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The Evolution of Maghribī Vocalisation

Marijn van Putten

1 Introduction

In recent years, we have seen an increase of interest in the vocalisation of Qur'ānic manuscripts. The pioneering studies of Yasin Dutton¹ and Alain George² have been of vital importance in highlighting the analytic possibilities that we have with these manuscripts, and the geographical and palaeographical data such features may contain. Works by Marijn van Putten³ and Barış Ince⁴ stress the importance of vocalisation in Qur'ānic manuscripts also for the history of the Qur'ānic reading traditions. The current paper tries to link these two aims. It will examine manuscripts which on the basis of their vocalisation scheme appear to have a connection with the Maghrib, and will analyze the *qirā'a* that is marked by such vocalisations. In this way we will show that the Maghribī/Medinan feature of marking the *hamza* with a yellow dot is strongly linked to the use of the reading tradition of Warsh 'an Nāfi', a reading which continues to be closely associated with the Maghrib until this day.

Abū 'Amr al-Dānī (d. 444/1052–3), in his treatise on the vocalisation of Qur'ānic manuscripts, *al-Muḥkam fī Naṭṭ al-Maṣāḥif*,⁵ sketches out a typology of vocalisation systems that draws a division between the Maghrib/al-Andalus (and Medina) on the one hand and the Mashriq/Iraq on the other.⁶ While this distinction presents itself in a variety of ways, one of the most distinctive (and, as we will see, primary) features is the use of a yellow dot for the *hamza* in the

1 Y. Dutton, Red Dots, Green Dots, Yellow Dots and Blue: Some Reflections on the Vocalisation of Early Qur'anic Manuscripts – Part I, *Journal of Qur'anic Studies* 1-1 (1999), pp. 115–140; id., Red Dots, Green Dots, Yellow Dots and Blue: Some Reflections on the Vocalisation of Early Qur'anic Manuscripts (Part II), *Journal of Qur'anic Studies* 2-1 (2000), pp. 1–24.

2 A. George, Coloured Dots and the Question of Regional Origins in Early Qur'ans (Part I) and (Part II), *Journal of Qur'anic Studies* 17-1 (2015), pp. 1–44 and 17-2 (2015), pp. 75–102.

3 M. van Putten, Arabe 334a. A Vocalized Kufic Quran in a Non-Canonical Hijazi Reading, *Journal of Islamic Manuscripts* 10-3 (2019), pp. 327–375.

4 B. Ince, Arabe 330b: The Discovery of Two Canonical Readings, *Journal of Islamic Manuscripts* 14-2/3 (2023), pp. 115–154.

5 Abū 'Amr al-Dānī, *al-Muḥkam fī Naṭṭ al-Maṣāḥif*, ed. 'I. Ḥasan, Beirut, 1997.

6 This geographical divide was analysed and highlighted in detail by A. George, Coloured Dots (Part I) and (Part II).

West, whereas the Iraqi system used red dots,⁷ homochromatic with the vowel signs although not easily confused with them.⁸

In this paper, I have collected a corpus of all Kufic manuscripts that mark the *hamza* with yellow dots from François Déroche's catalogue of the Bibliothèque nationale de France, supplemented with several other manuscripts that I have found in other collections.⁹ On examining the reading tradition that they represent, it becomes clear that almost all of the manuscripts where the yellow *hamza* is original to the manuscript¹⁰ represent specifically the transmission of Warsh 'an Nāfi'. As we will see, this correlation corroborates the identification of the yellow *hamza* as a North-African practice.

2 Method of Identification of the Warsh Reading: *Uṣūl Warsh*

As mentioned above, a disproportionate number of manuscripts that use the yellow *hamza* represent the transmission of Warsh 'an Nāfi'. This reading can easily be identified because it is very distinctive from other canonical readings and their transmissions, as he makes use of several general principles (*uṣūl al-qirā'a*) that are unique to him and appear frequently throughout the Qur'ān. Therefore, if one can identify these general principles operating in a

7 al-Dānī, *al-Muḥkam*, pp. 19–20.

8 Vocalisation proceeds from the principle that typically only inflectional and word-final vowels are marked, whereas word-internal *hamza* is marked regularly.

9 Throughout this article I will discuss a number of manuscripts, the majority of which are kept in the Bibliothèque nationale de France in Paris. They have all been digitised and can be accessed via gallica.bnf.fr. For more information on these manuscripts see F. Déroche, *Les manuscrits du Coran. Aux origines de la calligraphie coranique*, Paris, 1983. For other manuscripts, I have relied on the corpuscoranicum.de website (*Manuscripta Coranica*, published online by the Berlin-Brandenburgischen Akademie der Wissenschaften, by M. Marx, with contributions by Ali Aghaei, Salome Beridze, Umberto Bongianino, Marcus Fraser, Tobias Jocham, Ignacio Sánchez, transliterations by Morteza Rahimi Ahangar, Mojgan Azimian, Salome Beridze, Sabrina Cimiotti, Laura Hinrichsen, Fatemeh Nayereh, Zahra Mollaei, Emaan Safah, Morteza Tavakkoli, Azam Shahpasand, Elahe Shahpasand, Rahele Shahpasand, and collaboration with Farah Artika, Charlotte Bohm, Stefanie Franke, Hadiya Gurtmann, Annemarie Jehring, Manssur Karamzadeh, Tolou Khademalsharieh, Edin Mahmutovic, Nora Reifenstein, Jens Sauer, Johanna Schubert and Sophie Schmid. Betaversion: version 1.11.2022.).

10 Excluded from this study therefore are Paris, BnF, Arabe 329 d and 354 b. For Arabe 329 d the yellow dot is often clearly laid over the red. Its vocalisation indeed does not match the reading of Warsh, nor of any other canonical reader for that matter. The same is true for Arabe 354 b, where the original red *hamza* signs are often still visible because they have been placed in a slightly different position from the yellow dots.

manuscript, it is highly likely that one is dealing with the reading of Warsh ‘an Nāfi’, even without also examining his specific variants (*farsh al-ḥurūf*) in more detail. In order to substantiate the claim that it is possible to identify a manuscript as reflecting the transmission of Warsh purely by its *uṣūl*, I will examine the specific variants (*farsh al-ḥurūf*) for Paris, BnF, Arabe 378 in section 3 below. First, I will introduce the three general principles by which we can identify the transmission of Warsh, and I will give an overview of the different methods of how this distinction is expressed in early Qur’ānic manuscripts. For the identification of these principles in Qur’ānic manuscripts, I assume that the basic system of dot-based vocalisation of Kufic manuscripts is known to the reader. For more detail on this system, I refer to several earlier works that have discussed this in detail.¹¹

2.1 *Ṣilat Mīm al-Jam’*

While normally Warsh makes use of the short forms of the masculine plural pronouns (*hum*, *-hum/-him*, *’antum*, *-tum*, *-kum*), he makes use of lengthened plural pronouns (*humū*, *-humū/-himū*, *’antumū*, *-tumū*, *-kumū*) whenever the next word starts with a *hamza*.¹² While other readers use the long pronouns too, the specific phonetic conditioning found with Warsh is unique to him.

In vocalised manuscripts, *Ṣilat mīm al-jam’* is recognised by the presence of a dot on the baseline after the *mīm* marking the *ḍamma* whenever the next word starts with a *hamza*, and an absence of that dot when *hamza* does not follow. The script does not technically allow a distinction between long vowels and short vowels, but as there are no transmissions with a short vowel in this position, the obvious reading is with a long vowel.

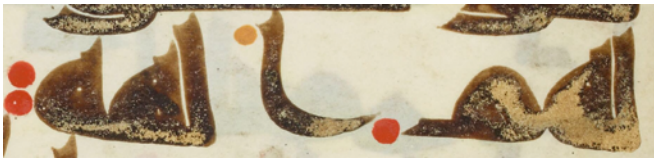


FIGURE 4.1 Paris, BnF, Arabe 349e, f. 104r, l. 3: *lahumū 'ālihatun*

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11 Gh. Qaddūrī al-Ḥamad, *ʿIlm al-Naqṭ wa-l-shakl*, Amman, 2016; Y. Dutton, *Red Dots*; A. George, *Coloured Dots*.

12 al-Dānī, *al-Taysīr fī al-Qirāʾāt al-Sabʿ*, ed. O. Pretzl, Beirut, 1984, p. 19.

2.2 *Naql Ḥarakat al-Hamz*

Warsh uniquely drops word-initial *hamza* whenever the preceding words end in a consonant; this is a process known as *naql*. For the purposes of this rule the definite article, even though it is spelled connected to the following word, is considered a separate word, and as a result *naql* also applies in words like *al-ʿarḍ* → *alarḍ*.¹³ Depending on the vocalisation style, *naql* may be represented in several different ways.

The most basic way of marking *naql ḥarakat al-hamz* is by simply not writing the *hamza* sign at all. This type of marking primarily happens in manuscripts that do not use the yellow dot to write the *hamza*, but only the red dot. In this vocalisation style, usually a secondary reading is marked in a secondary colour (typically green) in order to indicate that other readings would pronounce the *hamza* in this place. This makes manuscripts so marked easily mistaken for manuscripts that mark *hamza* in green, but these can be distinguished (see section 6 below).

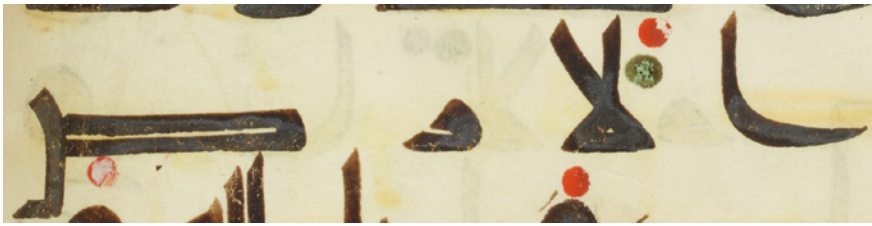


FIGURE 4.2 Paris, BnF, Arabe 351, f. 8v, l. 4: *alarḍi* (main reading) and *al-ʿarḍi* (green)¹⁴
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A second way of marking the *hamza* is through a horizontal stroke, as a mark of deletion of the *hamza*. This deletion stroke is written at the height of the vowel that follows the deleted *hamza*, i.e., at the top of the *alif* for *fatha*, at the bottom for *kasra* and in the middle for *ḍamma*. This horizontal stroke appears in our corpus with either a red or a green stroke. This way of marking *naql* is identified by al-Dānī as the method used in “our country” (i.e., al-Andalus).¹⁵

13 al-Dānī, *al-Taysīr*, pp. 35–36.

14 The red dot above the green one is a *kasra* that belongs to *as-samāwāti* on the previous line. Note that contrary to modern practice, the stroke that starts at the top left is the *lām* and the top right stroke is the *alif*. The latter therefore also gets the dot that belong to the *alif*. This orientation of the *lām-alif* is typical for Kufic manuscripts and is a practice continued in Maghribī script style.

15 al-Dānī, *al-Muḥkam*, pp. 87–89. Al-Dānī also says that the letter preceding the dropped *hamza* receives the vowel of the *hamza*. This practice does not seem to be common in manuscripts of this style.

FIGURE 4.3 Paris, BnF, Arabe 378, f. 44r, l. 5: *alarḍi*

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FIGURE 4.4 Arabe 378, f. 4r, l. 3: *alinsānu*.¹⁶

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FIGURE 4.5 Arabe 378, f. 19r, l. 2-3: *alūlā*.¹⁷

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A number of the manuscripts that we have examined here not only write the horizontal stroke but also write a coloured dot either in blue or in green. This practice is not explicitly mentioned by al-Dānī for *naql*. Alternatively, it is possible that the dot in this case marks a secondary reading with *hamza* (for example the reading of the other transmitter of Nāfi', Qālūn).

16 Note that the green stroke for the deleted *hamzah* is placed at the left bottom of the *lām* 'alif since it is the vertical stroke that starts at the top right and descends to the bottom left that represents the 'alif, while the other stroke represents the *lām* (cf. footnote 14 above).

17 Note that the red dagger *alif* crossed the *lām* of the final *lā* in *al-'ūlā* (l. 3); this practice is likewise related to the order of the *lām-alif* (cf. footnote 14 above), the leg that sticks out on the top right is the *alif* (l. 2).

FIGURE 4.6 Arabe 349e, f. 104v, l. 5: *alarḍa*

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2.3 *Ibdāl al-Hamz*

Warsh regularly drops both pre-consonantal and intervocalic *hamza*, but only if the *hamza* is the first root consonant. If the *hamza* is dropped it is replaced with the homorganic glide corresponding to the preceding vowel: *mu'min* → *mūmin* (= /muwmin/) and *fa-l-yu'addi* → *fa-l-yuwaddi*. Abū 'Amr optionally drops the *hamza*, but for him the rule is not restricted to root-initial consonants, making the Warsh distribution quite distinct.¹⁸

This loss of the *hamza* is marked in three different ways in the corpus. The most basic way is to simply not write the sign of the *hamza*. As with *naql* marking of this type, usually a secondary reading with the *hamza* is marked in green, and occurs in manuscripts that mark the retained *hamza* in red.

FIGURE 4.7 Arabe 351, f. 1r, l. 2: *mūminun* (main reading), *mu'minun* (green)

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¹⁸ al-Dānī, *al-Taysīr*, pp. 34–35.

Another option is to use the same orthographic device as with *naql*, namely a red or green horizontal stroke. Since in this case the consonant that follows always corresponds to the preceding vowel, the stroke has only a single fixed position. For the *alif* it is written at the top of the ascender, for the *wāw* it is frequently written slightly obliquely on the curve of the *wāw*.



FIGURE 4.8 Arabe 378, f. 13v, l. 1: *mūminīna*

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Finally, as with the *naql*, some manuscripts use a coloured stroke combined with a coloured dot.

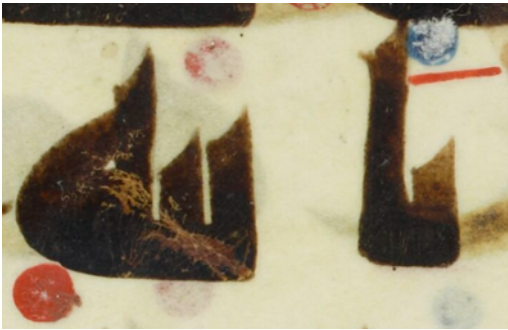


FIGURE 4.9 Arabe 349e, f. 118v, l. 4: *yātīhi*

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2.4 *Tabulated Summary of the Manuscripts*

In the following table I give an overview of all the manuscripts that I have collected in this study that use the yellow dot for the *hamza*, and examine whether or not they express Warsh's general principles. Because for *Naql* and *Ibdāl* there are several ways to express this, I have indicated the specific way that this is marked in the manuscript. As should be clear from this overview, the vast majority of manuscripts that use yellow dots for *hamza* have all three

features associated with Warsh. Only four manuscripts out of sixteen do not follow the general principles of Warsh.

TABLE 4.1 *Uṣūl Warsh* as attested in manuscripts with yellow dot *hamza*

Shelfmark	Script style	<i>Ṣilat al-mīm</i>	<i>Naql</i>	<i>Ibdāl</i>
Arabe 349 e ^a	D.II	Yes	Red stroke, blue dot	Red stroke, blue dot
Arabe 378	D.II	Yes	Green stroke	Green stroke
Arabe 352 b	D.II	N/A	Green stroke	N/A
Arabe 356 h	D.II	N/A	Green stroke	N/A
Arabe 366 b	D.I	Yes	Red stroke	Red stroke
Arabe 343	D Commune	Yes	Absent dot	Absent dot
Arabe 376 b	D Commune	Yes	Red stroke, green dot	Red stroke, green dot
Palermo Qur'ān ^b	NS.III	Yes	Red stroke, blue dot	Red stroke
Arabe 374 d	NS.III	Yes	Green stroke	Green stroke
Wetzstein II 1931 ^c	NS.III? ^d	Yes	Absent dot	Absent dot
Wetzstein II 1917 ^e	D.I/D.III	N/A	Absent dot	Absent dot
Petermann I 38 ^f	D	Yes	Absent dot	Absent dot
Arabe 348 a	D.I	No	No	No
Or. Quart. 1208 (III) ^g	D	Yes	No	? Yellow dot, red stroke
Arabe 6982	D? B? ^h	Always long	No	Absent Dot
Arabe 337c	Close to D.IV	Always long	No	No

a A portion of this same manuscript is also found in Copenhagen (Royal Library, Cod. Arab. 41).

b F. Déroche, *The Abbasid Tradition. Qur'ans of the 8th to the 10th Centuries AD*, Oxford, 1992, pp. 146–152.

c Berlin, Staatsbibliothek, Wetzstein II 1931.

d The style of this script is somewhat difficult to classify.

e Berlin, Staatsbibliothek, Wetzstein II 1917.

f Berlin, Staatsbibliothek, Petermann I 38.

g Berlin, Staatsbibliothek, Ms. Or. Quart. 1208 (III).

h F. Déroche analyses this manuscript as belonging to the style B.II, but it is notably distinct from all the other B.II manuscripts, which form a rather uniform style (F. Déroche, *Les manuscrits du Coran*, p. 74). The fact that this is also the only manuscript in this style that makes use of Maghribī vocalisation practices like yellow *hamza*, semicircular *shadda* and stroke *sukūn* suggests that this manuscript was produced in an environment quite distinct from the one that produced those regular B.II manuscripts.

We can further observe that there is only a limited number of script styles in which yellow dots for *hamza* are used. Especially notable is the D.II style, for which 4 of the 6 manuscripts identified have yellow *hamza* (and seem to follow the reading of Warsh). It is noteworthy that beside the D.II (and two NS.III) manuscripts, most of the manuscripts in this group defy a clear classification within the standard Kufic styles as defined by Déroche, although they all fit globally within the D group. This is perhaps an indication that such manuscripts are from the later end of the production period of Kufic manuscripts, or perhaps come from a region where the norms of the Kufic D styles were less tightly controlled.

The fact that such a high percentage of manuscripts that use yellow dots for the *hamza* correspond to the reading of Warsh does not mean that only yellow *hamza* manuscripts represent the reading of Warsh. There are several identifiable manuscripts that use the traditional system with red *hamza* that follow the reading of Warsh as well, e.g. Paris, BnF, Arabe 330 b (B.Ib style), which has Ḥamza as its primary reading and Warsh as the secondary reading.¹⁹ A similar relationship between Ḥamza and Warsh is found in Paris, BnF, Arabe 325 j (D.III style). A striking number of manuscripts in the D.III style follow the reading of Warsh, as can be seen from the table below.

TABLE 4.2 *Uṣūl Warsh* as attested in manuscripts with red dot *hamza*

Shelfmark	Style	Ṣilat al-Mīm	Naql	Ibdāl
Arabe 325 g	D.III	No	No dot, green secondary	No dot, green secondary
Arabe 341 a	D.III	Yes	No dot, green secondary	No dot, green secondary
Arabe 349 a	D.III	Yes	No dot, green secondary	No dot, green secondary
Arabe 351	D.III	Yes	No dot, green secondary	No dot, green secondary
Arabe 362 b	D.III	Yes	No dot, green secondary	No dot, green secondary
Arabe 334 l ^a	D.III	Blue dot	Blue stroke, green dot	No? (green dot)
Arabe 381 e	D.III	Yes	No dot, green secondary	N/A

a This manuscript uses a special colour-coded system. Gilded vowels represent what would normally be red dots (a trace of the red may be visible underneath); *hamza* is generally, but not always, written in green. Final vowels are occasionally written in blue, sometimes in green. The exact system of this manuscript warrants further investigation.

19 B. Ince, Arabe 330b: The Discovery of Two Canonical Readings.

3 The Specific Variants of Arabe 378

In the previous section we examined manuscripts that used yellow dots to mark the *hamza*, and showed that the majority have the unmistakable specific general principles associated with Warsh ‘*an Nāfi‘*. The identification of the unique combination of general principles of Warsh is probably enough to confidently conclude that these manuscripts all represent this highly popular reading. But this can be further confirmed by examining the specific variants of the manuscripts. While it is outside the scope of this paper to do a full survey of the specific variants of all manuscripts, below I have examined the specific variants present in Arabe 378 compared with the variants as they are reported for the 10 canonical reading traditions in Ibn al-Jazarī’s *Nashr al-Qirā’āt al-‘Ashr*.²⁰ As will be clear from the table below, this manuscript is indeed a perfect match for Warsh ‘*an Nāfi‘* (and in fact, specifically the transmission path of al-Azraq rather than that of al-Aṣbahānī). The table below makes use of abbreviations to refer to the readers that follow a certain *farsh* reading. N = Nāfi‘ (N-w = Warsh ‘*an Nāfi‘*; N-w-azraq = Warsh ‘*an Nāfi‘* in the *Ṭarīq* of al-Azraq; N-w-asbahani = Warsh in the *Ṭarīq* of al-Aṣbahānī), AJ = Abū Ja‘far (AJ-j = Ibn Jammāz ‘*an* Abū Ja‘far; AJ-w = Ibn Wardān ‘*an* Abū Ja‘far), IK = Ibn Kathīr (IK-b = al-Bazzī ‘*an* Ibn Kathīr), AA = Abū ‘Amr (AA-d = al-Dūrī ‘*an* Abū ‘Amr; AA-s = al-Sūsī ‘*an* Abū ‘Amr), Y = Ya‘qūb (Y-rs = Ruways ‘*an* Ya‘qūb; Y-rh = Rawḥ ‘*an* Ya‘qūb), IA = Ibn ‘Āmir (IA-h = Hishām ‘*an* Ibn ‘Āmir; IA-d = Ibn Dhakwān ‘*an* Ibn ‘Āmir), A = ‘Āsim (A-h = Ḥafṣ ‘*an* ‘Āsim; A-sh = Shu‘bah ‘*an* ‘Āsim), H = Ḥamza, K = al-Kisā’ī and X = Khalaf. R stands for ‘rest’, and refers to all remaining transmitters and readers who are not mentioned otherwise.

TABLE 4.3 The specific variations of Arabe 378

Verse (folio: line)	Variant in manuscript	Other readings	Nashr ^a
Q. 36: 76 (3v:5)	<i>yuhzinka</i> (N)	<i>yahzunka</i> (R)	§2889
Q. 36: 81 (5v:6)	<i>bi-qādirin</i> (R)	<i>yaqdiru</i> (Y-rs)	§4022
Q. 36: 83 (6v:1)	<i>fā-yakūnu</i> (R)	<i>fā-yakūna</i> (IA, K)	§2723
Q. 36: 83 (6v:5)	<i>turja‘ūna</i> (R)	<i>tarji‘ūna</i> (Y)	§2639
Q. 37: 1–3 (7r:3–4)	<i>wa-ṣ-ṣaffāti ṣaffan</i> (R)	<i>wa-ṣ-ṣaffāṣ=ṣaffan</i> (H, AA)	§1194–5

a The paragraph numbers listed here refer to the paragraph numbers that discuss the variant in Ibn al-Jazarī, *Nashr*.

20 Ibn al-Jazarī, *Nashr al-Qirā’āt al-‘Ashr*, ed. A. Rushdī Suwayd, Beirut-Istanbul, 2018.

TABLE 4.3 The specific variations of Arabe 378 (*cont.*)

Verse (folio: line)	Variant in manuscript	Other readings	Nashr
Q. 37: 6 (8r:3)	<i>bi-zīnati</i> (R)	<i>bi-zīnatin</i> (A, H)	§4028
Q. 37: 6 (8r:3–4)	<i>al-kawākibi</i> (R)	<i>al-kawākiba</i> (A-sh)	§4029
Q. 37: 8 (8r:6)	<i>yasmaʿūna</i> (R)	<i>yassammaʿūna</i> (H, K, X, A-h) ^b	§4030
Q. 37: 12 (9v:4)	ʿajibta (R)	ʿajibtu (H, K, X)	§4032
Q. 37: 16 (10r:6/10v:2)	<i>a.idā ... innā</i> (N-w)	vs ʿaʿidā ... ʿaʿinnā, ʿidā ... ʿaʿinnā etc. (R)	§1413
Q. 37: 17 (10v:3–4)	ʾa-wa-ʾābāʾunā (N-w-azraq & R)	ʾaw (ʾ)ābāʾunā (IA, AJ, N-w-aṣbahānī)	§4034
Q. 37: 18 (10v:5)	<i>naʿam</i> (R)	<i>naʿim</i> (K)	§3110
Q. 37: 40 (16r:1)	<i>al-mukhlaṣīna</i> (H, K, A, N, AJ)	<i>al-mukhliṣīna</i> (R)	§3333
Q. 37: 47 (17r:1)	<i>yunzaḥūna</i> (R)	<i>yunzifūna</i> (H, K, X)	§4039
Q. 37: 53 (17v:6; 18r:2)	ʾa.idā ... inna (N-w)	vs ʿaʿidā ... ʿaʿinnā, ʿidā ... ʿaʿinnā etc. (R)	§1413
Q. 37: 102 (26v:2)	<i>yā-bunayyi</i> ^c (R)	<i>yā-bunayya</i> (A-h)	§3291
Q. 37: 102 (26v:6)	<i>tarā</i> (R)	<i>turiya</i> (H, K, X)	§4042
Q. 37: 126 (31v:4)	<i>rabbu</i> (R)	<i>rabba</i> (Y, H, K, X, A-h)	§4046
Q. 37: 130 (32r:5)	ʾālī yāsīna (N, IA, Y)	ʾilyāsīna (R)	§4047
Q. 37: 153 (36r:1)	ʾaṣṭafā (N-w-azraq, R)	īṣṭafā (AJ, N-w-asbahani)	§4048
Q. 37: 56 (18v:3)	<i>la-turḍīnī</i> (N-w; Y)	<i>la-turḍīni</i> (R)	§4052
Q. 38: 1 (41r:2)	<i>al-qurʾāni</i> (R)	<i>al-qurāni</i> (IK)	§1561
Q. 38: 8 (43r:5)	(ʾ)a.unzila (N-w, IK-b, AA, Y)	ʾā.unzila (AJ, N-q), ʾāʾunzila (IA-h) ʾaʾunzila (R)	§1421
Q. 38: 13 (45r:6)	<i>laykata</i> (N, AJ, IK, IA)	<i>al-ʾaykati</i> (R)	§3787
Q. 38: 15 (46r:2)	<i>faqāwin</i> (R)	<i>fiwāqin</i> (H, K, X)	§4057
Q. 38: 36 (55v:5)	<i>ar-rīḥa</i> (R)	<i>ar-riyāḥa</i> (AJ)	§2737
Q. 38: 41 (57r:4)	<i>bi-nuṣḥin</i> (R)	<i>bi-nuṣubin</i> (AJ); <i>bi-naṣabin</i> (Y)	§4062
Q. 38: 45 (58v:4)	ʾibādanā (R)	ʾabdanā (IK)	§4063
Q. 38: 46 (59r:4)	<i>bi-khālīṣati</i> (N, AJ)	<i>bi-khālīṣatin</i> (R)	§4064

b It seems that the vocaliser initially wrote *yassammaʿūna* (*faṭḥa* on the *yāʾ*, *sīn* and *mīm*), but the *faṭḥa* on the *sīn* was corrected.

c A *faṭḥa* has been placed *below* the *yāʾ* in the place where the *kasra* would go. This manuscript uses the positioning of the *shadda* sign as a way to mark the following vowel.

TABLE 4.3 The specific variations of Arabe 378 (*cont.*)

Verse (folio: line)	Variant in manuscript	Other readings	Nashr
Q. 38: 48 (59v:4–5)	<i>al-yasa'a</i> (R)	<i>al-laysa'a</i> (H, K, X)	§3039
Q. 38: 58 (62r:3)	<i>al-ākharu</i> (R)	<i>al-ūkharu</i> (AA, Y)	§4068
Q. 36: 56 (66v:1)	<i>zilālīn</i> (R)	<i>zulalīn</i> (H, K, X)	§4013
Q. 36: 62 (68r:3)	<i>jibillan</i> (R)	<i>jubullan</i> (Y-rh); <i>jubulan</i> (IK, H, K, X, Y-rs), <i>jublan</i> (AA, IA)	§4015
Q. 36: 67 (70r:4)	<i>nankushu</i> (R)	<i>nunakkishu</i> (A, H)	§4017
Q. 36: 70 (70v:5)	<i>li-tundhira</i> (N, AJ, IA, Y)	<i>li-yundhira</i> (R)	§4019
Q. 38: 63 (71v:4–5)	<i>'a-ttakhadhnāhum</i> (R)	<i>ittakhadhnāhum</i> (AA, Y, H, K, X)	§4069
Q. 38: 63 (71v:5–6)	<i>sukhriyyan</i> (N, AJ, H, K, X)	<i>sikhriyyan</i> (R)	§3703
Q. 38: 70 (73v:1–2)	<i>'annamā</i> (R)	<i>'innamā</i> (AJ)	§4071
Q. 38: 84 (76v:5)	<i>al-ḥaqqā</i> (R)	<i>al-ḥaqqu</i> (A, H, X)	§4073
Q. 39: 6 (81v:2–3)	<i>'ummahātikum</i> (R)	<i>'immahātikum</i> (K) <i>'immihātikum</i> (H)	§2912
Q. 39: 7 (82v:4–5)	<i>yarḍahū/ḥu</i> (R) ^d	<i>yarḍah</i> (AA-s, AJ-j)	§1218
Q. 39: 8 (84r:3)	<i>li-yuḍilla</i> (R)	<i>li-yāḍilla</i> (IK, AA, Y)	§3381

d Kufic vocalisation is unable to distinguish between *yarḍahu* and *yarḍahū*.

4 Locating and Dating the Yellow-Dot Warsh Manuscripts

Al-Dānī in his *Muḥkam* explicitly attributes the use of yellow *hamza* to the regions of the Maghrib and Medina. The fact that the use of such vocalisation strongly correlates with the use of the transmission of Warsh (d. 197/812) serves as compelling independent confirmation of this regional attribution. Warsh, after having finished his studies with Nāfi' (d. 169/785) in Medina, moved to Egypt, where he taught his transmission. This transmission clearly became popular in North Africa early on.²¹ This popularity was likely helped by the popularity of the Mālikī school of jurisprudence in North Africa and

21 A.A. Brockett, *Studies in Two Transmissions of the Qur'an* (Unpublished PhD dissertation, University of St. Andrews, 1985), p. 95.

al-Andalus,²² as Imam Mālik (d. 179/795) expressed a preference for the reading of Nāfiʿ,²³ and it appears that indeed Nāfiʿ’s reading was soon adopted all over North Africa. Even today both Warsh and the other transmission of Nāfiʿ (that of Qālūn) are popularly recited in most of North and West Africa. So, both on the basis of the use of the yellow dot for *hamza* and on the basis of the reading of Warsh, it seems highly likely that these manuscripts stem from the Maghrib/al-Andalus (or North Africa more generally). As we will see in the next section, these manuscripts frequently use other specific orthographic innovations that al-Dānī explicitly associates with the Maghrib and al-Andalus. These manuscripts serve as some of the earliest witnesses of these practices.

In terms of the dating of the manuscripts with these yellow dots, as these manuscripts usually represent the reading of Warsh, it stands to reason that we can at least date these manuscripts as having been produced during his lifetime at the very earliest, and very probably sometime after his lifetime, as his transmission would need to have been circulated broadly for a period of time before garnering enough popularity to show up frequently in vocalised manuscripts. At the very earliest, then, we have a *terminus post quem* of his death date 197/812.

This supposition accords well with the palaeographical dating that has been suggested for the styles in which these manuscripts are written. Yellow dots seem to show up only with D.I, D.II and F. Déroche’s more multiform “D commune” and “groupe D” classifications. The D.I style has several dated examples (232/847; 262/876–7; 267/880–1; 298/911 and 337/949).²⁴ There are no known dated manuscripts for the D.II style, but F. Déroche suggests that it may be dated to the third/ninth century on the basis of its relation to the D.I style. Ali Aghaei and Michael Marx have recently radiocarbon dated a number of Kufic manuscripts, two of which were in the D.I style: the earliest of these (Tehran, NMI, 4293) is radiocarbon dated between 772 and 882 CE (with 85.9% probability), and a remaining 9.5% probability would place it earlier, in 706–735 CE.²⁵

However, it seems possible to further develop a relative chronology, as there is good reason to believe that the yellow-dots system is an innovation, and that before it was adopted, what al-Dānī considers the “Iraqi” system that uses only red dots was in use. After all, in section 2 we saw that while yellow *hamza* manuscripts correlated with Warsh, the opposite was not true: there are a number of

22 N. Cottart, art. Mālikiyya, *Encyclopaedia of Islam, Second Edition*, 1991.

23 Ibn Mujāhid, *Kitāb al-Sabʿah fī al-Qirāʾāt*, ed. Sh. Ḍayf, 3rd ed., Cairo, 1972, p. 62.

24 F. Déroche, *The Abbasid Tradition*, p. 37.

25 A. Aghaei and M.J. Marx, Carbon Dating of Seven Parchment Qurʾān Manuscripts and One Syriac Bible of the National Museum of Iran, *Journal of Iran National Museum* 2-1 (2021), p. 222.

red *hamza* manuscripts that also clearly represent the transmission of Warsh. We may imagine then that the rise of popularity of his reading in North Africa began *before* the practice of using a yellow dot for *hamza* started in the region. It is moreover worth noting that D.III manuscripts frequently represent Warsh, but never use yellow *hamza*, whereas D.II manuscripts likewise frequently represent Warsh but never use red *hamza*. The subtle system of using horizontal and vertical strokes for vocalisation for the marking of *naql*, *ibdāl* and several other orthoepic markings (discussed in more detail in section 5 below) are primarily associated with the yellow *hamza* manuscripts, although some signs of it can already be found in the red *hamza* manuscripts (most prominently Paris, BnF, Arabe 325 g). One can therefore develop a tentative relative chronology of the reading and script style and vocalisation practices used in North Africa:

1. The reading of Nāfi' gains popularity in North-Africa. This mostly manifests itself as a dominance of Warsh.
2. The D.III style develops and is introduced (or invented?) in North Africa, and is frequently used to represent Warsh. *Hamza* is still represented with the old red-dot system. Some new stroke-based orthoepic signs are starting to be developed.
3. The D.II style develops and is introduced (or invented?) in North Africa, and is frequently used to represent Warsh. With the introduction of the D.II style, the perhaps Medinan practice of writing the *hamza* with yellow dots is adopted into such styles. This practice gives rise to a new geographical split in vocalisation practice, the Maghrib and Medina using yellow *hamza*, and Iraq using red *hamza*. The stroke-based orthoepic signs become regularly applied to the vocalisation of these Maghribi manuscripts.
4. The Kufic styles are eventually supplanted by New Style III, and some less standardized late Kufic styles, which show a highly frequent use of the stroke-based orthoepic signs. Eventually these styles are replaced by the Maghribi script style, and the red dots eventually by the modern vowel signs (still in red), but the yellow *hamza* dot, as well as the stroke-based orthoepic signs, continue to be used.

5 Specific Orthographic Innovations in the Maghribi Vocalisation

In what has preceded we have seen that the use of yellow *hamza* seems to come not only with a strong association with the reading of Warsh but also with a number of stroke-based orthoepic signs. These orthoepic signs are

generally described in detail by al-Dānī in his *Muḥkam*, and he explicitly associated these signs with the Maghrib and al-Andalus. Most of these signs live on in Qurʾānic manuscripts in the Maghribī script style.²⁶

While al-Dānī's description of the Maghribī vocalisation style is of extremely high value, the manuscripts that he describes seem to be from a slightly later period than the Kufic manuscripts that we are concerned with here. Al-Dānī's description, for example, is a near perfect match with what we find in the Palermo Qurʾān (dated 372/982–983), but not quite as good a fit for the Kufic manuscripts that we have mostly been concerned with in the current paper. We will therefore go through some of the main orthographic practices, and cite the *Muḥkam* where necessary on the topics discussed, and we will mark the points where the manuscripts deviate from these medieval descriptions, or have practices that are not described at all. What is noticeable about the innovations found in these as well as other Maghribī/Andalusī practices described by al-Dānī is a very pronounced increased concern for marking specific features of *tajwīd*, frequently overspecifying features for absolute clarity.

5.1 *Dagger Alif*

The ʿUthmānic *rasm* frequently leaves word-internal *ā* unwritten. In the ancient red-dot vocalisation system such word-internal *ā*-s remain completely unexpressed (although the marking of a word-internal *fatḥa* may hint at their presence sometimes). In the Maghrib a long red vertical stroke (not usually the exact shape of the *alif*) marks the presence of such defective *ā*-s (for an example of this practice see fig. 4.4 above).²⁷

5.2 *Alif al-Waṣl*

Early Kufic manuscripts do not typically have a specific way of expressing the *alif al-waṣl*. Instead, they simply leave such *alifs* unmarked, which serves as an unambiguous means of expressing that it is an *alif al-waṣl*,²⁸ since a *hamzat al-qatʿ* would always be marked with a dot. Many of the manuscripts with yellow *hamza*, however, use a coloured horizontal stroke placed at the position

26 For an earlier examination of a number of these Maghrebi orthographic signs examined here, likewise in light of the descriptions in al-Dānī's *Muḥkam*, see A. George, *Coloured Dots* (Part II).

27 al-Dānī, *al-Muḥkam*, p. 190.

28 For notable exceptions, see the discussion by É. Cellard (La vocalisation des manuscrits coraniques dans les premiers siècles de l'islam, in *Les origines du Coran, le Coran des origines*, F. Déroche, Chr. Robin and M. Zink eds., Paris, 2015, pp. 178–79); M. van Putten, *Arabe* 334a, p. 329.

of the preceding vowel (similar to the system as seen with *naql* in section 2.2 above): at the top of the *alif* for preceding *a/ā*, below the *alif* for *i/ī* and in the middle of the *alif* for *u/ū*. Typically, the colour of this *waṣl* sign is different from the one used for *naql* and *ibdāl* strokes that we have discussed above. For example, Arabe 378 uses a red stroke for the *waṣl*, but a green stroke for the loss of *hamz*.²⁹ Some, but not all, manuscripts that use such a *waṣl* sign also use a coloured dot (generally blue, sometimes green, but in any case, not yellow) to indicate the *hamza* and its following vowel if one were to pronounce this word in utterance-initial position. Both the use of the positional red stroke and the use of green or blue ink for the epenthetic vowel are described by al-Dānī in detail and explicitly associated with al-Andalus.³⁰

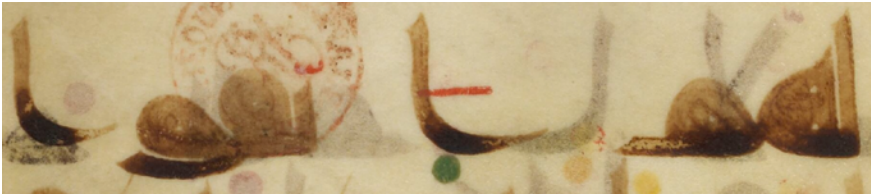


FIGURE 4.10 Arabe 378, f. 1r, l. 1: *lahumu ttafaqu, #’ittafaqu*
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FIGURE 4.11 Arabe 378, f. 11v, l. 4–5: *yukadhdhibūna ḥshurū, #’uḥshurū*
© BNF

29 Arabe 378 does not mark the *waṣl* and/or the utterance-initial epenthetic vowel on the definite article, presumably because it was so common that it was felt unnecessary to mark it explicitly.

30 al-Dānī, *al-Muḥkam*, pp. 84–86.

5.3 *Shadda*

In the earliest Kufic manuscripts, there is no dedicated way of writing geminated consonants. Some of the early descriptions suggest that word-internal vowels are typically not written, but in the case of geminate consonants they are.³¹ This rule seems to be borne out, more or less, but it is certainly not a fixed rule, and exceptions can be found.³²

Al-Dānī, however, discusses two different types of *shadda* marking: first the Mashriqī system, which uses a miniature *shīn* (the modern *shadda* sign) on top of the letter, accompanied by a vowel dot. The other manner according to al-Dānī is the placement of a *dāl*, which takes up both the function of marking the geminate and that of indicating the following vowel. A *dāl* on top marks a geminate followed by *a*, a *dāl* below a geminate followed by *i*, and an inverted *dāl* on top a geminate followed by *u*.³³ This second practice is the one that al-Dānī associates with the people of Medina and al-Andalus.

Despite the *dāl* (or rather semicircular shape) being considered typical for the Medinan-Maghribī tradition, the *shīn*-shaped *shadda* is much more common in our corpus, despite other indications clearly pointing to a Maghribī origin of these manuscripts.

Moreover, there is a third system in our manuscripts which is not described by al-Dānī at all: several of the manuscripts use a miniature *shīn*, but without an accompanying vowel, and place this *shīn* in the position of the vowel: above for *fatha*, below for *kasra* and on the baseline for *ḍamma*. This practice can readily be seen in Arabe 378.

The *shadda* that is always placed on top also occurs in the corpus, and so does the Maghribī semicircular *shadda*. As Mark Muehlhaeusler already observed for the Palermo Qurʾān, the semicircular *shadda* frequently coexists with the Mashriqī *shadda* (as in Arabe 378, see fig. 4.13).

For the Palermo Qurʾān, Muehlhaeusler tentatively suggests that the Mashriqī *shadda* sign is a later addition and the semicircular sign the original. This is unlikely to be the correct evaluation, although understandable if one examines the Palermo Qurʾān in isolation. While the exact distribution between the Maghribī and Mashriqī *shadda*-s certainly requires more careful evaluation, their co-occurrence in manuscripts is too frequent to dismiss as

31 See Ibn al-Sarrāj's description in Gh. Qaddūrī al-Ḥamad, *Ilm al-Naqt*, p. 173.

32 The use and non-use of word-internal vowels to mark gemination certainly warrants further thorough investigation, but is outside the scope of the current paper.

33 al-Dānī, *al-Muḥkam*, pp. 49–50. For a recent paper drawing attention to this description and its appearance in Qurʾān manuscripts see M. Muehlhaeusler, Additional Reading Marks in Kufic Manuscripts, *Journal of Islamic Studies* 27-1 (2016), pp. 1–16.



FIGURE 4.12 Arabe 378, f. 1v, l. 1: *rabbihimū* 'illā³⁴
© BNF

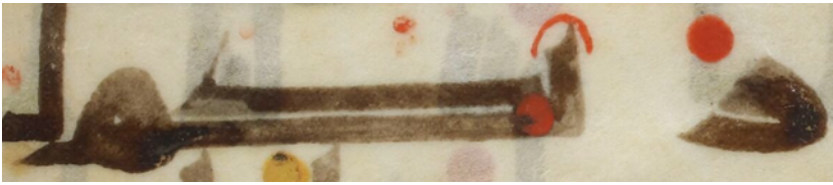


FIGURE 4.13 Arabe 378, f. 31v, l. 2 *rabbukum*, l. 3: *rabbu*
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a simple case of the original scribe writing the Maghribī system, and a later scribe adding the Mashriqī *shadda*.

This mixed situation is not only found in other Qur'ānic manuscripts (including Arabe 378), but is in fact quite common in non-Qur'ānic Maghribī manuscripts as well.³⁵ For example, while a Maghribī copy of the *Dalā'il al-Khayrāt* (Paris, BnF, Arabe 6983) typically uses the Mashriqī *shadda*, occasional examples can be found of the Maghribī *shadda*.³⁶ A very chaotic distribution with both signs being frequently used is found in a Maghribī copy of the *Risālat Ibn Abī Zayd* (Paris, BnF, Arabe 1058).³⁷ In light of this, it seems that we must conclude that such forms were frequently used side by side and we do not yet

34 One may observe that the *shadda* sign must almost certainly be contemporary with the vocalisation in this manuscript. While word-internal vowels are usually omitted, inflectional vowels (*i'rāb*) before pronominal suffixes are always indicated (Ibn al-Sarrāj in Gh. Qaddūrī al-Ḥamad, *ʿIlm al-Naqt*, p. 172). The fact that in *rabbihimū* the only indication of this inflectional vowel is the *shadda* clearly suggests that this was part of the design of the vocalisation.

35 Surprisingly, Qur'āns in Maghribī script seem to always use the Mashriqī *shadda*.

36 E.g. f. 22v, l. 7 *fa-l-yukattir* and l. 8 *sallama* and all throughout the text in high-frequency words such as *Allāh* and *Muḥammad*, especially when they are marked with a different-coloured ink from the rest of the text.

37 A. George (Coloured Dots (Part 1), p. 12) also points out that al-Dānī specified that the Maghribī *alif al-waṣl* and *shadda* markings are also used in (non-Qur'ānic) manuscripts. Both are indeed well attested.

fully understand why one or the other was used. A full survey of such uses will have to be reserved for a later study, but for now I will allow myself to make a couple of observations. In Arabe 378, the use of the semicircular *shadda* in fig. 4.13 seems to be a practical one: since the *bā'* was connected to the *kāf*, there was no room to write the *shadda* sign on the baseline and the Maghribī system, which did not require it to be written on the baseline, was therefore preferred instead. For the Palermo Qur'ān, more research is certainly warranted, but one notices that gemination that is the result of assimilation across word boundaries and stem-final geminates is typically written with the Maghribī *shadda*, whereas morphological gemination (such as forming the stem II *fā'* 'ala verb) is written with the Mashriqī *shadda*.

5.4 *Ikhfā'*

In Qur'ānic recitation, whenever a vowelless *nūn* or *tanwīn* directly precedes a non-guttural consonant, it undergoes a process known as *ikhfā'*, which in modern linguistic parlance would be called assimilation of place of articulation of the *n* to the following consonant.³⁸ Before the guttural consonants *khā'*, *ghayn*, *hā'*, 'ayn, *hamza* and *hā'*, the *nūn* and *tanwīn* do not assimilate and are pronounced as a regular [n]. This is called *izhār*.

Ikhfā' is considered an important part of *tajwīd*, and therefore quite early on, vocalisers started to develop ways of marking *ikhfā'*, *izhār* or both. The oldest of these practices, and one well attested in manuscripts even of the Iraqi vocalisation style, is the marking of *ikhfā'* on the *tanwīn alif*. Whenever a *tanwīn alif* stands before a consonant that would trigger *ikhfā'*, the two *fatha* dots are not placed on the *alif*. In the case of *izhār* these are written.³⁹ A number of the manuscripts in our corpus follow this practice, for example Arabe 351 in fig. 4.14 below, where the first *tanwīn* of *ṭamanān* undergoes *ikhfā'* to the following *qāf* and therefore is unmarked, but *qalīlan* stands in front of a *hamza* so there is *izhār* and the *tanwīn* dots are marked.

38 To be more precise, there are three other terms: *iqḷāb* – shift of *n* to *m* before *bā'*, *idghām bi-ghayr ghunna* – complete assimilation of *n* to the following *l* or *r* and *idghām bi-ghunna* – assimilation of *n* to *w* and *y* with nasalisation remaining (See J.J. Witkam and M. van Putten, Mamlūk Qur'ān Manuscripts. The Scribal Appendices, *Journal of Islamic Manuscripts*, 14-2/3, 2023, pp. 279–355). These are all typically treated the same as 'ikhfā' in the marking, and therefore I will refer to these as 'ikhfā' as this is precise enough for our purposes.

39 This system is described in detail by Ibn al-Sarrāj, *Kitāb al-Naqt*, who quotes Abū Muḥammad al-Yazīdī (d. 202/817), the main transmitter of the canonical reader Abū 'Amr, who is also said to have written a treatise on vocalisation. It is also pointed out that some of the vocalisers of Kufa place the two dots on the *alif* regardless of whether or not it undergoes *ikhfā'* (see Gh. Qaddūrī al-Ḥamad, *Ilm al-Naqt*, pp. 189–190).



FIGURE 4.14 Arabe 351, 12v, l. 1: *tamanan=qatilan 'u[lā'ika]*
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In the Maghrib, though, several more advanced tools were developed to mark *ikhfā'* and *izhār*. One such practice is the placement of a small (usually red) vertical stroke in between the *tanwīn* or *nūn* and the following guttural to indicate *izhār*.⁴⁰



FIGURE 4.15 Arabe 378, f. 37v, l. 3: *man huwa*
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Arabe 334], rather than using a coloured stroke, writes an actual miniature Kufic *nūn* to indicate the *izhār*.

⁴⁰ *Izhār* does not refer only to the lack of partial assimilation of *nūn* to a following non-guttural consonant, it also refers to the lack of other forms of assimilation. The various Qur'ānic reading traditions differ among themselves about which consonants can assimilate to one another. I have noted a couple of cases where the *izhār* stroke is used to mark not the lack of *ikhfā'* but the lack of assimilation of other consonants, e.g., Arabe 378, 27v, l. 2 *qad ṣaddaḡat* has an *izhār* stroke after the *dāl* to indicate that it is not *qaṣṣaddaḡat*, which is how it would be pronounced by several of the canonical readers, but not Warsh 'an Nāfi' (see al-Dānī, *al-Taysīr*, p. 42).



FIGURE 4.16 Arabe 334l, f. 164r, l. 3–4: *minaḥadīn ḥattā*
© BNF

This practice is fairly common in our corpus but it is not described by al-Dānī. This is quite striking as even a late manuscript like the Palermo Qurʾān makes use of this practice, but knowledge of it seems lost to al-Dānī. The practice disappears in manuscripts in the Maghribī style. Instead, al-Dānī prescribed that one should place a small horizontal stroke (*jarra ṣaghīra*) over the letter, just as is done to mark the *sukūn*.⁴¹ As this sign is certainly a horizontal stroke, this must be a different practice than the one we see here (see section 5.5 below for the *sukūn*).

Later manuscripts, however, develop a more sophisticated system to mark *ikhfāʾ* and *izhār*. This system uses the orientation of the two vowel dots for *tanwīn*. When they are written one on top of the other, these mark *izhār*, and when they are written beside one another, they mark *ikhfāʾ*. Unlike the *izhār* stroke, this practice is described in detail by al-Dānī.⁴² Using both the orientation-based *tanwīn* marking and the *izhār* stroke redundantly marks *izhār* twice, but this did not prevent the two tools being used in tandem in some manuscripts, as for example in the Palermo Qurʾān.⁴³

5.5 *Sukūn*

Typically, Kufic manuscripts do not mark the absence of the vowel, this simply being left up to the reader, or to be inferred from the absence of a vowel. However, al-Dānī does inform us that, in the Maghrib, vocalizers use a red horizontal stroke over the letter to mark its absence. This is used by a number of the manuscripts in the corpus under discussion, although it is rare, and several of those that use it do so sparingly. All manuscripts that use this orthographic

41 al-Dānī, *al-Muḥkam*, p. 73.

42 al-Dānī, *al-Muḥkam*, pp. 68–72.

43 See for example Khalili collection, QUR368, f. 6b, l. 1, *yawmaʿīdīn ḥayrum*=*mustaqarrav* =*wa-ʾaḥsanu* ..., with the *tanwīn* dots one on top of the other and the *izhār* stroke after *yawmaʿīdīn* but the dots beside one another in *ḥayrun* and *mustaqarran* to mark their assimilation (see F. Déroche, *The Abbasid Tradition*, p. 147).



FIGURE 4.17 Arabe 6982, f. 2r, l. 3: *al-jahra*⁴⁴
© BNF

tool are either New Style manuscripts, or difficult-to-classify (and probably later) forms of Kufic. One therefore gets the impression that this is a relatively late orthographic innovation. It is also notable that the use of a stroke according to al-Dānī is not a practice shared between al-Andalus and Medina (where they use a small circle instead).⁴⁵

5.6 *Madd*

Even rarer among the manuscripts examined here is the use of a long horizontal red stroke to mark the *madd*. This too is indicated by al-Dānī to be a practice of the vocalizers of al-Andalus.⁴⁶ *Madd* is the practice of pronouncing a long vowel overlong when it is followed by a *hamza* or long consonant.⁴⁷ Only two manuscripts (Berlin, SB, Petermann I 38 and Wetzstein II 1931) in our sample explicitly mark the *madd*. As with the *sukūn* these two clearly seem to be written in a late transitional Kufic style. Both manuscripts that use this *madd* sign also use the *sukūn* sign.



FIGURE 4.18
Berlin, SB, Petermann I 38, f. 9r, l. 4: *as-samā'i*
© SB, IMAGE FROM ITS WEBSITE.

44 There are some indications that the red *sukūn* strokes used in Paris, BnF, Arabe 6982 are not contemporary with the red-dot vocalisation. For example, f. 21v, l. 14 is vocalised *wa-huwa*, but there is also a *sukūn* stroke on top of the *hā'* that marks *wa-hwa*. The two vocalisation signs are therefore in conflict as to what reading they represent.

45 al-Dānī, *al-Muḥkam*, p. 51.

46 al-Dānī, *al-Muḥkam*, p. 54.

47 See M. van Putten, *Madd as Orthoepey Rather than Orthography*, *Journal of Islamic Manuscripts* 12 (2021), pp. 202–213 for a more in-depth discussion.

5.7 Summary of Vocalisation Practices

Combining both the observations on the spelling of *hamza*, *naql/ibdāl* (treated together here as *tashīl*), and the practices discussed in this section. The following table will summarise the vocalisation practices among the manuscripts of the corpus. The abbreviations in the table are to be read as follows:

- *Hamz*: Y = yellow *hamza*; R = red *hamza*; R* = red *hamza* with gold leaf overlaid.
- *Waṣl*: Ø = *alif al-waṣl* is unmarked; R- = *alif al-waṣl* marked with a red dash; R-/G. = *alif al-waṣl* is marked with a red dash and a green dot; R-/B. = *alif al-waṣl* is marked with a red dash and a blue dot; R-/R. = *alif al-waṣl* is marked with a red dash and a red dot; B-*/G. = *alif al-waṣl* is marked with a blue dash with teeth and a green dot.
- *Ikhfā'*: TA = *tanwīn alif* does not take dots in *ikhfā'* environment; TA: = *tanwīn alif* does take dots in *ikhfā'* environment; :/. = *tanwīn* signs are stacked with *izhār*, and beside one another for *ikhfā'*.
- *Izhār*: R| = *izhār* is marked with a small red vertical stroke; R|* = *izhār* is marked with a slightly curved small red vertical stroke. Gnūn = *izhār* is marked with a green Kufic *nūn*.
- *Tashīl*: Ø = *tashīl* is marked by leaving the sign for the *hamza* unexpressed; Ø/2nd G. = *tashīl* is unmarked, but a secondary reading marks *hamza* with a green dot; R- = *tashīl* is marked with a red horizontal dash; G- = *tashīl* is marked with a green horizontal dash; R-/B. = *tashīl* is marked with a red dash and a blue dot.
- *Sukūn*: R- = *sukūn* is marked with a small red dash over the letter.
- *Shadda*: w = *shadda* is marked with the Mashriqī miniature *shīn*; w* = *shadda* is marked with the Mashriqī miniature *shīn* placed in the position of the vowel that follows; v = *shadda* is marked with the Maghribī semicircular sign; w/v = both signs are used.
- *Dagger*: Y = dagger *alif* is used; N = dagger *alif* is not used.
- *Madd*: Y = *madd* is marked with a long horizontal stroke; N = *madd* is not marked with a long horizontal stroke.

TABLE 4.4 Vocalisation practices of of Warsh 'an Nāfi' manuscripts

Siglum	Hamz	Waṣl	Ikhfā'	Izhār	Tashīl	Sukūn	Shadda	Dagger	Madd
Arabe 349 e	Y	R-	TA:	R *	R-/B.	N/A	w	N	N
Arabe 378	Y	R-/G.	TA:	R	G-	N/A	w*/v	Y	N
Arabe 352 b	Y	Ø	TA:	N/A	N/A	N/A	w	Y	N
Arabe 356 h	Y	Ø	TA:	N/A	N/A	N/A	w	Y	N

TABLE 4.4 Vocalisation practices of of Warsh ‘an Nāfi’ manuscripts (*cont.*)

Siglum	Hamz	Waṣl	Ikhfā’	Izhār	Tashīl	Sukūn	Shadda	Dagger	Madd
Arabe 366 b	Y	R-	TA:	None	R-	N/A	N/A	Y	N
Arabe 343	Y	Ø	TA:	None	Ø	N/A	N/A	N	N
Arabe 376 b	Y	R-/(B.)	TA:	None	Ø	N/A	w	Y	N
Palermo Qur’ān	Y	R-	:/..	R	R-/B.	R- (rare)	w/v	Y	N
Arabe 374 d	Y	Ø	:/..	R	G-	N/A	w	Y	N
Wetzstein II 1931	Y	Ø	TA	None	Ø	R-	v	Y	Y
Wetstein II 1917	Y	R-/B.	:/..	R *	Ø	R-	v	Y	N
Petermann I 38	Y	R-/B.	:/..	None	Ø	R-	v	Y	Y
Arabe 348 a	Y	Ø	TA:	None	N/A	N/A	N/A	N	N
Quart. 1208 (III)	Y	R-	:/..	N/A	N/A	R-	v	Y	N
Arabe 6982	Y	R-/R.	:/..	None	Ø	R- (rare)	v	Y	N
Arabe 337 c	Y	R-	TA	None	N/A	N/A	v	Y	N
Arabe 325 g	R	Ø	TA:	None	Ø	N/A	N/A	N	N
Arabe 341 a	R	Ø	TA:	None	Ø/2nd G.	N/A	N/A	N	N
Arabe 349 a	R	Ø	TA	None	Ø/2nd G.	N/A	N/A	N	N
Arabe 351	R	Ø	TA	None	Ø/2nd G.	N/A	N/A	Y (rare)	N
Arabe 362 b	R	Ø	TA	None	Ø/2nd G.	N/A	N/A	Y (rare)	N
Arabe 334 l	R*	B-*/G.	TA	Gnūn	Ø/2nd G.	N/A	N/A	Y (rare)	N
Arabe 381 e	R	Ø	N/A	None	Ø/2nd G.	N/A	N/A	N	N

6 Distinguishing Warsh Manuscripts from Green *hamza* Manuscripts

There are a number of manuscripts that use red dots for *hamza* which are written in the reading tradition of Warsh. Many of these manuscripts also use green to mark a secondary reading that has a more conservative retention of *hamza*. Because of this, a quick examination may leave someone examining such a manuscript with the impression that the manuscript marks the *hamza* with green.⁴⁸ But in these manuscripts, when we look closely, we can see quite

⁴⁸ For example, F. Déroche identifies Paris, BnF, Arabe 341 a, 349 a, 351, 362 b, 334 l, 381 e as manuscripts that mark *hamza* in green. But in reality, these are all manuscripts written in the transmission of Warsh that mark *hamza* in red whenever it occurs, whereas a secondary reading in green marks *hamza* where Warsh would drop it (see F. Déroche, *Manuscripts du coran*, pp. 100, 101, 102, 103 and 106).

clearly that the *hamza* is written with red as its primary reading. In places where Warsh would retain *hamza*, e.g., word-initial *hamza* when not directly preceded by a consonant, or when *hamza* occurs as the second or third root consonant, they simply mark the *hamza* in red. See the examples of Arabe 351 below.



FIGURE 4.19 Arabe 351, f. 1r, l. 2: *fa-ʾulāʾika*
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FIGURE 4.20 Arabe 351, f. 3r, l. 2: *an-nisāʾi*
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However, it is important to make a distinction between red-*hamza* manuscripts that mark *hamzas* in green with a secondary reading from manuscripts that consistently mark *hamza* in green as their primary reading. Manuscripts that consistently mark *hamza* in green do exist and, unlike the manuscripts with yellow *hamza*, do not seem to correlate with the reading of Warsh at all. As a result, there is no reason to think that such manuscripts would stem from North Africa and they rather seem to represent a separate vocalisation practice. It is worth noting that medieval manuals on vocalisation tend to recognise the yellow and red *hamza* practice, but I am not aware of manuals that acknowledge the existence of green-*hamza* manuscripts.

It is exactly because the medieval authors do not give us information about manuscripts with green *hamza*, that we need to keep these clearly distinct from red-*hamza* manuscripts that just happen to represent a secondary

reading in green that has more *hamza*-s than its primary reading. Manuscripts with green *hamza* should be studied as a distinct sub-corpus to see if they correlate in any way with script style, reading, ornamentation etc. While a full study of green-*hamza* manuscripts is outside the scope of the current article, I will finish this paper with a list of manuscripts that have genuine green *hamza* kept in the Bibliothèque nationale de France: Arabe 325 a (B.Ib), Arabe 339 (D.I), Arabe 346 a (D.I), Arabe 348 j (D.I), Arabe 358 f (D.I), Arabe 366 f (D.I), Arabe 5178 f (D.I), Arabe 325 i (D.III), Arabe 349 d (D.III), Arabe 356 a (D.III), Arabe 356 b (D.III), Arabe 360 a (D.III), Arabe 362 a (D.III), Arabe 342 c (D.Va), Arabe 344 b (D.Va), Arabe 359 b (D.Va), Arabe 383 b (D.Va), Arabe 368 (D.Vb), Arabe 373 a (D.Vb), Arabe 373 d (D.Vb), Arabe 334 j (D.Vc), Arabe 352 h (D.I/D.III), Arabe 342 b (NS.I), Arabe 377 a (NS.I), Arabe 377 b (NS.I), Arabe 383 a (NS.I), Arabe 370 a (unclassified).

7 Conclusion

In this paper we have examined manuscripts that use a yellow dot to mark the *hamza*. Medieval scholars associate this practice with Medina and the Maghrib. A careful examination of the reading tradition such manuscripts represent shows that the majority of them represent the reading tradition of Warsh 'an Nāfi'. This not only gives us a firm *terminus post quem* of 197/812 (Warsh' death date) for the production of the vocalisation of these manuscripts, but it also helps confirm the association of the yellow *hamza* with North Africa, as the reading of Nāfi', especially in the transmission of Warsh, has traditionally been popular with Maliki North Africa (as it still is today).

It has been shown that a number of orthographic innovations using thin coloured lines, such as the marking of the dropping of *hamza*, the *alif al-waṣl*, the marking of *iḥḥār*, *sukūn*, *madd* and *shadda*, commonly occur with yellow-*hamza* manuscripts. These all point to a trend in Maghribī manuscript production with an increased concern for representing precise features of Qur'ānic orthoepy, which eventually find their apex in the Maghribī style Qur'ānic manuscript tradition.

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