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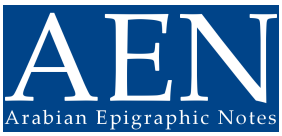

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The development of the triphthongs in Quranic and Classical Arabic*

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Abstract

The original Proto-Semitic triphthongs have developed in a variety of ways in the history of Arabic. Employing data from Old Arabic and the Quranic Consonantal Text, this paper examines the developments of these triphthongs in Classical Arabic and the language of the Quran. It describes the development in hollow and defective roots and shows that Quranic Arabic developed a new long vowels /ē/ and /ō/ in positions where Classical Arabic merges triphthongs with *$\bar{a}$.

Keywords: Quranic Consonantal Text Old Arabic Nabataeo-Arabic Triphthongs Historical Linguistics

1 Introduction

This study will look at the development of the triphthongs in the language of the Quranic Consonantal Text and by extension also its developments in Classical Arabic, and it will examine in what way they deviate from one another. "Triphthong" in its Semitistic context has a slightly different meaning than in the general linguistic context. We take triphthong to have the Semitic meaning of a sequence of a short vowel–glide–short vowel.[1]

1.1 On the study of the QCT

This study aims to use the evidence found in the Quranic Consonantal Text (henceforth QCT) to study the language of the Quran. The QCT is defined as the text reflected in the consonantal skeleton of the Quran, the form in which it

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[1] Formal sound laws will be expressed in a schematic way in this paper. *W* stand for a glide *w* or *y*. *v* stands for any short vowel, and $\bar{v}$ for any long vowel. An *x* above a vowel ($\check{v}$) means the vowel is unaccented while an acute ($\acute{v}$) means it is accented. *$* marks a syllable boundary and *#* marks a word boundary. Arabic script will be reproduced without dots if the specific source under discussion lacks them. The *tāʔ marbūṭah* is not distinguished from the regular *hāʔ*. ع is transcribed with ʕ, while the *hamzah* is transcribed with *ʔ*. Classical Arabic will be transcribed in italics, while reconstructed pronunciation of the QCT will be placed within slashes /.../.

was first written down, without the countless additional clarifying vocalisation marks. The concept of the QCT is roughly equivalent to that of the *rasm*, the purely undotted consonantal skeleton of the Quranic text, but there is an important distinction. The concept of QCT ultimately assumes that not only the letter shapes, but also the consonantal values are identical to the Quranic text as we find it today. As such, when ambiguities arise, for example in medial ـيـ , ـنـ , ـبـ , ـتـ , ـثـ , etc., the original value is taken to be identical to the form as it is found in the Quranic reading traditions today. This assumption is not completely unfounded. From the very earliest Quranic documents onwards, we already find occasional cases of consonantal dotting (Déroche 2014: 20). While the choice when a consonant is dotted and when it is not seems highly haphazard, there are no vast disagreements with the modern Cairo Edition of the Quran when the dots are present.

The way Arabic is written in the QCT deviates in many ways from the Classical Arabic norm, and needs to be supplied with a large number of vocalisation marks to yield the forms of the contemporary reading traditions of the Quran. As these markings are not originally part of the Quranic text, and we do not know the origins or exact age of these reading traditions, the study of the QCT aims to look at what the QCT itself can tell us about the language of the Quran.

1.2 The ى, و and ا for Classical Arabic /ā/ in the QCT

The QCT contains many examples where the reading tradition today reads *ā*, which have rather different representations in the common Classical Arabic orthography.

In Classical Arabic, *ā* is written in the vast majority of the cases with ا; only word-finally can it be represented with ى as well as with ا:

- *qāma* قام 'he stood up'
- *māta* مات 'he died'
- *daʕā* دعا 'he called'
- *najāh* نجاة 'salvation'
- *tuqāh* تقاة 'precaution'
- *ramā* رمى 'he threw'
- *ramā-hu* رماه 'he threw it'
- *hudā* (in context hudan) هدى 'guidance'
- *hudā-hu* هداه 'his guidance'

If we look at the way these words are written in the QCT, we find that the situation is more complex. Both و and ى are used word-internally in several of these words, e.g. *najāh* نجوه, *tuqāh* تقيه, *ramā-hu* رميه, *hudā-hu* هديه. This paper

aims to to show that such spellings are rooted in a phonetic reality and are not simply the result of an arbitrary spelling practice for writing *ā*.

In the following sections we will first discuss the collapse of the triphthongs in hollow roots, a development shared between Classical Arabic and the language of the QCT, and seemingly one of the earliest developments. After that we will discuss the development of the triphthongs in defective roots.

2 **aWv* in hollow roots

The hollow roots have occasionally been reconstructed with already contracted medial vowels at a Proto-Semitic stage, e.g. Huehnergard (2005a: 177, n. 75). However, in light of Old Arabic[2] evidence, which at least occasionally retains the glide (Al-Jallad 2015: 119), and the fact that the development of Hebrew suggests that the triphthong had not yet collapsed at the Proto-Northwest-Semitic stage (Suchard 2016a: §5.3), we must assume that the hollow verbs had not yet collapsed at the Proto-Arabic stage either.

Several other languages retain evidence of the original triphthong in hollow roots. Ancient South Arabian, at least at its earliest stage, shows forms of hollow verbs without a collapsed triphthong, e.g. *kwn* 'he was', *mwt* 'he died'. Likewise, Suchard (2016b) argues that Gəʕəz forms like *qoma* 'he stood', *mota* 'he died' and *śema* 'he set in order; he put in place' can be explained as coming from the same **mawita*, **qawuma* and **śayima* with the regular loss of high short vowels in open syllables that we find in strong verbs as well, e.g. *labsa* 'he clothed himself' < **labisa* and subsequent shift of *aw* to *o* and *ay* to *e*.[3]

In Voigt's compelling defense of a triradical analysis of the weak verbs, he formulates two rules for the collapse of the triphthong in the hollow verbs (1988: 142; cf. also Bauer 1912; Suchard 2016b: 319; and Al-Jallad 2015: 119f):

1. *áWv* > *ā*
2. *aWv́* > *v̄́* (> *v́*)[4]

With these rules we arrive at all the Arabic hollow verb types:

[2]I use here the definition of Old Arabic as employed by epigraphists: the documentary evidence of Pre-Islamic Arabic as attested in the epigraphic record, rather than the literary evidence found in the so-called Pre-Islamic poetry. For a definition and outline of the Old Arabic corpus see Macdonald (2008) and Al-Jallad (forthcoming b).

[3]Huehnergard (2005b: 30–35) suggests that the diphthong **ay* in Gəʕəz only collapses in front of coronal obstruents. This rather unusual conditioning is only supported by four clear examples (and one loanword and one form that is attested both with and without collapsed diphthong). Accepting Suchard's (2016b) analysis, this would mean that there are many more examples of **ay* > *e* than previously thought. Many of the words with uncontracted *ay* which certainly cannot be taken as loanwords start with a guttural, which also blocks the collapse of the *aw* > *o* shift.

[4]Note that this rule is technically unable to explain the 3pl.f. and 2pl.f. impf. of stem VIII hollow roots, e.g. *yaḫtarna* 'they (f.) choose', *taḫtarna* 'you (f.) choose' < **y/taḫtayírna*. Considering how such a form with the expected *i* vowel would be completely isolated within the paradigm, an analogical replacement of *i* with *a* seems unproblematic.

Proto-Arabic	**Classical Arabic**	**meaning**
**máwita*	*mā́ta*	'he died'
**qáwuma*	*qā́ma*	'he stood up'
**śáyima*	*šā́ma*	'he put away; put in'
**mawíttu*	*míttu*	'I died'
**qawúmtu*	*qúmtu*	'I stood up'
**śayímtu*	*šímtu*	'I put away; put in'

In this model, the vowel that follows the medial glide is what determines the quality of the vowel that we see in the closed syllable reflex. As there are no hollow verbs that have a form like ***CaCtu*, this would suggest that Proto-Arabic did not have **CawaCa* verbs, while it did have a large number of **CawuCa* verbs.[5] This is unexpected, as regular triradical fientive roots have a vocalism **CaCaCa*.[6]

The existence of such forms as Safaitic *myt* */mayeta/ < **mawita* 'he died' and *swq* */sawoqa/ 'he drove the animals' seem to show that, at some point, these verbs still had a true triphthong, as neither a diphthong, as in ***/mayta/*, nor a long vowel, e.g. ***/mēta/*, would be written with a glide in the Safaitic orthography (Al-Jallad 2015: 37f). Presumably, at some point in the history of Safaitic, these triphthongs (but not the triphthongs of defective verbs) collapse, giving forms like *mt* */māta/ 'he died' and *sq* */sāqa/.

The medial triphthong does not collapse if it is followed by another glide, e.g. *dawā* 'to be sick' < **dáwaya*, not ***dāya* (cf. Safaitic *dwy* */dawaya/ 'id.', Al-Jallad 2015: 311).

3 **aWv* in defective roots: introduction

In the previous section we saw that both Classical Arabic and the language of the QCT undergo the same developments in hollow roots. For defective roots, however, we see that orthographically the two varieties diverge. I will argue that this orthographic divergence is best interpreted as a linguistic difference.

In Classical Arabic, both unstressed **-awa* and **-aya* collapse to *ā*, e.g. **daʕawa* > *daʕā* 'to call' and **ramaya* > *ramā* 'to throw'. In the QCT, as well as in Classical Arabic orthography, these etymologically different triphthongs remain orthographically distinct, as verbs with a **w* as the final root consonant are written with ا, whereas verbs with **y* as their final root consonant are written with ى. This suggests that the triphthong **awa* has collapsed to *ā* and that **aya* had a different phonetic value than *ā* in the dialect on which the orthography is based.

Classical Arabic writes etymological ى, despite pronouncing it as *ā*; this is the so-called *ʔalif maqṣūrah*. Whenever a verb of this type is followed by a

[5] Note that Gəʕəz also lacks any sign of *CaWaCa* verbs, whereas *CoCa*, *CeCa* < **Ca-w/yv*[+high]*Ca* is common.

[6] Voigt (1988: 143f) suggests that the unexpected *u* and *i* vowel in his reconstruction of fientive hollow verbs is to be derived by analogy from the imperfective stem vowel.

object clitic, the *ā* is written as ا, e.g. *ʔatā* اتى ‘he came’ but *ʔatā-hu* اتاه ‘he came to him’. This practice differs from the orthography of the QCT, where final ى verbs simply always retain ى in this position, e.g. اتى ‘he came’ and اتيه ‘he came to him’.

The Classical Arabic *ʔalif maqṣūrah* is clearly a case of historical spelling. However, as both Nöldeke et al. (2013 [1836–1930]: iii/37)[7] and Rabin (1951: 115ff) point out, the consistent spelling with ى in the QCT and absence of alternation with ا suggests that this difference in spelling represents a phonetic reality.

Based primarily on the orthography of Arabic material in Nabatean Aramaic, Diem (1979: §§10–15) argues however, that the writing of *ʔalif maqṣūrah* is a purely orthographic practice in the QCT, Classical Arabic and Arabic material in Nabatean Aramaic. Diem (1979: §10) bases this assertion on the fact that there are several examples of words that would in later Arabic orthography be written with *ʔalif maqṣūrah* are written with both א and י in Nabatean Aramaic, e.g. אחדי *ʔiḥdā* ‘one’, אעלי *ʔaʕlā* ‘personal name’, אפצי *ʔafṣā* ‘personal name’, עבראלעזי *ʕabd-al-ʕuzzā* ‘personal name’ but אעלא *ʔaʕlā* ‘personal name’, אפצא *ʔafṣā* ‘personal name’ and אלעזא *al-ʕuzzā* (name of deity)’. He observes that the forms with the spellings with י appear most prominently in the peripheral (and mostly later) inscriptions from Sinai and Hijaz, and from this concludes that such a spelling must be a later innovation.

While Diem (1979: §13) admits that it is possible that, rather than an orthographic device, we are dealing with a practice that reflects the dialectal pronunciation of the Sinai and Hijaz, he says that this is unlikely for two reasons:

1. It is not reflected in any of the modern dialects;
2. it is not reflected in the reading traditions.

Neither of these assertions are true, as will be shown in Section 5. In light of Old Arabic evidence, as well as comparative evidence from other Semitic languages, it is clear that *ʔalif maqṣūrah* is of a different etymological origin than the *ʔalif mamdūdah*. Moreover, there are linguistic clues in the QCT that show that the two sounds are phonetically distinct.

4 Refuting the “orthographic practice” explanation

Diem (1979: §14, §46) argues that *ʔalif maqṣūrah* in the orthography of the QCT is a purely orthographic device to write final /ā/ and that it is chosen over *ʔalif mamdūdah* because of paradigmatic pressure. Because parts of the paradigm of words with *ʔalif maqṣūrah* have forms where the /ā/ alternates

[7] I will cite Nöldeke et al. (2013 [1836–1930]) by the page numbering of the original German version.

with /ay/ (e.g. *ʔataytu* اتيت 'I came' but also *ʕalā* على 'on', *ʕalayka* عليك), the /ā/ would be written pseudo-etymologically with ى.

While this orthographic device might not be altogether impossible if it had originated in the context of a well-developed Arabic scribal tradition, where some rudimentary grammatical theory may have aided in writing this pseudo-etymological ى, Diem envisions this orthographic practice to have already developed in the Nabatean Aramaic period.

Although we find many example of Arabic names and words in Nabatean Aramaic texts, there is no evidence indicating that Arabic had become a chancellery language at the time of the Nabatean Kingdom. The few examples that we have of Arabic being written are often rather late and *ad hoc* attempts at writing Arabic (e.g. the En Avdat inscription and the Namarah inscription) and do not give the impression of a well-developed scribal tradition. Without such a scribal tradition, it seems unlikely that such a sophisticated systematized non-intuitive orthographic practice would have developed.

There are also several other reasons why such an explanation fails to convince. First, by Diem's rationale, we would, as Nöldeke et al. (2013 [1836–1930]: iii/37) have already pointed out, expect *daʕā* دعا to be spelled **دعو, as it alternates with *daʕawtu* دعوت. Diem (1979: §15) addresses this point. His argument rests on the fact that the orthographic practice developed from the writing of Arabic nouns and particles, as Arabic conjugated verbs would not usually occur in Nabatean. When the orthography was adapted for writing verbs, the possibility to introduce a *mater lectionis* و would no longer have been available, as the orthography was fixed by that time. It seems to me highly improbable that, if the pseudo-etymological spelling practice of ى for *ā* was still understood and in active use to be applied to verbs, that this practice would not have been adapted for و, especially if we accept Diem's argument that و is a *mater lectionis* for *ā* in other positions (1979: §§17–18).

Moreover, as Behnstedt (1987: 135) points out, Diem's theory fails to explain why several words that do not alternate /ā/ with /ay/ paradigmatically are nevertheless consistently written with ى, e.g. *ḥattā* حتى 'until', *matā* متى 'when', *balā* بلى 'yes (fr. *si*)' etc. Diem (1979: §14) recognises this problem, but his counter-argument is unconvincing. He suggests that, as ى is now a way of marking *ā*, this sign can analogically be spread to words that are not in derivational relation to forms where a phoneme /y/ appears. The implication of this argument is that such an analogy would have already have taken place extremely early in the development of ى as an orthographic device for writing *ā*, as e.g. *balā* is already commonly written in Nabatean as בלי (Cantineau 1978: 71). If the pseudo-etymological function of the *mater lectionis* ى was already forgotten before the Nabatean script came to be used primarily for writing Arabic, it is difficult to believe that scribes were able to adapt this etymological orthographic practice to the verbal system, as Diem suggests that they did.

Finally, Diem's approach would not easily apply to perhaps the largest category of words in Nabatean that show this final י, namely, personal names like עבדאלעזי *ʕabd-al-ʕuzzā*, where there is no context where a **y* would show up

in its paradigm. There is strong evidence that there was phonetic variation in names with this final alternation א and ־ in other Semitic languages of Arabia as well. For example, the deity *ʕuzzā* is attested in the Dadanitic script in two different forms: the name 'female servant of ʕuzzā' is attested both as *ʾmtʿzh* (U 019) and *ʾmtʿzy* (Al-ʿUḏayb 071).[8] The Dadanitic script only used *h* as a *mater lectionis*, which represents /ā/, whereas *y* can only be interpreted as a consonantal /y/ (Fokelien Kootstra, pers. comm.). These names must be two separate phonetic variants, /ʔamat ʕuzzā/ and /ʔamat ʕuzzay/ respectively. This then calls into question whether alternations between final א and ־ found in Nabatean should be understood as two different ways of writing the same sound or rather actual phonetic alternation within the Arabic dialects of the speakers who wrote the Nabatean texts.[9]

The "orthographic practice" explanation of the *ʔalif maqṣūrah* is thus rather strained. The possibility that the alternation between final א and ־ within Nabatean – especially considering its geographical distribution – represents dialectal differences in the Arabic recorded in Nabatean writing, is *prima facie* the more likely scenario.

5 Distinction not attested in dialects and reading traditions

Diem's main reason to discredit the possibility that we are looking at dialectal variation within Arabic when examining the alternation between final א and ־ in Nabatean appears to be that different reflexes of the final vowels do not occur in the modern dialects, nor in the reading traditions (1979: §13). As it turns out, neither of these statements is correct, although in the former case, this was not yet known at the time Diem wrote his article. For the second point, Diem cites Nöldeke et al. (2013 [1836–1930]: iii/37) who say that there is no clear relation between *ʔimālah* and the writing of ا or ى.

Researching the dialects of the Ṣaʿdah region in the North of Yemen, Behnstedt (1987: 133f) discovered that the Rāziḥ dialect has the reflex *ē* for *ʔalif maqṣūrah*, but a reflex *ā* for *ʔalif mamdūdah*, e.g. *ramē* 'he threw', *matē* 'when', versus *ʔillā* 'except', *-nā* 'our', *-hā* 'her'. The phonemic difference between *ē* and *ā* in this dialect corresponds perfectly to *ʔalif maqṣūrah* and *ʔalif mamdūdah* respectively (as pointed by Behnstedt himself). It should be noted that, as in other modern dialects, III-w verbs have merged completely with the III-y verbs, e.g. 3sg.m. *daʕē* 'he called', 2pl.m. *daʕēkum* 'you called' (cf. CAr. *daʕā*, *daʕawtum*), but this *ē* still remains fully distinct from original final **ā* as shown in the examples above.

[8] These inscriptions were accessed through the OCIANA database, `http://krcfm.orient.ox.ac.uk/fmi/webd#ociana` (accessed 29 september 2016). I wish to thank Ahmad Al-Jallad for pointing this out to me.

[9] It is clear that the Arabic onomasticon in Nabatean shows a certain amount of linguistic variation, pointing to, presumably, several dialects of Arabic being reflected in the material, cf. for example by-forms such as עבדאלהי /ʕabdu-ʔallāhi/ besides עבדאלה /ʕabdu-ʔallāh/.

As for the reading traditions, *ʔalif maqṣūrah* is consistently pronounced as [ē][10] rather than [ā] in the Warš ʕan Nāfiʕ recitation.[11] This is distinct from the *ʔalif mamdūdah*, so *ramā* رَمىٰ is read as /ramē/ (marked with a dot under the preceding consonant in Warš mushafs), whereas *daʕā* دَعَا is read as /daʕā/. While Nöldeke et al. (2013 [1836–1930]: iii/37) are right to point out that the relation between orthography and reading of '*ʔimālah*' is not one-to-one, this is in part related to a conflation of several different processes all called *ʔimālah* by the Arabic grammarians to whom it is a purely phonetic description, and in part related to the fact that the Warš ʕan Nāfiʕ recitation has a phonemic vowel /ē/ which follows a slightly different developmental path from the orthography of the QCT.

There are some examples of an [ē] for etymological **ā*, written with ا, that are purely phonetically conditioned, e.g. stem-final *-ār-* followed by the genitive *-i* is read as [ēri]: *nāri* [nēri] نار 'light', *ǧāri* [ǧēri] جار 'neighbor', etc.; this is essentially a form of conditioned i-umlaut. Nouns and verbs that end in *ʔalif maqṣūrah*, on the other hand, undergo a form of unconditioned *ʔimālah* where the /ē/ must be considered phonemic, e.g. هدى /hadē/ 'he leads', يرضى /yarḍē/ 'he likes', موسى /mūsē/ 'Moses', الموتى /al-mawtē/ 'the dead'. Using the term *ʔimālah* indifferently for these different processes gives the false impression that a problem is solved, while in fact it has only been given a name.

There are a few examples where the Warš ʕan NāfiʕTradition has an unconditioned /ē/ that does not align with the orthography of the QCT; moreover, it reads a few cases of *ʔalif maqṣūrah* as /ā/, despite the orthography. Rather than considering this a counter-argument, this should probably considered an argument in favour of the archaic nature of the Warš ʕan Nāfiʕ tradition, as the tradition is clearly not deriving its reading of /ē/ from the orthography. Some words that are spelled with ا pronounced as /ē/ are nouns and verbs with a final sequence *-yā*, e.g. *ad-dunyā* الدنيا 'the world' and *naḥyā* نحيا 'we may live', which goes back to an original final sequence **-ayv*, as we will see in Section 7.1.

The Warš ʕan Nāfiʕ tradition reads *ʔalif maqṣūrah* as /ā/ rather than /ē/ for a few particles: *ʕalā* على 'on', *ʔilā* الى 'to', *ladā* لدى 'at, by' and *ḥattā* حتى 'until'.[12] These words are isolated particles, and it is not obvious that their final vowel has the same etymological origin as the *ʔalif maqṣūrah* of nouns

[10] The symbol *ē* is meant to represent the sound described by the Arab grammarians as *ʔimālah*. Its exact phonetic details are open to discussion, but it certainly represents a more fronted and/or raised vowel than *ā*.

[11] Among other traditions, e.g. ʔabū Ḥāriṭ ʕan al-Kisāʔiyy.

[12] Puin (2011: 166) erroneously states that the Warš ʕan Nāfiʕ tradition reads الى with *ē*, citing /ile:/ (sic, in fact: [ʔilā]) and with pronominal suffixes /ile:ka, ile:hu, ile:hum/ (sic, in fact: [ʔilayka, ʔilayhi, ʔilayhim]). Moreover, Puin points out that in Kufic manuscripts *ʕalā* and *ḥattā* are regularly spelled علا and حتا respectively. To this we may also add the spelling لدا for *ladā* which is attested in the Cairo Edition (Q12:25) for one of the two attestations. The other (Q40:18) is often spelled as لدا in early manuscripts as well. Puin considers the reason for these variants unclear. It seems to me that these must be attributed to reading traditions such as Warš ʕan Nāfiʕ which pronounce these words as [ʕalā], [ḥattā] and [ladā], while other cases of *ʔalif maqṣūrah* are generally pronounced with [ē]. *ʔilā* is seemingly never written **الا, perhaps to avoid even further homography of the sequence of these letters, which already stand for, e.g. *ʔillā*, *ʔa-lā*, *ʔal-lā*.

and verbs. Those in nouns and verbs certainly stem from triphthongs (see Section 9), whereas it is possible, and in the case of the prepositions *ʕalā* and *ʔilā* even likely, that the come from original word-final diphthongs: **ʕalay*, **ʔilay*, **laday* and **ḥattay*.

As shown above, neither of Diem's arguments for taking the Nabatean alternation of final א and ־ as secondary can be maintained. A larger criticism, however, is of methodological nature. Neither the modern dialects nor the reading traditions are under any obligation to reflect dialectal diversity of the Pre-Islamic and early Islamic period. The fact that such features would be absent in either source cannot in any way prove that such a feature was absent in the language of the QCT. The modern dialects and reading traditions should not be taken as representative for the full linguistic variation that we find in the Pre-Islamic period.

That one cannot take the dialectal variation as filtered through the lense of the Arabic grammatical tradition has become abundantly clear through recent advancements in our knowledge of Arabic of the Pre-Islamic period. Al-Jallad (forthcoming b; 2015: 10ff) has convincingly shown that the language of the Safaitic and Hismaic inscriptions as well as some other inscriptions are undeniably a form of Arabic but are also vastly different from Classical Arabic and the modern dialects, and retain linguistic features completely lost in both.

6 Comparative evidence

Graeco-Arabic material from the Early Islamic period leaves little doubt about the pronunciation as /ē/ instead of /ā/ for the *ʔalif maqṣūrah*. Al-Jallad (forthcoming a: §4.6) identifies three examples of the *ʔalif maqṣūrah* represented with word-final ε: μαυλε /mawlē/ = *mawlā* مولى 'client/patron' and the personal names ιαειε /yaḥyē/ = *yaḥyē* يحيى and ιαλε /yaʕlē/ = *yaʕlā* يعلى.[13]

Besides this evidence, it is clear that words with an *ʔalif maqṣūrah* are etymologically distinct from those with *ʔalif mamdūdah*, where the former corresponds to an original final root consonants *y* and the latter to root-final *w*. Compare the following:[14]

- *talawtu-hū* تلوته (Q10:16) 'I recited it', cf. Gz *talawa* 'follow'; ASA *tlw* 'continue to do something, follow'.
- *maḥawnā* محونا (Q17:12) 'we erased', cf. Gz *maḥawa* 'uproot, pull out'.
- *banaynā* بنينا 'we built' (Q78:12), cf. Safaitic *bny* 'to build', Gz *banaya* 'id.', ASA *bny*.

[13]Al-Jallad (forthcoming c: §5.1.1) shows several clear examples from the Pre-Islamic period where names with *ʔalif maqṣūrah* are written with a final η or ης which he interprets as representing diphthongs /ey/, comparing it to the Safaitic evidence where it is clearly a diphthong, e.g. αλσουφλη /al-sufley/ = *as-suflā* السفلى and οσνης /ḥosney/ = *ḥusnā* حسنى.

[14]Throughout this paper, several sources are used for comparative lexical data. These sources are: Safaitic (Al-Jallad 2015); Ancient South Arabian (ASA) (Beeston et al. 1982); Gəʕəz (Gz) (Leslau 1987).

- *hadā* هدى ‘he lead’ (Q16:36), cf. Safaitic *hdy* ‘id.’
- *ramā* رمى ‘he threw’ (Q8:17), cf. Safaitic *rmy* ‘id.’

From the Safaitic spellings, we can see that the final triphthongs **aya* and **awa* had not yet collapsed in Proto-Arabic. Safaitic does not make use of *matres lectionis*, and only spells consonantal *y* and *w* (Al-Jallad 2015: 37). The fact that the *y* is written here therefore confirms that the triphthong had not collapsed. That the *y* and *w* truly represent triphthongs and not *matres lectionis* has recently been confirmed by Al-Jallad & al Manaser (2015) who describe a Graeco-Arabic inscription that contains the verb /ʔatawa/ ‘he came’ spelled as αθαοα, leaving no doubt about the triphthongal pronunciation of the final *w* for the verbs of this type. The same verb is attested in Safaitic script both as *ʔtw* and *ʔty* (Al-Jallad 2015: 301).

Not all cases of *ā* in Arabic come from triphthongs with root-final *w*. There are also several examples of word final *ā* which can be reconstructed as final **ā* for Proto-Semitic. These are always written with *ʔalif mamdūdah* and are never found written with y in Old Arabic of the Safaitic inscriptions, e.g.:

- 3sg.f. clitic *-hā* ـها, cf. Safaitic *-h*; Gz *-(h)ā* (Weninger 2011: 1130); ASA *-h* (Stein 2011: 1055); Hebr. הָ, הָ־ < **-hā* (Suchard 2016a: §8.3.5)
- 1pl. clitic/perfective suffix *-nā* ـنا, cf. Hebr. נוּ < **-nā* (Suchard 2016a: §8.3.2); BAram. נָא, < **-nā* (Suchard 2016a: §8.3.2); ASA *-n*.
- 3du.m. perfective suffix *-ā* ـا, cf. (early) Sabaic *-Ø* (Stein 2011: 1059f).
- 3du.f. perfective suffix *-atā* ـتا, cf. (early) Sabaic *-t* (Stein 2011: 1059f).
- Negator *lā* لا, cf. Hebr. לֹא < **lā* (Suchard 2016a: §3.3); Aramaic *lā* (Suchard 2016a: §3.3).

The comparative data shows that root final *w* and *y* align with verbs with *ʔalif mamdūdah* and *ʔalif maqṣūrah* respectively. Moreover we see that word-final **ā* is always written with *ʔalif mamdūdah*. This cannot be attributed to a chance correspondence. We must conclude that the distribution of *ʔalif mamdūdah* and *ʔalif maqṣūrah* is based not on pseudo-etymological derivational grounds, but on a true etymological origins.

While an etymological spelling may of course imply a historical spelling, rather than a true phonemic distinction, it is important to consider the practical environments in which historical spellings develop. Consider, for example Hebrew *roš* ‘head’, spelled ראש. From comparative evidence, we know that the otiose medial א in this word is a historical spelling (cf. Ar. *raʔs* ‘id.’). However in the linguistic history of Hebrew, *aʔC* has shifted to *āC* and subsequently *ā* has shifted to *ō* (Suchard 2016a: 83f). The only way that such a historical spelling could have come to be is that, when the spelling of this word was first established, it was still pronounced with the lost **ʔ*. In the same way, Arabic must – at some point – have had a sound corresponding to the *ʔalif maqṣūrah* that

was distinct from the *ʔalif mamdūdah*. If this were not the case in the language of the QCT, it is hard to imagine when this historical phase must have taken place, as the Quran is one of the earliest Arabic texts committed to writing in the Arabic script.

7 Evidence for /ē/ in the rhyme

We need not rely on the argument of the origin of the historical spelling to suggest that *ʔalif maqṣūrah* was pronounced distinct from *ʔalif mamdūdah* in the language of the QCT. Nöldeke et al. (2013 [1836–1930]: iii/37) convincingly argue that there is positive evidence for such a reading in the rhyme of the Quran. Large portions of the Quran rhyme in ى /ē/,[15] and other portions rhyme in ا /ā/.[16] These rhymes do not overlap, which strongly suggests that their pronunciation was different.

There are some examples of the *ʔalif maqṣūrah* where it rhymes either with /ī/ or with /ā/, which suggests that the pronunciation was phonetically in between the two, as /ē/ would be.

/ē/ is rhymed with /ā/ twice. Both times it occurs in a complex rhyming scheme:

- Q65:6: *ʔuḫrā* اخرى 'another', rest of the Surah has the rhyming scheme |vCCā|.
- Q99:5 *ʔawḥā lahā* اوحى لها 'he commanded it' in Q99:1-6, rhyming scheme: |āRahā|.

/ī/ occasionally rhymes in sections that are otherwise completely rhymed in /ē/; this is more common than /ē/ rhyming with /ā/:

- Q20:2–24 is completely rhymed in /ē/ being interrupted once by Q20:14 *li-ḏikr-ī* لذكرى 'for my remembrance'.
- Q20:36–84 is completely rhymed with /ē/ only being interrupted by Q20:39 *ʕayn-ī* عنى 'my eye', 41 *li-nafs*-ī لنفسى 'for myself', 42 *ḏikr-ī* ذكرى 'my remembrance'.
- Q20:90 *ʔamr-ī* امرى 'my order' is rhymed with Q20:91 *mūsā* موسى 'Moses'.
- Q89:24 *li-ḥayāt-ī* لحياتى 'for my life' is rhymed with Q89:23 *aḏḏikrā* الذكرى 'the remembrance'.

Diem (1979) does not comment on the rhyme argument at all. To my mind, however, it is the strongest argument in favour of a contrast between *ʔalif maqṣūrah* and *ʔalif mamdūdah*. Diem does however point to one problem

[15] Q20:2–24, 36–40, 43–61, 79–84, 116–135; Q53:1–56; Q70:15–18; Q75:31–40; Q79:15–26, 34–41, 43–44 with /ēhā/: 27–32, 42, 45–46; Q80:1–10; Q87; Q91 /ēhā/; Q92; Q93:1–8; Q96:6–14.

[16] Among others all of Q4, Q17.

(1979: §46): there are some roots which have *w* as their final root consonant in Classical Arabic which are written with a ى. These would be 'mistakes' in the QCT, that would serve as evidence that *ʔalif maqṣūrah* actually denotes /ā/. As already pointed out by Nöldeke et al. (2013 [1836–1930]: iii/40), however, this argument evaporates when we examine which verbs he has identified with such spellings and the context in which they are found:

- Q79:30 *daḥā-hā* دحيها 'he expanded it'
- Q91:6 *ṭaḥā-hā* طحيها 'he expanded it'
- Q93:2 *sağā* سجى 'he was quiet'
- Q91:2 *talā-hā* تليها 'he followed it' (but Q10:16 *talawtu-hū* تلوته)

These four examples all stand in an /ē/ or /ē-hā/ rhyme, and are explained as a poetic license for the sake of the the rhyme by Nöldeke et al. (2013 [1836–1930]: iii/40). Moreover, as Nöldeke et al. point out, the roots of *daḥā* دحى, دحا and *ṭaḥā* طحى, طحا are attested in Classical Arabic with either *w* or *y* as final root consonants, and might therefore not even be genuine counterexamples (neither of the forms are attested in any other place in the Quran).

There is some amount of confusion between final-*w* and final-*y* roots already in Old Arabic (Al-Jallad 2015: 50) and some of these confusions have become become standard in Classical Arabic, e.g. *ʔatā* اتى, *ʔataytu* اتيت 'he came; I came', despite clearly having an etymological final **w*, as confirmed by ASA *ʔtw* 'come', Gz *ʔatawa* 'id.'. Confusion of this root is already attested in Old Arabic, Safaitic *ʔtw*, *ʔty* 'he came'.[17] It seems possible that the composer of the QCT exploited this variation within the Arabic dialect continuum to suit the rhyme in these cases.[18]

The final word that Diem cites in favour of this evidence is Q24:21 *zakā* زكى 'he was clean'. For this word, a rhyme cannot be invoked. There is however no reason to think that this verb has not merged in the language of the QCT with the III-y verbs, and in fact, it is attested in Classical Arabic with a root final *y* as well (see Lane 1863–1893 s.v. *zkw*).[19] There are no conjugations or derivations of this root that show a consonant *w* in the Quran, so there is no reason to think that the root was *zkw* in the language of the QCT.[20]

7.1 *ad-dunyā* and *ʔaḥyā*

Both *ad-dunyā* الدنيا and *ʔaḥyā* احيا 'he gives life' are rhymed in /ē/ rhyme contexts (Q19:72; Q53:29,44; Q79:38). This is somewhat unexpected, as the

[17] Diem (1979: n. 72) explicitly recognises this possibility.

[18] Note also that a complete merger of the III-w verbs towards the III-y verbs has taken place in (probably) all modern Arabic dialects (Versteegh 1989: 20).

[19] Interestingly, this word is read as /zakā/ in the Warš ʕan Nāfiʕ reading tradition, despite its orthography. To my knowledge, this is the only verb that ends in *ʔalif maqṣūrah* for which this is the case.

[20] The word *zakāh* زكوه 'alms', while seemingly from the same root, is obviously a loanword from Aramaic, as Diem (1979: §51) also recognises, and says nothing about the root of the verb as being final *w*. See the discussion in Section 8 below.

spelling seems to suggest that the final syllable has /ā/.

These words etymologically had a final *-*ayv* triphthong. *ad-dunyā* is a feminine elative formation. These are normally written with an *ʔalif maqṣūrah*, e.g. *kubrā* كبرى, and must be reconstructed for Proto-Arabic as **duny-ay-u/a*. In Classical Arabic, only when the last root consonant is *y*, it is spelled with ا instead, cf. also *ʕulyā* عليا 'higher; highest' (considered by Rabin 1951: 115ff to be a dissimilation of the sequence /yē/ > /yā/).

Likewise, *ʔaḥyā* is a C-stem of the root *ḥyy*,[21] which would be reconstructed as **ʔaḥyaya*. Other sequences of original word-final, post-consonantal **yayv* are consistently written يا in Classical Arabic orthography, as well as in the Cairo Editiɔn of the Quran, with the exception of the name *yaḥyā* and the homophonous verb 'he lives' which is spelled يحيى (Q20:74; Q87:13, which would be spelled يحيا in Classical Arabic orthography).

If we examine the spellings of words of this type in the early Codex Parisino-Petropolitanis (Déroche 2009; henceforth CPP), we find a different situation. Here, except in the case of the feminine/plural suffix *-ā*, the spelling is يى, not يا:

- Q5:32; Q45:5 *ʔaḥyā* احىى 'he was made to live; saved'
- Q37:37; Q45:24 *naḥyā* نحىى 'we live'
- Q6:146 *al-ḥawāyā* الحوايا 'the entrails'
- Q9:40 *al-ʕulyā* العلىا 'the upper'
- (passim) *ad-dunyā* الدنيا 'the world'

This then solves the rhyme of Q53:44, which should be read as /ʔaḥyē/, as suggested by the spelling احىى in two different locations in the CPP.

The question one has to ask subsequently is why *ad-dunyā* is spelled the way it is, while it rhymes as if it ends in /ē/. The dissimilation suggested by the orthography is absent in the rhyme. This absence of dissimilation is also attested in the Warš ʕan Nāfiʕ reading tradition which reads /ad-dunyē/, /al-ʕulyē/ and /al-ḥawāyē/.[22] The difference in spelling practice that we find in the CPP is therefore difficult to understand; but it seems that such spellings have started spreading to verbs in the orthography of Classical Arabic, where this was not yet the case in the orthography of early Quran documents.

[21] Ultimately from **ḥyw*, but all final **-iwa* verbs shifted to **-iya* at an early point in time, e.g. **ḥayiwa*, **raḍiwa* > **hayiya*, **raḍiya*. The **w* resurfaces in some nominal derivations, e.g. *ḥayawān* 'animals'.

[22] In a vocalised Judeo-Arabic text, Khan (2010: 204) cites an example of a vocalised *ad-dunyā*: אַלְדַּנְיֵא /ʔad-dunye/. While the spelling perfectly calques the Classical Arabic orthography, the vocalisation implies that the final vowel was pronounced /ē/. Khan identifies *ʔimāla* in this form, as well as in עֲלֵי /ʕăle/ 'on' and וְאַלְאעְלֵא /wə-ʔal-ʔ(a)ʕle/ 'and the highest'. As all of these examples are clearly from an original **ay(v)* sequence, which in the QCT has been retained as /ē/, it seems better to consider this a retention of the original vocalism with /ē/, rather than an unconditioned spontaneous raising of the vowel /ā/.

8 Examples of *ʔalif mamdūdah* for *ʔalif maqṣūrah*

Diem (1979: §46) cites several examples where *ʔalif mamdūdah* is written where *ʔalif maqṣūrah* is expected. These are intended to prove that they represent one and the same sound: *al-aqṣā* الاقصا ‘farthest’, *ṭaġā* طغا ‘it overflowed’, *ladā* لدا (besides لدى) ‘at’, *tawallā-hu* تولاه (besides *tawallā* تولى) ‘he took him as a friend’, *hudā-ya* هداى ‘my guidance’, *tatrā* تترا ‘in succession’ and *sīmā-hum* سيماهم (besides *bi-sīmā-hum* بسيميهم) ‘their signs’.

The first three of these are explained by Nöldeke et al. (2013 [1836–1930]: iii/38) as variants that appear in front of a CC cluster of the following word. This would represents a shortening of *ē* to *a* in a closed syllable. Diem (1979: fn. 73) recognises this phonetic solution but labels it unconvincing without further explanation. While it is not necessarily obvious why *ʔalif maqṣūrah* would have to be shortened in these contexts it is clearly attested in the reading traditions. Whenever an *ʔalif maqṣūrah* appears before a *waṣl*, it is read as /a/, not as /ē/, in the Warš ʕan Nāfiʕ reading tradition and all others that have /ē/ for *ʔalif maqṣūrah*, e.g.:

- Q40:54 *mūsā l-hudā* موسى الهدى /mūsa l-hudē/
- Q40:76 *muṭwā l-mutakabbirīna* مثتوى المتكبرين /muṭwa l-mutakabbirīn/
- Q41:39 *tarā l-ʔarḍi* ترى الارض /tara l-ʔarḍi/

But even if we do not accept this explanation, most of the examples posited by Diem can be explained. We will look at the words individually.

8.1 *al-aqṣā* الاقصا ‘farthest’ (Q17:1; Q28:20; Q36:20)

In Classical Arabic, III-w and III-y roots are usually both treated as III-y when forming the elative, e.g. *ʔaʕlā* اعلى fem. *ʕulyā* عليا ‘highest’ (√*ʕlw*), *ʔadnā* ادنى fem. *dunyā* دنيا ‘lowest’ (√*dnw*). However, the feminine elative of the root √*qṣw* did not neutralize to III-y: Q8:42 *al-quṣwā* القصوى ‘the farther’. It then stands to reason that this neutralization did not happen in the masculine elative either, in which case the spelling as we find it in the QCT would be regular as the word would go back to an original final triphthong with **w*.[23]

8.2 *taġā* طغا ‘it overflowed’ (Q69:11)

taġā طغا ‘it overflowed’ occurs besides the more commonly attested طغى. It seems to me that we might be dealing with two different roots of different meanings. In all other attestations in the Quran *taġā* means ‘to transgress; err’. While a semantic development from ‘to overflow’ to ‘to transgress’ seems possible, ‘to overflow’ would have to be the primary meaning. The other Semitic languages show no sign of such a meaning, and only the meaning ‘to transgress’ is present,

[23] I wish to thank Phillip Stokes for this original suggestion.

e.g. Aram. *ṭəʕā* 'to wander; to err' (CAL[24] s.v.); Hebr. *ṭāʕā* 'to err; wander about' (Koehler & Baumgartner 1967–1990 s.v.). Even if these words ultimately go back to the same root, it seems plausible that *ṭaġā* طغا 'to overflow' represents the native root, while *ṭaġā* طغى is a loanword from Aramaic. A related nominal form *ṭāġūt* طاغوت 'idolatry' (cf. also Gz *ṭāʕot* 'idol') must come from Aramaic *ṭāʕū* emph. *ṭāʕūṭā* 'error, idol' (CAL s.v.) as already pointed out by Jeffery (2007: 203).

8.3 *tatrā* تترا 'in succession' (Q23:44)

tatrā تترا 'in succession' is a *hapax legomenon*. The interpretation of the final ا as the feminine ending *-ā* (for which we would expect an *ʔalif maqṣūrah*) is far from certain. In fact, several reading traditions read the adverbial indefinite accusative *tatran* instead. Moreover, this word has an irregular formation, as it has an initial *t* where we would expect *w*, if it is indeed derived from the verb *watara* 'to string'.

Ahmad Al-Jallad (pers. comm.) suggests that the initial ت could be read as a ى, and that we are dealing with a loan from a North-West Semitic language that has undergone a shift of initial **w* > *y*. An obvious donor would be Aramaic, which has a word *yṭar* emph. *yatrā* 'rope; bowstring' (CAL s.v.). This form, in the indefinite accusative **yatr-an* yields a semantically plausible reading 'as a rope/line' to mean 'in succession'. Whatever the exact analysis of this word, it can hardly be taken as evidence that *ʔalif maqṣūrah* was pronounced /ā/ in the language of the QCT.

8.4 *sīmā-hum* سيماهم 'their sign' (Q48:29) and بسيمهم (Q7:47, 48)

The word *sīmā-hum* is attested in three different spellings in the QCT: بسيمهم (Q2:273; Q47:30; Q55:41); سيماهم (Q48:29); بسيميهم (Q7:47,48). This spelling can scarcely be held as a strong counterexample, as the word is borrowed from Greek σῆμα 'sign' (Jeffery 2007: 183f). It seems possible that the spellings بسيمهم and سيماهم reflect /sīmā/, accurately reproducing the Greek pronunciation, whereas بسيميهم represents a somewhat more nativized variant /sīmē/.

8.5 *hudā-ya* هداى 'my guidance' (Q2:38; Q20:123)

The ا is probably a later addition in هداى. The Samarkand Codex has هدى for both attestations. We II 1913 has the same for the former, and هداى for the latter. The ا looks like a later addition, however. Ma VI 165 has هدى for Q20:123.[25] A similar example is found in Q6:162 *maḥyāya* محياى 'my living', which is spelled محى in the CPP.

[24]The Comprehensive Aramaic Lexicon (`http://cal1.cn.huc.edu/`, accessed on 27 September 2016).

[25]All Quran manuscripts cited here were accessed through `www.corpuscoranicum.de` (27 september 2016).

8.6 *ladā* لدا ‘at’ (Q12:25)

ladā لدا is attested in one other place without pronominal suffixes. There it is spelled as in Classical Arabic: لدى (Q40:18). In the Saray Medina 1a[26] Quran manuscript, this is spelled as لدا as well. One is reminded of the spelling of the other *ʔalif maqṣūrah*-final prepositions *ʕalā* and *ḥattā*, which are spelled علا and حتا in Kufic Qurans (see Section 5). Like *ʕalā*, *ḥattā* and *ʔilā*, this particle is pronounced with an /ā/ in the Warš ʕan Nāfiʕ reading tradition. While this spelling is rather anomalous in the Cairo Edition of the Quran, it seems likely that it is related to the /ā/ reflex of *ʔalif maqṣūrah* of these prepositions.

8.7 *tawallā-hu* تولاه ‘he took him as a friend’ (Q22:4)

tawallā-hu تولاه ‘he took him as a friend’ occurs besides several cases of *tawallā* تولى. A clear explanation for the spelling is not forthcoming. However, in light of the overwhelming evidence from the rhyme, this one exception seems to me a minor problem rather than definitive proof that *ʔalif maqṣūrah* was pronounced the same as *ʔalif mamdūdah*.

9 The development of **aWv* in defective roots

In the above sections we have shown that the *ʔalif maqṣūrah* and *ʔalif mamdūdah* have separate etymological origins and that the orthography certainly points to an original contrast. This contrast still appears to be present in the language of the QCT. The developments that take place for the final triphthongs are:

1. *awv > ā
2. *ayv > ē (CAr. > ā)

Similar to the development of *aWv in hollow roots, this shift does not seem to happen if another glide follows. This condition seems to affect only one word: CAr./QCT *ḥayawān* حيوان ‘animals’.

As we will see in Section 10, it seems that the collapse of these triphthongs only happened if they were unstressed. For verbs and masculine nouns of defective roots this condition has no bearing on on the outcome (as triphthongs there would always be unstressed), but it is relevant for the discussion of feminine nouns with a final **aw-atu*, **ay-atu* which will be discussed in that section.

9.1 Shortening of **ā* and **ē*

The development as described above creates a new superheavy syllable in the perfect 3sg.f; this is subsequently shortened. This development has taken place in both the language of the QCT and Classical Arabic:

[26] Accessed through `www.corpuscoranicum.de/` (27 September 2016).

- **daʕawat* > **daʕāt* > CAr. *daʕat*; QCT دعت /daʕat/ ‘she called’
- **maḍayat* > *maḍēt* > **maḍet* > CAr. *maḍat*; QCT مضت /maḍet/ ‘she preceded’

From the reflexes of the verb, it is not clear whether the newly introduced fourth long vowel /ē/ in the language of the QCT was shortened to /e/ in this environment, or whether the vowel merged with /a/. This same shortening has also affected nouns that ended in a triphthong **aWv*, followed by nunation, e.g.:

- **sanawun* > **sanān* > CAr. *sanan*; QCT سنا ‘flash’
- **hudayun* > **hudēn* > CAr. *hudan*; QCT هدى ‘guidance’

The QCT and Classical Arabic orthographies reflect forms where nunation was lost. In the cases of *sanan*, the spelling سنا can be readily understood. The indefinite accusative *-an* on nouns is also written with final ا. This points to a shift **-an#* > *ā*.

In the pronunciation of Classical Arabic, this explanation is also readily available for *hudan* with pausal *hudā*. However, in the language of the QCT, this form clearly rhymes with *ē* (e.g. Q20:10). This suggests that the reflex of **hudayun* yielded /hudē/. This can be understood by assuming a shift **-en#* > *ē*, thus yielding the development **hudayun* > **hudēn* > **huden* > /hudē/. This would suggest that the /ē/ vowel was retained as /e/ when the syllable was shortened to avoid a superheavy syllable.

Another way of explaining the spelling هدى in the indefinite form is, by assuming an analogy. If /ē/, when shortened, merged with /a/, this would result in an asymmetrical paradigm: Def. **al-hudē*; Constr. **hudē*; Indef. **hudā*. This paradigm could have easily been regularized, yielding an indefinite /hudē/.

9.2 Some minor developments in defective roots

There are several uncontroversial developments of the defective root which are worth mentioning here for completeness.

9.2.1 **iyu/i* > **ī*, **uwu* > **ū*

Already at an early stage, Arabic undergoes several developments of defective verbs. The first of these, which is already complete in Safaitic and may therefore be a Proto-Arabic development, is the shift **iyu/i* > **ī*,[27] as in the nominative and genitive active participles of Safaitic *s²t* /śātī/ ‘wintering’ (Al-Jallad 2015: 49). The same development did not take place in front of **a*, as we still find sequences of word-final *-iya* in Classical Arabic, e.g. *xašiya* خشي ‘to

[27]The sequence **uyu/i* has the same reflex as **iyu/i*, presumably be first shifting **u* to *i* before *y*, and then partaking in the same shift. This can be seen in the stem V verbal noun of defective verbs, e.g. *talaqqin* ‘receiving’ < **talaqquyun*, cf. *takallumun* ‘speaking’.

fear'. Al-Jallad also suggests that, despite a lack of evidence in the epigraphic record, the analogous shift **uWu* > **ū* probably has also taken place in Safaitic. This development explains the imperfective stem of defective verbs. This development has certainly taken place in Classical Arabic and the language of the QCT:[28]

- **yahdiyu* > *yahdī* يهدى 'he leads'
- **yadʕuwu* > *yadʕū* يدعوا 'he calls'

Nouns with an original stem-final sequences **-iy-* have the same contraction in the nominative and the genitive. In the indefinite form, the contraction also takes places, but is shortened to *i* to avoid a superheavy syllable:

- **zāniyu/in* > (*zānīn* >) *zānin* زان 'fornicator'
- **al-zāniyu/i* > *al-zānī* الزانى 'the fornicator'

9.2.2 **aWū* > **aw*, **aWī* > *ay*

Sequences of **aWū* or **aWī* are contracted in Classical Arabic and the language of the QCT to *aw* and *ay* respectively:

- **ṭaġayū* > *ṭaġaw* طغوا 'they transgressed'
- **daʕawū* > *daʕaw* دعوا 'they called'
- **tarḍawī* > *tarḍay* ترضى 'may you be pleased'

This development appears to have already have taken place in Safaitic. In the Pre-Islamic Graeco-Arabic text published by Al-Jallad & al Manaser (2015), Al-Jallad convincingly identifies ειραυ as representing /yirʕaw/ 'and they pastured' < **yirʕayū*, already attesting this contraction.

10 Feminine nouns of the type **CaCaWat-*

In a recent article, Al-Jallad (forthcoming d) discusses in great detail that the nouns that orthographically end in وه in the QCT cannot be attributed to an Aramaic orthographic borrowing of צלותא 'prayer' and זכותא 'merit' giving rise to صلوه 'prayer' and زكوه 'alms', not only because there are several originally Arabic words with such spellings, but also because the Old Arabic data make it absolutely clear that several of these words originally had a triphthong. For example, نجوه 'salvation' is attested in Safaitic as *ngwt* 'id.'; منوه 'Manāh (Deity Name)' is attested in Thamudic and Dadanitic as *mnwt* 'id' and in a Latin inscription as MANAVAT. This expected /aw/ syllable resurfaces in the plural formation in Classical Arabic, e.g. *ṣalawāt-* 'prayers'.

[28]The vowel of these imperfectives is occasionally shortened in the QCT. Apparently this mostly happens in in pause and in front of two consonants (Diem 1979: §§31–36).

Another reason why we must assume a triphthong in these nouns is because without it, we are at a loss of how to explain the shift of the final *-t* to *-h* in the language of the QCT. The *-t* in Arabic only shifts to *-h* when it is preceded by the short vowel *a*. This is why this development fails to apply to the feminine plural ending *-āt*. Hence, a form ***manāt* would not be expected to yield ***manāh*, whereas a form like **manawat* can undergo this development.

To explain these forms, Al-Jallad suggests that in the language of the QCT underwent a stress shift that places the accent maximally on the antepenultimate syllable,[29] and that the monophthongization of **awv* > *ā* only takes place in unstressed syllables or if the second syllable of the triphthong was stressed. When the triphthong **áwv* was stressed, it would have then developed into *ō* (although a retention of the triphthong also seems possible). This would predict the alternation between the ـوه and ـات spellings that we find between the indefinite/definite form and the construct form:

- **aṣ-ṣaláwatu* > *aṣ-ṣaláwah* > *aṣ-ṣalṓh* الصلوه (Q62:10)
- **ṣalawáti-ka* > *ṣalā́tika* صلاتك (Q17:110)

The stress rule that produces this stress pattern is formulated as follows:

- Stress falls on the antepenultimate, unless the penultimate is heavy, in which case it takes the stress.

Being identical to the stress system of Latin, this stress system will henceforth be referred to as 'Latin stress'.

In Classical Arabic, this development of the stress system may not have taken place. In which case the stress system attributed to it in modern tradition applies:

- Stress falls on the last non-final heavy syllable. If there is no heavy syllable, it falls on the first syllable.

This stress rule will henceforth be referred to as 'Classical stress'.

Classical stress results in the following development for Classical Arabic:

- **ṣálawatu* > *ṣalātu*[30]
- **ṣálawati-ka* > *ṣalātika*

This would result in forms that cannot undergo the *-at* > *-ah* shift, and therefore a pausal pronunciation *ṣalā́t* would be expected. Nouns of this type commonly are pronounced as *ṣalā́t* in Classical Arabic in pause. The Classical

[29]A development well-attested in the Modern Arabic dialects of e.g. the Najd, which reflect **baqáratu* as *bgúra* (Fischer & Jastrow 1980: 109).

[30]Nouns with the feminine ending are given without nunation, as Van Putten (forthcoming) argues that feminine nouns in the language of the QCT were diptotic.

spelling صلاة would seem to represent an amalgamated form of the QCT orthography and the Classical Arabic pronunciation, which does not accurately represent its pausal pronunciation in Classical Arabic.

The nouns of this type that are attested in the QCT are tabulated below.

QCT	**pronunciation**	**meaning**
مشكوه	/miškṓh/	'niche'
صلوه	/ṣalṓh/	'prayer'
صلاتهم	/ṣalātu-hum/	'their prayer'
زكوه	/zakṓh/	'alms'
حيوه	/ḥayṓh/	'life'
حياتكم	/ḥayāti-kum/	'your life'
الغدوه	/al-ġadṓh/	'in the morning'
مرضات	/marḍāt/	'the pleasure of'
مرضاتى	/marḍātī/	'my pleasure'

There are two cases in the Ḥafs ʕan ʕāṣim reading tradition where *ṣalātu-ka* 'your prayer' is spelled as صلوتك, rather than the expected صلاتك (Q9:103, Q11:87). In both cases, these words are read as plurals in other reading traditions, *ṣalawātu-ka*. The plural reading should be considered original.

In Q24:58 the construct of *ṣalāh* is spelled as صلوه twice. In the QCT it is the orthographic practice to write construct feminine nouns in the form they take as indefinite nouns. This practice is occasionally not observed, e.g. *niʕmatu llāhi* نعمت الله, as well as in *marḍāta/i llāhi* مرضات الله 'the approval of Allah' (Q2:207, 265; Q4:114). In the majority of feminine construct nouns, we see this practice. The construct *ṣalāti* spelled as صلوه must be understood as a result of adherence to this practice, despite the rather big phonetic difference between the indefinite and construct form.[31]

Besides these nouns, there are also three nouns that have a ـيه ending that corresponds to the ending *-āt-* in Classical Arabic. These nouns are given below, and must be understood as having undergone an analogous development to the *-awat-* nouns above, but instead of collapsing to *ō*, the accented triphthong *áya* collapsed to *ē*.

- مزجيه /muzǧḗh/[32] < **muzǧáyatu* 'of little value'
- تقيه /tuqḗh/ < **tuqáyatu* 'as a precaution'
- التوريه /at-tawrḗh/ < **al-tawráyatu* 'The Torah'

[31] It is unclear when and why this orthographic practice developed. Nehmé (forthcoming) examines the Nabatean inscriptions written in the transitional Nabateo-Arabic script, and concludes that such a practice has not yet developed in inscriptions as late as 428 AD. The fact that a rather large percentage of all the feminine constructs in the QCT (I count about 22%) are still written with the ـت form suggests that this practice had not yet reached complete acceptance in Arabic orthography at the time the QCT was canonized.

[32] These nouns are read in the Warš ʕan Nāfiʕ tradition with a vowel /ē/, pointing to this monophthongization and phonemic differentiation from the *ṣalāh* type nouns.

An interesting factor of nouns with this shape is that two of these forms also have a masculine formation in Arabic. This confirms that the underlying form is *-ay-at-*, as the masculine nouns are written with a final ى pronounced in Classical Arabic as *ā*, which must go back to an old triphthong **ayv* (see Section 6):

masculine	**feminine**
muzğan مزجى < **múzğayun*	*muzğāh* مزجيه < **muzğáyatu*
tuqan تقى < **túqayun*	*tuqāh* تقيه < **tuqáyatu*

The spelling Q3:102 تقاته 'the fearing of him', however, would appear to present a problem for this development in the QCT. As suggested in Section 5, unaccented **ayv* is expected to yield *ē*, not *ā*, which is what this form seems to reflect: **tuqayáti-hi* > **/tuqēt-ih/, but the spelling suggests /tuqāti-h/. It therefore seems that the triphthong with the accent on the second syllable developed differently from the unstressed triphthong. This then leads us to posit three separate outcomes depending on the position of the stress.

Before the loss of final short vowels, we have the shift discussed in Section 9:

- Unstressed **aya* > *ē*; **awa* > *ā*

After the loss of final short vowels we have the following developments:

- **áya* > *ē*; **áwa* > *ō*
- **ayá, awá* > *ā*

These developments predict that the construct **-aw-at-* nouns have *ō* in the absolute and *ā* in both the construct before a noun and before a pronominal suffix, whereas **-ay-at-* nouns have *ē* in the absolute and construct before a noun, but *ā* before a pronominal suffix: **ṣaláwatu* > *ṣalōh*; **ṣalawátuka* > *ṣalātuka*; **ṣalawatu* + noun > *ṣalātu*; **tuqáyatu* > **tuqēh*; **tuqayáti-hi* > *tuqāti-h*; **tuqayatu* + noun > **tuqētu* + noun. Construct nouns of the **-ay-at* type are unattested in prenominal construct, so this is hypothesis is impossible to confirm or disprove.

11 Relative chronology

The sound laws presented in this paper can be placed in a fairly clear relative chronology. The language of the QCT and Classical Arabic take slightly different trajectories, and their individual developments will be discussed below. The two varieties share several developments. The first two of these developments can plausibly be reconstructed for Proto-Arabic. These developments assume the Classical stress system in this stage of Arabic.

1. *iWi/u > ī; *uwu > ū

2. *aWī > ay; *aWū > aw
3. *áWv[-W] > á; aWv́[-W] > v́

Until the loss of the final case vowels a phonotactic rule that shortens superheavy syllables (v̄C.$ > vC.$) remains active in the QCT and Classical Arabic.[33] An overview of these developments, with several relevant reconstructed forms display how the order of these rules have affected the developments, is displayed in Table 1 of Appendix A below.

11.1 Triphthong developments in the language of the QCT

The developments argued to have taken place in the language of the QCT are:

1. Classical stress > Latin stress
2. Unstressed *ayv[-W] > ē; *awv[-W] > ā
3. *u/i(n)# > Ø; an# > ā; (en# > ē)
4. *at# > ah
5. *áya > ē; *áwa > ō; *aWá > ā

An overview of these developments is displayed in Table 2 below.

11.2 Triphthong developments in Classical Arabic

The following developments have to be assumed for Classical Arabic:

1. Unstressed *aWv[-W] > ā
2. *u/i(n)# > Ø; an# > ā (only in pause)
3. *at# > ah (only in pause)

The result of the first of these developments is displayed in Table 3 below.

12 Conclusion

This paper shows that the unusual spellings of ā in the QCT with the glides ى and و cannot be attributed to arbitrary, purely orthographic practices. The comparative Semitic evidence, as well as Arabic-internal evidence leaves little doubt that whenever ى and و are used to represent ā, said ā developed from an original triphthong, which must have had distinct phonetic values at the time that the Nabatean writing system was adapted for writing Arabic. It is, moreover, argued that the situation in the QCT is best understood by assuming that the language had developed an /ē/, marked by ى, and that the وه and يه in words like صلوه 'prayer' and تقيه 'precaution' point to /ōh/ and /ēh/ respectively.

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[33] In front of a geminate, long vowels are not shortened, e.g. *ḍāll* ضال 'someone who has strayed'.

A Developments of the triphthongs illustrated

Pre-Proto-Arabic	***iWu/i > ī; *uwu > ū**	***aWū/ī > aw/y**	***áWv[-W] > ā́; *aWv́[-W] > v̄́**
qáwuma	*qáwuma*	*qáwuma*	***qā́ma***
qawúmtu	*qawúmtu*	*qawúmtu*	***qū́mtu* > *qúmtu***
náwima	*náwima*	*náwima*	***nā́ma***
nawímtu	*nawímtu*	*nawímtu*	***nímtu***
dáʕawa	*dáʕawa*	*dáʕawa*	*dáʕawa*
dáʕawat	*dáʕawat*	*dáʕawat*	*dáʕawat*
daʕáwtu	*daʕáwtu*	*daʕáwtu*	*daʕáwtu*
hádaya	*hádaya*	*hádaya*	*hádaya*
hádayat	*hádayat*	*hádayat*	*hádayat*
hadáytu	*hadáytu*	*hadáytu*	*hadáytu*
yádʕuwu	***yádʕū***	*yádʕū*	*yádʕū*
yáhdiwu	***yáhdī***	*yáhdī*	*yáhdī*
dáʕawū	*dáʕawū*	***dáʕaw***	*dáʕaw*
tárḍawī	*tárḍawī*	***tárḍay***	*tárḍay*
wā́diyun	***wā́dīn* > *wā́din***	*wā́din*	*wā́din*
pátayun	*pátayun*	*pátayun*	*pátayun*
patayu	*patayu*	*patayu*	*patayu*
sánawun	*sánawun*	*sánawun*	*sánawun*
nágawatu	*nágawatu*	*nagáwatu*	*nágawatu*
nagawatu	*nagawatu*	*nagawatu*	*nagawatu*
nágawatu-ka	*nágawatu-ka*	*nágawatu-ka*	*nágawatu-ka*
túqayatu	*túqayatu*	*tuqáyatu*	*túqayatu*
túqayati-hi	*túqayati-hi*	*túqayati-hi*	*túqayati-hi*

Table 1: Developments of the triphthongs shared by the QCT and Classical Arabic

Latin stress; unstressed ***ayv[-W] > ē, *awv[-W] > ā***	***u/i(n)# > Ø; *a/en# > ā, ē***	***at# > ah***	***áya > ē; *áwa > ō; *aWá > ā***
qā́ma	***qā́m***	*qā́m*	*qā́m*
qúmtu	***qúmt***	*qúmt*	*qúmt*
nā́ma	***nā́m***	*nā́m*	*nā́m*
nímtu	***nímt***	*nímt*	*nímt*
dáʕā	*dáʕā*	*dáʕā*	*dáʕā*
dáʕāt > dáʕat	*dáʕat*	*dáʕat*	*dáʕat*
daʕáwtu	***daʕáwt***	*daʕáwt*	*daʕáwt*
hádē	*hádē*	*hádē*	*hádē*
hádēt > hádet	*hádet*	*hádet*	*hádet*
hadáytu	***hadáyt***	*hadáyt*	*hadáyt*
yádʕū	*yádʕū*	*yádʕū*	*yádʕū*
yáhdī	*yáhdī*	*yáhdī*	*yáhdī*
dáʕaw	*dáʕaw*	*dáʕaw*	*dáʕaw*
tárḍay	*tárḍay*	*tárḍay*	*tárḍay*
wā́din	***wā́d***	*wā́d*	*wā́d*
pátēn > páten	***pátē***	*pátē*	*pátē*
patē	*patē*	*patē*	*patē*
sánān > sánan	***sánā***	*sánā*	*sánā*
nagáwatu	***nagáwat***	***nagáwah***	***nagṓh***
nagātu	***nagāt***	*nagāt*	*nagāt*
nagawátu-ka	***nagawátu-k***	*nagawátu-k*	***nagā́tu-k***
tuqáyatu	***tuqáyat***	***tuqáyah***	***tuqḗh***
tuqayáti-hi	***tuqayáti-h***	*tuqayáti-h*	***tuqā́ti-h***

Table 2: Developments of the triphthongs in the QCT

last shared ancestor with QCT	**unstressed** ***aWv[-W] > ā***
qā́ma	*qā́ma*
qúmtu	*qúmtu*
nā́ma	*nā́ma*
ímtu	*ímtu*
dáʕawa	***dáʕā***
dáʕawat	***dáʕāt* > *dáʕat***
daʕáwtu	*daʕáwtu*
hádaya	***hádā***
hádayat	***hádāt* > *hádat***
hadáytu	*hadáytu*
yádʕū	*yádʕū*
yáhdī	*yáhdī*
dáʕaw	*dáʕaw*
tárḍay	*tárḍay*
wā́din	*wā́din*
pátayun	***pátān* > *pátan***
patayu	*patā*
sánawun	***sánān* > *sánan***
nágawatun	***nágātun***
nagawatu	***nagātu***
nágawatu-ka	***nágātu-ka***
túqayatu	***túqātu***
túqayati-hi	***tuqā́ti-hi***

Table 3: Developments of the triphthongs in Classical Arabic

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