Voices in stone: Studies in Luwian historical phonology

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CHAPTER **1**

Filling in the Facts
The Practice of Space-Filling in Hieroglyphic Luwian Inscriptions

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Filling in the Facts

The Practice of Space-Filling in Hieroglyphic Luwian Inscriptions

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Abstract: This chapter explores the use of <CV-V> sign sequences (plene writing) in Hieroglyphic Luwian. It is argued that the vowel signs in these sequences are frequently used as space-fillers in almost all texts dateable to the Iron Age. Space-filling explains the presence of many vowel signs commonly taken as linguistically void, and a new transliteration method is proposed to mark these space-fillers in a uniform way. It is also shown that many vowel signs cannot have been used as space-fillers. Rather, these signs are linguistically significant and bound to express a phonetic feature. On a methodological level, this chapter considers how we can meaningfully distinguish space-fillers from linguistically real plene writing, as both were not marked differently by the scribes. The last section examines space-fillers in greater detail: their chronological distribution and vowel quality are treated, as are some conspicuous and rare types of space-filling.

1.1 Introduction

A typical Hieroglyphic Luwian text consists of one or more horizontal lines, whose reading direction changes with every line in a boustrophedon fashion: whenever a given line is read left-to-right, the following one is read right-to-left and vice versa. Within each line, signs are arranged in vertical 'sign columns', each usually containing two to four signs. The signs in each sign column are always read top-to-bottom. As is well known, the Hieroglyphic Luwian script is partly syllabic and partly logographic. By convention, syllabograms are transliterated in italics, e.g. *-mu-*, *-pa-*, *-zi-*, while for logograms, a capitalised Latin denotation is used (e.g. BOS for the sign indicating the concept 'cow' and PES for the sign used for 'to go' or 'foot'). Additionally, many texts employ the sign 𔓂, which is commonly used as a word-divider, transliterated as '|'. This sign marks the beginning of a new

word, starting with the sign directly following it. This sign is not used consistently, and several texts do not use it at all (Hawkins 2000: 4; Payne 2014: 17).[1] However, one text which does make consistent use of word-divider signs is ASSUR letter *a*, written on a lead strip, in which they are placed in a systematic way, cf. Figure 1.1.

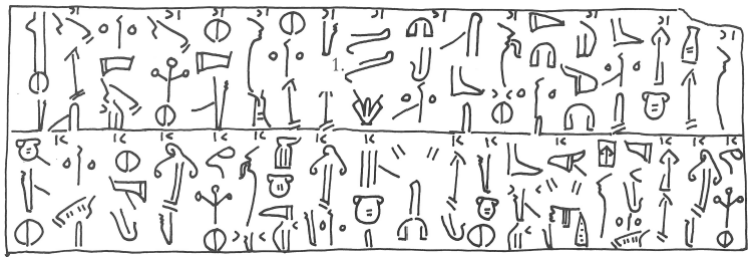

Figure 1.1: ASSUR letter *a* (obv.); after Hawkins (2000, part 3, plate 307).

Conspicuously, every word-divider sign is placed at the head of a sign column. Put differently, every single word in this letter starts at the top of the line. Close inspection of the five other ASSUR letters reveals that, apart from a small number of exceptions, this pattern holds true for all words in the ASSUR subcorpus (late 8th century BCE).[2]

At the same time, ASSUR letter *a* shows another salient feature, this time concerning the way scribes made use of the space available to them. It appears that every square centimetre of the lead strip is filled with signs, and that the scribe has not left any significant gaps in the text. Again, this goes for all ASSUR letters, which are densely and economically packed. Even in letter *b*, which ends before the end of the lead strip is reached, the written sections hardly show any space left unwritten, cf. Figure 1.2.

[1] Cf. Hawkins 2011b for an account of the origin and various functions of this sign in the Hieroglyphic Luwian corpus.

[2] The word-divider sign occurs in the middle of the line in the following instances (with '#' marking the beginning of a new sign column): ASSUR letter *e* § 13 #|*ni-i* |*ARHA*# and ASSUR letter *f*+*g* § 4 #|PRAE-*i* |(PONERE)#*sà-ti-nu-i*#, § 6 #|*ARHA* |*wa*/*i*#*la-mi-na-a*#, § 7 #|*ARHA* |*wa*/*i*#*la-u-ta*#, § 16 #|*tu-u* |VERSUS-*na*# and § 17 #*wa*/*i-na* |*ni-i*#. Apart from these six instances, however, the general pattern observed in ASSUR letters *a*, *b* and *d* certainly holds for *e* and *f*+*g* as well: also in these letters, word-divider signs are overwhelmingly found at the top of a sign column.

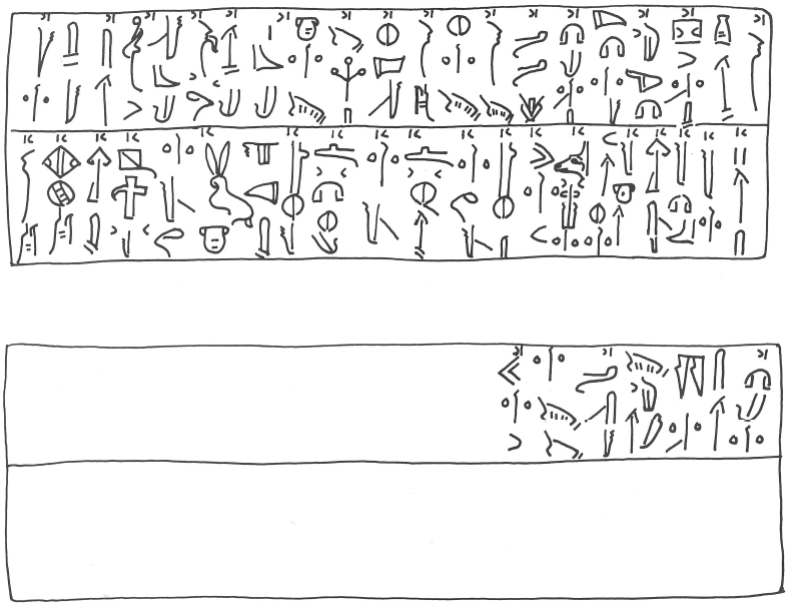

Figure 1.2: ASSUR letter *b*; after Hawkins (2000, part 3, plate 307).

How can these two phenomena be reconciled? Now that we have seen that virtually every word starts at the top of the line (even those which are not headed by a word-divider sign), we may ask ourselves where words typically end. In this respect, the observation that the letters hardly show any unused space suggests that every word in these texts ends at the bottom of the line, allowing the scribe to start a new word at the head of a new sign column.

Can this be considered a coincidence? Was the scribe simply able to fit all words perfectly in one or more columns, starting words at the top of the line and ending them at the bottom without leaving any gaps? Given the fact that Luwian words are certainly not uniform in length and consist of signs of varying dimensions and size, this is difficult to believe. If the scribes had wanted to start every new word at the top of the line, they would not have been able to fill up one or more sign columns perfectly, and sometimes they would have had to leave visible gaps at the bottom of a sign column. Conversely, if the scribes had taken the avoidance of gaps as a guiding principle,

we would expect them to have started new words in the middle of a sign column more often. Clearly, the ASSUR scribes did something extra to ensure that this did not happen.

Let us take a closer look at the ASSUR letters. It has long been recognised by various scholars (e.g. Hawkins 2000: 533) that the scribes of these letters often added the vowel signs <a> (= 𐔀) and <i> (= 𐔁) to words where we do not expect to find them. In fact, the addition of these vowel signs often makes no sense in phonetic and phonological terms. A good example of this practice is found in ASSUR letter *e* § 18 |FEMINA-*ti-na-i*, cf. Figure 1.3.

Figure 1.3: ASSUR letter *e* § 18; after Hawkins (2000, part 3, plate 311).

Whether one chooses to translate this word as a substantive (Hawkins 2000: 536: 'woman') or an adjective (Yakubovich 2013ff. s.v. '*wanatti*(*ya*)-': 'woman's, wife's') in this sentence, it is clear that we need an accusative singular form of the common gender here, ending in /-n/.[3] Therefore, the word-final sign <i> cannot reflect a phonetic [i] or phonological /i/ here, and Hawkins marks its apparent superfluity by transliterating it in superscript in his Iron Age corpus (Hawkins 2000): |FEMINA-*ti-na*$^{-i}$.

It should be noted that the use of superscript for <i> signs that cannot have any phonetic value is not common practice in Hawkins 2000. It is applied only in the ASSUR letters and in the few texts mentioned in footnote 6, where Hawkins' commentary marks them as having a special function (see below). Outside of these texts, word-final <i> is simply transliterated as

[3] The entire sentence runs as follows: |*179.*347.5(-)*wa*/*i-sà-pa-ha-wa*/*i-mu* |FEMINA-*ti-na-i* |VIA-*wa*/*i-ni-i*. Hawkins (2000: 536) translates: 'Send me a woman (for? the) WASAPA!', while the Annotated Corpus of Luwian Texts suggests 'Send me a woman's dress!', interpreting *179.*347.5(-)*wa*/*i-sà-pa* as /uaspan/ 'dress' (acc.sg.c.).

such, although it is still ignored in linguistic analyses whenever it is clearly not *sprachwirklich*. Spurious word-final <a> signs, on the other hand, are commonly transliterated with an apostrophe <'> throughout Hawkins 2000 and Hieroglyphic Luwian scholarship more generally. We will return to the question of how to transliterate these linguistically empty vowel signs at the end of Section 1.2.

It is not only consonant-final words in the ASSUR letters that are affected by the enigmatic addition of word-final <a> and <i>. These signs also show up unexpectedly after words ending in a vowel. A good example is the prohibitive negator |*ni-i-a* 'not' in letter *f*+*g* § 26, cf. Figure 1.4.

Figure 1.4: ASSUR letter *f*+*g* § 26; after Hawkins (2000, part 3, plate 313).

According to Yakubovich 2013ff. this word occurs 33 times in our Hieroglyphic Luwian corpus, and it is normally spelled as either <ni-i> or <ni>. Only here, in the ASSUR letters, do we find |*ni-i-a* with an additional <a>, making it very suspicious. From a language-internal point of view, this <a> is also curious for not being connected to the preceding /i/ using the sign <ia>, which is normally used to mark the glide in between [i] and [a]. Again, we see that this extra sign can hardly be understood in linguistic terms, which is why Hawkins marks it with an apostrophe in his corpus: |*ni-i-'*, indicating that we may safely ignore it in our phonetic and phonological transliterations.

Now, the question arises as to why the scribes took effort to write the <i> in |FEMINA-*ti-na-i* and the <a> in |*ni-i-'* given that their presence cannot be understood in linguistic terms. For this reason, it has generally been accepted that the presence of many <a> and <i> signs in the ASSUR letters is governed by aesthetic considerations. More specifically, Hawkins (2000:

533) marks them as a 'space-filler' or 'word-ender', and indeed, we see that the <i> in |FEMINA-*ti-na-i* and the <a> in |*ni-i-*' close off their respective sign columns and allow the scribe to start a new word at the top line without leaving a gap at the bottom.

The notion that Luwian scribes experienced a *horror vacui* and that they used vowel signs as some sort of space-filler or word-divider is not new. Some scholars have even extended its validity to the entire Hieroglyphic Luwian corpus. Melchert (1994a: 37) notes in general terms that '"scriptio plena" in hieroglyphic spellings has an aesthetic function and does not mark length or accent.'[4] In 1996, he further elucidated his claim by stating that 'one aesthetic principle of the scribes was that all available space should be filled in a balanced way' (Melchert 1996: 121) without, however, elaborating on his idea of what 'balanced' means exactly. Additionally, the same chapter contains the implication that not only the vowel signs <a> and <i> may be used as space-fillers, but also the sign <u> (= 𔓂 or 𔓃).[5]

This latter view has not met with general acceptance by other scholars. Hawkins (2000) makes numerous references to <a> and exceptionally <i> as a 'space-filler/word-ender' in a few texts beyond the ASSUR letters (e.g. Hawkins 2000: 264, *apud* § 6).[6] Nowhere, however, does he mention that <u> is used in a similar way. Melchert himself also seems to have abandoned his earlier view: in his 2010 article on the Hieroglyphic Luwian sign <á>, he only mentions the use of <a> and, in 'some later texts', <i> as a space-filler (Melchert 2010: 148). Payne (2014: 17) follows Melchert and Hawkins:

[4] The term 'scriptio plena' (= 'plene writing') is taken from the cuneiform writing tradition, where it can be defined as the writing of vowel signs which echo the vocalic value of an adjacent CV-sign, e.g. *-pa-a-*, *-u-um-*, *-zi-i-it-*. In Hittite, the various functions of plene writing have been a hotly debated topic for many decades, and no complete consensus has yet been reached. (Kloekhorst 2014: 13–18 provides a succinct overview of previous scholarship.) Research into the function of Cuneiform Luwian plene writing has been undertaken most recently by Rieken (2016: on plene *i*) and earlier by Simon (2010: on word-initial plene writing). Plene writing in Palaic still awaits a dedicated treatment.

[5] More specifically, this becomes clear from an example of space-filling as presented by Melchert (1996: 123): 'The only function of CV-V spellings (such as *-tu-u* 'to him/her') is aesthetic (filling space, as mentioned above).'

[6] Specifically, Hawkins signals the texts MARAŞ 1, MARAŞ 14 and İSKENDERUN in addition to the ASSUR letters. See also Section 1.5.2 below.

'Thus signs *450 *a*, and rarely *209 *i*, experience secondary usage marking the end of a word, possibly originally used as a space filler.' Most recently, Yakubovich (2015: 7) has argued in more general terms that 'plene spellings in hieroglyphic texts (...) have not been sufficiently studied, but at least in some cases they must have had an ornamental function, helping to align word-boundaries with ends of vertical columns.'

1.2 Existence of Space-Fillers in the Iron Age Hieroglyphic Luwian Corpus

In many important respects, the ASSUR letters treated above are similar to the other texts belonging to the Iron Age Hieroglyphic Luwian corpus. Firstly, in almost all texts, there is a very strong tendency to start every new word at the top of the line. This is best visible in texts employing many word-divider signs, which are placed with great consistency at the head of a sign column, as illustrated by lines two and three of TELL AHMAR 5 (late 10th-early 9th century BCE), cf. Figure 1.5.

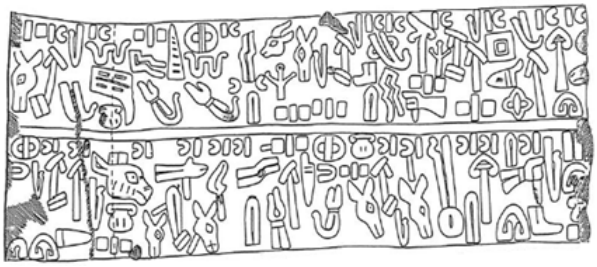

Figure 1.5: TELL AHMAR 5 ll. 2–3; after Hawkins (2000, part 3, plate 96).

As in the ASSUR letters, this rule was not iron-clad, and we find that scribes sometimes started a new word in the middle of a column. A good example is the PORSUK inscription, from the early 7th century BCE (Simon 2013b), where the word-divider signs are not bound to the top line but occur freely in the middle of sign columns as well, cf. Figure 1.6.

It must be said, however, that instances such as this are quite rare. In

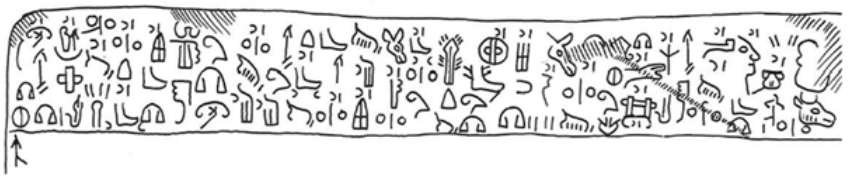

Figure 1.6: PORSUK; after Hawkins (2000, part 3, plate 302).

most texts, the use of the word-divider sign in the middle of a sign column forms an exception to the strong general trend of having this sign at the head of a sign column. In fact, of all the texts in Hawkins' (2000) corpus, there are only four texts of considerable size where it could be considered the norm to put the word-divider in column-medial position: ANCOZ 7 (late 9th century BCE), KÖRKÜN (late 9th century BCE), whose sign arrangement is remarkable for other reasons as well, PORSUK (early 7th century BCE), and probably TÜNP 1 (mid-8th century BCE).[7]

Another feature which the larger Iron Age corpus has in common with the ASSUR letters is that the texts hardly show any gaps. Texts generally display a very economical use of available space, and signs are often densely packed together. Nowhere can this be seen more clearly than in KARKAMIŠ A6, cf. Figure 1.7.

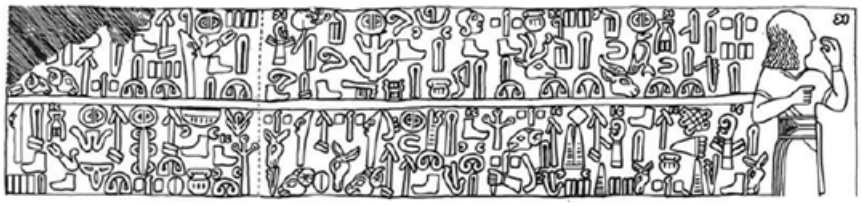

Figure 1.7: KARKAMIŠ A6, ll. 1–2; after Hawkins (2000, part 3, plate 33).

This conscious use of all available space strongly suggests that also the scribes of texts not belonging to the ASSUR corpus experienced a *horror*

[7] The obverse side of KÖRKÜN is adorned by a sculpture of the Storm God, and signs are scattered all around it without any clear line structure. This makes it difficult to determine the order in which signs are to be read in this inscription.

vacui. This notion is strengthened by the fact that we sometimes find scribes adjusting the size and orientation of the signs they use. Clear examples are provided by the slanted <a> signs in MALPINAR § 11 *a-tá-a* /anta/ 'in(side)', BOHÇA § 4 |(DEUS)CERVUS$_2$*-ti-pa-wa*/*i-ta-a* 'Runtiya' (DN, dat.-loc.sg.c.) and TELL AHMAR 1 § 13 *pa-si-a* 'his' (gen.sg.c.), cf. Figure 1.8.[8]

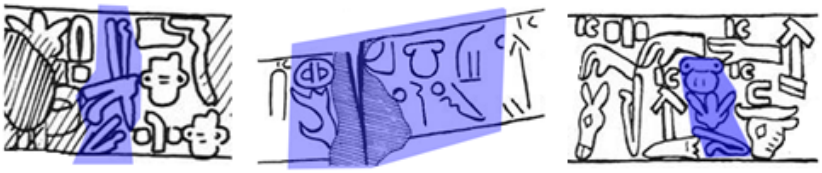

Figure 1.8: MALPINAR § 11 *a-tá-a*, BOHÇA § 4 |(DEUS)CERVUS$_2$*-ti-pa-wa*/*i-ta-a*, and TELL AHMAR 1 § 13 *pa-si-a*; after Hawkins (2000, part 3, plates 168, 265 and 100, respectively).

Also <u> signs occasionally fall prey to this Procrustean bed: they are turned and stretched to make them fill up a certain space more conveniently in KULULU 5 § 10 DELERE-*nú-tu-u* /marnuntu/ 'destroy' (imp.3pl.act.), ÇİFTLİK § 16 *pi-ia-tu-u* /piantu/ 'give' (id.) and ALEPPO 3 § 2 *wa*/*i-tú-u* /=θu/ 'him' (3sg.encl.dat-loc.), cf. Figure 1.9.[9]

Figure 1.9: KULULU 5 § 10 DELERE-*nú-tu-u*, ÇİFTLİK § 16 *pi-ia-tu-u*, and ALEPPO 3 § 2 *wa*/*i-tú-u*; after Hawkins (2000, part 3, plates 271, 249 and 320, respectively).

[8] See the end of Section 1.2 for more information about these so-called 'initial-a-final' spellings.

[9] Following Hajnal 1995: 32[11] and Rieken 2010b: 306, I assume that the Proto-Anatolian 'lenis' stops (< PIE **b*$^{(h)}$, **d*$^{(h)}$, **ǵ*$^{(h)}$, **g*$^{(h)}$, **g*$^{w(h)}$) surface as fricatives in Hieroglyphic Luwian and were phonetically voiced in intervocalic position, cf. Section 3.4.3.

We face the same problem as in our treatment of the ASSUR letters: how can these two observations, namely words beginning consistently at the top of the line and the absence of significant gaps, co-exist? It transpires that, as with the ASSUR letters, the other Iron-Age texts also commonly contain words that are enlarged with a vowel sign where we would not expect one. Comparable to |FEMINA-*ti-na-i* in ASSUR letter e § 18, we find, for instance, |*kwa*/*i-sa-a* in SULTANHAN § 46 (740–730 BCE), which must stand for /k^{w}is/, the nom.sg.c. of the relative pronoun, cf. Figure 1.10.

Figure 1.10: SULTANHAN § 46 |*kwa*/*i-sa-a*; after Hawkins (2000, part 3, plate 261).

It is commonly accepted that the sign <a> in this word cannot be sprachwirklich; therefore, it is conventionally transliterated using an apostrophe: |*kwa*/*i-sa-*' (cf. Hawkins 2000: 467). While this is certainly correct, we are left questioning why the scribe took pains to write this sign here at all. Why did he not simply start writing a new word after the sign <sa>? The answer becomes apparent from looking at the way the sign <a> is placed within the inscription itself. We see that the sign <a> perfectly fills the space between <sa> and the bottom of the line, and that both the preceding and following words, like |*kwa*/*i-sa-*', start at the top of the line. This suggests that the sign <a> is used to fill up the sign column, allowing the scribe to start a new word at the top of the line without leaving a gap.

Now, let us turn to words ending in vowels. As in the ASSUR subcorpus, many texts contain words enlarged with vowel signs which defy any linguistic explanation. A good example for words ending in /-a/ is MARAŞ 4 § 14 |*i-zi-i-ha-a* 'I made' showing the 1sg.pret.act. ending /-ha/ attached to the verbal stem *izi-* 'to do', cf. Figure 1.11.

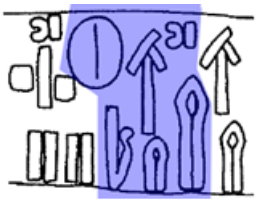

Figure 1.11: MARAŞ 4 § 14 |*i-zi-i-ha-a*; after Hawkins (2000, part 3, plate 109).

The sign <ha> is normally used to express the verbal ending /-ha/ on its own. For this reason, this word is commonly transliterated as |*i-zi-i-ha-*', and its word-final <a> is disregarded in linguistic analyses (cf. Hawkins 2000: 257). As with |*kwa*/*i-sa-*', however, this leaves the presence of <a> here unexplained. Why would the scribe have written this sign if it serves no linguistic purpose? From its placement in the inscription, we can see that this sign's main *raison d'être* may well be to fill a potential gap below the preceding sign <ha>.

Until now, we have only seen cases of spurious word-final <a>, which is commonly transliterated using an apostrophe, and <i>, which Hawkins (2000) transliterates as superscript only in a very limited body of texts (cf. footnote 6 and Section 1.5.2) if it is interpreted as a space-filler. However, our corpus contains many other examples of <i> which clearly cannot have been sprachwirklich and whose presence can be motivated easily from a space-filling perspective. The same goes for the many unexpected appearances of the vowel sign <u> in our corpus, which are never transliterated in any special way in Hawkins 2000 although the same logic applies to them. For the former, one may take KARKAMIŠ A2+3 § 24 (DEUS)TONITRUS-*tá-ti-i* (abl.-ins. of *Tarhunt-* [DN], ending in /-θi/). A clear example of the latter is found in ANCOZ 7 § 14 |*á-sa-tu-u* 'they must be' (imp.3pl.act., ending in /-ntu/), cf. Figure 1.12.

As with <a> in |*i-zi-i-ha-*' treated above (Figure 1.11), it is generally agreed that both <i> and <u> in the examples under scrutiny here have no bearing on the phonetic or phonological analysis of the word of which they are part, which leaves their presence unexplained. Again, we see that an interpretation in terms of space-filling provides a perfect motivation for their addition:

Figure 1.12: KARKAMIŠ A2+3 § 24 (DEUS)TONITRUS-*tá-ti-i* and ANCOZ 7 § 14 |*á-sa-tu-u*; after Hawkins (2000, part 3, plates 21 and 186, respectively).

their placement at the bottom of the sign column strongly suggests that the vowel signs here are used as space-fillers, ensuring that the scribe did not leave a gap at the bottom of the line.

It is strange and confusing, however, to have multiple different transliterations for these unreal vowel signs (i.e. apostrophe for <a>, sometimes superscript for <i> and no marking at all for <u>), while their presence can be attributed to the same underlying mechanism. For consistency's sake, I therefore propose that all three vowel signs be transliterated using superscript whenever they are used as space-fillers: thus not only (DEUS)TONITRUS-*tá-ti*$^{-i}$ and |*á-sa-tu*$^{-u}$, but also |*i-zi-i-ha*$^{-a}$ and |*kwa*/*i-sa*$^{-a}$.

The observation that not only the ASSUR letters but also other Iron Age texts attest the use of <a>, <i>, <u> as space-filler signs allows for comparison between the two: while the ASSUR letters show a seemingly random interchange of <a> and <i> as space-filler vowels, the choice for a vowel sign in nearly all other texts seems to be governed by a specific rule. The examples |*i-zi-i-ha*$^{-a}$, (DEUS)TONITRUS-*tá-ti*$^{-i}$ and |*á-sa-tu*$^{-u}$ attest to the fact that scribes used the vowel sign corresponding to the vocalism of the preceding sign. In other words: words ending in <-Ca> are regularly supplemented by <a>; words in <-Ci> by <i> and those in <-Cu> by <u>. Note that this principle also holds for words ending in a consonant, such as |*kwa*/*i-sa*$^{-a}$ /k^{w}is/. Even though the vocalic component of the sign <sa> is irrelevant for the phonological and phonetic analysis of this word, it nevertheless determines the quality of the space-filler vowel sign as <a>. The rare exceptions to this rule outside the ASSUR subcorpus will be treated below (Section 1.5.2).

At this point, it should also be mentioned that, apart from space-filling, Hieroglyphic Luwian texts show another group of word-final <a> signs that do not mark a real phonetic word-final [-a]. These are instances of a phenomenon called 'initial-a-final', which occurs in words starting with /a-/ or /ʔa-/ and involves writing these sequences with word-final <a>, as in KARKAMIŠ A23 § 8 <mu-a> for /ʔamu/ 'I'.[10] The idea is that /a-/ and /ʔa-/ were still pronounced word-initially, but somehow came to be written with word-final <a>. This scribal practice is very common in texts belonging to the Transitional Period (1180–850 BCE), after which it rapidly disappears from our texts (Melchert 2010: 151; Burgin 2016: 16). Many instances of spurious word-final *a* in texts dated before 850 BCE can be interpreted in this way without having to recourse to space-filling. Nevertheless, space-filling remains the only viable interpretation of various occurrences of plene <a>, <i> and <u> in many Transitional Period texts, e.g. KARKAMIŠ A13*d* § 3 |*á-tá-na-wa*/*i-na*$^{-a}$ '?' (acc.sg.c., cf. Figure 1.23), KARKAMIŠ A11*b*+*c* § 17 |*za-ti*$^{-i}$ 'this' (dat.-loc.sg.), BOROWSKI 3 § 4 |(PES$_2$)*tara*/*i-zi-ha*$^{-a}$ '?' (1sg.pret.act.), KARKAMIŠ A2+3 § 15 |(PES$_2$.PES)*tara*/*i-pi-tu*$^{-u}$ (imp.3sg.act.). This clearly shows that space-filling as a phenomenon in fact coexisted alongside initial-a-final, and that we can also use it to explain the presence of spurious <a>, <i> and <u> in Transitional Period texts. We will return to the question of how to distinguish initial-a-final from space-filling in Section 1.4.

1.3 Existence of True Plene Writing

The existence of the practice of space-filling in the Iron Age corpus raises the important question as to whether we can now interpret every single sequence of <CV-V> in Hieroglyphic Luwian as an aesthetically motivated space-filler. To test this hypothesis, we need to look for counterexamples

[10] Hawkins' (2000) corpus of Iron Age inscriptions does not employ a special transliteration to mark initial-a-final because the phenomenon had not been recognised as such at the time of publication: it therefore marks instances of initial-a-final <a> with an apostrophe just like any other spurious word-final <a> sign. Currently, initial-a-final is transliterated using an asterisk: *mu-*a*, as in, e.g., Hawkins 2011a.
My analysis of /ʔamu/ with a glottal stop phoneme /ʔ/ is based on Kloekhorst 2004.

in the form of <CV-V> sequences where it is highly unlikely or impossible that the vowel sign has been added to fill in any gaps. A good place to start looking for these is in word-initial or word-medial <CV-V> combinations. A clear example is KARKAMIŠ A11*b*+*c* § 23 |*za-a-zi-pa-wa*/*i-tá* 'these' (nom. pl.c.), cf. Figure 1.13.

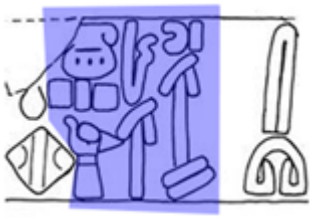

Figure 1.13: KARKAMIŠ A11*b*+*c* § 23 |*za-a-zi-pa-wa*/*i-tá*; after Hawkins (2000, part 3, plate 17).

Note that the sign <a> here does not fill any gaps that would have been left by the scribe starting the next word at the top of a new sign column: the scribe could easily have written <|*za-zi-pa*-°> in the first two columns if he had wanted to do so. Therefore, the scribe's addition of <a> here seems to be motivated by other factors than aesthetics. It is probable that the <a> is not merely ornamental but reflects some linguistically real feature here, which the scribe wanted to express.

The same can be argued for the sign <i> in KARKAMIŠ A12 § 1 |"IUDEX"-*ní-i-sa* 'ruler' (nom.sg.c.), cf. Figure 1.14.

Figure 1.14: KARKAMIŠ A12 § 1 |"IUDEX"-*ní-i-sa*; after Hawkins (2000, part 3, plate 23).

Again, the scribe could simply have written the sign <sa> at the top of the following column, yielding **|"IUDEX"-*ní-sa*. In accordance with the rules for space-filling established above, we would expect him to fill the gap appearing underneath <sa> with the sign <a>: **|"IUDEX"-*ní-sa*$^{-a}$. The fact that the scribe wrote word-medial <i> instead indicates that he wanted to mark something special about the /i/ in this word. Lastly, also the sign <u> is also used in several <CV-V> spellings where it cannot have been used as a space-filler: a good example is found in SULTANHAN § 26 |*wa*/*i-tu-u* 'to him', cf. Figure 1.15.

Figure 1.15: SULTANHAN § 26 |*wa*/*i-tu-u*; after Hawkins (2000, part 3, plate 259).

This is one of the uncommon cases where a word-divider is put not at the head, but in the middle of a sign column. Interestingly, exceptions like this one are extremely helpful in detecting non-filling word-final vowel signs. We see that the <u> after <tu> does not close off an existing column. On the contrary: it opens up a new one. If the scribe had wanted to, he could have finished |*wa*/*i-tu* at the bottom of the line and started the new word neatly heading a following column. It is clear that the scribe felt that the <u> was necessary here and that he wanted to express something with it.

Cases like these show that not all vowel signs in <CV-V> spellings should be interpreted as mere ornaments. They do not fill any gaps and do nothing to allow the scribe to start the next word at the top of the line.[11] Rather, these instances are best taken as 'true' Hieroglyphic Luwian plene writings,

[11] The notion that at least <a> sometimes functions as a secondary word-divider, as argued by Hawkins (2000: *passim*) and Payne (2014: 17), seems unnecessary. While it is true that we find many instances where <a> fills an entire column after a word (e.g. KARKAMIŠ A1*a* § 4 *mu-pa-wa*/*i-a*), these can always be interpreted as cases of initial-a-final (see below,

and we may expect to find their appearance governed by some phonetic and/or phonological reality. The function, or functions, of true plene writing in Hieroglyphic Luwian will be investigated in Chapter 2.

1.4 Distinguishing Space-Fillers from True Plene Spellings

Now that we have seen that <CV-V> combinations can reflect both orthographic space-filling and true plene writing, the question that logically imposes itself now is how we can distinguish one from the other. How can we tell whether an <a>, <i> or <u> in any given <CV-V> sequence is used as a true plene spelling or as a space-filler?

Unfortunately, it is not possible to give a universal set of guidelines with which every vowel sign in <CV-V> combinations can be mechanically classified as either a space-filler or a true plene spelling. The only way to decide this is by looking at the placement of each individual sign within a word and within the inscription itself, which can give important clues as to whether the sign should be taken as a true plene spelling or not.

In word-medial position (cf. |*za-a-zi-pa-wa*/*i-tá*, Figure 1.13), it is not so difficult in most cases to make the distinction between space-filler and true plene: the vast majority of vowel signs occurring in the middle of words do not fill a certain gap and can therefore be taken as true plene (Section 2.3.1). There are cases, however, where vowel signs in the middle of words may very well function as space-fillers: naturally, these are impossible to detect through the use of a transliteration. We will see some more examples of this 'medial space-filling' in Section 1.5.3.

In word-final position, on the other hand, the decision to interpret a vowel sign as a plene spelling or a space-filler is more difficult and often relies on data from other attestations of the same word. This is illustrated by the example of KIRÇOĞLU § 2 *za-a* 'this' (nom.-acc.sg.n.), cf. Figure 1.16.

A priori, it is impossible to determine whether <a> is a space-filler or

end of Section 1.4) or as a word-initial <a> belonging to a following *a-wa*/*i-*°. There is no need to attribute a separate word-dividing function to the sign <a>.

Figure 1.16: KIRÇOĞLU § 2 *za-a*; after Hawkins (2000, part 3, plate 204).

an instance of true plene spelling on the basis of this attestation alone. The placement of <a>, closing off a sign column, would merely support an interpretation in terms of space-filling, but cannot prove it in any definitive way. On the other hand, the possibility that <a> closes off the sign column by sheer coincidence prohibits us from interpreting it as a case of true plene. All in all, the matter cannot be decided without taking external evidence into account.

Now, in the case of <za-a> in particular, such evidence is provided in the form of a cliticised attestation which allows us to argue in favour of an interpretation as true plene. We find *za-a* followed by the enclitic quotative particle /=ua/ in MEHARDE § 1 *za-a-wa/i* 'this', cf. Figure 1.17.

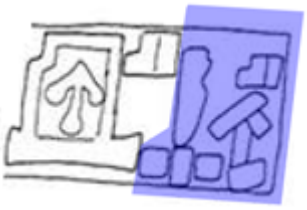

Figure 1.17: MEHARDE § 1 *za-a-wa/i*; after Hawkins (2000, part 3, plate 226).

Since the scribe did not need the <a> to fill a gap after the end of a word, we can safely rule out an interpretation as space-filler here and take the <a> as true plene. Support for this conclusion comes from other forms in the paradigm of *za-* 'this'. Corresponding to the nom.-acc.sg.n. here, we find nom.sg.c. *za-a-sa* (8x) 'this' and the acc.sg.c. *za-a-na* (6x) 'id.' elsewhere in

Hawkins' Iron Age corpus. In each of these fourteen attestations, <a> must be a true plene spelling, as it is not used to avoid a gap. The true plene in the related form nom.pl.c. |*za-a-zi-pa-wa*/*i-tá* 'these' (Figure 1.13) fits this observation nicely. By virtue of this evidence, it is possible or perhaps even likely that also the <a> in KIRÇOĞLU § 2 *za-a* represents true plene spelling here. Note, however, that this interpretation is not directly borne out by the sign placement of *za-a* itself.

Next to cliticisation, rare occurrences of column-medial word-divider signs (cf. Section 1.2) also aid in deciding whether a word-final vowel could ultimately represent a true plene spelling or not. We have seen an example of this already in |*wa*/*i-tu-u* 'to him' (cf. Figure 1.15). Another example with <i> is SULTANHAN § 42 |*ni-i* 'not', with |*á-sa-tu*$^{-u-a}$ 'it must be' (imp.3sg.) beginning half-way in the same sign column, cf. Figure 1.18.[12]

Figure 1.18: SULTANHAN § 42 |*ni-i*; after Hawkins (2000, part 3, plate 261).

The <i> in this example does not fill a gap in the column, as the scribe was apparently able to start a new word just below it. Therefore, we must conclude that it indicates true plene writing.

Instances like these are rare, however, and in most cases it is simply impossible to definitively 'prove' that a given word-final vowel sign is linguistically real or used as a space-filler, especially when we do not know what a word means or what its origins are. To avoid marking space-filler vowels as genuine plene in our transliterations, it is probably methodologically

[12] The double space-filler in |*á-sa-tu*$^{-u-a}$ will be treated separately in Section 1.5.3.

best to take the following as a central guiding principle: vowel signs in word-final <CV-V> sequences are to be represented as linguistically 'empty' space-fillers as often as possible. Only when their placement in the text makes it highly unlikely that a vowel sign fulfils an ornamental function should we interpret them as true plene. The consequence of this procedure is that potentially many instances of true plene writing will be falsely marked as space-fillers, but that is arguably preferable over marking space-filler vowels unjustifiably as true plene. In a later, more interpretative stage of the research, we may use sure instances of true plene vowels to reconsider attestations of the same word which were previously marked as space-fillers. In other words, we may use our knowledge of MEHARDE § 1: *za-a-wa/i* to reinterpret KIRÇOĞLU § 2 *za*$^{-a}$ as a likely candidate for true plene, and we should take this into account when we make phonological and morphological analyses of this word. For transliteration purposes, however, I would suggest staying close to the text, and cite this word as KIRÇOĞLU § 2 *za*$^{-a}$, to represent its sign arrangement as truthfully as possible without using external evidence from different attestations or texts.

Applying this *modus operandi* to Hawkins' (2000) Iron Age corpus results in two collections of words containing <CV-V> sequences. First, there are those words for which an interpretation in terms of space-filling is anywhere from possible to likely; the second collection consists of words that cannot contain space-fillers and must therefore be classified as true plene. The appendix to this chapter shows this method applied to the SULTANHAN stele, illustrating what considerations come into play when deciding between an interpretation in terms of true plene or space-filling. The importance of drawing a distinction between space-fillers and instances of true plene becomes evident if we want to uncover the function(s) of the latter group. If we take all <CV-V> sequences together as one undifferentiated bulk, we cannot hope to find any linguistically meaningful distributions in the use of plene writing, because many of these are actually instances of space-filling. In this respect, space-fillers are 'noise', blurring whatever patterns may exist in the use of true plene writing. Once we are able to recognise space-fillers and remove them from consideration, we are in a better position to discover the function of true plene writing in Hieroglyphic Luwian and see whether it matches, for instance, plene writing in Cunei-

form Luwian.

The same methodology applies to words affected by initial-a-final (see Section 1.2), even if one more option is present in such cases. More specifically, whenever we find a word spelled with word-final <Ca-a> in a text dated to ca. 1180–850 BCE (Transitional Period), we face a choice between not two (i.e. true plene or space-filling), but three possible interpretations of <a>: true plene spelling, space-filling or initial-a-final. Again, I argue that it is methodologically most commendable to interpret a given word-final plene <a> as true plene only after other explanations (space-filling or initial-a-final) have safely been ruled out.

Also with regard to transliteration, I suggest that we do the same as in the case of *za-a*, as exemplified by two attestations from KARKAMIŠ A2+3 (dated to the late 10th, early 9th century BCE), cf. Figure 1.19.

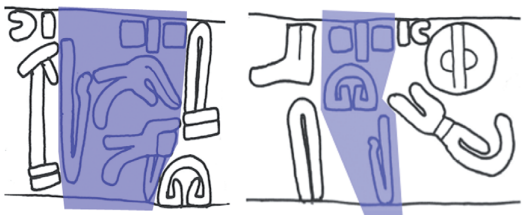

Figure 1.19: KARKAMIŠ A2+3 § 20 |*wa*/*i-tà-tá-***a* and § 24 *wa*/*i-sa*$^{-a}$, respectively; after Hawkins (2000, part 3, plate 21).

The first example, KARKAMIŠ A2+3 § 20 |*wa*/*i-tà-tá-a*, is to be analysed as a combination of *wa*= (quotative particle) + =*ada*= (3pl.nom.-acc.) + =*ta* (locative particle). It is commonly assumed that this clitic chain started with /a-/; moreover, the sign <a> cannot be interpreted as a space-filler, as it occupies a whole sign column by itself. Therefore, we should transliterate and interpret this example as an instance of initial-a-final: |*wa*/*i-tà-tá-***a*. In the same text, we find KARKAMIŠ A2+3 § 24 *wa*/*i-sa*$^{-a}$, which combines *wa*= (quotative particle) with =*as* (3sg.nom.c.). Its morphological interpretation is straight-forward. We know that this text shows multiple unequivocal examples of initial-a-final (cf. above), which strongly suggest that also the <a> of *wa*/*i-sa-a* presents a case of initial-a-final. However, this is not evident from the sign arrangement in this particular word, whose <a> could well

be taken as a space-filler: *wa/i-sa*$^{-a}$. Therefore, while I am convinced that we should interpret this word as an instance of initial-a-final, I nevertheless suggest that we cite it in our transliteration as *wa/i-sa*$^{-a}$ (with superscript $^{-a}$) to mark that an interpretation as a space-filler cannot be ruled out (unless we take external evidence into account).

The focus of the remainder of this chapter will lie predominantly on the space-filler collection, and more specifically, the different varieties of space-filling found within the Iron Age corpus.

1.5 Space-Filling Characteristics

1.5.1 Time Period

After a manual classification of all <CV-V> sequences in the Iron Age Hieroglyphic Luwian corpus (as collected in Hawkins 2000) as either space-fillers or instances of true plene, some interesting results materialise. It appears, for instance, that not every text contains signs for which an interpretation as space-filler is possible. Although many fragmentarily transmitted texts simply do not contain enough linguistic material to decide whether the absence of space-fillers is due to chance or not, there are also several lengthy inscriptions in which space-filling is hardly employed or even absent. These inscriptions are the following.

- all texts from the MALATYA subcorpus (12th–10th centuries BCE), except PALANGA, of unknown date, and ŞIRZI (8th century BCE);
- the KIZILDAĞ-KARADAĞ inscription group (whose date is problematic but most likely high; belonging to the TABAL subcorpus);
- the oldest KARKAMIŠ texts, scil. KARKAMIŠ A4*b* (11th–10th centuries BCE), A14*a*, A14*b* (both 10th century BCE);
- TOPADA (ca. 732–729 BCE; belonging to the TABAL subcorpus);
- KÖRKÜN (late 9th century BCE, belonging to the KARKAMIŠ subcorpus);

- TÜNP 1 (mid-8th century BCE; belonging to the KARKAMIŠ subcorpus);
- ANCOZ 7 (late 9th, early 8th century BCE; belonging to the COMMAGENE subcorpus);
- PORSUK (early 7th century BCE; belonging to the TABAL subcorpus; cf. Figure 1.6);
- CEKKE (mid-8th century BCE; belonging to the KARKAMIŠ subcorpus).

Note that these texts where hardly any vowel sign can be taken as an instance of space-filling are mainly limited to two distinct groups. On the one hand, there are the oldest texts in the corpus (KIZILDAĞ-KARADAĞ and the oldest texts from KARKAMIŠ and MALATYA, especially KARAHÖYÜK [12th century BCE]), where the absence of space-filling might well be a relic from the older Empire period.[13] Additionally, TOPADA is peculiar in its own right for employing a highly unusual signary, on which Hawkins (2000: 460) comments: 'The unusual sign forms suggest a deliberate attempt at archaism with varying degrees of success.' The scribe of TOPADA may well have tried to copy the sign arrangement of older texts, where space-fillers are virtually absent. Interestingly, we can see the use of space-fillers in the Hieroglyphic Luwian texts develop right before our eyes in the texts belonging to the KARKAMIŠ subcorpus. Whereas the oldest texts, such as KARKAMIŠ A4*b* (11th–10th centuries BCE), do not seem to contain any space-fillers at all, later texts (KARKAMIŠ A1*a*, 10th century BCE) show some sporadic use (e.g. § 16 SUPER+*ra*/*i*-^{a}, § 4 DEUS-*ni-zi*-^{i} 'gods' [nom.pl.c.]), which increases rapidly over the 10th and 9th centuries until we reach KARKAMIŠ A6 at the end of the 9th century, where space-filling is ubiquitous. On the other hand, we have KÖRKÜN, TÜNP 1, ANCOZ 7 and PORSUK, which are exactly those texts in which, for reasons unknown, word-division signs could be placed freely in the middle of a sign column. The use of space-filling was unnecessary in these texts, as scribes were apparently not constrained by the

[13] The Empire inscriptions warrant further investigation, but a quick look at the SÜDBURG inscription (Hawkins and Neve 1995: Abbildung 35) reveals that no filling is found there either.

requirement to start a new word at the top of the line. CEKKE belongs to neither of the two groups and its behaviour awaits further explanation.

1.5.2 Space-Filler Vowel

As indicated above, the choice of <a>, <i> or <u> as space-fillers is generally dictated by the vocalic quality of the preceding CV-sign. For instance, we have seen that <u> has been added as a space-filler in ANCOZ 7 § 14 |*á-sa-tu*$^{-u}$ 'they must be', which ends in /-ntu/, cf. Figure 1.12. This also goes for consonant-final words such as KULULU 1 § 11 |*á-pa-na*$^{-a}$ 'that' (acc.sg.c.) /ʔ(a)ɸan/, where a space-filler <a> echoes the preceding sign <na>.

However, the ASSUR letters treated at the start of this chapter already show several instances where a non-corresponding vowel sign seems to be used as a space-filler. We may recall that ASSUR letter e § 18 |FEMINA-*ti-na*$^{-i}$ (cf. Figure 1.3) shows a space-filler <i> where the addition of <a> would be expected on the basis of the rules established in the rest of the corpus. Close inspection of the entire Iron Age corpus reveals that only the following texts contain frequent *non-corresponding* space-filler vowels. All of these have already been observed by Hawkins (2000: 264, *apud* § 6).[14]

- İSKENDERUN (late 9th century BCE; e.g. § 3 |*za-na*$^{-i}$ 'this' [acc.sg.c.]);
- MARAŞ 1 (late 9th century BCE; e.g. § 11 |*i-mara*/*i-si-pa-wa*/*i-mu*$^{-i}$ 'to me' [1sg.dat.-loc.]);
- MARAŞ 14 (ca. 800 BCE; e.g. § 4 *wa*/*i-mu*$^{-i-a}$ [id.]), cf. Figure 1.20;
- ASSUR letters (late 8th century BCE; examples: Figure 1.3 and 1.4).

It is particularly noteworthy that there seem to be only two subcorpora where non-corresponding space-filler vowel signs are quite frequently used: MARAŞ (to which also İSKENDERUN belongs) and ASSUR. Most of the time, however, non-corresponding space-fillers constitute a body of exceptions in

[14] The use of non-corresponding vowel signs as space-fillers in these texts is arguably more obvious than the use of *corresponding* space-filler vowel signs in others. It comes as no surprise, therefore, that Hawkins mentions only these texts as making use of vowel signs as 'word-ender//space filler' Hawkins (2000: l.c.).

Figure 1.20: MARAŞ 14 § 4 *wa/i-mu*$^{-i\text{-}a}$; after Hawkins (2000, part 3, plate 115).

texts which otherwise show perfectly expected space-filling patterns. A list, intended to be exhaustive, is presented below.

- KARATEPE (late 8th century BCE) § XV Hu. |(NEPOS)*ha-su*$^{-a}$ 'for the family' (dat.-loc.sg.c.). An unexpected space-filler vowel occurs only here in the entire bilingual inscription.[15]
- KARKAMIŠ A5*a* (8th century BCE) § 5 & § 6 |*wa/i-mu*$^{-u\text{-}i}$ (2x) 'for me' (1sg.dat.-loc.). The complications occurring in words ending in two vowel signs will be treated in Section 1.5.3.
- ALEPPO 2 (late 10th–early 9th century BCE) § 14 |URBS-*ni-zi*$^{-a}$ 'cities' (nom./acc.pl.c.; cf. Figure 1.25). Expected space-filler vowel signs are found in § 15 |PES-*wa/i-ti*$^{-i}$ 'to come' (3sg./pl.pres.act.) and § 17 |*pi-pa-sa-wa/i*$^{-i}$ 'to present' (1sg.pres.act.). We will return to this word in Section 1.5.3.
- MARAŞ 11 (date unclear) § 9 DEUS-*ni*$^{-a}$ 'to the god' (dat.-loc.sg.). Corresponding space-filling is attested in § 8 (DEUS)TONITRUS-*hu-ti*$^{-i}$ 'for Tarhunt' (dat.-loc.sg.) and, possibly, § 3 *pa-ti*$^{-i}$-[*pa*/*ha*]-*wa*/*i* 'for him' (id.).

[15] Note that the image of the inscription provided in Çambel, Röllig and Hawkins 1999: plate 62 suggests that the <a> in § LVI Hu. |*ha-sá-tu*$^{-a}$ 'let them beget' (imp.3pl.act.; *sic* Hawkins 2000: 56) rather belongs at the end of following § LVII Hu. *ma-pa-wa*/*i* 'much' so that we should read *ma-pa-wa/i*$^{-a}$ instead. In the latter case, the <a> can be interpreted as a corresponding space-filler after the sentence-initial clitic /=ua/.

– ANCOZ 7 (late 9th–early 8th century BCE) § 4 URBS-*ni-i-zi*$^{-a}$ ‘cities’ (nom.pl.c.), cf. Figure 1.21. Note that Hawkins’ tracing actually suggests URBS-*ni*$^{-a}$*-i-zi*, which presents us with an even more marked word-internal non-corresponding space-filler. This same inscription shows expected use of a space-filler vowel <i> in § 4 DEUS-*na-si*$^{-i}$ ‘of the gods’ (gen.pl.c.) and <u> in *á-sa-tu*$^{-u}$ (imp., treated above, cf. Figure 1.12).

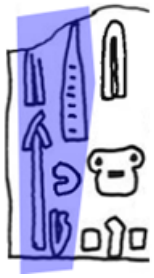

Figure 1.21: ANCOZ 7 § 4 URBS-*ni-i-zi*$^{-a}$; after Hawkins (2000, part 3, plate 186).

– SULTANHAN § 13 *wa/i+ra/i-ia-zi*$^{-a}$ ‘assistances’(?) (acc.pl.c.; cf. also the appendix).

– KULULU 5 (8th century BCE) § 3: *hu-la-sa*$_4$*-ia*$^{-i}$ (PN; dat.-loc.sg.c.).[16] We may analyse this word as having the dat.sg. ending /-aia/ which we only find in personal names. In the same inscription, we find corresponding space-filler vowel signs in § 2 DOMINUS-*ni-sá*$^{-a}$ ‘ruler’ and § 10 DELERE-*nú-tu*$^{-u}$ /marnuntu/ ‘let them destroy’ (cf. Figure 1.9).

– HİSARCIK 1 (late 8th century BCE) § 5 |*á-wa/i*$^{-a}$ ‘I shall make’. Hawkins (2000: 484) rightly notes the semantic and lexical difficulties in interpreting this sentence, but it seems hard to escape the conclusion that |*á-wa/i* should be a verbal form here: /ʔaui/ (1sg.pres.act.). The sign <a> here is wholly unexpected, and must be a space-filler: |*á-wa/i*$^{-a}$.

[16] I am grateful to my colleague Stefan Norbruis for bringing this word to my attention.

– KULULU 2 (mid-8th century BCE) § 3 |*á-mi-ia-za*$^{-i}$ 'my' (dat.-loc.pl.). We would expect <a> to be used here instead, cf. Figure 1.22. Note that elsewhere in this text, we find expected space-filling with <a> (e.g. § 5 |*hwa*/*i-sà*$^{-a}$ 'who' [nom.sg.c.]), <i> (e.g. § 2 |*á-mi-zi*$^{-i}$ 'my' [nom.pl.c.]) and <u> (e.g. § 7 |*tu-wa*/*i-tu*$^{-u}$ 'they must put' [imp.3pl.act.]).

Figure 1.22: KULULU 2 § 3 |*á-mi-ia-za*$^{-i}$; after Hawkins (2000, part 3, plate 272).

1.5.3 Special Types of Space-Filling

Not every instance of space-filling involves a simple <CV-V> sequence at the end of the word. In some cases, it can be argued that space-filler vowels are also applied word-medially, or that two space-fillers are used (<CV-V-V>) instead of one. In what follows, an overview of these various types of space-filling will be given.

In a few cases, graphic filling seems to be triggered by the shape of the inscription: we can see scribes working their way around sculptures and trying to close up free space before a break or the end of the text. A good example of this is found in KARKAMIŠ A13*d* (late 10th–early 9th century BCE) § 3 |*á-tá-na-wa*/*i-na*||$^{-a}$ |*kar-ka-mi-si-za*(URBS), where the sign <a> is added near the shoulder of the standing figure, cf. Figure 1.23. We cannot interpret this <a> as initial-a-final here, as the word preceding it (|*á-tá-na-wa*/*i-na* '?') already starts with <á>. In addition, we see that the following signs <|kar> (beginning a new word) would not fit the space left by the sculpture unless

the word-divider <|> was squeezed into the gap and <kar> was twisted to follow the curvature of the sculpture. It is therefore quite possible that <a> has been added as a space-filler here, to ensure that the first signs of |*kar-ka-mi-si-za*(URBS) could be placed in a straight column without leaving a gap.

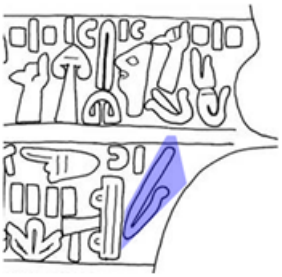

Figure 1.23: KARKAMIŠ A13*d* § 3 |*kwa*/*i-i-sa* |*á-tá-na-wa*/*i-na*||$^{-a}$ |*kar-ka-mi-si-za*(URBS); after Hawkins (2000, part 3, plate 25).

Another example is KARKAMIŠ A23, which is dated to the late 10th–early 9th century BCE and starts with EGO-*wa*/*i-mi-i* 'I'. We see that the sign <i> fills an entire column, which, at first sight, seems to rule out an interpretation of this sign as a space-filler, cf. Figure 1.24.

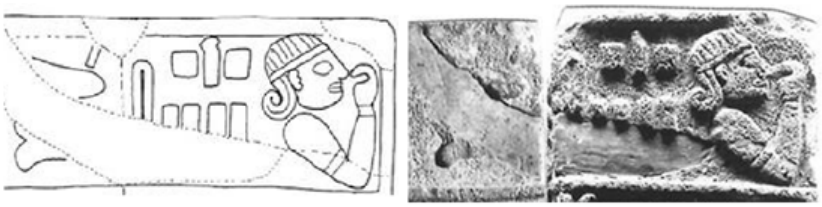

Figure 1.24: KARKAMIŠ A23 § 1 EGO-*wa*/*i-mi-i* (drawing and photograph); after Hawkins (2000, part 3, plates 27 and 26, respectively).

However, the photograph provided in Hawkins 2000 clearly shows that this is where one face of the inscription ends. After writing <EGO-*wa*/*i-mi*>, the scribe was left with a long, thin piece of stone in which he could not fit the subsequent wide signs <ka> and <tú>. He may well have decided to fill

this strip with <i>, and therefore we cannot simply assume that this sign is a true plene spelling. We should interpret it as a space-filler here because it is possible to do so: EGO-*wa*/*i-mi*$^{-i}$. Similar examples where the use of space-fillers may well have been necessitated by sculptural art or the shape of the inscription are ALEPPO 2 § 7 |URBS-*ni-zi*$^{-a}$ 'cities' (nom./acc.pl.c.) and MARAŞ 4 § |*pa-ti*$^{-i}$ /pháti/ 'that' (dat.-loc.sg.), cf. Figure 1.25.[17]

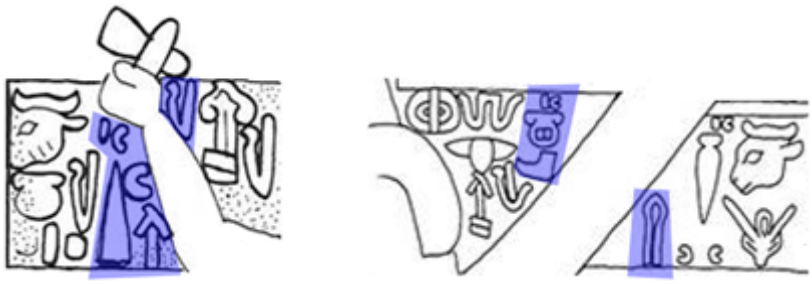

Figure 1.25: ALEPPO 2 § 7 |URBS-*ni-zi*$^{-a}$ and MARAŞ 4 § 3 |*pa-ti*$^{-i}$; after Hawkins (2000, part 3, plates 98 and 109, respectively).

In the latter example, <i> may well be an instance of true plene, but an interpretation in terms of space-filling is equally plausible in this particular passage. Note that the following word-initial signs <|("ANNUS")> would not fit underneath the sculpture and that the space-filler <i> allows <|("ANNUS")> to be placed at the head of a new sign column. Therefore, interpreting the <i> as a space-filler seems the best course of action.

Lastly, there are also vowel signs which seem to be employed as line fillers: BOROWSKI 3 § 4 |(PES$_2$)*tara*/*i-zi-ha*$^{-a}$ '?' (1sg.pret.act.) and HAMA 4 § 15 (end): ("*163")*mu-ha-ha*$^{-a}$ '?', cf. Figure 1.26.

As briefly mentioned above, space-filling rarely occurs in the *middle of words*, most often because a following long sign such as <za> did not fit the

[17] Word-final <a> in |URBS-*ni-zi*$^{-a}$ is a rare instance of non-corresponding space-filling (see Section 1.5.2). We could imagine that the scribe's choice of <a> (instead of expected <i>) was necessitated by the tapered shape of the space left by the arm of the sculpture, which did not allow for a nice fit of <i>. Alternatively (but perhaps less plausibly), one could argue that the space-filler vowel in this case was not felt to belong to the preceding word. In any case, there is no need to take <a> as a true plene vowel here.

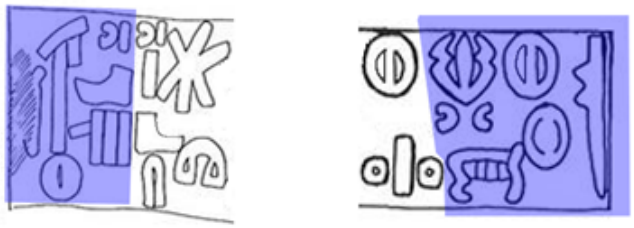

Figure 1.26: BOROWSKI 3 § 4 |(PES$_2$)*tara/i-zi-ha*$^{-a}$ and HAMA 4 § 15 ("*163") *mu-ha-ha*$^{-a}$; after Hawkins (2000, part 3, plates 93 and 213, respectively).

remainder of the column. The scribe was left with an imminent gap in the middle of a word and decided to fill it up using a vowel sign, as if he were filling up a sign column at the end of a word. This is well illustrated by KULULU 1 § 5 |(DEUS)TONITRUS-*hu*$^{-u}$*-za-na*$^{-a}$ 'Tarhunza' (acc.sg.c.) and ibid. § 10 |(DEUS)TONITRUS-*hu*$^{-u}$*-za-sá* 'id.' (nom.sg.c.), cf. Figure 1.27.

Figure 1.27: KULULU 1 § 5 |(DEUS)TONITRUS-*hu*$^{-u}$*-za-na*$^{-a}$; after Hawkins (2000, part 3, plate 245).

After writing <|(DEUS)TONITRUS-hu->, the scribe was left with a small gap at the bottom of the line where <za> could not possibly fit. He therefore filled this gap (using the corresponding space-filler vowel sign <u>) and wrote <za> in the following column. Other attestations of word-medial space-filling are listed below.

– JISR EL HADID fr. 2, line 2 *wa/i-mu*$^{-u}$*-ta* 'me' (1sg.acc.);

– MALPINAR § 9 *zi*$^{-i}$*-wa/i*[...]'this' (abl.-ins.);

– KARKAMIŠ A6 § 3 |"PES$_2$"(-)*hi*$^{-i}$*-nu-wa*/*i-tá* 'caused to pass'(?) (3pl.pret.act.);

– KARKAMIŠ A6 § 4 *zi*$^{-i}$*-na* 'this' (abl.-ins.);

– KARKAMIŠ A25*a* § 6 *kar-ka-mi-si*$^{-i}$*-za*(URBS) 'Carchemishean' (dat.-loc.sg.), cf. Figure 1.28;

Figure 1.28: KARKAMIŠ A25*a* § 6 *kar-ka-mi-si*$^{-i}$*-za*(URBS); after Hawkins (2000, part 3, plate 29).

– The ASSUR letters contain various instances of medial space-filling. In most cases, these are easy to spot, as these texts are among the few in which the space-filler vowel does not regularly correspond to the vocalism of the preceding CV-sign.

  – Letter *a* § 6 |*tara*/*i-pa*$^{-i}$*-mi-i-sa* (PN; nom.sg.c.; cf. Hawkins' commentary: Hawkins 2000: 542);

  – Letter *a* § 10 |*472(-)*ma*$^{-i}$*-sa*$_5$+*ra*/*i-zi*$^{-i}$ '?' (acc.pl.c.), unless this word happens to contain a diphthong;

  – Letter *d* § 6 |*sa-na-wa*/*i*$^{-i}$*-i-zi*$^{-i}$ 'good' (acc.pl.c.). Notice that the <i> signs used as space-fillers here are noticeably smaller in size than their true plene counterpart.

  – Letter *e* § 27 |*sù*+*ra*/*i-wa*/*i-za-ha*$^{-i}$*-wa*/*i-mu*$^{-u}$ '?', where again the 'non-corresponding' space-filler vowel sign <i> is used after the clitic conjunction /ha/ 'and';

  – Letter *f*+*g* § 3 |*a-za*$_5$$^{-a}$*-za-ha-wa*/*i-za* 'we' (1pl.nom.; in one of the '*hatura*-clauses', cf. Waal 2016);

– Letter *f*+*g* § 9 *kwa*/*i-sà*$^{-a}$*-wa*/*i-sa*$^{-a}$ (§ 9) /k^{w}is/ ‘who’ (nom.sg.c.);
– Letter *f*+*g* § 30 |“PES$_2$”(-)*wa*/*i*$^{-a}$*-za-sa-ti* ‘?’ (verb, 3sg.pres.act.);
– Letter *f*+*g* § 38 |*á-pa*$^{-i}$*-ia-pa-wa*/*i* ‘that’ (nom.-acc.pl.n.).

Lastly, we arrive at the complicated question how we should interpret *words ending in two vowel signs* (i.e. <CV-V-V>), such as BOR § 3 |*á-mu-u-a* ‘I’, cf. Figure 1.29.

Figure 1.29: BOR § 3 |*á-mu-u-a*; after Hawkins (2000, part 3, plate 296).

In theory, three different interpretations are possible for the final two vowel signs:[18]

I Double filling (<CV^{-V-V}>): the word is complete after the last CV-sign and one vowel sign is not enough to avoid an impending gap.

II True plene + space-filler (<CV-V^{-V}>): the word is complete after <CV-V> and one V-sign is needed to fill the sign column.

III True plene + initial-a-final (<CV-V-**a*>): the word is complete after <CV-V> and the sign <a> is added as initial-a-final. We may conventionally transliterate these sequences using an asterisk, cf. Section 1.2, footnote 10.

[18] Note that a fourth option “space-filler + initial-a-final” runs counter to intuition. By definition, space-fillers are only added to complement a fully written word. It would therefore be strange to see a scribe filling up a sign column and starting another one to put the initial-a-final vowel in, but cf. below.

A full list, extracted from Hawkins' (2000) Iron Age corpus and, to my knowledge, exhaustive, is given below. From these attestations, it appears that whenever two separate vowel signs follow each other, scribes seem to avoid the use of two identical vowel signs. Most often, they use <a> as the second sign. Thus, there seems to have been a constraint against using the same vowel twice, which is not only valid in the case of double filling, but also after plene vowels.[19] It seems to have been broken only three times: SULTANHAN § 36 |*ni*-*i*-*i* 'not'; SULTANHAN § 46 |*za*+*ra*/*i*-*ti*-*ti*-*i*-*i* 'desire(?)' (3sg.pres.act.) and ASSUR letter *f*+*g* § 51 |*ni*-*i*-*i* 'not'.[20]

Since the second vowel sign in the series is nearly always <a>, it is impossible to say on the basis of the transliteration alone whether a given vowel is a space-filler, true plene or initial-a-final. Again, only by looking at their individual placement in the inscription can we assign sequences of <CV-V-V> to one of three categories above. In two attestations, the two vowel signs are written in a separate column, indicating that at least the first one must be real. For these words, initial-a-final can safely be ruled out as well, either because there is already an initial <á> present or because the word is not supposed to start with /(ʔ)a-/. Thus, we can securely attribute them to class II (true plene + space-filler):[21]

– KARKAMIŠ A6 § 8 |*á*-*mi*-*i*-*a* 'my' (1sg.dat.-loc.), cf. Figure 1.30;

– KARKAMIŠ A6 § 18 & § 23 |*kwa*/*i*-*i*-*a* 'when' (2x).

The placement of <a> in other attestations suggests that it can neither be interpreted as space-filling, nor as true plene. Therefore, it was probably used as initial-a-final in these cases (class III):

[19] To my knowledge, a sequence of -*a*-*a* is not found in the Iron Age HLuw. corpus.

[20] ÇALAPVERDİ 1 § 5 |BRACCHIUM-*mi*+*ra*/*i*-*i*-*i* '?' should rather be read |BRACCHIUM-*mi*+*ra*/*i*-*ri*+*i*-*i*, as cited in Hawkins 2000: 550.

Notably, the same verbal stem |*za*+*ra*/*i*-*ti*-(*i*-) is found spelled with true plene writing in TELL AHMAR 1 § 20 (["]VAS["])*z*[*a*]+*ra*-*ti*-*i*-*ta* (3sg.pret.act.). This raises the suspicion that we should also interpret the form in SULTANHAN with true plene: |*za*+*ra*/*i*-*ti*-*i*-*ti*-*i*, although this is not supported by the placement of the signs.

[21] One reviewer notes another reason not to expect initial-a-final in KARKAMIŠ A6: this text can be dated to the period after 850 BCE, when initial-a-final is no longer used (but cf. footnote 22).

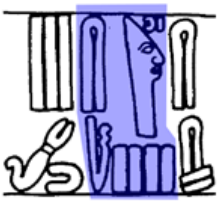

Figure 1.30: KARKAMIŠ A6 § 8 |*á-mi-*$^{-a}$; after Hawkins (2000, part 3, plate 33).

– ADIYAMAN 1 § 8 |*pa-si-i-*a* 'his' (gen.sg.c.), cf. Figure 1.31.[22]

– BOROWSKI 3 § 9 *mi-i-*a* (id.);

– TELL AHMAR 2 § 13 *mi-i-*a* 'my' (1sg.dat.-loc.);

Figure 1.31: ADIYAMAN 1 § 8 |*pa-si-i-*a*; after Hawkins (2000, part 3, plate 170).

In yet other words, we can safely rule out initial-a-final for the same reasons as noted above or because they are dateable to the Late Period (after ca. 850 BCE). This leaves us with two options: class I (double filling) or class II (true plene + filler). As discussed above, it is methodologically preferable to mark vowel signs as true plene only if it is impossible to interpret them as

[22] Note that ADIYAMAN 1 can be dated to ca. 805–773 BCE (Hawkins 2000: 345), and most scholars would agree that initial-a-final had disappeared by this time (cf. Section 1.4). However, since the <a> of § 8 |*pa-si-i-a* seems to resist an interpretation in terms of space-filling or true plene spelling, I can only regard it as an instance of initial-a-final. This is problematic, as—to my knowledge—this would constitute the only unequivocal case of initial-a-final dated to the Late Period (i.e. after 850 BCE).

space-fillers. Therefore, the cases below will be taken as belonging to class I (double filling).

- ASSUR letter *c* § 5 |*ni*$^{-i-a}$ 'not';
- ASSUR letter *f* +*g* § 12, § 15, § 26 |*ni*$^{-i-a}$ (id.; 3x), cf. Figure 1.4;
- ASSUR letter *f* +*g* § 26 |*ni*$^{-i-a}$ (id.);
- ASSUR letter *f* +*g* § 32 |*ni-pa-wa*/*i-tu*$^{-u-a}$ /=θu/ 'to him' (3sg.dat.-loc.);
- ASSUR letter *f* +*g* § 51 |*ni*$^{-i-i}$ 'not';
- BOR § 3 |*á-mu*$^{-u-a}$ 'I' (1sg.nom.), cf. Figure 1.29;
- KARKAMIŠ A5 §§ 5 & 6 |*wa*/*i-mu*$^{-u-i}$ /=mu/ 'me' (1sg.dat.-loc.; 2x);
- KARKAMIŠ A29*f* 1 *zá-tí*$^{-i-a}$ 'this' (dat.-loc.sg.c.);
- KAYSERİ § 16 ("PES$_2$.PES")*tara*/*i-pi-ru*$^{-u-a}$ '?' (imp.3sg.act.);
- KAYSERİ § 18 |*pa-sa-iá-tu*$^{-u-a}$ '?' (id.);
- KULULU 4 § 5 COR-*la-ti*$^{-i-a}$ 'soul' (abl.-ins.);[23]
- MALPINAR § 6 (PONERE)*sà-ti-tu*$^{-u-a}$ '?' (imp.3pl.act.);
- MARAŞ 14 § 2 |*wa*/*i-mu*$^{-i-a}$ /=mu/ 'me' (1sg.dat.-loc.), cf. Figure 20;[24]
- SULTANHAN § 19 |PUGNUS-*ri*+*i-ti*$^{-i-a}$ 'arise' (3sg.pres.act.);
- SULTANHAN § 36 |*ni*$^{-i-i}$ 'not', cf. above;
- SULTANHAN § 42 |*á-sa-tu*$^{-u-a}$ (imp.3sg.act.), cf. Figure 1.18;
- SULTANHAN § 46 |*za*+*ra*/*i-ti-ti*$^{-i-i}$ 'desire(?)' (3sg.pres.act.), cf. the start of Section 1.5.3.;
- TELL AHMAR 1 § 21 |*za*-[*a*]-*ti*$^{-i-a}$ (id.).

[23] The logogram transliterated as VAS in Hawkins 2000 has received a new transliteration COR in Van den Hout 2002: 182.

[24] One reviewer suggests that this word's final <a> in this attestation may also be read as a true plene spelling with the following word *za-na* 'this' (acc.sg.c.), yielding |*wa*/*i-mu*$^{-i}$ *za-a-na*. This reading would be supported by six more attestations of *za-a-na* with true plene writing in the Iron Age corpus.

Lastly, there are attestations with word-final <a> which cannot easily be assigned to one of the three classes defined above.

- IZGIN 1 § 2 *mi-i-a* 'my' (1sg.dat.-loc.);
- MARAŞ 8 § 1 EGO-*mi-i-a* /=mi/ (refl.ptcl.);
- KARKAMIŠ A1*a* § 25 *wa*/*i-mi-i-a* /=mi/ (refl.ptcl.);
- KARKAMIŠ A14*a* § 9 LIS(-)*z*[*a*-...-*t*]*ú-u-a* 'litigate' (imp.3pl.act.);
- KARKAMIŠ A28*m* ...]-x-*mi-sa-pa-wa*/*i-ti-i-a*: inscription is damaged;
- TELL AHMAR 2 § 8 *wa*/*i-ti-i-a* /=θi/ (refl.ptcl.);
- TELL AHMAR 5 § 11 *pa-si-i-a* 'that' (gen.sg.c.);
- TELL AHMAR 1 § 14 *mi-i-a* 'my' (1sg.dat.-loc.);
- TELL AHMAR 1 § 19 *pa-si-i-a* 'that' (gen.sg.c.);
- TELL TAYINAT 2 fr. 1a LOCUS-*la*/*i-ti-i-a* 'place' (dat.-loc.sg.n.).[25]

I see several possibilities, but none of them are without difficulties. The first possibility is to take the two word-final vowel signs as space-fillers (class I), e.g. *wa*/*i-mi*$^{-i-a}$. The downside of this interpretation is that it leaves us with several forms showing deletion of initial *a*. Given the overall rarity and regional distribution of deletion of initial *a* (Burgin 2016: 15), this is not very attractive. Alternatively, we could take the word-final <a> as an instance of initial-a-final. This, however, leaves the status of the preceding vowel open. If we interpret the penultimate vowel sign as a space-filler, e.g. *wa*/*i-mi*$^{-i}$-**a*, this means we must allow for word-medial space-filling before instances of initial-a-final. If the penultimate vowel sign is taken as a true plene writing (class III), e.g. *wa*/*i-mi-i-***a*, it becomes very difficult to explain these true plene spellings in the reflexive pronouns /=mi/ and /=θi/, and in the imp.3pl.act. ending /-ntu/, which are otherwise consistently spelled without true plene writing. I must leave this question open for now.

[25] Rieken & Yakubovich (2010) have recently proposed to transliterate the signs L 319 and L 172 (<ta$_4$> and <ta$_5$>, respectively, in Hawkins 2000) as *la*/*i* and *lá*/*í*.

1.6 Conclusion

The notion that the scribes of Hieroglyphic Luwian used the vowel signs <a> and <i> as space-fillers in the ASSUR letters and some texts of the MARAŞ subcorpus can and should be extended to almost all texts of the Iron Age Hieroglyphic Luwian corpus, including those texts which attest initial-a-final. The vowel sign <u> also occurs in many instances throughout the corpus where its function seems to be aesthetic rather than linguistic. These two observations allow us to understand the hitherto unexplained presence of many vowel signs in our texts which Luwian scholars have long known that they cannot be sprachwirklich. Currently, the convention is to transliterate these spurious vowel signs differently (or not at all) according to the quality of the vowel and the subcorpus in which they occur. However, since the same space-filling mechanism underlies all of them, this practice is inconsistent and potentially confusing, and I have therefore proposed in this chapter to transliterate space-filler vowels in a uniform way using superscript, e.g. |*i-zi-i-ha*$^{-a}$, (DEUS)TONITRUS-*tá-ti*$^{-i}$, |*á-sa-tu*$^{-u}$.

Barring ASSUR and MARAŞ, where the choice of the space-filler vowel (<a> or <i>) does not seem to be governed by any strict rules, the space-filler vowel virtually always mirrors the vocalic quality inherent to the preceding sign.

However, <a>, <i> and <u> are not always used as space-fillers. In cases where they cannot be taken as either a space-filler or, in the case of <a>, as initial-a-final, they must have served another function. We may call these instances true plene writing, and its function will be investigated in the next chapter. Distinguishing between space-filling, initial-a-final and true plene writing is not always straightforward, but I have argued that we should transliterate any vowel sign as a space-filler by default whenever its placement in the text allows for such an interpretation. In this way, we can avoid marking space-filler vowels falsely as instances of true plene or initial-a-final and carefully separate potential space-fillers on the one hand from irrefutable instances of plene writing and initial-a-final on the other.

An investigation into the use of vowel signs as space-fillers in Hawkins' (2000) Iron Age Hieroglyphic Luwian corpus reveals that the practice is not

restricted to the mere addition of one vowel sign to fill up a vertical sign column at the end of words. In some cases, space-filling occurs when adjoining sculptural works or natural breaks in the text leave gaps. In others, space-filling is found in the middle of a word, where a following sign would not fit. Lastly, there also seem to be cases where not one but two vowel signs are used to fill a certain gap, although it is difficult to distinguish this 'double filling' from combinations of true plene plus space-filler and initial-a-final plus space-filler.

Appendix: SULTANHAN (Hawkins 2000: pl. 258f.)

To illustrate the methodological approach suggested above (cf. Section 1.4) for distinguishing space-fillers from true plene, an analysis will be given here of all <CV-V> sequences used in the SULTANHAN stele (dated ca. 740–730 BCE), excluding the top and the base. Note that this text postdates the Transitional Period and is therefore not expected to contain any instances of initial-a-final.

Transliteration	**Space-filler/True plene**
1 § 1 EGO-*mi*$^{-i}$	Space-filler. The <i> allows the scribe to start the next word at the top of the line without leaving a gap.
1 § 1 |*wa*/*i-su-SARMA-ma-sá*$^{-a}$	Space-filler in between the signs <sá> and <SARMA>.
1 § 1 |HEROS-*li-i-sá*	True plene. The scribe could have written **HEROS-*li-sá-a* (with post-consonantal filling <a>) if he wanted to.
1 § 2 |*za-a-na*	True plene.
1 § 2 |*tu-wa*/*i+ra*/*i-sà-si-i-na*	True plene.

Continued on next page.

Transliteration	**Space-filler/True plene**
2 § 3 |*á-pi*$^{-i}$	Space-filler. The sign <pi> is quite wide, so a gap would remain above it if the scribe simply started writing the next CRUS-*nú-wa*/*i-mi-i-na* in a straight column after *á-pi*.
2 § 3 |BOS(ANIMAL)-*ri*+*i*$^{-i}$	Space-filler.
2 § 3 *a*+*ra*/*i-ma-sa-ri*+*i*$^{-i}$	Space-filler.
2 § 4 |*hwa*/*i*$^{-i}$	Space-filler.
2 § 5 |*á-wa*/*i-tà*$^{-a}$	Space-filler.
2 § 6 |*wa*/*i-ti*$^{-i}$	Space-filler.
2 § 6 |*mara*/*i-wa*/*i-li-sá*$^{-a}$	Space-filler.
2 § 6 |*ARHA*$^{-a}$	Space-filler. Notice the tiny <a> here.
2 § 7 |("VITIS")*wa*/*i-ia-ni-sa-pa-wa*/*i*$^{-a}$	Space-filler. This space-filling <a> shows that the sentence-initial quotative particle commonly written <wa/i> is actually [wa], not [wi].
3 § 7 |*sa-na-wa*/*i-ia-ta*$^{-a}$	Space-filler.
3 § 8 [|*wa*/*i*]-*su-SARMA-ma*-[*ia*$^{?}$...]-*a*	Too broken to decide.
3 § 8 [...]-*ti*$^{-i}$	The sign placement suggests space-filling, but we cannot know for sure that the word ended after <-ti-i>, as is suggested here.
3 § 8 [|*mu-w*]*a*/*i-ta-li-na*$^{-a}$	Space-filler.
3 § 9 |*wa*/*i-tu*$^{-u}$	Space-filler, but cf. below *apud* 6 § 26.
3 § 9 |*á-ru-ni-i-zi*	True plene.
3 § 9 |*á-pa-si-i-zi*	True plene, cf. also *á-pa-si-i-na* in BOYBEYPINARI IVD3 § 20.

Continued on next page.

Transliteration	Space-filler/True plene
3 § 10 |*kwa*/*i*$^{-i}$	Space-filler.
3 § 11 |*kwa*/*i-i-pa-wa*/*i*	True plene, on the basis of the clitics following it.[1]
4 § 12 |*wa*/*i-na*$^{-a}$	Space-filler.
4 § 12 |*á-pi*$^{-i}$	True plene. The <i> opens up a new column which the scribe, who probably felt he was running out of room, filled with a new word unusually starting in the middle of the sign column.
4 § 13 |*sa*$_5$+*ra*/*i-wa*/*i-ti-wa*/*i*+*ra*/*i-ia*$^{-a}$	Space-filler.
4 § 13 |*za-a-zi*	True plene.
4 § 13 |*wa*/*i*+*ra*/*i-ia-zi-a*	The inscription rather suggests a reading CUM-*ni-a*, but in either case, the interpretation of <a> as a space-filler is problematic, as it does not copy the vocalism of the preceding vowel sign.[2]
4 § 13 |*á-tà*$^{-a}$	Space-filler.
4 § 15 |("TERRA")*ta-sà-kwa*/*i*+*ra*/*i-ri*+*i-pa-wa*/*i-ta*$^{-a}$	Space-filler.
4 § 15 |SUPER+*ra*/*i*$^{-a}$	Space-filler.
5 § 16 *a-wa*/*i*$^{-a}$	Space-filler.
5 § 17 |*wa*/*i-ti*$^{-i}$	Space-filler.
5 § 19 |SUPER+*ra*/*i-ha*$^{-a}$	Space-filler.
5 § 19 |PUGNUS-*ri*+*i-ti*$^{-i-a}$	Double space-filler (Section 1.5.3).
5 § 21 |*wa*/*i-tu*$^{-u}$	Space-filler.

Continued on next page.

Transliteration	**Space-filler/True plene**
5 § 21 |DEUS-*ni-i-zi*	True plene. This form occurs 5x in our corpus, next to 1x DEUS-*ni-i-na* (KARKAMIŠ A16*a*, § 3).
5 § 21 |MALUS-*tà-ti*$^{-i}$	Space-filler.

[1] Note that the sign <i> of the immediately preceding word |*kwa*/*i-i* has been marked as space-filler by default, because it is not possible to argue on the basis of that attestation alone that the vowel there is an instance of true plene. Given the fact that the <i> in |*kwa*/*i-i-pa-wa*/*i* (which ultimately belongs to the same lemma as |*kwa*/*i-i*) is a true plene form, it is highly that the <i> of |*kwa*/*i-i* should also be taken as true plene. For the present purposes, however, this use of external evidence has been kept to a minimum to show how one can judge individual cases.

[2] If Yakubovich's 2013ff. interpretation of CUM-*ni* as /anni/ is correct, we could interpret this <a> as initial-a-final. Note, however, that there are otherwise no clear instances of initial-a-final in this text.

We could continue this practice for the top and the base of the SULTANHAN stele as well as for the rest of the corpus. As we have seen, many vowel signs can be interpreted as space-fillers, but there are also vowel signs present in this inscription which are definitely not merely pleasing to the eye and must therefore be interpreted as true plene.[26]

[26] Only one case resists a straight-forward interpretation: § 13 |*wa*/*i*+*ra*/*i-ia-zi*$^{-a}$ 'assistances'(?) (acc.pl.c.; cf. Hawkins 2000: 469).