

In Lugal-e a divine intervention is sought in the midst of the crisis in accordance with the prototype, but it is Enlil to whom Šarur turns; it is not Enki. This deviation can be understood in the framework of father-son relationship since Ninurta is always portrayed as a loyal son of Enlil. However, we also know from Ninurta and Turtle that Ninurta and Enki are not always on good terms³⁵.

Unit V: Second Battle—Victory. Encouraged by his father Enlil, Ninurta attains the ultimate victory and destroys Asag (Lugal-e 244-303). He calls the defeated Asag "zalag-stone" (Lugal-e 328) and turns it into a construction material (Lugal-e 349-354). Also in the Song of Ullikummi, the war's tide starts to turn after Ea's intervention. The end of the story is not preserved, but it is supposed that Teššub wins over Ullikummi³⁶.

In conclusion, Lugal-e and the Song of Ullikummi can be reduced to a certain common pattern: namely, a young champion aided by a helper initially suffers setbacks, but given the intervention of the other god, defeats his mountain/stone enemy. Moreover, the Song of Ullikummi borrows and transforms Mesopotamian literary motifs for its own story-telling purposes.

INITIAL PLENE WRITING AND THE CONJUGATION OF THE FIRST WEAK VERBS IN AKKADIAN¹

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Abstract

This article deals with a remarkable feature in the conjugation of Akkadian verbs with a weak first radical. In the present of the G-stem and the present and preterite of the D-stem, these verbs regularly drop the first radical and show contraction of the prefix vowel and the first vowel of the stem, even in those dialects that normally do not have vowel contraction. The result of this contraction is a long vowel identical in quality to the prefix vowel. For Old Babylonian, this can be established beyond doubt on the basis of a very specific spelling pattern in the pertinent verb forms: only those forms in which the first radical is intervocalic can have a plene spelling with an extra vowel sign at the beginning of the word. The ensuing contrast in spelling between the present and the preterite of *alākum* "to go", and between the present and the preterite of the D-stem on the one hand, and the prefixless forms of the D-stem on the other, shows that these forms differ in their initial syllable. The assumption that this difference consists of a contrast in length and that the plene spellings represent a long vowel, even though they occur in a closed syllable, provides a straightforward interpretation of this phenomenon. For the other early dialects (Sargonic Akkadian, Ur III Akkadian and Old Assyrian) there is no orthographic evidence of the same kind, but the consistent use of defective spellings and the general absence of strong forms suggest that they also have this long vowel. Orthographic features of texts from the first millennium, on the other hand, suggest that by the Middle Babylonian and Middle Assyrian period it had been shortened².

1. In Old Babylonian (OB), the verbs with a weak first radical, the I' verbs, show a very peculiar orthographic pattern in the present forms of the G-stem and in the present and preterite forms of the D-stem. For instance, for the 3rd p. sg. form that is usually transcribed as *illak* "he goes", from the I' verb *alākum* "to go", we expect to find the spellings *i-la-ak* or *il-la-ak* according to the normal rules of OB cuneiform, and for the 1st p. sg. *allak* we expect *a-la-ak* or *al-la-ak*, since a geminate consonant may but need not be expressed in writing. However, the actual spellings attested are *i-la-ak* and *i-il-la-ak* for the 3rd p. and *a-la-ak* and *a-al-la-ak* for the 1st p., with gemination and an additional vowel sign at the beginning which at face value seems to be superfluous³. Thus the particular spelling that would seem to

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² Many of the ideas developed here have also been expressed by others, in particular by Knudsen (1980 and 1984/86), but have not found the response they deserve. The best illustration of this is the fact that the latest (third) edition of GAG in §23d, after endorsing the untenable explanation of spellings such as *a-ak-ka-al* and *e-er-ru-ub* as expressing a word-initial *aleph*, fails to mention Knudsen's views apart from stating that Knudsen has "eine abweichende Erklärung", without even mentioning what it consists of. Since the problem is rather consequential for the phonology of Akkadian, I feel justified in attempting to reopen the discussion, although I do not have a solution for all problems involved.

³ The statement in GAG §97c sub β that these forms are always ("immer") spelled with this extra vowel (*i-il-la-ak*, *ú-up-pí-iš*) is incorrect.

³⁵ B. Alster, "Ninurta and the Turtle", UET 6/1 2, JCS 24 (1972) 120-125.

³⁶ Güterbock, JCS 5 (1951) 140.

be the most obvious one to use, namely *il-la-ak/al-la-ak*, is extremely rare in OB, and this applies to the G present of all OB I⁷ verbs (cf. also Reiner 1966: 87).

Table I presents the number of attested forms of the most common I⁷ verbs in the G-stem, based upon the OB letters of AbB 1-13, and gives a good impression of the numerical proportions of the three possible spellings. Spellings of the *i-il-la-ak* type are called "initial plene writing" (abbreviated IPW), those of the *i-la-ak* type are called "defective", and those of the *il-la-ak* type "normal" (in quotes), because they would seem to be the normal spelling for the forms in question (although in fact they are very unusual in the I⁷ verbs).

Table I: The number of attested forms of the G present of I⁷ verbs in AbB 1-13

	<i>amārum</i> see	<i>apālum</i> answer	<i>epēšum</i> do	<i>erēšum</i> ask	<i>erēšum</i> cultivate	<i>elūm</i> go up	<i>alākum</i> ^a go	
	pres.	pres.	pres.	pres.	pres.	pres.	pres.	pret.
IPW	9	33	23	6	1	8	83	1 ^f
"normal"	3 ^b	0	3 ^c	0	1 ^d	0	5 ^e	p. ^g
defective	7	16	20	13	7	9	116	13
total	19	49	46	19	9	17	204	—

Notes to the table:

- a) For the reason for including the preterite of *alāku*, see below.
b) *im-ma-ru-ki* 7, 125: r.15; *im-ma-ar* 8, 152: 52 and 5, 83: 13⁷ (context broken: read 'ni⁷-im-ma-ar?').
c) *ep-pu-ša-am* 3, 90: 28; *ep-pu-uš* 10, 5: 31; *ip-pu-uš* 10, 172: 9 (context broken).
d) *er-ri-iš* 6, 9: 19.
e) *al-la-ak* 5, 38: 6 (but Kraus: "nicht ganz sicher"); *al-la-kam* 6, 200: 7 (context difficult) and 8, 13: 8. 17; *al-l[a-ku]* 9, 44: 15. Note also 11, 107: 16, where Stol reads *ana* PN *šu-li-i il-la-ak*; the statistics presented here show that *i* belongs to the following word or is an instance of haplography.
f) *a-al-li-ka* 1, 128: 5.
g) *il-li-ik*, etc., *passim*, not counted.

I have not included instances which are even more uncertain. An exceptional G form from an OB letter not included in AbB 1-13 is *im-ma-ru* RA 86, 24: 39 (in Sumer 14 p. 35 no. 14: 12 read *er-re-šu-ú* "farmers" rather than Goetze's *ir-ri-šu-ú*). In other genres I have found a few additional exceptions: *im-mi-du* VS 22, 33: 8 and *ip-pa-lu* BE 6/1, 97: 12 (but the copy has a horizontal before IB: read 'i⁷-ip-?) in contracts; *in-na-aḫ* OrNS 60, 340: 17 from *anāḫum* "to sigh" in a late OB literary text, and *ip-pu-ú-šu* Iraq 54, 106: 25 in a late OB omen text (read: *bartam ana šarrim ip-pu-ú-šu* "people will rise in (lit. make) revolt against the king").

The orthographic pattern outlined here is also adhered to in OB texts from Mari and Susa; for Mari see Finet 1956: 138f (exceptions known to me are 'il⁷-la-kam ARM 18, 24 (= 26/1, 71bis): 6 according to J.-M. Durand, LAPO 16, p. 325 note 7; *il-la-ku-ú* ARM 25, 620: 7 (no copy available); and *ip-pu-úš* ARM 26/2 p. 69 no. 311: 7 (a letter with many peculiarities, error for *ipuš*?)); for Susa, see Salonen 1962: 43ff, with a list of I⁷ forms, in which only IPW and defective spellings are mentioned.

The rarity of the "normal" spelling *il/al-la-ak* becomes even more remarkable if we compare *illak* with the corresponding preterite *illik* "he went". This form is regularly spelled *il-li-ik*, rarely *i-li-ik*, but never *i-il-li-ik* (see Table I). Thus the very spelling which is hardly ever used in the present is the normal one in the preterite, as shown in Table II, where for the sake of convenience only singular forms are shown⁴:

⁴ However, a 1st p. sg. *a-al-li-ik* occurs once in AbB 1-13, see note f to Table I.

Table II: Attested spellings of the present and preterite of *alākum* G in OB

	defective	"normal"	IPW	strong verb
present 3s.	i-la-ak	—	i-il-la-ak	iparras
present 1s.	a-la-ak	—	a-al-la-ak	aparras
preterite 3s.	i-li-ik (rare)	il-li-ik	—	iprus
preterite 1s.	a-li-ik (rare)	al-li-ik	—	aprus

A comparable situation exists in the D-stem of the I⁷ verbs. Here the present and the preterite forms use either IPW or the defective spelling, but hardly ever the "normal" spelling. The verb forms without prefixes, on the other hand, i.e. the stative, the imperative, the infinitive and the verbal adjective, only use the "normal" or the defective spelling. Table III gives an indication of the numerical proportions. However, very few I⁷ verbs occur in the D-stem with sufficient frequency to be statistically relevant. In AbB 1-13 the two most common ones are the D tantum verb *uḫḫurum* "to be delayed, to tarry" and *emēdum* D "to impose, to moor"; I have supplemented them with the occurrences of *elūm* D "to make high(er), to raise" in the royal inscriptions of the First Dynasty of Babylon, as edited in RIME 4, p. 323-438:

Table III: The number of attested forms of the D pres.+pret. versus the other D forms in AbB 1-13 and RIME 4, p. 323-438

	<i>uḫḫurum</i>		<i>emēdum</i> D		<i>elūm</i> D ^a	
	prs+prt	other	prs+prt	other	prs+prt	other
IPW	4	0	4	0	7	0
"normal"	0	11	1 ^b	1	0	3
defective	4	4	1	0	0	0
total	8	15	6	1	7	3

Notes to the table:

- a) *elūm* D also occurs twice in AbB, both instances spelled as expected: a pret. *ú-ul-li* 11, 73: 14 (interpreted as a preterite by Stol, but as an imperative in CAD E 126a s.v. *elūm* v. 5a-2' (quoted as PBS 7, 73: 14)) and an imperative *ul-li-a-am* 13, 171: 5.
b) *um-mi-du-ši-i-ma* 2, 98: 4.
Note the pret. *ú-uš-ši-ir* and the imp. *uš-ši-ir* side by side in the same letter: AbB 6, 219: 16 and 30.
Exceptional forms known to me from other texts are *ú-up-pi-IS*, "calculate!" TCL 18, 147: 18; *up-pa-as* UM 5, 93: II 37 (= KH §75+e: 11, var. of *ú-pa-as*), *uḫ-ḫi-zu-šu* ARM 26/2 p. 172 no. 368: 35, and *ú-ug-gu-ur* OECT 11, 4: 1 (stative, OB incantation). Uncertain is Sumer 14 p. 19 no. 3: 7 *x-um-mi-id-ma* (Goetze: *ú-um-me-ed* (imperative); AHw 212b s.v. D 2b *um!*-*me-ed*; perhaps an erasure «x» *um-mi-id*?).

Another fairly common I⁷ D-stem in OB is *ubbubum* "to purify", which mainly occurs in legal texts. I have not systematically searched the OB corpus of such texts for forms of *ubbubum*, but no deviations from the pattern illustrated here are known to me.

Thus for the D-stem the pattern is as shown in Table IV, with *ubbubum* as example:

Table IV: Attested spellings in the paradigm of the D-stem of the I⁷ verbs in OB

	defective	"normal"	IPW	strong verb
pres. 1/3 p. s.	ú-ba-ab	—	ú-ub-ba-ab	uparras
pret. 1/3 p. s.	ú-bi-ib	—	ú-ub-bi-ib	uparris
imperative	ú-bi-ib	ub-bi-ib	—	purris
stative	ú-bu-ub	ub-bu-ub	—	purrus
infin./VA	ú-bu-bu-um	ub-bu-bu-um	—	purrusum

2. It is not so much the interchange of plene and defective spellings itself that is remarkable and in need of an explanation (this is familiar enough from geminates and long vowels in other positions), but the restriction of IPW to specific forms of the paradigm and the virtual absence of "normal" spellings in these same forms. Consequently, there are two questions to be answered: first, why is IPW used in the present of the I' verbs but not in the preterite of *alākum* (which seems to have the same structure), and why is it used in the present and preterite of the D-stem, but not in the D forms without prefixes?⁵ Second, what is the reason that the forms in which IPW occurs hardly ever show the "normal" spelling?

If we compare the distribution of the IPW forms with the inflection of the strong verb, it transpires that they appear exclusively in those places where in the strong verb the first radical is intervocalic (see Table II for G and Table IV for D). Therefore, the use of IPW must in some way be related to the original presence of *aleph* as first radical of these verbs⁶.

The relationship between the use of IPW and the original presence of *aleph* in the I' verbs has not gone unnoticed. In fact, it is often claimed that IPW is a means to indicate the presence of a word-initial *aleph*⁷. However, this evidently does not account for the specific distribution of IPW forms over the paradigm of the I' verbs, as already observed by Knudsen (1984/86: 235). Why would a Babylonian scribe sometimes indicate *aleph* in the present of *alākum* by writing *i-il-la-ak*, but never in the preterite? Or why would he do so only in the present and preterite of *ubbubum*, but not in the forms without prefixes? If there was a glottal stop at the beginning of a word that would otherwise start with a vowel, it must surely be present in all forms of the paradigm. And even if we assume that its expression is optional, in the same way as plene writing for long vowels and explicit rendering of geminate consonants is, we do not expect the highly specific pattern that is actually found⁸.

A slightly different explanation which does account for this pattern but is unlikely for other reasons is proposed by Wilhelm (1971: 289) and Lipiński (1997: 446). They suggest that *i-il-la-ak* may stand for something like *i*llak* or *i'ellak*, from an alleged original **yi'allak*. There are two problems with this proposal. The first is the existence of the alternative defective spelling *i-la-ak*, which cannot possibly stand for *i*llak* or *i'ellak*⁹. The second one is that

⁵ In other I' verbs than *alākum* the preterite does not have a geminate consonant, so that the sharp contrast between the spelling of the present and that of the preterite observable in *alākum* is absent. Cf., however, the situation with regard to *izuzzum* described in the next footnote.

⁶ This is confirmed by a comparison of *alākum* with *iluzuzzum* "to stand (up)", which is similar to *alākum* in that both present and preterite have a geminate: *izzāz* versus *izzīz* (Huehnergard 2002: 164). Unlike *alākum*, the present of this verb never shows IPW, as far as I know: **i-iz-za(-a)-az* does not seem to be attested, at least not in AbB 1-13, nor in OB omnia or literary texts (cf. also M. Streck, AfO 44/45 (1997/8) 321-322 and Huehnergard 2002: 165). This is doubtless due to the fact that *iluzuzzum* is not a I' verb but a fossilized N-stem of a middle-weak verb (Huehnergard 2002: 176).

⁷ Cf. Von Soden, GAG §23d; Hecker, GKT §27a/c; Buccellati 1996: 24f; Greenstein 1984: 39; Aro 1955: 21f; Salonen 1962: 43; Lieberman 1977: 84 note 231, and various others.

⁸ The same objection applies to the idea presented in GAG³ §22d* that spellings such as *i-ip-pé-eš* "he does" and *ú-ub-ba-al* "he brings" still bear a trace of the old prefixes *ji-* and *ju-* of the third person. For *ú-ub-ba-al* see section 9.

⁹ If we accept this proposal, we must assume two alternative present forms in OB: *illak* and something like *i'ellak*, a conclusion that is indeed drawn by Lipiński (1997: 446). It is contradicted, however, by the fact that IPW and defective spellings occur side by side in the same text, e.g., YOS 13, 368: 16 *i-ik-ka-al* vs. 17 *i-kal*; Sumer 14 p. 37 no. 15: 15 *i-pe-šu* vs. 18 *i-ip-pé-šu*; ShA 1 p. 92 no. 18: 29 and 33 *ú-uh-ḫi-ru/ir* but 30 *ú-ḫi-ir*; ARM 3, 70: 7' *i-ip-pé-šu* vs. 8' *ul i-pé-š*; ARM 4, 11: 18f *i-la-ak* and *i-il-la-[ak]*; ARM 28, 52: r.16' *i-p[a-al]* vs. 18' *i-i[p-p]a-a[l]*. This means that the choice between them was purely a matter of orthography.

these forms require an ad hoc and unattested vowel change of *a > e* or *e* after *aleph* in the G forms; if intervocalic *aleph* was preserved here, the expected form of the 3rd p. would be *i(-a)-al-la-ak* (*ji'allak*) in accordance with *iparras* (Knudsen 1980: 11). If we apply this proposal to the D forms of the type *ú-ub-ba-ab* and interpret it as */u'ubbab/*, we must assume a change *a > u* after *aleph*: **/ju'abbab/ > /u'ubbab/* (cf. *uparras*), which is likewise not attested¹⁰.

Thus although IPW must be a reflex of the original *aleph* in the I' verbs, it cannot represent this *aleph* itself. This was already observed by Aro (1953: 4) and Reiner (1966: 87), but they did not propose a concrete phonological interpretation. In my view, the specific pattern of the IPW forms in combination with historical considerations demonstrates that IPW forms in the inflection of the I' verbs indicate a long vowel. This is not an original idea: it was also suggested by Knudsen (1980: 11 and 1984/86: 235) and Gai (1997: 73f), but without the orthographic arguments that make this conclusion inescapable.

3. Apart from the orthographic evidence, there are two other points in favour of this proposal. First of all, it results from the contraction of the original (short) prefix vowel and the vowel of the first syllable of the stem, and the regular outcome of vowel contraction in Akkadian is a long vowel (GAG §16a). Normally, this vowel has the quality of the second of the original two vowels: *u+a > â*, *i+a > â* (only in late OB), *i+u > û*, etc. (GAG §16), but in the I' verbs it is the first one that prevails: *illak < *ji'allak*, *ûbbab < *ju'abbab*. However, this irregularity can easily be understood from the wish to maintain the integrity of the prefix vowel and thus to avoid ambiguity in the indication of person: *illak*, *tâllak*, *illak* like *aparras*, *taparras*, *iparras*, etc.; similarly in verbs with E-colouring: *êppeš*, *têppeš*, *îppeš* "I/you/he do(es)" like *eleqqe*, *teleqqe*, *ileqqe* "I/you/he receive(s)". A more difficult problem than that of the quality of the vowel is the fact that this contraction also occurs in those dialects that normally do not have vowel contraction at all, namely Sargonic Akkadian, Ur III Akkadian and Old Assyrian. I will come back to this problem in 8.3.

Second, it gives a plausible explanation for one of the most peculiar phenomena in relation to IPW, namely the virtual absence of "normal" spellings such as *il-la-ak*, *ub-ba-ab* and *ub-bi-ib* (pret.) in OB. This is due to the fact that the OB scribes avoided a simple IL or UB for the syllables */il/* and */ub/*, because they felt that these VC signs were unsuitable for the expression of a long vowel. They solved the resulting problem by inserting a vowel sign before the VC sign, just as they inserted an extra vowel sign after a CV sign in order to explicitly indicate a long vowel after a consonant. This situation only occurs at the beginning of a word, but it is parallel to their apparent reluctance to use CVC signs in syllables with a long vowel, especially one that results from contraction. For instance, they spelled the word *annûm* "this" (< *annium*) as *an-nu-um* or *an-nu-û-um* rather than *an-num*¹¹. In accordance with the same

¹⁰ Nevertheless, GAG³ §97*, mentioning the problematic Old Akkadian form *u-û-ḫi-ru-un* (see 8.3) and interpreting it as *ju'uhḫirun(i)*, comments that from this form "die aB [= Old Babylonian, NJCK] Formenbildung zu beurteilen ist". This sounds like a suggestion to derive a form such as *ú(-ub)-ba-ab* from **u'ubbab*, which is unlikely for the reasons already stated. Moreover, the only other relevant forms attested in third millennium Akkadian do not show such a change: *u-a-ḫa-ru* and *li-a-ḫir*, see 8.3.

¹¹ This does not apply to OA, where spellings such as *a-num*, *a-nim* and *a-nam* are common practice. The phonological interpretation of these forms is obscure, however: Assyrian does not normally have vowel contraction so that the phonological background of these forms is problematic.

principle they avoided writing *illak* with IL, and either wrote *i-la-ak*, leaving the length of the vowel (and that of the following consonant) unexpressed, or *i-il-la-ak*, showing both the long vowel and the geminate consonant.

4. What has prevented many scholars from accepting that IPW in the I/ verbs indicates a long vowel is doubtless the wide-spread opinion that Akkadian has a rule that shortens a long vowel in a closed syllable, just as other Semitic languages like Arabic, Hebrew and Ge'ez¹². However, for Akkadian itself there is no evidence of such a rule. Cuneiform spelling gives no information about vowel length in closed syllables, nor is there any concrete grammatical evidence. The main protagonists of vowel shortening in Akkadian, Reiner (1966: 44) and Greenstein (1984: 42-43), base themselves exclusively on theoretical arguments derived from the linguistic theory they are partial to.

The forms that play a central role in the discussion are feminine forms derived by means of the affix *-t-* from nouns and adjectives with a long vowel, such as *mārtu* "daughter", *bēltu* "lady", *awīltu* "lady", and feminine adjectives such as *tābtu* "good", *rūqtu* "far", *šibtu* "grey, old (woman)". Actually, we have no means to decide whether or not these words keep the long vowel of their masculine counterparts¹³, but the burden of proof rests on those who are in favour of shortening, because this requires an extra rule. As long as the existence of such a rule is not proven, the claim that Akkadian does not allow a long vowel in a closed syllable cannot be adduced as evidence against forms such as *illak*, *ūbbab* and *ūbbib*. On the contrary, these forms, as they can be reconstructed on the basis of the attested plene writings, give us precious evidence that Akkadian can indeed have a long vowel in a closed syllable.

A comparison with Classical Arabic may be instructive here, a language which does not normally tolerate long vowels in closed syllables. Yet it may have long *ā* before a geminate in some forms, such as the present participle *tāmmun* "complete" and the dual energetic *yaqtulānni* "the two of them kill" (Fleisch 1961: 163ff; Testen 1993: 305f; Gai 1997: 73f). These are highly marked forms whose occurrence is dependent on very specific conditions: *tāmmun*, for instance, results from a conflict between the required pattern *fā'il* (**tāmimun*) and the rule that a short vowel is elided between identical consonants (Fleisch 1961: 139ff), *yaqtulānni* from the suffixing of the energetic morpheme *-nni* to a verb form ending in long *ā*.

Perhaps the corresponding phenomenon in Akkadian could also develop only under certain conditions, as a result of vowel contraction (in the I/ verbs), for instance, or as a result of the application of a morphosyntactic rule to other than strong (triradical) stems. This occurs, for instance, in the rule of feminine adjective formation, which adds *-t-* to the masculine stem: in the strong verb this gives the unobjectionable form *damiq-t-* from masculine *dam(i)q-* "good". However, in an adjective with a long vowel such as *tābu* "good, pleasant", this rule leaves the long vowel stranded in a closed syllable: *tāb-t-*.

Thus it is plausible that phonologically the long vowels in question represent a marked and thus inherently unstable feature. This is one of the reasons that, as far as our evidence goes, they do not seem to have survived into the later periods of Akkadian, as I will argue in 8.4.

¹² This view is expressed, for instance, by Reiner 1966: 44, Greenstein 1984: 42-43 (with previous literature), Buccellati 1996: 28-29, and recently again by J. Tropper, UF 33 (2001) 625. For Semitic, see Brockelmann 1908: 63; however, Moscati (1964: 65) has doubts about "its general application over the entire Semitic field".

¹³ Cf. Edzard's emphatic statement to this effect (JAOS 106 (1986) 361a).

5. IPW is also used outside the conjugation of the I/ verbs, as Streck (1997/98: 311b) rightly emphasizes: many vowel-initial words, both nouns and verbs, can have IPW in OB and other dialects. However, there is an important difference between these cases and IPW in the I/ verbs: in the latter it has a very specific, non-random distribution and typically alternates exclusively with defective spellings, whereas in the former it is used more or less inconsistently and alternates with both "normal" and defective spellings. It appears to be used for several purposes but because of its unsystematic nature it is difficult to determine the reason for its use in a specific case. What is certain is that it often occurs in environments where a long vowel is unlikely or even impossible.

Before proceeding with the I/ verbs I will give a brief survey of some typical instances and suggest an interpretation for some of them, without attempting anything in the way of a full discussion. In this section I will restrict myself to OB; other dialects and later developments will be discussed in section 8.

First of all, it is conceivable (but hard to prove) that IPW indicates a long vowel also in some individual words outside the I/ verbs. Good candidates seem to be nouns that have IPW in OB with a high degree of consistency, such as *irtum* "breast", *aptum* "window" and *entum* "entum-priestess": perhaps their actual forms are *īrtum*, *āptum* and *ēntum*. For the Sumerian loan word *ēntum* this is supported by its masculine counterpart *ēnum* (cf. section 4), which is often assumed to have a long *ē*¹⁴. For *īrtum* and *āptum* there does not seem to be other evidence in support of a long vowel¹⁵.

Another Sumerian loan word that regularly has IPW in OB is *ibbūm* "financial loss" (from IM.BA). It has a special significance because it occurs (once) in Hammurabi's Law Code, a text which is characterized by an unusually accurate and sophisticated orthography. It uses IPW in the relevant forms of the I/ verbs with almost complete consistency¹⁶, and elsewhere only in the negation *ū-ul*, in the construct states *aḥ* (or *āḥ*?) from *aḥum* (*āḥum*?) "side" (*a-aḥ-šu* KH § 53: 10) and *in* from *inum* "eye" (*i-in* KH §198: 54), and in *ibbūm* (*i-ib-bu-ū-um* KH §129: 9, with a variant *i-ib-bu-um*)¹⁷. This suggests that the spelling *i-ib-bu-ū-um* is meaningful, and a long initial vowel seems to be a straightforward explanation¹⁸.

Second, IPW is also consistently used in monosyllabic words that start with a vowel, such as the negation *ul*, construct states such as *i-in* and *a-aḥ* quoted in the preceding paragraph, and staves of hollow roots, e.g. *i-iṣ* ARM 3, 3: 6 "it is little/ few" from *wiāṣum*, and of II/gem verbs, e.g. *e-ed* YOS 10, 31: II 19 "it is sharp" from *edēdum*, and *e-em* TLB 2, 21:

¹⁴ See CAD E 177a s.v. *ēnu* and 172a s.v. *ēntu* and Edzard 2003: 13 (but AHw 220a has *enu(m)* and *entu(m)* with short *e*).

¹⁵ *āptum* is a Sumerian loan word according to Lieberman 1977: 127 no. 12, but this does not say anything about its initial vowel. AHw 61b s.v. *aptu(m)* is doubtful: "sum. Lw.?". *īrtum* is assigned an Afroasiatic etymology by Militarev and Kogan 2000: 11f no. 9, but the cognates they mention give no certainty about the quantity of the vowel. It is remarkable that this noun already occurs with IPW in Sargonic Akkadian (*e-er-tim* AKI p. 236: 463), and often has IPW in OA, too (GKT §27c).

¹⁶ The only instances of present forms written defectively are *a-ḥa-az* "I will marry" (§ 159: 42) and *i-kal* "she will eat" (§178: 13).

¹⁷ The other OB instances given in the dictionaries (not counting logographic spellings) are *i-ib-bé-e* AbB 11, 123: 9 and *i-ib-ba-a* AbB 6, 219: 23 (cancel YOS 2, 37: 30 *ib-bé-e*, mentioned in Lieberman 1977: 327 no. 353: read É GUD UDU acc. to Stol, AbB 9, 37: 30).

¹⁸ Its Sumerian source IM.BA is not helpful, since it is itself of unclear structure. Vowel quantity in Sumerian is a particularly vexing problem, the solution of which is usually dependent on the availability of Akkadian parallels rather than vice versa, cf. Edzard's examples of short and long vowels in Sumerian nouns (Edzard 2003: 13).

20 "it is hot" from *emēmum*. For the use of IPW in these short words various motives are conceivable: a tendency to avoid the syllabic writing of a full word with only one sign, the wish to disambiguate polyvalent signs, and, again, to indicate a long vowel.

The first motive may apply in particular to the negation *ú-ul*, since there is no reason to assume that *ul* has a long *ū*. The second is especially relevant to VC-signs starting with *eli* (*em/lim*, *er/ir*, *es/is*, etc.), as in *iš*, *ēd* and *ēm*, and also to the sign AH, which stands for *aḥ*, *iḥ*, *eḥ* and *uḥ*, as in *a-aḥ*. Similar cases are *a-aḥ-ḥi-ja* TCL 17, 53: 7 "my brothers", *e-er-šu* AbB 12, 6: 13 "it has been cultivated" (subj.), *e-ez-ba-am* AbB 1, 21: 21 "leave to me!" (cf. *izbam* "malformed new-born human or animal" (acc.)), *i-il-qé* AbB 5, 156: 13 "he received" (versus 1st p. sg. *elqe*), and *e-eš-mu-ú* OBTI no. 23: 14 "I heard" (subj.) (versus 3rd p. sg. subj. *išmū*)¹⁹. As to the third motive, among the examples mentioned in the previous paragraph, *īn* and *iš* certainly, and *ēd* and *ēm* probably, have a long vowel²⁰. Of course, this does not mean that this is also the reason why they have IPW. Which of the possible motives is valid in a particular case is a matter for speculation; it is quite conceivable that in some cases IPW is caused by several motives at the same time (Aro 1953: 4).

Finally, there can be little doubt that in many cases IPW is a purely orthographic phenomenon without phonological consequence, as has been argued by Streck (1997/8: 311f). This is doubtless the case in forms that only sporadically have IPW, such as the verb forms *a-aṣ-ba-at* AbB 1, 93: 6 "I seized", *i-ib-ta-lu-uṭ* UVB 18 pl. 28c: 17 "it came to life", *a-ad-di-in* BE 6/2, 53: 12 "I gave", *i-iš-ša-qa-al* YOS 10, 24: 32 "it will be made scarce", and in other words (e.g. *a-at-ta* St. Reiner p. 192: 57 "you"). These spellings contrast with hundreds of instances of spellings without an extra vowel, and there is no reason to assume that this is anything but an orthographic oddity.

This short survey may suffice to show that there is sufficient reason to set IPW in the I/ verbs apart from the other instances, so that the latter (many of which obviously do not indicate a long vowel) do not affect the conclusions reached for the former. There is no a priori reason why a phenomenon should not have a very specific function in one domain of its use and a different function (or perhaps no coherent function at all) elsewhere.

6. Another difficult problem is whether IPW may also be used for indicating word-initial *aleph* outside the I/ verbs. The answer depends on the more fundamental question whether Akkadian has a word-initial *aleph* before otherwise vowel-initial words in general. Opinions are divided on this²¹. Those who take the affirmative view tend to use IPW in the I/ verbs as their prime evidence²²; I have shown, however, that this is untenable. Because of the lack of other evidence we cannot answer this question in anything but the most tentative way. Orthography is of little help: in the older periods there is no specific sign for *aleph*; from

¹⁹ This motive for IPW in such forms is also suggested by Aro (1953: 4).

²⁰ This depends on how we interpret the phonological realization of a word-final geminate: is **dann* "he is strong" from *danānum* realized as *[dān]* with compensatory lengthening of final *nn* (so GAG §101d and Reiner 1966: 52 and 124) or simply as *[dan]* (so Huehnergard, OrNS 66 (1997) 443)?

²¹ A negative answer is given by Reiner 1964: 169, a positive one by Lieberman 1977: 84 note 231, Buccellati 1996: 24 (at least for OB) and Greenstein 1984: 9 note 4. The authors of the two major grammars of the older dialects of Akkadian, Von Soden (GAG §23d) and Hecker (GKT §27a/c) seem to take it for granted that there is *aleph* before an otherwise word-initial vowel.

²² E.g. Von Soden in GAG §23d, Buccellati 1996: 24-25.

Middle Babylonian and Middle Assyrian onwards there is a special *aleph* sign available, but it is optional and not normally used in word-initial position²³.

However, there is some indirect orthographic evidence from sandhi spellings, which reveal assimilatory changes across word boundaries. If the second member of a word pair starts with a vowel (or *aleph*), we sometimes find spellings that ignore the word boundary ("crasis", cf. GAG §17a; GKT §20a and 28c). Most of these word pairs consist of a proclitic and a following noun or verb form. For instance, in a letter of the Sargonic period from Girsu we find *a-na-lim-ma* SAB p. 90: 34 "to the city", instead of *a-na a-lim-ma*. This is the earliest instance, as far as I know²⁴, of a phenomenon that recurs incidentally in later dialects. OB instances include *ša li-ib-ba-li-im* (*libbālim*) RA 38, 84: r.5 "the interior of the city" < *ša libbi ālim*, *i-na-li-im* Legends p. 66: 46 "from the city", *a-na-bi-ja* RA 86, 22 no. Di 1194: 10 "to my father" for *ana abīja*, and *ú-li-le-qè* AbB 11, 27: 13 "he will not receive" for *ul ileqqe* (cf. also *ú-la-az-za-az* *ibid.* 16, *ú-li-šu* *ibid.* 28). Similar spellings also occur in Old Assyrian (OA), but they seem to be rather unusual (GKT §20a and 28c): e.g. *a-na-bi-a* Prag I 440: 24 "to my father" for *ana abīja* (but *a-na a-bi-a* in 29!), *mī-ma-nim* TMH 1, 16f: 8' "all that" for *mimma annim*, and *ú-li-ba-šī* "is not available" TC 2, 2: 14, according to GKT § 28c a unique spelling for *ul ibašši*.

OA also shows another type of sandhi spelling that is the opposite of the preceding one: it has spellings such as *a-am-ti-šu* AKT 3, 32: 3 "for his slave-girl", where *n* of the preposition *an(a)* is assimilated to the following consonant, a rather common practice in OA. In this case the particular consonant must be *aleph*: *[a]"amtīšu]*. Similar cases include *i-Ē.GAL-lim* VS 26, 6: 19 "in/from the palace" (*[i]"ekallim]*); *a-Ištar-wa-al-da-at* ICK 2, 284: 7 "for/to *Ištar-waldat*", cf. GKT § 36a²⁵. This kind of assimilation to word-initial *aleph* is not found in Babylonian.

The value of these sandhi spellings is limited: strictly speaking they do not give much information about *aleph* in real word-initial position, because the *aleph* involved is not actually word-initial: in most cases the first word is proclitic so that the word pair may be regarded as a phonological unity. Yet what they do show is that there was a difference between Assyrian and Babylonian: for Assyrian there is positive evidence that a word starting with a vowel could have a word-initial *aleph* strong enough to survive after a proclitic preposition, but there is no such evidence for Babylonian.

This is in keeping with the overall position of *aleph* as a phoneme in these dialects. In Assyrian, *aleph* has a strong position. Although we may safely assume that it was dropped

²³ Cf. also GAG §23d (Jucquois 1966: 180 mentions a few exceptions). According to Reiner (1964: 169) the *aleph* sign should be interpreted as V' rather than V if it is the first sign of a word. This is often the case, e.g. in a form such as *i'-ir-ru* Iraq 42, 28: 13' "he goes" (subj.), 3rd p. sg. present of *(w)āru* (i.e. *[i'irru]* for older *[i'irru]*), but not always. For instance, the imp. sg. of the same verb may be spelled *'ir* (or *'i-ir*) "go!" (e.g. VAB 2, 12: 11 and Ee III 11); this must stand for *[ir]* < *[wīr]* (pace AHw 1471b s.v. *(w)āru(m)* G 2). Presumably the *aleph* sign, although superfluous here, was introduced under the influence of the forms where it is intervocalic. Whether this is purely orthographic or also involved the pronunciation cannot be determined.

²⁴ Not counting proper names, in which it occurs as early as the Pre-Sargonic period, at least in the area of Nippur and further south, cf. Westenholz 1988: 101, e.g. *iš-me-lum* < *išmā'-(i)lum* (*ibid.* 115 no. 216). Such names are especially common in Ur III Akkadian (Hilgert 2002: 65-79) and in OA (GKT §20b and 28c).

²⁵ See the large number of instances and the inconsistency of such spellings in AKT 3, 32. Spellings without assimilation are also common (e.g. *a-na a-am-tim* KTS 1, 13b: 15), reflecting either a more careful pronunciation or possibly a morphophonemic spelling, as in other cases in OA, cf. Greenstein 1984: 32 and Reiner 1973.

between vowel and consonant already in OA (GKT § 28e), it was generally preserved between vowels (GKT § 19b and 28d) and between consonant and vowel (GKT § 27a/c and 28d)²⁶. This applies not only to OA, but also to Middle Assyrian and Neo-Assyrian, in spite of the fact that the number of contractions increases, a certain sign of the antecedent loss of *aleph*²⁷.

In Babylonian, the situation is rather different. The available evidence indicates that a phonological process has eliminated *aleph* in most, if not all, positions: between vowel and consonant (GAG §15a and 24e), between consonant and vowel (GAG §15b) and between vowels, followed by contraction (GAG §24). However, this process was blocked or reversed for morphosyntactic reasons in specific environments, e.g. in the present participle (*dā'iku* "killing"), in positions where the corresponding strong verb has gemination (*ištana* "al" "he keeps asking") and on a rather large scale in the conjugation of doubly weak verbs (cf. *i'irru* discussed in Note 23, *rē'u* "shepherd", *bā'u* "to pass", etc.). Thus *aleph* is not completely lost as a phoneme in Babylonian, but its presence is determined by specific morphosyntactic environments, and its ability to appear as a fully-fledged phoneme seems to be strongly curtailed²⁸.

Finally, it is important to recall that word-initial *aleph* has no phonemic status in Akkadian because it is not contrastive (Reiner 1966: 35). In order to have phonemic status, word-initial *aleph* must contrast with a vocalic onset; it is not sufficient if it only contrasts with other consonants, because in that case the contrast between consonant and *aleph* may also be interpreted as a contrast between consonant and *zero*, so that it does not matter whether the vowel is preceded by *aleph* or not. For instance, if we could demonstrate that Babylonian has a contrast between */ubil/* "he carried" (< *jubil*, as in Old Akkadian) and */ubil/* "I carried", we would have proof that *aleph* was phonemic (at least in this particular instance). If there is only a contrast between */ubil/* "I/he carried" and */ubil/* "you carried", *aleph* is not contrastive, because the contrast is not impaired if */ubil/* is realized as *[ubil]*. The latter alternative is doubtless the case in Akkadian. Thus phonologically "I/he carried" is */ubil/* rather than */ubil/*. However, it is perfectly possible that it could actually be realized as *[ubil]*, but this depended on non-phonological factors such as a careful pronunciation, the preference of individual speakers, etc.; in Saussurean terms, it was a question of *parole* rather than *langue*.

The indirect evidence we have, from both sandhi spellings and the general status of *aleph* as a phoneme, suggests that Assyrian is more likely than Babylonian to have a word-initial *aleph* before a word that would otherwise start with a vowel. I do not think our evidence allows us to go further. For the specific question we are seeking to answer, namely whether

²⁶ This is not easy to infer from Hecker's discussion of post-consonantal *aleph* in §28d. His remark that "Nach Konsonanten stehen Formen mit und ohne Alef nebeneinander" is inaccurate in so far as this is typical of a very small number of words (such as *ma'er'um* "son"), whereas in the vast majority of cases post-consonantal *aleph* is preserved in OA and even in later Assyrian. For details, see Kouwenberg, forthcoming.

²⁷ Cf. Mayer 1971: 18 for MA and Hämeen-Anttila 2000: 36f. A detailed study of vowel contraction in Assyrian is an urgent desideratum.

²⁸ It is true that Babylonian also has a secondary *aleph* that developed from an as yet unidentified source and behaves completely like a strong radical (GAG §97g/k). In OB it is rendered either by H-holding signs or by broken spellings, later by the newly created *aleph* sign (Von Soden and Röllig 1991: 45f no. 233). It occurs in verbs such as *'alālum* "to hang" (trans.), *na'ādum* "to pay attention to" and *mašā'um* "to rob", and in nouns such as *šer'ānum* "sinew, vein" and *ru'tum* "spittle", and doubtless has a marginal status among the phonemes of OB; however, in MB its use increases and it is restored in some environments in which it was lost earlier (Aro 1955: 34f).

the use of IPW outside the *I'* verbs also includes the expression of word-initial *aleph*, the result is inconclusive: there are no reasons to assume that it does, but it cannot be disproved.

7. Returning now to our main theme, the use of IPW in the *I'* verbs, the conclusion is that in OB the present G and the present and preterite D of the *I'* verbs have a long vowel in the prefix. Strictly speaking, the argument only applies to the prefixes that start with a vowel; it must be assumed, however, that all forms in which the first radical is intervocalic have a long vowel, i.e. all finite forms and the participle D (*muparrisum* in the strong verb)²⁹. Thus for OB the pertinent conjugations can be reconstructed as in Table V³⁰:

Table V: The conjugation of the pertinent forms of the *I'* verbs

	G present: alākum	G present: epēšum	D present: ubbubum	D preterite ubbubum	D participle ubbubum
3s	īllak	īppeš ³¹	ūbbab	ūbbib	
2sm	tāllak	tēppeš	tūbbab	tūbbib	
2sf	tāllakī	tēppešī	tūbbabī	tūbbibī	
1s	āllak	ēppeš	ūbbab	ūbbib	mūbbibum
3pm	īllakū	īppešū	ūbbabū	ūbbibū	(nom.)
3pf	īllakā	īppešā	ūbbabā	ūbbibā	
2p	tāllakā	tēppešā	tūbbabā	tūbbibā	
1p	nīllak	nīppeš	nūbbab	nūbbib	

8. Crucial for the evidence of the long vowel in these conjugations is the specific distribution of IPW forms over the paradigm of the *I'* verbs which we find in OB, but which is lacking in other dialects. However, I will argue that the long vowel occurs in all early dialects of Akkadian where we find defective spellings, but that it was shortened in the later dialects of Middle Babylonian and Middle Assyrian. I will first discuss the early dialects: Ur III Akkadian in 8.1, OA in 8.2 and Sargonic Akkadian in 8.3³², and then the later dialects in 8.4.

8.1 For Ur III Akkadian we have very little evidence. Hilgert (2002: 233-234) only mentions forms with a defective spelling, which come from the following verbs:

- *alākum* "to go/come": *i-la-ak* NATN no. 365: r.4 (3rd. p. sg. ms., literary text from Nipur)
- *eṭērum* "to take away": *i-ṭi-ru* AKI p. 326: 66 (3rd. p. sg. ms. subj., royal inscr. from Elam)

²⁹ Occasional plene spellings such as *ta-a-ka-al* YOS 10, 35: 23 "you will eat", *tu-ū-ul-la* YOS 11, 26: I 25 "you make high" (*elām* D, in a text with numerous inexplicable plene spellings), and *ta-a-al-la-ka* ARM 2, 75: 24 "you must go" (cf. 21 *ta-al-la-ka*) are far too rare to serve as evidence of the length of the prefix vowel.

³⁰ It goes without saying that this table does not concern the verbs with a "strong" *aleph* alluded to in Note 28.

³¹ Later also *īppuš*, *tēppuš*, etc. (GAG § 97i).

³² For the classification of third millennium Akkadian into Sargonic Akkadian and Ur III Akkadian (which is the earliest attested stage of the Babylonian dialect), see the recent accounts of Sommerfeld 2003 and Hilgert 2002: 13-15.

- *epēšum* "to make/do": *e-pé-šu* AKI p. 330: 16 (3rd p. sg. ms. subj.?, royal inscr. from Elam)
- *enēšum* "to be(come) weak": the proper name *La-te-ni-iš* for *Lā-tenniš* "do not be weak!" (2nd p. sg. ms. prohibitive, also in other spellings)
- *emēšum* "to be(come) hungry": [*lā t*]u-ma-sú TCS 1, 371: 7 "do not let him starve", 2nd p. sg. ms. prohibitive of the D-stem (Ur III letter).

An additional form not mentioned by Hilgert is *ú-ša-ru* AKI p. 344: 18 (1st p. sg. subj. pres. D, OB copy of a royal inscription of Šulgi) from *ešērum* "to draw".

Since Ur III Akkadian is an early stage of OB (cf. note 32), and OB has a long vowel in the I/ verbs, it follows that these defective spellings must conceal a long vowel, too.

8.2 Just as Ur III Akkadian, OA uses only defective spellings (GKT §16c, 28d and 89a), although it uses IPW in other environments (GKT §27c). Examples are quoted in GKT §89a and 90a for the present G (e.g. *e-ma-ar-šu* "he sees him" and *e-pá-áš* "I/he do(es)"), in § 89b and 90b for the present and preterite D (e.g. *ú-ba-áb-šu* "he will purify him")³³, and in §100a for the present of *alākum* (*i-lā-ak* "he goes").

The use of defective spellings shows that the weak first radical has been dropped and that the surrounding vowels have contracted. Since it seems plausible that vowel contraction (unusual though it is, cf. GKT §19b and 28d) results in a long vowel in OA, as it does elsewhere in Akkadian, these defective spellings no doubt conceal a long vowel. It is conceivable that this vowel was shortened right away, but this seems unlikely because Assyrian is phonologically rather conservative. I assume therefore that the paradigm of the I/ verbs as shown in Table V for OB, is valid for OA as well, apart from minor dialectal differences³⁴.

What is most remarkable about these I/ forms in both Ur III Akkadian and OA is that they have vowel contraction in the first place, since these dialects do not have vowel contraction in any other environment³⁵. Thus we expect to find strong forms in which the first radical has left a trace in the form of a syllable boundary, i.e. forms such as **i-a/al-la-ak* for "he goes" (**/ji'allak/*) or **ta-a-la-ak* "you go" (**/ta'allak/*). Yet such spellings are not attested at all.

8.3 They do exist, however, in the remaining early dialect, Sargonic Akkadian (SAk), which shows a rather complex situation³⁶. For the G present all SAk instances that can be considered free of interpretational difficulties are weak forms with a defective spelling³⁷; only the D-stem

³³ The apparent counterexample *ú-a-še-er-šu* BIN 4, 10: 16 quoted in GKT § 89b must be corrected to *ú-ša/-he-er-šu* according to Veenhof 1972: 112 note 182 (the text KUG 40 mentioned there is a falsification).

³⁴ The OA forms have a separate 3rd p. sg. fem. with *t-*, vowel assimilation, *ē-* instead of *i-* in the 3rd p. prefixes (except in *alākum* (GKT § 100a), and no *e*-colouring, e.g. 3rd p. sg. fem. *tāllak* and 3rd p. pl. ms. *illukū* from *alākum*, 3rd p. sg. ms. *ēppaš*, 3rd p. pl. ms. *ēppušu* and 2nd p. sg. fem. *tēppiši* from *epāšum*, 2nd p. sg. fem. present *tūbbibī* and 3rd p. pl. ms. present *ūbbubū* from *ebbum*).

³⁵ For the absence of vowel contraction in Ur III Akkadian, see Hilgert 2002: 166; for OA, see GKT §19 and 28d.

³⁶ SAk occasionally uses IPW forms in 3rd p. verb forms such as *i-ik-mi* AKI p. 81: 19 "he took prisoner" and *i-ig-mu-ur* AKI p. 256: 60 "he took full possession of", where *i-* doubtless indicates *ji-* as it usually does in SAk (Westenholz 1978: 162 and 168). It is possible (but hard to prove) that initial *a* in *a-áš-ḫi-iṭ* MAD 5, 8: 17 = Or. 46, 201: 17 represents a non-phonemic *aleph*: [*ašḫiṭ*] (cf. section 6). Cf. also *e-er-tim* mentioned in Note 15.

³⁷ In spite of this, GAG³ §97* claims that in Old Akkadian I/ verbs mostly ("überwiegend") have "strong" forms, i.e. with *aleph* preserved, and lists the D forms *u-a-ḫa-ru*, *li-a-ḫir*, and *u-ū-ḫi-ru-un* as examples (for which see below). It does not mention any G form, for which this statement is obviously wrong.

shows a few strong forms. The number of extant forms is very small and they come from just four or five verbs, most of them from *alākum*:

- *alākum*: 1st p. sg. *ʾaʿ-la-kam* SAB p. 187: 10 (letter from Gasur), 3rd p. sg. ms. *ʾiʿ-la-ak* SAB p. 66: r.2' (letter from Girsu), *ē-la-kam* SAB p. 180: 6 (letter from Gasur) and also AKI p. 280: 15 (copy of a royal inscription of Šar-kalī-šarrī)³⁸, 3rd p. pl. ms. *ē-la-ku* MAD 5, 60: 10 (memorandum from Kiš) and 3rd p. du. *e-la-kā-nim!* SAB p. 145: 8 (letter from Kiš, for *-nim!* (LAMxKUR), see W. Sallaberger, OLZ 91 (1996) 405)³⁹.
- *erēšum* "to ask": 1st p. sg. *a-rī-iš-kā* SAB p. 91: 40 (letter from Girsu), 2nd p. sg. ms. *te-er-rī-iš* SAB p. 162: 8 (letter from the Diyala region), 3rd p. pl. ms. *ē-rī-šu-kā* SAB p. 141: 10 (letter from Kiš, but perhaps preterite).
- *epēšum* "to do, to make": 1st p. sg. *e-pi₅-iš* SAB p. 157: 15 (letter from the Diyala region, presumably to be read with *e* in the second syllable: *e-pe₅(NE)-eš₁₅ /ēppeš/*).

All these forms are exactly like the ones discussed above from OB, OA, and Ur III Akkadian, with a defective spelling showing loss of the weak first radical and vowel contraction. This is remarkable for two reasons: not only because SAk normally has no vowel contraction⁴⁰, but even more because it is generally assumed that in this oldest dialect of Akkadian the Proto-Semitic guttural consonants *h*, *ḫ*, *ʿ* and perhaps *ḡ* are still more or less intact and that it is only later that they merge with *aleph* (after which they are traditionally referred to as *ʿ₂₋₅*)⁴¹. The forms quoted here clearly demonstrate that this does not apply to the intervocalic guttural in the G present of the I/ verbs: this has already been dropped in the earliest texts.

However, there are a few problematic forms in SAk letters from Ešnunna which may be construed as evidence of the existence of strong forms:

SAB p. 172: r.10'-13' (concerning flour and oil) *adum mīnim lā ē-e-ša₁₀-ru-ni 'šu' l IR₁₁ PN [...]* *lā i-e-ša₁₀-ru* "Warum versorgt man mich nicht (damit)? (Betreff:) Der (Mann) des 'Dieners' des PN: [...] soll man (auch) nicht versorgen" (tr. Kienast and Volk).

The forms *ē-e-ša₁₀-ru-ni* (3rd p. pl. ms. + "me") in 11' and *i-e-ša₁₀-ru* (3rd p. pl. ms.) in 13' are interpreted as present forms of *ašārum* "to take care of, to provide with" by the editors, which seems plausible. Thus the sequences <Ē-E-> and <I-E-> may be broken spellings and stand for a form such as */ji'eššarū/*. However, the regular form would be */ji'aššarū/*, and there is no rule that accounts for an *a* to *e* change in this environment (cf. section 2). These spellings

³⁸ The transliteration *Ē-la-kam* in AKI p. 280: 15 is a misprint for *ē-la-kam*, as is clear from Goetze's copy in JAOS 88 (1968) 57.

³⁹ These instances reveal a remarkable difference in spelling between the present and the preterite forms of the 3rd p. of *alākum*. In the preterite, the 3rd p. prefix is always *i-* (*i-li-ik*, etc.), cf. Gelb 1957: 38f sub *ʿ₂LK*. In the present, it may also be *i-*, but it is more often *e-* or *ē-*. This suggests that the present and the preterite of *alākum* have different vowels in SAk, but the nature of the difference is a matter for conjecture. The phonological interpretation of <Ē> is problematic. It often occurs in 3rd p. forms of I/ verbs, e.g. *ē-ru-ub* "he/it entered" from *erēbum* (cf. Gelb 1957: 61 sub *ʿ₃RB*), suggesting a value */jē/* or */jī/* (cf. Babylonian *irub* < **jirub* and Assyrian *ērub* < **jērub*, both from **ji'rub*), but it is also used in the 3rd p. prefix of strong verbs: *ē-qá-bi* SAB p. 151: 8' (3rd p. sg. ms., letter from Sippar), and *ē-ra-[-?]-am* MAD 5, 8: 2 = OrNS 46, 201: 2 (3rd p. sg. ms., incantation from Kiš); this points to */jē/* or perhaps simply */jī/*. Remarkable is the interchange of *i* and *ē* in SAB p. 172: r.11' *lā ē-e-ša₁₀-ru-ni* and 13' *lā i-e-ša₁₀-ru* (quoted below). Thus in the end these spellings are inconclusive, but the difference between the present and preterite forms of *alākum* remains intriguing.

⁴⁰ See Gelb 1961: 125; GAG³ §16d*; Westenholz 1978: 163-164).

⁴¹ Cf. GAG §23b/c; Westenholz 1978: 162a.

could just as well be attempts to express a long vowel: /jêššarū/, or simply initial *j*-. The same uncertainty applies to a similar form in another Ešnunna letter:

SAB p. 178: 10' *ulā ana šalištim né-e-ra-[ab]* "Wir werden keine Drittel(pacht) eingehen" (tr. Kienast and Volk).

The form NI-*e-ra-[ab]* is derived from *erēbum* "to enter" by the editors. If this is correct, it is more plausible than the two forms of *ašārum* quoted above, because *erēbum* had an *e*-colouring guttural as first radical (Sem. 'RB), so that an *a* to *e* change is regular. The most likely options are /ni'errab/ and /nêrrab/, both going back to *ni'arrab; however, the partial restoration and the unusual idiom make the form uncertain anyhow⁴². The few Sargonic letters from Ešnunna that are published (cf. SAB p. 170-179) do not contain other present forms of I' verbs. Still, if more such strong forms turn up in the future, it will be likely that in the Sargonic Akkadian dialect of Ešnunna strong forms of I' verbs existed in the present of the G-stem.

In the D present and preterite of I' verbs, SAK seems to have two kinds of forms as well. On the one hand, we have strong forms of the D tantum verb *uḫḫurum* "to remove" (or the like): present (*ša*) *u-a-ḫa-ru* "who(ever) will remove" and precativ *li-a-ḫir_x* AKI p. 173: 123 and 126 and p. 175: 42 and 45 (copies of royal inscriptions of Sargon); if this is the same verb as OB *uḫḫurum* "to be delayed", it may have *aleph* as first radical, cf. AHW 18a s.v. *aḫāru(m)*, where cognates from Hebrew, Aramaic and Arabic are quoted.

On the other hand, there is no *aleph* in the form *u-li-il* AKI p. 175: 27 "he purified" from *elēlum* D (copy of a royal inscription of Sargon, which also contains the strong forms of *uḫḫurum* mentioned above). The fact that it occurs in an OB copy casts some doubt on its authenticity, although in general these copies seem to be quite reliable.

Finally, there is an enigmatic D preterite of uncertain interpretation: *u-ù-ḫi-ru-un* SAB p. 69: 8 (3rd p. pl. ms. subj., letter from Girsu), which Kienast and Volk also associate with *uḫḫurum* "to be delayed": "(Diejenigen, die...) in Verzug geraten waren". The interpretation of <U-Û> is obscure: it is conceivable that Û is meant to render a long vowel (as proposed by Kienast and Volk, who cite *tu-ù-bi-lu-ši* JCS 28, 230: r.II 6 as a parallel); this would give a form parallel to *u-li-il*: /jûḫḫirūn(i)/. However, its normal value is 'u⁴³. What we would like to have here is 'a, if the interpretation is correct: /ju'aḫḫirūn(i)/. In any case, this form is too uncertain to be used as evidence.

There are two vexing questions with regard to the SAK forms. The first is whether there is a correlation between the nature of the guttural and the occurrence of strong forms. For the time being, this question cannot be answered satisfactorily for lack of evidence. If we omit the uncertain forms from Ešnunna and assume that the other SAK I' forms quoted above are interpreted correctly, we find strong forms in one verb with ' (*uḫḫurum*, Sem. 'HR), and forms without *aleph* in one verb with *h* (*alākum*, Sem. HLK), one with ' (*erēšum*, Sem. 'RŠ),

⁴² Perhaps a restoration *né-e-ra-[āš]* "we will cultivate" (for a one-third share of the profit) is more likely, but this does not affect the argument, since *erēšum* also has an E-colouring guttural: *ḫ* (Sem. HRT); then the options are /niḫerraš/ and /nêrraš/.

⁴³ For 'u, see Gelb 1961: 25-26, e.g. *ru-ù-ba-um* HSS 10, 175: III 9 "compensation", which doubtless stands for /ru'ubbā'um/, a noun of the pattern *purussā'* (GAG³ §16d*). For still other views about *u-ù-ḫi-ru-un* see Kienast and Volk's commentary.

and two with *h* (*epēšum*, Sem. HPŠ(?) and *elēlum*, Sem. HLL)⁴⁴. This might suggest that *aleph* (') is preserved better than the other gutturals. However, it is also conceivable that the strong forms of *uḫḫurum* reflect a difference between the G-stem (weak forms) and the D-stem (strong forms). Additional evidence is clearly required to substantiate these conjectures.

The second question is how to explain the fact that these I' forms also have vowel contraction in dialects where adjacent vowels normally remain uncontracted. This problem does not only concern SAK, but also Ur III Akkadian and OA⁴⁵. I cannot give a specific explanation for this striking irregularity, but I suggest that it has to do with the succession of two weak consonants in a highly frequent environment.

In prehistoric Akkadian all 3rd persons except the 3rd p. sg. fem. had a prefix starting with *jV*-, and the 1st p. sg. had *V*- (or even *V*- with an initial vowel, see section 6). Taken together, these persons have a very high token frequency, far higher than that of the other person prefixes *iV*- of the 3rd p. fem. and the 2nd persons and *nV*- of the 1st p. pl⁴⁶. This means that most finite forms of the I' verbs had two successive syllables with a weak onset: *jVV*- or *VV*- (if not simply *VV*-). It is conceivable that such a sequence had a tendency to be simplified in pronunciation. In Classical Arabic, for instance, where *aleph* (here traditionally called *hamza*) is normally a stable consonant, a succession of two *hamzas* is simplified by dropping the second one, both in the same syllable ('*aḫuḍu* "I take" < *'*aḫuḍu* from '*aḫaḍa*) and in two successive ones ('*arā* "he showed" < *'*ar'ā*, causative of '*ra'ā* "to see"), cf. Fischer 1972: 113-114. Perhaps something similar occurred in prehistoric Akkadian in the 1st p. sg. and/or the 3rd person forms, after which the shortened forms were generalized to the entire conjugation⁴⁷.

If this suggestion is right, the reduction process was doubtless triggered and/or strengthened by the frequency of the forms involved. The I' verbs form a very large group of almost 150 items, according to AHW under the letters A and E, some of which are among the most common verbs of Akkadian, such as *alākum* "to go/come", *amārum* "to see", *elūm* "to go/come up", *epēšum* "to make, to do" and *erēbum* "to enter". Thus the present tense of these forms represents collectively an environment with a very high

⁴⁴ For *elēlum*, AHW 197b s.v. compares Syriac *ḥallel* "to purify"; the etymology of *epēšum* is uncertain; the cognate Ar./Eth. *ḫš* "zusammenraffen", given by AHW 223b s.v. *e*. II, is far from obvious; for *erēšum*, a root 'RŠ, attested by Ar. '*arūs* "fiancée" (as suggested by Gelb 1977: 18 and M. Krebernik, ZA 73, 10 sub 234) seems a better cognate than Ug./He. '*rš* (AHW 239a s.v. *e*. II), because this verb has consistent *e*-colouring in both OA and SAK, which is hard to explain otherwise than by an original E-colouring guttural, i.e. ' or *ḫ*.

⁴⁵ Cf. note 35. OA does not normally have vowel contraction (GKT §19b and 28d), but on at least three occasions GKT makes a specific exception for the present G and the present and preterite D of the I' verbs, most explicitly in §28d ("Im Wortinnern zwischen Vokalen fällt Alef nur in den Verba I Alef regelmässig aus"), and also in §16c and §89a (but no explanation is ventured for this striking anomaly).

⁴⁶ Cf. Greenberg 1966: 44-45 for the proportional frequency of 1st, 2nd and 3rd person: in general the 3rd p. is the most frequent by far and the 2nd p. the least frequent. His data are from Sanskrit, Latin and Russian; I have no data for a Semitic language.

⁴⁷ The most striking parallel between Akkadian and West Semitic would of course be the West Semitic causative stem. In Arabic, this stem has a prefix *a*- in the Perfect: *af'ala*, but this *a*- is absent in the Imperfect, where *aleph* would be intervocalic: *yuf'ilu*, although one would expect **yu'af'ilu*. Fleisch (1961: 118 and 151-152) explains this form from the tendency to avoid a succession of more than one *hamza*: *'*u'af'ilu* > '*uf'ilu*, which was extended to the entire conjugation. However, this explanation of *yuf'ilu* is not uncontroversial: others maintain that *yuf'ilu* never had a *hamza*, but that it is purely characterized by a specific vocalic pattern which is in a suppletive relationship with the Perfect *af'ala* (Kurylowicz 1962: 73 note 3 and 176, Retsoe 1989: 59-62 and p. 53 note 12 with the relevant literature for all languages concerned).

frequency. It is well known that high frequency causes shortening of forms. Besides, according to Bybee (2001: 57 and elsewhere), sound changes tend to occur first in forms with a high frequency and to spread from there to other, less frequent, forms. This would explain why in these forms vowel contraction occurred so much earlier than in other environments.

The D forms can hardly boast an equal frequency, but since their paradigm is based on that of the G-stem, one may expect that a change in the latter triggers a parallel change in the D-stem, which has the same structure as the present G. Thus we may posit an analogical process *iparrVs* → *uparras* : *ibbib* → x, in which x is *ûbbab*. This leads, in its turn, to a new preterite *ûbbib* on the model of *uparras* → *uparris*. The SAK forms *u-a-ḥa-ru* and *li-a-ḥir_x* can then be explained as survivals from the period before the replacement of the strong forms⁴⁸.

8.4 Finally, we turn to IPW in the later dialects of Middle Babylonian (MB) and Middle Assyrian (MA). The occurrence of IPW in the MB period shows a complex picture. There is a clear dividing line between MB texts from Babylonia itself, and those from the peripheral areas where cuneiform texts in Akkadian have been found. In the former, the usual spelling is the normal or the defective one, for instance *i-la-ak* or *il-la-ak*, and the use of IPW in the I/ verbs is exceptional, cf. Stein 2000: 99f for the royal inscriptions (no instances) and Aro 1955: 21 for other MB texts (one uncertain instance).

In the peripheral texts, on the other hand, the situation is different according to their provenance. Some places use IPW, normal and defective spellings side by side. This is reported for the Akkadian texts of Boğazköy by Durham (1976: 191-197), and may be inferred for those of Alalakh from the glossary of Giacumakis's grammar (1970: 64ff). In Boğazköy, IPW is also occasionally found in other environments (Durham (1976: 197). Likewise, in the Tušratta letters from Mitanni and in the Nuzi texts, IPW is regularly used in the relevant forms of the I/ verbs and a few times elsewhere (Adler 1976: 10f; Wilhelm 1971: 286f). In texts from Emar all three possible spellings are also attested, but IPW is rare (Seminara 1998: 420-427 and 438-439); defective and normal spellings are far more frequent.

On the other hand, for the Akkadian of Ugarit, Huehnergard (1989: 175f) mentions only defective and normal spellings. This agrees with Rainey's observation (1996: II 19) that in the Amarna letters Canaanite scribes do not use IPW in the I/ verbs, but that scribes from Mitanni, N. Syria and Amurru do use them (cf. also Izre'el 1991: I 68).

In conclusion, IPW no longer occurs in the MB dialect of Babylonia proper, but continues to be used in peripheral texts of the same period (in particular from Mitanni, Nuzi, Boğazköy and Alalakh), although the corresponding normal spellings also occur. However,

⁴⁸ Another explanation of the long vowel in the present G and the present and preterite D of the I/ verbs is suggested in passing by Knudsen (1980: 11): in the G-stem the long vowel that regularly developed in the preterite, where *aleph* was syllable-final (**i'kul* > *ikul* "he ate", *a'kul* > *ākul* "I ate"), was transposed as a whole to the present forms with gemination. In other words, these present forms may have been (re)created on the basis of the preterite forms. However, this cannot be applied to the D forms of these verbs, nor does Knudsen explain what was the cause of the elimination of the strong forms. On the other hand, once they were eliminated, the ensuing development of the long prefix vowels was at least partly morphophonemic, as I argue in section 3. In this respect I agree with Knudsen's proposal.

the restriction on the occurrence of IPW in I/ verbs that holds for OB is maintained: with an insignificant number of exceptions, we still find IPW only in the present G and the present and preterite D of these verbs⁴⁹.

The use of normal spellings (in this period they are also normal in the sense of being the most frequent ones) in forms where formerly only IPW or defective spellings were allowed shows that something has changed but what exactly is not easy to discern. Two options seem to present themselves.

First, it is possible that the change in spelling is purely orthographic: nothing has changed in the pronunciation of these forms, but the reluctance to use VC signs for a long vowel is abandoned and the normal spelling may be used where formerly only IPW and the defective spelling were allowed⁵⁰. Second, it is also possible that the change in spelling reflects a change in pronunciation: the long vowels in closed syllables have been shortened, but IPW survives as a traditional spelling in peripheral MB, no longer reflecting a specific phonological pattern.

In my view the distribution of the surviving cases of IPW (exceptional in Babylonia proper, but not uncommon in the peripheral dialects) favours the latter option. The actual state of affairs is best explained by assuming that the use of IPW in peripheral MB texts is conventional, emanating from a tradition based on OB models. For the scribes there was no difference between the vowels in question, but they used IPW only in the present G and the present and preterite D because they had learnt to do so. It is plausible that such a tradition could persist longer in a milieu of scribes for whom Akkadian was a foreign language, and who therefore adhered more strongly to the models they had learned. So here IPW can be rightly regarded as a purely orthographic device, based on tradition. This also accounts for occasional IPW forms outside the narrow range of forms to which it is restricted in OB, such as the imp. D *û-uṭ-ṭi* Tn-Ep. V 30 "make dark!", from *eṭû* "to be(come) dark".

The situation in MA is similar to that in peripheral MB: in the pertinent forms of the I/ verbs, MA uses all three possible spellings: IPW, normal and defective⁵¹. This suggests that in MA, too, the use of IPW is traditional. No doubt the similarity between MB and MA is caused by the fact that MA orthography, which is completely different from that of OA, is derived from an OB or MB model.

This leads to the (rather tentative) conclusion that in the MB/MA period (or perhaps already earlier, e.g. late OB) the long vowels in the paradigm of the I/ verbs had been shortened, but were preserved in the orthography as archaic or conventional spellings. This shortening was doubtless promoted by the fact that as long vowels in closed syllables they were a marked feature, which could only arise under special conditions and was therefore also easily abolished (cf. section 4). The fact that in Neo-Babylonian and Neo-Assyrian we

⁴⁹ This is also the picture that appears from the statistics drawn up by Jucquois (1966: 175-181) on the basis of the then available material; cf. also Wilhelm 1971: 286-287.

⁵⁰ In post-OB spelling we also find an increasing use of CVC signs in cases where the vowel is (at least etymologically) long, e.g. *i-dak* "he kills" (e.g. CT 23, 23: 1), *i-ṭib* "it became pleasant" (e.g. Ee I 125), *û-rak* "he pours" (e.g. KAR 246: r. 26), etc.

⁵¹ See Mayer 1971: 21, 65, 68f, 86, 90 and 92. Some additional IPW forms include a 3rd p. pl. ms. pres. G *em-mu-ru* MARV 2, 20: 20 "they will see", a 1st p. sg. pres. D *û-ug-ga-ra* Tell Chuera p. 213: 11 "I will hire", and a 3rd p. sg. ms. subj. *û-up-pi-šu-ni* MATSH p. 141 no. 9: 20 "he performed".

no longer find instances of IPW in the I/ verbs, as far as I am aware⁵², confirms this conclusion.

It also seems to be supported by the behaviour of the present of another type of weak verbs, namely the I/w verbs, which show some interesting features of their own. I will discuss them in a short excursus below.

9. Excursus: the present of the I/w verbs

So far we have limited ourselves to the I/ verbs. IPW also occurs in the I/w verbs, such as *wabālum* "to carry" and *wašūm* "to go/come out". Interestingly, these verbs show a different orthographic pattern. In the present of these verbs (*ubbal*, *uši*, etc.) OB uses three different spellings: the present of *wabālum*, for instance, is spelled *ú-ba-al*, *ub-ba-al* and *ú-ub-ba-al*. Thus the normal spelling *ub-ba-al*, which is conspicuously absent in the verbs I/, is represented here as well, and is even by far the most frequent one, so that we can omit here the quotation marks that the term "normal" deserves in the I/ verbs. Table VI gives the numbers of attested spellings of the four most common I/w verbs in AbB 1-13, namely *wabālum*, *wašūm*, *warādum* "to descend", and *wašābum* "to sit down".

Table VI: The number of attested forms of the G present of four I/w verbs in AbB 1-13

	wabālum	wašūm	warādum	wašābum
IPW	7	4	4	0
normal	44	8	4	6
defective	6	2	1	0
total	57	14	9	6

It is also significant that Hammurabi's Law Code consistently uses IPW in verbs I/, but the normal spelling in I/w verbs: *ub-ba-lu* in §75+e: 9 and 169: 31, *uš-ša-ab* in § 5: 30, 141: 59 and 171b: 87, and *uš-ša-am-ma* in § 148: 80.

The contrast with the I/ verbs is striking. On the one hand, it confirms that IPW in the latter is a meaningful phenomenon and not simply an orthographic oddity. On the other hand, it raises a new problem, namely that of how to interpret the coexistence of the three spellings in the I/w verbs. It is very unlikely that both *ub-ba-al* and *ú-ub-ba-al* stand for /*ūbbal*/ with a long vowel: if *ūbbal* could be spelled *ub-ba-al*, the rarity of "normal" spellings of the type *il-la-ak* in the I/ verbs is incomprehensible⁵³. This means that *ub-ba-al* must stand for /*ubbal*/, with short *u*. How, then, to account for the spelling *ú-ub-ba-al*? Two solutions suggest themselves.

The first one is to assume that *ú-ub-ba-al* is purely conventional and built on the model of the present forms of the I/ verbs, in particular on D present forms such as *ú-ub-ba-ab*. The

⁵² For Neo-Babylonian, see Ebeling 1953 under the relevant verbs and Woodington 1982: 115-121 (since Woodington has the unfortunate habit of quoting verb forms in a bound transcription, one has to consult the copies of the relevant texts published in CT 54 and ABL to verify this); for Neo-Assyrian I have checked the glossaries to the NA letters edited in SAA 1, 5, 10, 13, 15 and 16 under the relevant verbs.

⁵³ The difference between the I/ and the I/w verbs in this respect was already observed by Aro (1953: 4). Since it seems unlikely that *ūbbal* is a contraction of **iwbab* or the like, I prefer to write *ūbbal* rather than *ūbbal*.

relative rarity of *ú-ub-ba-al* may be an argument in favour of this view. However, if this is right, *ú-ub-ba-al* is a case of hypercorrection, which implies that the scribes using it did not observe a difference in pronunciation between the initial vowels of *ú-ub-ba-ab* and *ú-ub-ba-al*, and thus used IPW as a purely conventional spelling. This seems unlikely for OB itself, although it is doubtless correct for later periods.

A second possibility is that the IPW in *ú-ub-ba-al* does what it does elsewhere, namely indicate a long vowel. This means that the I/w verbs had two present forms, one with short *u* and one with long *ū*. Such a conclusion should generally be viewed with a healthy dose of suspicion, since the many ambiguities of cuneiform writing make it more convincing to argue for spelling variation than for variation in language, but it is by no means impossible.

It may even gain in strength if we consider the preterite forms of the I/w paradigm, such as *ubil* "he brought" from *wabālu* and *ušib* "he sat down" from *wašābu*. If such preterites have an ending, the vowel *i* is elided, which proves that *u* is short (Huehnergard 1987: 191ff), e.g. *ubli*, "they brought", *ublam* "I/he brought here", *ušbū* "they sat down". However, from the earliest times (in particular in SAK, cf. GAG³ §103f*) occasional forms crop up in which *i* is retained, such as *tu-ū-bi-lu-si* already quoted in 8.3, *li-bi-lu-ki-im* ZA 44, 34: 31 "may they bring to you (fem.)" (OB literary text), and *ú-ri-da-ma* AbB 6, 146: 21 "he went down" (OB letter)⁵⁴.

This suggests that also in the preterite there were two alternative forms, one with a long and one with a short vowel, a situation that is doubtless related to the coexistence of biliteral and triliteral forms in the conjugation of the I/w verbs, cf. Buccellati 1996: 253 and Kienast 2001: 354f.

It is therefore possible that in the I/w verbs long and short *u* interchanged, both in the present (*ubbal* and *ūbbal*) and in the preterite (*ubil* and *ūbil*). Later on, the present *ūbbal* disappeared for the same reason as the parallel I/ forms (cf. section 4 end), whereas in the preterite the long form *ūbil* ousted *ubil*, because it had a stronger marking and was less out of tune with other preterite forms than biliteral *ubil*.

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- Editions of Akkadian texts are quoted with the abbreviations listed in AHW III p. IXff, with the following additions:
 AKI: I.J. Gelb and B. Kienast, *Die altakkadischen Königsinschriften des dritten Jahrtausends v.Chr.*, FAOS, Band 7, Stuttgart 1990.
 AKT: *Ankara Kültepe Tabletleri / Ankaraner Kültepe-Texte*, 1/2: E. Bilgiç et al., Ankara 1990, 1995; 3: E. Bilgiç and C. Günbattı, Stuttgart 1995.
 LAPO: *Littératures anciennes du Proche-Orient*, Paris.
 Legends: J. Goodnick-Westenholz, *Legends of the Kings of Akkade*, Mesopotamian Civilizations 7, Winona Lake, Ind. 1997.
 MARV: H. Freydanck, *Mittelassyrische Rechtsurkunden und Verwaltungstexte I-III*, Berlin 1976-.

⁵⁴ The early date of various forms that retain *i* might suggest that these are the "original" forms and that the short forms are secondary. This is attractive in so far as it provides us with an easy analysis of the preterite forms: we can derive *ūbil* from a regular preterite **jawbil* (cf. GAG §21f), whereas the form with short *u* is hard to explain. However, there is no rule that accounts for this kind of shortening. For *ūbil* itself we could point to its high frequency (cf. 8.3), but the short vowel is found in all I/w verbs regardless of their frequency (cf. such forms as *lu-úš-ba-am* ATHE 66: 37 (OA) from *wašābum* "to add" and *tu-up-ši-iš* TIM 9, 6: 28 "you (fem.) insulted her" (for *tupši-ši*) from the extremely rare verb *wapāšum*).

- MATSH: E.C. Cancik-Kirschbaum, *Die mittelassyrischen Briefe aus Tall Šēḫ Ḥamad*, Berichte der Ausgrabung Tall Šēḫ Ḥamad/Dūr-Katlimmu, Band 4, Texte 1, Berlin 1996.
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- Prag I: K. Hecker, G. Kryszat and L. Matouš, *Kappadokische Keilschrifttafeln aus den Sammlungen der Karlsuniversität Prag*, Prague 1998.
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- Tell Chuera: W. Orthmann et al., *Ausgrabungen in Tell Chuera in Nordost-Syrien I*, Saarbrücken 1995.

Additional abbreviations of frequently quoted works:

- AHw: W. von Soden, *Akkadisches Handwörterbuch*, Wiesbaden 1959/81.
- CAD: A.L. Oppenheim, E. Reiner, et al., *The Assyrian Dictionary of the Oriental Institute of the University of Chicago*, Chicago/Glückstadt 1956-.
- GAG: W. von Soden, *Grundriss der akkadischen Grammatik*, Analecta Orientalia 33/47, Rome 1952 (GAG³ refers to the third edition of 1995).
- GKT: K. Hecker, *Grammatik der Kültepe-Texte*, AnOr 44, Rome 1968.

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