

Preliminary proposal to encode Proto-Cuneiform in Unicode

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1 Introduction

The earliest attested script emerged at the end of the 4th millennium BCE in Mesopotamia. It was a pictographic script, whose signs were pressed into clay tablets, initially for administrative and book-keeping purposes. These pictographs developed into more abstract signs, which evolved into the writing system known as ‘cuneiform’. Accordingly, the early script is known to scholars as ‘proto-cuneiform’.

Proto-Cuneiform has been previously proposed for encoding in Unicode. Detailed background on the script is available in these proposals:

- L2/16-267: “Preliminary proposal to encode Proto-Cuneiform in the SMP of the UCS”
- L2/17-157: “Proposal to encode Proto-Cuneiform in the SMP of the UCS”
- L2/19-284: “Proposal to Encode Proto-Cuneiform in the SMP of the UCS”

In L2/17-157, some 277 of the most common signs were proposed for encoding. That set of signs could be used to encode nearly 85% of all signs occurring in Proto-Cuneiform records. However, a truly useful repertoire should include all distinctive signs that are suitable for encoding, using the sign list produced and maintained by the late Robert Englund as part of the Cuneiform Digital Library Initiative. The present proposal provides more technical details on Proto-Cuneiform signs, an overview of the structure of compound signs, and a proposed repertoire of 2050 signs.

An encoding for Proto-Cuneiform in Unicode would provide for plain-text representation of the script and enable users to encode signs as actual characters instead of as images. Proto-Cuneiform signs are depicted extensively in publications, both in charts and in running text (see fig. 1–2). The encoding should ensure a repertoire that may be used for representing the full Proto-Cuneiform corpus.

2 Overview of the Sign Repertoire

The CDLI repertoire contains 2095 signs, which according to my analysis, consists of 349 individual numeric signs, 1106 individual ideographic signs, and 640 complex signs. Of these, 2050 are ‘complete’ signs, while 45 are ‘fragmentary’, meaning that a portion of the sign is not fully identifiable. Only the ‘complete’ signs are suitable for encoding.

class	type	number of components	complete signs	fragmentary signs	class total
individual	numeric	1	349	—	1,455
	ideographic	1	1,106	—	
complex	numeric	2	3	—	640
	ideographic	2	403	34	
		3	38	8	
		4	2	—	
	numero-ideographic	2	28	—	
ideo-numeric	ideographic	2	97	—	640
		3	20	3	
		4	3	—	
		5	1	—	
			2050	45	2095

2.1 Typology of compounds

Compounds or complex signs are individual signs that are written as a single unit using various techniques, such as joining, stacking, or embedding, or one or more combinations of these. The majority of complex units consist of 2 signs, but slightly more than a hundred have 3 or more signs. The following table shows my analysis of the typologies and compositions of Proto-Cuneiform complex signs:

Type	# Signs	Pattern	Count
numeric	2	N×N	2
		N·N	1
ideographic	2	I×I	371
		I·I	38
		I+I	14
		I&I	12
	3	I×I·I	25
		I&I·I	5
		(I×I·I)	3
		I×I+I	3
		I&I×I	2
		I×(I&I)	2
numero-ideographic	4	I×(I×I)	2
		I&I&I	1
	5	I·I&I	1
		I×I&I	1
		I×I×I	1
		(I+&I)×I	1
		I×(I·I·I)	1
		N·I	29
ideo-numeric	2	I×N	84
		I·N	14
	3	I×N·N	11
		I·N·N	4
		I×N·I	3
		I×I·N	2
		I&I×N	1
		I×I+N	1
	4	I×I×N	1
		I×(I·N·I)	1
		I×N&I+N	1
5	5	I×N·N·N	1
		I·(I+N+I+N)	1

The above table refers to the following types of complex signs:

numeric (N)	only numeric signs
ideographic (I)	only ideographic signs
numero-ideographic	numeric sign as the first element and 1 or more ideographic signs
ideo-numeric	ideographic sign as the first element and 1 or more numeric signs

and the following operators that denote sign structures:

(...)	a group of signs
x	the following sign is embedded within the preceding sign
+	the preceding sign is joined to fused to the following sign
&	the preceding sign is stacked vertically above the following sign
.	the preceding sign is placed beside, but not joined to the following sign

2.2 Sign names

Signs are referred to using the current scholarly convention. Numeric signs are denoted using ‘N’. The number preceding ‘N’ indicates the value of the sign, and the number following ‘N’ refers to a decipherment sequence, not any inherent value of the sign. Ideographic sign names are based upon values of the signs.

Scholarly sign names have been normalized to produce Unicode character names as follows:

- The ‘@’ used for indicating variants has been replaced by full names
- Operators used in compound names have been replaced with descriptive terms
- Letters with diacritics have been transliterated into digraphs

Variants	Operators	Diacritics
@g gunu	x CONTAINING	ſ ſh
@t tenu	+	
@n nutillu	& OVER	
@s seshshig	.	
@r reversed		
@f flat		

Feedback on character names is sought in order to develop names that effectively convey the meaning and values of signs and formations of complex graphemes.

3 Proposed Encoding Model

The proposed encoding model for Proto-Cuneiform is based upon the principles used for encoding Sumero-Akkadian cuneiform. It adopts the following definitions from § 11.1 of *The Unicode Standard*, in which references to ‘Cuneiform’ should be interpreted as meaning ‘Proto-Cuneiform’:

Simple Signs Most Cuneiform signs are simple units; each sign of this type is represented by a single character in the standard

Complex and Compound Signs Some Cuneiform signs are categorized as either complex or compound signs. Complex signs are made up of a primary sign with one or more secondary signs written within it or conjoined to it, such that the whole is generally treated by scholars as a unit; this includes linear sequences of two or more signs or wedge-clusters where one or more of those clusters have not been clearly identified as characters in their own right. Complex signs, which present a relative visual unity, are assigned single individual code points irrespective of their components. Compound signs are linear sequences of two or more signs or wedge-clusters generally treated by scholars as a single unit, when each and every such wedge-cluster exists as a clearly identified character in its own right. Compound signs are encoded as sequences of their component characters. Signs that shift from compound to complex, or vice versa, generally have been treated according to their Ur III manifestation.

Mergers and Splits Over the long history of Cuneiform, a number of signs have simplified and merged; in other cases, a single sign has diverged and developed into more than one distinct sign. The choice of signs for encoding as characters was made at the point of maximum differentiation in the case of either mergers or splits to enable the most comprehensive set for the representation of text in any period.

Following this approach, all attested, distinctive individual Proto-Cuneiform signs would be encoded as atomic characters. Some linear, unjoined compound signs that are composed of signs that also occur independently would not be encoded as atomic characters, but would be represented as sequences of characters. This was the approach used for Sumero-Akkadian cuneiform; sign sequences that are treated conventionally as compounds with clear lexical significance, had their constituent signs encoded separately, and are produced in encoded represented using these separate signs.

A more complex approach would involve further decomposition of compounds and the use of format control characters for representing compounds. This would require definitions of rules for compound formation and structures, and for the ordering and positioning of the signs, as has been done for the Egyptian Hieroglyphs encoding. Feedback is sought from experts regarding the mechanisms for the encoded representation of compounds.

4 Proposed Character Repertoire

The tables show Proto-Cuneiform signs separated into numeric and general ideographic categories. Provided for each sign is a generic serial number for references purposes, one or more digitized glyphs, the conventional name, and a tentative Unicode character name.

In cases where variant signs are attested for a sign, all distinct variants as shown in a vertical stack. For such cases, the representative glyph will be identified in collaboration with experts.

Compound signs are currently proposed as they are enumerated in the CDLI sign list. As specified in § 3, the encoding model for compounds requires additional considerations.

4.1 Individual numeric signs

#	Sign	Name	Character Name
1		1N ₁	ONE-N1
2		1N ₁ flat	ONE-N1 FLAT
3		1N ₁ reversed	ONE-N1 REVERSED
4		1N ₂	ONE-N2
5		1N ₃	ONE-N3
6		1N ₄	ONE-N4
7		1N ₄ flat	ONE-N4 FLAT
8		1N ₅	ONE-N5
9		1N ₆	ONE-N6
10		1N _{7a}	ONE-N7-A
11		1N _{7b}	ONE-N7-B
12		1N ₈	ONE-N8

#	Sign	Name	Character Name
13		1N _{8b}	ONE-N8-B
14		1N ₈ flat	ONE-N8 FLAT
15		1N ₉	ONE-N9
16		1N ₁₁	ONE-N11
17		1N ₁₂	ONE-N12
18		1N ₁₄	ONE-N14
19		1N ₁₄ flat	ONE-N14 FLAT
20		1N ₁₅	ONE-N15
21		1N ₁₆	ONE-N16
22		1N ₁₇	ONE-N17
23		1N ₁₈	ONE-N18
24		1N ₁₉	ONE-N19
25		1N ₁₉ flat	ONE-N19 FLAT
26		1N ₂₀	ONE-N20
27		1N ₂₂	ONE-N22
28		1N ₂₂ flat	ONE-N22 FLAT
29		1N ₂₃	ONE-N23

#	Sign	Name	Character Name
30		1N ₂₄	ONE-N24
31		1N _{24a}	ONE-N24-A
32		1N _{24b}	ONE-N24-B
33		1N ₂₄ flat	ONE-N24_FLAT
34		1N ₂₅	ONE-N25
35		1N ₂₆	ONE-N26
36		1N _{26b}	ONE-N26-B
37		1N ₂₇	ONE-N27
38		1N ₂₈	ONE-N28
39		1N _{28b}	ONE-N28-B
40		1N _{28c}	ONE-N28-C
41		1N _{29a}	ONE-N29-A
42		1N _{29b}	ONE-N29-B
43		1N _{29Ab}	ONE-N29A-B
44		1N _{29Ac}	ONE-N29A-C
45		1N _{30a}	ONE-N30-A
46		1N _{30c}	ONE-N30-C

#	Sign	Name	Character Name
47		1N _{30d}	ONE-N30-D
48		1N _{30e}	ONE-N30-E
49		1N _{30Ac}	ONE-N30A-C
50		1N _{30Cb}	ONE-N30C-B
51		1N _{30Cc}	ONE-N30C-C
52		1N ₃₁	ONE-N31
53		1N ₃₂	ONE-N32
54		1N ₃₃	ONE-N33
55		1N ₃₄	ONE-N34
56		1N ₃₄ flat	ONE-N34 FLAT
57		1N _{34F} tenū	ONE-N34F TENU
58		1N ₃₅	ONE-N35
59		1N ₃₆	ONE-N36
60		1N ₃₆ flat	ONE-N36 FLAT
61		1N ₃₇	ONE-N37
62		1N ₃₈	ONE-N38
63		1N _{39a}	ONE-N39-A

#	Sign	Name	Character Name
64		1N _{39b}	ONE-N39-B
65		1N ₄₀	ONE-N40
66		1N ₄₁	ONE-N41
67		1N _{42a}	ONE-N42-A
68		1N _{42b}	ONE-N42-B
69		1N ₄₃	ONE-N43
70		1N ₄₄	ONE-N44
71		1N ₄₅	ONE-N45
72		1N _{45a}	ONE-N45-A
73		1N ₄₅ flat	ONE-N45 FLAT
74		1N ₄₆	ONE-N46
75		1N ₄₆ flat	ONE-N46 FLAT
76		1N ₄₇	ONE-N47
77		1N ₄₈	ONE-N48
78		1N ₄₈ flat	ONE-N48 FLAT
79		1N ₄₉	ONE-N49
80		1N ₅₀	ONE-N50

#	Sign	Name	Character Name
81		1N ₅₁	ONE-N51
82		1N ₅₁ flat	ONE-N51 FLAT
83		1N ₅₂	ONE-N52
84		1N ₅₄	ONE-N54
85		1N ₅₅	ONE-N55
86		1N ₅₆	ONE-N56
87		1N ₅₇	ONE-N57
88		1N ₅₈	ONE-N58
89		1N ₆₀	ONE-N60
90		1N ₆₃	ONE-N63
91		1N ₅₈ tenū	ONE-N58 TENU
92		2N ₁	TWO-N1
93		2N ₁ flat	TWO-N1 FLAT
94		2N ₂	TWO-N2
95		2N ₃	TWO-N3
96		2N ₄	TWO-N4
97		2N ₄ flat	TWO-N4 FLAT

#	Sign	Name	Character Name
98		2N ₅	TWO-N5
99		2N _{7a}	TWO-N7-A
100		2N _{7b}	TWO-N7-B
101		2N ₈	TWO-N8
102		2N _{8b}	TWO-N8-B
103		2N ₁₄	TWO-N14
104		2N ₁₄ flat	TWO-N14 FLAT
105		2N ₁₅	TWO-N15
106		2N ₁₈	TWO-N18
107		2N ₁₉	TWO-N19
108		2N ₁₉ flat	TWO-N19 FLAT
109		2N ₂₀	TWO-N20
110		2N ₂₁	TWO-N21
111		2N ₂₂	TWO-N22
112		2N ₂₂ flat	TWO-N22 FLAT
113		2N ₂₃	TWO-N23
114		2N ₂₄	TWO-N24

#	Sign	Name	Character Name
115		2N _{29a}	TWO-N29-A
116		2N _{29b}	TWO-N29A-B
117		2N ₃₄	TWO-N34
118		2N ₃₄ flat	TWO-N34 FLAT
119		2N ₃₅	TWO-N35
120		2N ₃₆	TWO-N36
121		2N ₃₇	TWO-N37
122		2N _{39a}	TWO-N39-A
123		2N _{39b}	TWO-N39-B
124		2N ₄₀	TWO-N40
125		2N ₄₁	TWO-N41
126		2N _{42a}	TWO-N42-A
127		2N _{42b}	TWO-N42-B
128		2N ₄₅	TWO-N45
129		2N ₄₅ flat	TWO-N45 FLAT
130		2N ₄₆	TWO-N46
131		2N ₄₆ flat	TWO-N46 FLAT

#	Sign	Name	Character Name
132		2N ₄₇	TWO-N47
133		2N ₄₈	TWO-N48
134		2N ₄₉	TWO-N49
135		2N ₅₀	TWO-N50
136		2N ₅₁	TWO-N51
137		2N ₅₁ flat	TWO-N51 FLAT
138		2N ₅₂	TWO-N52
139		2N ₅₄	TWO-N54
140		2N ₅₆	TWO-N56
141		2N ₅₇	TWO-N57
142		2N ₅₈	TWO-N58
143		2N ₅₉	TWO-N59
144		2 LAGAB _a	TWO LAGAB-A
145		3N ₁	THREE-N1
146		3N ₁ flat	THREE-N1 FLAT
147		3N ₂	THREE-N2
148		3N ₃	THREE-N3

#	Sign	Name	Character Name
149		3N ₄	THREE-N4
150		3N ₄ flat	THREE-N4 FLAT
151		3N ₅	THREE-N5
152		3N _{7a}	THREE-N7-A
153		3N _{7b}	THREE-N7-B
154		3N ₈	THREE-N8
155		3N _{8b}	THREE-N8-B
156		3N ₁₄	THREE-N14
157		3N ₁₄ flat	THREE-N14 FLAT
158		3N ₁₅	THREE-N15
159		3N ₁₈	THREE-N18
160		3N ₁₉	THREE-N19
161		3N ₁₉ flat	THREE-N19 FLAT
162		3N ₂₀	THREE-N20
163		3N ₂₁	THREE-N21
164		3N ₂₃	THREE-N23
165		3N ₃₄	THREE-N34

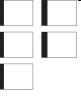
#	Sign	Name	Character Name
166		3N ₃₄ flat	THREE-N34 FLAT
167		3N ₃₆	THREE-N36
168		3N _{39a}	THREE-N39-A
169		3N _{39b}	THREE-N39-B
170		3N ₄₀	THREE-N40
171		3N ₄₁	THREE-N41
172		3N _{42a}	THREE-N42-A
173		3N _{42b}	THREE-N42-B
174		3N ₄₅	THREE-N45
175		3N ₄₅ flat	THREE-N45 FLAT
176		3N ₄₆	THREE-N46
177		3N ₄₇	THREE-N47
178		3N ₄₈	THREE-N48
179		3N ₄₉	THREE-N49
180		3N ₅₀	THREE-N50
181		3N ₅₁	THREE-N51
182		3N ₅₁ flat	THREE-N51 FLAT

#	Sign	Name	Character Name
183		3N ₅₂	THREE-N52
184		3N ₅₃	THREE-N53
185		3N ₅₄	THREE-N54
186		3N ₅₇	THREE-N57
187		3N ₅₈	THREE-N58
188		3N ₅₉	THREE-N59
189		3N ₆₁	THREE-N61
190		4N ₁	FOUR-N1
191		4N ₁ flat	FOUR-N1 FLAT
192		4N ₂	FOUR-N2
193		4N ₃	FOUR-N3
194		4N ₄	FOUR-N4
195		4N ₄ flat	FOUR-N4 FLAT
196		4N ₅	FOUR-N5
197		4N ₈	FOUR-N8
198		4N _{8b}	FOUR-N8-B
199		4N _{8c}	FOUR-N8-C

#	Sign	Name	Character Name
200		4N ₁₄	FOUR-N14
201		4N ₁₄ flat	FOUR-N14 FLAT
202		4N ₁₅	FOUR-N15
203		4N ₁₈	FOUR-N18
204		4N ₁₉	FOUR-N19
205		4N ₁₉ flat	FOUR-N19 FLAT
206		4N ₂₀	FOUR-N20
207		4N ₂₁	FOUR-N21
208		4N ₂₄	FOUR-N24
209		4N ₃₄	FOUR-N34
210		4N ₃₄ flat	FOUR-N34 FLAT
211		4N ₃₆	FOUR-N36
212		4N _{39_a}	FOUR-N39-A
213		4N _{39_b}	FOUR-N39-B
214		4N ₄₀	FOUR-N40
215		4N ₄₁	FOUR-N41
216		4N _{42_a}	FOUR-N42-A

#	Sign	Name	Character Name
217		4N _{42b}	FOUR-N42-B
218		4N ₄₃	FOUR-N43
219		4N ₄₅	FOUR-N45
220		4N ₄₅ flat	FOUR-N45 FLAT
221		4N ₄₈	FOUR-N48
222		4N ₄₉	FOUR-N49
223		4N ₅₀	FOUR-N50
224		4N ₅₁	FOUR-N51
225		4N ₅₁ flat	FOUR-N51 FLAT
226		4N ₅₂	FOUR-N52
227		4N ₅₄	FOUR-N54
228		4N ₅₇	FOUR-N57
229		4N ₅₈	FOUR-N58
230		4N ₅₉	FOUR-N59
231		4N ₆₂	FOUR-N62
232		4_LAGAB _a	FOUR LAGAB-A
233		5N ₁	FIVE-N1

#	Sign	Name	Character Name
234		5N ₁	FIVE-N1 FLAT
235		5N ₂	FIVE-N2
236		5N ₃	FIVE-N3
237		5N ₄	FIVE-N4
238		5N ₄ flat	FIVE-N4 FLAT
239		5N ₅	FIVE-N5
240		5N ₈	FIVE-N8
			
241		5N ₁₄	FIVE-N14
242		5N ₁₄ flat	FIVE-N14 FLAT
243		5N ₁₅	FIVE-N15
244		5N ₁₈	FIVE-N18
245		5N ₁₉	FIVE-N19
246		5N ₁₉ flat	FIVE-N19 FLAT
247		5N ₂₀	FIVE-N20
248		5N ₂₁	FIVE-N21
249		5N ₂₃	FIVE-N23
250		5N ₃₄	FIVE-N34

#	Sign	Name	Character Name
251		5N ₃₄ flat	FIVE-N34 FLAT
252		5N ₃₅	FIVE-N35
253		5N ₃₆	FIVE-N36
254		5N ₄₅	FIVE-N45
255		5N ₄₅ flat	FIVE-N45 FLAT
256		5N ₄₈	FIVE-N48
257		5N ₄₉	FIVE-N49
258		5N ₅₀	FIVE-N50
259		5N ₅₁	FIVE-N51
260		5N ₅₁ flat	FIVE-N51 FLAT
261		5N ₅₂	FIVE-N52
262		5N ₅₄	FIVE-N54
263		5N ₅₇	FIVE-N57
264		5N ₅₈	FIVE-N58
265		6N ₁	SIX-N1
266		6N ₁ flat	SIX-N1 FLAT

#	Sign	Name	Character Name
267		6N ₂	SIX-N2
268		6N ₈	SIX-N8
269		6N ₁₄	SIX-N14
270		6N ₁₄ flat	SIX-N14 FLAT
271		6N ₁₈	SIX-N18
272		6N ₁₉	SIX-N19
273		6N ₁₉ flat	SIX-N19 FLAT
274		6N ₂₀	SIX-N20
275		6N ₂₁	SIX-N21
276		6N ₂₄	SIX-N24
277		6N ₃₄	SIX-N34
278		6N ₃₄ flat	SIX-N34 FLAT
279		6N ₃₆	SIX-N36
280		6N ₄₅	SIX-N45
281		6N ₄₅ flat	SIX-N45 FLAT
282		6N ₄₈	SIX-N48
283		6N ₅₁	SIX-N51

#	Sign	Name	Character Name
284		6N ₅₁ flat	SIX-N51 FLAT
285		6N ₅₇	SIX-N57
286		6 LAGAB _a	SIX LAGAB-A
287		7N ₁	SEVEN-N1
288		7N ₁ flat	SEVEN-N1 FLAT
289		7N ₂	SEVEN-N2
290		7N ₈	SEVEN-N8
291		7N ₁₄	SEVEN-N14
292		7N ₁₄ flat	SEVEN-N14 FLAT
293		7N ₁₈	SEVEN-N18
294		7N ₁₉	SEVEN-N19
295		7N ₁₉ flat	SEVEN-N19 FLAT
296		7N ₂₀	SEVEN-N20
297		7N ₂₃	SEVEN-N23
298		7N ₃₄	SEVEN-N34
299		7N ₃₄ flat	SEVEN-N34 FLAT

#	Sign	Name	Character Name
300		7N ₃₆	SEVEN-N36
301		7N ₄₅	SEVEN-N45
302		7N ₄₅ flat	SEVEN-N45 FLAT
303		7N ₄₈	SEVEN-N48
304		7N ₅₁	SEVEN-N51
305		7N ₅₁ flat	SEVEN-N51 FLAT
306		7N ₅₇	SEVEN-N57
307		8N ₁	EIGHT-N1
308		8N ₁ flat	EIGHT-N1 FLAT
309		8N ₂	EIGHT-N2
310		8N ₈	EIGHT-N8
311		8N ₁₄	EIGHT-N14
312		8N ₁₄ flat	EIGHT-N14 FLAT
313		8N ₁₈	EIGHT-N18
314		8N ₁₉	EIGHT-N19

#	Sign	Name	Character Name
315		8N ₁₉ flat	EIGHT-N19 FLAT
316		8N ₂₀	EIGHT-N20
317		8N ₃₄	EIGHT-N34
318		8N ₃₄ flat	EIGHT-N34 FLAT
319		8N ₃₆	EIGHT-N36
320		8N ₄₅ flat	EIGHT-N45 FLAT
321		8N ₅₁	EIGHT-N51
322		8N ₅₁ flat	EIGHT-N51 FLAT
323		8N ₅₇	EIGHT-N57
324		8N ₅₈	EIGHT-N58
325		9N ₁	NINE-N1
326		9N ₁ flat	NINE-N1 FLAT
327		9N ₂	NINE-N2
328		9N ₈	NINE-N8

#	Sign	Name	Character Name
329		9N ₁₄	NINE-N14
330		9N ₁₄ flat	NINE-N14 FLAT
331		9N ₁₈	NINE-N18
332		9N ₁₉	NINE-N19
333		9N ₁₉ flat	NINE-N19 FLAT
334		9N ₂₀	NINE-N20
335		9N ₃₄	NINE-N34
336		9N ₃₄ flat	NINE-N34 FLAT
337		9N ₃₆	NINE-N36
338		9N ₄₅	NINE-N45
339		9N ₄₅ flat	NINE-N45 FLAT

#	Sign	Name	Character Name
340		9N ₅₁ flat	NINE-N51 FLAT
341		9N ₅₇	NINE-N57
342		9N ₅₈	NINE-N58
343		10N ₁	TEN-N1
344		10N ₁₄	TEN-N14
345		10N ₁₄ flat	TEN-N14 FLAT
346		10N ₅₇	TEN-N57
347		10N ₅₈	TEN-N58
348		12N ₁₄	TWELVE-N14
349		12N ₅₈	TWELVE-N58

4.2 Individual ideographic signs

#	Sign	Name	Character Name
350		A	A
351		A gunû	A GUNU
352		A tenû	A TENU

#	Sign	Name	Character Name
353		A2	A2
354		AB2	AB2
355		AB _a	AB-A
356		AB _a gunu	AB-A GUNU
357		AB _b	AB-B
358		ABGAL	ABGAL
359		ABRIG	ABRIG
360		ABZU	ABZU
361		AD _a	AD-A
362		AD _b	AD-B
363		AD _c	AD-C
364		ADAB	ADAB
365		ADDA	ADDA
366		ADDA tenu-2	ADDA TENU-2
367		AGAR2	AGAR2
368		AK _a	AK-A
369		AK _b	AK-B

#	Sign	Name	Character Name
370		AL	AL
371		ALAN _a	ALAN-A
372		ALAN _b	ALAN-B
373		ALAN _c	ALAN-C
374		ALAN _d	ALAN-D
375		ALAN _e	ALAN-E
376		ALAN _f	ALAN-F
377		ALIM	ALIM
378		AM _a	AM-A
379		AM _b	AM-B
380		AMA _a	AMA-A
381		AMA _b	AMA-B
382		AMAR	AMAR
383		AMAR gunū	AMAR GUNU
384		AN	AN
385		ANSHE _a	ANSHE-A

#	Sign	Name	Character Name
386		ANŠE _b	ANSHE-B
387		ANŠE _c	ANSHE-C
388		ANŠE _e	ANSHE-E
389		ANZU2	ANZU2
390		APIN _a	APIN-A
391		APIN _b	APIN-B
392		APIN _c	APIN-C
393		ARARMA2 _a	ARARMA2-A
394		ARARMA2 _b	ARARMA2-B
395		ARATTA	ARATTA
396		ASAL2	ASAL2
397		ASAR	ASAR
398		AŠ2	ASH2
399		AZ	AZ
400		AZU	AZU
401		BA	BA
402		BAD	BAD

#	Sign	Name	Character Name
403		BAD3 _a	BAD3-A
404		BAD3 _{b1}	BAD3-B1
405		BAD3 _{b2}	BAD3-B2
406		BAHAR2 _a	BAHAR2-A
407		BAHAR2 _b	BAHAR2-B
408		BAHAR2 _c	BAHAR2-C
409		BALA _a	BALA-A
410		BALA _b	BALA-B
411		BALAG	BALAG
412		BAN _a	BAN-A
413		BAN _b	BAN-B
414		BANŠUR _a	BANSUR-A
415		BANŠUR _a tenū	BANSUR-A TENU
416		BANŠUR _{b1}	BANSUR-B1
417		BANŠUR _{b2}	BANSUR-B2
418		BANŠUR _c	BANSUR-C
419		BAPPIR _a	BAPPIR-A

#	Sign	Name	Character Name
420		BAPPIR _b	BAPPIR-B
421		BAPPIR _c	BAPPIR-C
422		BAPPIR _d	BAPPIR-D
423		BAPPIR _e	BAPPIR-E
424		BAPPIR _f	BAPPIR-F
425		BAR	BAR
426		BARA2 _a	BARA2-A
427		BARA2 _b	BARA2-B
428		BARA3	BARA3
429		BIR3 _a	BIR3-A
430		BIR3 _b	BIR3-B
431		BIR3 _c	BIR3-C
432		BIR _a	BIR-A
433		BIR _b	BIR-B
434		BIR _c	BIR-C
435		BU3	BU3
436		BU _a	BU-A

#	Sign	Name	Character Name
437		BU _b	BU-B
438		BULUG	BULUG
439		BULUG3	BULUG3
440		BUR2	BUR2
441		BUR _a	BUR-A
442		BUR _b	BUR-B
443		BUR _c	BUR-C
444		BUR _d	BUR-D
445		DA _a	DA-A
446		DA _b	DA-B
447		DA _c	DA-C
448		DA _d	DA-D
449		DAG	DAG
450		DAH	DAH
451		DAM	DAM
452		DANNA	DANNA
453		DAR _a	DAR-A

#	Sign	Name	Character Name
454		DAR _b	DAR-B
455		DAR _c	DAR-C
456		DAR _d	DAR-D
457		DARA3 _a	DARA3-A
458		DARA3 _b	DARA3-B
			
459		DARA3 _c	DARA3-C
460		DARA3 _d	DARA3-D
461		DARA4 _{a1}	DARA4-A1
462		DARA4 _{a2}	DARA4-A2
463		DARA4 _{a3}	DARA4-A3
464		DARA4 _b	DARA4-B
465		DARA4 _{c1}	DARA4-C1
466		DARA4 _{c2}	DARA4-C2
467		DARA4 _{c3}	DARA4-C3
468		DARA4 _{c4}	DARA4-C4
469		DARA4 _{c5}	DARA4-C5
470		DI	DI

#	Sign	Name	Character Name
471		DI tenū	DI TENU
472		DIB	DIB
473		DILMUN	DILMUN
474		DIM _a	DIM-A
475		DIM _b	DIM-B
476		DIM _c	DIM-C
477		DIN	DIN
478		DIN tenū	DIN TENU
479		DU	DU
480		DU gunū	DU GUNU
481		DU6 _a	DU6-A
482		DU6 _b	DU6-B
483		DU6 _c	DU6-C
484		DU7	DU7
485		DU8 _a	DU8-A
486		DU8 _b	DU8-B

#	Sign	Name	Character Name
487		DU8_c	DU8-C
488		DU8_c gunû	DU8-C GUNU
489		DUB2	DUB2
490		DUB_a	DUB-A
491		DUB_b	DUB-B
492		DUB_c	DUB-C
493		DUB_d	DUB-D
494		DUB_e	DUB-E
495		DUB_f	DUB-F
496		DUG_a	DUG-A
497		DUG_b	DUG-B
498		DUG_c	DUG-C
499		DUG_c tenû	DUG-C TENU
500		DUG_d	DUG-D
501		DUGUD	DUGUD

#	Sign	Name	Character Name
502		DUR2	DUR2
503		DUR _a	DUR-A
504		DUR _b	DUR-B
505		E2 _a	E2-A
506		E2 _b	E2-B
507		E2 _c	E2-C
508		E2 _d	E2-D
509		E3 _a	E3-A
510		E3 _b	E3-B
511		E _a	E-A
512		E _b	E-B
513		E _c	E-C
514		E _d	E-D
515		E _e	E-E
516		EDIN	EDIN
517		EN_gunu _a	EN_GUNU-A
518		EN_gunu _b	EN_GUNU-B

#	Sign	Name	Character Name
519		EN2	EN2
520		ENa	EN-A
521		ENb	EN-B
522		ENb tenu	EN-B TENU
523		ENc	EN-C
524		ENe	EN-E
525		ENDIB	ENDIB
526		ENGIZ	ENGIZ
527		ENKUM	ENKUM
528		ENLIL	ENLIL
529		ENSI	ENSI
530		ENSI2	ENSI2
531		ERIM2	ERIM2
532		ERIMa	ERIM-A
533		ERIMb1	ERIM-B1

#	Sign	Name	Character Name
534		ERIM _{b2}	ERIM-B2
535		ERIN	ERIN
536		EŠDA	ESHDA
537		EŠGAR	ESHGAR
538		EZEN _a	EZEN-A
539		EZEN _b	EZEN-B
540		EZEN _b tenū	EZEN-B TENU
541		EZEN _c	EZEN-C
542		EZINU _a	EZINU-A
543		EZINU _b	EZINU-B
544		EZINU _c	EZINU-C
545		EZINU _d	EZINU-D
546		GA2 _{a1}	GA2-A1
547		GA2 _{a2}	GA2-A2
548		GA2 _{a3}	GA2-A3
549		GA2 _{a4}	GA2-A4
550		GA2 _b	GA2-B

#	Sign	Name	Character Name
551		GA2 _c	GA2-C
552		GA _a	GA-A
553		GA _b	GA-B
554		GA _c	GA-C
555		GA'AR _{a1}	GA'AR-A1
556		GA'AR _{a2}	GA'AR-A2
557		GA'AR _{b1}	GA'AR-B1
558		GA'AR _{b2}	GA'AR-B2
559		GADA _a	GADA-A
560		GADA _b	GADA-B
561		GADA _b gunû	GADA-B GUNU
562		GAL _a	GAL-A
563		GAL _b	GAL-B
564		GALGA _a	GALGA-A
565		GALGA _b	GALGA-B

#	Sign	Name	Character Name
566		GAN2	GAN2
			
567		GAN _a	GAN-A
			
			
			
568		GAN _b	GAN-B
			
569		GAN _c	GAN-C
			
570		GAN _d	GAN-D
			
571		GAR	GAR
			
572		GAR gunū _a	GAR GUNU-A
			
573		GAR gunū _b	GAR GUNU-B
			
574		GAR gunū _c	GAR GUNU-C
			
575		GAR3	GAR3
			
576		GARA2 _a	GARA2-A
			
577		GARA2 _b	GARA2-B
			
578		GAZI	GAZI
			
579		GEŠTIN _a	GESHTIN-A
			
580		GEŠTIN _c	GESHTIN-C
			

#	Sign	Name	Character Name
581		GEŠTU _a	GESHTU-A
582		GEŠTU _b	GESHTU-B
583		GEŠTU _{c3}	GESHTU-C3
584		GEŠTU _{c5}	GESHTU-C5
585		GI	GI
586		GI tenū	GI TENU
587		GI4 _a	GI4-A
588		GI4 _b	GI4-B
589		GI6	GI6
590		GIBIL	GIBIL
591		GIBIL tenū	GIBIL TENU
592		GIBIL6	GIBIL6
593		GIG	GIG
594		GIL	GIL
595		GIR2 _a	GIR2-A
596		GIR2 _b	GIR2-B
597		GIR3 _a	GIR3-A

#	Sign	Name	Character Name
598		GIR3 _b	GIR3-B
599		GIR3 _c	GIR3-C
600		GIR4	GIR4
601		GIR3 gunū _a	GIR3 GUNU-A
602		GIR3 gunū _b	GIR3 GUNU-B
603		GIR3 gunū _c	GIR3 GUNU-C
604		GIR _a	GIR-A
605		GIR _b	GIR-B
606		GIR _c	GIR-C
607		GIR _d	GIR-D
608		GISAL _a	GISAL-A
609		GISAL _b	GISAL-B
610		GIŠ	GISH
611		GIŠ tenū	GISH TENU
612		GIŠ3 _a	GISH3-A
613		GIŠ3 _b	GISH3-B
614		GIŠ _x	GISH-X

#	Sign	Name	Character Name
615		GIŠGAL	GISHGAL
616		GIŠIMMAR _{a1}	GISHIMMAR-A1
617		GIŠIMMAR _{a2}	GISHIMMAR-A2
618		GIŠIMMAR _{a3}	GISHIMMAR-A3
619		GIŠIMMAR _{b1}	GISHIMMAR-B1
620		GIŠIMMAR _{b3}	GISHIMMAR-B3
621		GIZZAL _x	GIZZAL-X
622		GU	GU
623		GU2	GU2
624		GU4	GU4
625		GU7	GU7
626		GU4 gunû	GU4 GUNU
627		GUB3 _a	GUB3-A
628		GUB3 _b	GUB3-B
629		GUB3 _c	GUB3-C
630		GUB3 _d	GUB3-D

#	Sign	Name	Character Name
631		GUG2	GUG2
632		GUG2 tenū	GUG2 TENU
633		GUKKAL _a	GUKKAL-A
634		GUKKAL _b	GUKKAL-B
635		GUKKAL _c	GUKKAL-C
636		GUKKAL _d	GUKKAL-D
637		GUL	GUL
638		GUM _a	GUM-A
639		GUM _b	GUM-B
640		GUM _b nutillū	GUM-B NUTILLU
641		GUN3 _a	GUN3-A
642		GUN3 _b	GUN3-B
643		GUR	GUR
644		GURUŠ _a	GURUSH-A
645		GURUŠ _b	GURUSH-B
646		GURUŠDA	GURUSHDA
647		HAL	HAL

#	Sign	Name	Character Name
648		HALUB	HALUB
649		HAŠHUR	HASHHUR
650		HI	HI
651		HI gunū _a	HI GUNU-A
652		HI gunū _b	HI GUNU-B
653		HI gunū _c	HI GUNU-C
654		HUB2	HUB2
655		I	I
656		IB _a	IB-A
657		IB _a nutillū	IB-A NUTILLU
658		IB _b	IB-B
659		IDIGNA	IDIGNA
660		IG _a	IG-A
661		IG _b	IG-B
662		IGI	IGI
663		IL	IL
664		ILDUM _a	ILDUM-A

#	Sign	Name	Character Name
665		I LDUM _b	I LDUM-B
666		IM _a	IM-A
667		IM _a gunū	IM-A GUNU
668		IM _b	IM-B
669		IN _b	IN-B
670		IN _d	IN-D
671		IR11	IR11
672		IR _a	IR-A
673		IR _b	IR-B
674		IR _c	IR-C
675		IR _d	IR-D
676		IRHAN	IRHAN
677		IS _a	ISH-A
678		IS _b	ISH-B

#	Sign	Name	Character Name
679		IŠ _c	IŠH-C
680		KA2 _a	KA2-A
681		KA2 _b	KA2-B
682		KA2 _c	KA2-C
683		KA2 _d	KA2-D
684		KA _a	KA-A
685		KAB	KAB
686		KAD4 _a	KAD4-A
687		KAD4 _b	KAD4-B
688		KAD4 _{c1}	KAD4-C1
689		KAD4 _{c2}	KAD4-C2
690		KAK _a	KAK-A
691		KAK _b	KAK-B
692		KAL _a	KAL-A
693		KAL _{b1}	KAL-B1
694		KAL _{b2}	KAL-B2
695		KALAM _a	KALAM-A

#	Sign	Name	Character Name
696		KALAM _b	KALAM-B
697		KALAM _c	KALAM-C
698		KALAM _d	KALAM-D
699		KALAM _e	KALAM-E
700		KALAM _f	KALAM-F
701		KAR	KAR
702		KAR2 _a	KAR2-A
703		KAR2 _b	KAR2-B
704		KAŠ _a	KASH-A
705		KAŠ _b	KASH-B
706		KAŠ _b tenū	KASH-B TENU
707		KAŠ _c	KASH-C
708		KAŠ _d	KASH-D
709		KASKAL	KASKAL
710		KASKAL gunū	KASKAL GUNU
711		KEŠ2	KESH2
712		KI	KI

#	Sign	Name	Character Name
713	◇	KI nutillû	KI NUTILLU
714	☒	KIB	KIB
715	☒☒	KIB gunû	KIB GUNU
716	☒☒☒	KID _a	KID-A
717	☒☒☒☒	KID _b	KID-B
718	☒☒☒☒☒	KID _c	KID-C
719	☒☒☒☒☒☒	KID _d	KID-D
720	☒☒☒☒☒☒☒	KID _e	KID-E
721	☒☒☒☒☒☒☒☒	KIN	KIN
722	❖	KIN2 _a	KIN2-A
723	❖	KIN2 _c	KIN2-C
724	❖	KIN2 _d	KIN2-D
725	❖	KIN2 _e	KIN2-E
726	☒☒☒☒☒☒☒☒☒☒	KINGAL	KINGAL
727	☒☒	KIR11	KIR11
728	☒☒☒	KISAL _{a1}	KISAL-A1
729	☒☒☒☒	KISAL _{a2}	KISAL-A2

#	Sign	Name	Character Name
730		KISAL _{b1}	KISAL-B1
731		KISAL _{b2}	KISAL-B2
732		KISAL _{b3}	KISAL-B3
733		KISAL _{b2} tenū	KISAL-B2 TENU
734		KIŠ	KISH
735		KIŠIK _a	KISHIK-A
736		KIŠIK _b	KISHIK-B
737		KISIM _a	KISIM-A
738		KISIM _b	KISIM-B
739		KISIM _c	KISIM-C
740		KITI	KITI
741		KU3 _a	KU3-A
742		KU3 _c	KU3-C
743		KU6 _a	KU6-A
744		KU6 _a šeššig	KU6-A SHESHSHIG
745		KU6 _c	KU6-C

#	Sign	Name	Character Name
746		KU _d	KU-D
747		KU _a	KU-A
748		KU _a tenū	KU-A TENU
749		KU _{b1}	KU-B1
750		KU _{b2}	KU-B2
751		KUN	KUN
752		KUR gunū _a	KUR GUNU-A
753		KUR gunū _b	KUR GUNU-B
754		KUR _a	KUR-A
755		KUR _b	KUR-B
756		KUR _c	KUR-C
757		KUR _d	KUR-D
758		KUŠU2 _a	KUSHU2-A
759		KUŠU2 _b	KUSHU2-B
760		KUŠU2 _c	KUSHU2-C
761		KUŠU2 _d	KUSHU2-D
762		KUŠU2 _e	KUSHU2-E

#	Sign	Name	Character Name
763		KUŠU₂ _f	KUSHU2-F
764		LA2	LA2
765		LA _b	LA-B
766		LA _c	LA-C
767		LA _d	LA-D
768		LA _e	LA-E
769		LAGAB _a	LAGAB-A
770		LAGAB _b	LAGAB-B
771		LAGAR _a	LAGAR-A
772		LAGAR _a reversed	LAGAR-A REVERSED
773		LAGAR _{b1}	LAGAR-B1
774		LAGAR _{b2}	LAGAR-B2
775		LAGAR _c	LAGAR-C
776		LAHTAN2	LAHTAN2
777		LAK 25	LAK 25
778		LAK 50	LAK 50
779		LAK 172	LAK 172

#	Sign	Name	Character Name
780		LAK 251	LAK 251
781		LAK 350	LAK 350
782		LAK 777	LAK 777
783		LAL2 _a	LAL2-A
784		LAL2 _b	LAL2-B
785		LAL3 _a	LAL3-A
786		LAL3 _b	LAL3-B
787		LAL3 _c	LAL3-C
788		LAM _a	LAM-A
789		LAM _b	LAM-B
790		LAM _b tenū	LAM-B TENU
791		LAM _b reversed	LAM-B REVERSED
792		LAM _b šešsig	LAM-B SHESHSHIG
793		LAM _c	LAM-C
794		LI	LI
795		LIŠ	LISH

#	Sign	Name	Character Name
796		LU2	LU2
797		LU2 tenū	LU2 TENU
798		LUGAL	LUGAL
799		LUM	LUM
800		MA	MA
801		MA2	MA2
802		MAGUR _a	MAGUR-A
803		MAGUR _b	MAGUR-B
804		MAH _a	MAH-A
805		MAH _b	MAH-B
806		MAR _a	MAR-A
807		MAR _a tenū	MAR-A TENU
808		MAR _b	MAR-B
809		MAŠ	MASH
810		MAŠ2	MASH2
811		MAŠ2 gunū	MASH2 GUNU

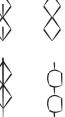
#	Sign	Name	Character Name
812		ME3	ME3
813		ME _a	ME-A
814	 	ME _b	ME-B
815		MEN _a	MEN-A
816	 	MEN _b	MEN-B
817		MES	MES
818		MIR _a	MIR-A
819		MIR _b	MIR-B
820	  	MU	MU
821		MUD	MUD
822		MUD3 _a	MUD3-A
823		MUD3 _a gunū	MUD3-A GUNU
824		MUD3 _b	MUD3-B
825		MUD3 _c	MUD3-C
826		MUD3 _d	MUD3-D
827		MUL	MUL
828		MUN _{a1}	MUN-A1

#	Sign	Name	Character Name
829		MUN _{a2}	MUN-A2
830		MUN _{a3}	MUN-A3
831		MUN _{a4}	MUN-A4
832		MUN _b	MUN-B
833		MUNŠUB _a	MUNSHUB-A
834		MUNŠUB _b	MUNSHUB-B
835		MUNU3	MUNU3
836		MURUB2	MURUB2
837		MUŠ	MUSH
838		MUŠ3 _a	MUSH3-A
839		MUŠ3 _a gunū	MUSH3-A GUNU
840		MUŠ3 _b	MUSH3-B
841		MUŠEN	MUSHEN
842		NA2 _a	NA2-A
843		NA2 _{b1}	NA2-B1
844		NA2 _{b2}	NA2-B2

#	Sign	Name	Character Name
845	—	NA _a	NA-A
846	—	NA _b	NA-B
847		NA _c	NA-C
848		NA _d	NA-D
	*		
	*		
	*		
	*		
849	* *	NAB	NAB
850		NAGA _a	NAGA-A
851		NAGA _b	NAGA-B
852		NAGAR _a	NAGAR-A
853		NAGAR _b	NAGAR-B
854		NAM2	NAM2
855		NAM2 gunū	NAM2 GUNU
856		NAM2 tenū	NAM2 TENU
857		NAM _a	NAM-A
858		NAM _b	NAM-B
859		NAM _c	NAM-C

#	Sign	Name	Character Name
860		NAM _d NAMEŠDA	NAM-D NAMEŠDA
861		NANNA _a NANNA _b	NANNA-A NANNA-B
862		NANŠE _a NANŠE _b	NANSHE-A NANSHE-B
863		NAR	NAR
864		NE _a	NE-A
865		NE _b	NE-B
866		NE _c	NE-C
867		NE _d	NE-D
868		NERGAL _x	NERGAL-X
869		NESAG2 _a	NESAG2-A
870		NESAG2 _b	NESAG2-B
871		NESAG2 _b tenū	NESAG2-B TENU
872		NI2	NI2

#	Sign	Name	Character Name
876		NI _a	NI-A
877		NI _a gunu	NI-A GUNU
878		NI _b	NI-B
879		NIGIN	NIGIN
880		NIM _a	NIM-A
881		NIM _{b1}	NIM-B1
882		NIM _{b2}	NIM-B2
883		NIM _{b3}	NIM-B3
884		NIMGIR	NIMGIR
885		NIN	NIN
886		NINDA2	NINDA2
887		NINKUM	NINKUM
888		NINLIL	NINLIL
889		NIR _a	NIR-A
890		NIR _b	NIR-B
891		NU	NU
892		NU gunu	NU GUNU

#	Sign	Name	Character Name
893		NU11	NU11
894		NU11 tenū	NU11 TENU
895		NUMUN	NUMUN
896		NUMUN2	NUMUN2
897		NUN _a	NUN-A
898		NUN _b	NUN-B
899		NUN _c	NUN-C
900		NUN _d	NUN-D
901		NUNUZ _{a0}	NUNUZ-A0
902		NUNUZ _{a1}	NUNUZ-A1
903		NUNUZ _{a2}	NUNUZ-A2
904		NUNUZ _{a1} tenū	NUNUZ-A1 TENU
905		NUNUZ _{b1}	NUNUZ-B1
906		NUNUZ _{b2}	NUNUZ-B2
907		NUNUZ _c	NUNUZ-C
908		PA3	PA3

#	Sign	Name	Character Name
909		PA _a	PA-A
910		PA _b	PA-B
911		PAD _a	PAD-A
912		PAD _b	PAD-B
913		PAP _a	PAP-A
914		PAP _a tenū	PAP-A TENU
915		PAP _b	PAP-B
916		PIRIG _{a1}	PIRIG-A1
917		PIRIG _{a2}	PIRIG-A2
918		PIRIG _{a3}	PIRIG-A3
919		PIRIG _{b1}	PIRIG-B1
920		PIRIG _{b2}	PIRIG-B2
921		PU2	PU2
922		RA	RA
923		RAD _a	RAD-A
924		RAD _a gunū	RAD-A GUNU
925		RAD _a tenū	RAD-A TENU

#	Sign	Name	Character Name
926		RAD _b	RAD-B
927		RI	RI
928		RI8 _a	RI8-A
929		RI8 _b	RI8-B
930		RI _x	RI-X
931		RU	RU
932		RU tenū	RU TENU
933		SA _a	SA-A
934		SA _c	SA-C
935		SAG	SAG
936		SAG gunū	SAG GUNU
937		SAG nutillū	SAG NUTILLU
938		SAGŠU	SAGSHU
939		SAL	SAL
940		SANGA _a	SANGA-A
941		SANGA _b	SANGA-B

#	Sign	Name	Character Name
942		SANGA _c	SANGA-C
943		SAR _a	SAR-A
944		SAR _b	SAR-B
945		SAR _c	SAR-C
946		ŠA	SHA
947		ŠA gunû	SHA GUNU
948		ŠA3 _{a1}	SHA3-A1
949		ŠA3 _{a2}	SHA3-A2
950		ŠA3 _b	SHA3-B
951		ŠA3 _c	SHA3-C
952		ŠA3 _d	SHA3-D
953		ŠAB _a	SHAB-A
954		ŠAB _b	SHAB-B
955		ŠAGAN	SHAGAN
956		ŠAGINA	SHAGINA

#	Sign	Name	Character Name
957		ŠAH2 _a	SHAH2-A
958		ŠAH2 _b	SHAH2-B
959		ŠAH2 _c	SHAH2-C
960		ŠAKIR _a	SHAKIR-A
961		ŠAKIR _b	SHAKIR-B
962		ŠAKIR _c	SHAKIR-C
963		ŠAM2	SHAM2
964		ŠANDANA _a	SHANDANA-A
965		ŠANDANA _b	SHANDANA-B
966		ŠE3	SHE3
967		ŠE3 tenū	SHE3 TENU
968		ŠE _a	SHE-A
969		ŠE _a tenū	SHE-A TENU
970		ŠE _b	SHE-B
971		ŠE _c	SHE-C
972		ŠEG9	SHEG9
973		ŠELU	SHELU

#	Sign	Name	Character Name
974		ŠEN _a	SHEN-A
975		ŠEN _b	SHEN-B
976		ŠEN _c	SHEN-C
977		ŠEN _c tenū	SHEN-C TENU
978		ŠEN _d	SHEN-D
979		ŠEN _e	SHEN-E
980		ŠENNUR _a	SHENNUR-A
981		ŠENNUR _b	SHENNUR-B
982		ŠEŠ _a	SHESH-A
983		ŠEŠ _b	SHESH-B
984		ŠIDIM	SHIDIM
985		ŠIDIM tenū	SHIDIM TENU
986		ŠIM _a	SHIM-A
987		ŠIM _b	SHIM-B
988		ŠIR _a	SHIR-A
989		ŠIR _b	SHIR-B

#	Sign	Name	Character Name
990		ŠITA gunū _a	SHITA GUNU-A
991		ŠITA gunū _b	SHITA GUNU-B
992		ŠITA _{a1}	SHITA-A1
993		ŠITA _{a2}	SHITA-A2
994		ŠITA _{a3}	SHITA-A3
995		ŠITA _{b1}	SHITA-B1
996		ŠITA _{b2}	SHITA-B2
997		ŠITA _{b3}	SHITA-B3
998		ŠITA _c	SHITA-C
999		ŠU	SHU
1000		ŠU gunū	SHU GUNU
1001		ŠU2	SHU2
1002		ŠU12	SHU12
1003		ŠU šeššig	SHU SHESHSHIG
1004		ŠUBUR	SHUBUR
1005		ŠUM	SHUM
1006		ŠUR2 _a	SHUR2-A

#	Sign	Name	Character Name
1007		ŠUR2 _b	SHUR2-B
1008		ŠURUPPAK _a	SHURUPPAK-A
1009		ŠURUPPAK _b	SHURUPPAK-B
1010		ŠURUPPAK _c	SHURUPPAK-C
1011		SI	SI
1012		SI4 _a	SI4-A
1013		SI4 _b	SI4-B
1014		SI4 _c	SI4-C
1015		SI4 _d	SI4-D
1016		SI4 _f	SI4-F
1017		SIG	SIG
1018		SIG gunû	SIG GUNU
1019		SIG2 _{a1}	SIG2-A1
1020		SIG2 _{a2}	SIG2-A2
1021		SIG2 _{a3}	SIG2-A3

#	Sign	Name	Character Name
1022		SIG2 _{a4}	SIG2-A4
1023		SIG2 _b	SIG2-B
1024		SIG2 _{c1}	SIG2-C1
1025		SIG2 _{c2}	SIG2-C2
1026		SIG2 _{d1}	SIG2-D1
1027		SIG2 _{d2}	SIG2-D2
1028		SIG2 _{d3}	SIG2-D3
1029		SIG2 _{d4}	SIG2-D4
1030		SIG2 _e	SIG2-E
1031		SIG4	SIG4
1032		SIG7	SIG7
1033		SIKIL	SIKIL
1034		SILA3 _a	SILA3-A
1035		SILA3 _b	SILA3-B
1036		SILA3 _c	SILA3-C
1037		SILA4 _a	SILA4-A
1038		SILA4 _b	SILA4-B

#	Sign	Name	Character Name
1039		SILA4 _c	SILA4-C
1040		SILA4 _d	SILA4-D
1041		SILANITA	SILANITA
1042		SIMUG	SIMUG
1043		SIPA	SIPA
1044		SU3	SU3
1045		SU _a	SU-A
1046		SU _b	SU-B
1047		SUG	SUG
1048		SUG5	SUG5
1049		SUH3	SUH3
1050		SUHUR	SUHUR
1051		SUHUR gunū	SUHUR GUNU
1052		SUHUR nutillū	SUHUR NUTILLU
1053		SUKKAL	SUKKAL
1054		SUKUD	SUKUD
1055		SUKUD gunū _a	SUKUD GUNU-A

#	Sign	Name	Character Name
1056		SUKUD gunû _b	SUKUD GUNU-B
1057		SUKUD gunû _c	SUKUD GUNU-C
1058		SUKUD gunû _d	SUKUD GUNU-D
1059		SUM _a	SUM-A
1060		SUM _a tenû	SUM-A TENU
1061		SUM _b	SUM-B
1062		SUMAŠ	SUMASH
1063		SUR	SUR
1064		SUSA	SUSA
1065		TA _a	TA-A
1066		TA _b	TA-B
1067		TA _c	TA-C
1068		TA _d	TA-D
1069		TA _e	TA-E
1070		TA _f	TA-F
1071		TAG _{a1}	TAG-A1

#	Sign	Name	Character Name
1072		TAG _{a2}	TAG-A2
1073		TAG _{a3}	TAG-A3
1074		TAG _{a4}	TAG-A4
1075		TAG _{a1} tenū	TAG-A1 TENU
1076		TAG _b	TAG-B
1077		TAG _c	TAG-C
1078		TAG _d	TAG-D
1079		TAK4 _a	TAK4-A
1080		TAK4 _a nutillū	TAK4-A NUTILLU
1081		TAK4 _c	TAK4-C
1082		TAR _a	TAR-A
1083		TAR _d	TAR-D
1084		TE	TE
1085		TI	TI
1086		TI gunū	TI GUNU
1087		TI tenū	TI TENU
1088		TI reversed	TI REVERSED

#	Sign	Name	Character Name
1089		TIDNUM	TIDNUM
1090		TILLA2	TILLA2
1091		TU _a	TU-A
1092		TU _b	TU-B
1093		TU _c	TU-C
1094		TUG2 _a	TUG2-A
1095		TUG2 _a gunū	TUG2-A GUNU
1096		TUG2 _b	TUG2-B
1097		TUG2 _c	TUG2-C
1098		TUG2 _d	TUG2-D
1099		TUM _a	TUM-A
1100		TUM _a gunū	TUM-A GUNU
1101		TUM _b	TUM-B
1102		TUM _c	TUM-C
1103		TUM _d	TUM-D
1104		TUN3 _a	TUN3-A
1105		TUN3 _b	TUN3-B

#	Sign	Name	Character Name
1106		TUN3 _c	TUN3-C
1107		TUR	TUR
1108		TUR gunū	TUR GUNU
1109		TUR3 _a	TUR3-A
1110		TUR3 _a nutillū	TUR3-A NUTILLU
1111		TUR3 _b	TUR3-B
1112		TUR3 _c	TUR3-C
1113		U2 _a	U2-A
			
			
1114		U2 _b	U2-B
1115		U2 _c	U2-C
1116		U4	U4
			
			
			
1117		U8	U8
			
			
			
1118		U4 tenū	U4 TENU
			
			
			
1119		UB	UB
			
			
			
1120		UBI _a	UBI-A
			
			
			

#	Sign	Name	Character Name
1121		UBI _c	UBI-C
			
			
1122		UD5 _a	UD5-A
			
1123		UD5 _a gunū	UD5-A GUNU
			
1124		UD5 _b	UD5-B
			
1125		UD5 _c	UD5-C
			
1126		UDU _a	UDU-A
			
1127		UDU _b	UDU-B
			
1128		UDU _c	UDU-C
			
1129		UDUNITA _a	UDUNITA-A
			
1130		UDUNITA _b	UDUNITA-B
			
1131		UDUNITA _c	UDUNITA-C
			
1132		UET2_405	UET2_405
			
1133		UH	UH
			
1134		UH3 _a	UH3-A
			
1135		UH3 _a tenū	UH3-A TENU
			
1136		UH3 _b	UH3-B
			
1137		UKKIN _a	UKKIN-A

#	Sign	Name	Character Name
1138		UKKIN _b	UKKIN-B
1139		UKKIN _c	UKKIN-C
1140		UMBIN _a	UMBIN-A
1141		UMBIN _{b1}	UMBIN-B1
1142		UMBIN _{b2}	UMBIN-B2
1143		UMBIN _c	UMBIN-C
1144		UMUN2	UMUN2
1145		UNUG _a	UNUG-A
1146		UNUG _a šeššig	UNUG-A SHESHSHIG
1147		UNUG _b	UNUG-B
1148		UNUG _c	UNUG-C
1149		UR2	UR2
1150		UR3 _{a1}	UR3-A1
1151		UR3 _{a2}	UR3-A2
1152		UR3 _{a3}	UR3-A3
1153		UR3 _{b1}	UR3-B1
1154		UR3 _{b2}	UR3-B2

#	Sign	Name	Character Name
1155		UR4 _a	UR4-A
1156		UR4 _b	UR4-B
1157		UR4 _c	UR4-C
1158		UR5 _a	UR5-A
1159		UR5 _b	UR5-B
1160		UR _a	UR-A
1161		UR _a gunū	UR-A GUNU
1162		UR _b	UR-B
1163		UR _c	UR-C
1164		URI	URI
1165		URI2	URI2
1166		URI3 _a	URI3-A
1167		URI3 _b	URI3-B
1168		URI5	URI5
1169		URU _{a1}	URU-A1
1170		URU _{a1} nutillū	URU-A1 NUTILLU
1171		URU _{a2}	URU-A2

#	Sign	Name	Character Name
1172		URU _{b1}	URU-B1
1173		URU _{b2}	URU-B2
1174		URU _c	URU-C
1175		URUDU gunū _a	URUDU GUNU-A
1176		URUDU gunū _b	URUDU GUNU-B
1177		URUDU gunū _c	URUDU GUNU-C
1178		URUDU gunū _d	URUDU GUNU-D
1179		URUDU _a	URUDU-A
1180		URUDU _c	URUDU-C
1181		URUDU _d	URUDU-D
1182		UŠ _a	USH-A
1183		UŠ _b	USH-B
1184		UŠUMGAL	USHUMGAL
1185		UŠUR3 _a	USHUR3-A
1186		UŠUR3 _{b1}	USHUR3-B1
1187		UŠUR3 _{b2}	USHUR3-B2
1188		UTUA _a	UTUA-A

#	Sign	Name	Character Name
1189		UTUA _a tenū	UTUA-A TENU
1190		UTUA _b	UTUA-B
1191		UTUL _a	UTUL-A
1192		UTUL _b	UTUL-B
1193		UTUL _c	UTUL-C
1194		UTUL _d	UTUL-D
1195		UZU	UZU
1196		ZA _x	ZA-X
1197		ZABALAM _a	ZABALAM-A
1198		ZABALAM _b	ZABALAM-B
1199		ZADIM	ZADIM
1200		ZAG _a	ZAG-A
1201		ZAG _b	ZAG-B
1202		ZAG _c	ZAG-C
1203		ZAR _a	ZAR-A
1204		ZAR _{b1}	ZAR-B1
1205		ZAR _{b2}	ZAR-B2

#	Sign	Name	Character Name
1206		ZAR _c	ZAR-C
1207		ZATU 620	ZATU-620
1208		ZATU 621 _a	ZATU-621-A
1209		ZATU 621 _b	ZATU-621-B
1210		ZATU 621 _c	ZATU-621-C
1211		ZATU 621 _d	ZATU-621-D
1212		ZATU 622	ZATU-622
1213		ZATU 623	ZATU-623
1214		ZATU 624 _a	ZATU-624-A
1215		ZATU 624 _b	ZATU-624-B
1216		ZATU 624 _c	ZATU-624-C
1217		ZATU 625	ZATU-625
1218		ZATU 626 _a	ZATU-626-A
1219		ZATU 626 _b	ZATU-626-B
1220		ZATU 626 _c	ZATU-626-C
1221		ZATU 627	ZATU-627
1222		ZATU 628 _a	ZATU-628-A

#	Sign	Name	Character Name
1223		ZATU 628 _b	ZATU-628-B
1224		ZATU 629	ZATU-629
1225		ZATU 630	ZATU-630
1226		ZATU 631	ZATU-631
1227		ZATU 632 _a	ZATU-632-A
1228		ZATU 632 _b	ZATU-632-B
1229		ZATU 632 _c	ZATU-632-C
1230		ZATU 633 _a	ZATU-633-A
1231		ZATU 633 _b	ZATU-633-B
1232		ZATU 634	ZATU-634
1233		ZATU 635	ZATU-635
1234		ZATU 636	ZATU-636
1235		ZATU 637	ZATU-637
1236		ZATU 639	ZATU-639
1237		ZATU 640	ZATU-640
1238		ZATU 641	ZATU-641
1239		ZATU 642	ZATU-642

#	Sign	Name	Character Name
1240		ZATU 643	ZATU-643
1241		ZATU 644 _a	ZATU-644-A
1242		ZATU 644 _b	ZATU-644-B
1243		ZATU 646	ZATU-646
1244		ZATU 647	ZATU-647
1245		ZATU 648	ZATU-648
1246		ZATU 649	ZATU-649
1247		ZATU 650	ZATU-650
1248		ZATU 651	ZATU-651
1249		ZATU 659	ZATU-659
1250		ZATU 662	ZATU-662
1251		ZATU 664	ZATU-664
1252		ZATU 665	ZATU-665
1253		ZATU 666	ZATU-666
1254		ZATU 667	ZATU-667
1255		ZATU 668	ZATU-668

#	Sign	Name	Character Name
1256		ZATU 669	ZATU-669
1257		ZATU 670	ZATU-670
1258		ZATU 672	ZATU-672
1259		ZATU 674	ZATU-674
1260		ZATU 675 _a	ZATU-675-A
1261		ZATU 675 _b	ZATU-675-B
1262		ZATU 675 _c	ZATU-675-C
1263		ZATU 675 _d	ZATU-675-D
1264		ZATU 676 _a	ZATU-676-A
1265		ZATU 676 _b	ZATU-676-B
1266		ZATU 677 _a	ZATU-677-A
1267		ZATU 677 _b	ZATU-677-B
1268		ZATU 678	ZATU-678
1269		ZATU 679	ZATU-679
1270		ZATU 680 _{a1}	ZATU-680-A1
1271		ZATU 680 _{a2}	ZATU-680-A2
1272		ZATU 680 _b	ZATU-680-B

#	Sign	Name	Character Name
1273		ZATU 680 _d	ZATU-680-D
1274		ZATU 680 _e	ZATU-680-E
1275		ZATU 681	ZATU-681
1276		ZATU 682	ZATU-682
1277		ZATU 683 _a	ZATU-683-A
1278		ZATU 683 _b	ZATU-683-B
1279		ZATU 684	ZATU-684
1280		ZATU 685	ZATU-685
1281		ZATU 686 _a	ZATU-686-A
1282		ZATU 686 _b	ZATU-686-B
1283		ZATU 686 _c	ZATU-686-C
1284		ZATU 687	ZATU-687
1285		ZATU 688 _a	ZATU-688-A
1286		ZATU 688 _b	ZATU-688-B
1287		ZATU 689	ZATU-689
1288		ZATU 690	ZATU-690
1289		ZATU 691	ZATU-691

#	Sign	Name	Character Name
1290		ZATU 692	ZATU-692
			
			
1291		ZATU 693	ZATU-693
1292		ZATU 694 _a	ZATU-694-A
1293		ZATU 694 _b	ZATU-694-B
			
1294		ZATU 694 _c	ZATU-694-C
1295		ZATU 694 _d	ZATU-694-D
1296		ZATU 694 _d tenū	ZATU-694-D TENU
1297		ZATU 695	ZATU-695
1298		ZATU 696	ZATU-696
			
			
			
1299		ZATU 697 _a	ZATU-697-A
1300		ZATU 697 _b	ZATU-697-B
1301		ZATU 697 _c	ZATU-697-C
1302		ZATU 699 _a	ZATU-699-A
1303		ZATU 699 _b	ZATU-699-B
1304		ZATU 700	ZATU-700
1305		ZATU 701	ZATU-701

#	Sign	Name	Character Name
1306		ZATU 702	ZATU-702
1307		ZATU 703	ZATU-703
1308		ZATU 704	ZATU-704
1309		ZATU 705	ZATU-705
1310		ZATU 706	ZATU-706
1311		ZATU 707 _a	ZATU-707-A
1312		ZATU 707 _b	ZATU-707-B
1313		ZATU 708	ZATU-708
1314		ZATU 709	ZATU-709
1315		ZATU 710	ZATU-710
1316		ZATU 711	ZATU-711
1317		ZATU 713	ZATU-713
1318		ZATU 714	ZATU-714
1319		ZATU 717	ZATU-717
1320		ZATU 718	ZATU-718
1321		ZATU 719	ZATU-719

#	Sign	Name	Character Name
1322		ZATU 720	ZATU-720
1323		ZATU 721	ZATU-721
1324		ZATU 722	ZATU-722
1325		ZATU 723	ZATU-723
1326	 	ZATU 724	ZATU-724
1327		ZATU 725	ZATU-725
1328		ZATU 726 _a	ZATU-726-A
1329		ZATU 726 _c	ZATU-726-C
1330		ZATU 726 _d	ZATU-726-D
1331		ZATU 727	ZATU-727
1332		ZATU 728	ZATU-728
1333		ZATU 729	ZATU-729
1334		ZATU 730	ZATU-730
1335		ZATU 732	ZATU-732
1336		ZATU 733	ZATU-733
1337		ZATU 734	ZATU-734
1338		ZATU 735 _a	ZATU-735-A

#	Sign	Name	Character Name
1339		ZATU 735 _b	ZATU-735-B
1340		ZATU 735 _c	ZATU-735-C
1341		ZATU 736 _a	ZATU-736-A
1342		ZATU 736 _b	ZATU-736-B
1343		ZATU 737	ZATU-737
1344		ZATU 749 _a	ZATU-749-A
1345		ZATU 749 _b	ZATU-749-B
1346		ZATU 749 _c	ZATU-749-C
1347		ZATU 750	ZATU-750
1348		ZATU 751 _a	ZATU-751-A
1349		ZATU 751 _b	ZATU-751-B
1350		ZATU 752	ZATU-752
1351		ZATU 753	ZATU-753
1352		ZATU 754	ZATU-754

#	Sign	Name	Character Name
1353		ZATU 755 _a	ZATU-755-A
1354	 	ZATU 755 _b	ZATU-755-B
1355	 	ZATU 756	ZATU-756
1356	 	ZATU 757	ZATU-757
1357		ZATU 758	ZATU-758
1358		ZATU 759	ZATU-759
1359	 	ZATU 761	ZATU-761
1360	 	ZATU 762 _a	ZATU-762-A
1361		ZATU 762 _b	ZATU-762-B
1362		ZATU 764	ZATU-764
1363	 	ZATU 765	ZATU-765
1364	 	ZATU 766	ZATU-766
1365		ZATU 767	ZATU-767
1366	 	ZATU 768	ZATU-768
1367	 	ZATU 769	ZATU-769
1368	 	ZATU 771	ZATU-771
1369		ZATU 772	ZATU-772

#	Sign	Name	Character Name
1370		ZATU 773 _a	ZATU-773-A
1371		ZATU 773 _b	ZATU-773-B
1372		ZATU 774	ZATU-774
1373		ZATU 775	ZATU-775
1374		ZATU 776	ZATU-776
1375		ZATU 777	ZATU-777
1376		ZATU 778	ZATU-778
1377		ZATU 779	ZATU-779
1378		ZATU 780	ZATU-780
1379		ZATU 781	ZATU-781
1380		ZATU 782	ZATU-782
1381		ZATU 783	ZATU-783
1382		ZATU 784	ZATU-784
1383		ZATU 785	ZATU-785
1384		ZATU 786	ZATU-786
1385		ZATU 787	ZATU-787
1386		ZATU 788	ZATU-788

#	Sign	Name	Character Name
1387		ZATU 789	ZATU-789
1388		ZATU 791	ZATU-791
1389		ZATU 792	ZATU-792
1390		ZATU 795	ZATU-795
1391		ZATU 797	ZATU-797
1392		ZATU 798	ZATU-798
1393		ZATU 799	ZATU-799
1394		ZATU 800	ZATU-800
1395		ZATU 801	ZATU-801
1396		ZATU 802	ZATU-802
1397		ZATU 803	ZATU-803
1398		ZATU 804	ZATU-804
1399		ZATU 805	ZATU-805
1400		ZATU 806	ZATU-806
1401		ZATU 807	ZATU-807
1402		ZATU 808	ZATU-808
1403		ZATU 809	ZATU-809

#	Sign	Name	Character Name
1404		ZATU 810	ZATU-810
1405		ZATU 811	ZATU-811
1406		ZATU 812	ZATU-812
1407		ZATU 813	ZATU-813
1408		ZATU 814	ZATU-814
1409		ZATU 815	ZATU-815
1410		ZATU 817	ZATU-817
1411		ZATU 818	ZATU-818
1412		ZATU 819	ZATU-819
1413		ZATU 820	ZATU-820
1414		ZATU 821	ZATU-821
1415		ZATU 822	ZATU-822
1416		ZATU 823	ZATU-823
1417		ZATU 824	ZATU-824
1418		ZATU 825	ZATU-825
1419		ZATU 826	ZATU-826
1420		ZATU 829	ZATU-829

#	Sign	Name	Character Name
1421		ZATU 831	ZATU-831
1422		ZATU 832	ZATU-832
1423		ZATU 833	ZATU-833
1424		ZATU 834	ZATU-834
1425		ZATU 835	ZATU-835
1426		ZATU 836	ZATU-836
1427		ZATU 837 _a	ZATU-837-A
1428		ZATU 837 _b	ZATU-837-B
1429		ZATU 838	ZATU-838
1430		ZATU 839	ZATU-839
1431		ZATU 840	ZATU-840
1432		ZATU 841	ZATU-841
1433		ZATU 842	ZATU-842
1434		ZATU 843	ZATU-843
1435		ZATU 844	ZATU-844
1436		ZATU 845	ZATU-845
1437		ZATU 846	ZATU-846

#	Sign	Name	Character Name
1438		ZATU 847	ZATU-847
1439		ZATU 848	ZATU-848
1440		ZATU 849	ZATU-849
1441		ZATU 850	ZATU-850
1442		ZATU 851	ZATU-851
1443		ZATU 852	ZATU-852
1444		ZATU 853	ZATU-853
1445		ZATU 854	ZATU-854
1446		ZATU 855	ZATU-855
1447		ZATU 651 gunū	ZATU-651 GUNU
1448		ZATU 683 tenū	ZATU-683 TENU
1449		ZATU 693 tenū	ZATU-693 TENU
1450		ZATU 831 gunū	ZATU-831 GUNU
1451		ZI _a	ZI-A
1452		ZI _b	ZI-B
1453		ZI _d	ZI-D
1454		ZUBI _a	ZUBI-A

#	Sign	Name	Character Name
1455		ZUBI _b	ZUBI-B

4.3 Complex numeric signs

#	Sign	Name	Character Name
1456		1N ₈ flat × 1N ₅₇	ONE-N8 FLAT CONTAINING ONE-N57
1457		1N ₃₄ × 1N ₅₈	ONE-N34 CONTAINING ONE-N58
1458		1N ₅₇ · 1N ₅₇	ONE-N57 BESIDE ONE-N57

4.4 Complex ideographic signs

#	Sign	Name	Character Name
1459		A × AB2	A CONTAINING AB2
1460		A × AN	A CONTAINING AN
1461		A × EN _a	A CONTAINING EN-A
1462		A × ŠUBUR	A CONTAINING SHUBUR
1463		A × ZATU 672	A CONTAINING ZATU-672
1464		AB _a × A tenū	AB-A CONTAINING A TENU
1465		AB _a × AŠ2	AB-A CONTAINING ASH2
1466		AB _a × KU6 _a	AB-A CONTAINING KU6-A

#	Sign	Name	Character Name
1467		AB _a × (ŠE _a & ŠE _a)	AB-A CONTAINING SHE-A OVER SHE-A
1468		AB _a × SUKKAL	AB-A CONTAINING SUKKAL
1469		AB _a × ZATU 659	AB-A CONTAINING ZATU-659
1470		AB _b × A	AB-B CONTAINING A
1471		AB _b × KU6 _a	AB-B CONTAINING KU6-A
1472		AB _b × ŠA3 _{a1}	AB-B CONTAINING SHA3-A1
1473		AMA _a × E2 _a	AMA-A CONTAINING E2-A
1474		AMAR × TAR	AMAR CONTAINING TAR
1475		AMAR & AMAR	AMAR OVER AMAR
1476		APIN _a · APIN _a	APIN-A BESIDE APIN-A
1477		BAD & BAD	BAD OVER BAD
1478		BU _a + DU6 _a	BU-A JOINED WITH DU6-A
1479		BU _a × A	BU-A CONTAINING A
1480		BU _a × GIŠ tenū	BU-A CONTAINING GISH TENU
1481		BU _a & BU _a) · NA2 _a	BU-A OVER BU-A BESIDE NA2-A
1482		BU _a & BU _a) · NA2 _a nutillū	BU-A OVER BU-A BESIDE NA2-A NUTILLU
1483		BU _a & BU _a) · NA2 _b	BU-A OVER BU-A BESIDE NA2-B

#	Sign	Name	Character Name
1484		BU _b + NA _a	BU-B BESIDE NA2-A
1485		DA _a + LIŠ	DA-A BESIDE LISH
1486		DAR _a × A	DAR-A CONTAINING A
1487		DARA3 _c × KAR2	DARA3-C CONTAINING KAR2
1488		DARA3 _c × (KAR2 + ŠE _a)	DARA3-C CONTAINING KAR2 BESIDE SHE-A
1489		DARA3 _d × KAR2	DARA3-D CONTAINING KAR2
1490		DARA3 _d × (KAR2 + ŠE _a)	DARA3-D CONTAINING KAR2 BESIDE SHE-A
1491		DIM _a × GU	DIM-A CONTAINING GU
1492		DU6 _a × DIŠ	DU6-A CONTAINING DISH
1493		DU8 _c × HI	DU8-C CONTAINING HI
1494		DU8 _c × UDU _a	DU8-C CONTAINING UDU-A
1495		DU × DIŠ	DU CONTAINING DISH
1496		(DUB × DIŠ) _a	DUB CONTAINING DISH-A
1497		(DUB × DIŠ) _b	DUB CONTAINING DISH-B
1498		(DUB × DIŠ) _c	DUB CONTAINING DISH-C
1499		DUG _a × HI	DUG-A CONTAINING HI
1500		DUG _a × KASKAL	DUG-A CONTAINING KASKAL

#	Sign	Name	Character Name
1501		DUG _a × LAM _b	DUG-A CONTAINING LAM-B
1502		DUG _a × NAGA _a	DUG-A CONTAINING NAGA-A
1503		DUG _a × U2 _a	DUG-A CONTAINING U2-A
1504		DUG _a × U2 _b	DUG-A CONTAINING U2-B
1505		DUG _b × AB2	DUG-B CONTAINING AB2
1506		DUG _b × ANŠE _b	DUG-B CONTAINING ANSHE-B
1507		DUG _b × ANŠE _d	DUG-B CONTAINING ANSHE-D
1508		DUG _b × BALA _a	DUG-B CONTAINING BALA-A
1509		DUG _b × BIR3 _c	DUG-B CONTAINING BIR3-C
1510		DUG _b × DIN	DUG-B CONTAINING DIN
1511		(DUG _b × DIN) reversed	DUG-B CONTAINING DIN REVERSED
1512		DUG _b × E _a	DUG-B CONTAINING E-A
1513		DUG _b × GA _a	DUG-B CONTAINING GA-A
1514		DUG _b × GA _b	DUG-B CONTAINING GA-B
1515		DUG _b × GEŠTU _a	DUG-B CONTAINING GESHTU-A
1516		DUG _b × GEŠTU _b	DUG-B CONTAINING GESHTU-B
1517		DUG _b × GI6	DUG-B CONTAINING GI6

#	Sign	Name	Character Name
1518		DUG _b × GIŠ	DUG-B CONTAINING GISH
1519		DUG _b × HI	DUG-B CONTAINING HI
1520		DUG _b × HI gunū _a	DUG-B CONTAINING HI GUNU-A
1521		DUG _b × KASKAL	DUG-B CONTAINING KASKAL
1522		DUG _b × KU6 _a	DUG-B CONTAINING KU6-A
1523		DUG _b × KUR gunū _a	DUG-B CONTAINING KUR GUNU-A
1524		DUG _b × KUR _a	DUG-B CONTAINING KUR-A
1525		DUG _b × KUR _b	DUG-B CONTAINING KUR-B
1526		DUG _b × LAM _a	DUG-B CONTAINING LAM-A
1527		DUG _b × MAŠ	DUG-B CONTAINING MASH
1528		DUG _b × NAGA _a	DUG-B CONTAINING NAGA-A
1529		DUG _b × NAM2	DUG-B CONTAINING NAM2
1530		DUG _b × (NI _a gunū + ZATU 779)	DUG-B CONTAINING NI-A GUNU BESIDE ZATU-779
1531		DUG _b × SA _a	DUG-B CONTAINING SA-A
1532		DUG _b × ŠAH2 _a	DUG-B CONTAINING SHAH2-A
1533		DUG _b × ŠE _a	DUG-B CONTAINING SHE-A

#	Sign	Name	Character Name
1534		DUG _b × (ŠE _a · NAM2)	DUG-B CONTAINING SHE-A BESIDE NAM2
1535		DUG _b × SI4 _a	DUG-B CONTAINING SI4-A
1536		DUG _b × SIG2 _{a1}	DUG-B CONTAINING SIG2-A1
1537		DUG _b × SIG2 _{a2}	DUG-B CONTAINING SIG2-A2
1538		DUG _b × SIG7	DUG-B CONTAINING SIG7
1539		DUG _b × SUHUR	DUG-B CONTAINING SUHUR
1540		DUG _b × TAK4 _a	DUG-B CONTAINING TAK4-A
1541		DUG _b × (TAK4 _a · SA _a)	DUG-B CONTAINING TAK4-A BESIDE SA-A
1542		DUG _b × (TAK4 _a · SAL)	DUG-B CONTAINING TAK4-A BESIDE SAL
1543		DUG _b × TI	DUG-B CONTAINING TI
1544		DUG _b × U2 _a	DUG-B CONTAINING U2-A
1545		DUG _b × U2 _b	DUG-B CONTAINING U2-B
1546		DUG _b × UH3 _a	DUG-B CONTAINING UH3-A
1547		DUG _b × UH3 _a tenū	DUG-B CONTAINING UH3-A TENU
1548		DUG _b × ZATU 707 _a	DUG-B CONTAINING ZATU-707-A
1549		DUG _b × ZATU 764	DUG-B CONTAINING ZATU-764
1550		DUG _b × ZATU 779	DUG-B CONTAINING ZATU-779

#	Sign	Name	Character Name
1551		DUG _b × ZATU 780	DUG-B CONTAINING ZATU-780
1552		DUG _b × ZATU 781	DUG-B CONTAINING ZATU-781
1553		DUG _b × (ZATU 789 · SA _a)	DUG-B CONTAINING ZATU-789 BESIDE SA-A
1554		E2 _a · LIŠ	E2-A BESIDE LISH
1555		E2 _b · LIŠ	E2-B BESIDE LISH
1556		EN2 · E2 _a	EN2 BESIDE E2-A
1557		EN2 · E2 _b	EN2 BESIDE E2-B
1558		EN _c & EN _c	EN-C OVER EN-C
1559		EŠDA × TAR	ESHDA CONTAINING TAR
1560		EZEN _a × EN _a	EZEN-A CONTAINING EN-A
1561		EZEN _a × EN _b	EZEN-A CONTAINING EN-B
1562		EZEN _a × KAB	EZEN-A CONTAINING KAB
1563		EZEN _a × KI	EZEN-A CONTAINING KI
1564		EZEN _a × LA _e	EZEN-A CONTAINING LA-E
1565		EZEN _a × NIM _{b2}	EZEN-A CONTAINING NIM-B2
1566		EZEN _a × NIMGIR	EZEN-A CONTAINING NIMGIR
1567		EZEN _a × RAD _a	EZEN-A CONTAINING RAD-A

#	Sign	Name	Character Name
1568		EZEN _a × SAG	EZEN-A CONTAINING SAG
1569		EZEN _a × SU _a	EZEN-A CONTAINING SU-A
1570		EZEN _a × (U2 _b · A)	EZEN-A CONTAINING U2-B BESIDE A
1571		EZEN _a × U4	EZEN-A CONTAINING U4
1572		GA2 _{a1} × A	GA2-A1 CONTAINING A
1573		GA2 _{a1} × EN _b	GA2-A1 CONTAINING EN-B
1574		GA2 _{a1} × GEŠTU _{c3}	GA2-A1 CONTAINING GESHTU-C3
1575		GA2 _{a1} × GEŠTU _{c5}	GA2-A1 CONTAINING GESHTU-C5
1576		GA2 _{a1} × GIR _a	GA2-A1 CONTAINING GIR-A
1577		GA2 _{a1} × (GIR _a · KU6 _a)	GA2-A1 CONTAINING GIR-A BESIDE KU6-A
1578		GA2 _{a1} × GIŠ tenū	GA2-A1 CONTAINING GISH TENU
1579		GA2 _{a1} × GU4	GA2-A1 CONTAINING GU4
1580		GA2 _{a1} × HAL	GA2-A1 CONTAINING HAL
1581		GA2 _{a1} × HI	GA2-A1 CONTAINING HI
1582		GA2 _{a1} × (HI · SUHUR)	GA2-A1 CONTAINING HI BESIDE SUHUR
1583		GA2 _{a1} × KU3 _a	GA2-A1 CONTAINING KU3-A
1584		GA2 _{a1} × KU6 _a	GA2-A1 CONTAINING KU6-A

#	Sign	Name	Character Name
1585		GA2 _{a1} × (KU6 _a · KU6 _a)	GA2-A1 CONTAINING KU6-A BESIDE KU6-A
1586		GA2 _{a1} × LAGAB _b	GA2-A1 CONTAINING LAGAB-B
1587		GA2 _{a1} × MAŠ	GA2-A1 CONTAINING MASH
1588		GA2 _{a1} × NAGA _a	GA2-A1 CONTAINING NAGA-A
1589		GA2 _{a1} × NUN _a	GA2-A1 CONTAINING NUN-A
1590		GA2 _{a1} × PAD _b	GA2-A1 CONTAINING PAD-B
1591		GA2 _{a1} × PAP _a	GA2-A1 CONTAINING PAP-A
1592		GA2 _{a1} × ŠA	GA2-A1 CONTAINING SHA
1593		GA2 _{a1} × SU _a	GA2-A1 CONTAINING SU-A
1594		GA2 _{a1} × SUHUR	GA2-A1 CONTAINING SUHUR
1595		GA2 _{a1} × SUKUD	GA2-A1 CONTAINING SUKUD
1596		GA2 _{a1} × ((SUKUD & SUKUD) _a)	GA2-A1 CONTAINING SUKUD OVER SUKUD-A
1597		GA2 _{a1} × ((SUKUD & SUKUD) _b)	GA2-A1 CONTAINING SUKUD OVER SUKUD-B
1598		GA2 _{a1} × SUMAŠ	GA2-A1 CONTAINING SUMASH
1599		GA2 _{a1} × TI	GA2-A1 CONTAINING TI
1600		GA2 _{a1} × U4	GA2-A1 CONTAINING U4
1601		GA2 _{a2} × GU4	GA2-A2 CONTAINING GU4

#	Sign	Name	Character Name
1602		GA2 _{a2} × (GU4 + ŠE3)	GA2-A2 CONTAINING GU4 BESIDE SHE3
1603		GA2 _{a2} × NI _a	GA2-A2 CONTAINING NI-A
1604		GA2 _{a2} × NI _b	GA2-A2 CONTAINING NI-B
1605		GA2 _{a2} × NIM _{b1}	GA2-A2 CONTAINING NIM-B1
1606		GA2 _{a2} × ŠE3	GA2-A2 CONTAINING SHE3
1607		GA2 _{a2} × SUHUR	GA2-A2 CONTAINING SUHUR
1608		GA2 _b × DUB _a	GA2-B CONTAINING DUB-A
1609		GA2 _b × DUB _b	GA2-B CONTAINING DUB-B
1610		GA2 _b × KU3 _a	GA2-B CONTAINING KU3-A
1611		GA2 _b × ZATU 659	GA2-B CONTAINING ZATU-659
1612		GA _a + ZATU 753	GA-A BESIDE ZATU-753
1613		GA _c × KASKAL	GA-C CONTAINING KASKAL
1614		GAN _c × DIN	GAN-C CONTAINING DIN
1615		GAN _c × HI	GAN-C CONTAINING HI
1616		GAN _c × (HI + DIN)	GAN-C CONTAINING HI BESIDE DIN
1617		GAN _c × KAŠ _c	GAN-C CONTAINING KASH-C
1618		GAN _c × (KUR _a + A)	GAN-C CONTAINING KUR-A BESIDE A

#	Sign	Name	Character Name
1619		GAN _c × LAGAB _b	GAN-C CONTAINING LAGAB-B
1620		GAN _c × NE _a	GAN-C CONTAINING NE-A
1621		GAN _c × ŠE3 tenū	GAN-C CONTAINING SHE3 TENU
1622		GAN _c × ŠE _a	GAN-C CONTAINING SHE-A
1623		GAN _c × SIG7	GAN-C CONTAINING SIG7
1624		GAN _c × ZATU 777	GAN-C CONTAINING ZATU-777
1625		GAN _d × GEŠTU _a	GAN-D CONTAINING GESHTU-A
1626		GAN _d × HI	GAN-D CONTAINING HI
1627		GEŠTU _a × ŠE _a tenū	GESHTU-A CONTAINING SHE-A TENU
1628		GI4 _a × A	GI4-A CONTAINING A
1629		GI4 _a & GI4 _a	GI4-A OVER GI4-A
1630		GI4 _b & GI4 _b	GI4-B OVER GI4-B
1631		(GI + & GI) × ŠE3	GI JOINED WITH OVER GI CONTAINING SHE3
1632		GI × GIŠ tenū	GI CONTAINING GISH TENU
1633		GI × KU _{b1}	GI CONTAINING KU-B1
1634		GI × LAGAB _a	GI CONTAINING LAGAB-A
1635		GI × NAM2	GI CONTAINING NAM2

#	Sign	Name	Character Name
1636		GI × ŠE3	GI CONTAINING SHE3
1637		GI × SIG2_d1	GI CONTAINING SIG2-D1
1638		GI & GI	GI OVER GI
1639		(GI & GI) × GIŠ tenū	GI OVER GI CONTAINING GISH TENU
1640		GI & GI & GI	GI OVER GI OVER GI
1641		GIR3_a × ŠE_b	GIR3-A CONTAINING SHE-B
1642		GIR3_c × KAR2	GIR3-C CONTAINING KAR2
1643		GIR3_c × ŠE3	GIR3-C CONTAINING SHE3
1644		GIR_a · KU6_a	GIR-A BESIDE KU6-A
1645		GIR_b · GIR_b	GIR-B BESIDE GIR-B
1646		GIŠ tenū · E2_a	GISH TENU BESIDE E2-A
1647		GIŠ3_a & GIŠ3_a	GISH3-A OVER GISH3-A
1648		GIŠ · TE	GISH BESIDE TE
1649		(GIŠ × (DIN · DIN))_a	GISH CONTAINING DIN BESIDE DIN-A
1650		(GIŠ × (DIN · DIN))_b	GISH CONTAINING DIN BESIDE DIN-B
1651		(GIŠ × (DIN · DIN))_c	GISH CONTAINING DIN BESIDE DIN-C
1652		GIŠ × ŠU2_a	GISH CONTAINING SHU2-A

#	Sign	Name	Character Name
1653		GIŠ × ŠU2 _b	GISH CONTAINING SHU2-B
1654		GU4 · ZATU 755 _a	GU4 BESIDE ZATU-755-A
1655		GUG2 × ŠITA _{a1}	GUG2 CONTAINING SHITA-A1
1656		GUG2 × SILA3 _a	GUG2 CONTAINING SILA3-A
1657		GUG2 × TUR	GUG2 CONTAINING TUR
1658		GUKKAL _a · HI gunū _a	GUKKAL-A BESIDE HI GUNU-A
1659		HAŠHUR × MA	HASHHUR CONTAINING MA
1660		HI · SUHUR	HI BESIDE SUHUR
1661		HI × LAGAB _a	HI CONTAINING LAGAB-A
1662		HI × ŠE3 tenū	HI CONTAINING SHE3 TENU
1663		HI × ZATU 707 _a	HI CONTAINING ZATU-707-A
1664		IR _a · GA2 _{a1}	IR-A BESIDE GA2-A1
1665		KA2 × LAM	KA2 CONTAINING LAM
1666		KA _a · ŠE _a	KA-A BESIDE SHE-A
1667		KA _a × SAR _a	KA-A CONTAINING SAR-A
1668		KAK _a · GA2 _{a1}	KAK-A BESIDE GA2-A1
1669		KAŠ _b × ŠE _a	KASH-B CONTAINING SHE-A

#	Sign	Name	Character Name
1670		KI nutillû × DUB _a	KI NUTILLU CONTAINING DUB-A
1671		KU6 _a + GIŠ	KU6-A JOINED WITH GISH
1672		KU6 _a + KU6 _a	KU6-A JOINED WITH KU6-A
1673		KUR _a · E2 _a	KUR-A BESIDE E2-A
1674		KUR _a · NUNUZ _{a1}	KUR-A BESIDE NUNUZ-A1
1675		KUR _b · E2 _a	KUR-B BESIDE E2-A
1676		LAGAB _a × BA	LAGAB-A CONTAINING BA
1677		LAGAB _a × BIR3 _b	LAGAB-A CONTAINING BIR3-B
1678		LAGAB _a × DU6 _b	LAGAB-A CONTAINING DU6-B
1679		LAGAB _a × KAK _a	LAGAB-A CONTAINING KAK-A
1680		LAGAB _a × KU6 _a	LAGAB-A CONTAINING KU6-A
1681		LAGAB _a × (KU6 _a + KU6 _a)	LAGAB-A CONTAINING KU6-A JOINED WITH KU6-A
1682		LAGAB _a × KUŠU2 _b	LAGAB-A CONTAINING KUSHU2-B
1683		LAGAB _a × LAGAB _a	LAGAB-A CONTAINING LAGAB-A
1684		LAGAB _a × ME _a	LAGAB-A CONTAINING ME-A
1685		LAGAB _a × NUN _b	LAGAB-A CONTAINING NUN-B
1686		LAGAB _a × PA _a	LAGAB-A CONTAINING PA-A

#	Sign	Name	Character Name
1687		LAGAB _a × ŠA	LAGAB-A CONTAINING SHA
1688		LAGAB _a × ŠITA _{a1}	LAGAB-A CONTAINING SHITA-A1
1689		LAGAB _a × SI	LAGAB-A CONTAINING SI
1690		LAGAB _a × SIG7	LAGAB-A CONTAINING SIG7
1691		LAGAB _a × SU _a	LAGAB-A CONTAINING SU-A
1692		LAGAB _a × TI	LAGAB-A CONTAINING TI
1693		LAGAB _a × U4	LAGAB-A CONTAINING U4
1694		LAGAB _a × UB	LAGAB-A CONTAINING UB
1695		LAGAB _a × ZATU 753	LAGAB-A CONTAINING ZATU-753
1696		LAGAB _b × BANŠUR _a	LAGAB-B CONTAINING BANSUR-A
1697		LAGAB _b × GA'AR _{a1}	LAGAB-B CONTAINING GA'AR-A1
1698		LAGAB _b × HI	LAGAB-B CONTAINING HI
1699		LAGAB _b × KUR _e	LAGAB-B CONTAINING KUR-E
1700		LAGAB _b × LAGAB _b	LAGAB-B CONTAINING LAGAB-B
1701		LAGAB _b × PA _a	LAGAB-B CONTAINING PA-A
1702		LAGAB _b × ŠITA _c	LAGAB-B CONTAINING SHITA-C
1703		LAGAB _b × SI	LAGAB-B CONTAINING SI

#	Sign	Name	Character Name
1704		LAGAB _b × SUH3	LAGAB-B CONTAINING SUH3
1705	 	LAGAB _b × U4	LAGAB-B CONTAINING U4
1706	 	LAL2 _a × EZEN _a	LAL2-A CONTAINING EZEN-A
1707	 	LAL2 _a × NIM _{b2}	LAL2-A CONTAINING NIM-B2
1708	 	LU2 × GEŠTU _{c3}	LU2 CONTAINING GESHTU-C3
1709	 	MA × A	MA CONTAINING A
1710	 	MA × MA	MA CONTAINING MA
1711	 	MAH _a × AB2	MAH-A CONTAINING AB2
1712	 	MAH _a × GUKKAL _a	MAH-A CONTAINING GUKKAL-A
1713	 	MAH _a × KU6 _a	MAH-A CONTAINING KU6-A
1714	 	MAH _a × MASH	MAH-A CONTAINING MASH
1715	 	MAH _a × NA _a	MAH-A CONTAINING NA-A
1716	  	MAH _a × (SILA3 _a × UMBIN _a)	MAH-A CONTAINING SILA3-A CONTAINING UMBIN-A
1717	 	MAH _a × TUG2 _a	MAH-A CONTAINING TUG2-A
1718	 	MAH _a × UD5 _a	MAH-A CONTAINING UD5-A
1719	 	MAH _a × UDU _a	MAH-A CONTAINING UDU-A
1720	 	MAH _a × UR _a	MAH-A CONTAINING UR-A

#	Sign	Name	Character Name
1721		MAH _a × UTUA _a	MAH-A CONTAINING UTUA-A
1722		MAH _a × ZATU 659	MAH-A CONTAINING ZATU-659
1723		MAH _b × KU6 _a	MAH-B CONTAINING KU6-A
1724		MAH _b × MAS	MAH-B CONTAINING MASH
1725		MAH _b × NA _a	MAH-B CONTAINING NA-A
1726		MAH _b × SAL	MAH-B CONTAINING SAL
1727		MAR _b × (LAGAB _b + ŠE3)	MAR-B CONTAINING LAGAB-B BESIDE SHE3
1728		MAR _b × ŠE _a	MAR-B CONTAINING SHE-A
1729		MUD3 _a gunu × GU	MUD3-A GUNU CONTAINING GU
1730		MUŠEN + UR3 _{b2}	MUSHEN BESIDE UR3-B2
1731		MUŠEN × PAP _a	MUSHEN CONTAINING PAP-A
1732		NAGA _a × TAK4 _a	NAGA-A CONTAINING TAK4-A
1733		NI _a + RU	NI-A BESIDE RU
1734		NINDA2 × AN	NINDA2 CONTAINING AN
1735		NINDA2 × (AN + HI)	NINDA2 CONTAINING AN BESIDE HI
1736		NINDA2 × (AN + ME _a)	NINDA2 CONTAINING AN BESIDE ME-A
1737		NINDA2 × BA	NINDA2 CONTAINING BA

#	Sign	Name	Character Name
1738		NINDA2 × EZEN _b	NINDA2 CONTAINING EZEN-B
1739		NINDA2 × GA'AR _{a1}	NINDA2 CONTAINING GA'AR-A1
1740		NINDA2 × GAR	NINDA2 CONTAINING GAR
1741		NINDA2 × GIŠ	NINDA2 CONTAINING GISH
1742		NINDA2 × (GIŠ + DAR _a)	NINDA2 CONTAINING GISH BESIDE DAR-A
1743		NINDA2 × GU4	NINDA2 CONTAINING GU4
1744		NINDA2 × GUDU4	NINDA2 CONTAINING GUDU4
1745		NINDA2 × HI	NINDA2 CONTAINING HI
1746		NINDA2 × (HI + ME _a)	NINDA2 CONTAINING HI JOINED WITH ME-A
1747		NINDA2 × (HI + AN + ME _a)	NINDA2 CONTAINING HI BESIDE AN BESIDE ME-A
1748		NINDA2 × KAŠ _b	NINDA2 CONTAINING KASH-B
1749		NINDA2 × MAR _b	NINDA2 CONTAINING MAR-B
1750		NINDA2 × NE _a	NINDA2 CONTAINING NE-A
1751		NINDA2 × ŠIM _a	NINDA2 CONTAINING SHIM-A
1752		NINDA2 × U4	NINDA2 CONTAINING U4
1753		NINDA2 × ((UDU _a × TAR) _a)	NINDA2 CONTAINING UDU-A CONTAINING TAR-A

#	Sign	Name	Character Name
1754		NINDA2 × ((UDU _a × TAR) _b)	NINDA2 CONTAINING UDU-A CONTAINING TAR-B
1755		NIR _a × AN	NIR-A CONTAINING AN
1756		NU11 & NU11	NU11 OVER NU11
1757		NUN _a + A	NUN-A JOINED WITH A
1758		NUN _a + EN _a	NUN-A JOINED WITH EN-A
1759		NUN _a + EN _b	NUN-A JOINED WITH EN-B
1760		NUN _a + EN _d	NUN-A JOINED WITH EN-D
1761		NUN _a + NAM2	NUN-A JOINED WITH NAM2
1762		NUN _b + EN _a	NUN-B JOINED WITH EN-A
1763		PIRIG _{b1} × UR2	PIRIG-B1 CONTAINING UR2
1764		SAG × GEŠTU _a	SAG CONTAINING GESHTU-A
1765		SAG × GEŠTU _b	SAG CONTAINING GESHTU-B
1766		SAG × GEŠTU _c	SAG CONTAINING GESHTU-C
1767		SAG × LAM _c	SAG CONTAINING LAM-C
1768		SAG × MA	SAG CONTAINING MA
1769		SAG × SAR _a	SAG CONTAINING SAR-A
1770		SAL + KUR _a	SAL BESIDE KUR-A

#	Sign	Name	Character Name
1771		SAL + LAM _b	SAL BESIDE LAM-B
1772		SAL + ŠU2	SAL BESIDE SHU2
1773		SAR _a × ŠE _a	SAR-A CONTAINING SHE-A
1774		(ŠA × HI gunû _a) _a	SHA CONTAINING HI GUNU-A-A
1775		(ŠA × HI gunû _a) _b	SHA CONTAINING HI GUNU-A-B
1776	 	ŠE _a + KIN2 _c	SHE-A BESIDE KIN2-C
1777		ŠE _a + NAM2	SHE-A BESIDE NAM2
1778		ŠE _a & ŠE _a	SHE-A OVER SHE-A
1779		ŠEN _d × A	SHEN-D CONTAINING A
1780		ŠITA _{a1} × KAK _a	SHITA-A1 CONTAINING KAK-A
1781		ŠITA _{a1} × ŠU	SHITA-A1 CONTAINING SHU
1782		ŠITA _{a1} × ŠU2	SHITA-A1 CONTAINING SHU2
1783		ŠITA _{a1} × UDU _a	SHITA-A1 CONTAINING UDU-A
1784		ŠITA _{b1} × HI gunû _a	SHITA-B1 CONTAINING HI GUNU-A
1785		ŠITA _{b3} × NAM2	SHITA-B3 CONTAINING NAM2
1786		ŠU2 + AN	SHU2 BESIDE AN
1787		ŠU2 + E2 _a	SHU2 BESIDE E2-A

#	Sign	Name	Character Name
1788	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	ŠU2 · E2 _b	SHU2 BESIDE E2-B
1789	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	ŠU2 · EN _a	SHU2 BESIDE EN-A
1790	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	ŠU2 · EN _b	SHU2 BESIDE EN-B
1791	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	ŠU2 · GIŠ	SHU2 BESIDE GISH
1792	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	ŠU2 · URI3 _a	SHU2 BESIDE URI3-A
1793	(Three horizontal parallel lines with diagonal strokes above them)	ŠU & ŠU	SHU OVER SHU
1794	(A horizontal line with a small circle at its center, followed by a wedge shape)	SI × GU4	SI CONTAINING GU4
1795	(A horizontal line with a small circle at its center, followed by a wedge shape)	SI × ŠE3	SI CONTAINING SHE3
1796	(Two vertical parallel lines with diagonal strokes above them, followed by a wedge shape)	SIG2 _b · SIG2 _b	SIG2-B BESIDE SIG2-B
1797	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × A	SILA3-A CONTAINING A
1798	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × AMAR	SILA3-A CONTAINING AMAR
1799	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × DUG _a	SILA3-A CONTAINING DUG-A
1800	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × DUG _b	SILA3-A CONTAINING DUG-B
1801	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × GA _a	SILA3-A CONTAINING GA-A
1802	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × GARA2 _a	SILA3-A CONTAINING GARA2-A
1803	(A horizontal line with a small circle at its center, followed by a wedge shape)	SILA3 _a × GEŠTU _a	SILA3-A CONTAINING GESHTU-A

#	Sign	Name	Character Name
1804		SILA3 _a × GEŠTU _{c3}	SILA3-A CONTAINING GESHTU-C3
1805		SILA3 _a × GEŠTU _{c5}	SILA3-A CONTAINING GESHTU-C5
1806		SILA3 _a × HAŠHUR	SILA3-A CONTAINING HASHHUR
1807		SILA3 _a × HI	SILA3-A CONTAINING HI
1808		SILA3 _a × HI gunū _a	SILA3-A CONTAINING HI GUNU-A
1809		SILA3 _a × IB _a	SILA3-A CONTAINING IB-A
1810		SILA3 _a × KAŠ _a	SILA3-A CONTAINING KASH-A
1811		SILA3 _a × KAŠ _c	SILA3-A CONTAINING KASH-C
1812		SILA3 _a × KAŠ _d	SILA3-A CONTAINING KASH-D
1813		SILA3 _a × KU6 _a	SILA3-A CONTAINING KU6-A
1814		SILA3 _a × KUR _a	SILA3-A CONTAINING KUR-A
1815		SILA3 _a × MA	SILA3-A CONTAINING MA
1816		SILA3 _a × MAŠ	SILA3-A CONTAINING MASH
1817		SILA3 _a × NAGA _a	SILA3-A CONTAINING NAGA-A
1818		SILA3 _a × NI _a	SILA3-A CONTAINING NI-A
1819		SILA3 _a × NUN _b	SILA3-A CONTAINING NUN-B
1820		SILA3 _a × ŠE _a	SILA3-A CONTAINING SHE-A

#	Sign	Name	Character Name
1821		SILA3 _a × ŠE _a tenū	SILA3-A CONTAINING SHE-A TENU
1822		SILA3 _a × ŠU	SILA3-A CONTAINING SHU
1823		SILA3 _a × ŠU2	SILA3-A CONTAINING SHU2
1824		SILA3 _a × SUHUR	SILA3-A CONTAINING SUHUR
1825		SILA3 _a × SUM _a	SILA3-A CONTAINING SUM-A
1826		SILA3 _a × SUM _b	SILA3-A CONTAINING SUM-B
1827		SILA3 _a × ZATU 629	SILA3-A CONTAINING ZATU-629
1828		SILA3 _a × ZATU 646	SILA3-A CONTAINING ZATU-646
1829		SILA3 _a × (ZATU 659 + TU _c)	SILA3-A CONTAINING ZATU-659 BESIDE TU-C
1830		SILA3 _b × DUG _a	SILA3-B CONTAINING DUG-A
1831		SILA3 _b × GUG2	SILA3-B CONTAINING GUG2
1832		SILA3 _b × NAGA _b	SILA3-B CONTAINING NAGA-B
1833		SILA3 _b × NI _a	SILA3-B CONTAINING NI-A
1834		SILA3 _b × NI _b	SILA3-B CONTAINING NI-B
1835		SILA3 _c × ŠU	SILA3-C CONTAINING SHU
1836		SILA3 _c × ZATU 687	SILA3-C CONTAINING ZATU-687
1837		SILA3 _d × NI _a	SILA3-D CONTAINING NI-A

#	Sign	Name	Character Name
1838		(SUKUD + SUKUD) _a	SUKUD JOINED WITH SUKUD-A
1839		(SUKUD + SUKUD) _b	SUKUD JOINED WITH SUKUD-B
1840		(SUKUD + SUKUD) _c	SUKUD JOINED WITH SUKUD-C
1841		(SUKUD + SUKUD) _d	SUKUD JOINED WITH SUKUD-D
1842		TA _d × MAŠ	TA-D CONTAINING MASH
1843		TUG2 _a · (BAD & BAD)	TUG2-A BESIDE BAD OVER BAD
1844		TUR3 _b × TAK4 _a	TUR3-B CONTAINING TAK4-A
1845		U4 · ŠU2	U4 BESIDE SHU2
1846		(U8 × TAR) _b	U8 CONTAINING TAR-B
1847		(UDU _a × TAR) _a	UDU-A CONTAINING TAR-A
1848		(UDU _a × TAR) _b	UDU-A CONTAINING TAR-B
1849		UKKIN _b × DIN	UKKIN-B CONTAINING DIN
1850		UKKIN _b × DUG _a	UKKIN-B CONTAINING DUG-A
1851		UKKIN _b × HI gunū _a	UKKIN-B CONTAINING HI GUNU-A
1852		UKKIN _b × NI _a	UKKIN-B CONTAINING NI-A
1853		UNUG _a × A tenū	UNUG-A CONTAINING A TENU
1854		UR2 × TAR	UR2 CONTAINING TAR

#	Sign	Name	Character Name
1855		UR3 _{b1} × MAŠ	UR3-B1 CONTAINING MASH
1856		UR _a × KAR2	UR-A CONTAINING KAR2
1857		URI3 _a + IB _a	URI3-A JOINED WITH IB-A
1858		URU _{a1} × A	URU-A1 CONTAINING A
1859		URU _{a1} × AMAR	URU-A1 CONTAINING AMAR
1860		URU _{a1} × GU4	URU-A1 CONTAINING GU4
1861		URU _{a1} × HI gunū _a	URU-A1 CONTAINING HI GUNU-A
1862		URU _{a1} × NIMGIR	URU-A1 CONTAINING NIMGIR
1863		URU _{a1} × U4	URU-A1 CONTAINING U4
1864		URU _{a3} × KALAM _a	URU-A3 CONTAINING KALAM-A
1865		UŠ _a & UŠ _a	USH-A OVER USH-A
1866		UŠ _b × TAR _c	USH-B CONTAINING TAR-C
1867		UŠ _b × TAR _d	USH-B CONTAINING TAR-D
1868		UŠ _b & UŠ _b	USH-B OVER USH-B
1869		ZATU 651 × AN	ZATU-651 CONTAINING AN
1870		ZATU 651 × EN _a	ZATU-651 CONTAINING EN-A
1871		ZATU 651 × GAR	ZATU-651 CONTAINING GAR

#	Sign	Name	Character Name
1872		ZATU 651 × MA	ZATU-651 CONTAINING MA
1873		ZATU 651 × NUN _a	ZATU-651 CONTAINING NUN-A
1874		ZATU 651 × ŠE _a	ZATU-651 CONTAINING SHE-A
1875		ZATU 651 × ZAR _c	ZATU-651 CONTAINING ZAR-C
1876		ZATU 711 × HI gunū _a	ZATU-711 CONTAINING HI GUNU-A
1877		ZATU 714 · RU	ZATU-714 BESIDE RU
1878		ZATU 714 × HI gunū _a	ZATU-714 CONTAINING HI GUNU-A
1879		ZATU 737 × AB _a	ZATU-737 CONTAINING AB-A
1880		ZATU 737 × BU _a	ZATU-737 CONTAINING BU-A
1881		ZATU 737 × BUR _a	ZATU-737 CONTAINING BUR-A
1882		ZATU 737 × DI	ZATU-737 CONTAINING DI
1883		ZATU 737 × E _a	ZATU-737 CONTAINING E-A
1884		ZATU 737 × EN _a	ZATU-737 CONTAINING EN-A
1885		ZATU 737 × EN _b	ZATU-737 CONTAINING EN-B
1886		ZATU 737 × GAR	ZATU-737 CONTAINING GAR
1887		ZATU 737 × NI _a gunū	ZATU-737 CONTAINING NI-A GUNU
1888		ZATU 737 × NIMGIR	ZATU-737 CONTAINING NIMGIR

#	Sign	Name	Character Name
1889		ZATU 737 × SAL	ZATU-737 CONTAINING SAL
1890		ZATU 737 × ŠE _a	ZATU-737 CONTAINING SHE-A
1891		ZATU 737 × ŠITA gunū _a	ZATU-737 CONTAINING SHITA GUNU-A
1892		ZATU 737 × ŠITA _{a1}	ZATU-737 CONTAINING SHITA-A1
1893		ZATU 737 × SU _a	ZATU-737 CONTAINING SU-A
1894		ZATU 737 × U4	ZATU-737 CONTAINING U4
1895		ZATU 737 × UNUG _a	ZATU-737 CONTAINING UNUG-A
1896		ZATU 759 × KU6 _a	ZATU-759 CONTAINING KU6-A
1897		ZATU 759 × (KU6 _a + KU6 _a)	ZATU-759 CONTAINING KU6-A JOINED WITH KU6-A
1898		ZATU 759 × KU6 _d	ZATU-759 CONTAINING KU6-D
1899		ZATU 762 _a × NIM _a	ZATU-762-A CONTAINING NIM-A
1900		ZATU 762 _b × AB _a	ZATU-762-B CONTAINING AB-A
1901		(ZU & ZU) · SAR _a	ZU OVER ZU BESIDE SAR-A

4.5 Complex numero-ideographic signs

#	Sign	Name	Character Name
1902		1N ₂ · RU	ONE-N2 BESIDE RU
1903		1N ₅₇ · AB ₂	ONE-N57 BESIDE AB2

#	Sign	Name	Character Name
1904		1N ₅₇ · ŠAH2 _a	ONE-N57 BESIDE SHAH2-A
1905		1N ₅₇ · ŠUBUR	ONE-N57 BESIDE SHUBUR
1906		1N ₅₈ · BAD _a	ONE-N58 BESIDE BAD-A
1907		1N ₅₈ · BAD _b	ONE-N58 BESIDE BAD-B
1908		2N ₅₇ · AB2	TWO-N57 BESIDE AB2
1909		2N ₅₇ · KU6 _a	TWO-N57 BESIDE KU6-A
1910		2N ₅₇ · ŠUBUR	TWO-N57 BESIDE SHUBUR
1911		2N ₅₇ · SU _a	TWO-N57 BESIDE SU-A
1912		3N ₅₇ · AMAR	THREE-N57 BESIDE AMAR
1913		3N ₅₇ · BARA3	THREE-N57 BESIDE BARA3
1914		3N ₅₇ · E2 _b	THREE-N57 BESIDE E2-B
1915		3N ₅₇ · GAR	THREE-N57 BESIDE GAR
1916		3N ₅₇ · NUNUZ _{a1}	THREE-N57 BESIDE NUNUZ-A1
1917		3N ₅₇ · NUNUZ _c	THREE-N57 BESIDE NUNUZ-C
1918		3N ₅₇ · PIRIG _{b1}	THREE-N57 BESIDE PIRIG-B1
1919		3N ₅₇ · ŠUBUR	THREE-N57 BESIDE SHUBUR
1920		3N ₅₈ · UR3 _{b1}	THREE-N58 BESIDE UR3-B1

#	Sign	Name	Character Name
1921		4N ₅₇ · AMAR	FOUR-N57 BESIDE AMAR
1922		4N ₅₇ · GAR	FOUR-N57 BESIDE GAR
1923		4N ₅₇ · KU3 _a	FOUR-N57 BESIDE KU3-A
1924		4N ₅₇ · NI _b	FOUR-N57 BESIDE NI-B
1925		5N ₅₇ · GAR	FIVE-N57 BESIDE GAR
1926		5N ₅₇ · KU3 _a	FIVE-N57 BESIDE KU3-A
1927		6N ₅₇ · GAR	SIX-N57 BESIDE GAR
1928		6N ₅₇ · KU3 _a	SIX-N57 BESIDE KU3-A
1929		8N ₅₇ · NI _b	EIGHT-N57 BESIDE NI-B

4.6 Complex ideo-numeric signs

#	Sign	Name	Character Name
1930		A × 1N ₁₄	A CONTAINING ONE-N14
1931		AB2 × 2N ₁₄	AB2 CONTAINING TWO-N14
1932		AB _a × 1N ₁	AB-A CONTAINING ONE-N1
1933		AMAR · 1N ₂	AMAR BESIDE ONE-N2
1934		BU _a × 1N ₅₈	BU-A CONTAINING ONE-N58
1935		DUG _a × 1N ₅₇	DUG-A CONTAINING ONE-N57

#	Sign	Name	Character Name
1936		DUG _b × 1N ₅₇	DUG-B CONTAINING ONE-N57
1937		DUG _b × (1N ₅₇ + KU3 _a)	DUG-B CONTAINING ONE-N57 BESIDE KU3-A
1938		DUG _b × 3N ₅₇	DUG-B CONTAINING THREE-N57
1939		(DUG _b & DUG _b) × 1N ₅₈	DUG-B OVER DUG-B CONTAINING ONE-N58
1940		DUG _c × 1N ₅₇	DUG-C CONTAINING ONE-N57
1941		E2 _a × 1N ₅₇ tenu	E2-A CONTAINING ONE-N57 TENU
1942		E2 _a × 3N ₅₈	E2-A CONTAINING THREE-N58
1943		E2 _b × 1N ₅₇ tenu	E2-B CONTAINING ONE-N57 TENU
1944		EZEN _a × (HI + 1N ₅₇ + AN)	EZEN-A CONTAINING HI BESIDE ONE-N57 BESIDE AN
1945		EZEN _b × 6N ₅₇	EZEN-B CONTAINING SIX-N57
1946		GA2 _{a1} × 1N ₁₄	GA2-A1 CONTAINING ONE-N14
1947		GA2 _{a1} × 1N ₅₇	GA2-A1 CONTAINING ONE-N57
1948		GA2 _{a2} × 3N ₅₇	GA2-A2 CONTAINING THREE-N57
1949		GA _c × 1N ₁₄	GA-C CONTAINING ONE-N14
1950		GI × 1N ₁₄	GI CONTAINING ONE-N14
1951		GI × 1N ₅₈ tenu	GI CONTAINING ONE-N58 TENU

#	Sign	Name	Character Name
1952		GURUŠ _a × 2N ₁₄	GURUSH-A CONTAINING TWO-N14
1953		GURUŠ _b × 2N ₁₄	GURUSH-B CONTAINING TWO-N14
1954		GURUŠ _c × 2N ₁₄	GURUSH-C CONTAINING TWO-N14
1955		HI × 1N _{1F}	HI CONTAINING ONE-N1F
1956		HI × 1N ₅₇	HI CONTAINING ONE-N57
1957		(HI × 1N ₅₇) & (HI + 1N ₅₇)	HI CONTAINING ONE-N57 OVER HI JOINED WITH ONE-N57
1958		HI × 1N ₅₈	HI CONTAINING ONE-N58
1959		HI × 1N ₅₇ tenū	HI CONTAINING ONE-N57 TENU
1960		KAB × 1N ₅₈	KAB CONTAINING ONE-N58
1961		KU6 _a · 1N ₂	KU6-A BESIDE ONE-N2
1962		LAGAB _a × 2N ₁₄	LAGAB-A CONTAINING TWO-N14
1963		LAGAB _b × 1N ₁	LAGAB-B CONTAINING ONE-N1
1964		MA × 1N ₅₈	MA CONTAINING ONE-N58
1965		MA × 2N ₅₇	MA CONTAINING TWO-N57
1966		MUŠEN × 1N ₅₇	MUSHEN CONTAINING ONE-N57
1967		MUŠEN × 2N ₅₇	MUSHEN CONTAINING TWO-N57
1968		MUŠEN × 3N ₅₇	MUSHEN CONTAINING THREE-N57

#	Sign	Name	Character Name
1969		NAM2 × 1N ₁	NAM2 CONTAINING ONE-N1
1970		NI _a × 1N ₅₇	NI-A CONTAINING ONE-N57
1971		NI _b × 4N ₅₇	NI-B CONTAINING FOUR-N57
1972		NINDA2 × 1N ₁	NINDA2 CONTAINING ONE-N1
1973		NINDA2 × 1N ₆	NINDA2 CONTAINING ONE-N6
1974		NINDA2 × 1N ₈	NINDA2 CONTAINING ONE-N8
1975		NINDA2 × 2N ₁	NINDA2 CONTAINING TWO-N1
1976		NINDA2 × (HI gunu-a + 1N ₆)	NINDA2 CONTAINING HI GUNU-A BESIDE ONE-N6
1977		NINDA2 × (ZATU 659 × 1N ₁)	NINDA2 CONTAINING ZATU-659 CONTAINING ONE-N1
1978		SAG × 1N ₁₄	SAG CONTAINING ONE-N14
1979		SAL × 1N ₅₈	SAL CONTAINING ONE-N58
1980		ŠITA gunu-a × 1N ₄	SHITA GUNU-A CONTAINING ONE-N4
1981		ŠITA gunu-a × 1N ₆	SHITA GUNU-A CONTAINING ONE-N6
1982		ŠITA _{a1} × 1N ₆	SHITA-A1 CONTAINING ONE-N6
1983		ŠU2 + 1N ₂	SHU2 BESIDE ONE-N2
1984		ŠU2 + 2N ₅₇	SHU2 BESIDE TWO-N57
1985		ŠU2 + ((HI + 1N ₅₇) + (HI + 1N ₅₇))	SHU2 BESIDE HI JOINED WITH ONE-N57 JOINED WITH HI JOINED WITH ONE-N57

#	Sign	Name	Character Name
1986		ŠU × 1N ₅₈	SHU CONTAINING ONE-N58
1987		SIG2 _b × 1N ₁₄	SIG2-B CONTAINING ONE-N14
1988		SIG × 1N ₅₇	SIG CONTAINING ONE-N57
1989		SILA3 _a × 1N ₅₇	SILA3-A CONTAINING ONE-N57
1990		SILA3 _a × 1N ₅₈	SILA3-A CONTAINING ONE-N58
1991		SU _a × 1N ₅₈	SU-A CONTAINING ONE-N58
1992		U4 + 1N ₈	U4 BESIDE ONE-N8
1993		U4 + 1N ₁₄	U4 BESIDE ONE-N14
1994		U4 + (1N ₁₄ + 3N ₈)	U4 BESIDE ONE-N14 BESIDE THREE-N8
1995		U4 + (1N ₁₄ + 4N ₈)	U4 BESIDE ONE-N14 BESIDE FOUR-N8
1996		U4 + (1N ₁₄ + 5N ₈)	U4 BESIDE ONE-N14 BESIDE FIVE-N8
1997		U4 + (1N ₁₄ + 8N ₈)	U4 BESIDE ONE-N14 BESIDE EIGHT-N8
1998		U4 + 2N ₈	U4 BESIDE TWO-N8
1999		U4 + 2N ₁₄	U4 BESIDE TWO-N14
2000		U4 + 3N ₈	U4 BESIDE THREE-N8
2001		U4 + 4N ₈	U4 BESIDE FOUR-N8
2002		U4 + 5N ₈	U4 BESIDE FIVE-N8

#	Sign	Name	Character Name
2003		U4 · 6N₈	U4 BESIDE SIX-N8
2004		U4 · 7N₈	U4 BESIDE SEVEN-N8
2005		U4 · 8N₈	U4 BESIDE EIGHT-N8
2006		U4 × 1N₁	U4 CONTAINING ONE-N1
2007		U4 × 1N₁ · 5N₈	U4 CONTAINING ONE-N1 BESIDE FIVE-N8
2008		U4 × 1N₁F	U4 CONTAINING ONE-N1F
2009		U4 × 1N₁₄	U4 CONTAINING ONE-N14
2010		U4 × (1N₁₄ · 2N₁)	U4 CONTAINING ONE-N14 BESIDE TWO-N1
2011		U4 × (1N₁₄ · 4N₁)	U4 CONTAINING ONE-N14 BESIDE FOUR-N1
2012		U4 × (1N₁₄ · 8N₁)	U4 CONTAINING ONE-N14 BESIDE EIGHT-N1
2013		U4 × 1N₅₇	U4 CONTAINING ONE-N57
2014		U4 × 1N₅₈ tenū	U4 CONTAINING ONE-N58 TENU
2015		U4 × 2N₁	U4 CONTAINING TWO-N1
2016		U4 × 2N₁ · 2N₁₄	U4 CONTAINING TWO-N1 BESIDE TWO-N14
2017		U4 × 2N₁ · (2N₁₄ · 1N₈)	U4 CONTAINING TWO-N1 BESIDE TWO-N14 BESIDE ONE-N8
2018		U4 × 2N₁₄	U4 CONTAINING TWO-N14
2019		U4 × (2N₁₄ · 4N₁)	U4 CONTAINING TWO-N14 BESIDE FOUR-N1

#	Sign	Name	Character Name
2020		U4 × 2N ₅₇	U4 CONTAINING TWO-N57
2021		U4 × 3N ₁	U4 CONTAINING THREE-N1
2022		U4 × 3N ₁ · 3N ₈	U4 CONTAINING THREE-N1 BESIDE THREE-N8
2023		U4 × (3N ₁₄ · 2N ₁)	U4 CONTAINING THREE-N14 BESIDE TWO-N1
2024		U4 × (3N ₁₄ · 7N ₁)	U4 CONTAINING THREE-N14 BESIDE SEVEN-N1
2025		U4 × 3N ₅₇	U4 CONTAINING THREE-N57
2026		U4 × 4N ₁	U4 CONTAINING FOUR-N1
2027		U4 × 4N ₁ · 2N ₁₄	U4 CONTAINING FOUR-N1 BESIDE TWO-N14
2028		U4 × 4N ₅₇	U4 CONTAINING FOUR-N57
2029		U4 × 5N ₁	U4 CONTAINING FIVE-N1
2030		U4 × 5N ₁ · 1N ₁₄	U4 CONTAINING FIVE-N1 BESIDE ONE-N14
2031		U4 × 5N ₅₇	U4 CONTAINING FIVE-N57
2032		U4 × 6N ₁	U4 CONTAINING SIX-N1
2033		U4 × 6N ₅₇	U4 CONTAINING SIX-N57
2034		U4 × 7N ₅₇	U4 CONTAINING SEVEN-N57
2035		U4 × 8N ₁	U4 CONTAINING EIGHT-N1
2036		U4 × 8N ₅₇	U4 CONTAINING EIGHT-N57

#	Sign	Name	Character Name
2037		U4 × 10N ₅₇	U4 CONTAINING TEN-N57
2038		UKKIN _b × 2N ₁	UKKIN-B CONTAINING TWO-N1
2039		UKKIN _b × 3N ₁	UKKIN-B CONTAINING THREE-N1
2040		UKKIN _b × 5N ₁	UKKIN-B CONTAINING FIVE-N1
2041		UKKIN _b × (DIN × 1N ₁)	UKKIN-B CONTAINING DIN BESIDE ONE-N1
2042		UR2 × 1N ₅₇	UR2 CONTAINING ONE-N57
2043		URU _{a1} × 1N ₅₇	URU-A1 CONTAINING ONE-N57
2044		URU _{a1} × 2N ₅₇	URU-A1 CONTAINING TWO-N57
2045		URU _{a2} × 1N ₅₈	URU-A2 CONTAINING ONE-N58
2046		ZATU 644 _a × 1N ₁₄	ZATU-644-A CONTAINING ONE-N14
2047		ZATU 659 × 1N ₁	ZATU-659 CONTAINING ONE-N1
2048		ZATU 659 × 1N ₁₄	ZATU-659 CONTAINING ONE-N14
2049		ZATU 659 × 1N ₅₈ tenū	ZATU-659 CONTAINING ONE-N58 TENU
			
2050		ZATU 662 × 1N ₁₄	ZATU-662 CONTAINING ONE-N14

5 Signs unsuitable for encoding

The following compound signs in the CDLI sign list have a component with an unknown identity. They are not suitable for encoding.

#	Sign	Name	Character Name
2051		AB _a × X	AB-A CONTAINING X
2052		(BU _a & BU _a) · X	BU-A OVER BU-A BESIDE X
2053		DIM _a × X	DIM-A CONTAINING X
2054		DU8 _c × X	DU8-C CONTAINING X
2055		DUG _a × X	DUG-A CONTAINING X
2056		DUG _b × (KUR _a + X)	DUG-B CONTAINING KUR-A BESIDE X
2057		DUG _b × (SI4 _a + X)	DUG-B CONTAINING SI4-A BESIDE X
2058		DUG _b × X	DUG-B CONTAINING X
2059		EZEN _a × X	EZEN-A CONTAINING X
2060		GA2 _{a1} × X	GA2-A1 CONTAINING X
2061		GA2 _{a2} × X	GA2-A2 CONTAINING X
2062		GA2 _{a3} × X	GA2-A3 CONTAINING X
2063		GA _a × X	GA-A CONTAINING X
2064		GAN _c × X	GAN-C CONTAINING X
2065		GEŠTIN _c × X	GESHTIN-C CONTAINING X

#	Sign	Name	Character Name
2066		GI × X	GI CONTAINING X
2067		(GI & GI) × X	GI OVER GI CONTAINING X
2068		LAGAB _a × X	LAGAB-A CONTAINING X
2069		LAGAB _b × X	LAGAB-B CONTAINING X
2070		MA × X	MA CONTAINING X
2071		MAH _a × X	MAH-A CONTAINING X
2072		MAR _b × X	MAR-B CONTAINING X
2073		MUŠEN × X	MUSHEN CONTAINING X
2074		NI _b × X	NI-B CONTAINING X
2075		NINDA2 × (AN · X)	NINDA2 CONTAINING AN BESIDE X
2076		NINDA2 × (HI · X)	NINDA2 CONTAINING HI BESIDE X
2077		NINDA2 × (U4 · X)	NINDA2 CONTAINING U4 BESIDE X
2078		NINDA2 × X	NINDA2 CONTAINING X
2079		NINDA2 × (X · MAŠ)	NINDA2 CONTAINING X BESIDE MASH
2080		SILA3 _a × X	SILA3-A CONTAINING X
2081		TUR × X	TUR CONTAINING X
2082		U4 × 2N ₁ · X	U4 CONTAINING TWO-N1 BESIDE X

#	Sign	Name	Character Name
2083		U4 × 8N₁ + X	U4 CONTAINING EIGHT-N1 BESIDE X
2084		U4 × X	U4 CONTAINING X
2085		U4 × (X + 2N₁)	U4 CONTAINING X JOINED WITH TWO-N1
2086		U4 × (X(N1))	U4 CONTAINING XN1
2087		UKKIN _b × X	UKKIN-B CONTAINING X
2088		URU _{a1} × X	URU-A1 CONTAINING X
2089		X(N57) + GAR	XN57 BESIDE GAR
2090		ZATU 651 × X	ZATU-651 CONTAINING X
2091		ZATU 711 × X	ZATU-711 CONTAINING X
2092		ZATU 714 × X	ZATU-714 CONTAINING X
2093		ZATU 737 × X	ZATU-737 CONTAINING X
2094		ZATU 759 × X	ZATU-759 CONTAINING X
2095		ZATU 759 tenu × X	ZATU-759 TENU CONTAINING X

6 Signs in compounds without independent attestation

There are 21 signs that occur in compounds, but which are not attested independently:

Compound	Sign without independent attestation
 AMAR × TAR	TAR
 (BU _a & BU _a) • NA2 _a nutillû	NA2 _a nutillû
 (BU _a & BU _a) • NA2 _b	NA2 _b
 DARA3 _c × KAR2	KAR2
 DARA3 _d × KAR2	KAR2
 DU6 _a × DIŠ	DIŠ
 DU × DIŠ	DIŠ
 DUG _b × ANŠE _d	ANŠE _d
 EŠDA × TAR	TAR
 GIR3 _c × KAR2	KAR2
 GIŠ × ŠU2 _a	ŠU2 _a
 GIŠ × ŠU2 _b	ŠU2 _b
 KA2 × LAM	LAM
 LAGAB _b × KUR _e	KUR _e
 NINDA2 × GUDU4	GUDU4
 NUN _a + EN _d	EN _d

Compound	Sign without independent attestation
 SAG × GEŠTU _c	GEŠTU _c
 SILA3 _d × NI _a	SILA3 _d
 UR2 × TAR	TAR
 UR _a × KAR2	KAR2
 URU _{a3} × KALAM _a	URU _{a3}
 UŠ _b × TAR _c	TAR _c
 1N ₅₈ • BAD _a	BAD _a
 1N ₅₈ • BAD _b	BAD _b
 E2 _a × 1N ₅₇ tenū	1N ₅₇ tenū
 E2 _b × 1N ₅₇ tenū	1N ₅₇ tenū
 GURUŠ _c × 2N ₁₄	GURUŠ _c
 HI × 1N ₅₇ tenū	1N ₅₇ tenū
 ZATU 759 tenū × X	ZATU 759 tenū

Feedback from experts regarding these signs is requested. It may be necessary to define these components as individual signs.

7 Previous Proposals

7.1 Comparison of signs

The following table shows correspondences between the 277 signs proposed in L2/17-157 and those proposed in the current document. While names for several signs are identical between the two documents, some names in L2/17-157 do not specify variations or describe the nature of the compound signs.

Sign	L2/17-157	Proposed
	A	A
⤵	AB2	AB2
⤶	AB-A	AB-A
⤷	AB-B	AB-B
⤸⤹	ABGAL	ABGAL
⤹	AD-A	AD-A
⤻	AGAR2	AGAR2
⤼⤽	AK-A	AK-A
⤾	AL	AL
⤿⤻	AMA-A	AMA-A
⤿⤽	AMAR	AMAR
✳✳✳	AN	AN
⤿⤷	ANSHE-B	ANSHE-B
⤿⤾	APIN-A	APIN-A

Sign	L2/17-157	Proposed
	BA	BA
	BAD-A	ONE-N58 BESIDE BAD-A
	BALA-A	BALA-A
	BAR	BAR
	BU-A	BU-A
	DA-A	DA-A
	DARA4-A1	DARA4-A1
	DI	DI
	DIM-C	DIM-C
	DIN	DIN
	DU	DU
	DU6-B	DU6-B
	DUB-A	DUB-A
	DUG-A	DUG-A
	DUG-B	DUG-B
	DUG-B TIMES SIG7	DUG-B CONTAINING SIG7
	DUG-C	DUG-C

Sign	L2/17-157	Proposed
⊖	DUR2	DUR2
ゑ	E2-A	E2-A
ゑ	E2-B	E2-B
ゑ	EN-A	EN-A
ゑ	ERIM-A	ERIM-A
ゑ	ERIN	ERIN
ゑ	EZEN-B	EZEN-B
ゑ	GA2-A1	GA2-A1
ゑ	GA-A	GA-A
ゑ	GA-B	GA-B
ゑ	GAAR-A1	GA'AR-A1
ゑ	GADA-A	GADA-A
ゑ	GAL-A	GAL-A
ゑ	GAN2	GAN2
ゑ	GAN-A	GAN-A

Sign	L2/17-157	Proposed
	GAN-B	GAN-B
	GAR	GAR
	GARA2-A	GARA2-A
	GAZI	GAZI
	GI	GI
	GI6	GI6
	GI OVER GI	GI OVER GI
	GIBIL	GIBIL
	GIR2-A	GIR2-A
	GIR3-C	GIR3-C
	GIR3-GUNU-B	GIR3 GUNU-B
	GISH	GISH
	GISH3	GISH3-B
	GISHIMMAR-B1	GISHIMMAR-B1
	GU	GU
	GU4	GU4

Sign	L2/17-157	Proposed
	GU7	GU7
	GUG2	GUG2
	HAL	HAL
	HASHHUR	HASHHUR
	HI	HI
	HI AT G-A	HI GUNU-A
	IB-A	IB-A
	IM-A	IM-A
	IN-B	IN-B
	IR-A	IR-A
	ISH-B	ISH-B
	KA-A	KA-A
	KAB	KAB
	KAK-A	KAK-A
	KAR2-A	KAR2-A

Sign	L2/17-157	Proposed
	KAR2-B	KAR2-B
	KASH-A	KASH-A
	KASH-B	KASH-B
	KASH-C	KASH-C
	KI	KI
	KID-A	KID-A
	KID-B	KID-B
	KISAL-B1	KISAL-B1
	KISH	KISH
	KISHIK-A	KISHIK-A
	KISIM-A	KISIM-A
	KU3-A	KU3-A
	KU6-A	KU6-A
	KU-B1	KU-B1
	KUR-A	KUR-A
	LA-2	LA2
	LAGAB-A	LAGAB-A

Sign	L2/17-157	Proposed
	LAGAR-A	LAGAR-A
	MA	MA
	MAR-A	MAR-A
	MASH	MASH
	MASH2	MASH2
	ME-A	ME-A
	MES	MES
	MU	MU
	MUD	MUD
	MUD3-A	MUD3-A
	MUNU3	MUNU3
	MUSH-A	MUSH3-A
	MUSHEN	MUSHEN
	NA2-A	NA2-A
	NA-A	NA-A
	NAGA-A	NAGA-A

Sign	L2/17-157	Proposed
	NAGAR-A	NAGAR-A
	NAGAR-B	NAGAR-B
	NAM2	NAM2
	NAMESHDA	NAMESHDA
	NAR	NAR
	NE-A	NE-A
	NESAG2-A	NESAG2-A
	NI-A	NI-A
	NI-A RU	NI-A BESIDE RU
	NI-B	NI-B
	NIM-A	NIM-A
	NIM-B1	NIM-B1
	NIMGIR	NIMGIR
	NIN	NIN
	NU	NU
	NUN-A	NUN-A
	NUN-B	NUN-B

Sign	L2/17-157	Proposed
	NUNUZ-A1	NUNUZ-A1
	PA-A	PA-A
	PAP-A	PAP-A
	PIRIG-B1	PIRIG-B1
	PU2	PU2
	RAD-A	RAD-A
	RU	RU
	SAG	SAG
	SAL	SAL
	SANGA-A	SANGA-A
	SAR-A	SAR-A
	SHA	SHA
	SHA3-A1	SHA3-A1
	SHAB-A	SHAB-A
	SHAGAN	SHAGAN
	SHAM2	SHAM2
	SHE3	SHE3

Sign	L2/17-157	Proposed
	SHE-A	SHE-A
	SHE-A NAM2	SHE-A BESIDE NAM2
	SHITA-A1	SHITA-A1
	SHU	SHU
	SHU2	SHU2
	SHUBUR	SHUBUR
	SI	SI
	SI4-F	SI4-F
	SIG	SIG
	SIG2-B	SIG2-B
	SIG7	SIG7
	SU-A	SU-A
	SUG5	SUG5
	SUHUR	SUHUR
	SUKKAL	SUKKAL
	SUM-A	SUM-A
	TAK4-A	TAK4-A

Sign	L2/17-157	Proposed
𒉿	TAR-A	TAR-A
𒄑	TE	TE
𒄑<	TI	TI
𒀭	TUG2-A	TUG2-A
𒀭𒀭	TUG2-A-GUNU	TUG2-A GUNU
𒂗	TUN3-A	TUN3-A
𒂗	TUR	TUR
𒂗	TUR3-A	TUR3-A
#+#+	U2-A	U2-A
#+#+		
#+#+		
#+#+#+#+	U2-B	U2-B
՞	U4	U4
՞	U4 TIMES ONE	U4 CONTAINING ONE-N1
#+#+		
#+#+		
#+#+		
#+#+	U8	U8
☆	UB	UB
#+#+		
#+#+		
#+#+#+#+	UD5-A	UD5-A
⊕	UDU-A	UDU-A

Sign	L2/17-157	Proposed
	UDUNITA-A	UDUNITA-A
	UKKIN-A	UKKIN-A
	UMUN2	UMUN2
	UNUG-A	UNUG-A
	UR2	UR2
	UR5-A	UR5-A
	UR-A	UR-A
	URI3-A	URI3-A
	URU-A1	URU-A1
	UTUA-A	UTUA-A
	UTUL-A	UTUL-A
	ZAG-A	ZAG-A
	ZATU-647	ZATU-647
	ZATU-649-C	ZATU-694-C
	ZATU-659	ZATU-659
	ZATU-737 TIMES DI	ZATU-737 CONTAINING DI
	ZATU-737 TIMES SAL	ZATU-737 CONTAINING SAL

Sign	L2/17-157	Proposed
	ZATU-752	ZATU-752
	ZATU-753	ZATU-753
	ZI-A	ZI-A
	N1	ONE-N1
	N2	ONE-N2
	N2 RU	ONE-N2 BESIDE RU
	N3	ONE-N3
	N4	ONE-N4
	N5	ONE-N5
	N6	ONE-N6
	N7-A	ONE-N7-A
	N7-B	ONE-N7-B
	N8	ONE-N8
	N8-B	ONE-N8-B
	N9	ONE-N9
	N11	ONE-N11
	N12	ONE-N12

Sign	L2/17-157	Proposed
●	N14	ONE-N14
●	N15	ONE-N15
●	N16	ONE-N16
●	N17	ONE-N17
●	N18	ONE-N18
●	N19	ONE-N19
●	N20	ONE-N20
●	N22	ONE-N22
☒	N23	ONE-N23
☒	N24	ONE-N24
☒	N24-A	ONE-N24-A
☒	N24-B	ONE-N24-B
☒	N25	ONE-N25
☒	N26	ONE-N26
☒	N26-B	ONE-N26-B
☒	N27	ONE-N27
☒	N28	ONE-N28

Sign	L2/17-157	Proposed
𒃩	N28-B	ONE-N28-B
𒃪	N28-C	ONE-N28-C
𒃨	N29-A	ONE-N29-A
𒃩	N29-B	ONE-N29-B
𒃪	N29A-B	ONE-N29A-B
𒃪	N29A-C	ONE-N29A-C
𒃩	N30-A	ONE-N30-A
𒃪	N30-C	ONE-N30-C
𒃩	N30-D	ONE-N30-D
𒃩	N30-E	ONE-N30-E
𒃪	N30A-C	ONE-N30A-C
𒃪	N30C-B	ONE-N30C-B
𒃪	N30C-C	ONE-N30C-C
𒃩	N31	ONE-N31
𒃩	N32	ONE-N32
𒃩	N33	ONE-N33
𒃪	N34	ONE-N34

Sign	L2/17-157	Proposed
	N34 TIMES N58	ONE-N34 CONTAINING ONE-N58
	N34F TENU	ONE-N34F TENU
	N35	ONE-N35
	N36	ONE-N36
	N37	ONE-N37
	N38	ONE-N38
	N39-A	ONE-N39-A
	N39-B	ONE-N39-B
	N40	ONE-N40
	N41	ONE-N41
	N42-A	ONE-N42-A
	N42-B	ONE-N42-B
	N43	ONE-N43
	N44	ONE-N44
	N45	ONE-N45
	N45-A	ONE-N45-A
	N46	ONE-N46

Sign	L2/17-157	Proposed
●	N47	ONE-N47
◐	N48	ONE-N48
◑	N49	ONE-N49
◎	N50	ONE-N50
□	N51	ONE-N51
■	N52	ONE-N52
▢	N54	ONE-N54
▢	N55	ONE-N55
▢	N56	ONE-N56
—	N57	ONE-N57
—	N57 N57	ONE-N57 BESIDE ONE-N57
	N58	ONE-N58
\	N58 TENU	ONE-N58 TENU
▀	N60	ONE-N60
●	N63	ONE-N63

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9 Acknowledgments

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In the second text (fig. 37), the quantities for both products are further differentiated according to an additional criterion. In this case, the respective entries are followed by the signs NAGA (𒉗) and DUB (𒉗), the meanings of which are, however, not understood. The summations are formed in two consecutive steps. In the first step, the amounts of barley groats and malt are added together separately, then the grand total of all entries was calculated.

In this text as well, the scribe made a mistake in his totals. In adding both quantities of malt, he forgot to include the four units 𒉗 in the subtotal.

Calculations in the Production of Beer and Other Cereal Products
 One of the most important texts of the Erlenmeyer collection (*MSVO* 3, 2, fig. 38) discloses exceptional information about the use of the cereal products accounted for by Kushim. A scribe, probably a staff member of Kushim's office, had noted down his calculations pertaining to the exact ingredients required for nine different cereal products and eight different kinds of beer in a tabular compilation. Some of the products are noted with the respective amounts of cereals contained in them. These ingredients are denoted by the signs 𒉗, 𒉗, 𒉗, 𒉗, and 𒉗. Others are denoted by more specific ideograms such as 𒉗 and 𒉗. In this text, five different numerical systems were used (see chap. 6), the bisexagesimal system for the cereal products, the sexagesimal system for the beer containers, and three different systems for the measures of cereals. One of the latter was used for the specification of the quantities of the cereal ingredients contained in the products; the other two are those already discussed in connection with barley groats and malt. Not only the formal aspects of the compilation but also the fact that it is unsigned reveals that the text represents some sort of supplementary annotation to the proper administrative documents. Such documents have often been regarded as school texts, although the available documents from the administrative archive of Kushim now clearly testify that such calculations were part of regular administrative practice.

Texts containing calculations of the cereal ingredients needed for certain products belong to the most complicated arithmetical texts of the archaic period. To date, only a very few texts have been found in which such calculations were systematically carried out for various cereal products, for types of beer and so on. We know of only one text (now in the Iraq Museum, Baghdad) with features comparable to those of text *MSVO* 3, 2. One of the remarkable things about these texts is that they inform us directly about the ingredients of different cereal products. In fact, it was the study of such texts that provided the basic proofs for the decipherment of the cereal measures used in the present publication. Their special value is also to be seen in the light they shed on

the developmental stage of arithmetical techniques in the period immediately after the invention of writing.

The structure of the calculations is demonstrated by the following three examples taken from the text in question.

1. The fourth line in the first column records an amount of barley groats needed for the production of 30 units of the final cereal product (represented by the triple repetition of the sign •, the sign normally used for "10"). The final product is represented by the numerical sign 𒉗. The total amount of barley groats needed, which is represented by the sign combination 𒉗 𒉗, is obtained when 𒉗 is multiplied by 30.
2. The seventh line of the first column informs us about how much barley groats and malt (in this case equal amounts of both products) was needed for the production of five jars with a type of beer, represented by the signs 𒉗— 𒉗. This line, therefore, documents the composition of this type of beer.
3. In the fifth line of the second column, the equivalent amount of barley for 1800 daily cereal rations (sign 𒉗) was calculated. The use of the sign 𒉗 points therefore to the size of such rations (approximately 0.8 liter). The figure 1800 is rendered in the bisexagesimal system, containing the sign 𒉗 for 1200 and 𒉗 for 120, which was used exclusively to quantify cereal products.

As in many other cases the present text contains an error. For a unit of the cereal product 𒉗 the scribe had written in the first text line sign 𒉗, corresponding to ten times the necessary amount of the ingredient barley groats. Although this calculation is a fairly easy one, and the remaining, more complicated calculations seem to be otherwise correct, we must assume that the detected error is merely due to a mental lapse on the part of the scribe. For the correct reading, one has to replace the sign for "one" (𒉗) with the sign denoting "ten" (•).

Beer Production and Accounts of Cereal Ingredients

Finally, the documents from the administration of the official Kushim provide a rare example of a direct accounting connection between different texts. During the archaic period, running accounts apparently already existed. However, the texts are so fragmentary that the continuity of such accounts can only very rarely be traced. It should therefore be viewed as an unusual coincidence that two texts from the Erlenmeyer collection refer at two different stages to one and the same transaction, thereby clearly documenting the continuity of archaic bookkeeping as a whole.

Text *MSVO* 3, 6 (fig. 39b) documents the production of beer for four administration officials, among them a person with the

Figure 1: Examples of Proto-Cuneiform signs used in running text (from Nissen, Damerow, Englund 1993: 43).

2. THE EARLIEST MESOPOTAMIAN WRITING

THE WRITING SYSTEM AND ITS RELATIONSHIP TO SPEECH

At the root of the cuneiform writing system, as originally conceived, is the logogram, or word sign, which represents a single word or group of semantically related words (see fig. 2.5). Assigning semantically related words to a common graph was done in the interest of economy, as it limited the number of signs the writing system required and facilitated the learning of the script. For instance, the sign DU, originally a pictograph of a foot, , expressed the verbs *gen* “to go,” *gub* “to stand,” and *de₆* “to carry,” all of which share a transparent semantic relationship. Taken in isolation, one would be tempted to describe DU, and similar signs, as ideograms — signs that represent ideas or concepts — but in actuality all cuneiform signs represented specific words in a given context, and so functioned as logograms.

As Sumerian words tend to consist of (but are not exclusively) single syllables, logograms had both a semantic meaning, as representing words, as well as a phonetic value, expressing the syllabic pronunciations of those words. For example, the logogram represented by the graph KU₆ (the subscripted number is a modern convention for distinguishing homophones signs), , has the meaning “fish” as well as the syllabic value *ku*, which is the pronunciation of the word for “fish” in Sumerian. As described above, many of these logograms had a clear pictographic relationship to their referents; other examples include the picture of a reed, , for the Sumerian word for “reed,” that is, *gi*, or the graph for “mountain,” , for the word for “mountain,” *kur*. A much smaller group of logograms, however, had an arbitrary relationship to their referents, such as the sign for “sheep and goats” which consisted of a cross inscribed within a circle,  (e.g., Catalog No. 28). Through the use of the rebus principle, whereby a sign for one word could be used to express a homonym, a second class of signs arose — phonograms — which possessed sound but not meaning. That is, the phonetic value associated with one word, most often something with a ready iconic representation, could be used to write another word that was identical or nearly so in pronunciation. The rebus principle is integral to writing, as it allows for the representation of those elements of language that are not easily

represented graphically, for instance, grammatical affixes, prepositions, and — of considerable importance to the historical development of cuneiform — the phonetic rendering of personal names and foreign words. The high frequency of monosyllabic words and homonyms in Sumerian clearly facilitated this development. For instance, in later cuneiform the sign for *sar* “garden” (originally a pictograph of a garden bed, ) could be used to write the homophonous but more abstract verb *sar* “to write”; similarly, the sign originally representing “water,” , *a* in Sumerian, was used for the syllable *a*, which among other things was the phonetic shape of the locative case in Sumerian. Finally, there is a third, smaller set of signs that are referred to as determinatives. These signs were not read, but merely served as aides in reading by indicating the semantic class to which certain words belonged; trees and wooden objects, for instance, were often preceded by the logogram, , for “wood,” cities by *uru* “city,” gods by *dingir* “god,” and so on.

In its original conception, however, Sumerian writing relied almost exclusively on the logogram. Phonetic writings generated via the rebus principle played a remarkably minor role in proto-cuneiform. More certain examples of phonetic writings include: the writing of the name of the moon god, *Nanna*, which is written URI₃+NA, , where NA, , is phonetic complement with the value *na* indicating that the graph URI₃, , is to be pronounced *nanna*; PIRIG+NUNUZ, , where the complement NUNUZ, , has the value *za*, indicating that the composite graph has the phonetic value *az(a)*; the aforementioned sign designating a reed, , pronounced *gi*, is used to express the homophonous verb *gi* “to return”; and the syllabic, that is phonetic, spellings of the city names Ša₃-bu and Gir₂-su (Englund 2009, pp. 9–10; Krebernik 2007, p. 43). Relatively rare attestations of this kind notwithstanding, phonetic writings do not constitute an important organizing feature of the proto-cuneiform writing system. Only in the first quarter of the third millennium did phonograms, generated via the rebus principle, begin to play a significant and increasing role.

The scarcity of phonetic writings creates a number of problems connected with identifying the language of the script and determining whether proto-cuneiform can be defined as “true” writing.

Figure 2: Examples of Proto-Cuneiform signs used in running text (from Woods, Emberling, Teeter 2010: 43).