Part I: Introduction
CHAPTER ONE

Arabic Script: Its Role and Principles

Writing in Arabic script became, if not the, main theme in Islamic visual culture as it spread over one-quarter of the globe during the past fourteen hundred years. This chapter begins by outlining some of the reasons why Arabic as the language of the revelation played a seminal role in the religion of Islam and in the civilization that flourished under Muslim patronage, and the script developed for writing Arabic was adapted to fit other languages, first New Persian, then Turkish, and eventually a host of others, both Semitic and non-Semitic, including several Berber languages of North Africa, the Iranian languages of Pashto, Kurdish, and Baluchi; the Indo-Aryan Urdu, Sindhi, and Kashmiri, the Dravidian Moplah, and the Austronesian Sulu, Malagasy, and Malay. The result is that Arabic, after Roman script, is the segmental script most frequently used in the world today. Still other languages commonly used to be written in Arabic, ranging from Swahili, Hausa, and Fulani in central Africa and Harari in Ethiopia to Slavic Serbo-Croatian in Bosnia, Polish, Belarussian, and even Japanese. Muslims in medieval Spain wrote their native Romance tongue in Arabic characters in the script known as aljamiado.¹

In virtually all times and places Arabic was esteemed not only for its content but also for its form. This chapter therefore turns next to a discussion of the basic principles of Arabic script that determined the parameters within which calligraphers could develop their art. It is not intended as a primer in Arabic; rather the section highlights features that affected formal performance, so that even those who do not read Arabic script can appreciate some of the calligraphic tours de force illustrated in the subsequent chapters.

For many people, Muslims and non-Muslims alike, copies of the Koran, God's revelations to the Prophet Muhammad in the early seventh century, epitomize Islamic calligraphy. Indeed pages, from magnificent codices of the Koran — whether on parchment or paper, penned in brown or black ink in a variety of scripts, and often decorated with gold — form the text most frequently illustrated in this book, comprising some one-third of its illustrations. The third and longest section of this chapter therefore discusses the contents and form of this scripture and its fundamental role in the development of Islamic calligraphy.
The importance of writing in Islamic culture

The extensive use of writing is one of the hallmarks of Islamic civilization. Writing decorates buildings and objects made in all media throughout the course of Islamic civilization from the seventh century to the present in almost all regions from the far Maghrib, or Islamic West, to India, south-east Asia, and beyond. Calligraphy, the art of writing beautifully, became one of the main methods of artistic expression. It was, moreover, the only one of the visual arts produced in the Islamic lands that was widely appreciated within its own culture, with treatises devoted to its history and artistic merits written from medieval times onward.

In part, the Islamic tradition developed out of local precedents, for in both the ancient Near East and the classical world, inscriptions had long been used to decorate the walls and façades of buildings as well as other monuments like triumphal arches. The Assyrians and the Achaemenids had used the wedge-shaped script known since the early nineteenth century as cuneiform (literally, wedge-shaped), inscribing it on official objects ranging from small seals to large-scale reliefs. Neo-Assyrian palaces built between the ninth and seventh centuries BCE at sites like Nimrud, Nineveh, and Khorsabad were decorated with marble and limestone orthostats, or tall upright slabs, each inscribed in the middle register with a dozen lines of text. The standard inscription detailed the king’s name, titles, and epithets; summarized his military achievements; and described the appearance of the palace. On the long walls, the inscription was sandwiched between upper and lower registers with a continuous series of images (usually termed narratives) depicting royal hunts and military conquests. On the slabs framing doorways, the text traversed larger-than-life-size representations of the king, his attendants, and winged deities. Reiteration drove home the message, which was superimposed over and unified the images into a coherent program of royal ideology.2

The Romans too recognized the artistic possibilities of monumental inscriptions. They developed a system of clear and simple lettering in which both the letters and the spaces between them were made to conform to aesthetic principles. Such an innovation had a major impact on Western art and visual culture, for the Roman system of monumental script is still the basis for modern lettering and book printing in the West.3 Writing dominated public space. Its civic function and its prominent position in the open affected its appearance and graphic style.4 The Romans manipulated epigraphic layout, letter size, which was dependent on height and placement, and shading, which was achieved through V-cut carving, as in the inscription at the base of the column erected by the Roman emperor Trajan in 105 CE, generally reckoned the finest masterpiece of Roman monumental lettering.5

In these earlier cases, writing usually supplemented and explained the accompanying image. What is different about Islamic art is that writing became the main—and sometimes the only—element of decoration. This fundamental change was due, in large part, to the pivotal role of the word in the religion of Islam. Its importance is clear from the five verses beginning Chapter 96 (qura‘ or al-‘A‘aq) of the Koran, generally reckoned to be the first words revealed to the Prophet Muhammad:

In the Name of God, the Merciful, the Compassionate,
Recite: In the name of thy Lord who created,
created Man of a blood-clot.
Recite: And thy lord is the Most Generous,
who taught by the Pen,
Taught man that he knew not.6

In other words, the knowledge of writing distinguishes man from God’s other creatures.

The importance of writing runs throughout the Koran. Chapter 68 (Surat al-Qalam), another early revelation, opens with the words, ‘Nam. By the Pen, and what they inscribe.’ According to another pair of verses revealed slightly later (Chapter 50, or al-Qaf, verses 17–18), two noble angels sit on man’s shoulders recording his every action and thought. The one on the right notes down good deeds, the one on the left evil ones. On Judgment Day, they will tot up man’s every deed for the final accounting in the Book of Reckoning (Chapter 69, or Surat al-Haqqa, verses 18–19).

Although the Koranic text is never illustrated, artists in later periods incorporated the imagery from it in other works. This painting of the two scribbling angels (Figure 1.1), for example, comes from a lavishly illustrated manuscript of al-Qazwini’s cosmography, A’la’ib al-makhluqat wa ghara’ib al-mawjwardat (The Wonders of Creation and the Oddities of Existence).7 The text is an encyclopedic work that summarizes existing literature on astronomy, geography, botany, mineralogy, and zoology by dividing the known universe into the spheres of heavenly bodies, water, and earth. Transcribed at Wasit in 678/1280, this manuscript is the only complete copy of the work known, made three years before the author’s death in the city where he served as chief judge, or adi. Interestingly, the angels do not write in codices, the ubiquitous book format in the Islamic lands, but on scrolls, the format used for official documents at this time, as in the contemporary decree issued by the Mongols in 692/1293 (Figure 7.13). The Ilkhanid artist therefore saw these angels as bureaucrats!

The centrality of the Koran led to the promotion of the Arabic language as a regional idiom to the lingua franca of an empire. During the Prophet’s lifetime, Arabic was spoken by only a relatively small number of people in the region to the east and south-east of the Mediterranean Sea. That situation changed dramatically following the Umayyad conquests westward across North Africa and eastward over the Iranian plateau and the establishment of a centralized
script and the meaning of the words. Nevertheless there are significant differences between the east Asian and the Islamic traditions. Some are material: Chinese and Japanese calligraphers worked with a brush, Muslims with a pen. The flexibility and multiple fibers of the standard writing implement affected the fluidity and uniformity of the strokes. Cultural values played a role as well. Both Chinese and Japanese calligraphers imbued their art with their personal style. East Asian calligraphers generally sat motionless, contemplating the moment of artistic creation, and then with a burst of creativity, applied brush to support. As a result, the reader is meant to sense the personality of the artist through the calligraphy. In following the brushstrokes, the reader experiences a visual sequence of movement and rest and thus participates in the physical process of creation.

This scenario does not hold true in the Islamic lands, where the individual artist is thought to have applied pen to support in regular, steady strokes. Illustrations of Muslim calligraphers at work date only from later times (see Figure 12.1 for an example from the early seventeenth century), but textual descriptions lead us to assume that they had worked this way in earlier times as well. The reader is not meant to glean the calligrapher's personality from the script, but rather to appreciate the unswerving line and modulated forms that reflect the transcendence of the Almighty. Palpability and movement are replaced by inefiability and control, complex characters by simple strokes.

In east Asian work, furthermore, calligraphy is often appended to a mimetic representation, whether other ornament on a cast bronze or painted landscape on a scroll. By contrast, in the Islamic realm, calligraphy typically stands alone, as pictorial art is discouraged in most religious or official settings. Writing thus became one of the main vehicles to signify power, belief, legitimacy, and many other ideas and ideologies for which images are used elsewhere. Islamic culture is, in the words of Erica Dodd, ‘the image of the word.’

**Principles of Arabic script**

Calligraphy conveys information through both its semantic content and its formal appearance (and also through its aural resonances for the reader, who recites or internalizes the sounds). Even without reading or understanding the first, it is possible to appreciate the second if one is aware of some fundamental principles of the Arabic writing system. Arabic script, like Hebrew and Syriac but unlike Greek and Roman, is written from right to left, although curiously the numbers reflect an ancestral system and read in the opposite direction, from left to right. This right-to-left orientation dramatically affects layout, for the reader always begins at the right side of the page. Codices—the ubiquitous book form adopted in the Islamic lands—therefore, open in the opposite way that they do in the West.

Arabic script, like Greek and Roman scripts but unlike Egyptian or...
INTRODUCTION

Mayan hieroglyphics and Chinese characters, is written with individual symbols for letters. In an alphabetic language, these characters denote both consonants and vowels, but the system used for Arabic is what linguists call an abjad, meaning that these characters denote consonants [Figure 1.2]. Many scripts have at least two distinct forms: writing a monumental or printed form, in which the letters are written separately, and a cursive or handwritten one, in which they are connected. Compare, for example, a printed book or a carved gravestone with a handwritten letter. Arabic script, however, has only the cursive form of writing, although it has many styles. Because the individual letters in a word can be connected together, they change their shape depending on their position within the word. The same letter can have one form when it stands alone [independent], another at the beginning of a word [initial], a third in the middle of a word [medial], and yet a fourth at the end of a word [final]. These forms are interrelated, and their position in relation to the baseline (a hypothetical ruling on which the letters 'sit') can vary, depending on the preceding or following letter. Unlike most other modern languages, there are no upper- and lower-case forms in Arabic script. Instead, particular words or phrases are used to indicate the beginning of a declarative sentence, a new thought, or a question. Despite sporadic attempts to introduce it in the nineteenth century (see Chapters 11 and 13), modern Western-style punctuation - commas, periods [full stops], parentheses, question marks, and so forth - was not used until recent times.

The traditional abjad used for writing Arabic has twenty-eight distinctive phonemes, or sounds, but only eighteen graphemes or forms, so the same sound has to be used for as many as five different sounds. For example, the letters ba, ta, tha, nun, and ya (transcribed in English as b, t, th, n, and y) are all represented by the same shape. Although they assume different shapes in final position, these five letters are all written in initial and medial positions in the same shape of a short upright stroke, often called a tooth. These letters can be distinguished only by the dots accompanying them: one below the letter for ba, two and three above the letter for ta and tha respectively, one above the letter for nun, and two below the letter for ya. In other cases, identical forms are used to represent two or three letters in all positions. The letter ghayn, for example, is exactly the same as 'ain except for the dot written above it. The same is true of sad and dad. Jim, ha, and kha have the same shape, but one dot below, no dot, and one dot above, respectively.

Like all other Semitic languages, the Arabic language is based on a system of roots, where three (or sometimes four) radicals, connotes a semantic concept. A vocabulary is generated by grammatically transforming these roots according to regular patterns. Thus, the combination k-t-b is a root that conveys the idea of writing, from it are generated cognates including kitab a writer or scribe, kitab a book, kuttubi a bookseller, kuttab a school, and maktab a place of writing or office [Figure 1.3]. Similar transmutations produce words from other roots.

Also like other Semitic languages, Arabic (and from it other languages written in Arabic script) requires that only the consonants and long vowels be written. As the root and grammatical form of the Arabic language define virtually every word in the lexicon, the reader can supply the unwritten short vowels from the context. Thus k-t-b
can be read either as kataba [he wrote] or kuttiba [it was written], and the reader depends upon the context to decide which reading is correct. The short vowels and other marks for such features as doubling [gemination], nunation [adding a final n], and the like can be added above or below the letters, especially if there is chance of confusion. Such markings became common when transcribing Koran manuscripts to reduce the risk of misreading scripture.

In order to adapt Arabic script for writing other languages, notably Persian and Turkish, some modifications had to be made, as these two languages have a few sounds that do not exist in Arabic. Certain letter forms were adapted by adding dots to letters that represented similar phonemes in Arabic. For example, the letter paʿ [pronounced p], the unvoiced form of baʿ [pronounced b], is written with three dots below, rather than the one used for baʿ. The same kind of transformation holds for chaʿ [ch] and jim [j] as well as zhaʿ [zh] and zaʿ [z]. The letter gaf [g] is written by adding another bar to the kaf [k]. In this way the eighteen letter shapes used for writing the twenty-eight phonemes of the Arabic abjad were expanded to cover the thirty-two phonemes used in Persian and Turkish, the first two languages to adopt Arabic script. Using the same kinds of transformations, this versatile system was adapted to transcribe scores of other languages. 19

INTRODUCTION

<table>
<thead>
<tr>
<th>Definition</th>
<th>Transcription</th>
<th>Arabic Form</th>
<th>Arabic Form (Vocalization)</th>
</tr>
</thead>
<tbody>
<tr>
<td>to write</td>
<td>kataba</td>
<td>كَتَبْ</td>
<td>كَتَبْ</td>
</tr>
<tr>
<td>piece of writing</td>
<td>kuttiba</td>
<td>كَتْبَة</td>
<td>كَتْبَة</td>
</tr>
<tr>
<td>bookkeeper</td>
<td>kahuhib</td>
<td>كَحُبْ</td>
<td>كَحُبْ</td>
</tr>
<tr>
<td>Koran school</td>
<td>hubb</td>
<td>هُبْ</td>
<td>هُبْ</td>
</tr>
<tr>
<td>office</td>
<td>maktab</td>
<td>مَكْتَب</td>
<td>مَكْتَب</td>
</tr>
<tr>
<td>offices</td>
<td>maktab</td>
<td>مَكْتَب</td>
<td>مَكْتَب</td>
</tr>
<tr>
<td>bookseller</td>
<td>muktab</td>
<td>مَكْتَب</td>
<td>مَكْتَب</td>
</tr>
<tr>
<td>typewriter</td>
<td>miktab</td>
<td>مَكْتَب</td>
<td>مَكْتَب</td>
</tr>
<tr>
<td>correspondence</td>
<td>muktaba</td>
<td>مَكْتَبَة</td>
<td>مَكْتَبَة</td>
</tr>
<tr>
<td>enrollment</td>
<td>inktab</td>
<td>إنْكَتْب</td>
<td>إنْكَتْب</td>
</tr>
<tr>
<td>dictation</td>
<td>kishtab</td>
<td>كَيْشَتْب</td>
<td>كَيْشَتْب</td>
</tr>
<tr>
<td>writer, scribe</td>
<td>katab</td>
<td>كَتَب</td>
<td>كَتَب</td>
</tr>
<tr>
<td>written</td>
<td>maktab</td>
<td>مَكْتَب</td>
<td>مَكْتَب</td>
</tr>
<tr>
<td>correspondent</td>
<td>muktahab</td>
<td>مَكْتَحَب</td>
<td>مَكْتَحَب</td>
</tr>
<tr>
<td>store</td>
<td>muktahab</td>
<td>مَكْتَحَب</td>
<td>مَكْتَحَب</td>
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</table>

Although these three languages use the same abjad, they belong to different branches of the linguistic tree: Arabic to the Semitic group, Persian to the Indo-European group, and Turkish to the Turkic group. In each of these three, different sounds and different letters predomi- nate, resulting in different patterns of the written script. 20 In Arabic, sounds tend to be arranged by groups [nasals, labials, etc.], and the most common vowel is a. Turkish, by contrast, is marked by a pre- dominance of palatals [k, g, q, sh, and j]. Persian has a regular alternation between different categories of sounds and in this sense might be termed the most harmonious of the three.

In Arabic, the most common letter is alif, the first letter of the abjad, written as a tall vertical stroke and often compared metaphorically, particularly by mystics, to a standing person who refused to prostrate. 21 It indicates the most frequent of the three long vowels, long a, and is the graphic support or seat [kuris] for the glottal stop [hamza]. It occurs in seven of the ten regular conjugations or mor- phographic forms of any given root. 22 It also appears in many common words and phrases. Alif is written, for example, as part of seven of the twelve personal pronouns and the feminine plural ending -at. Most importantly, it opens the definite prefix al-[the], in which it is paired with lam, another tall upright stroke that connects to the left. Alif’s frequency on the page gives written Arabic a pronounced verticality, and the common combination alif lam produces a sense of rhythm, like upright soldiers marching across a parade ground.

The other two languages commonly written in Arabic script are dif- ferent. Persian is marked by the repetition of the determinative suffix -ro, the indefinite suffix -i, and the regular verbal endings -ast [[he/she/it] is] and -and [[they] are]. Many of these letters are written with curved forms. Turkish is an agglutinative language that uses not only prefixes and suffixes, but also infixes. The result is many long words.

Calligraphers exploited the tendencies latent in the regular forms of these three languages written in Arabic script. For example, when writing Arabic, they often exaggerated the verticality engendered by the repeated use of alif. For balance, they elongated other letters horizontally according to the principle known variously as masaʿ, madd, or kasihat [see Chapter 3 and Figure 2.7, 3.8, etc.]. Sometimes they intertwined the double uprights of alif and lam or inserted sup- plementary U-shapes to fill spaces left blank because there were no upright letters [Figure 6.3]. Calligraphers writing Persian emphasized curves, superposing words above an imaginary baseline and eventually creating hanging scripts that descended diagonally from upper right to lower left [see Chapter 7]. Calligraphers writing Turkish learned to adjust for the length of words, often using the same hanging styles and emphasizing the repeated cross-strokes of kas and gaf [g, Figure 2.6].

Writing Arabic script—whether for Arabic, Persian, Turkish, or other languages—differs in several significant ways from writing the cursive form of Roman script. 23 Most letters in the Arabic abjad are
INTRODUCTION

Lisa Volov (Colombek) put forward a theoretical model to explain the development of letter shapes in Arabic script. She grouped the letters in five categories based on shape (vertical, rectangular, round, low, and oblique) and posited three degrees of transformation to each category: natural transformations that do not change the basic forms of the letters, internal modifications that alter the relationship between parts, and superimposed ornaments that are added to the basic shapes of the letters.

simpler in form than those in the Roman script (and much simpler than Chinese characters). This simplicity of form facilitates streamlining and encourages shortcuts and other modifications. Thus, in many later styles of Arabic script, calligraphers often flattened the three little bars or teeth of sin/shin into one long, swooping stroke. Similarly, they extended the descending tails of final nun, ya', and similar letters into large curving bowls. The internal shapes of letters could also be stretched. This is particularly dramatic in the case of rectangular graphemes such as dal, sad, ta'zayn, and kaf, whose medial forms comprise parallel lines.

In the theoretical model for the transformation of Arabic letters posited by Lisa Volov, such types of modifications are natural transformations because they require no radical change in the basic forms of the letters (Figure 1.4). They mark a first degree of transformation. Calligraphers writing Arabic script could further transform the letter shapes by incorporating motifs or devices from the non-epigraphic vocabulary, such as interlacing or foliation. For example, they could twist or knot the upright stroke of an alif or the parallel bars of a rectangular letter. These internal modifications comprise a second degree of transformation as they still occur within the confines of the basic letter forms, but alter the relationship between parts. In a third degree of transformation, calligraphers could add superimposed ornaments, appendages that do not affect the basic forms of the letters. In contrast to the first and second degrees of transformation, the third degree consists solely of additive elements and properly belongs to the realm of decoration rather than writing.

Two other characteristics of the Arabic writing system affect the relationship between word and penstroke. Unlike the Roman alphabet, in which all letters can be connected to both the previous and the following letter, seven of the thirty-two letters in the expanded Arabic alphabet (alif, dal, dhal, ta', za', zha', and waw) – or more than 20 per cent – do not connect to the following letter. Arabic script also has far more diacritical marks. When writing English, for example, only two letters of the Roman alphabet (i and j) require diacritical marks, whereas twenty-one of the letters (66 per cent) do in Arabic script as printed today. Of these, seventeen letters (ba', pa', ta', ka', da', dha', za', zha', shin, dad, da', ghaun, ja', qa', and nun) require a dot or dots; five letters (alif madda, ta', za', ka', and qa') require upright or diagonal strokes; and a further letter (ta' marbuta) can require dots in certain situations. There are also free-floating diacritical marks, such as the strokes to denote the short vowels fatha, kasra, and damma that can be added in cases of possible ambiguity.

As a result of these two characteristics – the breaks between certain letters within a word and the additional diacritical marks – Arabic script has more penstrokes per word than Roman script. When writing Roman script, the end of the penstroke typically marks the
end of a word, whereas when writing Arabic script, a non-connecting letter requires the end of the penstroke before the end of the word. Some words need two or more penstrokes in addition to diacritical marks. Calligraphers, if they had no space to finish a word at the left end of a line, often broke off at the end of the penstroke. In early Koran manuscripts, they often continued the second part of the word on the following line or even the next page (e.g., Figures 1.5, 4.3, 4.5, 4.6, etc.), a situation akin to the hyphenation used in modern printing, but without any punctuation mark to indicate the break.

In later manuscripts, particularly copies of Persian poetry written in the hanging nastā’iq script (e.g., Figures 7.15, 10.7, 13.6, etc.), calligraphers often stacked the last syllable or penstroke above the end of the line at the left. This was especially suitable in Persian, where many words end with the same letters, such as the final ya’ of the indefinite, the plural ending -an, or the third person form of the verb to be, -ast or -and. Calligraphers could also adjust the location and size of the many diacritical marks. Again this feature is particularly appropriate when writing Persian and Turkish, which have more letters with multiple dots or bars. In addition to the three dots used in Arabic to distinguish shin from sin and thay from ta’, the alphabet for writing Persian also uses three dots for the letters zah and chay, and two strokes to distinguish gap from kaf. Calligraphers writing Persian in later periods played with these dots, sometimes sprinkling them like seeds on top of a bun and spacing them out to fill the voids left by low letters (e.g., Figure 10.6).

Calligraphers writing Arabic script could also manipulate the spaces between penstrokes. They could, for example, allow the same amount of space between penstrokes within a word as they did between words. That is, they could make the spaces between words the same width as the spaces between syllables or penstrokes. Such even spacing contrasts dramatically with that adopted in modern Western typography, where a wider space is typically left at the end of a sentence to alert the reader visually to a break in thought more significant than the one between words.

The ancient Greeks had done the same thing, rejecting word separation in favor of the so-called scriptura continua. Ancient languages of the Mediterranean lands, both Semitic and Indo-European, were written with words separated by spaces, points, or a combination of the two. Once the Greeks adapted the Phoenician alphabet by adding symbols for vowels, word separation was no longer necessary to eliminate any unacceptable level of ambiguity that could occur in reading Indo-European languages, which were polysyllabic and inflected. The reader did not need to identify words, only parse syllables. By the second century CE, the Romans had adopted the Greek convention as well. They did so deliberately, abandoning the intraword spaces and punctuation in order to slow down reading and enhance its oral and rhetorical aspects. Such unbroken text also provided mnemonic compensation through enhanced short-term aural recall.

Figure 1.5  Page containing Sura 14:37–43 from a parchment Koran manuscript with fifteen lines per page. This fragment from an early Koran manuscript was part of a major gift by the Safavid shah ‘Abbas to the shrine of the eighth imam ‘Ali ibn Musa at Mashhad in Iran. The last page contains a colophon alleging that the manuscript was penned by the Prophet’s son-in-law, ‘Ali ibn Abi Talib, and the first page contains an attestation to its authenticity by the leading theologian of the day, Shaykh Raha’i Amuli. The Safavids collected these manuscripts to bolster their legitimacy as descendants of the Prophet through his family, though modern scholars doubt that manuscripts like these actually date to the first century of Islam.

for at this time reading meant reading aloud. Silent reading—like the word separation that was adopted in Roman script beginning in the seventh century CE—was embraced only in medieval times.

Calligraphers writing Arabic script sometimes did the same thing, willfully abandoning the spaces between words. We can see this readily on a page from an early Koran manuscript now in the Astan-i Quds library in Mashhad (Figure 1.5). The first letter on the page (Figure 1.5a) is a final ya’, the last letter and penstroke of the word dhi (possessing) that began on the preceding page. The space between this final ya’ ending the word is the same size as the spaces between the next three letters za’, ra’, and ‘ayn, three separate penstrokes that make up the following word zar ‘cultivation’. In these early Koran manuscripts,
INTRODUCTION

therefore, spacing gives no visual clues as to where one word ends and the next one begins. Such manuscripts must have been used for recitation by someone who already knew the text by heart, with the written record serving as an aide-memoire. Such spacing also performed the positive function of slowing down reading and recitation.

Calligraphers’ ability to manipulate both the simple forms and the breaks between penstrokes allows for great flexibility in writing Arabic script. They have the possibility of extension and contraction, more often the former than the latter, and they deliberately exploited the contrast between the two. On the page from the Koran manuscript in Mashhad (Figure 1.5), much of the visual excitement arises from the regular distribution of elongated shapes, either the connector between letters or especially the two parallel bars of graphemes such as dal, kof, َةٌ, and sad. Such broad rectangular shapes demanded a steady hand, and their rectilinear forms contrast in turn with the curved shapes in other letters such as the bent foot of alif and the bowed head of initial ُقْ. The mark of a good calligrapher, such as the anonymous one who penned this large and thus expensive copy of the Koran, was to distribute these shapes across the page in regular and therefore mentally pleasing patterns.

Some scholars today have attempted to find underlying geometric frameworks to explain the distribution of shapes across the written page. Valery Polosin, for example, suggested that certain aspects of the Islamic book are generated by a geometric grid based on the intersection of various proportional systems of line segments and curves. Most of his work deals with later manuscripts, including frontispieces, book covers, and other aspects of page layout, but he has also suggested that the pages in early Koran manuscripts written in the angular script known as kufic were designed on a proportional grid formed by pressing the nib of the pen to paper. To my mind, such analyses are not convincing. They are reductionist to the point of absurdity, for, as with the spiraling scrolls that Alexandre Papadopoulos proposed as the underlying basis of all Islamic painting, the manipulation of size and scale allows the justification and rectification of virtually any composition to an underlying grid. All Islamic calligraphy is based on geometric considerations, especially the width of the nib and hence the size of the penstroke, but in most cases the art of the calligrapher lies in manipulating the forms freely within the contraints imposed by the rectangular page and the lines of text written across it.

The Koranic text

Written copies of the Koran comprise the most important text for Muslims. Revealed orally to Muhammad, the scripture was soon committed to writing, although scholars have debated exactly how soon this occurred (see Chapter 4). Verses very similar to, though not identical with, the text are inscribed on coins issued by the

Umayyads [Figure 3.4] and on the Dome of the Rock in Jerusalem, ordered by the caliph ’Abd al-Malik in 72/692 (Figures 3.6 and 3.8), and beautifully written codices of the Koran soon became common. Throughout the course of Islamic civilization, selected verses were also inscribed on all sorts of objects and buildings, such as the Taj Mahal (Figure 13.4).

In view of the Koran’s seminal role as the primary text for Islamic calligraphy, then, it is important that readers have some idea of its content and form. The Koran is probably the most important topic in Islamic studies, and there is a vast literature about it. It not only forms the longest single article in the second edition of the Encyclopaedia of Islam, but has also recently become the subject of its own encyclopedia, a reference tool devoted more to the content of the scripture than to its form. Even the text itself can be approached in many ways, as shown by the recent spate of articles by the Russian scholar Efim Rezvan, who has written on various aspects, ranging from its ecstatic dimensions to its role as a signifier of social relations in late-seventh-century Arabia. This discussion is intended only as an introduction, focusing on the formal and physical realizations of the Koranic text and its relevance to Islamic calligraphy.

As a book, the Koran is comparable in length to the New Testament. It contains some seventy-seven thousand words arranged in 114 chapters (Arabic suras) of varying length. It opens with the Fatihah, a beautiful short prayer that serves as an invocation in many situations:

In the Name of God, the Merciful, the Compassionate
Praise belongs to God, the Lord of all Being
the All-merciful, the All-compassionate
the Master of the Day of Resurrection
Thou only we serve, to Thee alone we pray for succour.
Guide us in the straight path
the path of those whom Thou hast blessed,
not of those against whom Thou art wrathful
nor of those who are astray.

In codices this chapter was frequently enhanced by splendid illumination across a double page (e.g., Figure 8.2) or as the right half of a double page (e.g., Figures 1.8, 1.9, 10.3, 11.3, 11.3, 12.14, and 12.15). Since it also served as a talisman, this chapter was scrawled on potsherds or bones. It was also penned in special scripts as a calligraphic exercise (Figure 10.10).

The other chapters of the Koran follow in roughly descending order of length, from the nearly three hundred verses of the second chapter to the final two chapters, which are short prayers of a few lines each. Pages with these concluding short chapters are also singled out for rich illumination (e.g., Figure 5.7 and 12.5). The chapters of the written text of the Koran are thus arranged neither in the order in which they were revealed nor in a narrative sequence.
Neither the chapter names nor the verse numbers were part of the original revelation; rather, they were coined later to help distinguish sections of the text. Muslims traditionally identify the chapters by name. They often use a catchword, an unusual word or thought that occurs in the chapter. The second (and longest) chapter in the Koran, for example, is called the Cow (Surat al-Baqara), from the parable of the heifer that God commanded Moses to sacrifice, mentioned in verses 67 to 71. For purists, this should be written precisely as ‘the chapter in which the cow is mentioned,’ and such an exact system of nomenclature was occasionally used in fine manuscripts, such as the large codex made by a royal scribe at Hamadan in 559/1164 (Figure 6.9) and the magnificent copy on paper dyed purplish-brown that the Hafsid sultan Abu Faris endowed to the mosque of the Qasba at Tunis in 805/1400 (Figure 9.12).

Since the chapter names were adopted by believers only after the revelation, it is no surprise that they have not been accepted uniformly. The seventeenth chapter, for example, is usually known as Bani Isra'il (the Children of Israel), but is sometimes called al-Isra' (the Night Journey) from Muhammad’s night journey mentioned in the opening verses. Some commentators took their names from the opening words in the chapter, regardless of their meaning. The great commentator al-Tabari (d. 923), for example, called the one hundred and fifth chapter al-lam tara (literally, did you not see) after the very first words. Most people, however, call it the Elephant (al-Fil), after the main reference in it to the victory over the people of the elephant, thought to refer to the Meccans’ defeat of the Abyssian prince Abraha, who c. 570, like Hannibal against the Romans, invaded with an army of elephants. Analysis of these variant names may help to distinguish different traditions, and descriptions of an individual manuscript should properly include the variant chapter names used in it.

The numbering of the verses within the chapters is equally problematic. Already from the tenth century scholars were arguing over variant readings of the Koranic text (see Chapter 4 for further details about some of these readings), and the addition of a pause between phrases could allow for the insertion of an extra word or number. Some readers counted the basmala – the introductory phrase bism allah al-rhaman al-rahim (in the name of God the Merciful, the Compassionate) that precedes all but one chapter (the exception is Chapter 9, al-Tawba, Repentance) – as a verse; most did not. The debates became so heated that from the tenth century calligraphers frequently added frontispieces specifying the reading they had used (Figure 5.8) and/or the number of verses in it (Figure 6.9).

Modern readers still do not agree on the numbering of verses. Montgomery Watt’s classic study of the Koran contains an appendix with two numbering systems common in modern times: one found in Gustav Flügel’s 1834 edition of the text, traditionally used by Western scholars in the nineteenth and early twentieth centuries, and the other used in the standard Egyptian text printed in Cairo under King Fu‘ad I, the edition sanctioned by Muslim authorities. The bilingual edition of the Koran most readily available in English, the one done by Yusuf Ali, uses a third system with a few variants.

In contrast to Muslims, Western scholars have traditionally used a numerical system to cite Koranic chapter and verse. They adapted the model for citing Biblical texts, designating the chapter with a Roman number and the verse with an Arabic numeral (e.g., II:255). They chose a numerical system in part to avoid the variations in chapter names. The numerical system was also in keeping with the taxonomic tradition popular in the West since the age of Darwin, making the study of the Koran seem more scientific and less devotional.

But this numerical system too has problems. Roman numerals are clumsy, and it is easy to drop one digit of longer numbers (XVIII, for example, often gets mistakenly truncated to XVII). Furthermore, the visual aspect privileges the Roman system of lettering. For simplification here, I have used a modified Western system, with 2:355 meaning the 25th verse of Chapter 3, following the numbering system used in the Standard Egyptian edition of the Koran. The standard Arabic concordance to the Koran uses a similar system, although many Muslims would cite the same verse as Surat al-Baqara, 255 or Ayat al-Kursi (Throne Verse).

In Koran manuscripts, the name of the chapter and the number of verses were typically accompanied by the word Mecca or Medina, to indicate the place of revelation. None of this information is part of the Koranic revelation, and to show that it is of human, not divine, inspiration. Muslim calligraphers wrote it first in a different color of ink and later in a different script than that used for the main text of the revelation. Anglo-Saxon calligraphers, beginning in the eighth century at Wearmouth-Jarrow and elsewhere, developed a similar hierarchy of scripts to distinguish text from commentary, typically using uncial for the former and minuscule for the latter. By the ninth century they had evolved a more elaborate system, using a display script for headings and colophons, a secondary one to distinguish the beginning of a text, chapter or paragraph, and a tertiary one to indicate the beginning of a thought or sentence.

To underscore the point that this information about chapter name and verse count did not belong to the Koranic text, it was set off in boxes, often with palmettes extending into the margin. In this way, the reader flipping through the codex would instantly recognize the divisions between chapters. These boxes typically occur as headings to the chapter, but sometimes they were appended at the end of a chapter and indicate the subject of the preceding chapter, as is the case in the Hafsid Koran manuscript (Figure 9.13). The difference between headings and footers is known in other book traditions: it parallels the different traditions followed by American and some European, particularly French, presses, which place the table of
INTRODUCTION

contents at the beginning or the end of the volume, respectively. For the study of Islamic calligraphy, these pages with headings/footers are particularly important as they illustrate the hierarchy of scripts that a single calligrapher had mastered at a particular time. In the same way calligraphers often set off the opening of a literary or theological work in another script. [Figures 5.11 and 8.14].

Because of the unique arrangement of the Koran, it is impossible to classify its contents into standard literary types, such as legends, parables, short stories, and the like. The text contains various types of material, including prayers, oaths, regulations, ‘sign’ passages [in which certain aspects of nature and human life are ‘signs’ [Arabic ayat] of God’s omnipotence and benevolence towards man] ‘say’ passages [in which believers are told to say something], and finally narratives. Although the easiest to remember, the narrative elements in the Koran actually form a very small part of the whole. Furthermore, they are not read continuously. Parts of the story of Moses, for example, are scattered over forty-four different passages. Those reared in the Biblical tradition traditionally criticized this segmental approach as non-linear, but scholars have recently pointed out its positive virtues as the fragmented poetic of composition allows the text to ‘achieve its most profound affects, as if the intensity of the prophetic message were shattering the vehicle of human language in which it was being communicated. [41]

Most of the narratives are versions of traditional stories found in other Near Eastern cultures. For example, the text several times mentions the creation of the world in six days and the throne from which the universe is controlled creation of the world in six days. One of the most lyrical evocations of God’s majesty is the Throne Verse or Ayat al-Kursi. 2:255:

God
there is no god but He, the
Living, the Everlasting,
Slumber seizes Him not, neither sleep,
to Him belongs
all that is in the heavens and the earth.
Who is there that can intercede with Him
save by His leave?
He knows what lies before them
and what is after them,
and they comprehend nothing of His knowledge
save such as He wills.
His Throne comprises the heavens and the earth;
the preserving of them oppresses Him not;
He is the All-high, the All-glorious.

This passage was a particular favorite, often inscribed on objects and buildings and still popular with calligraphic artists.
INTRODUCTION

views of the same mosque, though without people.⁴⁴ The decoration in all other frontispieces is exclusively geometric and floral.

In the seventh century, Insular artists developed such full-page decorations on the left-hand page, or verso, of a leaf. They perceived Latin in graphic, not oral, terms, and were concerned with the content, rather than the appearance, of the text. Along with new forms of punctuation and script, such ‘carpet-pages’ were part of their ‘grammar of legibility,’ serving to indicate a new text or a major division.⁴⁵

In Koran manuscripts, illumination was also used to mark other divisions. Although compiled in a single text, the revelation was often broken into parts to aid in recitation. The most popular division comprised thirty parts [Arabic juz’], pl. az‘a; Persian si-pars (30 parts) or simply para [part] to correspond to the days of the month. This division was current already by the ninth century, as in the famous manuscript made for Amajur [Figure 4.2] and a similar one endowed by ‘Abd al-Mun‘im to the mosque of Damascus in 978. This format was soon adopted throughout the Islamic lands, from Morocco to China [Figure 9.3]. These thirtieths, in turn, were sometimes divided into four parts, including one-quarter [al-rab‘], one-half [al-nif], or three-quarters [al-thalatha]. The sixtieths were known as hizb (group or band). The division into sixtieths, while not popular in India, was common in the Maghrib and is said to have been a more recent division than the juz’.⁴⁶

Another common way of dividing the Koran is by sevenths (mamzil, literally station), to correspond to days of the week. This division was also known from early times and is found in manuscripts made over a wide geographic swathe. It was used, for example, in the so-called Blue Koran, attributed to Tunisia in the tenth century [Figure 4.10], the parchment copy made at Palermo in 372/983-84 [Figure 5.4], the paper copy transcribed by Uthman ibn Muhammad at Bust in 506/1111-12 [Figure 6.6], and the paper copy transcribed by Ibn al-Wahid for the Mamluk amir Baybars [Figure 8.13]. Nevertheless, it does not seem to have been as popular as the thirty-seventh division.

The long text could also be divided in two volumes. This was usually a functional division adopted also for practical reasons. In east Africa, for example, the two halves were set in niches on the sides of a doorway of a house to symbolically protect those entering, and older manuscripts were sometimes split into two volumes for this purpose [see Chapter 12 and Figure 12.12]. Similarly, publishers sometimes divide the text into halves, as in the original edition of A. J. Arberry’s English translation, which was then reprinted in paperback in a single volume.⁴⁶

These divisions into parts are often marked in the margin, along with similar indications for pauses, places of prostration, and the like. Larger divisions into thirtieths, sevenths, or halves can also be marked by an illuminated page or pages [e.g., Figure 9.8], but often the manuscript was divided into that number of volumes. This was the case not only with large presentation copies of the Koran used for public recitation in the mosque, but also with smaller copies that were then stored in a single box [Figure 7.8].

For theologians like the Damascus scholar and polemicist Ibn Tāmimīya [d. 1328], the Koran is God’s literal word and therefore can be read only in the majestic and glorious Arabic language in which it was revealed. The necessity of reading the Koran in Arabic means that all believers should learn Arabic in order to do so. This requirement has had several important ramifications for the way in which Islamic civilization developed. It has created a linguistic bond among believers, particularly as Islam spread beyond the boundaries of Arabia to regions inhabited by speakers of other languages. Having learned to use Arabic as the language of religion, they also used it as a language of literature, science, commerce, and social intercourse.

The primacy of Arabic as the language of God’s revelation has also helped to preserve the purity of the Arabic language, for Muslims constantly call to mind the noble and magnificent words and phrases of the Koran. Although the Arabic language has evolved over the fourteen centuries since the Koran was revealed, it has not changed as much as English has in the six centuries since the time of Chaucer. Finally, the primacy of the Arabic language has encouraged the spread and use of the Arabic script, which is known from the shores of the Atlantic to the Pacific to render a variety of languages, including not only the original Arabic, but others ranging from Persian and Ottoman Turkish to Malay.

Despite the necessity of learning the Koran in Arabic, there have been many attempts to render it into other languages. The English monk Robert of Ketton made the first translation into a Western language in 1143, translating the Arabic into medieval Latin for Peter the Venerable, abbot of the monastery of Cluny, who wanted to understand the Koran so as to counter it.⁴⁷ Robert’s autograph manuscript survives in the Bibliothèque du l’Arsenal in Paris, but it took exactly four centuries for the work to be printed.⁴⁸ The first edition was printed at Basel in 1543 by Theodore de Bury and Biblant, a Protestant divine who served as professor of theology at Zurich. The publication was quite controversial: when it first appeared, the copies were seized and the printer arrested. Only after lengthy negotiations with the city’s authorities and the intervention of several Reformers, notably Martin Luther, was the work released. Nevertheless, it was a popular seller, and a second edition, with a preface by Martin Luther, was issued twenty years later at Basel and Zurich.

For more than a century the printed edition of Robert of Ketton’s Latin translation served as the basis for other translations of the Koran into modern European languages. The first was Andrea Arrivabene’s Italian version of 1547 printed in Venice. The German theologian and traveler Salomon Schweigger produced a German edition at Nuremberg in 1616. Only in 1647 did anyone attempt a
TRANSLATION INTO A MODERN WESTERN LANGUAGE DIRECTLY FROM THE ARABIC ORIGINAL: this was done by André du Ryer, a nobleman who had been French consul in Alexandria and Cairo, spent some time in Istanbul, and traveled widely in the region. It, in turn, served as the source for the first translation into English, *The Alcoran of Mahomet*, made by the Scotsman Alexander Ross and published in 1649.

George Sale's English version, published in London nearly a century later in November 1734, marks a watershed. Unlike Ross' translation of a translation, Sale worked from the original Arabic and rendered the text in a language familiar from the King James translation of the Bible. He also included copious notes based on the works of traditional Muslim commentators, especially al-Baydawi (d. 1296 or 1297) as well as a 'preliminary discourse' giving a brief but objective account of Islam. The scholarly importance and popularity of Sale's translation is evident from its numerous reprints.

Many other English versions have appeared in recent years. Marmaduke Pickthall, an English novelist who spent many years in India where he converted to Islam, prepared the first translation by an English Muslim, and his book *The Meaning of the Glorious Koran: An Explanatory Translation* was approved by Muslim authorities in Egypt. The renowned Orientalist A. J. Arberry, sensitive to the views of orthodox Muslims who hold that the Koran, which was revealed by God in Arabic, can be read only in that language, called his English version *The Koran Interpreted*. He translated the text in a sort of free verse, and his translations are the ones quoted in this book, although the usefulness of his translation is sometimes compromised since he used the Floigel rather than the standard Egyptian system of numbering and he did not separate individual verses.

Recent interest in Islam and Islamic civilization has sparked many other books that introduce the Koran to non-Muslims. Michael Sells' *Approaching the Qur'an: The Early Revelations* renders parts of the text in a version intelligible and accessible to modern Americans. It also comes with a CD-rom containing recitations by nine distinguished reciters, thereby underscoring the importance of the aural version alongside the written and read one. Michael Cook's *The Koran: A Very Short Introduction*, despite its tiny size, contains many good ideas in a readable form. Furthermore, he emphasizes visual aspects of the written text.

Although sometimes considered synonyms or paraphrases, translations of the Koran have long been necessary as Islam spread to non-Arabic-speaking regions. Bilingual copies, with the Arabic text and a translation/paraphrase in the vernacular language, were used in proselytizing, and calligraphers worked out several different methods of combining the text in two languages. The earliest and most common method is the interlinear text, in which one line of Arabic is followed by one line in the vernacular language, which is often distinguished by a different color of ink and/or size or style of script. The first interlinear copies seem to have been made in Arabic and Persian and

ARABIC SCRIPT: ITS ROLE AND PRINCIPLES

may well date as far back as the tenth century, although extant manuscripts survive only from several centuries later (Figure 1.6). To make the correspondence between text and translation even clearer, the calligrapher sometimes wrote each word or phrase of the vernacular translation or commentary diagonally below the words or phrases in Arabic. In this way, not only size and script, but also orientation on the page distinguish text from translation.

This technique of interlinear translation was used not only for Persian but also for many other languages written in Arabic script. Manuscripts from the fourteenth century in Chaghatai, or eastern, Turkish, are sometimes combined with a translation into Persian (Figure 9.2). With the expansion of Islam across the Indian Ocean and into sub-Saharan Africa, bilingual manuscripts were made in other languages, as, for example, a seventeenth-century copy with Kanemu, a dialect of Kannuri still spoken by parts of the Bornu population around Lake Chad (Figure 12.15). Cook illustrates several later examples with other languages in his small handbook on the Koran.

The interlinear technique could also be used with different styles of script. The Koran scholar Arthur Jeffery mentioned a lithographed copy printed in Tehran in 1323/1905-6 that had a line of kufic script with interlinear naskh. Clearly the kufic script was considered authentic but unreadable to many, so the text was also written out in the more familiar rounded script.

There were also several other methods of combining Arabic and a vernacular language. A second one was to pen the translation in the margin. In this case too, the vernacular text was often written in diagonal lines. Placement and orientation on the page, along with size and script, thus distinguish text, considered more important, from translation or commentary.

A third, and more unusual, method of transcribing bilingual Koran manuscripts entails interspersing both texts in the same line, with one phrase in Arabic followed by a translation or explanation in the vernacular language. This technique allows the teacher to read the text aloud in Arabic, while the student seated beside him can follow the meaning in the vernacular. This unusual technique was adopted by the Ottomans, as shown by a manuscript in the Ghassan Ibrahim Shaker Collection (Figure 1.7). On stylistic grounds the manuscript is attributed to the late sixteenth century, but a note added at the end says that it copies an earlier manuscript transcribed by Ghazi ibn Mahmud at the end of Jamada 1 136/15 January 1336. The title page gives the name of the work, a Turkish translation (turjuma) of the commentary (tafsir) entitled *Sharif al-asaf* (the Noblest of Pearls). Both Arabic text and Turkish translation are written in the same naskh script, but the Arabic is distinguished by a red horizontal slash over the words. The bilingual text was intended to be used in proselytizing, for the given name of the calligrapher, Ghazi, was carried in fourteenth-century Anatolia by those who distinguished themselves in the war against infidels.
INTRODUCTION

Although bilingual Koran manuscripts were probably made from the tenth century, this is one of the earliest dated copies to survive. It was a luxury manuscript, of large size, with extensive gold, and a Persian translation in small script between the Arabic text in large script. The manuscript was later endowed to the shrine of Ahmad Jami, as indicated by the endowment text added at the top and bottom of this page.

ARABIC SCRIPT: ITS ROLE AND PRINCIPLES

This technique of combining two languages within the same line works with those that read from right to left, but to produce translations in other languages that read from left to right, scholars introduced the multi-column format. This layout, which aids a philological reading of the text, was adopted by humanist scholars. The first known example is that made in 1480–1 by Flavius Mithridates, a Jewish convert to Christianity. He produced a Latin translation

Figure 1.6 Page containing Sura 19:4–5 from a four-volume bilingual manuscript of the Koran with six lines per page copied by Muhammad ibn ‘Ali ibn Muhammad ibn ‘Ali al-Nishapuri in 584/1188–9 for the Ghurid amir Ghiyath al-Din Muhammad ibn Sam. It is dated 521/1128–9 and was copied in Baghdad.

Figure 1.7 Page with Suras 113:1–114 and the colophon from a single-volume Koran manuscript with twenty-three lines per page and a Turkish translation of the commentary Sharif al-adsaf. Bilingual Koran manuscripts were needed for proselytizing, and calligraphers worked out several methods of combining text with translation and/or commentary. The vernacular translation was often written between the lines or in the margin, but this manuscript, copied in the late sixteenth century from an original dated Junada I 736/December 1335–January 1336, shows an unusual third method, in which the Turkish translation is interspersed within the Arabic text. Text is distinguished from translation by a red slash over the Arabic.
of Suras 21 and 22, which he had copied as a sumptuous manuscript in which text is set beside translation in facing columns. This multi-column layout became the typical format used in modern printed versions, which have one column or page of text in Arabic facing one in another language. This is the format adopted in Yusuf 'Ali's often reprinted edition, which includes not only text and English translation but also a commentary at the bottom (see Figure 1.10 below).45 Commentaries on the Koran, to be distinguished from translations or interpretations, were typically written on the same page with the text, but again using a different color of ink and a different, usually smaller, script. Most commentaries, however, are much longer than the Koranic text itself, and commentaries were often written in a small hand in the margin, as with interlinear bilingual manuscripts made in the age of empires in Kashmir (Figure 12.5) and near Lake Chad (Figure 13.15). The calligrapher could also divide the page horizontally, using one part for the text and the other for the commentary. This is the case with a manuscript transcribed by one Muhammad ibn Muhammad al-'Amid al-Imam Awhad al-Din in 630/1233-3 [Figure 6.14], which has the Persian commentary transcribed in a small naskh above the Koranic text written in a large thuluth. Similarly, in Yusuf Ali's modern printed edition, the notes are printed in a smaller font at the bottom of the page. All of these methods were used by calligraphers to visually distinguish divine revelation from extraneous text, be it headings, translations, interpretations, or commentaries. The sacredness of the scripture led to its transcription manually in a beautiful hand, and this sanctity explains why handwritten copies remain popular and why printed editions of the Koran were so slow to be accepted. The first ones were made by non-Muslims.

The earliest was produced by the Venetian brothers Paganino and Alessandro Paganini in 1537-8 (Figure 1.8a).45 Printed as a private edition and probably intended for Christian missionaries, it used an ungainly typeface that did not distinguish between certain letters of the Arabic abjad, such as dal and dhal. Note, for example, that the words al din [Figure 1.8a] and alladhiina [Figure 1.8b] are printed in exactly the same way. Chapter titles are particularly graceless, with distorted proportions between low letters and tall strokes. The script also exemplifies the difficulty typesetters had in reconciling the exigencies of setting type on a line with the piling up of letters in Arabic script. Note, for example, the awkward spacing and piling up of the phrase alladhiina al-sirat al-mustaqim from the fourth line of text on the right [Figure 1.8c]. The suffix -nis floats and is crowded by the initial alif of the next word. In al-mustaqim, the letters are plunked down next to each other in a flat line, with a large and ungainly hook for sukan. Ligatures are extremely awkward, with a sharp angle, especially when a toothed letter like ya is joined to ra or final nun, as in ghayr or al-dallin [Figure 1.8d], the last word of the Fatiha on the right page. The 1537 Paganini edition was neither a commercial nor an evangelical success, and all copies were thought to have perished until the 1980s when a single remaining one was discovered in Venice.

It took two and a half centuries before Muslims themselves were willing to produce a printed edition of the Koran, although this too was something of an outsider's work: the first edition printed by Muslims for Muslims [Figure 1.9] was made at St Petersburg in 1785.45 Intended for the new population of Muslims in Russia, it was made at the behest of Catherine the Great, who had occupied and annexed the Crimean Khanate four years earlier, thereby incorporating many Kirghiz into her empire. Distributing copies of the Koran, while sometimes explained as a mark of her tolerance, also fitted her expansionist plans: she was plotting to expel the Turks from Istanbul and restore Byzantine rule there and to wrest India from Britain's ever-tightening grip. This edition, done at a time when printing the scripture was still forbidden in the Ottoman empire, thereby helped to curry favor with Muslims.45 Containing a marginal commentary by Mulla `Uthman Isma'il, the text was set in a flat type that corrected the errors in letters
found in the Paganini edition [Figure 1.8]. The words al-din [Figure 1.9a] and alladhnina [Figure 1.9b], for example, are correctly punctuated in the St Petersburg edition, with a dotless dal and a dotted dal. The spacing is more uniform written, as in the phrase ibidina al-sirat al-mustagim [Figure 1.9c], and rosettes have been added to divide verses. Nevertheless, ligatures still presented a problem. The extender between sin and mim in the basmala [Figure 1.9d] is set in at mid-height so the final mim floats in space. Chapter titles and supplementary information are not set off in a different display script, but printed in a version of the same script that is, unusually, smaller, rather than larger, than the text script. Vocalization is set at an even more uniform height than that used in the Ottoman styles of naskh (e.g., Figures 1.12 and 11.4). The overall aspect is lifeless.

Despite its awkward physical appearance, this edition was a success; it was reprinted several times until 1798 in St Petersburg and then from 1803 to 1859 at Kazan, the city of the Volga that had served as the capital of the Khans of Kazan. It is estimated that as many as one hundred and fifty thousand copies were printed, and it played a role in the centuries-long process of creating a uniform text of the Koran. Conceived as a colonial endeavor, the Kazan Koran was also a commercial commodity carried by Tatar merchants not only throughout Central Asia but to India and even the Hijaz.

Only in the twentieth century was the Koran at last printed on a large scale in the Muslim world. The edition produced by the Official Printing House at Bulaq, Cairo, in 1842/1233-4 marked another watershed in the history of the Koran. The printed edition was put together after a decade of collaboration by Muslim specialists in the Koran not by collating texts and fragments, but rather from the oral tradition. The text does not use traditional orthography, but relied on the oral and written traditions of the ‘science of readings’ (Tafsir). It adopted the version of the text canonized by Hafs [d. 805] following ‘Asim, the most common reading used in many regions, although that of Warsh [d. 812] following ‘Ali is popular elsewhere in North Africa. The Cairo edition was done under the patronage of Fuad I, partly to promote unity in a Muslim world rocked by setbacks such as the establishment of the sultanate in Turkey, and with its official sanction, the Cairo edition achieved canonical status. It is now generally accepted as the standard version and has been reprinted many, many times.

Despite the widespread availability of the Cairo edition, the idea of printing the Koranic text remained controversial into the twentieth century. When Abdullah Yusuf Ali prepared his bilingual Arabic-English edition in 1934 [Figure 1.10], he did not use type for the Arabic, but commissioned special calligraphy, specifically asking the calligrapher Pir ‘Abdul Hamid to separate words, place vowels close to the letters to which they relate, and number verses so that they could be juxtaposed to their English equivalents. The uniformly set vowels of printed texts such as the St Petersburg edition had clearlyjarred aesthetic sensibilities. Pir ‘Abdul Hamid’s calligraphy was then transferred to photographic blocks prepared by Master Muhammad Sharif. Yusuf Ali followed this elaborate procedure, he tells us in the preface to the first edition, because ‘calligraphy occupies an important place in Muslim Art, and it is my desire that my version should not in any way be deficient in this respect.’" Typeaset Arabic, then, was still considered inferior to handwritten calligraphy. Yusuf Ali’s edition fulfilled his aims: it has been reprinted many times and is widely available. The version to Arabic type, especially for scripture,
important works that were commensurate with the overarching importance of the Arabic language in the religion and the culture that that faith engendered.

Notes
3. See Chapter 13 for a further discussion of Arabic typography and its sometimes uneasy relationship with Arabic script.
4. By medieval times, however, writing in the West had lost its public function and become commemorative and symbolic rather than transmissive and expressive. On this change, see Armando Petrucci, *Public Lettering: Script, Power, and Culture,* trans. Linda Lappin (Chicago and London, 1993). The re-emergence of public writing in the southern Italian peninsula in the eleventh century might profitably be examined not only from the internal Western perspective, but also from the external view of connections with the nearby Islamic lands, where monumental epigraphy had flourished for centuries.
5. The bibliography on Roman script and epigraphy is vast; for a readable introduction written by someone who was trained as a sign-painter and calligrapher, see Edward M. Catich, *The Origin of the Serif: Brush Writing and Roman Letters* (Davenport, IA, 1991 [1968]). In his first work, *Letters Redrawn from the Trojan Inscription* (Davenport, IA, 1961), Catich reworked the letters in the Trojan inscription, now in the National Museum in Rome, to show its fundamental importance. His work was groundbreaking in using extant examples as a theoretical basis to explain the development of Roman lettering.

6. There are several good translations of the Koran into English. The one used here in Arthur J. Arberry, *The Koran Interpreted* (New York, 1955; revised 1973), the best at conveying the original tone without sacrificing accuracy. Arberry, however, used the older numbering system adopted by Gustav Flügel (ed.), *Corani Textus Arabici* (Leipzig, 1843), but here I have cited verses according to the numbering system used in the Standard Egyptian edition. See below, for further details of the various numbering systems.

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**Figure 1.10** Double page with Sura 72:2–9 in Arabic and English translation from the bilingual edition of the Koran prepared by Abdullah Yusuf Ali in 1914.

Yusuf Ali’s bilingual edition of the Koran is the one most frequently used in America. The Arabic text is written in the right column, facing a verse-by-verse translation in English on the left, with commentary in a smaller type at the bottom. Scripts, size, and techniques distinguish the Arabic text, which is not typeset, but was specially calligraphed by Pir Abdul Hamid and transferred to photographic blocks prepared by Master Muhammad Sharif. Even in the twentieth century it was deemed more suitable to transcribe scripture with handwritten calligraphy.
INTRODUCTION

8. Li Si [d. 208 BCE], prime minister under Qin Shi Huangdi, China’s unifier and first emperor, is traditionally credited with designing small seal script (zhen shu), a script designed to replace the orthographic irregularities of the ones used on oracle bones and bronzes. This script represents the first standardized system of writing in China. Political unification was thus equated with unification of script, although practically such standardization did not occur for several centuries, as marked by the great codification on the Chinese writing system at the end of the first century CE in Xu Shen’s dictionary Shuowen jiezi [Explaining Graphs and Analyzing Characters]. For an introduction to Chinese writing systems, see the chapters by William G. Boltz, ‘Early Chinese Writing,’ in The World’s Writing Systems, 196-98; H. H. Matravers, ‘Modern Chinese Writing,’ in The World’s Writing Systems, 300-8.

9. Lothar Ledderose, Ten Thousand Things: Module and Mass Production in Chinese Art, Bollingen Series (Princeton, 2000), Chapter 1, argues that script was the most powerful instrument to foster cultural coherence in China. Seal script, which was inscribed on stone stele throughout the realm, established a precedent that still carries political significance today, see Robert E. Harriss, ‘Record of the Eulogy on Mt. Tai and Imperial Autographic Monuments of the Tang Dynasty,’ Oriental Art 46, no. 3 (2000): 68-70.

10. The article ‘China, IV: 1: Calligraphy, Introduction’ in Turner, DoA, evokes the sense of movement and personality with which Chinese calligraphy is imbued. For a theoretical overview, see further John Hay, ‘The Human Body as a Microcosmic Source of Macrosopic Value in Calligraphy,’ in Theories of the Arts in China, ed. Susan Bush and C. Murch (Princeton, 1983), 88, where he notes: ‘If there is a single, fundamental characterization of Chinese calligraphy, it is that of a line of energy materializing through the brush into the ink-traces.’ These traces, called ‘heart prints’ or ‘mind prints’ (xian zhang), reflect the gestures and inner disposition of the calligrapher. For a practical introduction to the physical aspects of Chinese writing, see Jean François Billeter, The Chinese Art of Writing (Geneva, 1990). The same is true in Japan, for a convenient and recent introduction to Japanese calligraphy, and the informative comments of two American collectors, see Miyoko Murase, The Written Image: Japanese Calligraphy and Painting from the Sylvan Barnet and William Burton Collection (New York, 2001), 11.

11. In the words of Lothar Ledderose, Mi Pu and the Classical Tradition of Chinese Calligraphy, Bollingen Series (Princeton, 1979), 29, one of the distinctive features of Chinese calligraphy is that ‘the process of creation in all its consecutive phases is visible in the object.’ One of the earliest known treatises on the subject, written in the fifth century CE, already accords the highest praise to calligraphy imbued with spontaneity (ziran). See Ledderose, Ten Thousand Things, 195 and n. 21.


13. Daniels and Bright, The World’s Writing Systems, 4. Arabic is the most widespread example of an abjad, and the term itself is derived from the first four letters of Arabic according to their historic order. All known abjads belong to the Semitic family of scripts, whose morphemic structure renders the denotation of vowels redundant in most situations. There are a few exceptions to the consonantal structure of the Arabic and fully cursive draft (caoshu, literally, grass), and (3) its mode of transmission through canonical masterpieces that were inscribed by later masters.
INTRODUCTION

abjad. The first and last two letters - alif, waw, and ya’ - represent only the glottal stop, w, and y, but also the three long vowels (a, u, and i).


On the mystical interpretation of letters, as in many other literary aspects of calligraphy, see the works by Azam Mirza Schimmel, including *Mystical Dimensions of Islam*, Church Hill, [1973], Appendix 1, and *Calligraphy and Islamic Culture* (New York, 1984).

There are il fatha, 1V fatha, VI fatha, VII fatha, VIII fatha, IX fatha, and X fatha. These points were made recently by William Hanawany and Brian Spooner, *Reading Nasta’liq: Persian and Urdu Hands 1500 to the Present* (Costa Mesa, CA, 1995), 12-13.

Lisa Volov [Colombek], *Plattet kufic on Samanid Epigraphic Pottery*, *Ars Orientalis* 6 (1986): 107-34.

Paul Saenger, *Space Between Words, the Origins of Silent Reading, Figures: Reading Medieval Culture* (Stanford, 1997). The change from oral to silent reading also brought with it changes in written form, such as punctuation. See M. B. Parkes, *Punctuation and Effect: An Introduction to the History of Punctuation in the West* (Berkeley and Los Angeles, 1993).


Alain Foud George, *The Geometry of the Qur’an of Amajur: A Preliminary Study of Proportion in Early Arabic Calligraphy,* *Muqarnas* 20 (2003): 1-16, has analyzed the geometric structure of the Amajur Koran and shown how the width of the penstrokes determined the size of the letters and even the layout of the page. I remain less convinced by his attempt to connect the proportions with the Golden Rule.

Eliz. 2/1, *Qur’an; EQ.*


See also EQ, *Qatiba.*

Sec, for example, the text inscribed on the shoulder blade of a camel and now in Princeton University Library, EQ II, pl. III.

34. This order became fixed when the revelation was regularly transcribed in codex format. Some early fragments found in the Yemen have a different ordering, particularly in the middle suras, see Cerd.-R. Pain, ‘Observations on Early Qur’an Manuscripts in San’i’ in *The Qur’an as Text*, ed. Stefan Wild [Leiden, 1998], 110-111. EQ, 1:347-51 [Codices of the Qur’an]. The same holds for the order of chapters in the three great codices of the Bible, which were probably copied from a bordal of earlier books. See Thomas S. Parrie, ‘The Creation of the Great Codices,’ in *The Bible as Book: The Manuscript Tradition*, ed. John L. Sharpe III and Kimberly van Kampen [London, 1986], 61-72.


38. To show how tricky these numbering systems can be, this verse is the same number in Abdullah Yusuf Ali’s bilingual edition of the Koran, but it is the 256th verse in Flügel’s editions.


40. Paleographers working on Western scripts typically distinguish between the text script, used for writing a continuous text, and the display script, used for headings or titles. Such distinction was already made by the time of the venerable Bede, as in a commentary on Luke, made at Tours c. 830. See Turner, *Dio,* ‘Script’ and fig. 1. The term ‘hierarchy
of scripts' was adopted by E. A. Lowe, *Handwriting: Our Medieval Legacy* [Rome, 1969]. Parkes, *Pause and Effect*, 27 and 33–4 and n. 44, distinguished between the three types used in later Anglo-Saxon manuscripts. The most elaborate of these display scripts are found in the Biblia prepared under the auspices of Alcuin, the Anglo-Saxon scholar who assisted Charlemagne. The connections between Insular and Anglo-Saxon manuscripts and contemporary Islamic ones is a subject that deserves further study.


48. See also EJ, 'Ornamantation and illumination.'


50. Parkes, *Pause and Effect*, Chapter 3, lays out the components of what he labels this 'grammar of legibility.' Such carpet pages were typical by the eighth century, as in the splendid Lindisfarne Gospels [London, BL, Cotton MS Nero D.IV], a pinnacle of Insular art datable c. 700 [Turner, *DoA*: Insular art 3.* Manuscript illumination,* fig. 3)]. In scholars' debate which is the earliest example to survive. According to Parkes (note 54), the earliest surviving example of such a carpet page occurs in the Milan Orosius, a copy of the universal chronicle written in the early fifth century, for which see Jonathan J. G. Alexander, *Insular Manuscripts 4th to 10th Century: Survey of Manuscripts Illuminated in the British Isles* [London, 1978], p. 6. According to Turner, *DoA*: Ireland III, 1. 'Painting and Graphic Arts, before 1600.', the earliest examples occur in the Book of Durrow [Dublin, Trinity College, Library MS 37], a small copy of the Gospels ascribed to the second half of the seventh century. Again, the relationship of the Insular carpet pages to similar decorated pages in Islamic books needs further investigation.

51. The exhibition catalogue, *De l'Empire romain aux villes impériales: 500 ans d'art au Maroc* [Paris, 1990], gives several examples of Koran manuscripts from the Maghrib, including two made in thirteenth [nos. 503 and 504] and three made in sixteenth [nos. 496, 509 and 514]. The statement that the division into sixteenths is a recent one is found on p. 350.

52. Arberry, *The Koran Interpreted*.

53. As Thomas Burman has recently shown ('Polonic, Philology, and Ambivalence: Reading the Qur'an in Latin Christendom,' *Journal of Islamic Studies* 15, no. 3 [May 2004]: 181–220), Robert of Keton's translation was not only for polemic and philological reasons (to attack Islam and to chase down the meaning of odd words and constructions) but also involved more sophisticated reading practices, using rhetoric and elegant paraphrase. Later manuscripts of his translation often incorporate design features, such as titles, colors, and paragraph markers, to 'introduce the reader into the text' and make it look like a scholastic textbook.

54. The best introduction to early printed editions of the Koran is Alastair Hamilton, *Europe and the Arab World: Five Centuries of Books by European Scholars and Travellers from the Libraries of the Arcadian Group*, originally published as an exhibition catalogue, *L'Europe et le Monde Arabe* [Dublin, 1994], which contains reproductions of and comments on virtually all early specimens. The first Basel edition of 1543 is no. 4, the second one of 1550 is no. 5; the Nuremberg edition of
Chapter Two

Materials

This book covers the development of calligraphy written in Arabic script on suppule supports, and our survey begins with the three main materials used in the Islamic lands—papyrus, parchment, and paper.

Papyrus and parchment, the only two writing materials mentioned in the Koran, were preferred in early Islamic times, but they were eventually replaced by paper, which was both cheaper and easier to use. It also received the most elaborate preparation, and the development of specialty papers designed as supports for fine calligraphy became an art form in itself. The nature of the support also affected the type of pens and inks used and therefore the development of different scripts.

Supports

Of the three supports used in the Islamic lands, the most limited—both chronologically and geographically—is papyrus. \(^1\) Papyrus (Arabic qirasa), from which we derive our word paper, is made from a tall fresh-water reed native to Egypt, Cyperus papyrus. Used as early as 3000 BCE, it became the main writing support in Egypt in classical times, since it was easier to handle than available alternatives like wood, skins, and clay tablets. Egyptians maintained a monopoly on production, and papyrus remained the main writing support in Egypt until the late tenth century, when it was replaced by its cheaper rival, paper. When manufactured, papyrus is light-colored, smooth, strong, and flexible. With age, however, it becomes brittle, and most specimens are now brownish. It can be made in a range of thicknesses and qualities. Official documents, for example, are done on the finest quality.

Classical and medieval sources such as Pliny the Elder (writing around the year 70 CE) and Abu'l 'Abbas al-Nabati (d. 1239) describe how papyrus was manufactured. \(^2\) Although the sources differ in detail, the main steps are consistent. The stalk was cut into lengths, the outer layer of the plant peeled off, and the stalk split. The resulting sheets or strips were laid in two layers at right angles to each other so that the fibers of the stem ran horizontally on one surface and vertically on the other. No glue was necessary, for the natural gummy substance released when the stalks were cut served to bind the pieces.