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The Luwian word for 'city, town'

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Abstract

The Luwian corpus written in Anatolian hieroglyphs consists of about 300 inscriptions. Though this is sufficiently large that Luwian is mostly understood, not all words are known in full writing. One of those is the word for 'city, town'. Since cities play an important role in Luwian monumental inscriptions, it is remarkable that the word for such a central concept is still unknown. Using a multi-modal approach, combing orthographic, morphological, iconographical and archaeological analysis, I argue that the word for 'city' is /allamminna/i-/ 'fortified settlement > city *tout court*', and that the hieroglyph for 'city' depicts a merlon, a raised section of a fortification's battlement, thus linking it to the Hittite tower-vessels that express the relationship between city and fortifications in a material way. The identification of /allamminna/i-/ also impacts the analysis of other Hittite and Luwian words that are hitherto not well understood or not understood at all. Furthermore, it increases our understanding of aspects of the material world and of the cultural and linguistic interactions between Anatolian and Syrian societies. Finally, it illustrates the impact of Luwian and Luwians on Hittite society.

Özet

Anadolu hiyeroglifleriyle yazılmış Luvice külliyatı yaklaşık 300 yazıttan oluşmaktadır. Bu sayı, Luvice'nin çoğunlukla anlaşılmasını sağlayacak kadar çok olmasına rağmen, tüm kelimelerin tam yazılışı bilinmemektedir. Bunlardan biri 'şehir, kasaba' kelimesidir. Luvi anıtsal yazıtlarında şehirler önemli bir rol oynadığından, bu kadar merkezi bir kavrama ait kelimenin hala bilinmemesi dikkat çekicidir. Bu makalede, morfolojik, ikonografik, arkeolojik ve imla analizlerini birleştiren çok modelli bir yaklaşım kullanarak, 'şehir' kelimesinin /allamminna/i-/ 'müstahkem yerleşim > şehir *tout court*' olduğu ve 'şehir' hiyeroglifinin bir surun yükseltilmiş bir bölümü olan mazgal dişlerini tasvir ettiği, böylece şehir ve surlar arasındaki ilişkiyi maddi bir şekilde ifade eden Hitit kule biçimli kaplarıyla bağlantı kurduğu iddia edilmektedir. /allamminna/i-/ kelimesinin tanımlanması, şimdiye kadar iyi anlaşılmamış veya hiç anlaşılmamış diğer Hititçe ve Luvice kelimelerin analizini de etkilemektedir. Ayrıca, maddi dünyanın unsurları ile Anadolu ve Suriye toplumları arasındaki kültürel ve dilsel etkileşimler hakkındaki anlayışımızı artırmaktadır. Son olarak, Luvice ve Luvilerin Hitit toplumu üzerindeki etkisini göstermektedir.

The Anatolian hieroglyphic writing system is an indigenous logographic script of central Anatolia. Though a few hieroglyphs are perhaps already attested in the Old Assyrian *karum* period (19th–18th century BCE, Payne 2015: 69–70) and more regularly on the stamp seals of the Old Hittite period (17th–15th century BCE, Payne 2015: 70–71), currently the evidence only allows us to consider it a full-fledged writing system representing language as of the 14th century BCE (Van den Hout 2020: 120–29). Besides its continued use on seals, as of the 14th century the Hittite state began to produce Anatolian hieroglyphic inscriptions on monuments and living rock. The language behind the hieroglyphs on these official displays of power is always Luwian, never Hittite. Hittite, written on cuneiform tablets only, did not have the 'population facing' function of Luwian. It was only used to record the internal administrative and religious affairs of the ruling elite and ceased to be written after the collapse of the Hittite state in the early 12th century. But Luwian, which in the final two centuries of the Hittite state, if not earlier, may very well have been the vernacular of the local population, persisted for several hundreds of years. It was in use as the official language (or one of the official languages) of the polities that succeeded the Hittite state

in southern Anatolia and northern Syria, until these polities were finally conquered by the Assyrians in the seventh century BCE. The Luwian language is attested for a respectable 800 years.

The Luwian language corpus written in Anatolian hieroglyphs consists of about 300 inscriptions, several lead strips and numerous seals. This number cannot be compared with the copious documentation available in cuneiform for Hittite, but the Luwian corpus is sufficiently large that both the script and the language are mostly understood. The publication of David Hawkins's magnum opus in 2000 brought together for the first time all Iron Age Luwian inscriptions; it remains the foundation for all subsequent work in Luwian studies. Many lexemes could now be studied holistically. Through contextual analysis, the combinatory method and etymological analysis, the last two decades have witnessed great progress in our understanding of the Luwian lexicon, Luwian grammar and the Anatolian hieroglyphs themselves. But not all hieroglyphs have been decoded, and we do not know how all words were pronounced and written out in full (i.e. in syllables that approximate Luwian phonemes rather than as representative logograms).

Though the majority of Luwian words are spelled out in syllables, some common words like the word for 'sheep' (*hawi-*) and for 'house' (*parna-*) are overwhelmingly written with logograms. Of the 67 attestations of 'sheep', only seven are spelled out syllabically, with all other attestations being represented by the logogram OVIS (L.111, Fig. 1a). Of the 53 attestations of 'house', only one is fully written out, and all others use the logogram DOMUS (L.247, Fig. 1b).[1] Other words are never spelled out but can be confidently reconstructed, such as REX (L.17, Fig. 1c) = **hantawatti-* 'king' (127 attestations), based on Cuneiform Luwian *ḫandawadaḫit-* 'kingship' and Lycian A *xñtawate/i-* 'king' (Bauer, Sasseville 2022a). But there are also words for which the reading is not yet known because of the absence of both full writings and cognates (i.e. related words in related languages). In this paper, I discuss one such word, Hieroglyphic Luwian URBS (L.225, Fig. 1d) 'city, town' (with 35 attestations in non-determinative use). As further discussed in sections 3 and 4.1, it is remarkable that the Luwian word for city is not cognate to any of the words for city in the other Anatolian languages, namely Hittite *ḫappir(iy)a-* and Lycian A *teteri*. Finding its full reading is therefore quite challenging. Using a multi-modal approach, I argue that the word behind the logogram URBS is /allamminna/i-/ 'fortification, stronghold > city', and that the hieroglyphic symbol for


Fig. 1a
OVIS (L.111)


Fig. 1b
DOMUS (L.247)


Fig. 1c
REX (L.17)


Fig. 1d
URBS (L.225)

URBS depicts a merlon, a raised section of a fortification's battlement.

Cities play an important role in Luwian monumental inscriptions, especially those inscriptions where a ruler boasts of his conquests and resettlements. Cities are, for example, built (KIZILDAĞ 3, Hawkins 1995: 104–05), settled (GÜRÜN upper inscription § 3b[2]), rewarded (KARAHÖYÜK § 16), bought (CEKKE § 6b) and burnt (TOPADA § 14) (Trameri 2019 provides more contexts). Not knowing the reading behind the logogram URBS does not affect our understanding of the texts in which it occurs, but one would still like to know how speakers of Luwian referred to such an important and central concept as 'city'. How the 'city' was conceptualised has, in turn, broader historical and political implications, which are beyond the remit of this paper.

2. Method and outline

The multi-modal approach applied here draws on a combination of the fields of orthography, morphology, iconography, archaeology, archaeobotany and historical linguistics. After a brief survey of previous scholarship in section 3, I turn in section 4 to the identification of the word behind the logogram URBS. I do this in several stages. In section 4.1, I discuss words in other Anatolian languages for various types of settlements, and critically consider an option for the Luwian word for 'city' proposed in the previous scholarship. In section 4.2 I focus in detail on another suggestion, the connection of the word to the royal name Muršili, before concluding that this direction is something of a red herring. Then in sections 4.3 and 4.4, by strictly applying our current state of knowledge of Anatolian hieroglyphic orthography I marshal the arguments in favour of **a-la-mi-n*^{o} as the lexeme behind the logogram URBS, focusing in particular on the KARAHÖYÜK inscription from Elbistan. In section 4.5 I exhaustively investigate all possible analyses of the morphemes that constitute the word **a-la-mi-ní*. If we, here too, strictly apply our current state of knowledge of Luwian derivational morphemes, then we must

1 All counts are based on the online post-Empire Luwian corpus of *ACLT*, last accessed on 19 February 2022.

2 If I do not mention an edition for a Hieroglyphic Luwian text, the reader is referred to Hawkins 2000.

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conclude that a reconstructed root *allā- lies at the base of *a-la-mi-ní. I argue that *allā- means 'strength' and that *a-la-mi-n° should be read as /allamminna/i-/ and translated as 'fortified settlement, stronghold > city'.

In section 5 I explore the significance of the lexeme /allamminna/i-/ and of the reconstructed root *allā- for the linguistic and material world. Guided by the meaning of /allamminna/i-/, iconographic analysis in combination with archaeological evidence renders it likely that the symbol for URBS represents a merlon, a uniquely identifying visual element of a city's fortifications (section 5.1). I then collect several Luwian and Hittite words starting with *alla-* (or *alli-* in one case) that thus far have defied explanation but now receive an improved understanding (section 5.2). Using one of these words as a springboard into discussion of the flora of Anatolia and Syria in section 5.3, I rely on archaeobotanical research to argue that oaks and thus oak timber were widely available in Anatolia but not in western Syria, and that therefore the (west-)Semitic word for 'oak', *allānu*, might not be native Semitic either. Instead, this word might have been borrowed from an Anatolian language-speaking polity, perhaps even already in the mid-third millennium BCE. The Anatolian, likely Luwian, word for 'oak' would necessarily have been *allā-. In section 5.4, finally, the application of well-established sound laws that explain how Proto-Indo-European (PIE) lexemes may develop into Proto-Anatolian lexemes and then into Luwian, allows us to treat *allā- 'strength' as a metaphorical extension of *allā- 'oak'.

In short, the identification of the Luwian word for 'city', and the extraction of a lexeme *allā- 'strength' from it, has implications beyond mere lexicography for both matters of the material world and for speakers' conceptualisation of that world.

3. Previous scholarship

We currently only know that the lexeme behind URBS ends in /na/i-/, and most likely contains an /m/ (Trameri 2019). The Luwian lexeme for 'city' is therefore not cognate with Hittite *ḫappir(iy)a-* (*HED* Ḫ: 127–28, *HW*² Ḫ: 233–49), nor Lycian A *teteri* (Sasseville 2022) and Carian **qrd* (Simon 2022a) (for further discussion see section 4.1). Gelb's early attempt to read both URBS (L.225) 'city' and REGIO (L.228) 'country' as *umena-* was based on his erroneous conflation of the two, and on comparison with the alleged Hittite cognate *umene* 'country', an alternative that Gelb proposed to the already then accepted Hittite *utne* 'country' (1931: 23–24). Later he seems to have abandoned *umena-* or *umene-* as the reading for 'country' but maintained it for 'city' (1935: 24; 1942: 33). This was all justifiably rejected by Laroche (1960: 124). Only Woudhuizen kept using this reading (see, for example, Woudhuizen 1994–95: 183 and all his other publications dealing with Luwian).

The alleged lexeme URBS-*si(ya)-* 'urban, the city's' with an /s/ in the stem is a mirage (*pace* Hawkins 2000: 131 and *ACLT sub* URBS-*si(ya)-* 'urban'). Indeed, Trameri (2019: 257), followed by Payne and Bauer (2022), interprets URBS in […](URBS)-*si-ia-ti* in KARKAMIŠ A15b § 19 not as an independent lexeme but as the determinative followed by the possessive adjective morpheme /-assa/i-/ with the ablative-instrumental ending /-ati/. This, however, is impossible: the ablative-instrumental of /-assa/i-/ is always /-assati/, never †/-assiyati/.

The only viable analysis of *-si-ia-ti* is to return to the implied analysis in Hawkins 2000: 131 and *ACLT*, and to interpret *-ia-ti* as the ablative of the possessive adjective morpheme /-iya-/. Trameri (2019: 257), in fact, provides this as an alternative analysis, though with a crucial improvement. He contemplates whether the name of Karkemiš should be read in the break (as already suggested by Melchert *apud* Younger 2014: 172). Since currently the only city name that ends in *-s* and takes /-iya-/ is Karkemiš, Melchert and Trameri are certainly correct. Trameri then compares the unusual placement of the determinative URBS immediately after the stem (see Fig. 2a) with the placement of the determinative REGIO in *a-sú+ra/i*(REGIO)-*wa/i-na-ti*(URBS) in the same passage (Fig. 2b), thus strengthening his view that URBS is a determinative. Not only that, the order of reading the signs in both is the same (see the arrows in Fig. 2a–b). As Trameri's arguments are fully convincing, we have to read […](URBS)-*si-ia-ti* as [*Kar-ka-mi*]-*si*(URBS)-*ia-ti*.

Trameri recently discussed the different uses of the sign <URBS> with a focus on the distribution of URBS with the sign <mi> and/or phonetic complements versus bare <URBS> (Trameri 2019). Covering the complete corpus of Anatolian Hieroglyphic texts, he could show that the spellings of <URBS> with <mi>, often in ligature, and optional phonetic complements are restricted to the lexeme 'city' (31 assured instances, further see Appendix 1), whereas bare <URBS> only occurs as postposed determinative with a toponym (more than 200 instances) (2019: 259). Although he ultimately does not propose a reading for the lexeme behind URBS, Trameri pushes towards a solution by arguing that this lexeme should either start with /m/ or merely contain /m/, and has /na/i-/ as a final syllable. The inflection shows *i*-mutation (2019: 263).

Based on the data provided by Trameri (2019: 260) I would go one step further. The sign <mi> is not merely a marker of the presence of /m/ somewhere in the lexeme but indicates a penultimate syllable /mi/. Four instances of URBS show <mi> as an independent sign; that is, not in ligature with URBS (see Tab. 1), and there is one instance of a derived noun with non-ligatured <mi>, URBS-*mi-na-li* = 'of the city', in DARENDE § 3 (Trameri 2019: 253). Nevertheless, without further support this does not provide

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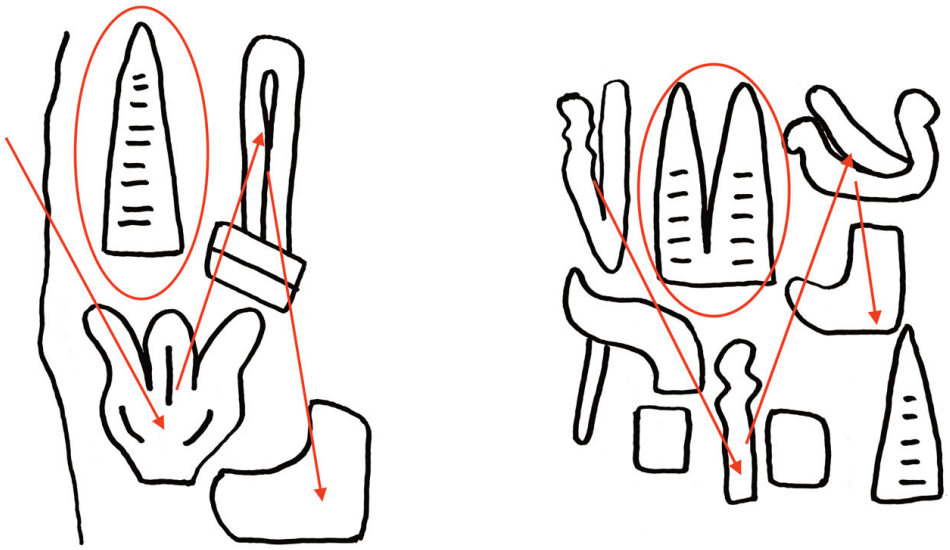

(a) (b)

Figure 2. (a): […](URBS)-si-ia-ti; (b): a-sú+ra/i(REGIO)-wa/i-na-ti(URBS) (drawn by the author).

Case	Form	Attestation	Century BCE
acc.s.c. (unmarked)	URBS-*mi-ní*	KARAHÖYÜK § 3	12th
dat.-loc.s.?	URBS-*mi-ni*	KÖYLÜTOLU 1	Tudḫaliya IV, late 13th
dat.-loc.s.	URBS-*mi-ni*?	GÜRÜN § 3b (upper inscription)	12th / 11th
acc.pl.c.	URBS-*mi-ní-zi/a*	KARAHÖYÜK § 16	12th

Table 1. Attestations of URBS with non-ligatured <mi>.

conclusive evidence. Non-ligatured <mi> that still serves as a phonetic indicator occurs in the name BOS-*MI*-ta_x-*li* 'Muwatalli' in SİRKELİ (see for images http://www.hittite-monuments.com/sirkeli/). The name should certainly not be read as †Umitalli or †Mumitalli. Why I still take <mi> as syllabic will become clear in section 4.4.

The logogram URBS is also used to spell a completely different lexeme, URBS(-)*hu-tá-ni-* 'village?' in KARKAMIŠ A2+3 §17e (Trameri 2019: 255). Nothing further can be said about this lexeme, and it will not feature in the rest of this study.

4. Identifying the Luwian lexeme for 'city'

4.1. Unrelated words for 'city' in the other Anatolian languages and 'citadel' in Luwian

Complicating the search for the Luwian word behind URBS is that the word for 'city' cannot be reconstructed for Proto-Anatolian. In the different branches of the language family, different defining aspects of cities and towns formed the basis for the word 'town, city'. In Hittite that defining aspect was trade: *ḫappir(iy)a-* (*HED* Ḫ: 127–28, *HW*² Ḫ: 233–49) means 'place of trade' (Kloekhorst 2008: 297). The Luwic languages went a different direction. Lycian A *teteri* 'city' (Sasseville 2022), and perhaps Carian **qrd* (Simon 2022a), is related to Lycian A *tere-* 'territory, district', Lycian B *kere-* 'territory', Lydian *qira* 'property' and Hittite *kuera-/kura-* 'field parcel, territory' (Sasseville, Yakubovich 2022). This suggests that Lycian *teteri* does not merely denote town or city, but town or city with its surrounding fields. The Luwian word for 'city' could potentially side with Lycian and perhaps Carian, and thus belong with the 'territory' family or have an altogether different etymology.

Recently, *eDiAna* (the Digital Philological-Etymological Dictionary of the Minor Ancient Anatolian Corpus Languages) translated Luwian *gurta-*, only available in Hittite transmission, as 'city, town', suggesting that indeed the Luwian word for 'city' belongs with the 'territory' family (Simon 2022b). Even though *gurta-* cannot be the reading behind URBS-*mi-n*°, it could still be the basis of URBS-*mi-n*°, but only if *gurta-* and URBS-*mi-n*° do not both mean 'city, town'. On the other hand, were *gurta-* and

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URBS-*mi*-*n*° truly synonymous, they might belong to different Luwian dialects, and we would have another data point for the developing field of Luwian dialectology (on this topic see, for example, Mouton, Yakubovich 2021).

The field of Hittitology is not united in how it understands *gurta*-. Most scholars translate it as 'citadel' and/or 'acropolis' (*HW* 119 'Burg', *HEG* A-K 658 'Burg, Akropolis'; Beckman 1983: 162 n. 391 'citadel'; Melchert 1994: 260 'citadel'; Tischler 2001: 86 'Burg, Akropolis, Zitadelle'), while a few others add the meaning 'town': '(fortress) town, citadel, acropolis' (*HED* K 275; Ünal 2007: 371; Kloekhorst 2008: 295). Simon (2022b) only accepts the meaning 'city, town', though Gonnet (1992: 210) might have been the first to read the Hittite logogram URU not only as *ḫappira*- but also as *gurta*-.

However, the translation 'city, town' for *gurta*- needs to be rejected. The word currently occurs four times in the Hittite corpus, twice preceded by the determinative É 'building': in KBo 8.19 obv. 10, in broken context, and in Bo 3948 ii 1, in a bit less broken context. We do not expect É as determiner for 'town, city'. In Bo 3948 ii 1 (Beckman 1983: 162 n. 391) the ablative ^{É}*gurtaz* is followed by the deity *Tittiwattiš* (in the nominative), the remainder of the clause is broken. The combination of Tittiwatti as subject and ^{É}*gurtaz* as ablative all but assures that Tittiwatti either left the *gurta*-building(s) or removed something from the *gurta*-buildings(s).

One could still imagine that É specifically refers to the built structures of a city as opposed to the city and its surrounding fields, but a passage from Muršili's annals proves this wrong: 'And when I arrived in Aštata, I went up to Aštata, the city (URU-*ri*),' *nu=kan gurtan šer wetenun namma=an* ÉRIN.MEŠ *ašandulaz ēppun* 'and built a *gurta*- up (there). Next, I manned it with a garrison' (KBo 4.4 ii 61–63, *CTH* 61; *HED* K: 275; *CHD* Š: 422). Aštata was already a city, so building a city (*gurta*-) up in a city (*ḫappir(iy)a*-) is not likely. The direct link between *gurta*- and the stationing of a garrison in the passage means that we are looking for a structure that can house troops, allows for military training, and most importantly can be used for immediate defence.

Melchert (2012: 214) rejects the meaning 'acropolis', which denotes a structure that is located on high ground, because of the expression *šarāzzi gurti* 'in the upper *g.*' in the Deeds of Šuppiluliuma (KBo 5.6 iii 33). If *gurta*- can be qualified as 'upper', then being on high ground is not part of the semantics of *gurta*-. Melchert therefore understands *gurta*- as merely a 'man-made fortified enclosure' (l.c.). *Pace* Simon 2022b, he does not propose the meaning 'city, town'. A citadel is a 'city' within a city, hence Melchert's translation (l.c.) of *šarāzzi gurti* as 'into the upper citadel/walled city', but it cannot be equated with the city itself.

While I am aware of the issues surrounding the equation of the city of Aštata with Emar/Tell Meskéné (see Archi 2014: 143–44; Cohen 2019), I find Margueron's suggestion that the *gurta*- with its garrison was located on the Hittite period military site of Tell Faqʾous, 10km downstream from Tell Meskéné, compelling (Margueron 1995: 134). Hittite grammar in fact allows for a reading of *nu=kan gurtan šer wetenun* that supports the building of a military structure at another location than the city of Aštata. While *šer* 'up' with *-kan* often indicates 'location up in', it also has a non-spatial meaning 'for (the benefit/sake of)' (*CHD* Š: 435). This allows the translation 'And when I arrived in Aštata, I went up to Aštata, the city. I built a fortified enclosure for (its) sake. Next, I manned it with a garrison', thus accounting for the physical separation of the *gurta*- 'fortified enclosure, fortress, stronghold' at Tell Faqʾous from the city of Aštata. But the spatial analysis of *-kan … šer* likewise leads to a good interpretation: 'And when I arrived in Aštata, I went up to Aštata, the city, and I built a fortress up (there). Next, I manned it with a garrison'.

The rejection of *gurta*- as 'city, town', leaves us with only one word for city in Luwian, URBS-*mi*-*n*°. It is still possible, though, that the reading behind URBS-*mi*-*n*° is /gurtamminna/i-/, 'an entity possessing a fortified enclosure', if the form can be parsed as base *gurta*- + possessive *-mmi*- + substantivising *-i*- + denominal possessive *-nna*- (see section 4.5 for a discussion of these morphemes). In section 4.3, however, I argue that the word for 'city' should start with /a/ and abandon the reading /gurtamminna/i-/. But first we must explore why the royal name URBS±MINUS-*li* 'Muršili' has nothing to do with 'city'.

4.2 Excluding a red herring – the royal name Muršili

With good reason, Trameri (2019: 264–67) tries to harness <URBS+*RA/I*+li>, the rebus-writing of the name Muršili, to find the Luwian word for 'city' and especially its onset. Comparison with the other royal names written in Anatolian hieroglyphs shows that the first sign or logogram in these names always captures the first part of the phonological representation of the name (2019: 266). This is assured because the values of all initial symbols have either been established independently as syllabograms or the lexeme denoted by the logogram has been established independently, except for <URBS> (Tab. 2):

According to Trameri the word for 'city' might therefore start with /mu-/ or /mus-/. Onset /m/ might even be indicated by the phonetic complement *MI* under the assumption that the latter functions like *TU* in MONS.*TU* 'Tudhaliya'.

But these suggested onsets for 'city' only apply if we read the Anatolian hieroglyphs representing Muršili as <URBS+*RA/I*+li> (see also Hawkins 1995: 72; 2011: 91),

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Spelling	Reading	Independent support for reading
Logogram denotes lexical item		
PURUS.FONS-*MI*	**Šuppi**luliuma	<PURUS> = Luw. *kummaya-*, and because of that Hitt. *šuppi-* 'pure'
SUPER.*TASU*-pa [a]	**Šarri**-Teššub (Hurrian name of Muwatalli II)	<SUPER> = Luw. *sarra/i* 'over, up'
MAGNUS.*ḪI-TASU*-pa	**Ur**ḫi-Teššub (Hurrian name of Muršili III)	<MAGNUS> = Luw. *ura-* 'great'
HATTUSA+li	**Ḫattuš**ili	<*HATTUSA*> = Ḫattuša, also see below
Logogram is attested as syllabogram		
BOS$_2$+***MI***-da-li	**Mu**watalli	<BOS$_2$+*MI*> = <mu>, often
HATTUSA+li	**Ḫa**ttušili	<*HATTUSA*> = <há>, rare
CERVUS$_2$-ti	**Kru**ntiya	<rú>, rare
MONS$_{(2)}$.***TU***	**Tu**dḫaliya	<tu>, often
AVIS$_3$-nú(wa)-tá	**Ar**nuwanda	<ara/i>, only here [b]

Table 2. Logograms in royal names. Notes: [a] For the reading TASU instead of TESSUB see Hawkins 2011: 102. [b] Several of the AVIS (bird) signs read as ara/i (L.133 and 134). Given the equation of AVIS$_3$-nú-tá with cuneiform [m]Ar-nu-wa-an-ta/da on digraphic seals, see NİŞANTEPE 2, cat. 21, 22 (Herbordt et al. 2011, fig. 3), cat. 138, Herbordt et al. 2011, fig. 52), AVIS$_3$ could be so read as well.

with L.383 <ra/i>, even though this reading overlooks how the stroke attached to URBS is clearly the vertical <MINUS> L.381 and not the oblique stroke <*RA/I*>. Hawkins and Trameri do mention <MINUS>, but assuming that <URBS+MINUS> would mean 'ruin', they do not consider this a plausible interpretation of the name Muršili. Trameri, following Hawkins, transliterates <URBS+*RA/I*+li>, and is thus forced to try to extract the lexeme 'city' from the name Muršili.

There is no reason to believe that URBS+MINUS indicates 'ruin'. On the contrary, Melchert (1988) argues that MINUS marks the absence, not destruction, of the concept denoted by a logogram with MINUS, as his discussion of L.245 VASTUS (now VACUUS) 'empty, desolate', L.248 DELERE-*nu*- 'to destroy', and L.381* MORI 'to die' shows. The absence of a city is not a ruin, it is the countryside. Beckman literally calls the countryside the 'non-city' (1999: 165). Hittite *utne* does not only denote the country as a polity but may also denote the countryside as opposed to city (*HEG* U: 143, Beckman 1999: 161). We do not have to assume that the name of Muršili is built on 'ruins'.

I therefore transliterate URBS+MINUS or URBS.MINUS (henceforth URBS±MINUS, as suggested by Mark Weeden, pers. comm. August 2023) instead of URBS+*RA/I*, also see Schürr (forthcoming), and no longer assume that the name of Muršili contains the lexeme 'city'. The following list summarises and rephrases Melchert's arguments to facilitate comparison with URBS±MINUS:

VACUUS (adj.)
= –AEDIFICIUM 'being without buildings'
= 'empty'

DELERE-*nu*- (v.)
= –DOMUS-*nu*- 'to cause to be without house(s)'
= 'to destroy'

MORI (v.)
= –VIR$_2$ 'entering the state of being without vital force'
= 'to die'

URBS+MINUS (n.)
= –URBS 'space without cities'
= 'countryside'

URBS±MINUS-*li* is only used to write the royal name Muršili, with one possible exception. In my view, URBS+MINUS might occur in the compound logogram L.516

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(a) (b)

Figure 3. (a) L. 516 VIA?+URBS+MINUS? = country road (sinistroverse); (b) L. 221 VIA (dextroverse) (drawn by author).

(see Fig. 3a) in the clause L.516 PONERE (KARAHÖYÜK § 14). Possibly, URBS+MINUS is combined with L.221 VIA (see Fig. 3b) to form the word VIA$^{?}$+URBS+MINUS$^{?}$ 'country road, highway' (I would say in contrast with 'city street'). This would then lead to a translation '(I) establish(ed) highways' for KARAHÖYÜK § 14.

I leave as an open question a possible equivalence with *i-mara/i* PES$_2$.PES-*pa-mi-* /im(ma)ratarpammi-/ '(unpaved) country road' in ŞIRZI § 5 (Simon 2014).

Because of the reading URBS±MINUS instead of URBS+*RA/I*, the Anatolian hieroglyphic spelling of Muršili no longer has any bearing on the Luwian word for city. Still, the difference between URBS±MINUS and URBS has consequences for how we read the royal names that contain URBS. Schürr (forthcoming) emphasises that Muršili III's name is once written URBS-*li* on the Storm God seal (Herbordt et al. 2011: cat. no. 57, fig. 19), while Muršili, father of the post-Empire king Hartapu, is either written URBS+*li* (KIZILDAĞ 3) or URBS-*li* (KIZILDAĞ 4, Hawkins 1992; TÜRKMENKARAHÖYÜK 1, Goedegebuure et al. 2020). The problem is that the names of both Empire Great Kings Muršili II and III are otherwise always spelled with URBS±MINUS. Since the presence of MINUS, the vertical stroke, turns a concept into the absence of that concept, URBS-*li* and URBS±MINUS-*li* should represent different names. The implications would be significant: the Storm God seal of Great King Muršili III would then refer to another, unknown, Great King – not necessarily of Hatti! – with the same name as the father of Hartapu. Further research will have to sort out how to understand the absence of MINUS in the name URBS-*li*.

*4.3 A new hope – URBS+*MI*(6).*A *and* *a-*URBS*-ni-zi*

Trameri lists the form URBS+*MI*(6)-*a* in YALBURT Block 2 § 2 as potentially a dative singular on /-a/, following Hawkins (2003a: 161), but in his discussion of this instance he also explores the reading <*a-URBS+*MI*(6)> (2019: 251–52). The word for 'city' could thus start with /a-/, but Trameri rejects this given that there are no other tokens with this spelling besides one other dubious case, to be further discussed below (ALEPPO 2 § 7). This argument is not very compelling for a relatively small corpus such as Luwian. Nevertheless, it still needs to be investigated whether the forms in YALBURT Bl. 2 § 2 and ALEPPO 2 § 7 indeed show onset /a/ using other criteria. According to one of the anonymous reviewers, the lack of onset /a/ with most of the tokens of URBS as observed by Trameri could possibly be explained as regular aphaeresis, the dropping of the initial vowel (though there is in fact no consensus regarding the existence of aphaeresis). For further discussion of aphaeresis see Section 4.4.

The annotated corpus of *eDiAnA*, *sub* YALBURT Fragment D glosses URBS+*MI*(6)-*a* altogether differently by treating URBS+6 (the 6 stands for the six lines in ligature instead of the usual four) as a preposed determinative to *a*-IUDEX.*LA*, marking the latter as a city name. This would be the only instance of a preposed determinative marking a toponym among more than 200 postposed URBS-s, so unless there are very good arguments for this unique analysis, I reject it.

Trameri's reading <*a-URBS+*MI*> would have been perfect in view of my proposal that **a-la-mi-n*^{o} in KARAHÖYÜK § 1 means 'city', but unfortunately the reading <*a-URBS+*MI*> should be rejected. To understand why this is so, I further explore the syntax of YALBURT Bl. 2 § 2, with my reading URBS+*MI*(6).*A* discussed below already incorporated (please see Appendix 2 for further justification of the readings and analysis presented here):

(1) YALBURT Bl. 2 § 2
**a-wa/i-(m)u* (VIR$_2$) *ali-wa/i-ní-sa* LINGUA+CLAVUS-*tu-sa*(URBS) POST-*a* URBS+*MI*(6).*A* IUDEX.*LA* PES

([Someone] struck [a region or city].) The forces of Hattusa went back to my, the Labarna's city.

According to Poetto (1993: 28) the unique writing of POST with <a> instead of <na> or <ni>/<ní> may very well point at a morphological and thus a semantic difference, such as between POST-*a* = /a:ppa/ 'back' and POST-*na/-ni* = /a:ppan(i)/ 'behind'. I reject the suggestion that the final *a* might represent initial-a-final (so Trameri 2019: 251) and follow Burgin (2016: 19): since initial-a-final marks the onset of both /a:ppa/ and /a:ppan(i)/, we would lose the disambiguating function. With Hawkins (1995: 73) I therefore take POST-*a* as /a:ppa/ 'back (to)', with <a> marking the final vowel.

As for a reading <*a-URBS+*MI*(6)> with initial-a-final, the position of the sign <a> immediately beneath and attached to URBS argues against this. Burgin's study of initial-a-final shows that Empire texts display what he dubs initial-a-displacement (IAD), which means that the

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sign should occur (a) in the column following the column with the other signs that constitute the word or (b) at the top of the following column if yet another sign follows (Burgin 2016: 11, fig. 2). In Empire texts, if <a> is placed at the end of the word at the end of the column, as it is here, then <a> is either disambiguating or it marks a plene vowel. Because a dative-locative is expected following POST-*a*, <a> in URBS+*MI*(6)-*a* would mark the dative-locative case ending (Hawkins 2003a: 161). This would be unique, though, in view of the regularly attested dative-locative ending *-i* for this word. Moreover, the dative-locative *-a* is restricted to *a*-stems that do not show *i*-mutation, while the word for 'city' consistently shows *i*-mutation.

Alternatively, the sequence might represent URBS+*MI*(6).*A*, with the rare Empire phenomenon of marking only the onset of a word, compare VIR.*ZI* = /zidi-/ 'man', IUDEX.*LA* = 'labarna', and MONS.*TU* = Tudhaliya (Weeden 2014a: 86), and add DOMINUS.*NA* in, for example, ALEPPO 7 § 11, YALBURT 12 § 4 (*et passim* in YALBURT).

There is an additional attestation of URBS that shows that the lexeme should indeed start with *a-*, ALEPPO 2 § 7. ALEPPO 2, a late-tenth/early-ninth century text, consistently uses initial-a-final (IAF) or initial-a-displacement (IAD) except in three cases where we find <á>. In four more cases final <a> is used as a disambiguating vowel (Burgin 2016: 27–28 and Tab. 3; not listed are <a> marking plene vowels and <a> as initial vowel in two-syllable lexemes). The only instance that cannot be explained is <URBS-ni-zi-a> in ALEPPO 2 § 7. <a> is certainly not disambiguating nor a plene vowel, and if we exclude for the moment that <a> could be IAD, then there is only one option left, <a> as space-filler.

Vertegaal recently discovered that in most of the inscriptions that use space-filler vowel signs, the vowel used corresponds to the vowel of the preceding sign (Vertegaal 2017). Frequent non-corresponding space-filler vowels occur only in İSKENDERUN, MARAŞ 1, MARAŞ 14 and ASSUR, while in a series of other inscriptions a non-corresponding space-filler vowel is the exception (2017: 249–50). As Table 4 shows, space-filler vowels in ALEPPO 2 are consistently

IAD or IAF		**Initial <á>**		**Disambiguating vowel**	
*a-wa/i-mu	§ 2, 3, 5	á-lá/í-ma-za	§ 10, 22	SUPER+ra/i-a	§ 16
*a-mi-i-sa	§ 3	á-pa-si-zi	§ 23	NEG_2-a	§ 7, 9, 11
*a-mu-pa-wa/i	§ 7				
*a-wa/i-mi	§ 8				
*a-mi-na	§ 9				
*a-pa-sa	§ 10				
*a-pa-pa-wa/i	§ 14, 26				
*a-wa/i-tu	§ 15, 22				
*a-mi-i-pa-wa/i	§ 17				
*a-pa-ti-pa-wa/i-ta	§ 21				
*a-MALUS-la/i-ti	§ 24				

Table 3. Use of <a> as IAD/IAF or as disambiguating vowel in ALEPPO 2

Space-filler vowel matches final vowel of preceding syllable	
PES_2.PES_2-da-ti-^{i}	§ 4
(PUGNUS+PUGNUS)hu-hu+ra/i-pa-ti-^{i}	§ 6
PES-wa/i-ti-^{i}	§ 15, 24
pi-pa-sa-wa/i-^{i}	§ 17
BONUS-sa_5+ra/i-ti-^{i}	§ 17
DEUS-ni-^{i}	§ 24

Table 4. Space-fillers in ALEPPO 2

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the same as the vowel of the preceding final syllable. For example, in § 15 and 24 the verb <PES-wa/i-ti> is accompanied by the space-filler <i>, not <a>. The only exception is <URBS-ni-zi-a> in § 7.

At first sight, <a> as a non-corresponding space-filler in <URBS-ni-zi-a> cannot be ruled out, especially in view of URBS+*MI*-*ni-i-zi-*[a] in ANCOZ 7 § 4. But where ALEPPO 2 stands out from all other texts that contain non-corresponding space-fillers is its age. ALEPPO 2 is the only late tenth-/early ninth-century text among six eighth-century texts, one late ninth-/early eighth-century text (ANCOZ 7), and one text of indeterminate date (MARAŞ 11) (for the list see Vertegaal 2017: 250–51). In my view, the exceptionality of this situation combined with Burgin's choice to not assign any function to the final <a> of <URBS-ni-zi-a>, which is equally exceptional, forces us to consider the only option that has consistently remained off the table: the <a> of <URBS-ni-zi-a> is an initial-a-final. Unlike a non-corresponding space-filler vowel, initial-a-final is appropriate for the age of the text. Therefore, and now also taking into account YALBURT's URBS+*MI*(6).*A*, the lexeme behind URBS should start with /a/.

There is one word in the Luwian corpus that both starts with /a/ and ends in /min(n)a/i-/: the dative-locative singular **a-la-mi-ní* in KARAHÖYÜK § 1. I argue that this is the Luwian word for 'city, town'.

4.4. Arguments in favour of *a-la-mi-ní *as 'in the city'*

Compared to the rest of the text, the first lines of the KARAHÖYÜK inscription are relatively easy to understand even though the reading behind the logographically written name of the land of POCULUM.PES.*67 is still unknown, as are the type of functionaries Armanani supervises (for main editions and discussions of KARAHÖYÜK see Masson 1979; Nowicki 1981; Hawkins 2000: 288–95 and pls 133–34; Woudhuizen 2003; van Quickelberghe 2013). The most current reading and translation of the text is as follows, leaving **a-la-mi-ní* untranslated for now:

(2) 1 § 1 (DEUS)TONITRUS POCULUM.PES.*67(REGIO)[a] STELE LUNA.FRATER$_2$ PITHOS.VIR.DOMINUS ||
2 ****a-la-mi-ní*** PRAE PONERE

§ 2 MAGNUS.REX *i(a)+ra/i-*TONITRUS MAGNUS.REX REL+*ra/i-i(a)* ||
3 POCULUM.PES.*67(REGIO) PES$_2$+*ra/i*

§ 3 *a-wa/i* URBS-*mi-ní ta-na-ti wa/i-mi-*OCULUS ||

§ 1 Armanani, lord of the PITHOS-men, set up (this) stele before the Storm God of the land of POCULUM.PES.*67 ****a-la-mi-ní***.

§ 2 When Great King Iri-Teššub[b] came to the land of POCULUM.PES.*67,

§ 3 he found the city desolate.

[a] Van Quickelberghe (2013: 257–59) reads POCULUM.PES.*67 as *ish(u)-upa-pa*, or the city Ishupa.

[b] Giusfredi 2010: 41–42, and especially Simon 2013 equate Iri-Teššub with Great King Ini-Teššub of Karkamiš. For objections, see Hawkins, Weeden 2016: 10, 17 fn. 12.

Before the orthographic phenomenon of initial-a-final was recognised and further explored (Hawkins 2003a: 159–61; Bunnens et al. 2006: 12–13; Melchert 2010; Burgin 2016), **a-la-mi-ní* was read as *la-mi-na-à* (Laroche 1950: 50–51), *la-mi-ná-à* (Meriggi 1975: 317), *la-mi-ní-à* (Masson 1979: 233; Nowicki 1981: 252) or *la-mi-ní-´* (Hawkins 2000: 289; obsolete: van Quickelberghe 2013: 259–60). Both Meriggi (1975: 318) and Masson (1979: 233), elaborating on a hint by Laroche (l.c.), considered *la-mi-ní-´* a cognate of Hittite *laman-* 'name'. Nowicki (1981: 254) rejected the relationship between *la-mi-ní-´* and Hittite *laman-* given the irreconcilable difference between the spelling with /l/ and the Luwian word for 'name', /adaman-/ as the latter was read at the time. Instead, he proposed Hittite *lammar*, with dative *lamni* 'moment' as a cognate. Locative *la-mi-ní-´* would then mean 'at the time'. This was accepted by Hawkins (2000: 291), Woudhuizen (2003: 217), and García Ramón (2017: 97). With the new reading **a-la-mi-ní*, however, *lammar* had to be rejected as cognate, and the form was again analysed as a dative-locative of /alaman-/ 'name'. Thus, Masson's suggestion that the form was cognate with Hittite *laman, lamniya-* became relevant again. Assignment of **a-la-mi-ní* to /alaman-/ constitutes the current state of affairs (Bauer et al. 2022). Contextually, 'in the name' makes good sense, if we understand it, for example, as 'for reputation, fame' (see *CHD* L-N, 35a for this use of Hittite *laman*):

(3) § 1 Armanani, lord of the PITHOS-men, set up (this) stele before the Storm God of the land of POCULUM.PES.*67 **for fame**.

But there are orthographic problems with **a-la-mi-ní* 'in the name'. Each issue alone might not be sufficiently problematic to warrant a rejection of **a-la-mi-ní* as 'in the name', but as a cluster they build a strong case against it.

1. Of the 46 attestations of /alaman-/ 'name' with the second sign visible, 44 are spelled with the signs L.319 <la/i> or L.172 <lá/í>. The two remaining instances

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are spelled with L.175 <la> (KARKAMIŠ A13a–c § 4; ADANA 1 § 6, Hawkins et al. 2013). Our form, spelled with <la>, would be a very rare though not impossible way of writing /alaman-/. I do not accept *a+ra/i-ma-za* in SULTANHAN § 46 as a rhotacised form of /alaman-/ (*pace* Bauer et al. 2022). This word either refers to an object in the immediate vicinity of the Sultanhan stele or the stele itself.

2. The lexeme /alaman-/ 'name' *never* starts with initial-a-final. There are 46 attestations of /alaman-/ 'name' with preserved first sign. All are spelled with <á>, also in texts that otherwise show initial-a-final. Potentially, this does not have to be a problem if we read *la-mi-ní-*^{a} with the final <a> as a non-corresponding space filler and treat *la-mi-ní* as an aphaeresised version of /alamni/ (though one certainly would expect this to be spelled with *-ma-*). However, as Vertegaal (2017: 249) has shown, space-fillers start only sporadically appearing in tenth-century texts, while non-corresponding space-fillers occur only as of the late ninth century. Given the 12th-century date of KARAHÖYÜK, <la-mi-ní-a> is not expected to contain a non-corresponding space filler. <la-mi-ní-a> must be read as **a-la-mi-ní*, irrespective of the meaning of the word.

3. The lexeme /alaman-/ 'name' is *never* written with L.391 <mi>. Bauer, Sasseville and Steer (2022) believe that the use of <mi> instead of L.110 <ma> in **a-la-mi-ní* in KARAHÖYÜK § 1 should be attributed to the age of the inscription, 'which was created at a time when sign *391 could also be used to represent the phonetic value /ma/ besides the usual /mi/'. Specifically mentioning **a-la-mi-ní* in KARAHÖYÜK § 1, both Oreshko (2013: 394–95) and Simon (2020: 45–46) argue likewise. Other scholars accepting both values /mi/ and /ma/ for Empire L.391 are Laroche (1960: 211), Güterbock (1998: 203), Melchert (2002: 139), Yakubovich (2010: 291 fn. 102), Oreshko (2016: 93–94), Melchert *apud* García Ramón (2017: 97), Vertegaal (2021: 300–02). Hawkins (2003b: 173–74) and Weeden (2014a: 90–91) prefer L.391 as just /mi/. But a review of the use of L.391 and L.110 in KARAHÖYÜK shows that L.391 is consistently used to represent /mi/, while L.110 expresses /ma/. The following overview (Tab. 5) shows how the spelling of each word with /m/ in KARAHÖYÜK conforms to the standard spelling of the underlying lexeme.

There is one lexeme, /imma/ 'indeed' and two place names that contain <ma>. A dual reading never having been proposed for the sign <ma>, the /ma/ in the place names is genuine (Tab. 6).

The overview of spellings with L.391 and L.110 shows that KARAHÖYÜK clearly distinguishes between /mi/ and /ma/. L.391 always represents /mi/. This should not be any different for **a-la-mi-ní*. Combined with the rare use of <la> in /alaman-/ and the use of initial-a-final instead

Spelled with <mi>	**Lexeme or grammatical element**
wa/i-mi-OCULUS (§ 3)	/wa**mmi**(ya)-/ 'to find', not †/wamma(ya)-/
*a-wa/i-mi-tá (§ 11)	first person s. reflexive -mi: /a≥wa≥**mi**≥tta/, not †/a≥wa≥ma≥tta/
REL-i(a)-mi-sa (§ 12)	partic. nom.s.c. -mmi-s: /kwaya**mmi**s/ 'feared, revered', not †/kwayammas/
a-mi-zi/a (§ 13)	acc.pl.c. /-inzi/: /a**mi**nzi/, not †/amanzi/
*a-mi-i(a)-ti (§ 15)	abl.-instr. /-ati/: /a**mi**yati/, not †/amayati/
DARE-mi-zi/a (§ 16)	partic. nom.pl.c. /-minzi/: /piya**mmi**nzi/, not †/piyammanzi/
a-mi-i(a) (§ 22)	dat.s. /-i/: /a**mi**/, not †/amaya/

Table 5. The use of <mi> in KARAHÖYÜK. Note: The words sa_x-*514-*mi-ti* (§ 8) and *259.*502-*mi-li* (§ 18) are not considered given their unknown readings.

Spelled with <ma>	**Lexeme**
la/i/u-kar-ma(URBS) (§ 16)	/LVkar**ma**/
zu(wa)-ma-ka(URBS) (§ 16)	/Zu(wa)**ma**ka/
i(a)-ma (§ 22)	/i**mma**/ 'indeed'

Table 6. The use of <ma> in KARAHÖYÜK

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of <á> the orthography with <mi> conclusively argues against attribution of *a-la-mi-ní to /alaman-/ 'name'.

Based on the context one would not want to reject 'in the name > for fame' but based on orthography we should. Contextually, 'city' works as well as 'for fame':

(4) § 1 Armanani, lord of the PITHOS-men, set up (this) stele before **the city** for the Storm God of the land of POCULUM.PES.*67.

§ 2 When Great King Iri-Teššub came to the land of POCULUM.PES.*67,

§ 3 he found the city (URBS-*mi-ní*) desolate.

Not only is it syntactically and semantically perfectly fine to express the location where one installs an object, 'the city' in § 1 also provides the antecedent for URBS-*mi-ní* (an unmarked accusative but with the appropriate *i*-mutation vowel) in § 3. None of this is necessary, but a prominent mention of the city in the dedicatory formula would be welcome in view of the fact that (1) the stele was found *in situ* in an important cultic area in the city itself (Özgüç, Özgüç 1949: 69–72), and (2), the Great King Iri-Teššub performs a series of, presumably, restorations in the city (§§ 4–9; the lines are nearly impossible to decode), after finding the city desolate. I first took the local adverb PRAE /parran/ as governing (DEUS)TONITRUS, but Craig Melchert (pers. comm. March 2023) pointed out to me that it might be preferable to construct it with *a-la-mi-ní and translate the phrase as 'before the city'. One wonders if the use of PRAE indicates that the large, ca 3m-high stele, was visible to parts of the city. The location, at the top of the settlement mound and on an open plaza, at least shows that the stele was located in a public space.

While it is unusual that a text contains a single full syllabographic spelling besides otherwise logographic spellings, it should not serve as a counter-argument. The unique full spelling of *a-la-mi-ní versus the otherwise logographic spellings URBS-*mi-ní*-/ URBS+*MI*- in KARAHÖYÜK and the rest of the Luwian corpus is comparable to the unique full spelling of *ḫaššūet* 'he became king' in the Telipinu Edict (KBo 3.1 i 12'), versus LUGAL-*ūet* everywhere else in the Telipinu edict and LUGAL in general in the complete Hittite corpus.

To my knowledge there is one other possible instance of [*a*]-*la-mi-n*[*í*], in BOĞAZKÖY 27 (Hawkins *apud* Seeher 2005: 67–68), but because the co-text is completely gone, this must remain speculation.

To recapitulate, the spellings URBS+*MI*(6).*A* in YALBURT Block 2 § 2 (if this is how we should read it) and *a-URBS-*mi-zi* in ALEPPO 2 § 7 for 'city' showed that the lexeme should start with /a/. Combined with the phonetic complement /-min(n)a/i-/ the word should look like /a…min(n)a/i-/. I argued that the full lexeme occurred in KARAHÖYÜK § 1 as dative singular *a-la-mi-ní. This form is currently listed as the dative of /alaman-/ 'name', but the spelling with <mi> instead of <ma>, initial-a-final instead of <á> and <la> instead of <la/i> or <lá/í> makes this highly unlikely, even though semantically there are no objections.

To support that *a-la-mi-n^{o} indeed means 'city' I provide a full morphological analysis of /allamminna/i-/ in section 4.5 and an iconographic analysis of the symbol L.225 URBS in section 5.1. The combined morphological and iconographical analysis strengthens the proposal that /allamminna/i-/ is the lexeme behind URBS±*mi-n*^{o} 'city'.

4.5 Fortifications and *a-la-mi-n^{o}

Assuming that *a-la-mi-n^{o} is a Luwian innovation and not a borrowing from some unknown language, we can only hope to analyse *a-la-mi-n^{o} by resorting to known Luwian morphemes. I argue that that is possible and that *a-la-mi-n^{o} should be read as /allaminna/i-/ 'settlement with fortifications, stronghold > city'.

A few preliminary methodological remarks are necessary. In order to distinguish between the orthographic phenomenon of initial-a-final (**a*) and reconstructed forms with *, I will here keep initial-a-final at the end of the word. I start with a morphological analysis of *la-mi-ní-*a*, working backwards. This is a mechanical process that leads to a reconstructed base noun **allā*-. Though the following exposition seems to stack hypothesis on hypothesis by moving from reconstruction to reconstruction, this is not the case. The derivational morphemes that I argue are attached to the root **allā*- are all attested, and only the root is reconstructed. (And even that may not be the case, see ex. 6). But with the analysis moving backwards, I will need to mark every intermediate step from attested *la-mi-n^{o}-*a* to **allā*- as reconstructed given that all these steps contain **allā*-. If I were to move in the opposite direction, I would only have to mark the base as reconstructed. Thus, as argued below, **allā*- (base) + *-ai-* (verbal derivation) + *mma/i-* (participle) + *i* (forming substantives) + *nna/i* (marking possession) is the morphological analysis of attested *la-mi-n^{o}-*a*, with only the root marked as reconstructed.

Since I will argue elsewhere (Goedegebuure, forthcoming) that <la> in the sequence <(C)a-la> indicates gemination in Iron Age inscriptions, we should read *la-…-*a* as /alla-…/. Working backwards, *la-mi-n^{o}-*a* is either a consonant stem /alla(m)min-/ containing a derivational morpheme *-min-* or a thematic stem /alla(m)mi(n)na/i-/ containing a derivational morpheme *-(n)na-*. Derivational *-min-* does not exist, but for *-(n)na-* there are two options. It

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is either the 'Herrschersuffix' *-(n)na-* or the denominal possessive *-(V)nna-*, attested in Cuneiform Luwian *ittaranna/i-* 'courier' < *'having the way' ← **ittar* 'way', ⸗ *kantanna-* (a topographical feature) perhaps 'wheat-field < *'having wheat / full of wheat' ← *kant-* 'wheat', *Kummayanna/i-* 'endowed with the sacred' (name of a spring) (see Melchert 2014a: 208 for these examples, with further references to the literature) and perhaps /haristanna/i-/ 'upper floor' ← */harista-/ (Bauer, Sasseville 2022b) and **tarkasna-* 'donkey' < **d*^{h}*rgh-(e)s-néh*$_2$- = **d*^{h}*rgh-(e)s-nó* + individualising *eh*$_2$ 'the one carrying a load' ← **d*^{h}*rgh-(e)s-* 'load' (Yakubovich et al. 2022). If we restrict the 'Herrschersuffix' to animate individuals, the concept 'city' needs to be understood as an entity 'having */alla(m)mi-/, endowed with */alla(m)mi-/'.

'Having */alla(m)mi-/, endowed with */alla(m)mi-/' leaves us with three options. The element /(m)mi/ is either the participle *-mma/i-*, possessive *-mma/i-* (for which see Melchert 2014a: 207) or the suffix of appurtenance *-āma/i-*. These adjectival formations show *i*-mutation, and since only non-mutated stems (stems on *-a* therefore) are used for derivations, the adjectives on *-i* cannot serve as the basis for further derivations. We need a nominal *i*-stem, which I believe we should seek in the suffix *-i-* which forms substantives from adjectives (discussed in Melchert 1999). */allammi-/ is therefore a noun that is derived from either a participle, a possessive adjective, or an adjective of appurtenance, in which latter case the form would be */allāmi-/. At this point in the derivation a city is either an entity having objects that have been *alla*-ed (the participial reading), an entity having objects possessing *alla-*, or it is an entity having objects that pertain to, are associated with the *alla*-s (the appurtenance reading).

The base for possessive *-mma/i-* and the suffix of appurtenance *-āma/i-* is a substantive **alla-*/**allā-* (henceforth just **allā-*), for the participle *-mma/i-* it is a denominative verb **allā-*/**allāi-*, with the same substantive as base. This substantive might be the base of /allummi/ 'strongly' and /allummi-/ 'to strengthen' (always spelled PUGNUS(*-la/u/i*)*-mi-*, see Payne, Bauer 2023, with further references to the literature). Payne and Bauer analyse /allummi/ as **alli-* 'strength' with a suffix *-ummi-*, though we may also posit **allā-* 'strength', compare **tissā-* shape, form' and its derivation *tissummi-* 'cup' (Craig Melchert, pers. comm. March 2023). Intuitively, **allammi-* 'the fortified/strengthened (thing)', based on the participle of a denominative verb **allā-*/**allāi-* 'to strengthen' seems better than '(a thing) having strength' and '(a thing) pertaining to strength'.

The noun **allammi-* thus means 'fortified/strengthened object > fortification' and URBS-*mi-n*^{o} = /allamminna/i-/ is 'a settlement having fortifications'; in other words, /allamminna/i-/ means 'stronghold, fortified city'. The data presented in Trameri 2019 do not seem to indicate that /allamminna/i-/ is only restricted to fortified settlements. The fact that the symbol URBS served as postposed determinative for any settlement mentioned by name (ca 200+ attestations) supports the development of URBS = /allamminna/i-/ from 'stronghold' to the more general term for 'city, town'. This development is trivial (Buck 1949: 1308).

5. Exploring the significance of the lexeme

5.1 The hieroglyph for URBS and visual allusions to fortifications

The proposed reading of the Luwian word for 'city' as /allaminna/i-/ 'stronghold, fortified city > city' helps us interpret the hieroglyph URBS and connect this symbol with the Hittite tower-vessels, a type of pottery that symbolises the city.

Deciphering what concept is hiding behind a logogram is logically independent from understanding the pictographic value of the logogram (Weeden 2014a: 92). Discussing the sign L.318 *TASU*/*TEŠŠUB*, which seems to depict an axe, Weeden explains: 'It may well be the case that L. 318 is a pictogram of some kind that would be immediately transparent to anyone reading the script in 1300 BC. It is, however, precisely this information that we need to disregard in the attempt to read the script.'

We are therefore excused to abandon the search for the object that L.225 URBS might depict. Yet, I believe that Laroche (1960: 123) was on the right track when he suggested that the triangular shape L.225 could represent a tower ('Schéma d'une tour?'), with the following modification. It is not Hittite towers that have a triangular shape, but the crenellations of their battlement parapets. This is clearly illustrated by the Hittite tower or battlement vases.

Hittite battlement vases are adorned with rounded triangular crenellations or merlons (Fig. 4a–c). Moreover, the horizontal lines that are always present in L.225 are clearly visible on the merlons of a funerary monument in the shape of a tower from Maraş (Schachner, Schachner 1996) (Fig. 5).

Judging by the fact that several vases only show the merlons or depict them separately from the walls and towers, the merlons are likely given special symbolic significance. Of all the constituting elements of fortifications, it is they who are the most distinctive features of the contours of walls and towers. And it is the fortifications that symbolise the city. To quote Mielke (2018: 77):

> [T]he contours of the walls also became the physical face of the city and ultimately culminated in a sense of equivalency between city wall and city […]. The Hittite tower-vessels discussed above […] clearly exemplify this relationship. Through their inclusion

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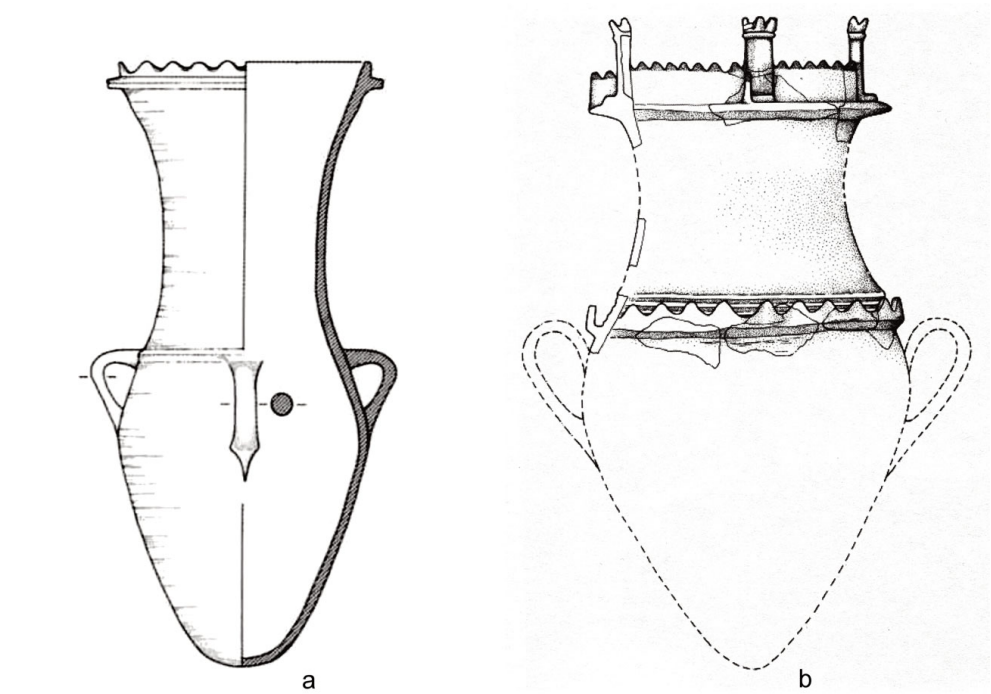

(c)

Figure 4: (a) A battlement vase from Boğazköy-Ḫattuša (after Schachner 2008: 132, fig. 29); (b) reconstruction drawing of battlement-vase fragments from Kuşaklı-Sarissa (after Müller-Karpe 2003: 311, fig. 1); (c) fragment of a battlement-vase from Boğazköy-Ḫattuša (© Carole Raddato from Frankfurt, Germany, CC BY-SA 2.0, via Wikimedia Commons, https://creativecommons.org/licenses/by-sa/2.0

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Figure 5. Tower-shaped funerary stele from Maraş (© Tayfun Bilgin, https://www.hittitemonuments.com/maras/maras14.htm)

into ideological concepts of space and boundaries, city fortifications thus acquired a level of importance that went far beyond their actual military function. The symbolic dimension of Hittite city fortifications is illustrated by historical handed down examples from the realms of politics, sociology, religion and myth.

One can imagine why the merlon was chosen to represent a city. Depictions of walls or towers would at most have led to a rectangular shape, whereas the feature that distinguishes a fortification from any other structure is its battlements with merlons. The merlon therefore uniquely identifies the city-wall, and thus the city. The ancient scribes' choice of the merlon to represent the concept 'city' is a special case of *connexio tropica*, the use of an associated object to represent a *designatum* (see Payne 2015: 24 for this principle). The merlon is associated with a city because it is a *pars pro toto* for the fortifications that define and represent the city.

5.2. All in the family – related roots in Hittite and Luwian

The isolation of a noun **allā*- 'strength' from /allamminna/i-/ warrants investigation of a few other lexemes starting with *alla*- in the Anatolian languages. It concerns the Hittite form

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allān, the Hieroglyphic Luwian noun (VIR$_2$) L.416-*wannid-* /alliwannid-/, the Cuneiform Luwian noun *alla-* and the Hittite ^{GIŠ}*allantaru* tree, which all are best explained as derivations of **allā-* 'strength': *allān* does not mean 'thick, high' but is the neuter participle of *allāi-* 'to strengthen'; /alliwannid-/ does not mean 'enemy', but 'forces > troops'; ^{GIŠ}*allantaru* does not mean 'oak' but 'strong tree'; finally, the Cuneiform Luwian noun *alla* might mean 'strength'.

Hittite provides a highly relevant context that contains both the participle of a verb *allāi-* 'to strengthen' and a city wall. In a section of the *Instruction for the Governor of a Border Province* (the *BĒL MADGALTI* instruction *CTH* 261) that prescribes how a city needs to be fortified and protected, we find:

> (Further, the heads of the stairways of postern gates of fortified towns shall be provided with doors (and) locks. Nothing shall be missing.)

(5) [16'] BÀD=*ma purut tiyauwanzi* ⌜2-*ŠU*⌝[a] ***allā***[(***n*** *ēšdu*)][b] [17'] *namma=*⌜*at*⌝ *ištalgan ēšdu n=ašta* ⌜*šu*⌝[(*ḫḫa*)] [18'] ⌜*war*⌝[(*ḫ*)]*ui zappiyattari lē* [ø]

> Now, the fortification wall must be **strengthened** by applying plaster twice. Next, let it (the plaster) be smoothed, and let the roofing not be cracked (and) leaking! (KBo 57.10 + KUB 31.86 ii 16'–18' (MH/NS), with duplicate KUB 31.89 ii 5'–7'.)

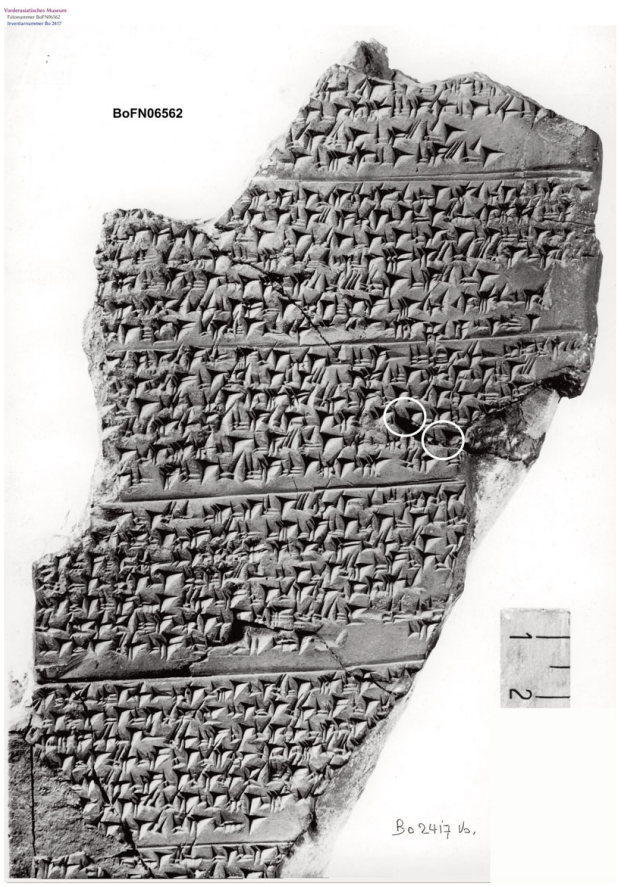
[a] I prefer ⌜*2-ŠU*⌝ instead of Miller's 2-*an*, compare <šu> in 2-*ŠU* (Fig. 6a) with the one in ⌜*šu*⌝-*uḫ-ḫa* in KUB 31.86 ii 17' (Fig. 6b). (For both images see hethiter.net/: fotarch BoFN06562 (Bo 2417).)

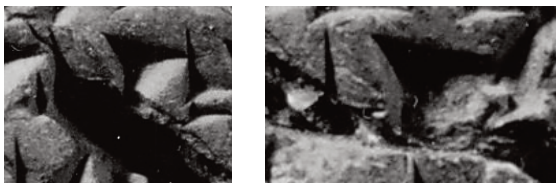
[b] For a different understanding of the syntax of the clause with *allān,* see Miller's translation (2013: 222–23) 'To apply plaster (to) the wall, though, [(it shall be)] 2*?* *alla-?* (*thick?/high?*)'. For discussion of previous readings and treatments of what Miller reads as ⌞2*?-an?*⌟ *al-la-*⌞*a*⌟*-a*[(*n*)], all of which need to be rejected, see 2013: 378 n. 365.

Miller (2013: 378 n. 365) tentatively connects *allān* with Luwian *āla/i-* 'high, deep?', but the spelling with geminate *l* does not support that the two words are cognate. Moreover, Rieken and Yakubovich (2022: 275–77) recently argued that *āla/i-* means 'remote', not 'deep, high', further supporting that Hittite *allān* and Luwian *āla/i-* belong to different lexemes.

The wider context of the passage deals with how to protect and strengthen the fortifications. Passageways cannot be left open, roofs must not leak, and outer walls (BÀD) must likewise somehow be in good order. In combination with applying plaster (*purut tiyauwanzi*) and the numeral, there is in my view only one solution. Plaster is applied twice to strengthen the wall: the double coating of external walls is still common practice today to prevent entry of moisture. The danger of moisture is even made explicit in the subsequent clauses. I therefore propose to treat *allān* and /allummi/ 'strongly' (see section 4.5) as related, and translate *allān* as 'strengthened'.

The form *allān* is the nominative-accusative singular neuter of either an unusually shaped adjective *allā-* or the participle of a verb *allāi-*. The verb needs to belong to the denominative *-āi-/-ā-* class to account for the plene *a* in the participle (Hoffner, Melchert 2008: 208 with n. 120). This time, both the morphology and the semantics favour a verb *allāi-* 'to strengthen' from a base noun **allā-* 'strength', with participle *allānt-*. The participle, without plene spelling, may be attested in an unfortunately broken





(a) (b)

Figure 6. (a): <šu> in 2-⌜ŠU⌝; (b): <šu> in ⌜šu⌝-uḫ-ḫa

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passage: *allandan* ^{NA4}ḪÉ.KUR […] 'fortified (acc.s.c.) stone monument' (KBo 13.101 rev. 18'). Another possible instance of *allān* occurs in broken context: 1 *allān* x[…] in HKM 84: 24'.

If one accepts the root **allā-* 'strength' that I argue above is attested in /allamminna/i-/ 'fortified city > city *tout court*' and in PUGNUS-*lummi*, which had already been reconstructed as /allummi/, then a few other lexemes also receive better translations.

Two Luwian lexemes that are usually treated as one, /alunni-/ 'enemy, envious person' and (VIR$_2$) L.416-*wannid-* (Payne, Bauer 2024), should be kept separate, following Melchert (2019: 370–71). Though Melchert reads the Empire sign L.416 as <li$_x$> I follow Rieken and Yakubovich's (2010) reading of this sign as <ali> = /ali/ or /alli/ (Goedegebuure, forthcoming). Several scholars have proposed a more general meaning for (VIR$_2$) L.416-*wannid-* than 'enemy force', such as 'troops' (e.g., Weeden 2014b: 221 n. 130, and especially Melchert 2018: 234; 2019). In view of my proposal that **allā-* means 'strength', we should accept this more general meaning and opt for /alliwannid-/ 'forces > troops'. I leave the morphological analysis of this form to Craig Melchert.

Craig Melchert pointed out to me (pers. comm. March 2023) that a root *alla-* with positive meaning occurs in the Istanuwian festival fragment KUB 35.142 iv! ii 11, once as noun and once as the basis of a verb. Although there is no further context, his suggestion that *allā-* means 'strength' here makes sense. Since we know so little of the Luwian Istanuwian dialect, except that it is probably quite archaic, I offer two translations without further analysis, with Melchert's proposal in (a) (the suggestion that *alla* is perhaps a collective plural is mine):

(6) ***alla***=*mu pa*=*mu* ***alla****uwāiu*
(a) '**Strength**? (coll.pl.?) to me! Let it make me one having **strength**?!'
(b) 'For my **strength**? (dat. sg.?)! Let it make me one having **strength**?!'

A final lexeme that likely contains a root *alla-* is the rarely attested *allantaru* tree or wood, spelled ^{GIŠ}*allantaru* or ^{GIŠ}*allan*-GIŠ-*ru* (attested in KBo 39.14: 3', KUB 39.7 ii 35, KUB 39.8 i 34', 48', KUB 39.24 i 2', 4'). Currently ^{GIŠ}*allantaru* is translated as 'oak' (*HED* A: 29; Kloekhorst 2008: 169). If the element *taru* represents the lexeme *taru* 'tree, wood', *allantaru* would literally mean *allan*-tree/wood, and *allan* would mean 'oak' (so Hoffner 1974: 57). Several reference works (*HED* A: 29; Kloekhorst 2008: 169) have accepted Hoffner's (1966: 390–91) proposal that *allan* in ^{GIŠ}*allantaru* 'oak' might have been borrowed from Akkadian *allānu* 'oak' (also see, for example, Ertem 1974: 79, Brosch 2010: 266, Watson 2018: 420), although Hoffner also considers the West-Semitic dialects from Ugarit and Alalakh as potential source languages. Others were and are not convinced: *HW*^{2} (A: 56a) does not commit to any meaning or origin, though Goetze (1968: 17), accepting the meaning 'oak, oak wood', believed it is 'Mediterranean' rather than Semitic, and Dardano (2018: 353) and Yakubovich (2022: 38) treat it as a *Wanderwort* of unknown language origin. Kümmel (1967: 366–67) suggested that **alla(n)-* could belong to a 'Cappadocian' language (I agree and will discuss this in the next section).

But with the identification of the root **allā-* 'strength' (perhaps even attested as *alla* in Istanuwian, see ex. 6) and its derivative *allāi-* 'to strengthen' we are in a position to provide a full Anatolian translation of ^{GIŠ}*allantaru* as 'strong tree', instead of as a borrowing of Semitic *allānu* 'oak', whether the latter word is Akkadian, a *Wanderwort*, or something else. In my view, ^{GIŠ}*allantaru*, as a compound, consists of the neuter singular of the possessive adjective formation *allant-* 'having strength > strong' and *taru* (neut.) 'tree'. ^{GIŠ}*allantaru* 'strong tree' is perhaps also attested as (*PANI*) GIŠ^{SJ} *RABÎ* '(in front) of the strong (?) tree' in KUB 58.11 obv. 11, 21. For 'strong, powerful' as one of the meanings of Akkadian *rabû*, see *CAD* R, 33. Alternatively, GIŠ^{SJ} *RABÎ* simply means 'tall/big tree'. In that case, *rabû* does not provide support for the meaning of *allan* as 'strong'.

The few attestations of ^{GIŠ}*allantaru* do not provide any information on the tree species. It might be an oak, or any kind of strong tree. The fact that it is currently only attested in the royal mortuary ritual does not help further narrow down the species.

5.3 Anatolian oaks

Even though there is no longer a good reason to treat ^{GIŠ}*allantaru* as a borrowing, we still should investigate a possible connection between Luwian **allā-* 'strength' and *allānu* 'oak', whether the latter is an Akkadian, West-Semitic, 'Mediterranean' or 'Cappadocian' word. The formal similarity could be superficial, yet the connection between 'oak' and 'strength', as illustrated in sayings such as 'strong as an oak' and 'stark und standhaft wie eine Eiche im Sturm', warrants further investigation into a possible relationship between *allānu* and **allā-*.

However, not only is the language of origin of *allānu* less than assured, the meaning of *allānu* is under discussion, as one of the reviewers notes. If *allānu* does not mean 'oak', there is no reason to further investigate a possible connection with **allā-* 'strength'. *CAD* A, 354–55 translates *allānu* as 'oak', 'acorn' and 'acorn-shaped suppository' (also see Nesbitt, Postgate 2001: 634; Fairbairn et al. 2019: 337), while also allowing for 'an edible acorn-shaped nut' instead of 'acorn' in Old Assyrian. Sturm

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(2008) pursues the latter meaning and argues that the commodity *allānu* in the Old Assyrian documents from Anatolia does not mean 'acorn' but 'hazelnut', also since *allānātu* already designates acorn (*CAD* A, 354). Archaeobotanical evidence supports the trade of hazelnuts in Kültepe/Kanesh, which in turn supports Sturm's arguments (Fairbairn et al. 2014). But Sturm also seems to extend the meaning to the tree itself (2008: 307). This is rejected by Fairbairn et al. (2019: 337). Moreover, homonyms are natural linguistic phenomena: for example, the English noun 'pitch' refers to tar, a throw, or the frequency of a sound. There is nothing *a priori* that prevents the homonyms *allānu* 'hazelnut' and *allānu* 'oak'.

Indeed, we should accept the meaning 'oak' for the *allānu* tree given the longtime comparison with Hebrew *ʾallōn*, itself translated as βάλανος 'oak, acorn' and δρῦς 'timber, tree, oak' in the Septuagint (Postgate 1992: 179). For Kogan (2012: 241) these translations do not prove that *ʾallōn* means 'oak' ('On peut conclure, par conséquent, que l'appui sémantique pour l'interprétation de **ʔayl(-ān)-*, **ʔall(-ān)-* comme "chêne" est extrêmement maigre'). He rather opts for 'un arbre massif', 'toute sorte de grand arbre'. Yet, the passage in Amos 2:9 shows that *ʾallōn* (= δρῦς 'oak' in the same passage in the Septuagint) is not just any big tree: the Amorite is described as כְּגֹבַהּ אֲרָזִים גָּבְהֹו וְחָסֹן הוּא כָּאַלֹּנִים 'like the height of cedars is his height, and he is strong like the oaks (*ʾallōnim*)'. If the simile for height uses a specific tree species, the cedar, then I expect the simile for strength to use a specific tree species as well, and not generically any big tree. The Greeks thought *ʾallōn* was an oak, and so I accept that the cognate tree-name *allānu* should mean 'oak'.

Given that oaks are native to Anatolia, it is not a foregone conclusion that the local Anatolian population borrowed the word for 'oak' from Akkadian, or rather with Kogan (2012: 240–41) northwest Semitic (although any type of lexeme can be borrowed, as the Finnish word for 'daughter' shows: *tytär* is a clear borrowing from an Indo-European Baltic language). Leaving aside the mountain ranges in the north and east, Syria is not known for its large swaths of oak forests. In fact, the *allānu* tree, presumably a western species of oak, is rare (*CAD* A, 355). The rarity of the word reflects how northern Syria became largely deforested throughout the fourth to second millennium BCE. During this period, 'Both understory cropping and sheep and goat grazing, perhaps in combination with arid conditions, caused extremely slow growth of the oak, and most trees must have had a scrub-like appearance already by the Chalcolithic period' (Deckers et al. 2021: 32). The scrub oaks were mainly used for fuel. Compare this with the native oaks of Türkiye, of which the majestic *quercus rōbur* is only one species (https://turkishoaks.org/oak-species/). Under these conditions I would not argue for a borrowing of the word for 'oak' or any large tree into Hittite and/or Luwian from one of the Semitic languages of Syria.

In fact, a new reading in an Ebla text would show that the *allānu*-tree was not locally available in the mid-third millennium BCE. Winters (2019: 235) argues that giš.UD in *ARET* XV 17 § 8, formerly read as $GANA_2^{?}$-UD '?', was (or even needed to be) imported from Armi: 1 gu-dul_3-tug_2 / U_3-la-ma / šu-mu-tak_4 / giš$^{!}$-UD / en / Ar-mi^{ki} '1 cloak for *U_3-la-ma* for sending oak (on the behalf of) the ruler of Armi' (Winters 2019: 231, with discussion of *šu-mu-tak_4* as both 'to dispatch, to send something away' and 'to deliver (to Ebla)' on pp. 218–19). In the lexical entry VE 496 giš.UD translates as *NI-la-nu-um*, *NI-a-la-nu*, which can be interpreted as /*ʾaylānum*/ 'oak' and be compared with Akkadian *allānu* (Winters 2019: 235). If this comparison holds, but note the different readings proposed for *NI* (discussed in Hajouz 2013: 90–91), then this provides another good argument that the *allānu* tree was not native to the area. Timber from the giš.UD tree was also used in the construction of a royal residence (Winters 2019: 235–36 with fn. 574), though the relatively small amount, worth 31 shekels, implies that in this case it was not the main construction material. To sum up, *allānu* seems to have been valuable enough to import and was used for construction. The use of *allānu*-timber was therefore quite different from the use of the local scrub-oaks as fuel.

My rejection of *allan* in ^{GIŠ}*allantaru* as a borrowing from allegedly Semitic *allānu* and re-analysis as 'strong' does not entail the opposite, that Akkadian *allānu* and perhaps its Eblaite counterpart is borrowed from an Anatolian language. Sometimes such similarities are just a coincidence. But if not only timber from the *allānu*-tree was imported from Armi to Ebla but also its signifier, then the location of Armi becomes relevant. Armi should be sought in either Cilicia (Bonechi, Winters 2021) or at Samsat, at the southern slopes of the Anti-Taurus mountains (Archi 2022), in what was later called Kummuh. I therefore suggest we analyse *allānu* as a loanword from a language from Anatolia with base **allā-* 'oak' followed by the typical suffix *-n(n)-* found in many loanwords in Old Assyrian and Akkadian (Dercksen 2007: 39–40).

The posited lexeme **allā-* 'oak' (> *allānu*) is not necessarily an Indo-European Anatolian word. It could belong to any of the languages, Indo-European or not, once spoken in Anatolia in the third and second millennium, many of whom were never written down. Of potential relevance for the argument developed here, however, is that several personal names from Armi are thought to belong to the Anatolian branch of Proto-Indo-European

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(Archi 2011: 24–25, Kroonen et al. 2018: 6–7, Archi 2020), though we should note that the issue has not been settled.

We should therefore explore whether **allā-* 'oak' could belong to one of the Indo-European Anatolian languages without taking the linguistic affiliation of the personal names from Armi into account. For that we ideally need a Proto-Indo-European (PIE) etymology and connect **allā-* 'oak' as extracted from *allānu* 'oak' with **allā-* 'strength' as extracted from Luwian /allamminna/i-/ 'stronghold, fortified settlement > city'.

5.4. 'Strong as an oak' – connecting the words 'oak' and 'strength'

The meanings 'strong, strength' and 'oak' for **allā-* are easily reconciled: 'strong as an oak' is an idiomatic expression in, for example, English and Hebrew (see above), and the word 'oak' can be used as a metaphor for strength, as in 'the Austrian Oak' used to describe Arnold Schwarzenegger. This is not surprising. In many cultures where the oak was and is abundantly present in the landscape, oaks symbolise strength, durability and longevity (Leroy et al. 2020). As a symbol of strength, the oak is the national tree of quite a few countries, and in 2004 a bill was introduced in the United States House of Representatives to designate the oak as the national tree of the United States, because of its strength: 'This *enduring* and *mighty* tree, which has long been a part of our national heritage and *strength*, fully merits the distinction as America's national tree' (Goodlatte 2004, emphasis mine).

While in English the two words are separate (one does not use the word 'oak' non-metaphorically to denote 'strength' and vice versa), this is not the case in Latin: *rōbur* means both 'oak-tree' and 'strength'. As with *rōbur*, the noun **allā-* 'oak' would have secondarily acquired the meaning 'strength'. That 'oak' and 'strength' are expressed by the same lexeme in one language, does not entail that it *should* happen elsewhere. What it *does* show is that it is possible.

Luwian **allā-* 'strength' can be semantically and etymologically tied to 'oak' as follows. If Čop's Law may be invoked to explain the geminate *l* (which is but one explanation for geminate *l*), the noun **allā-* 'strength' derives from Proto-Anatolian **ĕ́l-aH-*. This in turn leads back to virtual PIE **h_1ĕ́l-eh_2*. The suffix *-eh_2* is individuating *-eh_2* (Melchert 2014b). Attached to a root, it turns an abstract notion into a thing. But a PIE root **$h_1$el-* has already been reconstructed and means 'brown, dull red' (either as **$h_1$el-* or in the adjective **$h_1$el-u*, see Mallory, Adams 2006: 139, 331–32, 478, 528, 551). PIE **h_1ĕ́l-eh_2* therefore refers to a brown or dull red thing. But it is quite unclear how the notion 'strength' would have developed directly out of 'brown/dull red thing'. There needs to be an intermediate step, such as 'brown thing' starts denoting 'bear', 'bear' becomes a metaphor for 'strength', then finally 'bear' just means 'strength': we would be saying 'Exercise can help build up your bear', 'what do you consider your bears', and so on. In our case, since I already posit that **allā-*, extracted from *allānu*, should mean 'oak', the path from 'red, brown thing' to 'strength' is easily explained. In Anatolia, **allā-*, the reflex of PIE **h_1ĕ́l-eh_2* 'red, brown thing', could refer to a red oak species, similarly to how in Latin the red oak was designated *rōbur*, from PIE **$h_1$reud^h-os* 'redness', presumably in reference to the colour of the wood (De Vaan 2008: 525). In both languages the word for 'oak' then also came to denote 'strength' by metaphorical extension.

Kloekhorst (2014: 572–73) and Vertegaal (2020) argue that Čop's Law was already a Proto-Luwic sound law. In their formulation of the law, PAnat. **V́CV* > PLuwic **V́CCV*, the quality of the accented short vowel does not change. The Proto-Luwic form was therefore **élla-* < PAnat. **ĕ́l-aH-*. Only in the daughter languages Luwian and Lycian /é/ may change to /á/ (Melchert 1994: 263 (Luwian), 296 (Lycian)). If one has to choose which language would have delivered **allā-* 'oak' to the Semitic languages, Occam's Razor points at Luwian, not Lycian, given the known presence of Luwian names in the Kültepe/Kaneš archives of the 20th–19th century (with Yakubovich 2010: 208–23; Giusfredi 2020; Matessi, Giusfredi 2023: 73–76, *pace* Kloekhorst 2019: 58–65), and the fact that in Hittite times Luwian was spoken in Kizzuwatna, later known as Cilicia, one of the possible locations of Armi.

Finally, the lexeme *allā-* 'oak' might even be attested in the Iron Age inscription ERKİLET 2 (eighth century BCE). ERKİLET 2 is an unshaped basalt block. Unless the accusative singular *á-la-na* in § 1 (see ex. 7) refers to the block itself, the referent of *á-la-na* must have been close to the original location of the block given the use of the proximal demonstrative *za-* 'this'. More importantly, it would have been an object that did not easily lend itself as the surface of an inscription, which excludes buildings, steles and statues. The noun *á-la-na* is sometimes interpreted as the divine name *Ala* (Peker 2023: 371 n. 59; *ACLT sub* Ala (DN), last accessed 26 February 2024). Because Ala is otherwise always written with the sign <lá/í> and always modifies the deity Kubaba in Iron Age inscriptions, this is not very likely. I would therefore argue that the referent of *á-la-na* was part of the natural environment. The combination with the vertical position verb *tuwa-* 'to put, set up' (compare the use of *tuwa-* for planting a vineyard in BOR 1 § 3 and Akkadian *zaqāpu* A 'to erect, set up (an object), to plant (a tree), etc.', *CAD* Z: 51) leads me to believe that *a-lá-* could have been a tree,

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which in the context of this study suggests 'oak'. (Placing an unshaped basalt block in front of a tree is a nice touch of garden design!)

(7) § 1 ***za***-*wa/i* |***á-la-na*** [m]*á-sa-ti-wa/i-su-sa* |*tu-ta* ||
§ 2 *za-pa-wa/i-ta* |*ni* |REL-*i-sà-ha* |*sa-ni-i-ti*[a]

§ 1 Astiwasu planted (lit. set up) **this oak**[?].
§ 2 No one may topple it (lit. this (one)).

[a] Regarding the meaning of /sann(a)i-/ as 'overturn, topple', I follow Sasseville (2021: 226–27).

The absence of *i*-mutation in the accusative *á-la-na* requires that the thematic vowel is long and derives from PIE *$*-eh_2$* (Norbruis 2018: 34–36). Since I argue (Goedegebuure, forthcoming) that <la> in the sequence <(C)a-la> indicates gemination, we should read *á-la-na* as /allān/. Assuming the word is native Luwian, the application of the regular Luwic sound laws mentioned above allows us to reconstruct a virtual PIE *$*h_1$ĕl-eh_2$*; that is, the same form as the reconstructed PIE precursor of **allā-* 'strength'.

Whether readers accept my translation of *á-la-na* as 'oak' or not, the methods of historical linguistics show that Luwian **allā-* 'strength' is best explained if we posit the Luwian precursor lexeme **allā-* 'oak', thus also providing indirect support for the claim that Akkadian (and perhaps Eblaite) *allānu* 'oak' was borrowed from Luwian.

6. Summary and conclusions

This study consisted of two parts: the quest for the Luwian lexeme for 'city', and the significance of that lexeme for a host of other issues, especially aspects of the material world.

A multi-modal approach based on orthographical and morphological analysis, combined with iconography and archaeology, led to the conclusion that the Luwian word hiding behind URBS-*mi-n*° was /allamminna/i-/ 'having fortifications > fortified settlement > city', and that the Anatolian hieroglyph for 'city', URBS (L.225), represented a merlon. The root of /allamminna/i-/ was posited as **allā-* 'strength'. The word for 'city' is attested only once in full syllabic writing as the dative-locative **a-la-mi-ní* in KARAHÖYÜK § 1, hitherto classified as the dative-locative of /alaman-/ 'name' (section 4).

The proposed reading of the Luwian word for 'city' also has implications for aspects of the material world: signs and symbolism as reflected in the archeological record, the maintenance of fortifications, the geographical distribution of oaks, the related question of the origin of the allegedly Semitic word *allānu-* 'oak', and cultures in contact.

More specifically, the proposed original meaning of /allamminna/i-/ as 'stronghold, fortified city' allowed me to interpret the hieroglyphic symbol for 'city', URBS, as a merlon, a uniquely identifying visual element of a city's fortifications, and to connect this symbol with the Hittite tower-vessels, a type of pottery that likewise symbolises the city (section 5.1).

Besides /allamminna/i-/, Hittite and Luwian texts contained several lexemes that were ultimately derived from a Luwian noun **allā-* 'strength' and thus found a better translation (section 5.2), see Table 7.

The identification of the Hittite verb *allāi-* 'to strengthen' provided textual evidence for how Hittites maintained their fortification walls: they strengthened the walls with two layers of plaster to make them impermeable to water and increase their durability.

I rejected the current view that the Hittite tree denotation *allantaru* was a borrowing from Semitic *allānu* 'oak', and translated it instead as 'strong tree'. If one posits the borrowing of lexemes, especially of those that reflect material culture, one should take material culture into account. Oak trees were the topic of section 5.3, where I adduced the results of archaeobotanical research that showed that Syria had become rather oak-deprived throughout the fourth to second millennia BCE. I thus argued that it was unlikely that languages in oak-rich Anatolia would have borrowed the word for 'oak' from a Semitic language from Syria (though it is not impossible). Instead, I proposed the reverse, that Akkadian *allānu* 'oak'

	Lexemes	**Attested forms**
Noun 'city'	LuwT /allamminna/i-/	See Tables A1–A4 and ex. 2
Noun 'forces > troops'	LuwT /alliwannid-/	See Payne, Bauer 2024
Adjective 'having strength > strong'	HittT *allant-*	*allan* in [GIŠ]*allantaru*, section 5.2
Verb 'to strengthen'	HittT *allāi-* LuwT /allummi-[(ti)]/	*allān* (neuter of participle *allānt-*) ex. 5 See Payne, Bauer 2023
Adverb 'strongly'	LuwT /allummi/	See Payne, Bauer 2023

*Table 7. Lexemes based on *allā- 'strength' in Luwian and Hittite texts.*

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might have been a borrowing of Luwian **allā-*, which would then have to also mean 'oak', not just 'strength'. In section 5.4 the mechanical application of well-established sound laws, the hallmark of historical linguistics, helped formally and semantically connect Luwian **allā-* 'strength' with **allā-* 'oak', thus ranking Luwian among the many cultures that connect oaks with strength, either through metaphors and similes, or through shared lexemes.

In a far more speculative move, I used a new reading in a 24th-century BCE Ebla text that implies that *ʾaylānum* 'oak' needed to be imported from Armi, to suggest that not only oak timber but also the word itself was imported. And since Armi is sometimes argued to be in Cilicia (Hittite-period Kizzuwatna), where we know that Luwian was once spoken, that would imply the presence of Luwian already in the 24th century BCE, with far-reaching implications for the languages, population groups and cultures of the mid-third millennium. Fascinating as it may be, this requires far more research on Armi.

Texts help us reconstruct non-material aspects of a society, such as its administrative structure, its history, and its belief and philosophical systems. Linguistic research of the type conducted here, focusing on a single word, may not lead to insights into these areas the way texts do, but it does provide insight into speakers' conceptualisation of their world. One intriguing outcome of this study is that speakers of Luwian and speakers of Hittite may have originally conceptualised 'city' quite differently. Whereas for speakers of Luwian the defining aspect of a city was originally its fortifications as expressed in the word for city /allamminna/i-/ 'having fortifications', the speakers of Hittite viewed a city as *ḫappir(iy)a-* (Sumerogram: URU) 'a place of trade'. If one wished to express 'fortified settlement' in Hittite, one needed to write URU BÀD, which seems to consist of two lexemes (Mark Weeden, pers. comm. August 2023). A millennium later, speakers of Lycian A referred to the city as *teteri-* 'districts, land sections' (or the like). When these three words developed as expressions for 'city, town', either *de novo* or to replace a previous lexeme, did the speakers of these languages live in differently organised or separate social spheres? These questions can only be answered by linguistic studies

Case	Form	Attestation	Century BCE
dat.-loc.s.?	URBS-*mi-ni*	KÖYLÜTOLU 1 [2]	Tudḫaliya IV, late 13th

Table A1: Empire period attestations of URBS.

Case	Form	Attestation	Century BCE
dat.-loc.s.	(VIR$_2$)URBS+*MI-ní-i(a)*	KARAHÖYÜK § 22 [4C]	12th
	URBS-*mi-ni*[?] [a]	GÜRÜN § 3b [5] (upper inscription)	12th / 11th
acc.pl.c.	(VIR$_2$)URBS+*MI*(6)-*zi/a* [b]	KARAHÖYÜK § 9 [4A]	12th
	(VIR$_2$)URBS+*MI-zi/a*	KARAHÖYÜK § 13 [4A]	12th
	URBS-*mi-ní-zi/a*	KARAHÖYÜK § 16 [4B]	12th
dat.-loc.pl.	URBS+*MI-na-z*[*a*]	IZGIN 1 § 8 [7A]	11th–10th
	⌜URBS⌝+*MI*-[*n*]*a-za*	IZGIN 2 § 2 [7B]	11th–10th

Table A2: Transitional period attestations of URBS.

[a] This form is traditionally read as an accusative singular common gender URBS-*mi-na*[?]. Although collation is necessary, on the photos on the website *Hittite Monuments* it looks as if the sign is rather <ní>. This would give a dative-locative singular, and GÜRÜN § 3b **a-wa/i-x* URBS-*mi-ní*[?] |(SOLIUM)*i-sà-nú-wa/i-ha* would translate as 'I settled […] in? the city (of Taita)'

[b] In two instances, KARAHÖYÜK § 9 and YALBURT Bl. 2 § 2, the ligature on URBS does not consist of the four strokes representing *MI* but of three strokes on either side of the sign. There does not seem to be any difference between to two versions, and the six strokes should represent *MI* as well. In order to distinguish between regular *MI* and six-stroke *MI*, I refer to the latter as *MI*(6) for lack of a better representation.

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Case	Form	Attestation	Ruling king, century BCE
nom.s.c.	URBS+*MI*-*ni-i-sa*	KARKAMIŠ A11b+c § 2 [11A]	Katuwa, late 10th – early 9th
		CEKKE 2 § 13 [19]	Kamani, mid-8th
	URBS+*MI*-*ní-sa*	KARKAMIŠ A1a § 14 [9]	Suhi II, 10th
acc.s.c.	URBS+*MI*-*ni-i-na*	KARKAMIŠ A11c § 30 [11B]	Katuwa, late 10th – early 9th
	URBS+*MI*-*ni-na*	BOROWSKI 3 § 5 [14]	Hamiyata, late 10th – early 9th
		ARSLANTAŞ § 2 [20]	presumably 8th
	'URBS+*MI*'-*ni-na*	RESTAN § 2, QAL'AT EL MUDIQ (2. 2–3) and TALL ŠṬĪB (2. 2–3) [16]	Urhilina, 860–840
	'URBS'-*ni-na*	SİLSİLE 2 § 3 [13]	Suhi (III), late 10th – early 9th
	URBS+*MI*-*ní-na*	CEKKE § 6b [19]	Kamani, mid-8th
dat.-loc.s.	URBS+*MI*-*ni*[?]	MARAŞ 8 § 6 [8]	Larama, early 10th
		CEKKE § 10, 20 [19]	Kamani, mid-8th
		SULTANHAN § 38 [22]	Wasusarma, ca 740–730
	URBS+*MI*-*ni-i*[r]-*i*[?]?	KAYSERİ § 4 [23]	ca 740–730
	URBS-*ni*	AKSARAY § 6 [24]	second half of 8th
nom.pl.	***a*-URBS-*ni-zi***	ALEPPO 2 § 7 [15]	late 10th – early 9th
nom./acc.pl.	URBS+*MI*-*ni-i-zi*-[a]	ANCOZ 7 § 4 [17]	late 9th – early 8th
acc.pl.	URBS+*MI*[?]-*ni-zi*	ÇİNEKÖY § 10 [25]	Waraika, mid-to-late 8th
dat.-loc.pl.	URBS+*MI*-*na-za*	ANCOZ 7 § 7 [17]	late 9th – early 8th

Table A3: Late period attestations of URBS.

Case	Unmarked	Attestation	Century BCE
nom.s.c.	URBS+*MI*	ARSUZ 1 § 7, ARSUZ 2 § 7 [10]	late 10th
acc.s.c.	URBS-*mi-ní*	KARAHÖYÜK § 3 [4A]	12th
	URBS+*MI*-*ni*	KARKAMIŠ A11b +c § 5 [11A]	Katuwa, late 10th – early 9th
	URBS+*MI*	KIZILDAĞ 3 [3]	[a] Hartapu, 8th
dat.-loc.s.	**URBS+*MI*(6).*A***	YALBURT Bl. 2 § 2 [1]	Tudḫaliya IV, late 13th
Possessive			
acc.pl.n.	URBS+*MI*	TOPADA § 14 [21]	Wasusarma, late 8th

Table A4: Attestations of URBS *unmarked for case. Note:* [a] *KIZILDAĞ 3 is now dated to the eighth century (Hawkins, Weeden 2021: 393).*

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focused on multiple aspects of settlements and social organisation, paired with archaeology. But one thing seems clear: in Hittite society the symbolic relationship between a city and its fortifications as expressed by the tower-vessels finds its linguistic counterpart not in Hittite, but in Luwian. The influence of Luwian and Luwians on Hittite society was profound.

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Appendix 1
Tables A1–A4 contain all attestations discussed by Trameri (2019: 251–59), with those that receive a different treatment in this study marked bold. The attestations are organised according to Hawkins's tripartition into Empire (Tab. A1), Transitional (Tab. A2) and Late texts (Tab. A3), and within these periods listed according to approximate date, using Trameri's chronologically ordered list of examples. The final table presents the few instances of <URBS> that are morphologically unmarked. The numbers in square brackets refer to Trameri's examples.

In three instances 'city' is accompanied by the determiner VIR$_2$ (KARAHÖYÜK §§ 9, 13, 22). Whether the determiner marks the inhabitants of the city instead of the physical structures, a collective or something else does not concern us here. Given the phonetic indicators and complements the underlying lexeme is the same (for further discussion see Trameri 2019: 260).

Appendix 2
Discussion of YALBURT Block. 2 § 2:

**a-wa/i-(m)u* (VIR$_2$) *ali-wa/i-ní-sa* LINGUA+CLAVUS-*tu-sa*(URBS) POST-*a* URBS+*MI*(6).*A* IUDEX.*LA* PES
'([Someone] struck [a region/city].) The forces of Hattusa went back to my, the Labarna's city.'

(VIR$_2$) *ali-wa/i-ní-sa*: Melchert (2018) reads L.416 differently as <li$_x$>, the lexeme itself as /liwan(n)id-/ 'troops, infantry'.

LINGUA+CLAVUS-*tu-sa*(URBS): Hawkins (1995: 72–73) tentatively suggests that this unique toponym might represent Ḫattuša, a suggestion that was not accepted by Poetto (1998: 112), nor Melchert (2019: 370 n. 37) (very differently Woudhuizen 2015: 17, who read it as an appellative *i+la-tu-sa* 'ally(/ies)'). New data firmly support the reading of L.177 as LINGUA+CLAVUS in other expressions as <hat(a)> (D'Alfonso 2010, with references to the literature), hence LINGUA+CLAVUS-*tu-sa*(URBS) should indeed represent the city Hattuša. Melchert (l.c.) points out that every other attestation of (VIR$_2$) *ali-wa/i-ní-sa* followed by a toponym means 'the troops of GN', and we could therefore have 'troops of Ḫattuša'. But if *-mu* is a possessive dative to (VIR$_2$) *ali-wa/i-ní-sa*, we have a viable alternative, namely 'my troops' as opposed to the troops of a hostile polity. In that case the possessive dative *-mu* fulfills the role of the possessor-toponym in (VIR$_2$) *ali-wa/i-ní-sa* GN. Ḫattuša could then be a dative-locative 'to Ḫattuša', and LINGUA+CLAVUS-*tu-sa*(URBS) POST-*a* URBS+*MI*-*a* should be translated as 'to Hattusa, back to the city (of Labarna)'. However, the position of POST-*a* would be unusual, and I therefore accept Melchert's suggestion that we should understand (VIR$_2$) *ali-wa/i-ní-sa* LINGUA+CLAVUS-*tu-sa*(URBS) as 'the troops of Ḫattuša' (Melchert 2019: 370 n. 37).

POST-*a*: see section 4.3.

URBS+*MI*(6).*A*: see section 4.3.

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