Inferring the Phonetics of Quranic Arabic from the Quranic Consonantal Text

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Abstract
This paper examines the phonetics of Quranic Arabic as they can be deduced from the Quranic Consonantal Text. It first examines the phonetic qualities of the interdentals, the ďād, the ġīm and the emphatic consonants. Secondly, it is shown that Quranic rhyme makes a distinction between Mağhūr and Mahmūs consonants. Finally, some notes on the pronunciation of the feminine ending and the assimilation of the definite article are provided.

Keywords: Jahr and Hams; Quranic Consonantal Text; Phonetic reconstruction; Historical linguistics

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1. Introduction

In recent years great progress has been made into the study of Quranic Arabic based on the evidence given in the Quranic Consonantal Text (QCT), separate from its reading traditions and the assumption that it should be close or similar to Classical Arabic. Instead, this research has focused on what the QCT itself tells us. From this examination, it has become clear that Quranic Arabic, far from being evidently Classical Arabic, is different from Classical Arabic. It seems to have lost the hamzah (Van Putten 2018); had a fourth long vowel ē (Van Putten 2017a) and perhaps even a fifth ō (Al-Jallad 2017c); treated the feminine ending -at- as a diptote rather than triptote (Van Putten 2017b); and had a greatly reduced case system (Van Putten & Stokes 2018). These papers have focused on specific features mostly relating to the vowel system of the Quran. This paper aims to look specifically at the possible pronunciation of the consonants of the Quranic Consonantal Text.²

It has generally been assumed that the consonantal system was close to the way the Quran is read today, and by extension close to the way that Sibawayh described it. This, however, has always been an assumption, and no-one has attempted to see what the Quranic Consonantal Text itself can tell us about the phonetics of Quranic Arabic. In recent years, however, massive advances have been made in the study of the realization of the Arabic consonants both in the Pre-Islamic and Early Islamic period (Al-Jallad 2017a,b) and the modern dialects (Heselwood, Watson & Maghrabi 2014; Heselwood & Maghrabi 2015; Watson & Heselwood 2016; Al-Jallad 2015) which have made it clear that the pronunciation of Classical Arabic as it has come down to us cannot without further comment be reconstructed for its realization in Pre-Islamic Arabic, and by extension it is no longer a priori likely that the Quranic Arabic realization of the consonants is simply identical to that of Classical Arabic.

Therefore, in this paper we will examine what the Quranic Consonantal Text can tell us about the realization of the consonants in Quranic Arabic, without the a priori assumption that this would be close to Classical Arabic. Studying the QCT in this regard, however, is quite difficult. First, the Arabic alphabet in this early period is highly ambiguous. For example, it is not exactly clear that the interdentals are distinct from the dentals, as both of them are written with the exact same signs. Because of these reasons, any study of this kind is bound to be incomplete,

² Throughout the text, Quranic words will be cited from the QCT, first with the reading found in the Cairo Edition (i.e. that of Ḥafṣ) in italics, then the QCT followed by the location in brackets and a phonemic reconstruction in between slashes finally followed by a gloss, e.g. ṣirāṭa صَرَطَ (Q1:7) /ṣirāṭ/ ‘path’.
and we accept the fact that occasionally we simply cannot know the answer on some topics that are of interest. Nevertheless, as will be shown below, we can make some fairly extensive deductions from a close study of the Quranic rhyme, the Quran’s orthographic conventions and its irregularities.

2. The interdentals

It is difficult to decide whether the interdentals were phonemically distinct from the dentals in the language of the QCT, as orthographically both are represented identically, an orthographic practice the QCT inherited from the Nabataeo-Arabic orthography.

However, for *licative we have evidence in the QCT that these were distinct. Whenever a stem-final \( t \) is followed by one of the perfective subject endings that start with \( t \), the QCT only writes a single denticle for \( t \):

\[
\begin{align*}
\text{ʕanittum} & \quad \text{‘you are distressed’} \\
\text{muttum} & \quad \text{‘you (m.pl.) died’} \\
\text{mittum} & \quad \text{‘you (m.pl.) died’} \\
\text{mittu} & \quad \text{‘I died’} \\
\text{mitta} & \quad \text{‘you (m.) died’}
\end{align*}
\]

However, if the stem ends in *licative then the ending is written with two denticles, which confirms that it represents a sequence of two different consonants, most probably /\( tu'\), e.g:

\[
\begin{align*}
\text{labittum} & \quad \text{‘you (m.pl.) remained’} \\
\text{labitta} & \quad \text{‘you (m.) remained’}
\end{align*}
\]

There is no way to decide whether the other interdentals also remained interdental, but it seems reasonable to assume that if one of the interdentals remained distinct, all of them did. As such, it seems likely that besides a dental series, the language of the QCT retained an interdental series.
3. The pronunciation of ḍād

A typical feature of many of the modern dialects is the merger of the original lateral emphatic ض and the emphatic interdental ظ to /ḍ/ or, if interdentals are lost, /ḏ/. These glyphs are perfectly distinct in the QCT, which suggests that the sounds still remained distinct. However, this could be attributed to a well-trained scribe that learned to distinguish the two orthographically, despite a merger in the language of the QCT. There is, however, internal evidence that shows the ḍ was not an interdental.

In the Gt stems (iṭṭaṣṭaṭaṭa), which take a t infix after the first root consonant, we find assimilation with the preceding consonant. In the case of ḍ the cluster yields a homorganic long consonant, e.g.

*ḏṭakara > iḍḍakara الذكر (Q12:45) /iḍḍakar/ or /iḍḍakar/ ‘he remembered’

Due to the nature of the Arabic script, it is impossible to know whether the resulting assimilated consonant yielded ḍḍ or ḍḍ (both are options in Classical Arabic, Fischer 2002: §46), as both would be written the same. What is important here, though, is that the result is a complete assimilation of the following t. This is different from Gt stems with ḍ as the first root consonant. In that case, the following *t only assimilates in emphasis, yielding ṭ, e.g:

*ʔaḍtarru - hu > ʔaḍṭarru - hū اضطره (Q2:126) /a ḍṭarru - h/ ‘I will force him’

Whatever the phonetic value of ḍ then, it certainly was not a voiced interdental, as then we would have expected a reflex with a long /ḍḍ/. And this is in fact exactly what we find as a variant in Classical Arabic (Fischer 2002: §45), iḍḍalaṣṣa, which presumably reflects a variety that did undergo this merger. Notice that this progressive emphasis assimilation also happens with the emphatic ṣ:

*ṣṭafaya > iṣṭafā اصطفى (Q2:132) /iṣṭafē/ ‘he has chosen’

The behaviour of ḍ, then, is identical to the emphatic fricative ṣ, but different from the behaviour of the interdental fricatives or dental stops. From this we can deduce that the ḍ must have been some kind of non-interdental fricative. It therefore seems likely that the ḍ was still a lateral

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3 See Al-Jallad (2015), on this development and on the rare voiceless reflex /ṭ/

4 Technically it also assimilates in turbulent airflow, for a discussion see section 5 below.
fricative ɣ [ɣ] (or ʃ [ʃ]), its etymological origin, and also matching Sibawayh’s description (see Versteegh 2011 for a discussion).

4. The pronunciation of the ġīm

In some dialects, ġīm is a fricative [ʒ] rather than a stop or affricate. One might wonder if such a development has happened in the language of the QCT. There is some evidence which suggests that it did not, as ġīm cannot assimilate to the *t(a)- prefix of the tD- and tL-stems, while the šīn can.

For roots with initial š, there is only one unambiguous example with assimilation yaššaqqaqu یشقق (Q2:74) /yaššaqqaq/ ‘it splits’, and two ambiguous cases tašaqqaqu, with the haplological dropping of the ta- prefix or tašaqqaqu with assimilation (Al-Dānī 1984: 163f.). The QCT does not allow us to distinguish between these two options. All twelve other cases are unassimilated.5

This asymmetrical distribution is different from other fricatives with the same place of articulation. Where the voiceless and voiced consonant can both assimilate, e.g. yassammašūna یسماضون (Q37:8) /yassammašūn/ ‘they [do not] listen’, yazzakkā یزکی (Q80:3) /yazzakī/ ‘he is purified’. This evidence is further complicated because yassammašūna یسماضون (Q37:8) is not universally read as such by Ḥafṣ following ʕāṣim (but not Šuʕbah!) and the other two Kufans Ḥamzah and al-Kisāʾī. All other readers simply read it as a G stem yasmašūna (Al-Dānī 1984: 186). This is the only possible example of an assimilated tD stem with š as its root initial consonant.

But if we accept that the voiceless and voiced fricative can assimilated with š and z, we may tentatively conclude that the ġ indeed never assimilated (even though š is). This only concerns five examples mutaḵānifin متنانف (Q5:3) /mut(a)ḵānif/ ‘inclining’, yataḡarrāšu-hū یتجرعه (Q14:17) /yat(a)ḡarrāšu-h/ ‘he gulps it’, nataḡwaz یتجوز (Q46:16) /nat(a)ḡawaz/ ‘we overlook’, taḡassasū یتجسوا (Q49:12) /taḡassasū/ ‘do [not] spy’, yataḡannabu-hā یتجنبا (Q87:11) /yat(a)ḡannabu-hā/ ‘he will avoid it’.

We can therefore only tentatively suggest that ġ phonetically was probably not [ʒ], and more likely was still a velar stop [ɡ], a palatalized velar stop [ɡʲ], or a palatal stop [ɟ].

5 See Q2:25, 70, 118, 233; Q3:7 (twice); Q6:99, 141 (twice); Q13:16; Q39:23, 29.
5. The Emphatics: Ejectives or Pharyngealized consonants?

In the history of Arabic, the emphatic consonants appear to have shifted from an original Proto-Semitic ejective value (a value still retained in, e.g. the Ethio-Semitic languages and Modern South Arabian languages) towards a pharyngealized value. The fact that we usually find voiceless reflexes of the emphatics in Old Arabic, suggests that they were perhaps still ejectives (Al-Jallad 2017: 128ff.). It is therefore not a given that the language of the QCT would have emphatics with a pharyngealized rather than ejective value.

However, we find several cases of spreading of emphasis to consonants that are not etymological emphatics. Velarization is typically a feature that spreads across consonants, and sometimes can even affect a whole word (Kaye 1997: 195). Ejectives on the other hand are typically non-spreading. Many languages that have ejectives even have rules that prohibit the presence of two ejectives in a single word, e.g. Akkadian’s Geers’ Law (Geers 1945, see also Huehnergard 1997: 438). The fact that we find that emphasis spreads in the QCT, therefore, strongly suggests that the emphatics were indeed pharyngealized consonants, as they are in Classical Arabic.

The root 
\[\text{bs}\] shows that emphasis (optionally) spreads in the language of the QCT, clearly displaying the spreading effect of pharyngealized consonants. Two examples are found where words derived from this root are written with a ص rather than an س:

\[\text{baṣṭatan} \quad (Q7:69) /baṣṭah/ [bas'tah] \quad \text{‘extensively’} \quad (\text{cf.} \ Q2:247 \text{ baṣṭatan} \quad \text{بسطه})\]
\[\text{yabsūtu} \quad (Q2:245) /yabṣut/ [yabs'ut] \quad \text{‘he grants abundance’} \quad (\text{cf.} \ Q13:26 \text{ yabsūtu} \quad \text{بسط})\]

Also the form al-\text{mus/\=s}ayṭir\=ūna (Q52:37) /al-muṣayṭirūn/ [almuṣayṭirūn] ‘the controllers’ and bi-\text{mus/\=s}ayṭir\=in (Q88:22) /bi-muṣayṭir/ [bi-muṣayṭir] ‘a controller’ should probably be considered part of this development. These verbs are presumably \textit{fay\'ila} derivations of the root \textit{ṣr} ‘to rule’, and in Classical Arabic lexicons this word is also recorded as \textit{muṣayṭir}.

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6 To this we might also add \textit{muṣayṭirūna} (Q52:37), \textit{muṣayṭirin} (Q88:22) ‘controller(s)’ which is derived from the verb which in Classical Arabic is \textit{sayyara} ‘to rule, dominate’, but unassimilated forms are unattested in the QCT. This observation was already made by Milo (2009: 494f).

7 One might wonder whether \textit{ṣirāṭ} (Q1:6) ‘street’ should be included in this group of words as well, as classical Arabic lexicons often cite this noun to be \textit{ṣirāṭ}, which is also how Qunbul following Ibn Kaṭīr reads it (Al-Dānī 1984 :19). But as the word’s first attestation is in the Quran, and the spelling is consistent in the QCT, it is difficult to be certain that the Classical Arabic \textit{ṣirāṭ} is not rather a hypercorrect dissimilation of \textit{ṣirāṭ}.
Besides this, we find the regular assimilation of the -infix of Gt stems, which becomes ℓ if it is preceded by the emphatics š or ď:

\[\text{िस्तफ़ा} (Q2:132) /iʃtʰafē/ [iʃˈtaːfe] ‘he has chosen’
\[\text{ʔaḍṭarru-hū} (Q2:126) /ʔaḍṭarru-h/ [ʔaɮʕtʰarruh] ‘I will force him’

This allows us to establish that *š, *ṭ and *ḍ are all pharyngealized.

There is no direct evidence for the spread of emphasis of *ẓ, and as such it is unclear whether this consonant was pharyngealized, or still ejective. Original *k however shows no pharyngeal spreading in the Gt stem:

\[\text{Iqtatla} (Q2:254) /ʔvqtátal/\]

This suggests that *k was not pharyngealized, but it may still either be an ejective [k’] or as in Classical Arabic, a uvular unaspirated stop [q].

The possibility of ejectives besides pharyngealized realisations of emphatics is not unusual. Many Modern South Arabian dialects have exactly that distribution, where most emphatics have both ejective and pharyngealized realisations but *k is almost always ejective (Watson & Heselwood 2016: 5f.).

6. Maḡhūr & Mahmūs consonants

In the modern Arabic dialects, the plain voiceless stops are normally aspirated, whereas the emphatic voiceless stops are unaspirated. A similar pattern may explain some features of the Quranic rhyme, where the emphatic voiceless stops q and ℓ cluster with voiced consonants and resonants, while the plain voiceless stops do not. Moreover, the voiceless stops cluster in the rhyme with voiceless fricatives (with the exception of š, for which see the discussion below).

This categorization of the rhyming consonants basically corresponds to Sibawayh’s distinction between the maḡhūr (‘shouted’) consonants, and the mahmūs (‘whispered’) consonants. The categorization can be summarized as follows (Danecki 2011):

\[\text{Maḡhūr:} ʔ, š, ɡ, q, ɡ, y, d, l, n, r, ℓ, d, z, ẓ, ŋ, b, m, w\]
\[\text{Mahmūs:} h, ū, x, k, s, t, s, ʃ, f\]

This classification has often been considered surprising in modern Arabist literature. By and large, the distinction between the two categories seems to correspond to voiced and unvoiced
consonants. This, however, leaves the *mağhûr* consonants ʔ, q, and ṭ to be explained, as they are typically considered voiceless. This has led some authors to suggest that q and ṭ were actually voiced in the variety that Sibawayh described, which still left ʔ unexplained, as it is physiologically impossible to voice a glottal stop. An in-depth discussion is presented by Heselwood & Maghrabi (2015) and also Watson & Heselwood (2016), who argue that the q and ṭ should not be considered to represent voiced articulations [ɢ] and [dˁ]. Rather, it is the audible turbulent airflow typical of aspirated and voiceless fricative consonants that defines these as *mahmûs*, whereas the absence of the turbulent airflow defines the other consonants as *mağhûr*. As such, the authors conclude, there is no reason to assume exotic realizations of the phonemes q, ṭ, and ʔ to understand why they were classified by Sibawayh among the *mağhûr* consonants.

That this classification is significant, on a phonetic level, and not just a theoretical construct developed by Sibawayh becomes clear from the Quranic rhyme. Regardless of the preceding vowel or consonant, *mağhûr* consonants rhyme with other *mağhûr* consonants, whereas *mahmûs* rhyme with other *mahmûs* consonants. The only striking exception to this is that, whenever ṣ occurs in a rhyme position, it rhymes exclusively with *mağhûr* consonants, and not with *mahmûs* consonants; thus effectively disagreeing with Sibawayh’s classification of this consonant as *mahmûs*. This problem will be discussed in more detail below, but for now, suffice it to say that in the following overview of rhymes in the Quran, we will consider the ṣ to be *mağhûr*.

6.1 Rhyme

In this section, several examples of rhyme will be discussed, showing that *mağhûr* and *mahmûs* do not overlap in rhyme. For this discussion a schematic description of rhyme will be used. The signs for this schematic description are given in the table below.

| C | Any consonant |
| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |

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| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |

| C | Any consonant |
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| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |

| C | Any consonant |
| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |

| C | Any consonant |
| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |

| C | Any consonant |
| G | *mağhûr* |
| R | Resonant |
| H | *mahmûs* |
| V | High long vowel |
| A | Low long vowel |
Sometimes rhymes only concern part of Suras rather than complete Suras. A new rhyme is considered to start when the preceding and following verses of a certain section have different rhyming vowels, or different rhyming vowels and consonants.

There are a few cases where the rhyme vowel might be the same, and the only difference is the rhyming consonant shifting from Ġ to H or vice versa. It still seems justified to also consider this a shift of rhyme, as the rhymes are always sequential and never overlapping and whenever the rhyme shifts from Ġ to H or vice versa, the newly introduced rhyming consonant will have at least two verses of the same type. When such sequences occur they have been underlined.

The vast majority of the rhymes use Ġ (or its subset R) as its rhyming consonant. When H consonants are used as the rhyming consonant, they usually constitutes a monorhyme, most commonly either in -at or -ah.

6.1.1 VC Rhymes

VR rhymes predominate in the vast majority of the rhymes in the Quranic text. VĠ, however, is not at all uncommon, and freely rhymes with VR when it occurs. Q11, for example, has a large number of non-R Ġ consonants, and so do Q14, Q22 and especially Q50. But even Suras which are predominantly VR, such as Q2, Q3 and Q5 occasionally have VĠ rhymes interspersed, e.g. Q2: 176 īd; Q3:120 ī; Q5:109 ūb. While it does not seem fruitful to give every single example of these rhymes as they are so numerous, below we give an overview of the rhymes of Q11, which show the clear VĠ rhyme, and complete absence of the use of H consonants. All Ġ consonants that do not also belong to R have been marked in bold.


v  High short vowel  i, u
a  Low short vowel  a
There are only a few examples of VH rhymes most of which are monorhymes of the shape Vh. But Q101 rhymes two different items of H with each other.

Q69: 30-32 ūḥ (preceding: ah; following VR)
Q70: 11-14 īḥ (preceding VR(ā); following ē)
Q80: 34-37 īḥ (preceding: ah; following ah)
Q101: 4-5 ūṭ, ūš (preceding: ah; following: uh)

6.1.2 VCA Rhymes
In the vast majority of VCA rhymes, the rhyme consonant in the C position belongs to the maḏḥūr category, but there are 16 cases out of 513 where the rhyming consonant is a mahmūs consonant, and in those cases, they simply stand in the middle of maḏḥūr rhyme. While this shows that in this type of rhyme, mixing of maḏḥūr and mahmūs was apparently allowed, there still is an overwhelming preference in favour of using maḏḥūr consonants. The 16 exceptions are: Q4:5, 8 maʕrūfā; Q4:28, 76 ḍaʕīfā; Q4:42, 78, 87 ḥadīṭā; Q4:66 taṭbītā; Q4:85 muqītā; Q4:103 mawquṭā; Q17:38 makrūḥā; Q17:59 taxwīfā; Q17:83 yaʔūsā; Q17:104 lafīfā; Q33:32 maʕrūfā; Q33:69 waģīhā

6.1.3 AC Rhymes
AǦ is the second most common rhyme in the Quran. There is only one case of a AH rhyme, which moreover is a monorhyme, namely Q114: 1-6 which is annās.

It suffices to show the overview of one particularly clear example of a AǦ Rhyme, namely Q38: 2-66, which contains many of the maḏḥūr consonants (q, ṣ, b, d, ţ, r, ġ), cf. also Q13, Q14 and Q40.


6.1.4 aC rhymes
This rhyme type is fairly uncommon and tends to form monorhymes rather than rhymes that vary between the different consonants of their respective classes. The monorhymes have been excluded in the overview below.
-aǦ
Q96: 1-2 aq 3-5 am (following: ē)
Q111: 1-4 ab, 5 ad
Q113: 1-2 aq 3 ab 4-5 ad

-aH
Q69: 1-29 ah (following: ūh)
Q81: 1-14 at 15-18 as (following: VR)
Q88: 7-16 ah, 17-20 at (preceding: VǦ; following vR)

6.1.5 vC rhymes
Also for the majority of vC rhymes, which is not a very numerous category to begin with,
most form monorhymes, but both for the vǦ as the vH type, we find variation between rhyming
consonants.

-vǦ:
Q37: 4 id 5 iq 6 ib; 7 id; 8-11 ib (preceding: CCā; following VR)
Q51: 5 iq 6 iʔ (preceding: CCā; following 7-9 vH)
Q70: 1-2 iʔ 3 iǧ (following ah)
Q86: 1-2 iq 3 ib 4 iz 5-6 iq 7 ib 8-10 ir (following: aCC)

-vH
Q51: 7 uk 8 if 9 ik (Preceding 5-6 vǦ; following VR)

6.2 Why is Ṣād a Maǧhūr consonant?
In a study on the development of the emphatics in Modern South Arabian and Ṣanʕānī
Arabic, Watson & Heselwood (2016) show that in these languages, the maḡhūr and mahmūs
consonants are distinct phonetic categories that trigger certain phonetic and morphological
features. From this study it becomes clear that the maḡhūr and mahmūs categories therefore make
up clearly perceptively different categories, although they are categories not particularly
recognized among categorizations normally made by phoneticians. However, Watson &
Heselwood (2016) follow the framework of Mielke (2008) who argues that relevant phonetic
categories should not be imposed upon the system from what phoneticians have decided are
relevant categories, but rather that linguistic data should inform how categorizations are
constructed in a language. Their article is a resounding success in showing that such an approach can lead to very fruitful results. The way that the phonetic categories of *maǧhūr* and *mahmūs* should be understood is seeing *mahmūs* as having an open glottis allowing for voiceless turbulent airflow, whereas *maǧhūr* consonants have more glottal adductive tension severely restricting such airflow.

The Modern South Arabian languages treat the emphatic sibilant *ṣ* as a *Maǧhūr* consonant, rather than a *Mahmūs* consonant, where Sibawayh categorises it. Ṣanʕānī Arabic, on the other hand, appears to agree with Sibawayh’s description of Arabic in that it does treat *ṣ* as a *Mahmūs* consonant (Watson & Heselwood 2016: 32). In this aspect, Quranic Arabic is in agreement with the Modern South Arabian Languages, and should be seen as representing a stage that precedes its true development towards a true voiceless consonant, although it is no longer ejective at the time of Quranic Arabic as shown in section 4. The form(s) of Arabic that Sibawayh describes represents a more developed stage, which, similar to Ṣanʕānī, has fully devoiced the *ṣ*. There is no clear way in the International Phonetic Alphabet to transcribe a pharyngealized *ṣ* without voiceless turbulent airflow due to adductive glottal tension, but the closest approximation of this sound in Quranic Arabic is probably [sˁ˭] where the ‘unaspirated’ diacritic should be understood as no turbulent airflow rather than Sibawayh’s [sˁ] or [t͡sˁ], which do have turbulent airflow. Following Watson & Heselwood (2016), we can classify the consonantal system of Quranic Arabic along the presence or absence of two features, which make up three categories.

The first feature is the presence of pharyngealization (*muḥbaq*), or its absence (*munfatiḥ*); the second feature is the presence of voiceless turbulence (*mahmūs*) or its absence (*maǧhūr*). In Sibawayh’s definition, *ṣ* is the only consonant that is both *muḥbaq* and *mahmūs*, but the Quranic rhyme shows that in the language of the QCT, *ṣ* is not *mahmūs* but *maǧhūr*. The three categories can therefore be defined schematically as:

Voiceless:  [+open glottis]
Unemphatic:  [-open glottis] [-pharyngealized]
Emphatic:  [-open glottis] [+pharyngealized]

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8 On the possibility that Sibawayh describes an affricate *ṣ*, see Al-Jallad (2015).
7. The pronunciation of \( tāʾ \) marbūṭah

In the modern pronunciation of Classical Arabic, it is common to pronounce the \( tāʾ \) marbūṭah in pause simply as -a. This might suggest to a reader that the hāʾ can be used as a mater lectionis to write a short vowel /a/. It is, however, common in reading traditions of the Quran, even today, to pronounce this hāʾ consonantally, and Quranic rhyme confirms that it must be pronounced as such. This much is clear from the fact that it can rhyme with the third person pronominal suffix *-hu, e.g.

Q74: 50. /mustanfirah/ mustanfiratun
51. /qaswarah/ qaswaratin
52. /munaššarah/ munaššarah
53. /al-āxirah/ al-ʔāxirata
54. /taḏkirah/ taḏkiratun
55. /ḏakara-h/ ḏakara-hū
56. /al-mağfirah/ al-mağfiri

Q75: 1. /al-qiyāmah/ al-qiyāmati
2. /al-lawāmah/ al-lawāmati
3. /ʕizāma-/ ŋizāma-hū
4. /banāna-/ banāna-hū
5. /ʔamāma-h/ ʔamāma-hū
6. /al-qiyāmah/ al-qiyāmati
14. /baṣīrah/ baṣīratun
15. /maṣāḏira-h/ maṣāḏira-hū
16. /li-taḡala bi-h/]

Q80: 11. /taḏkirah/ taḏkiratun
12. /ḏakara-h/ ḏakara-hū
13. /mukarramah/ mukarramatin
14. /muṭahharah/ muṭahharatin
15. /safarah/ safaratin
8. The assimilation of the definite article al-

In the Pre-Islamic Arabic found in the Nabataean corpus, we find that its definite article الاَل- is never spelled assimilated, except when the noun that follows starts with an /l/. In such cases only a single /ل/ is written, hence الاَللَّه/ and الاَللَّت/ (Diem 1983: §229-231). This gives us reason to suppose that the definite article was simply an unassimilated /al-/ in all environments. This seems to be confirmed by the pre-Islamic Graeco-Arabic material studied by Al-Jallad (2017: 167f.). He shows that the definite article, as a rule, remains complete unassimilated to the following coronal consonant.
Varieties of Arabic that continued to have an unassimilated definite article continue into the Islamic period. In the Damascus Psalm Fragment, an Arabic psalm text written in a Greek orthography, the definite article is consistently written without assimilation (Al-Jallad forthcoming).

With an unassimilated definite article both before and after Islam, this places the orthography of Quranic Arabic in new light. Was the ﺍﻟـ a purely morpho-phonological spelling which does not write the assimilation before the sun letters, as in Classical Arabic today, or was the definite article, in fact, unassimilated as it was in Nabataean Arabic and the Arabic of the Psalm fragment?

Here it is worth noting that the Quranic Arabic spelling is not quite identical to the Nabatean spelling. In the QCT we find several cases where the /l/ of the definite article followed by a stem-initial /l/ is written with only a single ﻟ, most prominently in the relative pronouns.9 Besides this, al-layl ‘the night’ is always spelled as ﻟاﻟﯿل and never in its classical spelling ﻟاﻟﯿﻠ. While such spellings, similar to Nabataean Arabic, are not uncommon, the majority of the nouns in fact spell the definite article as ﺍﻟـ even before a following /l/, e.g. the ubiquitous ﻻﻪ الله /allâh/, and ﻟاﻟـ/الناس ‘the curse’ (Q13:25; Q15:35; Q40:52), اللعبين /al-lâštibîna/ ‘the players’ (Q21:55), اللغو /al-lağw/ ‘foolish talk’ (Q23:3; Q25:72; Q28:55), اللام /al-lâmam/ ‘the faults’ (Q53:32), اللامه /al-lawwâmah/ ‘the accusing one’ (Q75:2) and اللت /al-lât/ ‘al-Lât’ (Q53:19).10

The fact that these words are spelled morpho-phonologically in a context where the phonological spelling would have required just a single ﻟ suggests more broadly that the spelling of the definite article cannot be taken as an indication of its pronunciation in all contexts. Moreover, a motivation for such a morpho-phonological spelling in front of ﻟ can only be understood if the definite article was, in fact, in some cases not pronounced identically to its shape. The Quranic rhyme gives us a very marginal hint that this line of reasoning is correct. In the final Surah of the Quran, Sūrat al-Nās (Q 114), the rhyme in all verses but verse 4 is ‘mankind’, but Q114:4 has ‘the withdrawing one’. If we take the first word to have been pronounced /an-nās/ then it rhymes perfectly over two syllables with /al-xannās/. This would then

9 Note that the single ﻟ in the relative pronouns is not just attested in the singular اللذي or plural اللذين but also in the dual اللذان/الذان, and feminine plural forms اللية, to the Classical Arabic orthographic norms.

10 /اللؤلؤ ‘the pearl’ (Q55:22; 56:23) is somewhat problematic, as several early Quranic manuscripts either only have a single ﻟ, or seem to have been corrected. The archetype therefore may have had a single ﻟ for this noun.
be a better rhyme than assuming the former was pronounced /al-nās/ and the latter /al-xannās/.
Therefore, there is some reason to believe that the Classical Arabic pattern of assimilation of the
definite article, also found in many modern dialects, was also the assimilation pattern that we find
in Quranic Arabic.

9. Conclusion

Using the rhyme and spelling of the QCT, this paper has tried to determine the likely
value of the consonants in the language of the QCT. Through careful examination of the way the
QCT behaves, we can make several important deductions about the phonetics of Quranic Arabic.
It is clear that the dentals and interdentals were still distinct. There is clear evidence that (part of)
the emphatic consonants were pharyngealized. Not much can be said about the phonetics of the
ḡīm. There is nothing to indicate where it was pronounced as a [ɡ] or rather as the patalized [ɡ']
or even [dʒ]. Its assimilatory behaviour does exclude the possibility that it was pronounced as [ʒ].
There is evidence that the ḍīd was not an interdental and hence, likely, was still a lateral
fricative.

Besides these examinations derived from the QCT, an examination of the rhyme gives us
further insight into the phonetics of Quranic Arabic. The Quranic Arabic consonants can be
categorised into three categories, which here have been called Voiceless, Unemphatic and
Emphatic and we find that in Quranic Arabic ṣ belongs to the emphatic category, where in
Sibawayh’s description it is in a transitional phase where it is both voiceless and emphatic. An
overview of the consonantal system is given in the table below.

Subsequently, it was shown that the feminine ending is clearly pronounced with a
consonantal [h] in the rhyme, and not as -a, the way it is often found in modern dialects and how
it is often transcribed for Classical Arabic.

Finally, this paper has examined whether the coda of the definite article /al-/ was
assimilated to the following coronal letters. While the evidence is sparse, the orthographic
behavior and a single piece of evidence for the rhyme make it most likely that the definite article
was assimilated before coronals.
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11 There is no direct evidence that the /f/ was a fricative and it may have still been an aspirated stop. Al-Jallad (2017: 125f.) argues that in Pre-Islamic Arabic, based on transcriptions in Greek, the case can be made that it was still an aspirated stop.
Bibliography


