

# **Comparative Oriental Manuscript Studies**

## **An Introduction**

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## 2. Arabic palaeography (ADO)

Arabic, like Hebrew or Syriac, is written and read from right to left. It is a phonetic writing system based on syllables rather than a properly alphabetical system (Garbini 1979, 47). The Arabic alphabet (*abġad*) is the sequence of 28 letters with consonantal value, including the semiconsonants used to denote long vowels. It represents, after the Roman alphabet, ‘the second most frequent segmental script in the world’ (Gruendler 2006, 148) but the Arabic script never developed an opposition between capital and non-capital forms—despite some failed attempts, dating back to the beginning of the last century, to introduce capital letters. Arabic writing is considered to have been genetically derived from the Nabataean cursive variant of Aramaic, and Syriac influences can be traced in calligraphic and orthographic elements (Gruendler 2006). According to a recent hypothesis which in its attempts to individuate the *milieu* of the origins of the Arabic alphabet not only considers graphic factors but also the social context which led towards its creation, the elaboration of Arabic writing can be dated to the beginning of the sixth century CE due to the impetus, or to the help, given by the ecclesiastic authorities. The Arabic alphabet, according to this theory, answers the need of the Arabs in Syria for political and cultural affirmation (Robin 2006, 327–330). The passage from oral to written Arabic started, according to another theory, because of the interaction between some Arab tribes and the Late Roman Empire ‘in the Roman province of Arabia, which, in its original form ... stretched from the southern outskirts of Damascus to the Hġjāz ...’ (Hoyland 2010, 35).

The graffito etched into the plaster of a wall in Jabal Ramm, tentatively dated to the early fourth century CE and considered ‘the oldest inscription in Arabic language *and* characters’ (Gruendler 1993, 13) is now regarded as written in the Nabataean Aramaic script (Hoyland 2010, 39). Therefore the most ancient inscription in Arabic language and writing known is, at present, a trilingual inscription from Zabad, circa 37.3 miles south of Aleppo. The Arabic part of this trilingual inscription—covering the lintel over the door of a *martyrion* dedicated to St Sergius—can be dated to the year 512 CE by the context provided via the Greek and Syriac texts.

The comparative study of writing materials of different kinds (inscriptions, coins, papyri, codices) seems to be one of the elements which define the field of research of Arabic palaeography which, even though by no means limited to the witness of books and documents, would otherwise concentrate its attention on written specimens executed with a pen (Sijpesteijn 2008, 513). From a different perspective, however, it would be more likely to reaffirm the vast field of Arabic palaeography interested in written material executed with diverse writing tools and on various writing materials which have given rise to a range of specialised disciplines (epigraphy, numismatics, papyrology, codicology). According to this perspective ‘la codicologie englobe la paléographie en tant qu’elle s’applique à l’écriture des manuscrits et lui apporte le soutien d’autres savoirs spécialisés que le codicologue met en œuvre’ (Déroche 1998, 366).

At any event the wide range and plurality of the Arabic palaeographic material investigated is already reflected in the first contributions which traditionally mark the birth of the discipline (Adler 1780; 1782 and 1792). Therefore, it is no surprise that the word ‘palaeography’ appears as early as at the beginning of the nineteenth century on the titles of publications that include works which are not only concerned with specimens of books but also with witnesses of an epigraphic and numismatic nature in a broad sense (Marcel 1828).

As far as book production is concerned, Arabic palaeography is not limited to the production of Arabic-Islamic manuscripts but includes Arabic-Christian materials as well. In the Arabic-Christian manuscript production, which already presents its own codicological traits (Orsatti 1994), it is also possible to detect a ‘characteristic manuscript hand’ (Griffith [S.] 2010, 50). In this sense the case of a *qāf* characterised by the diacritical point placed underneath the letter is meaningful, since it seems peculiar to the southern Palestinian Arabic-Christian production of the end of the eighth to the beginning of the ninth century (Monferrer-Sala 2010). Moreover the production of digraphic and bilingual texts rendered in Greek and Arabic and in Latin and Arabic offers an ideal meeting point for different linguistic and palaeographic competences to which the same level of scientific dignity should be accorded (D’Ottone 2014).

With the exception of Arabic pre-Islamic inscriptions, the Qur’ān may be called the first true Arabic text. Nonetheless, besides the inscriptions and ancient Qur’āns, materials such as papyri and coins are no less important as tools for the study of the development of Arabic writing and of its graphic forms. Inscriptions as well as documentary material—and the research should be extended ideally to include also the

vast amount of numismatic material—have, for example, so far constituted the *corpus* for a study dedicated to the presence of and to the selective use of diacritical dots (*i ʿgām*, *naqt*) as part of the written production in the Arabic script of the first two centuries of the Hegira (Kaplony 2008).

Apart from the punctuation (*fawāṣil*)—constituted by dots, small lines, circles and rosettes—employed to indicate the division into verses of the oldest Qurʾāns, a recent field of research is concerned with the punctuation of Arabic texts (Jaouhari 2009).

Islamic coinage, for the most part of epigraphic character, constitutes an important source of palaeographic information, which so far has not been sufficiently exploited for palaeographic purposes. The roundish shape of the first exemplars of the post-reform *dirham* and *dīnār* (fig. 2.2.1)—the monetary reform of ʿAbd al-Malik is dated to 77 AH/696 CE—has been interpreted as a legacy of die-engravers accustomed to Pahlavi writing (Heidemann 2010, 163). These rounded traits of the oldest post-reform coinage in gold and silver were adjusted over the course of the half century after the reform to those more angular shapes of the writing employed on papyri or for inscriptions.

Papyri dated or datable to the first century of the Hegira display, in fact, a rather angular writing—a particularly elegant example of angular script can be seen, for example, in the letters issued by the chancery of Qurra b. Šarīk, governor of Egypt from 90 to 96 AH (709–714 CE) (fig. 2.2.2)—which is akin to the writing of contemporaneous inscriptions and graffiti (Rāgib 1990). Despite the existence of some variants, attributable to the form of the letters, to the accuracy of the graphic execution or to the writing material employed, Arabic writing produced during the first century of the Hegira displays a certain fundamental uniformity (Grohmann 1952, 73).

Between the end of the eighth and the beginning of the ninth century the papyri start to offer proof of cursive tendencies. Taking into consideration the presence of structural ligatures between the Arabic letters, Arabic writing is by its very nature cursive and to describe it as such reveals itself to be in essence a case of tautology (Gacek 2009, 241–243).

In a papyrological context we speak therefore of ‘cursive tendencies’ which can be detected by one or more of the following elements: ‘1. The transformation of angles into curves; 2. The transformation of curves into straight strokes; 3. The elimination of the necessity to remove the pen from the surface of the papyrus; 4. The reduction of the distance covered by the pen’ (Khan 1992, 39–40). Recent studies have been devoted to the identification of dating criteria for undated papyri showing ‘cursive tendencies’ (Grob 2013). In the context of book production, scholars have preferred to speak about the ‘cursive character’ of Arabic (Déroche 1998). The concept of cursivity refers to the dynamic aspect of writing and, in particular, to its speed of graphic execution and to the economy of the movement necessary for its creation. The treatment of the ligatures between the letters (roundish rather than angular) as well as the presence of unconventional ligatures which do not conform to the orthographical rules, may be regarded as indicators of the cursivity of Arabic book writing. The *mise en ligne*, i.e. the angle formed by the base of the long letters, or by a sequence of letters, and by the line for writing, real or imagined, would represent, in conjunction with other details which necessitate a contextualization within the written page, a further characteristic element of the cursivity of Arabic script. Another distinction has to be made between *écritures composées*—in which the straight base of the writing line does not preserve, or at least not very clearly, traces



Fig. 2.2.1 *Dīnār* of ʿAbd al-Malik, 77 AH/996–697 CE, diameter: 19 mm, weight: 4.25 g; London, British Museum, CM 1874 7–6 1, © Trustees of the British Museum.

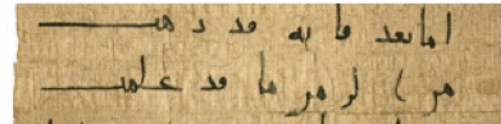


Fig. 2.2.2 Detail of a papyrus from the chancellery of Qurra b. Šarīk, eighth century; Heidelberg, Institut für Papyrologie der Ruprecht-Karls-Universität Heidelberg, *P.Heid. inv. Arab. 1*.



Fig. 2.2.3 Islamic seal, 2 lines of angular script, eighth/ninth century; London, British Museum, no. 1892,0328.94, © Trustees of the British Museum.

of the movement of the hand—and *écritures chirodittiques*—the base of which registers highs and lows and therefore traces of the movement of the writer’s hand (Déroche 1998 and 2003).

Even the field of numismatics has experienced these cursive tendencies, the first occurrence of which has been detected in a unique issue of a Fatimid *dīnār* dated 490 AH/1096–1097 CE (Balog 1949). However later exemplars of coins still display the transition from an angular script to a script of more rounded traits which was to become the norm from 571 AH/1175–1176 CE (Heidemann 2010, 167). An analogous process of transformation of graphic shapes, from angular traits to softer shapes, has also been recognised in the context of research into Islamic seals. In this field the terminology which defines the type of writing distinguishes between categories of ‘angular scripts’ and of ‘cursive scripts’ (Porter [V.] 2011, 14–16) (figs. 2.2.3–4a/b).

The recent numismatic literature as well as a long tradition of studies dedicated to papyri employ the term *nashī* or ‘naskh script’ in order ‘to designate a script with rounded features in contrast to more angular monumental script’ and this usage can be accepted for a general classification (Khan 1992, 45–46). Nonetheless, the definition of ‘naskh script’—which denotes also what has been described as ‘a bookhand, par excellence, of the Islamic East’ (Gacek 2009, 162)—gathers together a wide range of categories of graphic expression.

Apart from sharing large categories of script definitions, or at least definitions that can evoke scripts with similar characteristics, it seems that each field (numismatics, epigraphy, papyrology, codicology) has a different chronology for the use of these scripts, as the *caveat* for dating Islamic seals according to epigraphic scripts recalls (Porter [V.] 2011, 22 note 39).

A further distinction, in the field of manuscript production, concerns the so-called ‘formal scripts’, in which the aesthetic value of the writing is relatively high, and the ‘informal scripts’ of average accuracy in their graphic design (Déroche 2003).

As far as the graphic competence of the writers is concerned, it had already become clear by the middle of the last century how important it was to understand their social background and level of schooling as well as to study ‘specimens of addresses, writing exercises, pen trials (*probationes pennae*), etc.’ (Grohmann 1952, 72–73). Nonetheless, research and studies dedicated to graphic education in the Arab world of the early Middle Ages are still rare (Sijpesteijn 2008, 516). Given that the practice of writing requires specific skills, it has been connected in the Arab world until recent times to the existence and the activity of professional copyists (*warrāqūn*). In the Middle Ages reading skills were considered as separate from writing skills and there are numerous cases of established scholars who were unable to write (Hirschler 2012, 16).

As regards the catalogues of manuscripts and the description of Arabic script included, it seems noteworthy to underline that in what might be the oldest known inventory of an Arabic library, i.e. the inventory of the library of the mosque of Qayrawān (Kairouan), the script (*ḥaṭṭ*) is already mentioned and described with a relatively articulate terminology: thirty exemplars are defined as in ‘Kufic’ script (*bi-ḥaṭṭ kūfī*), others were instead labelled as in ‘oriental’ script (*šarqī*), or in ‘Sicilian’ (*šiqillī*), *nubārī* (Šabbūh Ibrāhīm 1376 AH/1956 CE; Voguet 2003, 536 and 543; Déroche 2007, 149).



Fig. 2.2.4ab Engraved sapphire and its impression, cursive script, tenth to thirteenth century CE (and later); London, Derek Content collection.

The ancient Qur'ānic scripts, without doubt, have been those that have received particular attention since the end of the eighteenth century—i.e. from the very start of Arabic palaeography—and recent catalogues that gather together the fruits of the studies dedicated to the exploration of the scripts of the ancient Qur'ānic witnesses allow us to follow the development of palaeographic studies in this particular field.

For the scripts of Qur'ānic fragments which can be dated to the seventh/eighth century CE the qualification as *ḥiǧāzī* scripts is at present widely accepted: this is a geographical denomination derived from the name of that region in Arabia, *Ḥiǧāz*, where the cities of Mecca and Medina are located. Nonetheless, the expression '*ḥiǧāzī* scripts', at least according to some scholars, is nothing but 'a scholarly artifact' (Whelan (manuscript) n.d.).

Palaeographical, orthographic and codicological elements help to define the early production of Qur'āns in *Ḥiǧāzī* I script. For example, one of the few fragments that can be dated to the early eighth century CE (Vatican City, BAV, Vat. ar. 1605, fig. 2.2.5) shows a vertical format—though horizontal fragments are also known—, the absence of vowels and diacritics, the frequent use of *scriptio defectiva* (for example *qala* instead of *qāla*), and a peculiar shape for some letters. In particular, the letter *alif* is characteristic, with a short return at the base and a rather oblique vertical stroke (the oblique tendency occurs also in the strokes of the letters *ṭā* and *zā*), as well as the letter *kāf*, this latter assuming in final position the so-called 'hairpin' shape (Déroche 1992 and 1999; Levi Della Vida 1947). Some other fragments in *ḥiǧāzī* script (*Ḥiǧāzī* II, III and IV according to Déroche's system), datable to the end of the eighth and/or early ninth century CE, exhibit the same tendency of the script to be slightly slanted to the



Fig. 2.2.5 Qur'ān leaf, vellum, 288 × 203 mm, early eighth century; example of *Ḥiǧāzī* I script. Sūra X, 102–XI, 3; XI, 4–13; MS Vatican City, BAV, Vat. ar. 1605, f. 1v: Sūra XI, 4–13.



Fig. 2.2.6 Qur'ān leaf, vellum, 155 × 230 mm, ninth/tenth century; example of Group D of the Early Abbasid scripts. Sūra XC, 15–20; XCI, 1–5; MS Damascus, National Museum, Inv. 'ayn 350–351, verso.



Fig. 2.2.7 Qur'ān fragment, vellum, 100 × 85 mm, eleventh century. Example of New Style (NS) script. Sūra XXX, 50–53; XXXI, 25–30; MS Damascus, National Museum, Inv. 'ayn 344–345, verso.

right, but to a lesser extent than the earlier fragments, and the appearance of diacritical dots, vowels in red ink and simple decorative bands between the *sūras*.

The label of 'Kufic' or the definition of 'Kufic script'—and again this is a name derived from the geographical denomination of the city of Kufa in southern Iraq—in order to describe a certain graphic typology of the Arabic script has long stayed in use in manuscript catalogues: already Jacob Georg Christian Adler in his catalogue of the Qur'ānic manuscripts in the Royal Library of Copenhagen entitled a section 'De literis cuficis' (Adler 1780, 27). A new impulse to palaeographic studies came about only when it became necessary to fragment the mass of documents defined by the super-graphonym of 'Kufic' for the creation of more manageable series of manuscripts which can more easily be analysed (Déroche 1980). Such an impulse has been applied in detail for the catalogue of Qur'ānic manuscripts at the Bibliothèque nationale de France (Déroche 1983). The results of the palaeographic research dedicated to the ancient Qur'ānic codices in the catalogue mentioned above, which includes a contribution eloquently titled 'Éléments de paléographie coranique ancienne' (Déroche 1983, 14–53), have been successively illustrated with numerous examples by the publication of material from the Khalili Collection (Déroche 1992).

As far as the labelling of the scripts employed in the Qur'ānic fragments and codices from the second half of the eighth century to the end of the ninth century is concerned, that is for those scripts which are identified as 'Early Abbasid scripts', an alphanumeric classification system is now available (A.I-F.I), which is connected to an indicative chronological grid. According to this classification, the exemplar illustrated here (fig. 2.2.6: Damascus, National Museum, Inv. 'ayn 350–351), can be assigned to group D, which is attested from the third to the fourth century AH (ninth/tenth century CE). Group D comprehends various styles—it has up to five sub-categories (D.I-D.V)—to the first of which, D.I, pertains the fragment under discussion, considering the following distinctive letters: the independent form of *alif*; the form of *mīm* almost triangular and, in final position, with a short tail with bevelled edges; the form of *kāf* with parallels and symmetrical strokes. From a geographical and chronological point of view, it seems useful to point out that this graphic sub-type is attested from Cairo to Sanaa and from Kairouan to Damascus, and that it was elaborated at the beginning of the third century AH (ninth century CE) and continued to be in use, despite showing less elegant forms, until the beginning of the fourth century AH (tenth century CE). Among the codicological characteristics of this fragment it is worthy to note its horizontal format—employed until the fourth century CE/tenth century CE—and the vegetal-inspired motif, connected to the gold frame of the title of the *sūra*, that started to be in use since the second half of the eighth century CE (Bernus-Taylor – Bittar 2001). Following the chronological development of the scripts employed for the copy of the Qur'ān, the so-called 'New Style' should be mentioned. The 'New Style' group (NS) comprehends a number of scripts, traditionally employed for the copying of books or the writing of documents, that, since the beginning of the tenth century CE, started to be used also for copying the Qur'ān and is attested by *muṣḥaf*-s, in parchment and paper, until the twelfth century CE. The parchment fragment Damascus, National Museum, Inv. 'ayn 344–345 (fig. 2.2.7) can be ascribed to the group NS.I and dated to the sixth century AH (twelfth century CE). It shows a vertical, slender and rather angular script and its vertical format reflects the spread of the use of paper as a writing material, marking the return to the vertical format manuscript after two centuries (third to fourth AH/ninth to tenth CE) in which the oblong format was the common one.

Beyond these classifications, for the remaining graphic witnesses the catalogues often employ traditional terminologies which are tied to the names of calligraphic styles (*nashī*, *tuluṭ*, *rayḥānī*, *muḥaqqaq*,

*riqā'*, *tawqī'*), but it seems to be preferable to adopt descriptions referring to a regional character, such as, for example, 'Yemeni script'—in reference to a script with a characteristic system of punctuation of the letters *dāl* and *ṭā'*—or 'Maghrebi script' which is also distinguishable by a characteristic punctuation of the letters *fā'* and *qāf* (Muzerelle et al. 2005, 98). However, an analogous punctuation to the so-called 'Yemeni' variety has also been found in



Fig. 2.2.8 Iṣḥāq b. Sulaymān al-Isrā'īlī, *Kitāb ma'rifat al-bawl* or *Liber de urinis*; vellum, dated *Rabī'* II 346 AH/2 June–1 July 957 CE; MS Vatican City, BAV, Vat. ar. 310, detail of f. 50v.

manuscripts of Javanese origin (Regourd 2002, 254), whereas the definition of a Maghrebi script refers to a vast area—since it includes the western Islamic regions (Spain and northern Africa) as well as western Sub-Saharan Africa—and groups together diverse varieties of writing used in the field of book and document production as well as employed for private use; it is ultimately generic and disconnected from any chronological reference (Gacek 2009, 147–150). However it seems useful to remember that the first dated codex in Maghrebi script goes back to the mid-fourth century AH/mid-tenth century CE, its copying having been completed during the month of *Rabī'* II 346 AH/2 June–1 July 957 CE (Vat. ar. 310, fig. 2.2.8). Moreover one of the most ancient examples of this script is a bilingual fragment, in Latin and Arabic, containing part of the Epistle to the Galatians, that Latin palaeographers attribute to the end of the ninth century CE (D'Ottone 2013).

The great necessity for additional studies dedicated to the immense quantity of Arabic evidence, not only Qur'ānic and not only of the first centuries of the Hegira—it is useful to remember that Arabic book production offers a quantity of manuscripts which is 'so immense even from a merely statistical point of view that it cannot be compared to that in any other civilization, either classical or oriental, including the Islamic ones' (Traini 1975, 1, translation ADO) and that exactly the spatial and chronological vastness of Arabic book production is one of the reasons for the 'delay' in palaeographic studies dedicated to this field (Piemontese 1994)—can be understood in the light of disclamatory choices like that of the catalogue of the private library of Zabīd in whose 'Introduction' the inapplicability of meaningful graphonyms is stated. 'Afin de décrire l'écriture, nous avons adopté, faute de mieux, les grandes catégories habituelles qui, à force d'être éreintées, ne signifient plus grand-chose en termes de datation et de localisation de la copie. En cohérence avec cette observation, nous n'avons pas tenté plus de définition' (Regourd 2006, 15). Therefore, the photographic reproductions have been given the task of illustrating the different scripts. However the idea of illustrating the scripts, rather than trying to describe them, is not new: it was employed in the *Fichier des manuscrits moyen-orientaux datés* (*FiMMOD*, 1992–2001), a publication intended to gather together manuscript specimens, explicitly dated earlier than the year 1500 CE, provided with a codicological description and other basic information, for the sake of comparison with other exemplars lacking any date.

The considerable progress made in the field of the study of Qur'ānic scripts provides us with a certain optimism for future research devoted to other fields of the vast Arabic written heritage. A renewed interest, for example, has recently focused on the study of the scripts of the western part of the *Dār al-Islām* (Jaouhari 2013).

### References

- Adler 1780, 1782, 1792; Balog 1949; Bernus-Taylor – Bittar 2001; Déroche 1980, 1983, 1992, 1998, 1999, 2003, 2007; D'Ottone 2013, 2014; *FiMMOD*; Gacek 2009; Garbini 1979; Griffith [S.] 2010; Grob 2013; Grohmann 1952; Gruendler 1993, 2006; Heidemann 2010; Hirschler 2012; Hoyland 2010; Jaouhari 2009, 2013; Kaplony 2008; Khan 1992; Levi Della Vida 1947; Marcel 1828; Monferrer-Sala 2010; Muzerelle et al. 2005; Orsatti 1994; Piemontese 1994; Porter [V.] 2011; Rāgib 1990; Regourd 2002, 2006; Robin 2006; Šabbūḥ Ibrāhīm 1376 AH/1956 CE; Sijpesteijn 2008; Traini 1975; Voguet 2003; Whelan n.d.