₃-sila₃-eren-bur); OIP 99, 34 obv. iii 6"–7" (bur-sila₃-[eren[?]], bur-^rsila₃¹-AN.AŠ); CUSAS 12, 6.3.1 iv 12–13 (bur-sila₃-eren, bur-sila₃-an-dul₃).

No. 18 (IM 204623)





obv.

i 1 6 ^{uruda}ha-zi

2 1 a₂-ĝar

3 23 ma-na uruda-bi ii 1 $\Gamma^2/_3$ gin₂ arata(LAM.KUR.RU)-bi 2 šu-i 3 an-na-la₂ rev. iti 10 4 Γ mu

Translation

6 copper axes, 1 (copper) $a\hat{g}ar$ -tool: the copper (used for their manufacture weighed) 23 mana, the ... (used for their manufacture weighed) $^2/_3$ mana. They were weighed out to the barber. Month 10, year 4.

Commentary

obv. ii 1 For a discussion on this metal used in the manufacture of various objects, see, most recently, Bartash 2019, 184–186, with previous literature.

No. 19 (IM 204636)





obv.

i 1 (bariga) zi₃ niĝ₂-na-ga
2 1(bariga) u₃-<mu>-ne-ne
ii 1 (gur) lu₂ uru-az(ZA₇+PRIRIĜ)
——
rev.

iti 「10¹
4 mu

Translation

bariga of flour: Niĝnaga. *bariga* (of flour): U(mu)nene. *gur*(*saĝĝal* of flour): the man of Uruaza. Month 10, year 4.

Commentary

obv. ii 1 For the Elamite city of Uruaza—here lacking the place determinative ^{ki}—in the contemporary sources from Lagaš, see Schrakamp 2015, 202–203, and 207. The palaeography of the sign ZA₇ in the Pre-Sargonic texts from the Umma region has been discussed by Bramanti–Notizia 2016, 309–311.

No. 20 (IM 204654)





obv.		
i	1	1 munus-a ₂ -nu-kuš ₂
	2	1 ad-da-da
	3	dumu e2-mah-da
	4	1 ur-saĝ-me ₃
	5	1 bara ₂ -sag ₃ -nu-di
ii	1	1 lugal-uĝ ₃ -du ₁₀
	2	1 ba-DU
	3	1 nu-ĜA ₂
	4	ur-「dam [¬]
	5	$1 e_2$ -DU.DU

```
1 「e<sub>2</sub>¬-ki
             6
             7
                           1 lu<sub>2</sub>-lum-ma
             8
                           1 lugal-uĝ<sub>3</sub>-du<sub>10</sub>
iii
             1
                           1 UR.UR
             2
                           1 dumu diĝir-šeš-ĝu<sub>10</sub>
             3
                           1 <sup>r</sup>ugula<sup>1</sup> šidim
             4
                           1 du<sub>6</sub>-an-ne<sub>2</sub>
             5
                           1 ur-<sup>d</sup>nin-piriĝ
             6
                           1 amar-<sup>d</sup>ezinam<sub>3</sub>
             7
                           1 AK
             8
                           1 dumu maš
                           1 dumu igi-<sup>d</sup>√x<sup>?</sup>¬
iv
             1
             2
                           1 dumu tug2-du8
             3
                           1 ab-ba-tur
             4
                           1 \text{ SA}\hat{\text{G}}.^{\lceil X \rceil}.^{\lceil X \rceil}.^{\lceil X \rceil}
rev.
             1
                           1 lugal-uru-na-nu<sub>2</sub>
v
             2
                           1 e_2-u_2-u_2
             3
                           1 ur-saĝ-utu
             4
                           1 ur-<sup>d</sup>TAG.NUN
             5
                           1 ad-da-tur gu<sub>4</sub> <sup>[</sup>x<sup>]</sup> <sup>[</sup>x<sup>]</sup>
vi
             1
                           ĝuruš gub-ba
vii
                           siki-ba ĝuruš
                           4 mu
```

Translation

1 (mana of wool): Munusanukuš. 1 (mana of wool): Addada, son of Emahda. 1 (mana of wool): Ursaĝme. 1 (mana of wool): Barasagnudi. 1 (mana of wool): Lugaluĝdu. 1 (mana of wool): Badu. 1 (mana of wool): NuĜA, (subordinate of) Urdam. 1 (mana of wool): EDU.DU. 1 (mana of wool): Eki. 1 (mana of wool): Lulumma. 1 (mana of wool): Lugaluĝdu. 1 (mana of wool): UR.UR. 1 (mana of wool): the son of Diĝiršešĝu. 1 (mana of wool): the overseer of the builders. 1 (mana of wool): Duane. 1 (mana of wool): Urninpiriĝ. 1 (mana of wool): Amarezinam. 1 (mana of wool): AK. 1 (mana of wool): the son of Maš. 1 (mana of wool): the son of Igi...

1 (*mana* of wool): the son of the felter.

1 (mana of wool): Abbatur.

```
(blank line)
1 (mana of wool): ...
1 (mana of wool): Lugalurunanu.
1 (mana of wool): Eu'u.
1 (mana of wool): Ursaĝutu.
1 (mana of wool): UrTAG.NUN.
1 (mana of wool): Addatur ...
Workers in service.
Wool allotments of the workers (in service).
Year 4.
```

Commentary

Unfortunately, we are unable to read several signs in lines obv. iv 1, 4, rev. v 5. The tablet requires collation.

obv. i 1 The sign Aš_{curviform} at the beginning of this and the following lines—except obv. i 3, ii 4—can be interpreted either as a *Personenkeil* marking the individuals who were entitled to receive wool allotments, or as the number "one", as an abbreviation of "one (*mana* of wool)". For the annual distribution of clothing (wool or garments) to workers in Pre-Sargonic Lagaš, see Prentice 2010, 82–90.

obv. ii 3 This personal name is attested also in three texts from the time of Lugalzagesi. ²⁶

Indexes

Personal names

```
ab-ba-tur 6 i 4, ii 5; 16 i 2; 20 iv 3
ad-da-da 20 i 2 (* dumu e<sub>2</sub>-mah-da)
ad-da-tur 20 v 5 (* ...)
AK 20 iii 7
amar-<sup>d</sup>ezinam<sub>3</sub> 8 ii 2 (* ašgab); 20 iii 6
bara2-sag3-nu-di 20 i 5
ba-DU 20 ii 2
bu-bu 1 i 1
diĝir-aja<sub>2</sub>-ĝu<sub>10</sub> 1 i 5
diĝir-bad<sub>3</sub> 1 i 3
diĝir-da-mah-di 1 iii 2
diĝir-lu<sub>2</sub>-mah 1 ii 2
diĝir-šeš-ĝu<sub>10</sub> 20 iii 2 (dumu *)
du<sub>6</sub>-an-ne<sub>2</sub> 20 iii 4
e<sub>2</sub>-an-da-mu<sub>2</sub> 9 i 3
e<sub>2</sub>-DU.DU 20 ii 5
e2-ki 20 ii 6
e<sub>2</sub>-ki-du<sub>10</sub>-ga 1 ii 4
e<sub>2</sub>-mah-da 17 i 2; 20 i 3 (ad-da-da dumu *)
```

²⁶ Bramanti 2017 text nos. 3 (= Brinkman 1976, 48 and pl. III–V; CDLI no. P481109) obv. iv 10, v 12; 7 (= Ellis 1979, 40–41; CDLI no. P221707) obv. i 1; 22 (= MVN 3, 87; CDLI no. P215739) obv. ii 6.

```
e<sub>2</sub>-u<sub>2</sub>-u<sub>2</sub> 20 v 2
gala 6 ii 3
igi^{-d_{\Gamma}}x^{?_{\Gamma}} 20 iv 1 (dumu *)
ku-li 6 ii 7
lu<sub>2</sub>-kal 15 i 2
lu<sub>2</sub>-lum-ma 20 ii 7
lu2-zi 2 ii 4
lugal-an-DU 13 ii 1
lugal-ezem 3 ii 1; 9 ii 3
lugal-kur 6 i 1 (dumu * šu-ma-la)
lugal-mu-ĝal<sub>2</sub> 2 i 2
lugal-saĝ-i3-tuku 6 ii 2
lugal-uĝ<sub>3</sub>-du<sub>10</sub> 20 ii 1, ii 8
lugal-uru-na-nu<sub>2</sub> 20 v 1
maš 20 iii 8 (dumu *)
me-zu-an-da 6 ii 1
mes-pa<sub>3</sub> 2 i 1
munus-a<sub>2</sub>-nu-kuš<sub>2</sub> 20 i 1
NI.HA 14 ii 1
niĝ<sub>2</sub>-hu-bu<sub>7</sub><sup>bu</sup> 6 ii 6
niĝ<sub>2</sub>-na-ga 19 i 1
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nin-e<sub>2</sub> 10 ii 2
nu-ĜA2 20 ii 3
SAĜ. [x]. [x]. [x] 20 iv 4
saĝ-peš<sub>2</sub> 14 i 1
šubur 10 ii 3 (dam *)
šum<sub>2</sub> 1 i 2
u<sub>3</sub>-<mu>-ne-ne 19 i 2
ul<sub>3</sub>-li<sub>2</sub> 5 ii 1
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ur-saĝ-me<sub>3</sub> 20 i 4
ur-saĝ-utu 6 i 3; 20 v 3
ur-<sup>d</sup>šara<sub>2</sub> 5 i 4; 6 i 5
ur-dtag.nun 20 v 4
UR.UR 20 iii 1
uru-ni 4 ii 1 (* naĝar); 11 i 2 (* naĝar)
zur-zur 7 ii 1 (* su-si)
```

Geographical names

AN.KI **6** ii 8 du_6 - $^{\Gamma}la^{?1}$ - lu_2 - lu_2 - du_3 -a **2** rev. uru- $az \rightarrow lu_2 uru$ -az

Professional designations and titles

```
ašgab 8 ii 3 (amar-<sup>d</sup>ezinam<sub>3</sub> *)
naĝar 4 ii 2 (uru-ni *); 11 i 3 (uru-ni *)
```

```
sipa 1 iv

sipa AMA.GAN 2 ii 1

sipa amar-ku<sub>5</sub> 2 i 4

su-si 7 ii 2 ([zur]-zur *)

šu-i 12 i 3; 18 ii 2

šu-ma-la 6 i 1

tug<sub>2</sub>-du<sub>8</sub> 1 ii 1 (dumu *); 20 iv 2 (dumu *)

unu<sub>3</sub> gu<sub>4</sub> 2 i 3
```

Sumerian words and expressions

```
a<sub>2</sub>-ĝar 18 i 2
<sup>uruda</sup>a<sub>2</sub>-ĝar mah 13 i 1
uruda<sub>2</sub>-ĝar tur 13 i 2
ab_2 \rightarrow siki \ ab_2
AMA.GAN \rightarrow sipa AMA.GAN
amar → siki amar
amar-ku<sub>5</sub> → sipa amar-ku<sub>5</sub>
an-na-la<sub>2</sub> 3 ii 2; 18 ii 3
an-na-šid 4 ii 3; 7 ii 3; 11 ii 1; 12 ii 1
anše \rightarrow esir<sub>x</sub> anše, <sup>kuš</sup>suhub<sub>2</sub> gal-gal anše, <sup>kuš</sup>suhub<sub>2</sub> tur-tur anše
arata(LAM.KUR.RU): 18 ii 1
ba-de<sub>6</sub> 14 ii 2; 15 ii 1
bur-sila<sub>3</sub>!?-AŠ.U<sub>2</sub>. 「BA?//ZU<sup>?</sup> 17 i 1
dam 10 ii 3 (* šubur)
de_6 \rightarrow ba-de_6, e-de<sub>6</sub>, mu-de<sub>6</sub>
dug 5 i 1 (* i<sub>3</sub>); 16 i 1 (* i<sub>3</sub>), 4 (* i<sub>3</sub>)
dumu 1 ii 1 (* tug<sub>2</sub>-du<sub>8</sub>); 20 i 3 (* e<sub>2</sub>-mah-da); iii 2 (* diĝir-šeš-\hat{g}u_{10}), 8 (* maš), iv 1 (* igi-^{d}\Gamma x^{?}1), 2
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engar engar 15 i 3
\operatorname{esir}_{x} \mathbf{1} \text{ i } 1, \operatorname{iv}_{x} \rightarrow \operatorname{esir}_{x} \operatorname{anše}
esir<sub>x</sub> anše 8 ii 1
eš<sub>2</sub> sa 12 i 2
eš<sub>2</sub> saĝ-keše<sub>2</sub> 12 i 1
gu<sub>2</sub>-gu<sub>2</sub> 15 i 1
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gin<sub>2</sub> 6 i 3, 6; 18 ii 1
gub \rightarrow gub-ba
gub-ba 20 vi 1 (ĝuruš *)
gur 5 i 2
gur-saĝ-ĝal<sub>2</sub> 2 ii 2
\hat{g}a_2 \rightarrow \hat{g}a_2-udu-ud<sub>5</sub>
ĝa2-udu-ud5 5 ii 2; 16 ii 2
ĝiš gal-gal 4 i 2; → <sup>ĝiš</sup>LAM tur-tur
ĝiš gid₂-gid₂ 4 i 3; \rightarrow <sup>ĝiš</sup>LAM tur-tur
ĝuruš 20 vi 1, vii
<sup>uruda</sup>ha-zi 14 i 1; 18 i 1
```

```
i<sub>3</sub> 5 i 1 (dug *); 16 i 1 (dug *), 4 (dug *)
ku_x(DU) \rightarrow ni-ku_x(DU)
kuš 7 i 1; \rightarrow kuš ab<sub>2</sub>, kuš amar
kuš ab<sub>2</sub> 7 i 1
kuš amar 7 i 2
<sup>ĝiš</sup>LAM tur-tur 4 i 1
la<sub>2</sub> 6 i 3, 6; 8 i 1; 12 i 2; 17 i 1
la_2 \rightarrow an-na-la_2
lu<sub>2</sub> uru-az 19 ii 1
ma-gi_4 \rightarrow ma\check{s}_2 \ ma-gi_4
ma-na 3 i 1, 2; 6 i 1; 10 i 2, ii 1; 18 i 3
maš_2 \rightarrow siki maš_2, maš_2 ma-gi_4
maš<sub>2</sub> ma-gi<sub>4</sub> 7 i 3
mu-de<sub>6</sub> 8 ii 3
ni-ku<sub>x</sub>(DU) 5 ii 3
ninda 5 i 2
pisaĝ 5 i 3
sa \rightarrow e\check{s}_2 \ sa
sa\hat{g}-keše_2 \rightarrow e\check{s}_2 sa\hat{g}-keše_2
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si-sa<sub>2</sub>-bi 6 ii 4
sig<sub>4</sub> 9 i 1, ii 1
siki 6 i 1; 10 i 2, ii 1; → siki maš<sub>2</sub>, siki zi
siki-ba 20 vii
siki maš<sub>2</sub> 3 i 1
siki zi 3 i 2
suhub<sub>2</sub> 1 ii 3, iii 1; \rightarrow <sup>kuš</sup>suhub<sub>2</sub> gal-gal anše, <sup>kuš</sup>suhub<sub>2</sub> tur-tur anše
kušsuhub<sub>2</sub> gal-gal anše 8 i 1
kušsuhub<sub>2</sub> tur-tur anše 8 i 2
šid → an-na-šid
šidim → ugula šidim
<sup>tug2</sup>šu 10 i 1, 3
šu-a bi<sub>2</sub>-gi<sub>4</sub> 17 ii 1

šu-a gi_4 \rightarrow šu-a bi_2-gi_4

šu \hat{g}al_2 → šu \hat{g}al_2-la
šu ĝal<sub>2</sub>-la 2 ii 3
šu ti → šu ti-a
šu ti-a 1 iv
tug<sub>2</sub>-ur<sub>3</sub> 11 i 1
u<sub>4</sub> 9 i 2, ii 2, rev.
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udu \rightarrow \hat{g}a_2-udu-ud_5
ugula šidim 20 iii 3
uruda 18 i 3
zal \rightarrow e-ta-zal
zi<sub>3</sub> 2 i 1, ii 2; 19 i 1
```

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