

## Sumerian Language Use at Garšana On Orthography, Grammar, and Akkado–Sumerian Bilingualism\*

WALTHER SALLABERGER

LMU MÜNCHEN

Among the administrative texts from the Ur III period, the Garšana documents stand out for their rich vocabulary and a relatively high quota of phonographic writings. This evidence becomes most fascinating since almost all scribes, who wrote the documents in the prestigious Sumerian language, bore Akkadian names. This study covers various aspects of language that contribute to our topic: writing and phonology, morphology, and syntax; thereby frequencies and proportions are given much attention. The fact that the Garšana scribes were mostly native Akkadians transpires relatively rarely in various impositions in morphology and syntax, mostly in the message domain of single speakers. The mastering especially of the diversified verbal morphology or the invariably Sumerian basic vocabulary is a clear sign of a high degree of language acquisition, and the phonographic spellings even hint at imitation of Sumerian phonemes. The integration of special expressions from Akkadian in a basically Sumerian vernacular agrees well with the fact of a far-reaching acquisition of the non-native Sumerian language. The active Akkado–Sumerian bilingualism of the Garšana scribes would have been unthinkable without constant communicative contacts with the native speakers of Sumerian in the region.

The archive from Garšana, a settlement in the province of Umma at the banks of the lower Tigris, provides a unique occasion to investigate the usage of Sumerian at the end of the third millennium. Compared to the bulk of the more than sixty thousand published administrative texts from this period, the time of the Third Dynasty of Ur (Molina 2008), which present themselves most often as lists with an addition of some few administrative key terms,

the Garšana documents stand out by their rather frequent use of a variety of verbs and the formulation in phrases. Furthermore, this homogeneous corpus boasts a relatively high quota of phonographic writings, which allows for a better comprehension of the actual language than does the usual standard orthography. This evidence becomes important and most fascinating because of the specific sociolinguistic situation: the population of the military settlement of

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from discussions with Jan Keetman and, especially, Wolfgang Schulze, who provided indispensable linguistic background information and literature and who encouraged me to describe the treated features more precisely, which eventually entailed hours of counting references.

Garšana was mainly of Akkadian and other origins, but it was situated within the Sumerian-speaking area of southern Babylonia; most scribes, who wrote the documents in Sumerian, bore Akkadian names.

The discussion is ultimately devoted to this specific situation of language contact. Therefore, it concentrates on those aspects of language in which differences from standard Sumerian usage can be noted. A first section addresses the relationship between written and spoken language within this corpus, and a phonological detail, the spelling of the infinite *-e-d-e-* forms, becomes a firm witness for the representation of spoken Sumerian in these documents. On the other hand the imposition of Akkadian on the Sumerian vernacular used by the Garšana scribes is investigated in regard to both syntax and lexicon.

The exceptional situation of Garšana allows for an exemplary view on Sumero-Akkadian bilingualism in southern Babylonia at the end of the third millennium, just before the economic, political, and social catastrophe at the end of the Third Dynasty of Ur put an end to the old city Sumerian states and eventually to Sumerian as their vernacular.

Methodologically this study has tried to avoid single anecdotal observations, which tend to be misleading, but to cover comprehensively the various aspects of language that contribute to our topic, and thereby frequencies and proportions have been given more attention than it is unfortunately too often the case in linguistic studies of Sumerian. But only this broad coverage of the evidence allowed a sound application of linguistic models of language contact and eventually led to an interpretation that covered all aspects of the analyses.

### 1. On the Garšana Archive and Its Scribes

The sheer existence of a “Garšana archive” is owed to the ceaseless efforts of David I. Owen and Rudolf H. Mayr, who collected and published more than 1400 cuneiform tablets that were looted at the place called Garšana in antiquity (Owen and Mayr 2007). Although the archaeological context is lost, the coherence of the archive is remarkable: apart from a handful of earlier texts all dated documents belong to the ten years between Šu-Suen 4 and Ibbi-Suen 4. They are concerned with the internal organization of the household and the military camp headed by the general and physician Šu-Kabta and his wife, the princess Simat-Ištaran (cf. Heimpel 2009, 2–4). The probable etymology of Garšana as Garaš-Ana “the camp of An” (with garaš as loanword of Akkadian *karāšu* “military camp”), the dedication of the main temple to the warrior god Nergal, the role of Šu-Kabta as general, the stationing of “soldiers” (aga<sub>3</sub>-ús, TĒL 171, ITT 3 6174) and the high number of “troops” (eren<sub>2</sub>, TCTI 2 3543) at this place, and the short period of documentation between Šulgi and Išbi-Era indicate that Garšana was mainly a military camp in the South, founded most probably by Ur-Namma or Šulgi of Ur.

The proper names reveal that persons of mostly Akkadian origin were settled here. Thus Garšana differs sharply from the surrounding ancient cities of Umma and Ĝirsu, which were dominantly inhabited by Sumerians. Although, of course, a single name does not reveal the actual language use of the person bearing that name, the total evidence is very clear in this regard, as the following tabulation, based on randomly selected name lists of four contemporary sites (Sallaberger 2004), illustrates:

City	Total of names counted	Sumerian	Akkadian	Of other or unclear linguistic affiliation <sup>1</sup>
Nippur	1433	52 %	21 %	28 %
Umma	546	68 %	15 %	17 %
Garšana	172	9 %	68 %	23 %
Ĝirsu	1111	63 %	14 %	23 %

Garšana was thus inhabited by a dominantly Akkadian-speaking population, whereas the administration of the provincial governor at Umma controlled a dominant Sumerian population.

The distribution of the personal names among the scribes active at Garšana agrees with the general picture. In the list of scribes attested at Garšana that is given below, the following information is added: the period attested in the documents for the person indicated as “scribe” (dub-sar), but no attestations of the same person without that title; the administrative function (*ĝiri*<sub>3</sub> “go-between, responsible” or *maškim* “commissioner, deputy” as designations of involvement in transaction) or the role as (eye) witness; the attestation as scribe of the household in wage lists (text nos. 394, 399, 406). Those persons whose title “scribe” is known only from the seal inscriptions are not considered (Owen and Mayr 2007, 429–439):

Adad-tillatī	(ŠS 6/05–ŠS 8/03, <i>ĝiri</i> <sub>3</sub> )
Aḫūma	(IS 2/01, <i>ĝiri</i> <sub>3</sub> )
Aḫu-waqar	(IS 1/01–3/01, <i>ĝiri</i> <sub>3</sub> )
Awilumma	(IS 1/12–2/01, <i>ĝiri</i> <sub>3</sub> )
Babani	(ŠS 8/11–IS 3/01, <i>ĝiri</i> <sub>3</sub> )
Ea-dān	(household scribe no. 399, ŠS 6/06; no. 406, ŠS 6/11)
Ea-šar	(ŠS 6/06–9/07, <i>ĝiri</i> <sub>3</sub> , <i>maškim</i> ; household scribe no. 394, ŠS 6/05)
Enlil-bazaDU	(IS 2/06, <i>ĝiri</i> <sub>3</sub> )
Erra-bāni	(ŠS 8/08, witness)
Ibni-Adad	(ŠS [x]–IS 3/08, <i>ĝiri</i> <sub>3</sub> )
Ilī-šulūlī(AN.DUL)	(ŠS 9/02, eye witness?)
Išsur-Suen	(IS 2/07, <i>ĝiri</i> <sub>3</sub> , <i>maškim</i> )
Lā-qīp(um)	(no. 394, ŠS 6/05; no. 399, ŠS 6/06)
Puzur-Ninkarak	(ŠS 6/05–7/12, <i>ĝiri</i> <sub>3</sub> ; household scribe no. 394, ŠS 6/05; no. 399, ŠS 6/06; no. 406, ŠS 6/11)

Šummid-ilī	(IS 4/01, <i>maškim</i> )
Šarakam	(ŠS 9/11, witness)
Šēliānum	(ŠS 5/04, <i>maškim</i> )
Šu-Adad	(ŠS 8/12, <i>ĝiri</i> <sub>3</sub> )
Šu-Erra	(ŠS 8/06, <i>maškim</i> )
Šu-Kūbum	(ŠS 9/09, witness)
Tūram-ilī	(IS 2/02–4/01, <i>ĝiri</i> <sub>3</sub> )
Ur-Eanna	(ŠS 8–IS 1/12, <i>ĝiri</i> <sub>3</sub> , <i>maškim</i> )
Uši-nawir	(IS 2/05–06, <i>ĝiri</i> <sub>3</sub> )

Of the 23 names of scribes,

- 2 are Sumerian (Šarakam, Ur-Eanna);
- 18 are Akkadian (Adad-tillatī, Aḫūma, Aḫu-waqar, Awilumma, Ea-dān, Ea-šar, Erra-bāni, Ibni-Adad, Ilī-šulūlī, Išsur-Suen, Lā-qīp(um), Puzur-Ninkarak, Šummid-ilī, Šu-Adad, Šu-Kūbum, Šu-Erra, Tūram-ilī, Uši-nawir);
- 3 are of various or uncertain linguistic affiliation (Babani/Ba-ba-ni, Enlil-bazaDU/<sup>d</sup>En-līl-ba-za-DU, Šēliānum/Še-NI-a-LUM).

In the wage lists two or three scribes are listed (Ea-dān, Ea-šar, Lā-qīp(um), Puzur-Ninkarak); according to the anonymous inspection lists between two and five scribes were employed at the building work at Garšana (4 scribes: no. 379, ŠS 6/05/22; 2 scribes: no. 402, ŠS 6/08; 5 scribes: no. 556, date lost). It should be emphasized that the responsible scribes appear without or with different titles over a longer period of time (see on the names Heimpele 2009, 38–43). The Akkadian scribes of the Akkadian settlement of Garšana wrote their administrative texts exclusively in Sumerian, not in Akkadian. One may adduce two arguments derived from the tradition of writing at this period to explain this behavior: the scribal education and the tradition of administrative texts. Teaching of cuneiform writing

<sup>1</sup> This category includes not only Hurrian, Elamite, and unanalyzable names (e.g., of the so-called ‘Banana’ type), but also names such as Urdu<sub>2</sub>-DN “servant of DN” that can be read both in Sumerian and Akkadian.

was intrinsically linked to the Sumerian language; the syllabary and the ideograms are based on Sumerian and the traditional school texts, most of all the lexical lists, were Sumerian even long after the disappearance of Sumerian as an everyday vernacular. Secondly, Sumerian was the language of administration both in southern Babylonia and, more importantly in this regard, in the state organizations, testified by the archives from Puzriš-Dagan.

It is probably anachronistic to assume an active royal language policy that had influenced the writing of documents,<sup>2</sup> since Akkadian was used as well for administrative documents in northern Babylonia (Ishan Mizyad, see Hilgert 2002, 21–23) and also for royal inscriptions. Furthermore the differences between the provincial archives of Ĝirsu and of Umma further rebut the assumption of a state-directed technical language for administrative scribes. Nonetheless, there is no doubt that in the state of Ur Sumerian was the more prestigious language—prominently used in royal texts (year dates, hymns, many inscriptions)—and it was the vernacular of the economically dominating provinces of Umma and especially Ĝirsu.

Garšana Sumerian can definitely not be labeled a kind of “simplified Sumerian” that would apply only administrative key terms. Such a documentary pseudo-Sumerian that builds on some technical expressions and introduces artificial Sumerograms is attested for example at Old Babylonian Uruk in the nineteenth century (Sallaberger 2000, 274f.). Garšana documents, however, are characterized by a lexical variation that is rare in contemporary

corpora. In this regard one may apply the rule on the relationship between lexicon and language use observed for administrative documents: An obligatory strict text pattern and a restriction of the lexicon to administrative key terms allows a reduction of grammatical markers; the relations between various elements, persons and objects, are indicated by the formulaic pattern and are not marked grammatically as phrases. On the other hand, lexical diversity implies the use of grammatical relations and their markers. Everyday language thus appears in administrative documents in those phrases that deviate from the standard formulas used in an archive.<sup>3</sup>

Although both scholarly education and administrative traditions may partly explain the use of Sumerian in the Garšana documents, the lexical variation strongly suggests that this was a vernacular actively used by the scribes. Further evidence for this assumption will be presented at the end of the article.

## 2. Orthography and Phonology: Infinite Verbal Forms in -e-d-e

### 2.1 Unorthographic Writings

In the Garšana documents one encounters a number of so-called unorthographic writings. Words written regularly with simple or compound logograms in the large state or provincial archives are represented by basic phonograms usually of the CV and VC pattern. A few examples of words that are usually written differently in other Ur III archives may suffice here (for other examples see Kleinerman and Owen 2009, 175 *s.v.* Syllabically written Sumerian):

<sup>2</sup> Of course, the high prestige of Sumerian as reflected in the royal texts must not be underestimated and one notes that Šulgi enhanced the education of scribes by the founding of schools.

<sup>3</sup> Based on a study of patterns of administrative documents from the Old Sumerian to the Old Babylonian period, Sallaberger (2000, 276) concluded: “Die verbindliche Abfolge der einzelnen Elemente einer Urkunde und die Reduktion der lexikalischen Mittel auf wenige Schlüsselbegriffe erlauben es, zur Darstellung wechselseitiger Bezüge auf gram-

matische Markierungen (mit Hilfe von Kasusmorphemen) zu verzichten. Umgekehrt bedeutet lexikalische Vielfalt, ein Abweichen von den Schlüsselbegriffen, auch Grammatizität. [...] Nach dieser Regel tritt die Syntax der Sprache ihrer Zeit in Wendungen und Sätzen auf, die vom Standardformular des jeweiligen Archivs abweichen. [...] Wichtig ist noch die (weitgehende) Abhängigkeit des Formulars vom Lexikon: andere Verben als die administrativen Schlüsselbegriffe ziehen syntaktische Formulierung nach sich.”

ša-ra-ab-du (Garšana) = šár-ra-ab-du (standard Sumerian) “field surveyor”

ĝe<sub>26</sub>-en (in verbal form in-da-ĝe<sub>26</sub>-en) = ĝen “to go”

ú-lá-bi = ul<sub>4</sub>-la-bi “quickly”

The use of unorthographic writings and the creative use of syllabograms implies that the Sumerian written at Garšana was not consistently acquired graphically, that it was not simply a prefabricated professional language of scribes. Instead the writings “by ear” can be taken as unequivocal evidence that these Sumerian phrases were based on spoken Sumerian as a phonetic reality. For the sake of clarity it has to be repeated that at Garšana unorthographic writings appear in a context of freely phrased Sumerian texts (see above), but, of course, unorthographic writings have to be evaluated differently in other environments such as the fixed phrases of post-Sumerian legal texts (e.g. in Old Babylonian Kisurra) or religious texts.

The relatively high number of unorthographic writings, as well as the greater variation in the formulations, is a characteristic feature of smaller organizations that is shared, for example, by the texts from Irisaĝrig/Āl-šarrākī.<sup>4</sup> Here less “paperwork” has to be performed, whereas the large state or provincial scribal offices produced more concise and more standardized texts. Apparently the larger amount of scribal work implied a better scribal formation on the job and in the central state organizations such as at Puzriš-Dagan the best-educated royal

scribes would have been employed (cf. Veldhuis 2008).

It is in the same line of argument that the number of unorthographic spellings is especially high in the private or small administrative archives at Nippur (Wilcke 2000, 34–49 and 66–80). In his treatment of these writings Wilcke (2000, 47f.)<sup>5</sup> observed that phonographic writings tend to be more frequent when a lexeme appears not isolated but in combinations, reduplicated, or with prefixes or suffixes.

## 2.2 -e-d-e Writings

### 2.2.1 The Evidence

An especially rewarding field for the study of phonology at Garšana is constituted by the infinite verbal forms ending in *\_V/-c-d-e* (stem ending in a vowel/*marû* marker *e*, imperfective *-d-*, directive *-e*) “in order to.” Most references can be found in the worker-inspection and the work-assignment accounts from formulations of the type:

*n* ĝuruš/geme<sub>2</sub> VERB-(e)-dè gub-ba “*n* men/women on duty in order to do VERB” (nos. 1–306, Owen and Mayr 2007, groups I and II).

The following list includes all pertinent Garšana forms and it notes relevant parallels from other Ur III archives.<sup>6</sup> In cases of variants, the frequencies are given. Furthermore, the class of *marû*-stem formation is indicated (I regular, II duplicated, III augmented, IV irregular verbs).

<sup>4</sup> David I. Owen is preparing an edition of texts from this archive (*Nisaba* 15, forthcoming), and I am grateful to him for sharing with me numerous examples.

<sup>5</sup> Wilcke (2000, 47f.) writes: “[D]er Grund für das Abweichen von der Norm [ist] nicht zur Schau gestellte Gelehrsamkeit, sondern die Unsicherheit des jeweiligen Schreibers. Er kennt das Wort, ist sich aber über die korrekte Zeichenwahl im Unklaren. In den Zeichenlisten, nach denen er die Schrift gelernt hat, standen die Wörter isoliert, ohne Prä- und Suffixe, nicht redupliziert, nicht in Wortkoppelungen oder anderen engen Verbindungen, die die Lautstruktur verändern. Darum

schreibt er es mit Zeichen, die er beherrscht und die der Lautung des Wortes, wie er es im Ohr hat, nahekommen.”

<sup>6</sup> In cases of ambiguity reconstructed forms have been excluded from the counts. Most references can be verified and checked by the verb list in Kleinerman and Owen (2009, 231–377) and through Manuel Molina’s indispensable “Database of Neo-Sumerian Texts” (BDTNS) (bds.filol.csic.es); in some cases (e.g., ra-ra not listed in verb list) references have been added. The comparative data from other Ur III archives derive from personal collections and Manuel Molina’s BDTNS.

## GROUP A: STANDARD ORTHOGRAPHY.

Some verbs comply with the standard orthography, where the logographic writing corresponds to the expected phonemic realization. The class I stems listed here end in a vowel like all class II verbs:

- dù-dè (I) “to build”  
 du<sub>8</sub>-dè (I) “to caulk”  
 ge<sub>4</sub>-ge<sub>4</sub>-dè (only restored contexts) (II) “to return”  
 ġá-ġá-dè (II) “to place”  
 ħi-dè (I) “to mix, blend”  
 lu-dè (I) “to stir, mix”  
 ra-ra-dè (no. 262:21) (II) “to hit, beat”  
 sa<sub>10</sub>-sa<sub>10</sub>-dè (II) “to buy, pay”  
 su-su-dam (II) “to repay, replace”  
 tà-tà-dè (II) “to apply”  
 zi-zi-dè (II) “to remove”

## GROUP B: PHONOGRAPHIC WRITING:

Some verbs are consistently written phonographically, not logographically. Note that all *hamtu* stems of class I verbs end in a consonant:

- dì-de<sub>4</sub> see below ti-te  
 gu<sub>5</sub>-bu-dè see below ku-bu-dè  
 ì-li-dì (ca. 34×), ì-li-dè (2× in text no. 53)<sup>7</sup> =  
 \*íl-e-dè (I) “to lift”; in Ur III texts usually reduplicated: íl-íl-dè; reading íl not assured in NATN 491: 4' (ge íl-dè)

ke<sub>4</sub>-dè (ca. 116×) = \*kè(AK)-dè (“I”) “to make”; in other Ur III texts written kè-dè, cf. Attinger (2005, 62)

ku-bu-dè (gu<sub>5</sub>-bu-dè) (no. 1309:11) = \*gub-bu-dè (I/IV) “to prop up” (note that gub-bu-dè is not attested at Garšana despite the ubiquitous gub-ba); cf. regular gub-bu-dè, e.g., UET 3 697, NATN 882

ku-úr-gu-ru-dè (no. 972:40, no. 975: 42, no. 1090:1-3) = ? (II)<sup>8</sup>

ne-ne-de<sub>4</sub>(TE) (no. 1016:21) = \*ni<sub>10</sub>-ni<sub>10</sub>-dè (II) “to circuit”; cf. literary text šu ni<sub>10</sub>-ni<sub>10</sub>-dam NATN 8 ii 14

la-ħa-dè (2×), la-ħe-dè (1×) = \*lah<sub>(4)/5</sub>-e-dè (IV) “to bring”; cf. la-ħe-dam, e.g., TCL 5 6047:15, 6163:28; LAH<sub>5</sub>-dam SNAT 83, SAT 2 352(?), LAH<sub>5</sub>-e-dam TCTI 2 3484

si-ġe<sub>6</sub>-dè/šé-ġe<sub>6</sub>-dè<sup>9</sup> = \*šeġ<sub>6</sub>-e-dè (I) “to boil, cook”; no corresponding forms attested

te-te-dè (de<sub>4</sub>-de<sub>4</sub>-dè?) (no. 222: 4) = \*de<sub>5</sub>-de<sub>5</sub>-dè (II) “to collect”?<sup>10</sup>

ti-te (dì-de<sub>4</sub>) = \*di-dè (IV), in: káb ti-te (dì-de<sub>4</sub>) (no. 271: 6) “to check, calculate”; regularly written di-dè/-dam, cf. Attinger (1993, 396. 404. 574)

ù-ru-dè = \*uru<sub>3</sub>-dè (I) “to level”; in other Ur III texts written ùr-dè, cf. Yoshikawa (1988, 63)

<sup>7</sup> The reading of the variant i-l[i]?-dè, no. 46: 25', remains uncertain, since the same text writes ì-li-dì in line 20'; documents tend to keep the same orthography for a word (cf. ì-li-dè 2× in no. 53).

<sup>8</sup> According to Kleinerman and Owen (2009, 302) this stands for kúr gur-ru-dè “to return in the future.” However, this does not fit the contexts, which are about flour treated for meat. In letters the *marú* stem of gur appears in nam-mi-gur-re. No verbal core like /kuru/ of the reduplication class (II) is listed by Attinger (2009) Annexe 2. Perhaps we are dealing with a form of the *marú* stem KARA<sub>2</sub>.KARA<sub>2</sub> of KARA<sub>2</sub> “to illuminate, light.” Do the texts thus refer to the coating of meat with flour?

<sup>9</sup> Add reference no. 65:21', listed by Kleinerman and Owen (2009) as sim “to sieve, filter.”

<sup>10</sup> No. 222 reads: I ġuruš LÚ.TU<sub>9</sub> ... PN lú-kíġ-ge<sub>4</sub>-a lugal-ta (for -da) lú te-te-dè in-da-ġé<sub>26</sub>-en “I man, a fuller, went with PN, the royal messenger, in order to ... men.” Kleinerman and Owen (2009, 360) understand the verb as te “to approach” (*marú* stem te-ġe<sub>26</sub>); the reduplication would point to a plural object: “in order to approach men.” However, in phonographic writings te represents /de/. Thus I tentatively propose to understand it as a writing for de<sub>5</sub>-de<sub>5</sub>-dè (II) “to collect.” The combination of de<sub>5</sub> with persons is known, e.g., from NG 209: 13 lú-enim-ma-bi ba-de<sub>5</sub>-de<sub>5</sub>-ge-cš-[àm] “its witnesses have been collected (i.e., withdrawn, brought somewhere else?)”; cf. also NG 190: 2-3.

GROUP C: LOGOGRAPHIC WRITING WITHOUT INDICATION OF *MARÚ* VOWEL ★-E:

Other verbs are written only with logograms (transliterated below in small capitals), which allow no conclusion on the pronunciation; here some references to other Ur III texts are added:

DUB-DUB-dè (II?) “to heap” (no. 385); cf., e.g., CT 32 49

È-dè for /edede/ (è.de-d-e) (III) “to go/bring out”; cf. È-dè, e.g., UET 3 836. 854, more often reduplicated form (plural object) È.È-dè, see Yoshikawa (1988, 56); È.È-dè may also replace the *marú* stem, e.g., in NRVN 1 264, see Krecher 1995, 165–73

GAZ-dè for /gaz<sup>a</sup>de/ (gaze-d-e) (I) “to crush” (no. 1013); cf. Yoshikawa (1988, 55)

GÍD-dè for /gid<sup>i</sup>de/ (gíde-d-e)<sup>11</sup> (I) “to stretch, draw”; cf. NATN 816

GUL-dè for /gul<sup>u</sup>de/ (gule-d-e) (I) “to decompose”; cf. UET 3 894

KEŠÉ-dè for /kešed<sup>e</sup>de/ (kešed<sup>e</sup>-d-e) (I) “to bind, fasten”; cf. in texts from Ur the variants KEŠÉ-dè UET 3 1212, KEŠÉ-dè-dè UET 3 873, KEŠÉ-re-dè UET 3 1531

SUR-dè for /sur<sup>u</sup>de/ (sure-d-e) (I) “to twist, twine”; cf. SUR-dè, e.g., NATN 596, Yoshikawa 1988, 60: 13; SUR-e-dè UET 3 1465

GROUP C': OTHER VERBS WITHOUT INDICATION OF *marú* VOWEL ★-E:

á-âg-dè (I) “to measure out” (no. 299:5, restored in no. 298:5)<sup>12</sup>; cf. âg-da (Yoshikawa 1988, 72f.), âg-e-dè, e.g.,

NATN 17 etc.; a-âg-dè-e NATN 397; á-âg-dam NATN 134 (Yoshikawa 1988, 73)

ba-al-dè (I) “to excavate” (no. 104:37 // no. 105:35, no. 155: 26 restored)<sup>13</sup>; cf. ba-al-da(-šè) MVN 11 50, ba-al-e-dè TCS 1 216,<sup>14</sup> nu-ba-al-e-da AOAT 25 444 no. 9, ba-al-a-dè TPTS 2 5:4

lu-LUH-dè (I) “to clean, wash” (no. 783:3); cf. luḥ-dè UET 3 494<sup>15</sup>, luḥ-da RTC 307; luḥ-dam JCS 32 230 6 N-T 254

tùm-dè (IV) “to bring”; regular form, no -e expected (on tùm see Meyer-Laurin 2010).

GROUP D: LOGOGRAPHIC WRITING OF VERBAL BASE WITH CONSISTENT PHONOGRAPHIC RENDERING OF *MARÚ* VOWEL ★-E:

This group includes standard writings of class I verbs that end in a consonant in the *hamtu* stem (cf. taḥ-ḥe-dam, zi-re-dam).

KALA.KALA-ke<sub>4</sub>-dè (I?, II?) “to reinforce”; cf. KALA.KALA-ge-dè UET 3 486 etc., KALA-ge-dè UET 3 1504 viii 14

KU<sub>5</sub>-ru-dè (I) “to cut (etc.)”; cf. Ur III regularly KU<sub>5</sub>-dè, but TMHNF 1/2 271 KU<sub>5</sub>-ru-dè (2×) (Yoshikawa 1988, 58f.)

LÁ-e-dè (I) “to hang, weigh (etc.)”; cf. LÁ-dè, lá-dam (Yoshikawa 1988, 58: 7, 59: 11)

si-ke<sub>4</sub>-dè (I) “to insert, pack into” (2×, nos. 274-275)<sup>16</sup>; cf. Ur III regularly si-ge<sub>4</sub>-dè<sup>17</sup>, but si-ke-dè NATN 114

sì-ke<sub>4</sub>-dè (I) “to apply, place, tamp”; cf., e.g., sì-ge<sub>4</sub>-dam RTC 288, sì-ge<sub>4</sub>-dè UET 3 556, 613, sì-ge-dè UET 3 557, sì-dè UET 3 290

<sup>11</sup> Probably reduplicated in a different context: [G]ID. GÍD-da[m] no. 525:7.

<sup>12</sup> This reference to še á-âg-dè “to measure out grain” is not listed under âg in Kleinerman and Owen 2009.

<sup>13</sup> These two references are missing in Kleinerman and Owen 2009, 253, but in no. “106:36” listed there ba-al does not appear in the transliteration of the text.

<sup>14</sup> In OrSP 47-49 211 (CDLI P 125101) -da is the comitative case: i<sub>7</sub> ba-al-la-da šu-zu ḡá-ra-(ta) “(hirelings) who helped at the excavation of the river.”

<sup>15</sup> A reading luḥ-dè in UET 3 787:2 could not be verified by collation.

<sup>16</sup> Kleinerman and Owen (2009, 343) assume a variant writing of sè/si in the phrase má saḥar ég a-ab-ba si-ke<sub>4</sub>-de “to pack clay (for) the sea dike on the boat” (or: “to sink boats with clay for a sea dike?”); si-g is used with both má(-a) “to fill on the boat” and saḥar “to pack clay” in Garšana (see *ibid.* p.344f.).

<sup>17</sup> BDTNS has also si-ge-dè in TMH NF 1/2 69 (CDLI P 134381) and RA 19 41 no. 50 (CDLI P

SILA<sub>11</sub>-ĝá-dè (I) “to knead dough”; no comparable forms

ŠÚM-mu-dè (I) “to give”; thus regularly Ur III, exceptionally ŠÚM-e-dam CST 537, ŠÚM-e-dè RA 19 41 n.50 (CDLI P<sub>12</sub> 7692)

TAH-ĥe-dam (I) “to add” (no. 1381); BDTNS lists taĥ/ĥe-dam/da/dè (9×), taĥ-e-dam (3×), taĥ-dam (5×), taĥ-ĥu-dam (sic, 1×) (accessed 12/02/2009).

te-ĝe<sub>6</sub>-dè (III) in: šu te-ĝe<sub>6</sub>-dè “to receive”; cf. šu ti-dè NATN 59:9 (Yoshikawa 1988, 62), šu TI-dam; šu TI-ĝe<sub>26</sub>-dè BPOA I 382

zi-li-dè (1×), zi-li-di(TI) (2×), zi-lí-dè (3×) = \*zil-e-dè/zi-le-dè (I) “to strip”; only zi-la “stripped off” attested in Ur III texts.

zi-re-dam (I) “to cancel”; regularly Ur III

GROUP D': LOGOGRAPHIC WRITING OF VERBAL BASE WITHOUT OR WITH PHONOGRAPHIC RENDERING OF MARÚ VOWEL \*-E:

Despite the homogeneity of the Garšana archive some of these infinite *marú* forms occur in various forms (cf. already in group B: ì-li-di/ì-li-dè, la-ĥa/ĥe-dè):

ÀR-dè (2×), ÀR-ra-dè (4×) (I) “to grind”; cf. ara<sub>3</sub>(ÀR)-dè SAT 2 1123, SAT 3 1643; ÀR-e-dè SAT 3 2128, UET 3 151(?)

BALA-dè (6×, including 4× in no. 609), BALA-a-dè (2×, no. 39:38, no. 45:18), BALA-e-dè (2×, no. 390, 1523), BALA-a-e-dè (4×, nos. 200–203)<sup>18</sup> (I) “to transfer, to rotate”; cf., e.g., BALA-dè RTC 333, BALA-e-dè RTC 336. 341 (Yoshikawa 1988, 58), UTI 5 3191<sup>19</sup>

GA<sub>6</sub>-dè (4×), GA<sub>6</sub>-ĝá-dè (ca. 55×) (I) “to carry”; cf. in Ur III texts reduplicated ga<sub>6</sub>-ga<sub>6</sub>-dè (thus also, *pace* BDTNS, CST 627)

NAĜ<sub>4</sub>-dè (3×, including 2× in no. 92), NAĜ<sub>4</sub>-ĝá-dè (14×), al-NAĜ<sub>4</sub>-ĝá-dè (2×) (I) “to crush”; no comparable forms

SÀG-dè (5×), SÀG-ke<sub>4</sub>-dè (2× in text no. 250) “to beat”; cf. for the final consonant TCS I 173:5 ĥa-sàg-ge

TAB-bé-dè (I) (10×), TAB-ba-dè (1×) (I) “to pile, stack”; cf. TAB-bé-dè AOS 32 P 1, TAB-bé-da TCL 2 5540, TAB-dam, e.g., NRVN 116; see Yoshikawa (1988, 72)

For similar variants cf., e.g.,

DÍM-dè (MVN 14 323, Umma), DÍM-me-dè (UET 3 812//1498 vi, Ur), DÍM-e-dè (SNAT 535 e.a., Umma)

SAR-dè (UET 3 620), SAR-re-dè (UET 3 666), both at Ur

## 2.2.2 Discussion

### 2.2.2.1 Verbal Stems with u and Vowel Assimilation at Garšana

The Garšana references hint at a vowel assimilation that pertains to the *marú* -e before the -d morpheme, as it was until now attested only for certain verb stems with the vowel -u-. The latter vowel assimilation is a regular feature: in the Ur III data base BDTNS, the sequence (-)šúm-mu(-) “to give” resulted in 545 hits (not checked); for (-)šúm-e(-) only three unequivocal examples were found (search of 2009/11/25). Since a writing \*šúm-me is apparently not attested, the writing šúm-e primarily indicates the *marú* morpheme -e and does not aim at a phonographic rendering of the respective vowel.<sup>20</sup>

ku-bu-dè (gu<sub>5</sub>-bu-dè) = \*gub-bu-dè (group B), ku-ur<sub>2</sub>-gu-ru-dè (B), ù-ru-dè = \*uru<sub>3</sub>-dè (B), ku<sub>5</sub>-ru-dè (D), šúm-mu-dè (B); cf. Ur III gub-bu-dè, su-bu-dè

127692); but in both cases si-ge<sub>4</sub>-dè (ge<sub>4</sub>, not ge) is possible or even probable according to the photographs.

<sup>18</sup> On the various forms cf. Heimpel (2009, 242).

<sup>19</sup> BPOA I 964: 4 ĝuruš .... 11 tu<sub>9</sub> še bala-a-da umma<sup>ki</sup> (transliteration only) is unclear to me.

<sup>20</sup> The writing of the underlying morpheme and not its actual realization was described as “graphie morphologique” by Attinger (1993, 99ff.); the term “morphographic” is a transposition of the expression to be used together with “logographic” and “phonographic.”

## 2.2.2.2 Verbal Stems with a

Besides the already known change of  $-e-d > -u-d$ , the Garšana texts show also  $-e-d > -a-d$  after a stem containing a as the only or as the last vowel (sila<sub>11</sub>.ĝ); the attested verbs end in H', ħ, b, ĝ, r. As it is the case with verb stems with u (e.g. du<sub>10</sub>.g-e-d-), certain “/a/ verbs” do not follow this vowel assimilation, namely sàg-e-d- and kala.g-e-d-.

(a) Vowel assimilation  $-e-d > -a-d$  without variation:SILA<sub>11</sub>-ĝá-dè (D)

ÀR-dè (2×), ÀR-ra-dè (4×) (D')

GA<sub>6</sub>-ĝá-dè (ca. 55×), GA<sub>6</sub>-dè (4×) (D')NAĜ<sub>4</sub>-dè (3×, including 2× in no. 92),<sup>21</sup> NAĜ<sub>4</sub>-ĝá-dè (14×), al-NAĜ<sub>4</sub>-ĝá-dè (2×) (D').

Note that ĝá could also be read ĝe<sub>26</sub>, but for an /e/ vowel Garšana texts would probably use ĝe<sub>6</sub> instead, as shown by the example si-ĝe<sub>6</sub>-dè (group B).

## (b) Vowel assimilation with a/e variation

BALA-dè (6×, including 4× in no. 609),

BALA-a-dè (2×, no. 39:38, no. 45:18),

BALA-e-dè (2×, no. 390, 1523), BALA-a-e-dè (4×, nos. 200–203) (D')

la-ħa-dè (2×), la-ħe-dè (1×) = \*lah<sub>(4)/5</sub>-e-dè (B)

## (c) Without vowel assimilation

SÀG-dè (5×), SÀG-ke<sub>4</sub>-dè (2× in text no. 250) (D')KALA.KALA-ke<sub>4</sub>-dè (D)

LÁ-e-dè (D)

TAH-ħe-dam (D)

TAB-bé-dè (I) (10×), TAB-ba-dè (1×) (D').

Here the /a/ coloring remained an exception.

Most of the /-a-d-e/ spellings appear as variations of logographic writings or of a morphographic rendering as -e-dè, but la-ħe-dè/la-ħa-dè points to a variation as linguistic reality. Although only the Garšana texts offer a broader basis for this phenomenon of vowel harmony, it is not completely

unknown from other Ur III documents, as attested by the following examples:

áĝ: á-ĝá-dam Nippur, NATN 134 (Yoshikawa 1988, 73)

ba-al: ba-al-e-dè Umma, TCS 1 216; nu-ba-al-e-da Ĝirsu, AOAT 25 444 no. 9; ba-al-a-dè Umma, TPTS 2 5:4

dab<sub>5</sub>: dab<sub>5</sub>-ba-dè in Irisaĝrig, examples cited by Heimpele (2009, 62f.); other Ur III texts have dab<sub>5</sub>-dè, or reduplicated dab<sub>5</sub>-dab<sub>5</sub>-dè (Yoshikawa 1988, 57)

In conclusion, there is sufficient evidence for a variant  $-a-d-e < -e-d-e$  in the Ur III period, which can be understood by analogy with two related phenomena, the vowel assimilation  $-u-d-e < -e-d-e$  and the sporadically attested assimilation  $-e > -a$  in words ending in  $_a$  in the ergative case (ama-a; see Attinger 1993, 211). However, contrary to  $-e > -u$ , which characterizes the *marû* stem of class I verbs as well (šúm-mu, gub-bu),  $-e > -a$  is restricted to the combination  $_a-a-d-e (< _a-e-d-e)$ ; thus any confusion with nominalized or infinite perfective forms ending in  $-a$  is avoided.

## 2.2.2.3 Verbal Stems with i and e

It is more difficult to discover a differentiation between /e/ and /i/, since in the cuneiform writing system the same sign often covers both the e and the i vowels (e.g. ni = ni, né; ri = ri, re). In the Sargonic period “sign pairs” of closely related values were used to distinguish between CV syllables with /e/ or /i/ (e.g. gi<sub>4</sub> vs. ge, le vs. lí; see Sommerfeld 1999, 18–21; Hasselbach 2005, 32–35, 39–73). Such rules seem not to apply in the Ur III period, especially in the syllabary of Garšana (note, e.g., that Garšana writes *li-iq-tum* for standard Ur III *lí-iq-tum*, *ħu-ri-um* for *ħu-rí-um*).

## (a) i probable

ì-li-dì (ca. 34×), ì-li-dè (3× in text no. 53) = \*íl-e-dè (B)

zi-li-dè (1×), zi-li-dì(T1) (2×), zi-lí-dè (3×) (D)

## (b) e probable:

si/se-ĝe<sub>6</sub>-dè = \*šeĝe<sub>6</sub>-e-dè (B)

<sup>21</sup> The reading naĝ<sub>4</sub> is based on naĝ<sub>4</sub>(KUM).

te-ĝe<sub>6</sub>-dè (D)

(c) *undecided cases:*

zi/ze-ri/re-da

si-ke<sub>4</sub>-dè (D)

sì-ke<sub>4</sub>-dè (D)

With the *i* sequences one notes that the vowel assimilation in rare cases even affects the final directive *-e* in *ì-li-dì* and *zi-li-dì* (Owen and Mayr 2007 transliterate *de<sub>9</sub>* for *dì*). This fact and the writing *zi-lì-dè* are the main arguments to suggest a similar vowel assimilation for these two verbs.

The case of *sì-ke<sub>4</sub>-dè* is hard to decide. *ke<sub>4</sub>* represents generally the combination of genitive and ergative, *\_k-e*, and at Garšana *ke<sub>4</sub>* is also an unorthographic writing for *kè*(AK). The Old Babylonian sign-list Proto-Ea 243 gives both *gi-i* (1×) and *ge-e* (2×) for the word “reed mat.” The rendering *-ke<sub>4</sub>-dè* represents a unique feature of the Garšana orthography, whereas elsewhere the sequence *-gi<sub>4</sub>-dè* is used for both *si-g* and *sì-g*. Since *gi<sub>4</sub>* represented /gi/, not /ge/ in the Sargonic period, this could be taken as an argument for a reading *sì-gi<sub>4</sub>-dè* instead of *sì-ge<sub>4</sub>-dè*; for Garšana, however, this would force us to assume a unique “*ki<sub>4</sub>*” at use besides *ke<sub>4</sub>*.

The unorthographic phonographic writings of Garšana thus express a vowel assimilation that was elsewhere mostly hidden behind the standard logographic rendering. As we have seen above, the unorthographic replacement of logograms by phonograms appears mostly if lexemes are embedded in grammatical forms with prefixes and suffixes. The regularity of the vowel assimilation with certain verbs and the unorthographic rendering both prove that the vowel assimilation was based on the actual spoken language. The Sumerian that was written by the Garšana scribes is thus based on the living, actual use of Sumerian, as the probably bilingual inhabitants of Garšana heard it in their environment of the Umma province. Furthermore, since progressive vowel assimilation does not occur in Akkadian, an imposition on the side of the scribes can safely be excluded.

### 3. Additional Notes on the Syllabary at Garšana

A study of the phonograms that was used by the Garšana scribes provides another clue that the spoken language had a strong impact on the orthography and resulted in the substitution of traditional standard writings. The deviations from the standard orthography constitute further evidence for the sound changes that both Sumerian and Akkadian underwent before or during the early Ur III period (see, e.g., Jagersma 2000 [2005], Keetman 2004a, 2004b).

#### 3.1 Specific Sumerian Phonemes

At Garšana, the Sumerian phoneme *ĝ* is always correctly employed also in phonographic and in unorthographic writings (signs *ĝá/ĝe<sub>26</sub>*, *ĝe<sub>6</sub>*, [*ĝu<sub>10</sub>*]). The so-called *dr* phoneme appears in the traditional orthography *rá*(DU) with the marker *-a* of infinite perfective forms, e.g., *keš<sub>2</sub>-rá<sup>22</sup>* “bound,” *ku<sub>5</sub>-rá* “cut,” but before *-e-d-e* it appears as [r] in *ku<sub>5</sub>-ru-dè* (see above).

The use of phonograms for stops in unorthographically written Sumerian is consistent with the Akkadian system at use at Garšana, as far as it can be reconstructed. *ti* was used for the verb *de<sub>6</sub>* “to bring” and for *-dè* ([di]), and similarly in Akkadian one finds *dì*(TI)-*um*, PN *i-dì*(TI)-*ir-ra*. Rarely does the phonogram *dì*(DI) appear in Akkadian as in the PN *šamaš-di-in*, but it had not yet replaced *dì*(TI). Similarly the variations between *ta-* and *tá-* are a reflex of the undergoing replacement of *tá*(DA) by *ta* (see the index of names Kleinerman and Owen 2009, 615). These writing conventions conform to the tendencies evaluated by Keetman (2004a).

A unique feature of Garšana orthography is the use of *-ke<sub>4</sub>* in *-ke<sub>4</sub>-dè* in infinite verbal forms (*\_g-e-d-e*, see above). In Akkadian contexts both *ki* and *gi* occur at Garšana (note, e.g., below p.357f. *ar-ki-LUM* vs. *ša-pá-ar-gi-lum*). Does this mean that *-ke<sub>4</sub>* marks a specific Sumerian vowel quality of /ke/ vs. /ki/ (see above on *-ke<sub>4</sub>* in *\_k-e-d-e*, and note unorthographic *ke<sub>4</sub>* for *kè*)? Or should we assume that the velar stop was considered voiceless both in *ke<sub>4</sub>* for *kè*

<sup>22</sup> No. 855 reads *ĝeš<sup>s</sup>gu-za sir-da* for “*keš<sub>2</sub>-da*.”

“to make” and in  $\text{sì-ke}_4\text{-dè}$  for standard  $\text{sì-gi}_4\text{-dè}$  by the Akkadian scribes and they hesitated to employ the sign KI? The second option becomes more likely if one considers hints at Akkadian perceptions of Sumerian phonemes as identified in the following paragraphs.

### 3.2. Prefix /i-/ Written $\text{i-}$ and $\text{i-}$

The Sumerian verbal morpheme /i-/ appears in two orthographies even in similar forms:

- $\text{i-}$ :  $\text{u}_4 \text{dur}_{11}\text{-ra i-me}$  (no. 466),  $\text{i-[me-a]}$  (no. 444)  
 $\text{u}_4 \text{é NN-šè i-re-ša-a}$  (no. 480),  $\text{u}_4 \text{kaskal-šè i-re-sa-a}$  (no. 529)  
 $\text{u}_4 \text{g}^{\text{es}}\text{gušur i-im-de}_6\text{-a}$   
 $\text{i-}$ :  $\text{i-ĝál}$ ,  $\text{i-ĥi}$ ,  $\text{i-lá}$ ,  $\text{i-ĝen-na-a}$ ,  $\text{i-im-ĝen-na-a}$

The same morpheme /i-/ is written with both I and NI(i) as most clearly shown by the variation of  $\text{i-im}$  vs.  $\text{i-im-}$ . Therefore, the former distinction between I for /yi/ and NI(i) for /'i/ was no longer valid (note also writings like  $\text{i-la-ak-nu-id}$ ,  $\text{ilak-nu''id}$ , whereby 'il “god” is written now with  $\text{i-}$ , formerly /yi/). The interchange of I and NI in the Ur III period is known from Akkadian contexts (Hilgert 2002, 120). However, outside Garšana the Sumerian verbal prefix was always rendered by the traditional writing  $\text{i-}$  in Ur III documents, whereas  $\text{i-}$  is only rarely attested in some Sumerian personal names:

PN  $\text{i-ta-è-a}$  “who came forth from her,” more often at Ĝirsu and Umma,  $\text{in-ta-è-a}$  especially at Puzriš-Dagan

$\text{nin-i-ti}$  Umma *passim*, //  $\text{lugal-i-TI}$  Ĝirsu (e.g. TCTI 1 732), Umma (e.g. Torino 2 703), which should probably be interpreted as  $\text{nin/lugal-i-til}$  “the Lady/Lord became/was life” by comparison with Presargonic  $\text{nin-i-til}$  (BIN 8 39 iii 25) or the writing  $\text{lugal-i-til}$  (e.g. Ĝirsu RTC 399 iv 6; more often at Ur)

The writing of the verbal prefix with  $\text{i-}$  appears more often in Old Babylonian legal documents (but not yet in the Isin craft archive of the time of Išbi-Erra and Šu-ilišu), in royal inscriptions beginning with the second Isin king Šu-ilišu (RIME 4.1.2.1:22  $\text{i-ni-ib-ku}_4\text{-a}$ ), and in Old Babylonian literary texts.

The sound change in Akkadian ( $\text{yi} > \text{i}$ ) led to a phonological equivalence of I ( $\text{yi} > \text{'i}$ ) and NI ('i), so that now both signs could express the sound /(')i/ in Sumerian. As a result, the value of a phonogram was defined by its use in writing Akkadian. This implies that writing, to a large extent, represented language directly in its phonological (or phonetic?) form.

### 3.3 SV and ŠV Series: Plural Suffix $-\text{eš}$ + Nominalizer $-a$ Written $-\text{sa}$ and $-\text{ša}$

The sequence  $-\text{eš-a}$ , suffix of the 3rd person plural agent in the preterite  $-\text{eš}$  plus nominalizer  $a$ , is written  $-\text{ša}$  in Sumerian, but in Garšana this traditional writing can be substituted by  $-\text{sa}$ . Some examples:

$(\text{ĝuruš}) \text{má PN G.-ta U.-šè in-GíD-ša-a}$ “men, who hauled the boat of PN from G. to U.” (no. 238)	$(\text{ĝuruš}) \text{má ... G.-ta P.-šè in-GíD-sa-a}$ “(men) who hauled the boat from G. to P.” (no. 253 etc.)
$\text{u}_4 \text{é NN-šè i-re-ša-a}$ “when they went to the house of NN” (no. 480)	$\text{u}_4 \text{kaskal-šè i-re-sa-a}$ “when they went on expedition” (no. 529)
$\text{in-TI}(\text{di}_3)\text{-ša-a}$ (no. 1062) “who carried”	$\text{mu-un-TI}(\text{di}_3)\text{-sa-a}$ “who brought” (no. 243, 304)
	$\text{u}_4 \text{bàd in-dù-sa-a}$ “when they built the wall” (no. 396 etc.)
$\text{u}_4 \text{igi šu-kab-tá in-da}_3 \text{in-gu}_7\text{-ša-a}$ “when they ate bread in front of Šu-Kabta” (no. 479)	

The plural morpheme alone is written -eš, -éš, or -uš (in-tùm-uš, e.g., no. 27).

This orthographic variance cannot be explained on the basis of the Sumerian evidence alone, since there SA and the SV series of phonograms and ŠA and the ŠV series were always distinguished; note at Garšana, e.g., ša-ra-ab-du for šár-ra-ab-du, but ša “bundle.” In Akkadian, however, the former distinction between the Sargonic ŠV- and the SV-series, representing etymological  $\underline{t}$  (θ) and etymological š, s, respectively, had disappeared by the Ur III period; now both series represented /š/.<sup>23</sup> Since Akkadian etymological s was represented by signs of the ZV series (ZA, ZI, ZU), the SV series was deprived of any function in Akkadian. So in the writing of Akkadian words and names at Garšana, SA is never attested, only ŠA.<sup>24</sup> The equivalence of the ŠV series and the SV series appears in the exchangeability of SI and ŠI (in: *ták-si-ru-um*, *ták-šī-ru-um*) or even SI and ŠE (in the personal name *šī-um* = *še-um*, name of the father of Adalal). Both SI and ŠI appear in Akkadian names and words.<sup>25</sup>

From the viewpoint of an Akkadian syllabary, one can easily understand that SA represented not only the traditional Sumerian value /sa/, but also /ša/ and that SI was used for /si/ and for /ši, še/ (note, e.g., SI for the verbs si-g and še-g̃, respectively, the latter in the unorthographic writing SI(šé)-g̃e<sub>6</sub>-dè, see above).<sup>26</sup> In Sumerian everything points to a continuation of the difference between /s/ and /š/, written by the SV and the ŠV series, respectively, although admittedly an unequivocal differentiation remains a thorny issue for many lexemes and in diachronic perspective. Thus,

probably an existing difference between /s/ and /š/ was only imperfectly perceived by the Akkadian scribes at Garšana so that they could use both signs interchangeably in phonographic spellings.<sup>27</sup> Interestingly, they employed SA, which was not attributed a specific value in Akkadian, as if a “foreign” phoneme should be represented.

This case is slightly different from the one described before for the coincidence of i- and ì- as writings for the verbal prefix: The latter feature continued to be used in the Old Babylonian period, whereas the permutability between SA and ŠA and the use of SI for /si/ and /še/ in Sumerian remained a local phenomenon of the Garšana documents. For an evaluation of the evidence see below p. 364f.

#### 4. Observations on the Sumerian Grammar at Garšana

The characteristic style of administrative documents with their short notes and asyntactic lists hinders an investigation of the Sumerian grammar. The most obvious field of study, the grammatical relations including the case system and its reflections in the verb, is difficult to evaluate, since administrative documents often do not write case markers. Case markers are especially rare with personal names, and in many frozen phrases the genitive case was systematically disregarded.

The observations collected here are based on a repeated close reading of the Garšana texts. In most cases I have tried to find parallel examples from other Ur III texts in order to investigate if a specific phenomenon occurs only here, although unfortunately this was not

<sup>23</sup> Hilgert (2002, 128-133); for the continuation of this pair in southern Old Babylonian, see Kogan/Markina (2006, 569).

<sup>24</sup>  $\overset{\text{éš}}{\text{ša}}$ -bar-gi-lum; personal names: ša-lim-be-lí, ša-lim-dú-ri, lú-ša-lim etc., pí-ša-aḫ-DINGIR, pí<sub>5</sub>-ša-ḫa-lum, ša-at-èr-ra and other ša-at-names; ip-qú-ša, ù-qi(?)-pá-ša, note also ša-ḫi-ti, ša-at-ri-tum, al-la-ša-ru-um, ša-bar-zi-na-at, taḫ-ša-tal, si-ri-ša.

<sup>25</sup> SI: si-ì-tum, *ták-si-ru-um*; personal names: i-ṭib-si-na-at, ì-lí-si-na-at, si-mu, dub-si-ga, si-ri-ša, la-te-ni-si, ku-un-si-ma-at.

ŠI: *ták-šī-ru-um*; personal names: a-ḫa-am-ar-šī, é-a-nu-ùḫ-šī, šī-ba-aq-r[a-at], šī-ma-tum, šī-nu-ri, šī-pu-uz-ri.

<sup>26</sup> In a somewhat similar way the Sumerian simda, loanword from Akkadian *šimtum* “brand, branding iron,” appears both as sim-da and šim-da.

<sup>27</sup> Cf. also the unorthographic writing of ur-<sup>d</sup>asar-lu-ḫi as ur-ša-lu-ḫi in some texts (nos. 43-45).

possible for all features treated below. A more systematic study of the Sumerian grammar at Garšana may perhaps be helpful, but it would gain in importance only by a careful comparison with the bulk of the Ur III documentation.

#### 4.1. Finite Verbal Forms at Garšana

In administrative texts verbs occur mostly in infinite forms, of which a special type has been treated above in section 2. Finite forms are rarer, but they occur also in the few letters and legal documents. Generally, the verbal system seems to obey the Sumerian grammatical rules apart from the few exceptions that will be noted in the paragraphs that follow. As an example, I refer to a lexical investigation of the verbs used for “to bring” (Sallaberger 2005), where the Garšana evidence helped substantially to solve the puzzle not only because of the unorthographic writings, but also because the subtle differentiations of the plural forms depending on the object for the verbal stem and the agent for the suffixes were strictly followed.

Since it cannot be the purpose of this study to unravel the verbal morphology, the differentiation and flexible variation of verbal forms met in the Garšana corpus are illustrated with the help of two lists, one of the prefixes and the other of the lexemes combined with more than one prefix chain. The few examples of pre-patterned phrases that are the topic of the next paragraphs have to be read against the picture obtained by these lists.

Prefix chains of finite verbs (the list includes references from the text nos. 1462–1527, “Tablets of Unknown Provenance” and “Supplemental Texts” with the exception of 1466, 1478, 1479, 1490, 1491, 1493 from Irisağrig/Āl-šarrākī and elsewhere):

al-:	-nağ <sub>4</sub> -ğá, -ús-sa
ba-:	a <sub>5</sub> /aka, dù, gi-in/ge-en/gen <sub>7</sub> (= ge-n), gul, ġar (no. 1259, 1369), ħi, ħuğ, kešé, šu ti, úš, zal, zi
ba-a-:	ge-en/gen <sub>7</sub> (= ge-n), ġar, kešé
ba-ab-:	gu <sub>7</sub> , sù-ub, šeš <sub>4</sub> , taḥ
ba-an-:	dé, ku <sub>4</sub> (both intrans.), -du <sub>11</sub> -ga (no. 1053?), šu ti, tùm (for tùm), zuḥ (all trans.)

ba-an-ši-:	sa <sub>10</sub>
ba-na-:	ħa-la (for ħal), zi (zi-g)
ba-ra-:	du <sub>8</sub> , šeğ <sub>6</sub>
bí-ib-:	sù-ub
bí-in-:	*a <sub>5</sub> (bí-na for bí-in-a <sub>5</sub> , no. 1048:2), du <sub>11</sub> , gi <sub>4</sub>
ga-ra-ab-	su (no. 1499, Garšana?)
ħa-ba-:	-tur-re
ħa-ba-ab-:	šu -ti-ğe <sub>26</sub>
ħa-ba-ši-ib-	šu -ti (no. 1499, Garšana?)
ħé-eb-:	-sá-e
ħé-en-:	-ğá-ğá
ħé-na-ab-:	-šúm-mu
ì-:	dab <sub>5</sub> , ġál, ġen, ħi, lá, tab; in no. 1511: -dan <sub>6</sub> -dan <sub>6</sub> , -e-re, U+NU (Garšana?)
ì-:	me, -re-ša/sa-a (ğen, pl.)
ì-im-:	ğen
ì-im-:	de <sub>6</sub>
ì-in-:	DU?
ib-:	-kur-re (for šu gur?), -tab-bé (both no. 1511, Garšana?)
íb-:	ga <sub>6</sub> , gíd, gu <sub>7</sub> , nağ (all collective, trans. pret.), su-su (su-g, trans. present-future), ra, sá (intrans.)
íb-ta-:	ħi, zi
in-:	(sing.) da (no. 1463), du <sub>8</sub> , ge-en, gu <sub>7</sub> , ku <sub>5</sub> , lá, la-aḥ (for laḥ <sub>4</sub> ), pà, sù-ub (for šub?); (plural) -dù-sa-a, -ge-né-eš, -gíd-sa-a, -gu <sub>7</sub> -ša-a, -TI-ša-a (for de <sub>6</sub> ), -tùm-uš (for tùm)
in-da-:	ğál, ġe <sub>26</sub> -en (ğen)
in-na-:	ge <sub>17</sub> -ga (intrans.)
in-na-an-:	šúm (trans.)
in-ši-:	sa <sub>10</sub> (no. 1477)
mu-un-:	(intrans.) ġál (no. 1057), -til-la-ta (for til), (trans.) (sing.) TI (for de <sub>6</sub> ), (plural) -gíd-ša-a, -li-sa-a (for il?), -TI-sa-a (for de <sub>6</sub> )
mu-na-:	ba?
na-ba-ab-:	-šúm-mu-ne
na-mi-:	-gur-re (no. 1499, Garšana?)
nam-mi-:	-gur-re

nu-:	ĝál, tuku, zi-g	su	ga-ra-ab-su (no. 1499, Garšana?), íb-su-su
nu-ub-:	-gi <sub>4</sub> -gi <sub>4</sub> -(da) (no. 1477), ra, tuku (also no. 374?)	sù-ub:	ba-ab-sù-ub, bí-ib-sù-ub
nu-ub-ta-:	-gi <sub>4</sub> -gi <sub>4</sub> -(da-šè, no. 1048:8), zi	šúm:	hè-na-ab-šúm-mu, in-na-an-šúm, na-ba-ab-šúm-mu-ne
nu-um-:	ĝar (intrans.)	ti:	šu ba-an-ti, šu ba-an-ti-éš, šu ĥa-ba-ab-ti-ĝe <sub>26</sub> , šu ĥa-ba-ši-ib-ti (no. 1499, Garšana?)
nu-un-:	éš (no. 1057:7!)	tuku:	nu-tuku, nu-ub-tuku
nu-un-ni-:	ku <sub>4</sub>	túm:	ba-an-túm, in-túm-uš, in-la-aĥ
ù-na-a-:	du <sub>11</sub>	zi-g:	ba-zi, ba-na-zi, íb-ta-zi, nu-zi, nu-ub-ta-zi
(u <sub>4</sub> -)um <sup>1</sup> -:	de <sub>6</sub> (no. 1173, 1361!, “u <sub>4</sub> dub túm”)		

Verbs with more than one prefix chain:

a <sub>5</sub> /ak:	ba-a <sub>5</sub> /aka, bí-na
de <sub>6</sub> :	i-im-de <sub>6</sub> -a, ì-in-DU?, in-TI-ša-a, mu-un-TI(-sa-a), (u <sub>4</sub> -)um <sup>1</sup> -de <sub>6</sub> (no. 1173, 1361!, “u <sub>4</sub> dub túm”)
dù:	ba-dù-a, in-dù-sa-a
du <sub>8</sub> :	ba-ra-du <sub>8</sub> , in-du <sub>8</sub>
du <sub>11</sub> :	ba-an-du <sub>11</sub> -ga (no. 1053?), bí-in-du <sub>11</sub> , ù-na-a-du <sub>11</sub> (read ba-an-zuĥ for “ba-an-du <sub>11</sub> ”); nu-un-éš (no. 1057:7!)
gíd:	íb-gíd, in-gíd-sa-a, mu-un-gíd-ša-a
ge-n:	ba-gi-in/ge-en/gen <sub>7</sub> , ba-a-ge-en/gen <sub>7</sub> , in-ge-en, in-ge-né-éš
gi <sub>4</sub> :	bí-in-gi <sub>4</sub> , nu-ub-gi <sub>4</sub> -gi <sub>4</sub> -(da) (no. 1477), nu-ub-ta-gi <sub>4</sub> -gi <sub>4</sub> -(da-šè)
gu <sub>7</sub> :	ba-ab-gu <sub>7</sub> , íb-gu <sub>7</sub> , in-gu <sub>7</sub> -a, in-gu <sub>7</sub> -ša-a
ĝál:	ì-ĝál, in-da-ĝál, mu-un-ĝál (no. 1057), nu-ĝál
ĝar:	ba-ĝar (no. 1259, 1369), ba-a-ĝar, hè-en-ĝá-ĝá, nu-um-ĝar
ĝen:	ì-ĝen-na-a, i-re-ša/sa-a, ì-im-ĝen-na-a, in-da-ĝe <sub>26</sub> -en
ĥi:	ba-ĥi, ì-ĥi, íb-ta-ĥi
keše <sub>2</sub> :	ba-keše <sub>2</sub> -rá, ba-a-keše <sub>2</sub>
ku <sub>4</sub> :	ba-an-ku <sub>4</sub> , nu-un-ni-ku <sub>4</sub>
lá:	ì-lá, in-lá
ra:	íb-ra, nu-ub-ra
sá:	hè-eb-sá-e, íb-sá
sa <sub>10</sub> :	ba-an-ši-sa <sub>10</sub> , in-ši-sa <sub>10</sub> (no. 1477)

#### 4.2 Prefabricated Verbal Forms in the Year Dates and Elsewhere

Most finite verbal forms are attested in the date formulae and as administrative key terms as šu ba-ti or ì-dab<sub>5</sub>. The year dates can be phrased in two ways, with the king named (in the ergative case) and the verb with the ventive prefix mu-, or without the royal name and thus with the “medium” prefix ba-. However, at Garšana scribes more often write non-standard mu-ĥulu for ba-ĥulu in the intransitive construction. Although mu-ĥulu (mu-n-ĥulu-ø, “he destroyed it”) would be somehow grammatically correct, if we assumed an omission of the noun in the ergative in the sentence, such an abbreviated phrase is not used in Ur III date formulae.

mu LAND (= ma-da za-ab-ša-li<sup>ki</sup>, si-mu-ru-um<sup>ki</sup>) mu-ĥulu (incorrect): more than 160×

mu LAND (= ma-da za-ab-ša-li<sup>ki</sup>, si-mu-ru-um<sup>ki</sup>) ba-ĥulu (correct): ca. 49×

“year: LAND (= Land of Zabšali, Simurrun) was destroyed”

With the name of the king, mu-ĥulu is standard (188 hits in BDTNS), but ba-ĥulu is written once although the king is named (no. 294).

With the verb dù “to erect,” the distribution at Garšana is even more inconsistent. A quick count of the results obtained by BDTNS (accessed 2009/12/06), disregarding reconstructed prefix morphemes, gives the following

distribution (note that mu-ne-dù for ŠS 6 does not show any variation):

- mu KING-e OBJECT mu-dù (correct): 70×  
 mu KING-e OBJECT ba-dù (incorrect): 7×  
 “year: KING erected OBJECT”  
 mu OBJECT mu-dù (incorrect): 46×  
 mu OBJECT ba-dù (correct): 31×  
 “year: OBJECT was erected”

Similar errors can appear sporadically in the Ur III corpus. In the tables prepared by Schneider (1936) only eleven aberrant forms are listed from the more than 11,000 Ur III tablets published by that time:

- mu- instead of ba- (intransitive formula):  
 Schneider (1936, 21): Šulgi year 44 B.tt) (1×), *ibid.* 22: Šulgi year 45 B.j) and m) (2×), *ibid.* 36 Šu-Suen year 9 B.f) (1×), cf. *ibid.* 31 Šu-Suen year 2 B.p) in- instead of ba-, cf., e.g., *Syracuse* 379  
 ba- instead of mu- (presence of KING in ergative case): Schneider (1936, 24): Amar-Suena year 2 B.c) (2×), *ibid.* 25 Amar-Suena year 3 B.e) (1×), *ibid.* 32 Šu-Suen year 4 B.e)-f) (3×), *ibid.* 33 Šu-Suen year 6 A.f) (1×), cf., e.g., NATN 202, BPOA 6 9

Seen in this light, the extremely high portion of incorrect forms in the Garšana texts is noteworthy and cannot simply be explained as resulting from the scribe’s inattentiveness. Was the differentiation between intransitive ba- and transitive mun-forms losing its binding force? Or did the formulaic character of the year dates lead to the distortion, since they were not treated as “real” language but as pre-formulated stock phrases? A similar free variation between intransitive and transitive, ventive and non-ventive forms seems not to be attested for verbs in phrases embedded in the main body of the texts: the verb gíd “to haul (boats)” appears with ventive in the case of a movement toward Garšana (mu-un-gíd-ša-a), but without ventive if the boat is moved from Garšana to another (in-gíd-sa-a); and sù-ub appears both in a transitive (bí-íb-sù-ub, collective) and in an intransitive-passive (ba-ab-sù-ub) form within one

text (no. 1329); see the verbal forms listed above.

Given the fact that the year date variation does not show any discernible pattern, the second option seems far more likely: a year date could be perceived as a formula that was automatically written down without reflecting its correct form and thus its literal meaning. The grammatical peculiarities of stock phrases thus should not be taken as reflecting the command of Sumerian grammar, although it remains remarkable that the royal year dates were treated that way.

The interchange of the verbs with mu- and ba- prefixes in the date formulae seems to occur independently of an actual experience of language. A similar phenomenon can be discerned only in two verbal phrases that appear more frequently in the Garšana corpus, namely ba-na-ha-la and al-naĝ<sub>4</sub>-ĝá-dè. The indirect object of the verbal form ba-na-ha-la is invariably singular although one expects mostly a plural \*-ne-(a)-:

- šidim ù lú-huĝ-ĝá-e-ne ba-na-ha-la (e.g. no. 424; cf. Kleinerman and Owen 2009, 316–18. Note that the dative case written -er would hardly be expected in an administrative text)

“it was distributed (to him) to the builders and hirelings”

Even more perplexing is the rare form al-naĝ<sub>4</sub>-ĝá-dè “to crush,” where the verbal prefix al- appears in a strange combination with the infinite -e-d-e form. This form is attested two or three times at Garšana (nos. 67, 70, and, probably, 217), whereas a correct naĝ<sub>4</sub>-ĝá-dè appears 14 times. All references stem from identical contexts; the object is invariably munu<sub>4</sub> “malt.” Nos. 67 to 69, for example, date to three consecutive days (ŠS 6/08/28–30), the same persons are named, but incorrect al-naĝ<sub>4</sub>-ĝá-dè appears in no. 67, correct naĝ<sub>4</sub>-ĝá-dè in nos. 68–69.

The incorrect variant cannot be explained within standard Sumerian grammar. At Garšana the prefix al- is used only in idiomatic expressions concerning the preparation of food: al-naĝ<sub>4</sub>-ĝá “crushed,” al-ús-sa “processed” (see

the phrases collected by Kleinerman and Owen 2009, 364f.). Apparently *al-* was (partly) deprived of its function as a “stative” prefix, and so the nominalized form *al-naĝ<sub>4</sub>-ĝá* could be reinterpreted as an infinite form *\*alnaĝ<sub>4</sub>+a* “crushed”; and the suffixes *-e-d-e* could then be attached to this seemingly new verb */alnaĝ<sub>4</sub>/*. This error is restricted to rare cases and can thus surely be attributed to a single scribe.

#### 4.3 Inconsistency of Plural Formation

In the relatively small organization of Garšana even details of the transactions were described, such as the exact work performed at various building steps. In the larger archives, one more often finds simply lists with numbers of persons and at the most some short notes on the work to be done (cf., e.g., the lists of the men at work at Ĝirsu or at the Ur or Isin craft archives). This tendency to provide more-detailed descriptions implies a greater variation in phrasing. An obvious point in this regard is the inconsistency in the formation of the plural, both as personal plural and as neutral (non-personal) collective. Both forms are grammatically correct and are well attested in Ur III texts.

Personal plural:

ĝuruš má ... é <sup>d</sup>šara<sub>2</sub>-ta G.-šè mu-un-ĝíd-šá-a “men, who hauled the boat ... from the Šara temple to Garšana” (no. 529)

mu lú ħuĝ-ĝá-e-ne-šè u<sub>4</sub> igi PN inda<sub>3</sub> ingu<sub>7</sub>-šá-a “because of the hirelings, when they ate bread in front of PN” (no. 479)

Collective:

3 ĝuruš ... N.-ta B.-šè má PN íb-ĝíd “3 men ... hauled the boat of PN from Nipur to Bit-Šu-Suen” (no. 220)

inda<sub>3</sub> ugula lú ħuĝ-ĝá-e-ne íb-gu<sub>7</sub> “bread: the foremen of the hirelings ate it” (no. 385)

Whereas the variation in the year dates led to incorrect forms, here the variation, which does not seem to imply any difference in meaning, remains within the traditional limits of the language. Puzriš-Dagan documents or legal documents prefer the 3rd person plural, whereas the 3rd neuter collective was especially popular in administrative texts from Umma. Thus

this variation, which may be ascribed to the presence of various active scribes (see Heimpel 2009, 27), proves how flexible they were when treating the Sumerian language. So apparently each scribe could write according to his preferences and so we actually dispose of documents of an individual language use.

#### 4.4 Plural Formation as Calque of Akkadian?

Although a single reference is of little value for grammatical observations, the following example has to be considered in the context of a possible Akkadian imposition of the scribes on Sumerian. The usual phrase *ka-ga-na ba-ge-en* “it was confirmed in his (own) statement” has once been used in the plural, where the text reads

<i>ka-ga-na-ne-ne</i>	<i>ba-ge-en</i> (no. 1062:9)
<i>ka.g-an(i)-(a?)-anene</i>	<i>ba-ge.n-ø</i>
<i>mouth-POSS.3SG-(LOC?)-POSS.3PL</i>	
	<i>MED-confirm-S.3SG</i>

instead of the correct:

<i>*ka-ga-ne-ne-a</i>
<i>ka.g-anene-a</i>
<i>mouth-POSS.3PL-LOC</i>

One may simply suppose a temporal inattentiveness of the scribe, who did not erase his incorrect *-na-* (= *-ani-a* “in his ...”), which he had written out of habit. However, one could also assume an unconscious calque on the Akkadian plural formation: the plural of corresponding *ina pī-šu* is *ina pī-šunu* with suffixation of the plural marker. A similar example of an Akkadianism in an Old Babylonian literary text has been pointed out by Wilcke (1998, 462): the form *šà eren<sub>2</sub>-na-ka-ni* “in the midst of his troops” in Gilgameš and Akka lines 81 and 99 (instead of *\*šà eren<sub>2</sub>-na-na-ka/ke<sub>4</sub>*) follows the sequence of suffixes of Akkadian *ina libbi šābīšu*.

#### 4.5 Some Observations on the Case System

Generally, the case system of Sumerian is well reflected in the Garšana documents, especially if one takes into account that case suffixes, not only the genitive suffix, can be missing in administrative documents, primarily with proper names. In the following, I list deviations from the standard use of case suffixes. These single

observations do not pretend to cover every aspect of the case system at use at Garšana.

#### 4.5.1 *-ta for Comitative -da*

Once at Garšana the case suffix *-ta* is used for the comitative *-da*, which seems not to be attested elsewhere in the corpus:

1 ġuruš ... PN lú-kíġ-ge<sub>4</sub> lugal-ta ... in-da-  
ġe<sub>26</sub>-en

“I man ... he went together with the royal messenger PN.”

Instead of assuming a semantically incorrect ablative *-ta*, which furthermore could not be combined directly with a noun of personal/human gender, it is more probable that the comitative *-da* was written *-ta*. Such an orthography has to be understood from an Akkadian point of view, since Sumerian stops were all voiceless with a further differentiation, probably aspiration. In the Ur III period, one began to write the sign *da* for the voiced alveolar stop /d/ and *ta* for voiceless /t/ in Akkadian.

Interestingly, the same use of *-ta* for *-da* appears in a text from the contemporary archive of Irisaġrig/Āl-šarrākī, similarly from an organization closely related to the state:

u<sub>4</sub> alan lugal-ta im-da-e-re-ša-a (no. 1478 ii  
12)

“when they went with (= escorted) the royal statue”

#### 4.5.2 *Terminative for Locative*

In the Garšana texts the verb *ba-a-ġar*, “it is placed upon,” is usually construed with a terminative at the noun instead of a locative or directive. This use is especially clear in the context of the use of leather that was “placed on” another object:

5 kuš udu e-rí-na ma-an-ħara<sub>4</sub> 3-šè ba-a-  
ġar (no. 923:1-2; cf. also nos. 864, 939,  
968, 1517)

“5 tanned sheep skins were placed on 3 receptacles”

The same construction NOUN-šè *ba-a-ġar* appears with the use of bitumen or with reed for repair and building. These passages should be translated in the same way as the leather

texts (“was placed upon...”), although it cannot be excluded that here the terminative denotes the purpose of the placement and the phrase thus means “OBJECT was deposited for BUILDING” (thus Heimpel 2009, 42). But in this case the “préfixe local” (Attinger 1993, 240ff.) *-y/e-* of *ba-a-ġar* (/bayġar/) would be devoid of any function. An abbreviation for *ki(-e) ba-a-ġar* “it was placed on the ground/was founded” is extremely unlikely.

(bitumen) (šID-tum of buildings) *ták-si-ru-um-šè ba-a-ġar* (no. 1260, cf. 1299)

“(bitumen) was placed upon/deposited for the šID-tum of buildings, on/for the place of repair.”

210 sa ge-NE gu-kilib<sub>3</sub> 12 sa-ta *dì-um é-ki-mu-ra-šè ba-a-ġar* (no. 1325:4-6; cf. 1261, 1262, 1286, 1308 etc.; without terminative no. 1294)

“210 bundles of ‘fire’ reed, bales of 12 bundles, were placed on (or: deposited for) the waddle-and-daub of the washing house.”

63 <sup>duġ</sup>ù-lu-lu 2 kuš-ta *a-za-bu-um šà é-a-šè ba-a-ġar* (no. 1286: 7f.)

“63 clay pipes of 2 cubits each were placed on (or: deposited for) the cistern within the house.”

Constructions with *ba-a-ġar* appear more often in Ur III texts, albeit mostly in the construction *a-ġù PN-a-ka ba-a-ġar* “it was placed on the account of PN.” But a search in BDTNS (2009/25/11) revealed no other examples of the combination with the terminative *-šè* except the probably adnominal construction UTI 5 3370 má ... GN-šè *ba-a-ġar* “placed on the boat to GN” and the unclear *Ontario 2 222*.

The construction NOUN-šè *ba-a-ġar* for an expected NOUN-a (locative) *ba-a-ġar*, as it appears in the frequent phrase *má-a ba-a-ġar* “it was placed on the boat,” has perhaps to be seen in a wider perspective. The locative case, marked by a simple *-a*, was going to lose ground in the late Ur III and the Isin period against the more prominent case markers terminative (*-šè*) and ablative (*-ta*), which were

expressed by a whole syllable; they remained in use or even took over the domains of the locative. A good example is the change of construction of  $ku_4$  “to enter”: the locative (-a) was still in use in Ur III texts, e.g.,  $\acute{e}$ -gal- $\underline{la}$  ba-an- $ku_4$  “it was entered in the palace” (*passim* in the Šulgi-sintum archive). Not unexpectedly, Garšana already starts using the terminative:  $\acute{e}$ -kišeb $_3$ -ba- $\underline{\acute{s}\acute{e}}$  ba-an- $ku_4$  “it was entered in the storehouse” (no. 1031; but  $ku_4$  with locative in no. 1049 // 1050!). In the Isin craft archive, which dates only a few years later, after the fall of the Ur III empire, and stems from northern Babylonia, one meets similarly both terminative  $\acute{e}$ -gal- $\underline{\acute{s}\acute{e}}$  ba-an- $ku_4$  (BIN 10 117; even  $\acute{s}\acute{a}$   $\acute{e}$ -gal- $\underline{\acute{s}\acute{e}}$  ba-an- $ku_4$  BIN 9 399) and locative  $\acute{e}$ -gal- $\underline{la}$  ba-an- $ku_4$  (BIN 10 189).

Of course the change in some constructions does not imply that the locative case had completely disappeared at Garšana. It is still generally employed with *gub* “to stand” (e.g.  $\acute{e}$ -gal- $\underline{la}$  *gub*-ba “stationed in the palace,” no. 506:23) or with  $\acute{g}\acute{a}l$  “to be present, to exist” (e.g. beše $\acute{g}$  *dub*-ba- $\underline{ka}$   $\acute{g}\acute{a}l$ -la “present in the tablet basket” no. 1233:13).

#### 4.5.3 The Genitive Case: Presence, Loss and Hypercorrection

As already mentioned in the introduction, the genitive case often is not marked in Ur III administrative documents, but, as with all case suffixes, its usage is more consistent in legal documents and letters at Garšana and elsewhere. Also within administrative texts the genitive is not completely abandoned and it appears especially in the combination with the locative case:

$u_4$	siki-ba-(a)- $\underline{ka}$	$\acute{s}u$	bar-ra (no. 234 etc.)
$u_4$	siki-ba- $\underline{ak}$ -a	$\acute{s}u$ - $\emptyset$	bar-a
day	wool-distribute-GEN-LOC	hand-ABS	open-PFV
“released at the day of wool-distribution”			
MAŠ.EN.GAG	lú- $\underline{ka}\acute{s}_4$	ká $\acute{e}$ -gal- $\underline{ka}$	<i>gub</i> -ba (no. 529)
MAŠ.EN.GAG	lú- $\underline{ka}\acute{s}_4$	ká $\acute{e}$ .gal- $\underline{ak}$ -a	<i>gub</i> -a
dependant	runner	gate palace-GEN-LOC	stand-PFV
“dependants and runners, stationed at the gate of the palace”			

With the frequent verb *gub* “to stand, to be stationed (intr.)” the genitive+locative is even noted with  $\acute{s}\acute{a}$  “interior” (on  $\acute{s}\acute{a}$  see p.355):

<i>ták-ši-ru-um</i>	$\acute{s}\acute{a}$	$\acute{e}$ -gal-ka	<i>gub</i> -ba (no. 49: 45 etc.)
<i>takširum</i>	$\acute{s}\acute{a}$	$\acute{e}$ .gal-ak-a	<i>gub</i> -a
repair	interior	palace-GEN-LOC	stand-PFV
“stationed at the repair, in the palace”			

A noun phrase in the absolutive, ending in a double genitive and thus marked equally -ka (<-ak-ak- $\emptyset$ ) appears regularly in the date formula for year Šu-Suen 9:

mu	$\acute{d}\acute{s}u$ - $\acute{d}$ EN.ZU	lugal urim $_3$ <sup>ki</sup> -ma-ke $_4$	$\acute{e}$ $\acute{d}\acute{s}ara_2$	umma <sup>ki</sup> - $\underline{ka}$	mu-dù (no. 257 etc.)
mu	Šu-Suen	lugal urim-ak-e	$\acute{e}$ Šara	Umma- $\underline{ak}$ -ak- $\emptyset$	mu-n-dù- $\emptyset$
year	PN	king GN-GEN-ERG	house DN	GN-GEN-GEN-ABS	VNT-A.3P.SG- erect.Bh-o.3SG

“year: Šu-Suen, king of Ur, built the temple of Šara of Umma”

A seemingly double genitive is employed, however incorrectly, in the year date of Šu-Suen 6. The standard formula shows the dative case, and this is the most frequent construction (143× for ŠS 6, but formula often restored):

mu ... na-dù-a maḥ <sup>d</sup>en-líl <sup>d</sup>nin-líl-ra mu-ne-dù

“year (king Šu-Suen ...) erected the sublime stele for Enlil and Ninlil”

A variant construction is without -ra but with a simple genitive, “year: king Šu-Suen ... erected the sublime statue of Enlil and Ninlil for them.” This simple genitive before the absolutive should be written -lá, but this appears only once in this year date, whereas an incorrect double genitive -ka is written 35× for the date Šu-Suen 6.

mu...na-dù-a maḥ <sup>d</sup>en-líl <sup>d</sup>nin-líl-ka  
mu na.dù.a maḥ Enlil Ninlil-ak-ak-ø  
year stele sublime DN DN-GEN-GEN-ABS

mu-ne-dù

mu-ne-n-dù-ø

VNT-IO.3PL-A.3P.SG-erect.Bh-o.3SG

The only way to explain this variant seems to be a hypercorrection of the genitive (as a double genitive), which would have been slowly disappearing in certain contexts. Such a disappearance is the less surprising since noun-noun-combinations without genitive marking exist frequently in Sumerian (e.g. qualifications indicating the material). Furthermore, as with the interchange of the verbal prefixes ba-/mu- (p. 348f.), the year dates show especially bewildering variants at Garšana. The year formula for Šu-Suen 8, which runs absolutely parallel to Šu-Suen 6, mu (...) má-gur<sub>8</sub> maḥ <sup>d</sup>en-líl <sup>d</sup>nin-líl-ra mu-ne-dim “year (king Šu-Suen) constructed the sublime boat for Enlil and Ninlil,” appears most often with -ra (143×), sometimes with a correct simple genitive -lá (7×), but nev-

er with the incorrect “double genitive” -ka as in the former date.

Somewhat similar is the notation of a genitive before the locative in the following phrase, where egir-ra-ka (egir-“GEN”-LOC) appears instead of expected egir-ra (egir-LOC):

gú-ba kíĝ bí-na, egir-ra-ka in-sù-ub (no. 1048)

“He did work on its bank.<sup>28</sup> Afterward/ at the backside he neglected it” (assuming that sù-ub stands for šub).<sup>29</sup>

#### 4.5.4 Ergative for Absolutive

Perhaps the most remarkable occurrence of an incorrect use of a case suffix is the appearance of the ergative marker -e in an intransitive phrase:

u<sub>4</sub> lugal-e ba-úš-[(a)] (no. 257: 6)  
u<sub>4</sub> lugal-e ba-úš-ø(-a)  
day king-ERG MED-die.Bh-3SG(-NMLZ)  
“when the king died”

Since the verbal form ba-a-ĝar is clearly intransitive, the same explanation probably holds true for the almost unintelligible phrase:

u<sub>4</sub> diĝir-re gaba *na-wi-ir-ilum* ba-a-ĝar-ra  
(no. 251)

“when a god was placed opposite of Nawir-ilum”(?)<sup>30</sup>

The first example is unequivocal: the ergative lugal-e appears as subject in an intransitive sentence. Can one assume that the misuse of the ergative case instead of the unmarked absolutive was influenced by the case system of Akkadian, where the subject is always in the nominative case? Unfortunately it is hardly possible to investigate the distribution of ergative (-e) and absolutive (-ø) in the Garšana corpus, since we deal mostly with proper names and professions that are more often not case-marked in administrative texts.

<sup>28</sup> For the writing bí-na for bí-in-a<sub>5</sub>(AK) “he made” cf. Attinger (2005, 54).

<sup>29</sup> For šub in a similar context see the fragment RA 10, 66 no. 68: 8': gú i<sub>7</sub> gana<sub>2</sub>-ba šub-ba “neglected(?) at its bank of the field’s canal.”

<sup>30</sup> Heimpel (2009, 332) understands the phrase differently: “the day the breast of *Nawir-ilum* was made to settle by the god.” This interpretation obeys the ergative case, but the transitive construction is difficult to reconcile with the intransitive form ba-a-ĝar. See the list of finite verbs above (section 4.1.) for the generally trustworthy rection of verbs.

#### 4.6 Time Specifications: $u_4$ as “subjunction” and “preposition”

Specific circumstances or even the motivations for certain transactions are often indicated by temporal expressions in administrative documents. For example, food was distributed to the boat haulers “when they hauled the boat” (e.g. no. 529), but certainly the return from the trip also justified the expenditure of food. Temporal designations in Sumerian are formulated as a locative  $u_4$  ...-a “on the day, at the time,” whereby further appositions, most often a nominalized verbal clause, may qualify the noun  $u_4$ , “day, time.”

Besides the formulation as a temporal phrase with a nominalized finite verb (type PN  $u_4$  ... ì-im-ĝen-na “(for) PN, when he ... came”), some documents, such as the messenger texts from Ĝirsu, prefer an apposition construed with an infinite verb (type PN ... ĝen-na/du-ni “(for) PN, when he went/was going”). The phrase mu ...(-ak)-šè “because” appears more rarely, and here both infinite and finite nominalized verbal forms occur (e.g. mu aga<sub>3</sub>-ús a-tu<sub>5</sub>-a-ka é-gal-la ku<sub>4</sub>-ra-ne-šè “for the soldiers, having entered the palace at the (time) of bathing,” Sallaberger 1993, vol. 1, 67f.; PNN dam-gara<sub>3</sub>-me-éš mu na<sub>4</sub> mu-ni-in-ku<sub>4</sub>-re-éš-ša-a-šè “(for) PNN, the merchants, because they had imported stones,” CT 32 25). Rarely the purpose of the expenditure can be indicated by an -e-d-e form (e.g., 7 gud en huĝ-dè “7 cattle, in order to appoint the high-priest,” BIN 3 352).

At Garšana the introductory  $u_4$  “day, time” appears in various combinations (for an overview see Kleinerman and Owen 2009, 144f. *s.v.* Relative Clauses). The standard construction of a nominalized clause is e.g.

$u_4$  bàd in-dù-sa-a “(food for builders) when they built the wall” (no. 396).

Similar constructions are often attested (36 clauses counted in the Garšana corpus).<sup>31</sup> However,  $u_4$  “day, time,” can also be combined with infinite verbal forms, namely

(a) with infinite perfective forms in -a:

$u_4$  al-tar bàd gub-ba “(they have eaten) when: stationed (at the) construction work of the wall” (no. 392; cf. also nos. 395, 442, 471, 495, 1007)

(b) with infinite imperfective, future forms in -d-e (directive):

$u_4$  bàd é-a dù-dè “(for heaps of flour) at the day, when: to build the wall of the house” (no. 383, cf. also nos. 386, 387; no. 90 does not belong here)

(c) with infinite simple form:<sup>32</sup>

$u_4$  al-tar é-... “when: construction work of (various houses)” (nos. 424, 428–430, 435, 349–441)

(d) with the so-called pronominal conjugation (infinite form + pronominal suffix):

$u_4$  PN U.-šè du-ni “(for heaps of flour) at the day, when: Šu-Kabta going to Umma” (no. 488, 2x)

Such confluations of two different constructions are probably not, or at the most only rarely, attested in the corpus of Ur III texts. The examples that I had thought to have located through searches in BDTNS or in my own collections (and disregarding untrustworthy publications) always turned out to be misreadings or wrong restorations of broken passages.<sup>33</sup>

The background of the peculiar Garšana combination of  $u_4$  with infinite verbs can be

<sup>31</sup> The phrase in 1173 // 1361 kišeb<sub>3</sub> PN  $u_4$ -um<sup>1</sup> (“DUB”)-de<sub>6</sub> “when the sealed document of PN will be brought” can be analyzed as  $u_4$  “when” + um-de<sub>6</sub> so-called “prospective” (conditional); it can also be understood as an unorthographic writing of the prospective as  $u_4$ -um<sup>1</sup>-de<sub>6</sub>; this interpretation implies that no nominalizer -a is written.

<sup>32</sup> For  $u_4$  dub túm (no. 1173, 1361) see the preceding footnote.

<sup>33</sup> For “ $u_4$ ”  $i_7$ -da zi-zi-dè ĝen-na Sigrist, *Princeton* 2 428, read eren<sub>2</sub>  $i_7$ -da..., as also noted by Notizia (2009, 126); similarly Fish, CST 34 i and iii eren<sub>2</sub><sup>1</sup>( $u_4$ ) ba-šim-e-šè ĝen-na; Riedel, *RA* 10 209 BM 103435 (= Verderame/Politi, *Nisaba* 8, 58)  $u_4$  amar-d<sup>d</sup>zuen-ke<sub>4</sub> ša-aš-ru<sup>ki</sup> ù šu-ru-ud-hu-um<sup>ki</sup> [mu<sup>2</sup>]-hulu-a.

elucidated by a related time specification, the indication of a festival day in the subscript of some expenditures for persons.

- u<sub>4</sub> izim gur buru<sub>14</sub> “at the festival of the return/Kor measure of the harvest” (no. 996)
- u<sub>4</sub> (izim) e-lu-nú(m)-(ma) “at the *elūnum* (festival)” (no. 19, 980, 1032)
- u<sub>4</sub> taq-ri-ib-tum bàd “at the offering (ceremony) at the wall” (no. 1035)
- u<sub>4</sub> izim a-bu-um-(ma) “at the *abum* festival” (no. 278, 509)
- u<sub>4</sub> izim pa-è “at the festival of appearance” (no. 1030)

The peculiarity of the Garšana phrases emerges clearly as soon as similar specifications in the Ur III corpus are compared. Though many documents, indeed, note a festival as time specification (see, e.g., the texts collected in Sallaberger 1993), a combination “u<sub>4</sub> izim” (“time: festival”) seems not to be attested elsewhere;<sup>34</sup> the simple standard construction izim NN “festival NN” fulfils the same function.

Obviously, the Garšana u<sub>4</sub> has to be understood as the temporal companion to the local specification šà “in” (< “heart, interior”), which appears as a subscript identifying the place of a transaction. The term šà NOUN-ak-a “within NOUN” (literally “in the interior of NOUN”) was never written as such in the subscript, but appeared as šà NOUN(-a), especially with place names (e.g. šà urim<sub>5</sub><sup>ki</sup>-ma, “in Ur”). In this way šà began to function almost as a local preposition and partly replaced the locative case, especially at the specific position in the subscript of a tablet.<sup>35</sup>

In the Presargonic and Sargonic periods, the simple locative case -a had sufficed at this position, but in the Ur III period this is met only rarely and first of all in relatively early texts from the time of Šulgi (e.g. é-sâg-da-na nibru<sup>ki</sup>-ka “in Esağdana-Nibru” OIP 115 I, Šulgi year

26). Generally, in Ur III documents, the phrase šà GN-a “in GN” replaced the former locative completely.

The Garšana scribes apparently took this path a step further and used u<sub>4</sub> “at” as a temporal “preposition,” in a certain respect as a complement to the local šà “within.” Although the loss of case suffixes and the emergence of prepositions from former common nouns could represent an internal Sumerian development, the impact of Akkadian should be acknowledged especially at Garšana. The Akkadian model on which u<sub>4</sub> was calqued can probably be identified: the subjunction *inūma*, “when,” literally “in the day...” (*in+ūm-*), and thus corresponding exactly to the Sumerian construction u<sub>4</sub> ...-a “in the day, ...,” could also be used as a preposition in Old Babylonian (see the dictionaries and von Soden 1995, 210 § 115 s and § 116 b). This corresponds exactly to the use of u<sub>4</sub> at Garšana.

To summarize: The noun u<sub>4</sub> “day, time” began not only temporal clauses at Garšana, but also infinite phrases and even nouns, a peculiar feature that is without parallel in the vast Ur III corpus. u<sub>4</sub> emerged as a kind of temporal “preposition” similarly to the widespread local šà “within,” which gradually replaced the locative case suffix -a in certain contexts. The use of u<sub>4</sub> agrees with the scope of the Akkadian subjunction and preposition *inūma*.

The temporal “preposition” u<sub>4</sub> is apparently attested only at Garšana and due to the end of the Ur III state this development did not gain further influence. But the tendency that Sumerian nouns started to serve as “prepositions” continued for example in the spread of šà for all local specifications in the Isin craft archive (Sallaberger 2000, 272) and ultimately the case suffixes were replaced by “prepositions” derived from nouns in Old Babylonian administrative texts (šà “in,” ugu “over, above,” ki “from,” in OB Uruk after Sallaberger 2000, 274). Furthermore it would be interesting to

<sup>34</sup> The reference Sweet, ARRIM 01 23 H 36c: 34' u<sub>4</sub> izim?-mah?, a text published only in a preliminary transliteration, remains too uncertain (cf. Sallaberger 1993, vol. 2, 113 note b).

<sup>35</sup> Heimpel (2009, 23f.) went even so far as to see šà in some expressions as equivalent to the Akkadian relative particle *ša*. In all the examples he cites, however, the locative meaning “in” cannot be excluded.

know whether the specific use of Akkadian *inūma* as preposition and not only as subjunction in southern Old Babylonian did not follow a Sumerian vernacular that was more widespread, although we are aware only of the Garšana evidence.

#### 4.7 Inconsistency of Word Order

In Sumerian phrases the absolutive case tends to be situated directly before the verb. In administrative texts the central object(s) treated in the document with its quantities and qualifications is always placed at the beginning of the text (cf. Attinger 1993, 154; Sallaberger 2000). The topic of a large number of documents is workers and consequently their number and qualification were noted; often an additional phrase describes their work. Within this phrase the place of the absolutive case is directly before the (mostly infinite) verb.

Regularly, the transport of goods is phrased like this:

$n$  ġuruš (...) GN<sub>1</sub>-ta GN<sub>2</sub>-šè OBJECT ga<sub>6</sub>-ġá  
(or finite form)

“ $n$  men (+ qualification), having carried OBJECT from GN<sub>1</sub> to GN<sub>2</sub>”

This construction appears also at Garšana:

$\frac{2}{3}$  ġuruš ašgab u<sub>4</sub>-3-šè kar-ta kuru<sub>13</sub>-šè še  
íb-ga<sub>6</sub> (no. 229, also in no. 263)

“ $\frac{2}{3}$  weavers for 3 days carried grain from the quay to the granary”

But whereas the correct word order appears only twice, the direct object is placed more often, namely 34 times, before the local designations:

12 ġuruš in-u kar-ta ġá-nun-šè íb-ga<sub>6</sub> (no. 28)

“12 men, they carried straw from the quay to the storehouse”

A search of the frequent combination še “grain” with ga<sub>6</sub> “to carry” in the Ur III data base BDTNS did not lead to any references for this irregular word order in documents from Umma. Rarely, however, the displacement of the object toward the beginning of the phrase can be discovered in Ur III documents, as in the following example:

u<sub>4</sub> níġ-mussa é PN-šè in-na-aka-a

“when he made the dowry for PN’s house”  
(Amorites 15, dated Š 48/06/15)

The expected order is also attested:

u<sub>4</sub> é-ušbar(!ÚR)-ra-na níġ-mussa in-aka-a

“when he made the dowry for his father-in-law’s house” (Toronto 2 205, dated AS 01/12/12)

Although these observations are based only on a few characteristic contexts and verbs, the observed frequency of the incorrect word order at Garšana is remarkable; the standard word order of Sumerian had lost its binding character. Parallel developments are not yet known, although they may be hidden in the vast corpus of Sumerian Ur III texts.

#### 5. The Akkadian Component of the Lexicon

The final aspect to be considered for the use of Sumerian at Garšana is the lexicon. Akkadian words are amply attested in administrative documents of the Ur III period, mostly specific technical terms for concrete nouns. Akkadian words appear neither as adjectives nor as verbs or in combination with Sumerian verbs. The growing number of technical Akkadian terms in Sumerian results from the close contact of the two languages in the late third millennium.

Since we deal with technical terms employed in specific contexts, a simple count of the frequency of Akkadian words would not yield satisfactory results. But one can investigate if the Akkadian terms used at Garšana are known also from other contemporary archives.

Most Akkadian words are listed by Kleinerman and Owen (2009, 13f.) (= CUSAS 4), others can be found in the glossary (*ibid.* 1–230). The comparison with other Ur III archives is based on BDTNS, my own collections, and the Akkadian dictionaries (*AHW*, *CAD*, *MAD* 3). Attestations from other archives are given only in the case of rare words or references that are perhaps more difficult to retrieve. Some of the translations and meanings given stem from the project on a Sumerian glossary, partly based on the work of Hagan Brunke and Fabienne Huber Vulliet.

### 5.1 Akkadian Words Attested in Other Ur III Documents

*a-bu-um*, “*abum* festival” (not listed CUSAS 4, 13)

*a-ge<sub>4</sub>-um*, a qualification of textiles, perhaps “dyed, colored”(?)

*a-za-bu-um*, “cistern”; cf. Pre-Sargonic CT 50 47:5 *ter-kù ugula a-za-bù-m-ma-ke<sub>4</sub> lù huĝ-ĝá ba-de<sub>6</sub>* “Terku, the overseer of the cistern, took the hireling(s) with him”; PDT 2 1366 reads v.s. for the *a-za-bu-um* “of the Šu-Suen garden”

<sup>tu</sup>*á-gu<sub>4</sub>-hu-um*, *aguh<sub>4</sub>um*, perhaps a belt, sash  
*al-lu-ĥa-ru-um*, “(a mineral tanning agent),” usually written *al-la-ĥa-ru* in Ur III, but *al-lu-ĥa-ru-um* MVN 11 142 (*Reichskalender*), note that the entry *al-lu-ĥu-ru-um* CUSAS 4, 15 is a ghost entry (all references are restored)

*ar-ki-LUM*; see CUSAS 4, 22 s.v. *ar-gi<sub>5</sub>(KI)-núm* “(a kind of food product?),” also in NATN 825 besides onions/garlic and fish; probably different from Ur III *ar-ga-núm*, an aromatic(?)

*ba-tab-tuĥ-hu-um* (in CUSAS 4, 25 read *ba-tab tuĥ-hu-um*), a valuable *accessoire* of female dress

<sup>sc</sup>*ba-ti-um*, “(a reed container),” cf. Ur III *ba-ti-um*, *pa<sub>4</sub>-ti-um*

*bí-ni-tum*, “a crossbeam” (thus CUSAS 4, 30, following the unsubstantiated idea of CAD s.v. “a type of crossbeam”), but according to Heimpel (2009, 181) *bí-ì-tum* “container”; see Heimpel s.v. for the latest treatment of the Ur III references.

BÜ-ZU-LUM, cited s.v. *pù-sú-lum* “(a food product?)”; if read correctly, the variant *bù-su-lum* in no. 1272:4 would point to the reading *pussulum*, attested in Ur III

*dì-um*, “wattle-and-daub”; cf. Heimpel (2009, 177f.) for some other Ur III references; attested with verbs *ga<sub>6</sub>* “to carry,” *ĝar* “to place,” and *lu* “to mix”

*du-ú-um*, “wattle-and-daub” (variant?); CUSAS 4, 39 “cella platform,” according to Heimpel (2009, 250f.) unclear, perhaps related to Akk. *du*’*umum* “to

darken.” *du-ú-um* is always combined with the verb *aka* “to make.” Since various scribes were active at Garšana with different writing habits (note Heimpel 2009, 27), we may deal probably with the same word as *dì-um*; the verbs *aka* “to make,” *ga<sub>6</sub>* “to carry,” *lu* “to stir, mix” are attested also with *im sumur* “plaster” (where the verb *tà* is used instead of *ĝar* with *dì-um*).

<sup>ĝes</sup>*dú-ul-bu-um*, “plane tree,” cf. Gudea Cyl.

A xv 32 and St.B v 57 *dú-lu-bu-um*

*e-lu-núm* (not listed CUSAS 4, 13), a festival

*é gi-na-tum*, “barracks,” *passim* Ur III; reading, meaning and etymology according to Heimpel (2009, 165) derived from *kinātum*, *kinattum*, “servants”; note there p.164f. for some writings, including *é-šū-tum*, thus interpreting *é GI.NA.TUM* as a Diri compound (cf. for *é.GI.NA.AB.DU<sub>7</sub>* = *šutum*, *šutummu* CAD Š/3 412, and MSL 15, 26 Proto-Diri N<sub>3</sub>:02 [é.g]i.na.ab.du<sub>10</sub> = *š[utummu]*); its Akkadian interpretation is as uncertain as its meaning.

<sup>tu</sup>*ĥa-bu-um*, <sup>tu</sup>*ĥa-um*, “a cloth for (covering) chairs”

*ĥa-šū-um*, “(a spice plant),” instead of *ĥašūm* as in the single Garšana reference no. 548:14, Ur III texts write *ĥa-ši/šū-a-núm* (see dictionaries s.v.)

*ĥa-za-nu-um*, “mayor,” same writing Ur III only in NRVN 57:11, usually written *ĥa-za-núm*

<sup>ĝes</sup>*ĥu-pu-um*, “wheel rim,” written mostly *ĥu-pu-um*, also *ĥu-pù-um*

*ĥu-ri-um*, “(a spice),” elsewhere written *ĥu-rí-um*; no. 1092 and no. 1190, there among garden products; see below sub b) s.v. *e-ri-um*

*kà-ma-am-tum*, “(a vegetable; a spice plant)”

*li-iq-tum*, literally “selection,” a qualification of the dying agent *alluĥaru* (CUSAS 4, 111 “leftovers?”), Ur III written *lí-iq-tum*

*ma-ad-li-um*, “bucket,” Ur III written *ma-ad-lí-um*

*ma-az-ḥa-ru-um*, “a vessel?, a sieve?,” only in no. 1299; also in Ur

<sup>kuš</sup>*maš-lí-um*, “leather bucket” (not listed CUSAS 4, 13); see Hilgert (2002, 81)

*mu-du-lum*, “pickled, salted (meat),” *mud-dulum*; Ur III written rarely also *mu-du-lu*, see Hilgert (2002, 81)

<sup>kuš</sup>*na-aḥ-ba-tum*, “leather case for precious objects”

*na-kab-tum* (not listed CUSAS 4, 13), Akkadian *nakkamtum* (Brunke 2008)

*sà-ḥum*<sup>zabar</sup>, “a drinking vessel”

<sup>ḡeš</sup>*sé-er-dum*, *serdum*, “olive tree,” rare in Neo-Sumerian texts, see PDT 2 918 i 21, RTC 216: 1 (olive oil)

*si-ì-tum*, *šitum*, “remainder, rest”

*tá-ki-ru-um*, *takkīrum*, “a heavy, valuable cloth”

*ták-si/šī-ru-um*, *takšīrum*, “repair (of architecture)”

[*tuh-ḥu-um* read *ba-tab-tuh-ḥu-um*]

*u<sub>4</sub>-tuh-ḥu-um*, “a kind of bread,” known at Ur and in the form *ì-tuh-ḥu-um* at Isin

*zi-ba-tum*, “a commodity in the textile industry” (CUSAS 4, 222: “rear part (of certain implements)”), also written *zi-ib-ba-tum* (UET 3 1505)

<sup>ḡeš</sup>*zi-ri-gum*, *zirīqum*, “shaduf,” Ur III *zi-ri-ri-gúm*

## 5.2 Akkadian Words at Garšana not Attested in Other Ur III Corpora

*e-pe-eš* (*epēš*) *na-am-dur<sub>11</sub>-ra*, “the making of sickness”; see Heimpel (2009, 60)

*e-pí-a-tum* (*epiātum*), “baked,” only in fragment no. 1209:2 *ninda e-pí-a-tum*; CAD E 247b cites 3 NT-850:1 5 *sil<sub>3</sub> ninda e-pu-um* (“Oakk,” which includes Ur III; Akkadian or Sumerian context?); corresponds to *du<sub>8</sub>* “to bake”

*e-ri-um*, “frond, leaf of the date palm” (CUSAS 4, 45; translation cannot be verified with the help of *AHW* and *CAD*; CAD E 325 *erú* E belongs to *erú* C “grinding slab” according to MSL 15, 185); no. 511:42 and no. 1036: 75, 1 *sil<sub>3</sub> e-ri-um* between *zú-lum* and *sa ḡi-ne*, offering for gods; word unknown; perhaps variant of *ḥu-ri-um*?

<sup>ḡeš</sup>*kà-na-at-ḥu-um*, “(a tree or a aromatic product from a tree),” only in no. 1375; word not listed in the dictionaries; a variant of Akk. *kanaktum* (which would correspond to Sumerian *šem-ge<sub>17</sub>*)?

<sup>ḡeš</sup>*la-ri-um*, “a part of the plow,” literally “branch” (*larium*), only no. 1255:2; perhaps similar to Sumerian (<sup>ḡeš</sup>)*á-apin* “plow handle”

*níḡ lá-lá-rum*, *lallarum*, “(a dessert, pastry),” or *ninda lá-lá-rum*, only in no. 972 and no. 975

*qí-il-pu-um*, “skin, peel; bark for tanning?,” although Akkadian *qilpum* is attested only MB/LB, the proposed etymology is convincing

*ra-tum*, *rātum*, “drain pipe, runnel,” see Heimpel (2009, 184f.); perhaps corresponding to Sumerian *a-pa<sub>4</sub>*

<sup>ḡeš</sup>*ša-ba-ar-gi-lum*, *šapargillum/supurgillu*, “quince” (not listed CUSAS 4, p.13; see p.175), only in no. 1375:9; attested otherwise only in lexical lists and in Assyrian *šID-tum* “?”, booked as *šit-tum* “remainder” (which is usually, also at Garšana, written *si-ì-tum*); but of unclear interpretation (Heimpel 2009, 186, similarly reads *šit-tum* “rest”). In parallel contexts in no. 1299 and no. 1265 (restored), referring to kinds of oil designated as *šID-tum* BUILDING (...)–*šè* *ba-a-ḡar* “was placed on the š. of ... (and for ...)”

*taq-ri-ib-tum*, *taqribtum*, “offering”<sup>36</sup>

<sup>36</sup> U. Gabbay’s translation “lamentation” given by Kleinerman and Owen (2009, 191) cannot be verified. An etymologically correct *taqribtum*, *nomen*

*actionis* of *qurrubum* “to present (an offering),” fits all contexts in CUSAS 4.

*zi-mi-tum*, “(a kind of plant)”; note Oakk *zi-me-tum* OSP 2 184: 10 (same reference CUSAS 4, 160 fn. 101)

### 5.3 Akkadian Words at Garšana, but Corresponding Sumerian Form Used Elsewhere

*a-ga-mu-um*, *agammum*, “marsh,” in the river designation *i<sub>7</sub> a-ga-mu-um* (CUSAS 4, 652), elsewhere written *a-ga-am*

*a-ga-ri-nu-um*, *agarinnum*, “pit/basin for mixing mortar” (CUSAS 4, 3 does not list attestations of writings), also Sumerian forms *a-ĝá-ri<sub>(2)</sub>-na*, *a-ĝá-ri-in* as elsewhere in Ur III documents. The Akkadian form *agarinnum* is attested only in nos. 7 ([ŠS 6/05] 11) and no. 8 ([ŠS 6/05/12]), thus it appears to be the personal habit of a scribe active at this time (ŠS 6/05), perhaps scribe *Lā-qīp(um)*, who is attested only in no. 394 (ŠS 6/05) and no. 399 ([ŠS 6/06] restored), but not in no. 406 (ŠS 6/11); *Lā-qīp(um)* appears in the first text with Puzur-Ninkarrak, who may be responsible for the writing *im a-ĝá-ri-na* already in no. 9 (ŠS 6/05/13) or *im ĝá-rí-na* in no. 10 (ŠS 6/05/17).

*kara<sub>3</sub>-šum*, *karāšum*, “leek” (CUSAS 4, 93 *s.v.* *kār-šum*); Ur III uses the Sumerian equivalent *garaš<sub>6</sub><sup>ga sar</sup>*

### 5.4 Uncertain Entries<sup>37</sup>

*a-ši-um*, “(a specification of textiles),” reading and contexts uncertain

*ak-lu-um*, in broken context in no. 925:14', reading and interpretation uncertain, *aklum* “overseer” hardly possible

<sup>ĝes</sup>*be-rum*, “(a wooden object),” the context of the reference (no. 807:2) does not point to a wooden object; note furthermore that the two signs *be-rum* are BAD. AŠ = *zara<sub>6</sub>* (a textile), which would fit the context of textiles.

*bu-ti-um?*, “(a specification of textiles),” unclear in no. 807:1: 4 *túg-bu-ti-um?*

*ki-ri-ip*, “a (oil) jar,” according to CUSAS 4, 99, thus referring to OB Mari *kirip-pum*. However, in no. 972: 17 and 88 read *ki-ri-ĝá* according to the photo CUSAS 3, pl. xxviii.f.; no. 975 is a parallel text, the reference in no. 511:65 (CUSAS 4, 99) is not preserved. *ki-ri-ĝá* is unclear, but cf. perhaps *ki!(šU)-rí-ĝá* BIN 10 33:2.

*mul-tum*, “a comb,” according to CUSAS 4, 123; in no. 923: 6 partly broken [*mu*]l-*tum*; the phonology of Ur III Akkadian (*-št- > -lt-* appears half a millennium later) and the context do not allow an interpretation *muštum* “comb.”

### 5.5. Discussion

We obtain the following numbers for Akkadian words in Garšana documents:

- 36 Akkadian words are attested also in other Ur III documents;
- 12 Akkadian words at Garšana are not attested in other Ur III corpora;
- 3 Akkadian words substitute the corresponding Sumerian forms;
- 6 uncertain entries.

The absolute number and the proportion of Akkadian words strongly depend on the semantic fields treated by the various archives. However, several aspects suggest that the Akkadian component of the lexicon is of exceptional quality at Garšana. Not only do the texts use Akkadian words that are not attested in other contemporary documents, but, more importantly, in some cases one can even guess the corresponding Sumerian equivalent (see *epiātum*, *larium*, *rātum*). The case of replacement by the Akkadian form is obvious in the instances in which in other archives the same word appears in its Sumerian form without the Akka-

<sup>37</sup> The following words are not Akkadian: *za-rí-in* “coarsely cleaned (wool) material”; for <sup>duš</sup>*ku-kur-rú* (Owen and Kleinerman 2009, 104) read instead <sup>duš</sup>*KU-kur-DÙ*.

dian ending (*agammum*, *agarinnum*, *karāšum*). Exceptional is the Akkadian infinitive *epēš* “to make” in the status constructus, combined with a phonographically written Sumerian rec-tum, *na-am-dú-ra* “illness.” The unorthographic writing definitely excludes a logographic interpretation of Akkadian \**epēš maršūtīm* (v.s.). Instead, we deal with a mixture of words, a switching of codes so typical for bilingual environments (cf., e.g., Appel and Muysken 1987, 117ff.). The orthography discussed earlier reveals that the Garšana scribes wrote their documents close to the spoken language. The unfiltered mixture of languages within one nominal construction is further proof of this habit.

## 6. Akkado-Sumerian Bilingualism at Garšana

### 6.1 The Socio-linguistic Setting: Bilingualism and Diglossia

The southern provinces along the Tigris, Umma and Ġirsu, can be considered as the economically dominating region of the Ur III state, as is evidenced most clearly by their heavy duties in the term of office (*bala*) to maintain state organizations. This region can aptly be labeled as the heartland of Sumer, as attested by the high portion of Sumerian names and the use of Sumerian as vernacular in administrative documents. Besides the provincial organization with a largely Sumerian population there also existed settlements of the royal sector in the south. Garšana is not only one of the largest of these garrisons, but also the first one from which we dispose of cuneiform documents.

In the organization that was headed by general Šu-Kabta and his wife, the princess Simat-Ištaran, at Garšana a high proportion of the active population was of Akkadian background, at least according to their proper names.<sup>38</sup> This is especially true for the scribes,

of which 18 out of 23 bore Akkadian names, but only two Sumerian ones.

Despite their Akkadian background all Garšana documents were written in Sumerian, the language that was, most probably, essential in the scribal education. The analysis presented above pointed out both the impressive presence of Akkadian words and the errors in the grammar of Sumerian. Based on this evidence an Assyriologist would most probably reconstruct the socio-linguistic scenario as follows: the Akkadian scribes remained linguistically attached to their native language Akkadian, but they had learned Sumerian imperfectly at school and used Sumerian simply as a scribal and administrative language. Since they still spoke Akkadian at home, they naturally used many Akkadian words in their texts.

Such an impression is, according to current understanding, correct in some basic facts, namely that the names indicate that Akkadian was probably most scribes’ native language, that Sumerian was the administrative language, and that scribal education was probably linked to Sumerian.

However, a more-detailed and coherent interpretation of the data presented above leads to a somewhat different and more refined picture. Progress is possible by taking into account some basic results of the broad field of linguistic research on bilingualism. So our evidence could be checked against a wide spectrum of socio-linguistic scenarios and a great number of linguistic features. It goes without saying that many aspects simply cannot be treated because of the enormous gap that separates us from an ancient language we know only imperfectly in its written form. But even such a restricted corpus offers sufficient linguistic data to allow a coherent interpretation that respects linguistic methodology and results. The conclusion builds directly on the analyses presented above and thus does not repeat the evidence in detail.

<sup>38</sup> Arguments over why and how personal names can be used in order to detect the distribution of languages in the ancient Near East have been put forward by Streck 2004; for the case of Sumerian cf. Sallaberger 2004.

Most scribes active at Garšana, a newly founded garrison in the region of Umma, bore Akkadian names, so it is safe to assume that their native language was Akkadian. Their *first language Akkadian* thus has to be considered their *linguistically dominant language*. They acquired Sumerian as their *second language*, the language in which they wrote the cuneiform documents. Sumerian was the language of the state organizations, as the royal archives from Puzriš-Dagan amply testify, which were written in Sumerian without exception. In this discussion we confine ourselves to the language use within the administration during the Ur III period (twenty-first century B.C.E.) and do not consider the language at the royal court, in poetry and religion. But it is obvious that king Šulgi's reference to his Sumerian background<sup>39</sup> or the use of Sumerian as the dominant language in royal texts contributed to the prestige of that language in the state of Ur, even if perhaps more inhabitants were of Akkadian or some other tongue. So Sumerian is characterized by *need* (in the context of the administration) and *prestige* (as the royal language), the two features that characterize a *socially dominant language* (Van Coetsem 1988, 13f.).

The process of language acquisition is not known directly from the evidence, but some basic facts are quite certain. The complicated cuneiform script had to be learned in a long process of scribal formation, probably within the institution in which the scribes would serve later, which implies frequent instruction by the father or in the case of newly founded organizations by more experienced scribes. Cuneiform writing is intrinsically linked to Sumerian as a language, from which most phonographic

or logographic values can be derived, and so Sumerian served as a language in scribal teaching even after it had disappeared as a freely formulated language in documents, i.e., from the late twentieth century onward. Given the markedly different socio-linguistic situation in the Ur III state, one simply cannot adopt the well-known model of scribal education in the Old Babylonian period that followed a curriculum that was largely designed in the Isin period at the time when Sumerian was vanishing as vernacular.<sup>40</sup> Whereas the teacher in the Old Babylonian period was most often a L2 speaker of Sumerian, such a scenario can hardly be postulated for the scribal education in the state sector of the Ur III state that we are dealing with here. Furthermore, the acquisition of Sumerian writing at school was combined with natural second-language acquisition in the communication with Sumerian native speakers in the surrounding traditional settlements of Umma province. The orthographic variations mentioned above (p.339) clearly demarcate the limits of scribal education and hint at the impact of spoken language acquisition.

In our discussion we are concentrating on the Akkadian scribes, but the personal names and the linguistic setting of the Ur III state suggest that speakers of other tongues were present in state organizations and households as well, most prominently Amorites, Elamites, and Hurrians. In this multilingual context, Sumerian, which has been identified as the socially dominant language at Garšana, may have served as the common language in the institutional domain we are discussing here.<sup>41</sup> Under such conditions one may think of a *diglossia* situation with Sumerian as the more prestigious lan-

<sup>39</sup> Rubio (2006) has argued that Šulgi hymns B and C indicate that Akkadian was the native language of Šulgi (accepted by Michalowski 2006, 175f.); a more coherent interpretation of the relevant passages, which would contradict Šulgi's claim to be "of Sumerian seed," is provided by Keetman (2010).

<sup>40</sup> More exactly, the formative period was the second half of the twentieth century B.C.E.. In this regard one may cite the dominance of Isin texts around

Išme-Dagan or Lipit-Eštar; the reference to Isin kings in model contracts; the prominence of the city of Nippur as the center of Sumerian, which transpires in all text genres including the lexical lists, a fact that is historically correct for the Isin period only.

<sup>41</sup> Bilingual communication characteristically takes place in communication outside the family; the background of the family is acknowledged by the definition of a native language.

guage in public life, thus the “high” variety according to the traditional terminology, and Akkadian as “low” form. Nowadays, diglossia is seen as one form of bilingualism, characterized by the social dominance of one language that entails linguistic standardization, as expressed in a definition like the one by Appel and Muysken (1987, 26): “Studies [...] have led, in fact, to a gradual redefinition of the term diglossia: it is now used to refer to bilingual communities in which a large portion of the speakers commands both languages, and in which the two languages are functionally distinguished in terms of H [i.e., “high” variety, W.S.] and L [“low,” W.S.]”

### 6.2 Contact-induced Linguistic Change according to Van Coetsem (1988, 2000)

The Garšana Akkadian scribes show a remarkable linguistic proficiency in Sumerian; they did not simply use prefabricated phrases and forms. As described above in detail in sections 2 and 3, even phonetic variation was represented in a way hardly known from the larger archives so that the Garšana documents count among the most important sources to reconstruct the phonology of Sumerian. This indicates a strong presence of spoken Sumerian. On the other hand, various deviations from the standard grammar were noted and the high portion of Akkadian lexemes stands out both in quantity and quality. The data seemingly produce a contradiction in the interpretation, since we note a basically Sumerian phonology and morphology, but Akkadian influence in the deviations of morphology and especially in the lexicon.

The influential model of bilingualism elaborated by Frans Van Coetsem<sup>42</sup> (1988, 2000), which largely integrates the terminology and classification of previous studies, allows us to disentangle the various contact phenomena at work, and eventually the contradictions of the Garšana evidence will disappear and all obser-

vations can be fitted in. I think it is most appropriate to present Van Coetsem’s linguistic model of contact-induced change as sketched by a specialist in Contact Linguistics (Winford 2007) who used this model to test different recent methodological approaches:

Van Coetsem’s major contribution was to further refine the traditional distinction between borrowing and ‘interference’ [stemming from the classic of U. Weinreich, *Languages in contact: Findings and problems*, 1953] by defining these types of cross-linguistic influence more precisely, and above all, by distinguishing the kinds of agentivity they involve. Van Coetsem’s framework distinguishes between two types of cross-linguistic influence, or what he calls ‘transfer types’, namely, borrowing and imposition. [...] The latter is largely equivalent to terms like ‘interference via shift’, ‘transfer’ ‘indirect diffusion’, and ‘substratum influence’ that appear in the literature. Borrowing and imposition, in this framework, are not seen as ‘mechanisms’ or ‘processes’, but rather as vehicles of contact-induced change. In both cases, there is a source language (SL) and a recipient language (RL). These terms serve as alternatives to various other terms that have been used in the literature, such as ‘donor language’, ‘substrate’, ‘replica language’ and the like.

The direction of transfer of linguistic features is always from the source language to the RL, and the agent of transfer can be either the recipient language or the source language speaker. In the former case, we have borrowing (RL agentivity), in the latter, imposition (SL agentivity). (Winford 2007, 25 f.).

At Garšana, therefore, we deal mainly with *SL* (= *source language*) *agentivity*, since the scribes’ native language is Akkadian, and the Akkadian “influence” in Sumerian (the *RL* = *recipient language* in contact-induced changes) introduced by the scribes is, therefore, called “imposition.”

Also highly relevant to the distinction between borrowing and imposition is the notion of language dominance. As Van Coetsem (2000: 84)

<sup>42</sup> Frans Van Coetsem (1919–2002) specialized in Germanic historical linguistics; he taught at Cornell University, the very university where the Garšana texts are now housed.

explains, difference in linguistic dominance is the main criterion for distinguishing between recipient language and source language agentivity. In the former case, the recipient language is the dominant language of the speaker, while in the latter case, the source language is the dominant language. When we speak of dominance here, we are referring to linguistic dominance, that is, the fact that the speaker is more proficient in one of the languages in contact. This must be distinguished from social dominance, which refers to the political or social status of one of the languages. The socially dominant language may or may not be the linguistically dominant language of the speaker. Of course, dominance relationships may change over time, both in the individual speaker. And such shifts in dominance may result in different outcomes, or lead to attrition of the previously dominant language. These considerations require us to distinguish the agents of change from the kinds of agentivity they employ in introducing changes to an RL. The fact is that the same agent can employ either type of agentivity, and hence both transfer types, in the same contact situation. This is particularly true of highly proficient bilinguals, though not restricted to them alone.

It is impossible to describe from the outside the grade of linguistic proficiency the Garšana scribes have reached in Sumerian. However, the documents we dispose of are written in Sumerian, so here the scribes are to be seen as “recipient language (RL) agents” in the contact situation with Akkadian. The model thus helps to differentiate between various types of influence. This becomes the more important, since Van Coetsem (and, of course, others) identify various domains of the language that are more open to imposition (source language agentivity, i.e., the Akkadian scribe’s influence on Sumerian) or to borrowing (recipient language agentivity, i.e., the Akkadian influence on the Sumerian of a native speaker).

Differences between recipient language and source language agentivity are also related to what Van Coetsem (1988: 25) calls the ‘stability gradient’ of language. This refers to the fact that certain components of a language, such as phonology, morphology and syntax, tend to be more stable and hence resistant to change, while others, such as vocabulary, are less stable and

thus more amenable to change. This is partly why borrowing tends to be mostly lexical, and to have little if any effect on the recipient language grammar. On the other hand, in imposition, where the source language grammar is more stable and resistant to change, grammatical features can be transferred more readily, leading to significant structural change in the speaker’s version of the RL. There may well be differences in degree of stability within different aspects of the grammar, which may lead to different potential for transfer. Thus certain function morphemes tend to be transferred more readily than others, and word order, for instance, seems to be transferred more readily than, say, embedding strategies. (Winford 2007, 26).

### 6.3 *The Degree of the Acquisition of Sumerian*

The Garšana scribes must have reached a high degree of linguistic proficiency in Sumerian according to the general use of Sumerian grammar: the differentiation of the verbal prefixes or correct stem formation in *hamtu* and *maru* stems also with irregular verbs clearly dominates over the few deviations from standard Sumerian listed above (e.g., the incorrect reconstruction of a verb /alnaĝ/).

Phonology is a much more difficult matter since much is hidden behind orthography. The variants and the many unorthographic spellings at least provide some indications, but it is impossible nowadays (at least for me) to reconstruct the phonemic systems of Akkadian and Sumerian at that time and, moreover, a combined phonemic system employed in a bilingual environment. The phonological changes that have been observed both for Akkadian and Sumerian at the end of the end of the third millennium (e.g. Gelb 1961, 3140, Jagersma 2000, Keetman 2004a, 2004b) are clear examples of a phonological redistribution that affected both languages (cf. Van Coetsem 1988, 115ff.). Generally one considers “*vocabulary the least stable language domain, and phonology and grammar (morphology and syntax) the more stable ones.*” (Van Coetsem 1988, 26, his emphasis; cf. *id.* 2000). The direction of contact-induced change depends on the stability of the phenomena investigated: “In short, the transfer of material from the source language to the recip-

ient language primarily concerns less stable domains, particularly vocabulary, in borrowing, and more stable domains, particularly phonological entities, in imposition” (*ibid.* 3). The phonemic changes in both languages are thus sufficient evidence for the intense bilingual contact, in which speakers from both languages had brought their “accent” to the other language as an imposition.

Concerning the Akkadian scribes at Garšana, we confine ourselves to a simpler, but basic question: Did they *adapt* the Sumerian sounds to their own Akkadian system or did they *imitate* the different system?<sup>43</sup> Although, of course, we cannot know how much of an Akkadian “accent” may have existed in spoken language, the phonographic writings are indicative in this regard. First, the typical Sumerian phoneme *ĝ* is kept in various environments, most notably in unorthographic writings. Secondly, some irregularities in the syllabary seem to indicate that the phonemic system was enriched by “foreign” phonemes, faint reflection of the imitation of Sumerian by the Garšana scribes.

In this regard a few words may suffice here. The study of loanwords has shown that the system of Sumerian stops did not correspond to the Akkadian one in the third millennium. Originally, Sumerian disposed only of voiceless (aspirated and plain voiceless) stops, whereas Akkadian had both voiced and voiceless (and, of course, “emphatic,” ejective) stops. In early loanwords both Sumerian /b, d, g/ and /p, t, k/ were reflected in Akkadian as /p, t, k/. A sound change affected the Sumerian system at the end of the third millennium so that it disposed of voiced and voiceless stops; thus Sum-

erian /b, d, g/ now corresponded to Akkadian /b, d, g/, whereas the /p, t, k/ correspondence remained unchanged (Gelb 1961, 31–40; cf. Keetman 2004b). The sound change in Sumerian is reflected not only in early and late Akkadian loanwords, but also in the Akkadian syllabary, which began to adopt the “new” Sumerian system already during the Ur III period. A short explanation may be helpful. In the Sargonic period, Akkadian /da/ and /ta/ were written with the sign DA, which in Sumerian was pronounced as [ta]. Sumerian TA stood originally (probably) for aspirated voiceless [t<sup>h</sup>a]; but after the sound change [t<sup>h</sup>] > [t] (parallel to [t] > [d]) in Sumerian, the sign could be used for similar Akkadian plain voiceless [ta]. J. Keetman (2004a) has pointed to the innovations in the Akkadian syllabary of the Ur III period, which he explains as reflection of a sound change in Sumerian;<sup>44</sup> within this process also the Sumerian “dr phoneme” changes to /d/ or /r/ (Jagersma 2000).

The new evidence of the Garšana corpus concerns first the sibilants. Both the SV and the ŠV series of phonograms represented Akkadian /š/, although at Garšana only ŠA, but never SA, was used for /ša/. Sumerian still retained the difference between the phonemes represented by the SV and the ŠV series. However, this difference was only imperfectly adapted by the Garšana scribes, since they used SA and ŠA to represent Sumerian /ša/ (in verbal plural forms) or SI to represent Sumerian /si/ and /še/ (see p. 345 above). If we concentrate on the unequivocal case of SA and ŠA, the global situation in the Garšana documents can be represented as follows:

<sup>43</sup> See Van Coetsem (1988, 10f.) on the basic difference between imitation and adaptation. Seen in the (typical) RL agency, imitation implies that a foreign phoneme of the SL is kept, but that this alters the phoneme system of the RL, whereas in the case of adaptation the SL phoneme system remains stable, but the foreign word loses its foreign character (one example: imitation is the case when a German speaker pronounces “drive-in” with an English/American /r/, but adaptation if he uses a German /r/).

<sup>44</sup> Keetman (2004a, 198–200) still adhered to the opinion that Sumerian was a dying language during the Ur III period. The arguments for Sumerian as a living language in southern Babylonia during the Ur III empire have been elaborated by Sallaberger (2004), who votes for a sudden death of the language after the perturbations at the end of Ur III; see also Woods (2006).

	Akkadian	Sumerian	
Phonogram	ša	SA	ša
Phonemes (as perceived by scribes) <sup>45</sup>	/ša/	/sa/	/sa ~ ša/

Apparently Sumerian /š/ was identified either as similar to Akkadian /š/ or to the Sumerian /s/. More importantly, however, the use of the SA sign, which does not occur in Akkadian words,<sup>46</sup> implies the *imitation* of a phoneme foreign to Akkadian. The variation in the writing of Sumerian /ša/ with both the signs SA and šA thus reflects the imitation of Sumerian phonemes by the Akkadian scribes with the help of their phonographic repertoire.

Another example is the rendering of Sumerian /g/ as KE<sub>4</sub> in the forms si-ke<sub>4</sub>-dè or sì-ke<sub>4</sub>-dè, thereby avoiding both KI and GI, which were both employed in Akkadian as *ki* and *gi* (p. 344). Also the differing writings of Sumerian comitative /da/ with DA in the prefix chain but with TA as case suffix (p. 351) or the use of TI and TE for -dè (pp. 340 and 342–44) point in the same direction.

The variant writings at Garšana thus reflect the imitation of Sumerian phonemes even in writing, a reflection that has become visible only because of the unorthographic spellings by phonograms. This variation implies that there still existed a difference between the phonemic systems of the two languages at this period and that the loanword patterns give a simplified picture of the processes of phonological redistribution. The bilingual situation at Garšana allows a glimpse at the phonological systems at work that is not possible with the more strict orthography employed in monolingual contexts like at Umma or Ġirsu.

#### 6.4 Imposition and Borrowing in Morphology and Lexicon

As outlined above, imposition and borrowing differ in the perspective of the language agent. Imposition is a change (in the recipient language) based on source language activity, thus Akkadian influences that affect the Sumerian of the Garšana corpus. These changes should not occur in a similar way in the archives of Umma or Ġirsu, which stem from dominantly monolingual Sumerian environments.

Imposition, which Weinreich and others have called “interference,” first of all concerns the more stable domains of language, phonology and morphology (Van Coetsem 1988, 3 *et passim*). Such an imposition can be observed in the field of morphology at various instances: one notes deviations in the Sumerian word order (p.356), an incorrect re-interpretation of the verb naĝ<sub>4</sub> as /alnaĝ/ (p.349f.), once an incorrect combination of plural pronoun with case (p.350), deviations in the case system such as a hypercorrection of the genitive (p.352f.), ergative instead of absolute (p.353), and the gradual supplementation of the locative by the terminative (p.351f.). Within the vocabulary, only function words can be taken as signs of imposition, and here the only example is the use of u<sub>4</sub> “when” as a kind of temporal preposition/subjunction. The phrase *epēš* namdura, literally “to make sickness,” with the Akkadian verb *epēšum* “to make” as a primary vocabulary word combined with the Sumerian abstract noun, is a unique example of code-switching.

It is important to note that imposition involves both *externally* and *internally induced change*: SL (source language) agentivity implies

<sup>45</sup> /ša/ and /sa/ are used as symbols to represent phonemes within their system whatever their phonetic character may have been.

<sup>46</sup> Note that text no. 1473 with the personal name *ì-lì-sa-tu* does not stem from Garšana.

not only a direct implementation of features of the SL (here Akkadian) in the RL (here Sumerian), but “language contact favors another kind of change in the RL, namely one that represents the activation of latent developments in the RL itself (developmental trends). This does not involve the direct participation of a SL” (Van Coetsem 1988, 41). So only the incorrect pronoun-cases combination *ka-ga-na-ne-ne* (p.350) or the ergative *lugal-e* in an intransitive sentence as “subject case” (p.353) have to be called externally induced changes. The other instances, including the use of *u<sub>4</sub>* “when” similar to *ša* “within,” are internally induced changes, and in these cases references could be given for similar or parallel developments in other archives.

Another way of incomplete acquisition of the RL by SL agents is reduction. It “primarily affects inflectional morphology, but it also affects the domain of vocabulary, i.e., its totality as well as its individual items” (Van Coetsem 1988, 55). Perhaps the best case for morphology is the frozen form *ba-na-ḥa-la* (p.349) for *ba-ne-ḥa-la* (if it is not sign of a different vowel assimilation). However, it is hard to find further examples of reduction.

On the contrary, the variation both in the Sumerian lexicon and in the verbal morphology confirm that the acquisition of Sumerian by the native Akkadians must have reached a high degree, an impression that is confirmed by the comparison with Sumerian texts from other archives. Van Coetsem (1988, 11f. and 18) identifies two steps in language acquisition in SL agentivity, namely *adaptation* as primary mechanism, a compensation for incomplete or deficient acquisition, and *imitation* as secondary. According to the evidence reviewed thus far, in fact imitation prevails over adaptation in the stable language domains. Function words and the basic vocabulary in the Garšana documents are Sumerian, never Akkadian; no reduction can be observed in the actively employed Sumerian lexicon and its idiomatic expressions.

The results of the analysis are the more striking if compared with other scenarios. “Naïve language-learning” concentrates on acquiring lexemes, but “scant regard for pronunciation

and grammar” (Van Coetsem 1988, 59). In pidgin “apparently the minimal acquisition of English primarily concerns vocabulary” (*ibid.* 74), which is homogenous and derives from the RL. With a comparable imperfect acquisition of Sumerian one would expect a simple vocabulary and a sensible reduction of morphology (cf. *ibid.* 63), which is definitely not the case. Such examples give more weight to the Garšana data as evidence for a high progress in language acquisition that leads to linguistic proficiency. And better acquisition generally implies less imposition.

The most prominent Akkadian component of the Garšana texts is constituted by the lexicon. The Akkadian lexicon employed comprises almost exclusively nouns, most often a special vocabulary, whereas words from a basic or primary Akkadian vocabulary do not appear at all. This, however, is a typical situation for *borrowing*, a case of RL agentivity (see above); the vocabulary, and here especially nouns, is the least stable component of language. Therefore, this is, on the one hand, the first aspect of a foreign language that is acquired and, on the other, foreign words are most easily integrated into a language (RL agentivity). The high portion of Akkadian nouns within Sumerian texts would thus be explained most aptly as borrowings by Sumerian speakers who come in contact with Akkadian. This situation of borrowing describes well the appearance of Akkadian words in Sumerian texts in the Ur III period in general, but for the moment it fails to explain the Garšana evidence. On the other hand, the imposition features discussed above in the fields of morphology and syntax agree with the fact that native speakers of Akkadian wrote Sumerian.

To overcome this difficulty, the frequency of the various features has to be considered. As we have noted above, the deviations in the field of grammar are most often exceptions (note the clear case of *alnağa* or the single grammatical deviations). Such variations in language use indicate the personal preferences of the various scribes employed at Garšana, which are also discernible in the differences of the layout of the tablets (cf. Heimpel 2009, 27). The devi-

ations, features of an imposition of the SL Akkadians on the RL Sumerian, thus belong to the language usage of individuals in their *message*, which is termed “inclusion” by Van Coetsem (1988, 77–80). But these features were not yet *integrated* into the *code*, the language in its societal use.<sup>47</sup>

In the case of far-reaching language acquisition, the two standard transfer types of language contact (imposition as SL agentivity and borrowing as RL agentivity) may even be reversed.

In the standard aspect of RL agentivity the RL is a native or first language, that is, there is in relation to the RL a clear distinction between non-nativeness (nonprimary language) and nativeness (primary language) ... in other cases, however, there is no such distinction between nonnativeness and nativeness. For example, the RL as spoken by the SL speaker in SL agentivity is a nonnative or nonprimary language ....; the distinction between nonnativeness and nativeness is then not applicable. When the RL is a nonnative or nonprimary language, RL agentivity may also be found. (Van Coetsem 1988, 79).

Sumerian at Garšana was a non-native language for the Akkadian scribes, but it served as recipient language (RL) in the case of *borrowing*, namely the inclusion or integration of a high portion of a specific Akkadian vocabulary. This situation is the less surprising, since “in strata distinctions (such as in diglossia) the difference in linguistic dominance between the RL and SL and thus between the two transfer types may be minimal” (Van Coetsem 1988, 78). Thus the high portion of Akkadian nouns in the Garšana vocabulary does not contradict the high degree of acquisition of Sumerian by the native Akkadian scribes of Garšana, but, on the contrary, *borrowing* is exactly a feature that occurs when the former non-native speakers master their second language (as RL) in such a way that they integrate “foreign” (SL) vocabulary. “It is precisely this interaction with the lack of a clear

distinction between the two transfer types [namely imposition in SL agentivity and borrowing in RL agentivity, W.S.] that strongly favors a form of convergence of the contacting languages” (Van Coetsem 1988, 87).

A total *neutralization* of the two transfer types takes place when “a bilingual’s proficiency in his two languages became comparable” (Van Coetsem 2000, 84), and now stability forces of equal value oppose each other. Whereas, as already indicated, secondary vocabulary (i.e., contentives) is of minimal stability, primary vocabulary, functors (pronouns, prepositions etc.) are of median stability (see in detail Van Coetsem 2000, 105ff.). The Akkadian words in the Garšana Sumerian texts can, without any doubt, be identified as secondary vocabulary. Thus, stability factors play a decisive role in the transfer from Akkadian to Sumerian. According to the observed linguistic features, Garšana Sumerian cannot be compared to the so-called mixed languages, where selection and manipulation occur as the result of free transfer in both directions (Van Coetsem 2000, 239ff.). Seen as a language only, Sumerian borrowed from Akkadian in the domain of secondary vocabulary, the least stable segment of language, in order to meet communicative needs in the garrison of Garšana, whereas the more stable parts of the language (phonology, morphology, primary vocabulary) are Sumerian with deviations in the message domain, which could be explained as imposition by the Akkadian scribes.

So in the end, after applying the model of Contact Linguistics developed most prominently by Van Coetsem (1988, 2000), who, of course, built on previous researches since Weinreich, the various features of Garšana Sumerian described above can be integrated into a surprisingly coherent picture.

The Garšana scribes were mostly native Akkadians. This background, however, transpires relatively rarely in various impositions in

<sup>47</sup> Even the variation in the vocabulary between the Sumerian form *aġarin* and the Akkadian *agarinnum* thus belongs to the message domain.

morphology and syntax, and more often we deal with inclusion in the message domain of single speakers in certain situations. The mastery, especially of the diversified verbal morphology or the invariably Sumerian basic vocabulary, is a clear sign of a high degree of language acquisition, and the phonographic spellings even hint at imitation of the Sumerian phonemes by the scribes. The integration of special expressions from Akkadian into a basically Sumerian vernacular agrees well with the fact of a far-reaching acquisition of the non-native language Sumerian, whereas the Akkadian context at the Garšana garrison was responsible for the exceptionally high portion of Akkadian words. The acquisition of Sumerian by the scribes thus extends far beyond a mere learning of a scribal language or an administrative idiom. This agrees perfectly with the first evaluation of Sumerian as a living language at the very beginning of the philological analysis, which was based on the lexical and morphological variation and the coherent phonology that transpires in the phonographic spellings (pp. 338–40). So Sumerian was present at Garšana as part of an *active* bilingualism of the scribes, simply because it is not a “canonical” Sumerian and because some of the variations are based on an active influence of Akkadian within the bilingual environment. The active bilingualism of the Garšana scribes would have been unthinkable without constant communicative contacts with the native speakers of Sumerian in the region.

### 6.5 On Akkado-Sumerian Bilingualism in the State of Ur

This microstudy on the active Akkado-Sumerian bilingualism at Garšana in the Ur III period contributes also to the larger debate on the relationship between Sumerian and Akkadian, especially at the end of the third millennium, about one century before Sumerian disappeared as a vernacular used in everyday contexts. A renewed interest in this topic was

incited by Edzard (2000), who, like Michalowski (2006) or Rubio (2006),<sup>48</sup> was especially informed by the evidence of literary texts in the broadest sense. Not surprisingly, the concentration on the language of literature led to such diverse interpretations as the survival of Sumerian into the middle of the Old Babylonian period (Edzard 2000) or an early demise of Sumerian most notably by Michalowski (2006), who explicitly bases his considerations on the case of Sanskrit (*ibid.* 171ff.).

In a different methodological approach, Sallaberger (2004) evaluated the language used in everyday communicative situations, in passages of administrative and legal documents and in name-giving. Woods (2006) has partly independently developed similar arguments. In very broad lines the language situation at the end of the third millennium presents itself as follows: a dominant Sumerian population inhabited the South of Babylonia, especially the Tigris provinces of Umma and Ĝirsu, a fairly mixed population lived in Middle Babylonia (Nippur–Isin region), but a dominantly Akkadian population in the North.

Garšana teaches us that we should not regard the region of a province, a former city state, as being linguistically homogenous: the state organization of Garšana employed dominantly Akkadians in a Sumerian environment. The active Akkado-Sumerian bilingualism of the Garšana scribes has been the topic of this study.

The fact that Garšana Sumerian recognizably differs from the Sumerian of other southern Babylonian archives, those from Ur, Ĝirsu, or even Umma, the province capital situated close to Garšana, is the best evidence for the actual presence of Sumerian as dominant vernacular at these places, and thus generally in the South. The language of documents stemming from the provincial administration that deals with persons of Sumerian background appears more homogenous and consistent if compared with the products of the bilingual Garšana

<sup>48</sup> On Rubio (2006) see the careful argumentation by Keetman (2010).

scribes. But the Sumerian linguistic environment clearly dominated the language use at the multilingual settlement of Garšana.

Although at first sight one might be inclined to regard the Akkadian vocabulary in the Garšana texts as a first sign of the attrition of Sumerian, the linguistic analysis presented above has proven the contrary. The texts demonstrate a vivid bilingual situation with close contact of both languages. And although the portion of personal names at Garšana might suggest that Sumerian would have been of minor importance, people were motivated to acquire this socially dominant language to a high degree of proficiency.

However, as noted in the analytical part of this study, the Garšana texts do deviate from the standard corpus of Sumerian, especially in the state archives or those from Umma and Ĝirsu. As the discussion has shown, the imposition of the scribes remained generally within the speech domain of the individual and often had not yet become part of the language code at Garšana.

We may not underestimate the effect of the changes caused by imposition from the side of the source language (SL) agents, the Akkadian scribes, as soon as they would have been integrated into the language code. “The SL contribution is essentially an *SL penetration into the RL*. Consequently, imposition (*SL agentivity*) is not an addition to the *RL* as in borrowing (*RL agentivity*), but rather a catastrophic change that affects the core of the *RL*” (Van Coetsem 1988, 40). And furthermore: “Viewed as a function of time, imposition will involve a greater *concentration* of structural change than borrowing. ... This means that the rate of structural change will be more gradual in *RL agentivity* (borrowing), and more abrupt in *SL agentivity* (imposition)” (Van Coetsem 1988, 41). The Garšana texts still show sporadic imposition in the message domain, but in a situation of permanent bilingualism of this kind

the imposition may have been integrated into the language code. Such a development cannot be traced, however, due to the collapse of the Ur III state immediately after the end of the Garšana documentation. Only a few comparisons can be made with the language of the Sumerian documents from Isin, which were written only a few years after those of Garšana and stem from a different region, namely middle Babylonia with its higher portion of Akkadian population in the late third millennium.

The dramatic events at the end of the Ur III period implied a far-reaching collapse of settlement patterns in Sumer and the social catastrophe eventually led to a rapid disappearance of Sumerian as an everyday language (Sallaberger 2004). Furthermore, no documents from the South stem from the period of political and social disorder after the fall of Ur.<sup>49</sup> Therefore, it is impossible to know whether some of the modernizations of Sumerian that appear at Garšana were more widespread or remained just a local phenomenon.

Sumerian started a second life as the language of education, scholarship, poetry and religion during the Isin period. Even a superficial glimpse at some of the features treated above for Garšana Sumerian reveals the fundamental difference between the third-millennium Sumerian from an active bilingual context and the literary language taught and spoken mainly by non-native speakers. The Sumerian from the late nineteenth century onward features significant changes in morphology (cf., e.g., Wilcke 1998; Zólyomi 2000; Huber 2001, 171–179); the phonological system is hidden behind morphographic writings (like dative -*ra* even after vowel), Akkadian imposition is visible in the use of function words as the enclitic particle -*ma*, and in standard Sumerian texts the pronunciation is hidden behind a standardized orthography that prefers logograms. But, contrary to the Garšana evidence, these Sumerian texts from the Old Babylonian period

<sup>49</sup> The catastrophe at the end of the empire of Ur was apparently survived by the main temples as the core institutions of Lagaš and Ĝirsu; see Richardson

(2008) for new documents concerning the agricultural administration by the temples of Ningirsu and of Bawu under Rim-Sin.

hardly use any Akkadian vocabulary. These systematic differences are taken as a most welcome confirmation of the reconstruction of an active bilingual environment at Garšana.

#### ABBREVIATIONS

Garšana texts are cited according to the scheme “no. 414” etc., which refers to Owen and Mayr (2007). References to cuneiform texts follow BDTNS: Database of Neo-Sumerian Texts (<http://bdts.filol.csic.es>).

In the glosses the following abbreviations have been used:

I, 2, 3	person
A	agent (in the verb)
ABS	absolutive (case)
Bh	<i>ḥamtu</i> base
ERG	ergative (case)
GEN	genitive
LOC	locative
MED	“medium marker” ba- (Jagersma)
NMLZ	nominalizer -a
O	object (in the verb)
P	personal/human gender
PFV	perfective -a (in infinite verbal forms)
PL	plural
POSS	possessive
S	subject of intransitive clause (in the verb)
SG	singular
VNT	ventive

In the final section note furthermore:

RL	recipient language (of contact-induced change)
SL	source language (of contact-induced change)

#### REFERENCES

- Appel, René and Pieter Muysken  
1987 *Language Contact and Bilingualism*. London: Edward Arnold.
- Attinger, Pascal  
1993 *Éléments de linguistique sumérienne. La construction de du<sub>11</sub>/e/di «dire»*. OBO Sonderband. Fribourg: Éditions universitaires & Göttingen: Vandenhoeck & Ruprecht.
- 2005 “A propos de ak «faire»,” *ZA* 95, 46–76. 208–75.
- 2009 “Tableau grammatical du sumérien (problèmes choisis),” [http://www.arch.unibe.ch/content/mitarbeitende/mitarbeiterinnen/prof\\_dr\\_p\\_attinger/e8254/e8548/e8549/e8639/Tableaugrammaticalrevu\\_ger.pdf](http://www.arch.unibe.ch/content/mitarbeitende/mitarbeiterinnen/prof_dr_p_attinger/e8254/e8548/e8549/e8639/Tableaugrammaticalrevu_ger.pdf) (accessed 2009/12/27).
- Brunke, Hagan  
2008 “The nakabtum. An Administrative Superstructure for the Storage and Distribution of Agricultural Products,” *Kaskal* 5, 111–26.
- Edzard, Dietz Otto  
2000 “Wann ist Sumerisch als gesprochene Sprache ausgestorben?” *Acta Sumerologica* 22, 53–70.
- Gelb, Ignace J.  
1961 *Old Akkadian Writing and Grammar*. MAD 2. 2nd ed. Chicago: The University of Chicago Press.
- Hasselbach, Rebecca  
2005 *Sargonic Akkadian. A Historical and Comparative Study of the Syllabic Texts*. Wiesbaden: Harrassowitz.
- Heimpel, Wolfgang  
2009 *Workers and Construction Work at Garšana*. CUSAS 5. Bethesda, Md.: CDL Press.
- Huber, Fabienne  
2001 “La Correspondence Royale d’Ur, un corpus apocryphe,” *ZA* 91, 169–206.

Jagersma, Bram

- 2000 [published 2005]: “Sound Change in Sumerian: the so-called /dr/-phoneme,” *Acta Sumerologica* 22, 81–88.

Keetman, Jan

- 2004a “Erneuerung des Syllabars im Ur III-Akkadischen: Schriftreform oder Sprachwandel?” *ZA* 94, 186–201.
- 2004b “Verschlusslaute, Affrikaten und Frikative im Sumerischen,” *Archiv Orientalní* 72, 367–83.
- 2010 “Enmerkar und Sulge als sumerische Muttersprachler nach literarischen Quellen,” *ZA* 100, 15–31.

Kleinerman, Alexandra and David I. Owen

- 2009 *Analytical Concordance to the Garšana Archive*. CUSAS 4. Bethesda, Md.: CDL Press.

Kogan, Leonid and Katja Markina

- 2006 [Review of Hasselbach 2005], *Babel and Bibel* 3, 555–88.

Krecher, Joachim

- 1995 “Die *marû*-Formen des sumerischen Verbums,” in: M. Dietrich and O. Loretz (eds.), *Vom Alten Orient zum Alten Testament. Festschrift für Wolfram Freiherrn von Soden zum 85. Geburtstag am 19. Juni 1993*. AOAT 240. Kevelaer: Butzon & Bercker [et al.] 141–200.

Meyer-Laurin, Vera

- 2010 “Die *marû*-Basen der sumerischen Verben *túm* „hin-, wegführen“ und *re<sub>6</sub>* / *de<sub>6</sub>* „bringen, liefern“,” *ZA* 100, 1–14.

Michalowski, Piotr

- 2006 “The Lives of the Sumerian Language,” in: Seth L. Sanders (ed.), *Margins of Writing, Origins of Culture*. Oriental Institute Seminars 2. Chicago, Ill.: The Oriental Institute of the University of Chicago, 159–86.

Molina, Manuel

- 2008 “The Corpus of Neo-Sumerian Tablets: An Overview,” in S. J. Garfinkle and J. C. Johnson (eds.), *The Growth of an Early State in Mesopotamia: Studies in Ur III Administration*. Biblioteca del Próximo Oriente Antiguo 5. Madrid: Consejo Superior de Investigaciones Científicas, 19–53.

Notizia, Palmiro

- 2009 *I testi dei messaggeri da Girsu-Lagaš della Terza Dinastia di Ur*. Nisaba 22. Messina: Di.Sc.A.M.

Owen, David I. and Rudolf H. Mayr

- 2007 *The Garšana Archives*. CUSAS 3. Bethesda, Md.: CDL Press.

Richardson, Seth

- 2008 “Ningirsu Returns to His Plow: Lagaš and Girsu Take Leave of Ur,” in P. Michalowski (ed.), *On the Third Dynasty of Ur. Studies in Honor of Marcel Sigrist*. JCS Suppl. 1. Boston: American Schools of Oriental Research, 153–58.

Rubio, Gonzalo

- 2006 “Šulgi and the Death of Sumerian,” in P. Michalowski and N. Veldhuis (eds.), *Approaches to Sumerian Literature. Studies in Honour of Stip (H.L.J. Vanstiphout)*. Cuneiform Monographs 35. Leiden: Brill, 167–79.

Sallaberger, Walther

- 1993 *Der kultische Kalender der Ur III-Zeit. Untersuchungen zur Assyriologie und Vorderasiatischen Archäologie* 7. Berlin & New York: W. de Gruyter
- 2000 [published 2005]: “Textformular und Syntax in sumerischen Verwaltungstexten,” *Acta Sumerologica* 22, 249–72.
- 2004 “Das Ende des Sumerischen. Tod und Nachleben einer altmesopotamischen Sprache,” in P. Schrijver and P.-A. Mumm (eds.), *Sprachtod und Sprachgeburt*. Münchner Forschungen zur historischen Sprach-

- wissenschaft 2. Bremen: Hempen, 108–40.
- 2005 “‘bringen’ im Sumerischen. Lesung und Bedeutung von  $de_6$ (DU) und  $túm$ (DU),” in R. Rollinger (ed.), *Von Sumer bis Homer. Festschrift für Manfred Schretter zum 60. Geburtstag am 25. Februar 2004*. AOAT 325. Münster: Ugarit-Verlag, 557–76.
- Schneider, Nikolaus  
1936 *Die Zeitbestimmungen der Wirtschafts-urkunden von Ur III*. Analecta Orientalia 13. Roma: Pontificio Istituto Biblico
- Soden, Wolfram von  
1995 *Grundriß der akkadischen Grammatik*. AnOr. 33. 3. erg. Aufl. Roma: Pontificio Istituto Biblico.
- Sommerfeld, Walter  
1999 *Die Texte der Akkade-Zeit 1: Das Dijala-Gebiet: Tutub*. Imgula 3/1. Münster: Rhema.
- Streck, Michael P.  
2004 “Die Amurriter der altbabylonischen Zeit im Spiegel des Onomas-tikons. Eine ethno-linguistische Evaluierung,” in J.-W. Meyer and W. Sommerfeld (eds.), *2000 v. Chr. – Politische, wirtschaftliche und gesellschaftliche Entwicklung im Zeichen einer Jahrtausendwende*. 3. Internationales Colloquium der Deutschen Orientgesellschaft [...]. Saarbrücken: SDV, 313–55.
- Van Coetsem, Frans.  
1988 *Loan Phonology and the Two Transfer Types in Language Contact*. Dordrecht: Foris.  
2000 *A General and Unified Theory of the Transmission Process in Language Contact*. Heidelberg: Winter.
- Veldhuis, Niek  
2008 “Orthography and Politics:  $adda$ , ‘carcass,’ and  $kur_9$ , ‘to enter,’” in P. Michalowski (ed.), *On the Third Dynasty of Ur. Studies in Honor of Marcel Sigrist*. JCS Suppl. 1. Boston: American Schools of Oriental Research, 223–30.
- Wilcke, Claus  
1998 “Zu ‘Gilgameš und Akka’. Überlegungen zur Zeit der Entstehung und Niederschrift [...],” in M. Dietrich and O. Loretz (eds.), *dub-sar anta-men. Studien zur Altorientalistik. Festschrift für Willem H.Ph. Römer*. AOAT 253. Münster: Ugarit-Verlag, 457–86.  
2000 *Wer las und schrieb in Babylonien und Assyrien. Überlegungen zur Literalität im Alten Zweistromland*. Sitzungsberichte der Bayerischen Akademie der Wissenschaften, Philosophisch-Historische Klasse Jg. 2000, H. 6. München: C.H. Beck in Kommission.
- Winford, Donald  
2007 “Some Issues in the Study of Language Contact,” *Journal of Language Contact – Thema 1* (2007) 22–40 ([www.jlc-journal.org](http://www.jlc-journal.org), accessed 2009/12/27).
- Woods, Christopher  
2006 “Bilingualism, Scribal Learning, and the Death of Sumerian,” in S. L. Sanders (ed.), *Margins of Writing, Origins of Culture*. Oriental Institute Seminars 2. Chicago, Ill.: The Oriental Institute of the University of Chicago, 91–120.
- Zólyomi, Gábor  
2000 [published 2005]: “Structural Interference from Akkadian in Old Babylonian Sumerian,” *Acta Sumerologica* 22, 335–60.