



# What Are Those Few Dots For? Thoughts on the Orthography of the Qurra Papyri (709-710), the Khurasan Parchments (755-777) and the Inscription of the Jerusalem Dome of the Rock (692)<sup>1</sup>

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## Introduction

“What are those few dots for?” The question seems to be rather odd. Are not dots meant to define an ambiguous *rasm* كسب which might be read as كسب *kitāb* or كسنت *kuntu*? The same way we use vowel signs to distinguish between كاتبت *katabta* and كاتبت *katabtu*? The approach we intuitively take is one of reading Arabic in three layers. A *first layer* would be the one of the most ambiguous

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<sup>1</sup> For diacritical dots in Arabic, see Houdas 1886, 94; 96-98; 106-109; Moritz 1913, 400b-401b; 405b-406a; Hirschfeld 1919-1920, 165; 168-171; Grohmann 1924, 70-72; Bergsträsser and Pretzl 1938, 257f.; Abbott 1939, 38-41; 44; 54f.; Jeffery 1940, 195; 197f.; Miles 1948, 240f.; Grohmann 1952, 82-87; Grohmann 1954, 100; Grohmann 1958, 226f.; 230f.; Grohmann 1966, 95f.; Blau 1966-1967, 75 n. 64; 84 n. 4; 86; 111 n. 162; 122; Grohmann 1967-1971, part 2, 41f.; Kessler 1970, 12-14; Sourdel-Thomine 1971, 1151b; Abbott 1972, 3-6; 8f.; 11; Ettinghausen 1974, 300-302; Revell 1975; Endress 1982, 174-176; Bierman 1989, 284; van den Boogert 1989, 32; 38; 41; Healey 1991-1992, 45; Rāgīb 1991a, 16-20; Tabbaa 1991-1994, explicitly part 1, 125; 138; 140; part 2, 127; 130; 135; 138; Gruendler 1993, especially 1; 11; 16; 22f.; 31; 125-127; 131; Jones 1998; Déroche 2000, 238-240; Bierman 2001, 27; Troupeau 2003, 710; Noja Noseda 2005: 278-282; 290; Gruendler 2006, 151f.; Hoyland 2006, 403; 414; Robin 2006, 320; 339; 341; 343-345; 350f.; Khan 2007, 80.—For Arabic orthography in general, see Bergsträsser and Pretzl 1938, 19-57; Köbert 1960; Blau 1966-1967, 61-130; Abbott 1972, 3-17; Ettinghausen 1974, especially 313-317; Diem 1979-1983; Blau 1981; Diem 1982; Hopkins 1984, 1-61; van den Boogert 1989; Khan 1991-1992, 56-58; Tabbaa 1991-1994; Fischer 1992; Bauer 1994-1996; Blau 2002, 29-36; Grand’Henry 2006, 383f.; Gruendler 2006; Hoyland 2006, 403; Robin 2006.—I am much indebted to Geoffrey Khan (Cambridge), Petra Sijpesteijn (Paris) and Robert Hoyland (Oxford) for helping me to get hold of literature.

*rasm* of undotted characters, like e.g. كَب *kitāb/kataba/kuntu/kunta*.<sup>2</sup> To this *rasm*, we add dots, to have a *second layer* with unambiguous characters but no vowel signs: كَب *kitāb/kataba* vs. كُت *kuntu/kunta*. To this, again, we add vowel signs, to get a *third layer*, the seemingly unambiguous dotted and vocalized characters: كَتَبَ *kataba* vs. كَتَبَ *kitāb*. In phrases, we find a *layer zero* where non-connecting characters mark the word end, like فان هسام *fā-inna hišāma* vs. فانه سام *fā-innahu sāma*.<sup>3</sup> The whole system seems to be a kind of multi-layered shorthand, a tool of well-trained scribes to make writing as easy and quick as possible.

But things are not as simple as that. Since the spread of print culture in the Middle East, i.e. since the second half of the 19th century, our second layer has become the standard layer and texts are almost completely written with dots, resembling the Latin script's consonants and long vowels, sometimes with a few vowel signs added. Quotations from the Koran and poetry as well as school books are written in our third layer, i.e. fully dotted with vowel signs added. Korans usually even add a system of recitation markers—yet another, *fourth layer*.

Things were different in the times of scribal culture.<sup>4</sup> Scribes did not sprinkle their texts with dots, let alone vowel signs, but used them reluctantly—the degree of reluctance seems to have been a matter of changing fashions. In our three main corpora (see below), the same word occurs with and without dots between one out of seven and one out of ten times.

But what were those few dots for? A closer look reveals that they were only rarely added to define the ambiguous *rasm* of a given word, to know *kitāb* from *kuntu*, the way we today use vowel signs to distinguish *katabtu* from *katabta*.<sup>5</sup> There was almost no need for that, as well-trained scribes definitely knew that كَب, if found as part of هدا كَب من, had to be read (*hādā*) *kitābun* (*min...*) “(This is) a writ (of...)” (P.Heid.Arab. I 5.2; 6.3; a.3, etc.), while with كَب كَب, as (*qad*) *kuntu* (*katabtu*) “I had (written to you)” (P.Heid.Arab. I 3.6-7).<sup>6</sup> The needs of the small elite of professional scribes, all

<sup>2</sup> In the Qurra papyri, كَب stands in almost all instances (over 60 tokens) for *kitāb* (e.g., P.Heid.Arab. I 5.2; 6.3; a.3), but also for *kataba* (P.BeckerPapyrusstudien.8; P.Cair.Arab. 151 r.7; 151 r.16), *kuntu* (P.Heid.Arab. I 3.6; P.Qurra 4.19), and *kunta* (P.Cair.Arab. 147.9).

<sup>3</sup> فان هسام *fā-inna hišāma* (P.Cair.Arab. 151r.6).—There is next to no research on connecting characters, etc. (Fischer 1992, 137; Déroche 2000, 233), but see Hirschfeld 1919-1920, 165.

<sup>4</sup> For the difference between scribe and print culture, see Roper 1995.

<sup>5</sup> Grohmann 1952, 83; Rāgib 1991a, 16 both emphasize that diacritical dots often occur with almost unambiguous words and are absent where we really miss them. Abbott 1972, 9 also stresses the random use of diacritical dots and vowel signs.

<sup>6</sup> Quite similarly, Arabic inscriptions are almost unreadable for those who need to decipher them word by word, whereas for the educated a few formulas are sufficient to fill in the parts in

intimately involved in writing and reading documents, were quite different from those of modern authors writing for a mass public of occasional and professional readers.

## Sources

Let us now go back to the beginning of Arabic scribe culture and look at those early dots again. On the following pages, I shall analyse three of the oldest corpora in existence:<sup>7</sup> the official letters of Qurra b. Šarik, the Muslim governor of Egypt, written around 90-91/709-710, the letters stored in the family archive of a certain Mīr b. Bēk south of Balḥ, from 138/755 until 160/777, and the mosaic inscription inside the Jerusalem Dome of the Rock, commissioned by ‘Abd al-Malik b. Marwān, caliph of the Islamic Empire, carrying the date of 72/692. To this I will add a few papyri and inscriptions of the first century of the *Hiğra*. It goes without saying that all three corpora show the ravages of time. As for the papyri, they were discarded after some time and this resulted in minor and major damage. The inscription, on the other hand, has always been prominently on display and therefore been subject to political demands. But apart from that, all three have mostly survived in their original state.

The more than hundred *official letters of Qurra b. Šarik* in Greek and/or Arabic might reasonably be considered a corpus. They focus on one topic, i.e. on the tribut those in charge in the Upper Egyptian province of Išqawh or Aphrodito should have collected or had already delivered. These documents have mostly been studied with regard to the transition from Byzantine Greek to Muslim Arab administration. Till now the Arabic text of about 70 of them has been published but more might be found. The following remarks are based, if possible, on the editions, i.e. where the editions dealt with the dots I relied on them, if not, I used the plates leaving out all ambiguous cases.<sup>8</sup>

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between; Ettinghausen 1974, 306; Tabbaa 1991-1994, part 2, 119; Bierman 2001, 25f. (with further references).—For this *contextual literacy*, see Bierman 2001, 25f.

<sup>7</sup> The fourth major corpus in existence, coins and seals had to be neglected due to its big size. For diacritical dots on coins see, however, Grohmann 1967-1971, part 2, 41 n. 4.

<sup>8</sup> Arabic Qurra papyri used were P.Heid.Arab. 1-19; 21-22; a-l; P.BeckerPAF 1-14; 15.2; 15.3; 17; P.BeckerNPAF 1-16; P.GrohmannQorra-Brief; P.Ross-Georg. IV 10; 12; 14; 27.I.h; P.Cair.Arab. 146-166; P.CadellFragments 1; P.DiemAphrodito, 272; actually, a good number of the editions are re-publications. For a list of all Arabic Qurra papyri published, see Diem 1984a, for a survey of all Greek and Greek-Arabic Qurra papyri published, Cadell 1968, 142-152.—All Arabic Qurra papyri, with most later emendations, can be found in the Arabic Papyrology Database (<http://www.ori.uzh.ch/apd>). For the latter, see Kaplony 2007.

At first sight, these documents seem to be devoid of dots. A closer look, however, reveals that there are some dots, in part rather strokes. These mostly follow the rules we use today, with *fā'* and *qāf* being represented in some cases in the *Mašriqī* way (one dot above vs. two dots above), in some others in the *Mağribī* way (one dot below vs. one dot above), and some even in a third way (*qāf* having one dot below), and *alif* to design long *ā* occasionally missing.<sup>9</sup> Search as diligently as you may, you will find no word which is dotted consistently—not even within a single document—, no lemma, no root, no stem and no word category. All words, roots, stems and word categories are in most cases without dots. Putting dots was in no case compulsory.

One of the most fascinating findings of Arabic papyrology are the thirty-two *official letters from the family archive of Mīr b. Bēk* (P.Khurasan). Most of them are tax-receipts proving that the family had delivered the annual tribute. These documents were issued half a century after those of Qurra b. Sharīk, in the Early 'Abbāsīd period. They originate from a small place called Asp south of Balḥ (today Mazār-i Šarīf in Afghanistan) and not from Egypt, as most Arabic documents of this time do. Their recent publication opens up new horizons for Arabic orthography: the dots found in them are put in the same way as those of the Umayyad period.

This is also the case in the *monumental inscription inside the Jerusalem Dome of the Rock* (MCIA Jérusalem 216, here quoted as DR).<sup>10</sup> Being high above below the ceiling on the outer and inner façade of the octagonal arcade, this is in fact the oldest Muslim theological statement existing, with a strong bias against Christian theology. Therefore it has mostly been studied in the context of the many religious and political claims connected with Jerusalem, the central city of the Late Roman Mediterranean, to legitimise political rule. Dots occur very unevenly on the two sides of the arcade: they are quite frequent on the inner side,<sup>11</sup> but on the outer side only one word is dotted. The dots are almost invisible and it has been claimed that they were added later,

<sup>9</sup> All instances are given in the appendix.—For the peculiarities of Mağribī orthography, see Houdas 1886; Moritz 1913, 401ab; 407ab; Grohmann 1924, 71; Grohmann 1952, 84f.; Bergsträsser and Pretzl 1938, 258; Abbott 1939, 41-44; Kessler 1970, 14; Endress 1982, 175f.; Gruendler 1993, 126; Rāğīb 1991a, 18; van den Boogert 1989; Déroche 2000, 237; 239; Gruendler 2006, 152.

<sup>10</sup> Instances are quoted by the number of the note in Kessler 1970.—The inscriptions on the bronze tablets (MCIA Jérusalem 216-217), formerly on the building's east and north doors, now in the Islamic Museum, seem to be devoid of diacritical dots (van Berchem 1922-1949, part 2, p. 248; pl. XI.1; XI.2).

<sup>11</sup> The inscription differs on both sides in two more palaeographic peculiarities: on the inner side there is a strict baseline (Gruendler 1993, 94 n. 129), and no ornaments divide the parts of speech (Kessler 1970, 11).

when the 'Abbāsids claimed the building for themselves, but this has been refuted in an exhaustive analysis by Christel Kessler. The dots basically follow the same rules as the Qurra papyri, with *qāf* and *fū* being represented in the *Mašriqī* way (*fū* with one dot above), in the *Mağribī* way (*qāf* with one dot above), or in the third way mentioned above (*qāf* with one dot below), long *ā* occasionally written in *scripta defectiva*, and no *hamza*.

These findings, finally, should be put in the context of all other Arabic documents preserved from the first century of the *Hiğra*. Going through all the material would have been beyond our scope, but the evidence has, fortunately, already been sifted by Beatrice Gruendler, and I restrict myself almost completely to her choice.<sup>12</sup> In the *papyri* she describes, dots are found on four tax receipts, on a tax payment request (ἐντάγιον) to the people of Naštān near Gaza and on another one to the people of Ahnās, on three protocols, on a petition from Central Asia written on leather, and on a business letter on parchment written across a Latin Bible text.<sup>13</sup> Dots are also found on early *inscriptions*: on two inscriptions near Madā'in Šāliḥ mentioning a certain Zuhayr, on the building inscriptions of two dams near Ṭā'if and near Medina, on a milestone from Bāb al-Wād near Jerusalem, on the legend on the painting of the six rulers in Quṣayr 'Amra B and on the Bowl of Sulaymān [b. 'Abd al-Malik], on an inscription in Mecca, and on a blessing found in Qaṣr Ḥarāna A.<sup>14</sup> These widely dispersed papyri and inscriptions, obviously, are *no* corpus and any conclusion based only on them would be premature, but they are perfectly useful to complete the image we get from our three main corpora.

#### A. Affixes (16 Types, 130 Tokens)

In all these texts there are dots. Presuming that those professional scribes did not put them at random, let us try and find a pattern in the way the few

<sup>12</sup> Gruendler 1993, with convenient plates of most of these papyri and inscriptions published in widely dispersed places.

<sup>13</sup> The tax receipts: PERF 558 (22/643); P.DiemAphrodito, 272 (22/643); P.Grohmann-Papyrusprotokoll 1 (ca. 22-54/643-670); PERF 573 (57/677). The tax payment requests: P.Grohmann-Papyrusprotokoll 2 (54/674); P.DiemFrüheUrkunden 2 (ca. 65-86/685-705). The protocols: P.Grohmann-Papyrusprotokoll 1 (ca. 643-670); P.BeckerLateinisches 3 (88/706); P.BeckerLateinisches 1 (92/711). The petition from Central Asia: P.Kračkovskiy (ca. 99-100/718-719). The business letter: P.RagibPlusAncienneLettre (7th c.).

<sup>14</sup> The two inscriptions near Madā'in Šāliḥ: Zuhayr A and B (22/642). The building inscriptions of the dams: Ṭā'if (58/766); Medina (41-60/661-680). The milestone from Bāb al-Wād: MCIA Jérusalem 2 (64-86/685-705). The legends on the six rulers' painting and on Sulaymān's Bowl: Quṣayr 'Amra B (after 711); the Bowl of Sulaymān (before 96/715). The inscription in Mecca: Mecca (80/699). The blessing: Qaṣr Ḥarāna A (92/710).

existing dots were put. Did some places attract dots more than others? A close analysis of our material shows that one third of all dots go with affixes, another third with particles. Of the remaining ones, one half concerns a small choice of verbs and nouns, while the other half is made up of verbs and nouns occurring only once with dots; occasionally dots help to read non-Arabic names and terms.

About one third of all dots concern affixes (i.e. pre-, in- and suffixes)<sup>15</sup> of ambiguous *rasm*. Thus, with verbs, we have dots on the suffixes *-tu*, *-ta*, *-tum* of the perfect (suffix-mode), on *ta-* and *tu-*, *ya-* and *yu-*, and the suffix *-ūna* of the imperfect (prefix-mode) and its derivations, and on *-anna* of the *energicus*. With stems, dots figure on the prefix *ta-* of stem V, as well as on infix *-ta-* of stem VIII and prefix *-sta* of stem X, even in the perfect of the two latter where the *rasm* is, due to *alif al-waṣl*, unambiguous.<sup>16</sup> With nouns, dots go with the prefix *ta-* of the infinitive of stem II, and with the suffixes *-ina* of the strong masculine plural, *-at* (written with *tā' ṭawīla*, not with *tā' marbūṭa!*) of the feminine singular, and *-āt* of the feminine plural. No dots are found on the perfect suffixes *-t* and *-nā* and the imperfect prefix *na-*, although all go with an ambiguous *rasm*. Let us add that stem II, although in *rasm* easily confounded with stem I, never is marked as such.

Affixes of unambiguous *rasm* need no dots. Both the perfect and the conjunctive suffix *-ū* are marked by *wāw* + *alif al-wiqāya*,<sup>17</sup> as are the imperfect prefix *-a* and the imperativ prefix (*i-*)<sup>18</sup> by *alif al-waṣl*. Stem III is clearly marked, in *rasm*, by the inclusion of *alif*, *wāw* or *yā'*, and stem IV has the characteristic prefix 'a. Stems VII, IX, XI, etc. do not occur.

All other affixes do not occur in our texts. These are the perfect suffixes *-ti*, *-tī* (Middle Arabic), *-ā*, *-atā*, *-nā*, *-tū* (Middle Arabic), *-tunna*, *-na* and the imperfect suffixes *-ī* (Middle Arabic), *-ina*, *-āni*, *-ā* (Middle Arabic), and *-na*.

## B. Particles (17 Types, 124 Tokens)

As often as with affixes do dots go with particles—another third of all occurrences. This concerns the prepositions *min*, 'an and 'inda, 'alā, ilā, fi, bi-, ba'da, bayna, ḥīna, qabla and min qibali, the conjunctions in, an, inna and

<sup>15</sup> Enclitic personal pronouns like *-ī* and *-nī* never carry dots.

<sup>16</sup> For *alif al-waṣl* marking stems VIII and X, see Diem 1979-1983, part 4, 374-378; Fischer 1992, 141.

<sup>17</sup> For *alif al-wiqāya* as the visual marker of the masculine plural, see Bergsträsser and Pretzl 1938, 41f.; Altheim and Stiehl 1965-1967, part 1, 369; part 2, 5f.; Diem 1979-1983, part 4, 388-395; Hopkins 1984, 51f.; Fischer 1992, 137.

<sup>18</sup> For *alif al-waṣl* marking the imperative of stem I, see also Diem 1979-1983, part 4, 376.

*anna*, *fā-*, and *idā*, and the aspect intensifier *qad*. Obviously, most of the time dots are switched off, but if they are on, there is no doubt where to put them.

This suits the fact that the basic unit of Arabic orthography is *not* the single character, but the single word as written *in pausa*,<sup>19</sup> and that Arabic orthography is *not* phonetic, but “paradigmatisch-derivationell,”<sup>20</sup> i.e. it makes the etymology and morphology of a given word shine through.<sup>21</sup> Thus, e.g. in *بالطعام* *bi-ṭ-ṭā’āmi* (P.Heid.Arab. I 2.28), the reader is visually guided to interpret, first, ٱ as the definite article *aṭ-* followed by a noun beginning with *ṭ*..., and to read, second, ٱ marked by a dot as the preposition *bi-*, and, finally, he is left only with the noun *طعام* *ṭā’ām*. Similarly, in *ويستكر* *wa-yastakbiru* (DR 36), one reads ٱ at the beginning of a word as the conjunction *wa-*, continues in the word following with the imperfect prefix ٱ *ya-/yu-* and the infix *-st-* of stem X, and ends up with the root *k-b-r*.<sup>22</sup>

Dots are—both with prepositions and with particles—used to mark them as such, i.e. as very frequent, but secondary elements.<sup>23</sup>

#### C.1-2. *Nouns and Verbs Dotted Occuring Twice or More (35 Types, 140 Tokens) and Nouns and Verbs Occuring Only Once (70 Types/Tokens)*

Matters are different with the dotting of certain nouns and verbs. A good number of them occurs, in our three corpora, at least twice (and are also well attested thus in later documents). Verbs regularly dotted are, e.g. *أخذ* *ahada* “to

<sup>19</sup> Bergsträsser and Pretzl 1938, 27; Blau 1966-1967, 78 n. 82; Diem 1979-1983, part 3, 34; 378; part 4, 359-362; Fischer 1992, 141; see also Bauer 1994-1996, 1435.—The reference to the form *in pausa*, however, is only descriptive, as Diem 1991a shows that the transition from *Altarabisch* to *Neuarabisch* was not caused by a generalisation of forms *in pausa*. Fischer 1992, stresses the function of orthography to differentiate between homograph words, but refuses (p. 147f.) to use this as a historical explanation.

<sup>20</sup> Diem 1979-1983, part 4, 359-371; Diem 1982, 185f.; Gruendler 2006, 153; see also Bauer 1994-1996, 1435. The fact that Arabic orthography marks morphemes, prefixes, and suffixes visually has also been stressed by Endress 1982, 178.

<sup>21</sup> Fischer 1992, 139: *Die nichtphonologische Darstellung von ā am Wortende durch <y> erhöht auf jeden Fall die morphologische Durchsichtigkeit des verschrifteten Textes... was für die Erkennbarkeit der jeweils vorliegenden Wortform von nicht zu unterschätzender Bedeutung ist. Gerade dieser Umstand macht deutlich, dass diese Eigenheit der arabischen Orthographie etymologisch motiviert ist, wie auch immer man ihre Entstehung historisch erklären mag...*

<sup>22</sup> Similarly Fischer 1992, 138f. for the imperfect of verbs III *tertia infirmae*, like *يبتق*, where the ambiguity of the final *alif maqṣūna* is eased by the unambiguousness of the prefix *ya-*.

<sup>23</sup> The convention of writing each of those Arabic parts of speech in a particular way to make them easily recognisable seems to have been so strong that the *Psalmfragment* (ca. 800) transcribes the article before both moon- and sunletters with Greek *ελ-*, and *تā marbūta* with Greek *-b*, i.e. *-b*, Violet 1901, 430-432; Blau 1966-1967, 61; 115; Hopkins 1984, 44.

take,” بعث *ba'ata* “to send,” اعطي *a'ta* “to give,” كتب or كتب *kataba* “to write,” as are nouns like ارض *ard* “earth,” ابن *ibn* “son,” سنة *sana* “year,” كتب *kitāb* “writ,” كيل *kayl* (a measure unit), نفس or نفس *nafs* “soul,” and ناس *nās* “people”.

Other words occur, in our corpus, only once with dots, but the more documents we find, the more likely it is that we can assign them to the group of words regularly carrying dots. Such words are, e.g. اتي *ata* “to come,” جعل *ǧā'ala* “to do,” خير *hayr* “good,” دين *dīn* “religion,” رب *rabb* “lord,” ربا *ribā* “usurious interest,” عاجز *ā'iz* “unable [to carry out an official's duty],” عا<sup>24</sup>جر *šay* “something,” معين *mu'in* “supporting [said of God],” وانظار *intizār* “waiting.”

There is no doubt that these verbs and nouns, most probably, were *not* dotted to mark them as elements of secondary importance, but to make them easy to recognize. Their dotting might be influenced by the tradition of orthography<sup>25</sup> but, at least for the moment, this remains conjectural.

### C.3. (Mostly) Non-Arabic Names and Terms (54 Types, 64 Tokens)

Only marginally do we find diacritical dots in the narrower sense, i.e. to help the scribe to decipher a specific term. This is mostly found with Non-Arabic terms in transcription but even then full dotting occurs rarely.<sup>26</sup> Thus, we have personal names like Greek *basīl(ab)* “Βασιλείος” and Bactrian *zīran* “Ζηρανο,” and place names, often based on a Greek term frozen in the genitive, like *ūrus* [sic] *marīya* “the ὄρος [monastery] of Μαρίας,” *šubrā aǧīyuh bīnūtiyuh* “the χωρο [homestead] Ἀγίου Πινουτίου,” and *šubrā anfidawdun* “the χωρο [homestead] Ἐμφοτευτῶν.”

Many of these names (12 tokens) occur in the 17 ἐντάγια issued by Qurra as names of the communities which, in these ἐντάγια, had been assigned their share of the annual tribute. Additionally, all these ἐντάγια were written by Rāšid, the scribe of our corpus who was especially negligent in putting the Arabic *casus*.<sup>27</sup> Other occurrences (5) can be traced to one of five scribes: aṣ-Ṣalt, Yazīd, Murtid, Wāzī, and Muslim b. Lubnān. Yazīd and aṣ-Ṣalt are also

<sup>24</sup> For the orthography شاي *šay*, see Bergsträsser and Pretzl 1938, 49; 56f.; 254f.; Diem 1979-1983, part 2, 103f.; Hopkins 1984, 8; 17f. (with further references).

<sup>25</sup> The importance of orthographic tradition, in our case the influence of Aramaic on Arabic orthography, has been shown convincingly by Diem 1979-1983, and also been stressed by Hopkins 1984, 12; 20; 50f.

<sup>26</sup> Hirschfeld 1919-1920, 171 stresses the fact that diacritical dots are more often found with names of persons and places. Similarly, Punic inscriptions mark the ending of a word more often, if mixed with Berber; Hirschfeld 1919-1920, 163. In Syriac, dots might go with names foreign in origin and unfamiliar to readers of Syriac; Segal 1953, 19.

<sup>27</sup> Diem 1984a, 269.

responsible for dotting Greek administrative terms like *irdabb* “ἄρτάβη,” *ḡasṭāl* “κουίστωρ, quaestor,” *dīnār* “δηνάριον,” *māzūt* “μειζότερος [village elder],” and *kūra* “χώρα [district]” (where the feminine suffix *-at* might be dotted, see above).

In some cases, only one dot was put in a context, but in most cases, dots were put in clusters, i.e. a scribe who had put one dot carried on, for some lines, sparsely dotting affixes and prepositions. In other cases, words which already had a proper dot were provided with some more, even *not* on affixes—a characteristic of the scribe Yazīd.<sup>28</sup>

#### D. Mistakes (44 Types, 45 Tokens)

What about mistakes, possibly due to quick writing? Indeed, dots were misplaced inside the same word, like *فبالا* which obviously needs to be read *فبالا* *qabbālan* (P.Heid.Arab. I 3.25) or *لقد* which should have been *لقد* *la-qad* with *qāf Maḡribī* (P.Qurra 4.19). There is the case of *الس/ال* split over two lines where *س* *sīn*, at the beginning of the second line, carries a distinct dot which, I guess, should have its place on the *nūn* of *ال* at the end of the first line (P.Cair.Arab. 148.9-10). Dots were sometimes erroneously placed at the preceding or following word. In other cases, dots were placed so low that they seem to belong to the line below. Other mistakes occur where words were dotted like similar prepositions and conjunctions, and single dots were put instead of double ones. One case remains simply enigmatic.

### Conclusions

How can we put our results in a wider context? The spare use of dots made writing quick, and reading the exclusive business of professional scribes. An outsider who tried to decipher words had no chance—one had to know in advance what the meaning was. This high level of ambiguity made Early Islamic administration almost as exclusive a business as Middle Persian administration had been—definitely another approach than the much more reader-friendly way Greek and Coptic were written and read, character by character or, in many cases, abbreviation by abbreviation.<sup>29</sup>

<sup>28</sup> Some dots are needless and even superfluous. Rāḡib 1991a, 18, e.g. quotes a later document kept in Yale where in *الرحم الرحيم* *ar-rahmān ar-rahīm*, not only *rā* has a dot below to distinguish it from *zāy*, but both *mīms* are dotted as well.

<sup>29</sup> Hirschfeld 1919-1920, 165 interprets the absence of word-separating dots and the existence of cursive writing, in Nabatean, Palmyrene, Mandaic and Arabic, as a sign of widespread literacy, sc. of those for whom these documents were meant.

Those scribes of Arabic used dots for two purposes. They used them, first, to mark affixes and, thereby, certain *grammatical categories*. This, at first sight, seems strange. But let us remember that Classical Arabic standard orthography still marks, on the *rasm*, a number of grammatical categories, such as e.g. the feminine suffix *-at* by *tā' marbūṭa*, and the masculine plural by *wāw* + *alif wiqāya*. Christian Middle Arabic orthography even tends to mark on the *rasm* the suffix *-a* of all feminine nouns with *tā' marbūṭa*, thus عصاة 'aṣāh "rod",<sup>30</sup> and the suffix *-i* of the feminine singular pronoun, perfect and imperfect with *yā'*, as in انتي *anti* "you (f.)", تركي *tarakti* "you (f.) left", and كتبي *taktubi* "you (f.) are writing",<sup>31</sup> not to speak of the use of the vowel sign *ḍamma* to mark the passive, as, e.g., وصلب *wa-ṣuliba* "and he was crucified" and even انفق وافق *unfaq wa-unfaq* "I shall spent and be spent".<sup>32</sup> If we look at other languages, Aramaic marks Arabic masculine nouns with *-w*.<sup>33</sup> Syriac puts a diacritical dot above or beneath a given *rasm* to differentiate between a stronger and a weaker pronunciation, as, e.g. *haw* "that" vs. *hū* "he" and *qōṭēl* "killing" vs. *qṭal* "he killed", and two dots for the plural of nouns as in *malkē* "the kings" and *malkāṭā* "the queens". Persian likes to write the *ī* of the *iḍāfa*, and *mī*, the marker of the imperfect, separately. We might also think of the French plurals ending on *-s* and *-x*, spoken—secondarily?—only in binding, and of some of the feminines on *e muet*.

Those scribes, secondly, focused their spare use of dots onto a small choice of *individual words*. Those words were mostly prepositions and a few frequently used verbs and nouns, plus some terms used occasionally, *inter alia* transcriptions of Greek and Bactrian names and terms.<sup>34</sup> And, again, the custom of writing certain words in different ways is well-known from Classical Arabic orthography, where words like الله *Allāh* and هذا *hādā*, etc. need to be written in *scriptio defectiva*. There are special cases like عمرو *Amr* and مائة *miya*, and in some cases final *-ā* is written with *alif maqṣūra*.<sup>35</sup> Apart from Arabic, this phenomenon is even widespread in Western languages like English and French, not to speak of the imponderabilities of the post-modern German

<sup>30</sup> Blau 1966-1967, 118 n. 198; Hopkins 1984, 46-48; Blau 2002, 34.

<sup>31</sup> *Anti*: Blau 1966-1967, 133; Hopkins 1984, 63; *katabi*: Blau 1966-1967, 145f.; Hopkins 1984, 68f.; *taktubi*: Blau 1966-1967, 133.

<sup>32</sup> Blau 1966-1967, 74 n. 59.

<sup>33</sup> For Aramaic *-w* with Arabic masculine *nomina propria*, see Diem 1973; Diem 1979-1983, part 1, 219; Robin 2006, 325; 339f.

<sup>34</sup> Diem 1979-1983, part 1, 217; part 2, 78. Diem 1979-1983, part 2, 79f. also supposes that (Greek and Latin) foreign words in Aramaic were written differently from Arabic words with their close relationship to Aramaic words.

<sup>35</sup> For the particular orthography of individual words, see Diem 1976, 259; Diem 1979-1983, part 3, 368f.; Diem 1982, 186; Fischer 1992, 136.

print-culture where the ability to play with orthography has become a major feature to distinguish the educated from the uneducated.

Andreas Kaplony

## Appendix A: Instances of Dotted Words<sup>36</sup>

### Ad A. Affixes

Suffix *-tu*: اردت *aradtu* (P.Cair.Arab. 149.11), امرت *amartu* (P.Heid.Arab. I 2.24; 2.38; 3.36; 3.78; P.RagibQurra 1.6), امرتك *amartuka* (P.Heid.Arab. I 3.56; P.Qurra 4.17), حاصمتك *ḥāsamtu* (P.Khurasan 25.2), فصت *qabadtu* (P.Khurasan 6.17), لست *lastu* (P.Qurra 4.29), نزعته *naza'tubulnaza'tabu* (P.Cair.Arab. 158.9), [اعدت] *a[nfad]tu* (P.RagibPlusAncienneLettre.7).—Suffix *-ta*: احدث *ahadta* (P.RagibQurra 2.13), امرت *amarta* (P.Heid.Arab. I 3.60), بعث *ba'atta* (P.Cair.Arab. 149.18), جعلتها *fa-ǧ'altahā* (P.RagibQurra 2.16), جمعت *ǧama'ta* (P.Cair.Arab. 149.18), استخلفتها *istahlafatuhu* (P.RagibQurra 2.6), فدكت *fa-dakarta* (P.RagibQurra 2.11), رجعت *raǧa'ta* (P.Qurra 2.9), زعمت *za'amta* (P.Qurra 2.7), سألت *sa'alta* (P.Cair.Arab. 150.14), علمت *'alimta* (P.Qurra 4.4), عرمته *ǧarramtahu* (P.Cair.Arab. 152.7), [فرصت] *faradta* (P.Heid.Arab. I 3.51), فصت [فصت] *qabadta* (P.Cair.Arab. 149.12), قدمت *qadimta* (P.RagibQurra 2.7), كتبت *katabta* (P.RagibQurra 2.3), نزعته *naza'tubulnaza'tabu* (P.Cair.Arab. 158.9), انهبت *anhabta* (P.Cair.Arab. 158.11), وحدت *waǧadta* (P.Heid.Arab. I 3.48), وحدته *waǧadtahu* (P.RagibQurra 2.8).—Suffix *-tum*: اعطيت *a'taytum* (P.Heid.Arab. I 8.7), فضيت *qadaytum* (P.RagibPlusAncienneLettre.6), كتبت [read: كتبت] *kuntum* (P.RagibPlusAncienneLettre.6).—Prefix *ta-*: تدر *tadkuru* (P.RagibQurra 2.4), تترن *tamtarūna* (DR 47) ولا تقولوا *wa-lā taqūlū* (DR 13), ولا تقولوا *wa-lā taqūlū* (preceding DR 20), ولا تكلم *wa-lā takilanna* (P.Heid.Arab. 3.73).—Prefix *tu-*: لا تعلموا *lā tuǧlū* (DR 11), ولا توحرن [read: ولا توحرن] *wa-lā tu'ahhiranna* (P.Heid.Arab. I 2.34), احتاسبه *ḥattā tuhāsibahu* (P.RagibQurra 2.11).—Prefix *ya-*: ان يتخذ *an yattahida* (DR 48), لم يتخذ *lam yattahid* (DR 72), يبلعك *yabluǧka* (P.Heid.Arab. I 3.61), يبيعون *yabī'ūna* (P.Heid.Arab. I 2.6), فليبيعوه *fa-l-yabī'ūhu* (P.Heid.Arab. I 2.22; P.Cair.Arab. 147.3), فليبيعوه [read: فليبيعوه] *fa-l-yabī'ūhu* (P.Heid.Arab. I 2.31), فسبحشهم *fa-sa-ḥaššurhum* (DR 37), فيربون *fa-yarbūna* (P.Cair.Arab. 158.1), يتعهد *yata-'ahhadahu* (P.RagibQurra 1.20), يعدم *yaqdamu* (P.Heid.Arab. I 2.28), يتنصا *yataqaddā* [Rāgib reads *yataqādā*] (P.RagibPlusAncienneLettre.7), يقول *yaqūlu* (DR 53), ويستكبر *wa-yastakbiru* (DR 36), يكفر *yakfiru* (DR 64), ان يكون *an yakūna*

<sup>36</sup> In the appendix, *wa-* and *al-*, *bi-l-*, etc. have been neglected.

(DR 31), لم ينعى *lam yanfuq/lam yunfiq* (P.Heid.Arab. I 2.32), يستنكف *yastankifu* (DR 34), ان يستنكف *an yastankifa* (DR 30).—Prefix *yu-*: يعث *yub'atu* (DR 44), ونحس *wa-yuḥsinu* (P.RagibQurra 1.20), نصق [read: يصق] *yudīqu/yudayyiqu* (P.Heid.Arab. I 3.61), يفده *yunfidubu* (P.Heid.Arab. I 2.37), لم ينعى *lam yanfuq/lam yunfiq* (P.Heid.Arab. I 2.32).—Suffix *-anna*: ولاوحرن *wa-lā tu'ahhiranna* (P.Heid.Arab. I 3.12; P.BeckerPAF 5.7), ولا ظلمن *wa-lā tazlimanna* (P.Qurra 3.13)/*wa-lā yuzlamanna* (P.Cair.Arab. 155.14), ولا اعرفن *wa-lā a'rifanna* (P.Cair. Arab. 151.15), ولا الومنك *wa-lā alūmannaka* (P.Heid.Arab. I 2.40), ولا تكلن *wa-lā takilanna* (P.Heid.Arab. I 3.75).—Suffix *-ūna*: يقدمون *yaqdamūna* (P.Heid.Arab. I 2.55), ورضونه *wa-yardawnahu* (P.Heid.Arab. I 3.26), يستوفون *yastawfūna* (P.Heid. Arab. I 3.31).—Suffix *-āt*: بايات *bi-āyāt* (DR 65), [dots unsure] السموات *as-samawāt* (DR 26).

Prefix *ta-* of stem V: ترصا *tarabbušan* (P.Heid.Arab. I 2.7), يتعهد *yata'ahhadahu* (P.RagibQurra 1.20), يتفصا *yataqaddā* [Rāgib reads: *yataqādā*] (P.RagibPlus AncienneLettre.7).—Infix *-ta-* of stem VIII: ان يتخذ *an yattahida* (DR 48), لم يتخذ *lam yattahid* (DR 72), اختلف *ihtalafa* (DR 61), ولحتاروا *wa-l-yahṭārū* (P.Heid. Arab. I 3.25), وارتنى *wa-rtašā* (P.RagibQurra 2.9), ولا نشتكك *wa-lā yaštakika* (P.Cair.Arab. 151.17), ولكتالوا *wa-l-yaktālū* (P.Heid.Arab. I 3.34), فلكتالوا *fa-l-yaktālū* (P.Heid.Arab. I 3.34), تترون *tamtarūna* (DR 47), انتحك *intahaka* (P.Heid. Arab. I 4.12), انتها *intahū* (DR 21), واق *wa-ttaqi* (P.Heid.Arab. I 3.63).—Infix *-sta-* of stem X: استحرب *ista'harta* (P.Heid.Arab. I 1.7), استحل *istahalla* (P.Heid. Arab. I 3.21), مستقيم *mustaqim* (DR 56), ويستكر *wa-yastakbiru* (DR 36), يستنكف *yastankifu* (DR 34), ان يستنكف *an yastankifa* (DR 30), يستوفي *yastawfi* (P.Heid. Arab. I 3.47).

Prefix *ta-* of the infinitive of stem II: [تا حير] *ta'hīr* (P.Heid.Arab. I 1.21), تسليا *tasliman* (DR 6), [تعجل] *tā'ǧīl* (P.Heid.Arab. I 3.8).—

Feminine suffix *-at*: ابنتك (P.Khurasan 27.4), حلقة [hā' with three dots above] *ḥalīfa* (Mecca.9), عدته *ibāda* (DR 35), مكات[ة] *mukāta[ba]thu* (P.Khurasan 31.4), كلمته *kalimathu* (DR 16), كورتك *kūratka* (P.Cair.Arab. 149.3; 149.5; 149.10; 149.19), نامراته *bi-mra'atihu* (P.Heid.Arab. I 4.8), ملكته *malāyikathu* (DR 3), رحمتي *ḥāḡatī* (P.Kračkovskiy.8). See also the frozen orthography of *rahma*<sup>37</sup>: رحمت [رحمت] (DR 8).—Suffix *-īna*: تامين *tamānīna* (P.BeckerLateinisches 3.13), تسعين *tis'īna* (P.Heid.Arab. I 9.3; P.Qurra 1.r 17), حامين *ḥamsīna* (Ṭā'if.3; P.Heid.Arab. I 8.3), اربعين *arba'īna* (P.Cair.Arab. 150.8-9), فبالين *qabbālīna* (P.Heid.Arab. I 3.44; 3.49), فالين

<sup>37</sup> For the orthography *rahma*, see Bergsträsser and Pretzl 1938, 27; Grohmann 1952, 88; Grohmann 1954, 101; Grohmann 1962, 31; Grohmann 1967-1971, part 2, 51; Diem 1979-1993, part 3, 378f.; Blau 1981, 127; 241; Hopkins 1984, 44; Blau 2002, 34; Robin 2006, 346.

*qabbālīna* (P.Heid.Arab. I 3.34; 3.58), مومنين [dot above *nūn* unsure] *mu' minīna* (Ṭā'if.6).

### Ad B. Particles

Preposition *min*: من (PERF 573.2; P.GrohmannPapyrusprotokoll 2.2; P.Heid. Arab. I 3.31; 3.35; 3.38; 3.47; 3.57; 3.70; 3.79; 3.82; P.Cair.Arab. 150.10; P.Cair.Arab. 146.35; 157.3; P.Qurra 4.14), منك/منه/منها/منهم (DR 18; P.Heid.Arab. I 3.12; 8.6; P.BeckerPAF 5.7; P.Cair.Arab. 149.13; 149.25; 156.7; P.Ragib-Qurra 1.17; P.Khurasan 7.7), مئى [read: مئى] (P.Khurasan 26.8).—Preposition *'an*: عن (P.Heid.Arab. I 3.43); عنه/عنهم (P.Cair.Arab. 146.32; 147.3; 149.12).—Preposition *'inda*: عندى (P.Heid.Arab. I 2.17; 4.11).—Preposition *'alā*: عليك/عليهم (P.Heid.Arab. I 1.19; 3.24; 3.61; P.Cair.Arab. 149.16; P.Khurasan 26.6; 29.6).—Preposition *ilā*: اليك/اليها/اليه/اليهم (DR 38; P.Heid.Arab. I 3.40; 3.84; 3.86; P.Cair.Arab. 149.9).—Preposition *fi*: فى *fi* (P.RagibQurra 2.1; Mecca.15); فيه/فيها; [read: فى صعه الحبر, فى صعه الحبر, فى صعه الحبر] *fi san'ati l-hubzi* (P.RagibQurra 1.13); see also الباى *al-bāqīya* [erroneously dotted like فى *fi*] (P.Heid.Arab. I 2.30).—Preposition *bi-*: بايات *bi-āyāt* (DR 65), بارصك *bi-ardīka* (P.Heid.Arab. I 3.75), بذلك *bi-dālīka* (P.Cair. Arab. 157.2), برحل *bi-raḡuli* (P.Heid.Arab. I 2.10), بسم *bi-smi* (P.Kračkovskiy.1; P.Khurasan 19.1), بشم *bi-smi* (P.Khurasan 7.1; 13.1), بسى *bi-šay'i* (P.Cair.Arab. 156.7), بطعام *bi-ta'āmi* (P.Heid.Arab. I 2.28), بك *bika* (P.Cair.Arab. 146.23), بمه [read: بمئى] *bi-mī'ati* (P.RagibQurra 2.13), بالله *bi-llāhi* (DR 28), وبالاربعه *wa-bi-l-arba'ati* (P.Cair.Arab. 152.10), بمصر *bi-miṣri* (P.Qurra 5.23), بالهوى *bi-l-hawā* (Mecca.11), به *bihī* (P.Heid.Arab. I 3.46; P.Cair.Arab. 155.16; P.Qurra 5.8), بهم *bihim* (P.Cair.Arab. 149.11).—Preposition *ba'd*: بعد *ba'du* (P.Cair.Arab. 148.5).—Preposition *bayna*: بينهم (DR 64).—Preposition *hīna*: حين (P.Ragib Qurra 2.9).—Preposition *qabla*: قبلك (P.Heid.Arab. I 3.72; P.Qurra 5.17).—Preposition *min qibali*: من قبل (P.Heid.Arab. I 3.70).—Conjunction *in*: ان (P.Heid.Arab. I 3.30; 3.48; P.Cair.Arab. 153.14; P.Qurra 4.6).—Conjunction *an*: ان (P.Heid.Arab. I 3.19; 3.37; 3.54).—Conjunction *inna*: فان (P.Heid.Arab. I 3.71; P.Cair.Arab. 151.6), فاني (P.Heid.Arab. I 18.\*4), فاني (P.Cair.Arab. 147.6; 157.12; P.Qurra 1r.3; Qaṣr Ḥarāma A.10), فانك (P.Cair.Arab. 148.5), فانما (DR 14; DR 23), فانما (DR 52), فاني (P.Kračkovskiy.7).—Conjunction *anna*: ان (P.Qurra 4.14), [read: لقد كئ اطل ان] *la qad kuntu 'azunnu anna* (P.Qurra 4.19), انك/انته/انها/انى (DR 57; P.Heid.Arab. I 18.5\*; P.Cair.Arab. 146.32; 152.3; 155.9; 160.4; P.RagibQurra 2.8; 2.10; 2.12).—Conjunctions *inna* or *anna*: انك (P.Cair.Arab. 157.4).—Conjunctions *in*, *an*, *inna*, or *anna*: ان (P.Cair.Arab. 158.3).—Conjunction *fa-*: فان *fa-in* (P.Heid.Arab. I 18.4\*; P.Cair.Arab. 155.11), فانما *fa-innamā* (DR 52), فسيحشرهم *fa-sa-yahšuruhum*

(DR 37), فربون *fa-yarbūna* (P.Cair.Arab. 158.1), فمسن *fa-man* (P.Heid.Arab. I 2.12), فوحده *fa-waḡadtuhu* (P.Qurra 4.12).—Conjunction *qad*: فد (P.Heid.Arab. I 3.36; P.Qurra 4.4; 4.9; P.RagibPlusAncienneLettre.7), قد (P.Cair.Arab. 149.18; 157.12; P.Qurra 2.14), لعد [read: لعد] *la-qad* (P.Qurra 4.19).—Conjunction *idā*: اذا (DR 50 dot unsure; P.Cair.Arab. 147.6 dot shifted to the right of *dāl*).

#### Ad. C.1. Nouns and Verbs Dotted Occuring Twice or More

Verbs dotted occurring twice or more: *aḥada/ittahada*: اخد *aḥada* (P.Heid.Arab. I 3.59), اخذنا *aḥadnā* (PERF 558.5), ان يتخذ *an yattahida* (DR 48), لم يتخذ *lam yattahid* (DR 72).—*āmana*: امانوا *āmanū* (DR 5), فامنوا *fa-āminū* (DR 19).—*ba'ata*: بعثت *ba'atta* (P.Cair.Arab. 149.17-18), وبعث *wa-b'at* (P.Heid.Arab. I 2.36), يعث *yub'atu* (DR 44).—*bā'a*: يبيعون *yabī'ūna* (P.Heid.Arab. I 2.6), فليبيعوه *fa-l-yabī'ūhu* (P.Heid.Arab. I 2.22), فليبيعوه [read: فليبيعوه] *fa-l-yabī'ūhu* (P.Heid.Arab. I 2.31).—*a'ta*: اعطيت *a'taytu* (P.Heid.Arab. I 1.24), اعطيتم *a'taytum* (P.Heid.Arab. I 8.7).—*fū'ala*: يفعل *yaf'al* (P.Cair.Arab. 158.10), فليفعل *fa-l-yaf'al* (P.Kračkovskiy.12).—*qabada*: قبصت [read: قبصت] *qabadtu* (P.Khurasan 7.5), قبصت [read: قبصت] *qabadta* (P.Cair.Arab. 149.12).—*qadima*: قدم [dāl with dot below, read: يقدم] *taqdama* (P.Qurra 4.17), وادما *qādiman* (P.Cair.Arab. 149.16).—*qadā/taqaddā*: قضى *qadā* (DR 51), لم تقصوا *lam taqdū* (P.RagibPlusAncienneLettre.5), قضيتم *qadaytum* (P.RagibPlusAncienneLettre.6), يقضوا *yataqaddā* [Rāgib reads *yataqaddā*] (P.RagibPlusAncienneLettre.7).—*kataba*: كتب *kataba* (Ṭā'if.6), ككب *katabta* [fragmentary over *tā*, could also be ككب] (P.Qurra 5.22), كتبت *katabta* (P.RagibQurra 2.3).—*kāna*: كان *kāna* (P.Heid.Arab. I 3.20; 18.5; 18.7; P.RagibQurra 2.4), يكون *yakūnu* (P.Heid.Arab. I 3.29).—*laqiya*: الفاك *alqāka* (P.Cair.Arab. 157.8, fragmentary), الفيا *alqāhā* (DR 17).—*naẓara*: وانظر *wa-nẓur* (P.Heid.Arab. I 2.29), فانظر *fa-nẓur* (P.Heid.Arab. 2.12).

Nouns dotted occurring twice or more: *ard*: ارض (DR 27; P.Heid.Arab. I 2.31), ارضك (P.Cair.Arab. 158.15), مارضك (P.Heid.Arab. I 2.12).—*amāna*: امانه (P.Cair.Arab. 146.21).—*ibn/libna*: ابن (Ṭā'if.6; DR 15; DR 41; P.Heid.Arab. I 4.7; P. Qurra 3r.2), ابني (P.Kračkovskiy.8), ابنتك (P.Khurasan 27.4).—*bāb* pl. *abwāb*: باب (P.Cair.Arab. 158.8), ابواب (P.Qurra 5.4), ابواب (P.RagibQurra 2.17).—*tāḡir* pl. *tuḡḡār*: تاجر (P.Heid.Arab. I 2.16), تاجر [fragmentary beneath *ḡim*, could also be تاجر] (P.Heid.Arab. I 2.20), تجار [read: تجار] (P.Heid.Arab. I 2.13), اجرا (P.Heid.Arab. I 18.6\*).—*tamāniltamāniya*: ثمن (Ṭā'if.3), تمنيه (MCIA Jérusalem 2.5).—*ḡizya*: جريه (P.Cair.Arab. 163.4, see Gruendler 1993, 44; P.Qurra 5.6), حريه (P.Cair.Arab. 149.34), حريه (P.Heid.Arab. I 1.7).—*ḥalīfa*: خلفه (PERF 558.6), حلقة [*ḥā* with three dots above, read: حلقة] (Mecca.9).—*rahmān* رحمن (P.Heid.Arab. I 12.1; P.BeckerLateinisches 1.3, see Gruendler 1993, 102; P.Khurasan

32.12).—*rahīm* (P.Khurasan 7.1; 11.1; 13.1; 30.1).—*sabʿ/sabʿa*: سبع (P.Khurasan 19.5), سبعة [sīn with two dots above] (P.Khurasan 6.15), سبعه (P.Khurasan 3.7).—*ism*: بسم *bi-smi* (P.Khurasan 2.1; 5.1 [?]; 6.1; 17.1; 24.1; 25.1), بسم *bi-smi* (P.Khurasan 7.1).—*sana*: سنه (PERF 558.8; Zuhayr A.2; Tāʾif.3; P.Heid.Arab. I 8.6; 8.9; P.Cair.Arab. 149.15; 151.20; 155.20; P.Khurasan 19.6), سنه [sīn with dot above] (P.Cair.Arab. 150.8-9, see Gruendler 1993, 66), سنه [nūn with dash above] (P.Khurasan 20.4; 20.8).—*šay*: شيا (P.Heid.Arab. I 2.7), شيا [read: أسيا] (P.Heid.Arab. I 3.40; 3.52), شيا *bi-šāyʾin* (P.BeckerNPAF 6.10).—*ʿabd*: عبد (P.BeckerLateinisches 3.12; P.Grohmann-Papyrusprotokoll 2.2; PERF 573.2; P.DiemFrüheUrkunden 2.2; P.Heid.Arab I 8.5), عبدك [dot unsure] (DR 40).—*qabbāl* pl. *qabbālīna*: فبال (P.Heid.Arab. I 3.27), فبالا [read: فبالا] (P.Heid.Arab. I 3.25), فبالين (P.Heid.Arab. I 3.44; 3.49).—*qisma* pl. *qisam* [a kind of tax]: قسمه (P.Khurasan 3.6), قسم [sīn with dash above] (P.Khurasan 3.5 (2x)).—*kitāb*: كنب *kitāb* (DR 10; 63), كني *kitābī* (P.Heid.Arab. I 2.36; P.Cair.Arab. 149.8; 149.15), كنبات [read: كتاب] *bi-kitābī* (P.Heid.Arab. 4.15).—*kayl*: كيل (P.Heid.Arab. I 3.35; 3.38; 3.50; 3.59), كيل [read: كيل] (P.Heid. Arab. I 3.41), كيله (P.Heid.Arab. 3.9).—*miya* (P.Heid.Arab. I 3.52; P.Khurasan 7.9; 8.9; 9.13; 19.11; 29.12), مابه (P.Khurasan 11.6; 18.9 [dots unsure]; 30.15).—*nisf*: نصف (P.DiemAphrodito, 272.2 (2x)).—*naḥḥ*: نفسه (P.Cair.Arab. 146.10), نفسه [sīn with dot below] (P.Qurra 4.12), نيسك (P.Heid.Arab. I 3.74).—*nās*: ناس (P.Heid.Arab. I 13.7), ناس [sīn with dot above] (P.Heid.Arab. I 2.7; P.Cair.Arab. 148.9-10).

#### Ad. C.2. Nouns and Verbs Dotted Occuring Only Once

Nouns and verbs dotted occuring only once: *atā*: اوتا *ūtū* (DR 62).—*aḡal* (P.Cair.Arab. 149.1; Yazīd).—*ana* (Zuhayr B).—*anta* (Qaṣr Ḥarāna A.10).—*bi-āyāt* (DR 65).<sup>38</sup>—*barāʾa* (PERF 573.2).—*baḡyan* (DR 64).—*baqāʾ* (P.Heid.Arab. I 3.68; aṣ-Ṣalt).—*banāhu* (Tāʾif.2).—*bayt* [or rather بيت] *bayt* (P.Cair.Arab. 149.14; Yazīd).—*tabbiṯhu* (Tāʾif.5).—*talāṯa* (DR 20).—*ḡāʾala*: اجعل *iḡʾal* (P.Heid.Arab. I 3.45).—*ḡāʾahum* (DR 64).—*ḡamīʾan* (DR 39).—*iḡrāʾ* (P.Cair.Arab. 146.3-4).—*ḡuzur* (PERF 558.5; 558.7).—*aḡzarahā* (PERF 558.7).—*ḡāliyan* (P.RagibQurra 2.4).—*ḡund* (P.Cair.Arab. 148.8; Yazīd).—*ḡuhd* (P.Heid.Arab. I 13.9, fragmentary).—*li-ḥaqqin* (Mecca.11).—*ḥayyan* (DR 45).—*ahḥbarani* (P.Heid.Arab. I 11.1).—*ḥayran* (DR 22).—*dīn* دينك [possibly even دينك] (DR 12).—*raʾy* (P.Kračkovskiy.10).—*rabb* رَبك

<sup>38</sup> For the orthography *āyāt*, see Bergsträsser and Pretzl 1938, 49; Abbott 1939, 66; Diem 1979-1983, part 3, 374 n. 36; see also Blau 1966-1967, 124; Hopkins 1984, 49.

(DR 54).—*ribā* (P.Heid.Arab. I 18.1\*, fragmentary).—*ruḥṣa* (P.Heid. Arab. 4.10).—*rizq* (P.GrohmannPapyrusprotokoll 2.5, see Gruendler 1993, 63).—*rasūlī* (P.Qurra 1.11).—*subḥānahu* (P.BeckerPAF 1.11; aṣ-Ṣalt)—*saḥān*: ساهه [šān with dash above] (P.BeckerPAF 1.11; aṣ-Ṣalt)—*saḥān*: سفنه *sufunhu* (PERF 558.7).—*ašadd* (P.Cair.Arab. 149.1; Yazīd).—*šāhid*: شهود *šuhūd* (P.Khurasan 25.13).—*šahr* (PERF 558.8).—*šātan* (PERF 558.6).—*šāḥibay* (P.Heid.Arab. 9.4).—*ṭayyiban* (P.Heid.Arab. I 3.78).—*āğizan* (P.Heid.Arab. I 3.21).—*āsr*: لعشر (P.Khurasan 25.11).—*āsrina*: عشرين (Zuhayr A.3).—*āqaba*: اعاقبه *u'āqibu* (P.Cair.Arab. 149.1).—*mu'īn* (P.Heid.Arab. I 1.18).—*mu'ān* (P.Heid.Arab. I 3.75; aṣ-Ṣalt).—*gāfara*: اعفر [dot unsure] *igfir* (Ṭā'if.4).—*gayr* (P.Cair.Arab. 146.8).—*ayyil*: عياهم *iyālhum* (P.Heid.Arab. I 1.9).—*faradta* (P.Heid. Arab. I 3.51; aṣ-Ṣalt).—*qarya* (P.Heid.Arab. I 11.5, fragmentary).—*qamḥ* (P.GrohmannPapyrusprotokoll 2.16).—*qiyāman* (DR 59).—*kitba* (P.Cair.Arab. 150.16).—*lağğā'a*: ولا للحبي *wa-lā tulağğiyanni/wa-lā tulğiyanni* (P.Heid.Arab. I 3.82).—*mattā'a*: مع *matti* (PERF 558.5).—*matā'* (P.BeckerPAF 2.7).—*malāyika* (DR 32).—*muqarrabūna* (DR 33).—*māta*: يوت [dots all unsure] *yamūtu* (DR 43).—*anbāt* (P.Cair.Arab. 158.1-2, fragmentary; Yazīd).—*nabī*: نبه (Qaṣr Ḥarāna A.10).—*naṣara*: انصره *unṣurhu* (Ṭā'if.5).—*intizār* (P.Heid.Arab. I 2.8).—*wakīlan* (DR 29).—*yad*: يادهم *bi-aydihim* (P.Heid.Arab. I 2.6).—*aymu* (P.Heid.Arab. I 2.9).

### Ad C.3. (Mostly) Non-Arabic Names and Terms

Non-Arabic names, by Rāšid: *šubrā aḡiyuh binūtiyuh* “the  $\chi\epsilon\rho\rho$  [homestead] Ἰαγίου Πινουτίου” (P.Cair.Arab. 161.4).—*urūs marīya* “the ὄρος [monastery] of Μαρίας” (P.Cair.Arab. 162.4).—*kūrat iṣqaw* “the χώρα [district] of Ἰκώου [Aphrodito]”: كوره اشقوه (P.Heid.Arab. I 6.4).—*šubrā anfidawdun* “the  $\chi\epsilon\rho\rho$  [homestead] Ἐμφουτετων” (P.Heid.Arab. I b.4).—*idād* (P.GrohmannPapyrusprotokoll 1.1; Gruendler 1993, 23 n. 45 *āzād*).—*ihnās*: اهنس (PERF 558.5; P.DiemFrüheUrkunden 2.3).—*badiyadus* “[the village] Πεδιάδος” (P.Heid.Arab. I 5.3).—*šubrā bisirū* “the  $\chi\epsilon\rho\rho$  [homestead] Ψύρου” (P.Cair.Arab. 160.4).—*šubrā baqawnīs* “the  $\chi\epsilon\rho\rho$  [homestead] Πακκώνεως” (P.Heid.Arab. I a.4).—*šubrā bunān* “the  $\chi\epsilon\rho\rho$  [homestead] Βουνών” (P.Heid.Arab. I c.4).—*hurūs abīrmayūtus* “the ὄρος [monastery] Ἀββῶ Ἐρμάωτος” (P.Cair.Arab. 163.4). Non-Arabic names, by other scribes: *al-ispahbaḍ* (P.Khurasan 7.3).—*Bay* “Βαίο, Bay” (P.Khurasan 32.18).—*bāb* (P.Khurasan 2.5; 5.4; 8.4).—*basīl* “Βασιλείος” (P.Heid.

Arab. I 3.3; scribe: aṣ-Ṣalt), بسيله *basīlah* (P.RagibQurra 1.3; Yazīd).—مباكر *mubākīr* (P.Khurasan 31.11).—الحرب *bik* “Bēk” (P.Khurasan 2.5; 5.4; 8.4).—[*tā* with dot above] *al-ḥarīṭ* (P.RagibPlusAncienneLettre.3, read by Rāgīb as *ad-dubb*, but see the quite similar shape P.Khurasan 23.2).—حجم *ḡaḥīm* (PERF 573, scribe: Ġaḥīm).—حمام *ḡanāb/HB'B* (Ṭā'if.6).—همران *ḥimrān* (P.Khurasan 32.11).—زرن *dīwā|stī* (P.Kračkovskiy.1-2).—Zηρανο, Zeran” (P.Khurasan 29.2).—سنديه *sindīya* (P.Khurasan 29.11).—شالم *sālim* (P.Khurasan 6.3).—شميك *“Šamīk”* (P.Khurasan 32.16).—الصلت *a|ṣ-ṣalt* (Medina.9-10).—“Ṭarḥān”: طرخان (P.Khurasan 29.11), طرخون *tarḥūn* (P.Kračkovskiy.8).—عاس [sīn with two dots above] *‘abbās* (P.Khurasan 30.11).—كوره القدس *kūrat al-qays* “the χώρα [district] of al-Qays” (P.Heid.Arab. I 8.2; Murīd).—, Qiyā:“: فيا [a woman] (P.Khurasan 31.4; 31.13) and في [a man] (P.Khurasan 32.3; 32.7).—KTT (P.Khurasan 32.20).—بيوسته *bi-qūstah* “Κώστας” (P.GrohmannQorra-Brief.5; Wāzi).—معويه *mū‘āwiya* (Ṭā'if.1).—مير *mīr* (P.Khurasan 25.2; 26.2).—حاشي *naḡāšī* [the king of Ethiopia] (Quṣayr ‘Amra B).—نشبود *našbūd* (P.Khurasan 26.6).—[وراران] [read: اورانان] *warābān* (P.Khurasan 32.14).—ويود *Wēbōr* or ويود *“Wēh-būd”* (P.Khurasan 32.20).—يونس *yuhānnis* “Ἰωάννης” (P.Heid.Arab. I 10.5; Muslim b. Lubnān).

Non-Arabic terms: *irdabb* “ἄρτάβη”: اردب [dot unsure] (P.Cair.Arab. 286.14), اردبا (P.Heid.Arab. I 3.12; aṣ-Ṣalt).—ايلم *iqḷīm* “κλίμα [region]” (P.GrohmannPapyrusprotokoll 2.3; Abū Sa‘īd).—داني *dānaq* (P.Khurasan 5.10).—جسطال *ḡaṣṭāl* “κουάιστωρ, quaestor” (P.Cair.Arab. 149.27; Yazīd).—*dīnār* “δηνάριον”: دنر [read: دنر] *dīnār* (P.RagibQurra 2.13), دنرا [read: دنرا] (P.Diem Aphrodito, 272.2).—*māzūt* “μειζότερος [village elder]”: ماروتا *māzūtan* (P.Cair. Arab. 158.7; Yazīd), موارث [read: موازيت] *mawāzīt* [Grohmann, Aphrodito p. 260 موارث *mawārīṭ*] (P.Qurra 5.21).

#### Ad D. Mistakes (Over 50 Tokens)

Dots transferred inside the same word: اذا [*dāl* with dot shifted to its right] *idā* (P.Cair.Arab. 147.6), تاجر [read: تاجر] *ta‘ḥīr* (P.Heid.Arab. I 1.21), لانان [read: لانان] *la-‘unba’anna* (P.Heid.Arab. 2.9), حلمة [*ḥā* with three dots above, read: حلمة] *ḥalīfa* (Mecca.9), دنر [read: دنر] *dīnār* (P.RagibQurra 2.13), رك [second *bā* with two dots below, read: رك] *yarkabu* (P.RagibQurra 1.9), سجيل [read: تتحل] *ta‘ḡīl* (P.Heid.Arab. I 3.8), عز [read: عز?] *ḡayr* (P.Cair.Arab. 146.8), فرصت [read: فرصت] *faradta* (P.Heid.Arab. I 3.51), فد [read: فد] *qad* (P.Qurra 4.19), مدم [*dāl* with dot below, read: مدم] *taqdama* (P.Qurra 4.17), فبالا [read: فبالا] *qabbālan* (P.Heid.Arab. I 3.25), مبي [read: مبي] *kitāb* (P.Heid.Arab. 4.15), ميني [read: ميني] *minnī* (P.Khurasan 26.8), نسوا [*wāw* with dot above, read: نسوا] *nasū*

(Mecca.13).—Dots transferred to the next preceding or following word: حلا لها سبيلها [the first lām with a dot beneath, read: حلا لها سبيلها] *ḥallā lahā sabilahā* (P.Khurasan 28.10), في صعه الخمر [read: في صعه الخمر, or في صعه الخمر] *fi ṣaʿati l-ḥubzi* (P.RagibQurra 1.13), لقد كتب اطن ان [read: لقد كتب اطن ان] *la qad kuntu ʿazunnu anna* (P.Qurra 4.19), الباقي al-bāqiya (P.Heid.Arab. I 2.30).—Dots pertaining to the line above: فر *farra* and in the upper line بالسطى *bi-n-nabaṭī* [read: فر and بالسطى] (P.Cair.Arab. 152.5).—Words dotted like similar words: ان *al-āna* [final an dotted like ان *in/lan/innal/anna*] (P.Qurra 4.6), الباقي *al-bāqiya* [final في dotted like في *fī*] (P.Heid.Arab. I 2.30); من *man* [dotted like من *min*] (P.Heid.Arab. I 3.70), من *minman* [final من *man* dotted like من *min*] (P.RagibQurra 2.5).—Single dots instead of double dots: ولا توحرر [read: ولا توحرر] *wa-lā tuʾabhiranna* (P.Heid.Arab. I 2.34), ايم [fragmentary under the *yāʾ*, read: ايم] *aymu* (P.Heid.Arab. I 2.9), فلبيعوه [read: فلبيعوه] *fū-l-yabīʿūhu* (P.Heid.Arab. I 2.31), نخار [read: نخار] *tuḡḡār* (P.Heid. Arab. I 2.13), حميل [read: حميل] *ḥamīl* (P.Heid.Arab. I 4.9), رحمة *rahmat* [*tāʾ* with one dot above, read: رحمة] (DR 8), سبا [read: سبا] *ṣayʿan* (P.Heid.Arab. I 3.40; 3.52), نصق [read: نصق] *yudīqu/yudayyiqu* (P.Heid.Arab. I 3.61), كيل [read: كيل] *kayl* (P.Heid.Arab. I 3.41).—Enigmatic dottings: الجلت [thus the reading of Becker; Grohmann seems to read plain الحلب] *al-ḡalab* (P.Cair.Arab. 146.4).

Dots Added: اخذنا *aḥadnā* (PERF 558.5), البنا *ilaynā* (P.Cair.Arab. 149.9; Yazīd), يبلعك *yabluḡka* (P.Heid.Arab. I 3.61; aṣ-Ṣalt), حتى تحاسبه *ḥattā tuḥāsibahu* (P.RagibQurra 2.11), فسيحشرهم *fā-sa-yahṣurubum* (DR 37), اختلف *iḥtalafa* (DR 61), بذلك *bi-dālīka* (P.Cair.Arab. 157.2), ارتشى *irtaṣā* (P.RagibQurra 2.9), ولا *wa-lā* *yaštakīka* (P.Cair.Arab. 151.17), تسلما *taslīman* (DR 6), يكر *yakfiru* (DR 64), مومنين [dot above *nūn* unsure] *muʾminīna* (DR 64), ولا تقولوا *wa-lā taqūlū* (DR 13), مستقيم *mustaqīm* (DR 56), نزعته *nazaʿtahu* (P.Cair.Arab. 158.9), يستنكف *yastankifu* (DR 34), انتكف *yastankifa* (DR 30), انهبث *anhabta* (P.Cair.Arab. 158.11), انتك *intahaka* (P.Heid.Arab. I 4.12; ʿAbd Allāh [b. Nuʾmān?]), انتوا *intahū* (DR 21).

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Bowl of Sulaymān: not published, but see Grohmann 1967-1971, part 2, 85 fig. 54; pl. XIV.2.—DR [Dome of the Rock]: Kessler 1970.—MCIA Jérusalem: van Berchem 1922-1949.—Mecca: Gruendler 1993, 154 (pl.).—Medina: Robin 2006, 344; pl. 15.—P.Becker-Lateinisches: Becker 1909.—P.CadellFragments: Cadell 1968.—P.DiemAphrodito, 272: Diem 1984a, 272; Grohmann 1966, pl. II.2.—P.DiemFrüheUrkunden: Diem 1984b.—P.Grohmann-Papyrusprotokoll 1-2: Grohmann 1960, no. 1; Grohmann 1966, pl. III.1; pl. II.1.—P.GrohmannQorra-Brief: Grohmann 1933.—P.Heid.Arab. II: Diem 1991b.—P.Kračkovskiy: Kračkovskiy and Kračkovskaya 1955.—P.RagibPlusAncienneLettre: Rāḡib 1991b; Bartoletti

1951, pl. IV.2; Grohmann 1966, pl. III.2.—PKhurasan: Khan 2007.—P.Ross.-Georg.: Jernstedt 1927.—PERF 558: Grohmann 1932, 113-115; Grohmann 1966, pl. II.1; Robin 2006, 343; pl. 7.—PERF 573: not published, but see Grohmann 1958, pl. II.c (part); Grohmann 1966, pl. IV.1 (part).—*Psalmfragment*: Violet 1901.—Qaṣr Ḥarāna A: Abbott 1946.—Quṣayr ‘Amra B: not published, but see Grohmann 1967-1971, part 2, 85 fig. 53.—Ṭā’if Miles 1948; Robin 2006, 344; pl.14.—Zuhayr A and B: Robin 2006, 343f.; pl. 6-7.

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