manuscripts date to the Ottoman period, including four donated by Sultan Sulayman, who restored the Dome of the Rock. Using the endowment deeds, court records, and other historical sources, the manuscript director of the splendid new catalogue, Khalid Salamah, estimated that the Dome of the Rock, like the Aqsa Mosque, had at least fifty multi-volume copies of the Koran.


10. Masqhad, Astan-i Quds, no. 6 for references, see Chapter 2, note 26.


12. Several medieval sources describe the code penned by ‘Uthman that was reportedly kept in the Mosque of Damascus as well as others kept elsewhere in Syria. See Joes K. Meri, The Cult of Saints among Muslims and Jews in Medieval Syria, Oxford Oriental Monographs [Oxford, 2003], 14-16. By the twelfth century, four pages of it were rarely preserved in the Great Mosque of Cordoba, so a copy was made by the shrine to bolster the connection between the Unayyads of Spain and their forebears in Syria. See Jonathan M. Bloom, The Revival of Early Islamic Architecture by the Unayyads of Spain, in The Medieval Mediterranean: Cross-Cultural Contacts, ed. Marilyn J. Chia and Kathryn L. Reverser [New York, 1988], 40.

The most famous surviving example of an ‘Uthmanic manuscript is the so-called Samarkand Koran [now in the Religious Administration of Muslims in Tashkent]. A large-format manuscript, it contains about one-third of the entire text. On the basis of its orthography as seen in the facsimile published in 1905, Arthur Jeffery and A. Mendelsohn, The Orthography of the Samarkan Qur’ân Codex, Journal of the American Oriental Society 63 (1942), 175-95, assigned it to early ninth century Iraq. Nevertheless, it is one of the Koran manuscripts discussed in Chapter 3, where it is assigned to the second half of the eighth century. Based on recent radiocarbon testing of other pages that provided a date between 505 and 855 CE at the 95 per cent confidence level, Efim A. Rzvan, ‘On the Dating of an ‘Uthmanic Qur’ân from St. Peterburg, tashkent, and similar scripts, in Tashkent and Ausc-en-Provence, 1990, 65, thought it earlier, assigning it to the second half of the eighth century. Based on the date between 505 and 855 CE, it is assigned to the turn of the eighth to ninth century.

14. See Chapter 3 for details about the types of skin and preparation of the parchment. A few, of the Koran manuscripts (e.g., BN ms. arabe 1344, 48 x 13) on which the individual folios, each of which comprised the text of a single animal.

15. Déroche, ‘A propos d’une série de manuscrits coraniques anciens.'

By the later middle period, Persian authors used kufic to refer to an earlier script that had one-sixth round strokes and fifteen-sixths slant. This description is given, for example, by the calligrapher and medallicist on calligraphy Qadi Ahmad, who contrasts it to the completely straight maʿqūl (said to be named for the Maʿqūl Canal near Basra); see MIR MUHAMMAD QUNATI QADI AHMAD, *Gulistan-i Khanan*, ed. Ahmad Suhayli-Khānsāri (Tehran, 1353/1974). 12. Qadi Ahmad, *Calligraphers and Painters: A Treatise by Qadi Ahmad, Son of Mīr Muḥammad* (Circum 1405/AD 1606), trans. V. Minorsky, Occasional Papers (Washington, DC, 1939), 53–4. The same two terms are used by many other authors in the prefaces to albums composed at this time, see, for example, Dust Muhammad’s *preface to the album he prepared for Bahram Mirza in 951/1544* (Wheelier M. Thackston, *Album Prefaces and Other Documents on the History of Calligraphers and Painters, Studies and Sources in Islamic Art and Architecture: Supplements to *Muqarnas* [Leiden, 2001], 71). The terms kufic and maʿqūl, also known as square kufic or *bauqët* (builder’s script), became standard in Mughal India as well (for their use by Akbar’s chronicler Abu'l-Fadl, see Chapter 13).


24. In addition to a handful surviving in the Great Mosque of Damascus [Déroche, 'Les manuscrits arabes datés'] and elsewhere, two major collections of early bindings have survived in Kairouan and San‘a. The library of the Great Mosque of Kairouan in Tunisia preserved a group of some one hundred and fifty examples. Louis Poinssot discovered half of them in a room to the north of the court that served as a store and dove-cote, and seventy-six more were found in a box in the library there. These bindings have been well known to scholars since the publication of Georges Marçais and Louis Poinssot, *Oeuvres de l’Art arabo-tunisien* (Tunis, 1949). The other group of bindings from the early Islamic period was discovered equally fortuitously but more recently, in 1973, in the Great Mosque at San‘a in the Yemen. Along with the extraordinary collection of Koran folios, ninety-five fragments of book covers were found. See Dreibholz, 'Early Islamic Bookbindings.'

25. *Dirāsāt fi tārīkh al-khāṭṭ al-ʿarabī* [Beirut, 1972] see also the volume of essays recently published in his honor, *Essays in Honour of Salah al-Dīn al-Manṣūrij* (London, 1422/1999). The other group of bindings from the early Islamic period was discovered equally fortuitously but more recently, in 1973, in the Great Mosque at San‘a in the Yemen. Along with the extraordinary collection of Koran folios, ninety-five fragments of book covers were found. See Dreibholz, 'Early Islamic Bookbindings.'

[Amaju] caused it to be endowed, whereas all the later folios inscribed waqafaha amaju (Amaju endowed it) – and two different styles [the notes on the two fragments remaining from part 24 are in a more rounded script]. Lacking secure evidence to the contrary, it is simpler to assume that the endowment deeds reflect the date of copying and that the copyst and the illuminator were the same person.

34. Most recently in his article 'Manuscripts of the Qur'an,' EQ, 305:6-7.

35. Offer's introduction gives details about Ibn al-Nadim's life; see also El 2, 'Ibn al-Nadim.'


37. The text reads fa-fi aljazr bi wajjub bi yamani al-yadi wa la iklisi bi shakili inlizzu n iyan. Ibn al-Nadim has taken my translation from Estelle Whelan's unpublished article, 'The Phantom of Hijazi Script: A Note on Pecological Method.' Dodge's translation (p. 10) reads a turning of the hand to the right and lengthening of the strokes, one having a slight slant,' but Whelan's interpretation of a la aljazr is [] literally, raising of the fingers as tall ascenders make sense. She notes also that the third criterion of slant has sometimes been taken to apply, like the first two, only to the alif in this script, but that the masculine singular pronoun he attached to shakli (form) is clearly parallel to the one attached to aljazr and refers to the same pair.


40. François Déroche, 'Collections de manuscrits anciens du Coran à Istanbul. Rapport préliminaire,' in Études mobilier et patrimoine turc, ed. Janine Sourdel-Thomine (Paris, 1982), 35-66, Abbasid Tradition, 37-38. 'Les manuscrits du Coran en calligraphies Hijazi, Quchanis and Quirazis (n.d.) 2-19, and 'Manuscrits of the Qur'an,' EQ, 305:6-7, where he suggests that the name hijazi does not imply that these manuscripts were written in the Hijaz.

41. Whelan, 'Phantom' For further details on this article, see Chapter 3, note 17.

42. Dublin, CBL, ms. 3375, fol. 39, al-Nadim, Fihrist, 10, example 2.

43. The culmination of this approach can be seen in the catalogue for an exhibition held at the Islamic Art Gallery of the King Faisal Center for Research and Islamic Studies, Arabic Calligraphy in Manuscripts (Riyadh, 1986). The catalogue for the exhibition held at the Islamic Art Gallery of the King Faisal Center for Research and Islamic Studies, Arabic Calligraphy in Manuscripts (Riyadh, 1986). The catalogue for the exhibition held at the Islamic Art Gallery of the King Faisal Center for Research and Islamic Studies, Arabic Calligraphy in Manuscripts (Riyadh, 1986).

44. Al-Quntara 19 (1998): 13, which lists 137 names, mixing those found in sources with modern names, most of which are not identifiable.

45. Déroche, Abbasid Tradition.

46. Similarly, the three folios in hijazi belonged to two groups, Hijazi I and IV.


48. His latest article on the subject is François Déroche, 'New Evidence about Umayyad Book Hands,' in Essays in Honour of Salah al-Din al-Munajjil (London, 1423/2002), 611-42. See also his comments in
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60. See above, note 17.

61. Deroche, Manusciptus du coran I, no. 3; one page is illustrated in his article ‘Manuscriptes du Qur’an,’ EQ, 3, pl. I.


63. Tehran, National Museum, no. 4393; Bahrami, Ramūnā, no. 3, Gulchiti, 33–35. This fragment came from Ardabil. The 77th folio of this 77th folio comprises the twenty-ninth part [i.e.] of the Koran (Suras 67–77) and ends with a suraful colophon that attributes the work, both writing and illumination, to ‘Abū Ibn Al-Talh in the year 768–9. Bahrami dates the manuscript to the tenth century. The quires are arranged in the standard way, with two flesh sides in the center and two hair sides on the outside, but they are quarternary, rather than the usual quire.

64. Paola Orsatti, ‘Le manuscrit islamique: caractéristiques matérielles et typologiques,’ in Ancient and Medieval Book Materials and Technique, ed. Marilena Maniaci and Paola F. Munafò, Studi e Testi [Vatican City, 1957], 197; Deroche, Manuel, 86–91. These terminologies generally followed Gregory's rule so that open double pages have facing sides of the same condition [that is, hair faces hair, or flesh faces flesh].


66. Such a descending system was also used to count verses. A small, horizontal manuscript in the Chester Beatty Library (ms. 1416), for example, has a gold rosette with 2,382 numbered as mi‘latayn ma 'thamalān [asqala 228].

67. Alternatively, this archaic usage could have survived in one area, but not in another. Verse numbering on the archaic descending system were added, for example, to a ‘vertical’ format manuscript, most of which is in St. Petersburg [Exo], for which see Eilin Rezvan, ‘The Qur’an and its World: VI. Emergence of the Canon: The Struggle for Uniformity,’ Manuscripta Orientalia, 4, no. 3 [June 1998]: 13–34; Deroche, ‘Katta Langan’ Eilin A. Rezvan, ‘Yet Another ‘Uthmanic Qur’an.’ On the basis of stylistic and radiocarbon analysis [for which, see below], Rezvan dated this manuscript to the last quarter of the 8th century. Deroche assigned it to his group B.b. The titles with their verse counts seem to be latter additions, which Rezvan estimated could have been done fifty or one hundred years after the original copying. The descending system of hundreds, tens, and units was also used in the al-Bawwab Koran made at Baghdad in 391/1000–1 [see Chapter 5 and Figure 5.8]. Such a descending order is standard in Persian, an Indo-European language.

68. Grohmann, ‘Early Qur’ans.’


70. San‘a, Dar al-makhṭutat, Inv. Nr. 01.375, Masābif sanū‘, no. 4; Bothe, ‘Meisterwerke,’ pl. V. With its shafts that bend to the lower hook on alif, and lengthened strokes, it meets the criteria given by Deroche for hijāri script.
On this topic, see also Efim Rezvan, ‘Qur’an VL,’ esp. Table 8.


The shroud of Turin was subjected to a battery of scientific tests: radiography, microscopic examination, hematology, pollen analysis, and digital imaging. Such ‘scientific’ testing on the shroud was necessary in part because earlier ‘scientific’ tests – photographs made in 1868 and 1937 – had been shown to be invalid by proven techniques of the time. The authenticity of the shroud as ‘scientific proof’ for the authenticity of the relic as the burial cloth of Christ. 5


The amount of radiocarbon in a sample can be related to a radiocarbon age, which is usually quoted in ‘years before present’ [BP], with the present conventionally defined as CE 1950. 6

When testing the atom bombs significantly the radioactive carbon content of the atmosphere. If the amount of radiocarbon in the atmosphere was always the same, then one could use the calculated radiocarbon age as the true age of the sample. However, fluctuations in the amounts of cosmic rays and other climatic and artificial effects cause the total amount of carbon dioxide in the atmosphere to change slightly. As a result, it is necessary to calibrate the radiocarbon age against the radiocarbon contents of a standard of known age. The standard typically used for this calibration is tree rings, which can be dated accurately, and a curve of radiocarbon against known-age rings has been established from the present to c. 70,000 BCE. 7

The calibrated radiocarbon ages are typically given in two forms, with either one or two standard deviations (σ or 2σ). An error of one standard deviation (1σ) means that if many measurements were made on a collection of identical samples, 68 per cent of the results would fall within the range defined by the quoted plus-or-minus standard deviation. This range is often referred to as a 68 per cent ‘confidence interval.’ Two standard deviations define a 95 per cent confidence interval. Thus 95 per cent of all measurements on identical samples would fall within a range of plus or minus 2σ. In other words, it is fairly likely [68 per cent probable] that the date of an individual specimen falls within the range of 1σ and nearly certain (95 per cent probable) that it falls within the wider range of 2σ. When giving ranges, it is also essential to cite the level of probability. 8

In the case of the Persian silks, the ranges established for the medieval pieces were on average one hundred and fifty years at one standard deviation and over two hundred years at two standard deviations. 9

The main part of the manuscript, 81 folios containing text from

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44 suras, is in the Institute of Oriental Studies, St Petersburg [ms. E30]; other pages are in Tashkent, Bukhara, and the shrine of the 'Ishqiy Sufi brotherhood in Katta Langar, a remote site in Qoqa-Darya province, 70 km south-west of Déroche, Katta Langar, Efim A. Rezvan, Another 'Uthmanic Qur'an,' on the basis of stylistic and radiocarbon analysis, Rezvan dated the manuscript to the last quarter of the seventh century. Déroche to his group B lb. To muddy the waters, the manuscript has been corrected and titles added, using the 'archaic' system of numbering.

Efim A. Rezvan, 'Uthmanic Qur'an,' 19, 9, 4, citing the results from pages in the same manuscript sold at Christie's on 30 October 1992 [lots 235–331] and on 19 October 1993 [lots 29–30].

Bohmé, Ohlig, and Puin, Koranschöpfung,' for gives these dates, though neither the testing facility nor the standard deviations (or confidence levels) are given. An Umayyad date is often suggested for this manuscript, as in Déroche's article on 'Manuscripts of the Qur'an,' RE, 3359.


One exception is a fragmentary genealogical work now divided between the Bibliothèque Nationale [Arabe 2043, fol. folio] and the Staatsbibliothek, Berlin [Ms. Or. 379, two folios]. Although sometimes identified as Jaynharrat al-nasab, its exact name is unclear. Another exception is a copy of the Acts of the Apostles transcribed by the monk Musa al-Rabib, probably in Palestine in the ninth century, one quire has been removed from the manuscript in the Monastery of St Catherine on Mt Sinai and is now in the Bibliothèque Nationale [Arabe 6735, Marie-Céveneise Gueguen and Annie Vernay-Nouri (eds), L'Art du livre arabe: du manuscrit au livre d'artiste, [Paris, 2001], no. 13].

Déroche, 'Les manuscrits arabes dates,' showed that most manuscripts with other texts copied in kufic script cannot be considered authentic. These other manuscripts include a copy of al-Asma'i's Tayyib muhakk al-'arab al-awwal in [BN, Arabe 6736, for which see François Déroche, 'A propos du manuscrit Arabe 6736,' Bibliothèque Nationale, Paris [Al-Asma'i, Tayyib muhakk al-'arab al-awwal, Revue des Études Islamiques 58 [1990]: 135–88] and one of Hunayn ibn Ishaq's Adab al-fasîsfa [Tehran University Library, no. 2164].

Although no surviving Koran manuscript penned in kufic bears an authentic signature, medieval sources occasionally mention a signed colophon. Al-Dani (cited in Dutton, 'Red Dots', 119–20) reports, for example, that he saw a Koran manuscript from an old mosque [mustaf kani 'otaq] with a colophon saying that it was written by Mughira ibn Mina in Raja' in October–November 728 at the beginning of the caliphate of Hisham. This may have been the exception rather than the rule, for the sources regularly refer to the hand of a famous scholar, copyist, or calligrapher simply as 'well-known' [mu'tash], see Abbott, Stiles, 73.

The manuscript is dispersed; this page, for example, is in Los Angeles [LACMA, Ms6. 164a], for which see their splendid on-line display, with this page at http://collectionsonline.lacma.org.

Martin, Miniature Painting, 106 and 144, n. 83.

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103. Sheila S. Blair, *Islamic Inscriptions* (Edinburgh, 1998), 230, with further references. Astrolabes show that the two systems of abjad numbering were already in operation in medieval times. A tenth-century astrolabe made in Iraq by Ahmad ibn Khalif and now in the Bibliothèque Nationale uses the eastern system of alphaneumeric, whereas an Andalustan example made in 473/1080 in the Germanisches Museum, Nuremberg, uses the Western system. Both are illustrated in D. and J. Sourdel, *La Civilisation de l'Islam Classique* (Paris, 1968), nos. 203 and 205, respectively.

104. Folio 1b in the Chester Beatty Library, Dublin (ms. 1405), for example, shows verse sixty of Sura 65 [al-Baqara, The Cow] marked with a s.d.

105. A Spanish provenance has also been suggested (The Quran and Calligraphy: A Selection of Fine Manuscript Material, Bernard Quaritch Catalogue 1313 [London, 1995], 7–15), but is not convincing as it is based mainly on negative evidence.

106. The only ivory assigned to Fatimid North Africa, for example, is a painted ivory box made for the caliph al-Mu'izz at al-Mansuriyya, his capital in North Africa until 972. See The Arts of Islam, exhibition catalogue, Hayward Gallery (London, 1976), no. 145. Its technique, which makes little of the medium's qualities such as translucence and luster, shows that the Fatimids were producing an unfamiliar item. See further Sheila S. Blair, 'What the Inscriptions Tell us: Text and Message on the Ivories from al-Andalus,' *Journal of the David Collection* 2 (2005): fig. 5.


108. The Maghrbi system was also used in other Koran manuscripts made in the region, such as a copy transcribed at Palermo in 732/942–3 (Figure 5.4).


112. Just how early also remains a matter of debate. Dealers are naturally interested in making their wares as early as possible, as in the case of a parchment palimpsest recently published by Sam Fogg, *Islamic Calligraphy* (London, 2003), no. 1, and attributed to the time of the Four Orthodox caliphs as early as the 630s. Textual sources such as al-Nadîm, *Fihrist*, 11, however, tell us that Khalid ibn Abi'l-Hayja was the first to write copies of the Koran, and he worked at the beginning of the eighth century.

Part III: The Pre-eminence of Round Scripts in the Early Middle Period