Reading and writing have traditionally been accessible to all social strata in the Islamic world, but for many the Arabic script to this day has more of a sacred character than profane usefulness. As calligraphy, it ranks highest among the arts and elicits the greatest emotional attention. In historical times, the degree of literacy was altogether — in West and East alike — not very high and in some Islamic regions still lags behind, but basically all efforts to learn were encouraged. One the one hand, Arabic, as the language and script of the revelation of the Qur'an, is sacred and widespread, and on the other the profane texts which have come down to us are extremely varied and informative. They concern life at court, in bazaars, mosques, and madrasas, and also include poetry and literature, private studies, diaries and notes, archives and documentation of events and individuals, even of the lowest classes. Writing systems always record both what is true and what is false, the artificial and the unassuming, and preserve all of this for a long period of time, with texts, preservation or destruction depending on chance.

Pious Muslims consider the script of Qur'anic revelation as sacred in itself and as incomparable. This even includes the material of the Qur'an manuscript — parchment, paper, ink, the pen and utensils to manufacture paper. In so-called popular and Sufi Islam, Qur'ans are used as talismans and for magical practices such as fortune-telling and countering diseases. Although they are less appreciated by orthodox scholars, prayers and manuals about the concrete use of invocations are sometimes added to Qur'anic manuscripts.

The ancient conception of the sacredness of the script in which the revelation is preserved and ‘secret’ knowledge is stored also applies to individual letters. As in some other Semitic alphabets, each of the Arabic characters has an equivalent numerical value which, among other things, has led to mystical interpretations of names and concepts and a cosmological frame of reference which is broadly interpreted by some Sufis. The widespread belief that ‘Ali ibn abi Talib, cousin and son-in-law of the Prophet Muhammad, a saint revered by the Shi’ites and many Sufi
orders, shaped the Arabic script is an aspect of this pious reverence. The art of the book reflects aesthetic styles and the taste of various periods and all regions. It often influences style and helps the observer recognize the creative intention and the quality not only of calligraphy and illumination but also the transfer of patterns from paper and parchment to a wide variety of materials and objects. Calligraphers therefore played and still play a special role in the history of Islamic art. Of all artists they are the first who wrote personal memoirs and became the subject of biographical records.

Like manuscripts, inscriptions on buildings serve to remind and caution, and with blessings and quotations from the Qur'an we promote our awareness of the values of the dominant social and religious order of a given time. They also preserve private memorials in foundations in the way tombscenes preserve the memory of individuals. On utilitarian objects, the owners and users are frequently addressed directly, or a discreet reference to the function of the receptacle or tool is written on the objects themselves. Like deciphering complex stylistic or abstract ornaments, deciphering the entwined letters is a puzzle and a pastime – alone, with another person or for enjoyment in a group. If the script were readily legible it would even be disappointing, and no alphabet has shown such flexibility as Arabic, even to the extent of adjusting to the requirements of present-day computers.

History of Research

Western art history has increasingly and with delight seized upon the study of Islamic art, albeit not truly to the extent a culture spanning several continents actually merits. Among the different types of Islamic art, calligraphy has been dealt with much less and by no means exhaustively. However, new artistic achievements and studies in Islamic countries themselves particularly in this field have begun to bear fruit. Less demanding older research concerned itself with calligraphy, including Adam Olearius' large Iran Encyclopaedia (1666), J. G. Christian Adler's deciphering of Kufic inscriptions (1780–92) and the work in numismatics by Olof G. Tychoen (1794–96). Only in the nineteenth century did fascination with the topic combine with a serious research intention. One driving factor here was historian and orientalizing printing such as, for example, the Orientalist Joseph von Hammer-Purgstall had the court prints in Vienna use for some of his editions and publications 'in the Islamic style.' It continued to influence Western book art and arts in general up to the time of the Art Nouveau movement. One of the first large-scale presentations of the Islamic art of the book as well as many other types of art was the Munich Exhibition in 1910. Among the objects displayed on this occasion were not only illuminated manuscripts but also valuable holdings of the Bavarian State Library displayed in the library's Fastenseal and a similarly surprisingly comprehensive exhibition of manuscripts, most of which were privately owned in Berlin. The exhibition was preceded by auctions and purchases of precious manuscripts, miniatures and single sheets of calligraphy which had been commercially available since the London World Exhibition in 1851. Earlier manuscripts had been purchased more for their content than for their artistic aspects. Libraries and collectors began to buy up the most beautiful manuscripts from the Orient, usually in the art market centres of London and Paris, with India as a British colony playing an important role.

Development of Arabic Calligraphy and Formation of Schools

None of the numerous newly invented scripts in the first centuries CE developed an elegance comparable to Arabic. The alphabets of the Orthodox churches, which differed according to religious and linguistic communities, continued to cling to the basic character of Greek; Latin scripts differed according to official, religious and private use (capitalis, halfiuncula, miniscule, cursive) and are characterized by separate individual letters and cursive for faster writing. Several distinctive features served as regional identity markers with political and religious significance. The art of the book around the Mediterranean was so sophisticated and aesthetically appealing that it assumed an almost competitive character. To this circle belongs classical Syriac, which developed from Aramaic-Hebrew and was used in various forms by Oriental Christian communities except for the Copts. In monasteries it also developed early into a cursive script with numerous ligatures and was refined in book art and epigraphy where calligraphic forms were used. On the basis of Aramaic, scripts mainly used for books were developed for Middle Persian in Mesopotamia and Iran. As Hellenistic development, both the Greek and the Aramaic alphabets spread, usually in cursive form, all the way to Central Asia and India. To this day Zoroastrianism in Iran, India and in the Diaspora has preserved a script used for sacred texts known as Avestan.

To some extent this probably also applies to Hebrew and Aramaic texts of the Torah in Judaism. Many, an Iranian religious founder (third century CE), is said to have displayed especially fine aesthetic talent in book design and painting, for which he is proverbially known in Islamic literature. Apparently his works were models for a combination of Eastern and Western script and stylistic elements. Unfortunately, after his followers were persecuted by Christians and Muslims, little remains of subsequent workshops in Manichean communities in Egypt and in the oases of Chinese Turkistan (Sinkiang) of the sixth to eighth centuries.

In the art of the book, writings of revelation were rarely as richly decorated as illustrated manuscripts or official documents of late antiquity. Luxurious manuscripts tended to be reserved for literary texts. Inscriptions on official buildings and writing on objects intended as gifts or with a sacred nature had an especially ceremonial character. Books in Late Antiquity were firm, heavy, upright rectangular volumes. However, ancient book rolls, written in different directions – vertically in strips or horizontally in columns next to each other – remained in use, especially for documents.

For the various forms of spoken Arabic since the thirteenth century BCE, the alphabet of South Arabian in Yemen and – according to recent views – the first, equally early prototypes of several alphabets were used for North Arabian dialects known today as Liybian, Dedanic and Thamudic after early Arab names of tribes and now found almost exclusively in inscriptions on stone and rock graffiti in Jordan, Syria and Saudi Arabia. The most frequent graffiti from the Hellenistic-Roman period found in large parts of southern Syria, Jordan and northern Saudi Arabia is called 'Safaitic' after the south Syrian region of Safa. In addition, inscriptions of the Nabateans are written in an Aramaic dialect; however, the names are in Arabic and the writing in some forms is a prototype of later Arabic, dating back as far as the fourth century CE. As of the oldest evidence of Arabic is believed to be three rock inscriptions from the late third or early second century BCE in Qarayat al-Fau in southern Saudi Arabia, while the dating of graffiti in the region of Sinai is disputed.

These languages were used in the Hellenistic provinces and later the oriental provinces of the Roman Empire alongside Aramaic-Syrian, Greek and Latin. They represented to some extent the continuous Semitic substrata parallel with or below the ruling Hellenistic and Roman civilizations. Even deep in Saudi Arabia, in the oasis Modilin Sall, a French-Saudi Arabian team of archaeologists found a Latin inscription by a local Roman legion from around 175 CE together with the local Thamudic, Liybian and Nabatean North Arabian and South Arabian inscriptions. In their monumental elegance and balance, some early South Arabian inscriptions resemble the block-like letters of certain official Classical Greek and Hellenistic inscriptions. Long inscriptions on wood which were discovered around 1970, however, revealed for the first time a South Arabian cursive script which also reflects certain tendencies of early Arabic writing. Surprisingly, the South Arabian alphabet was also used in rare instances for texts in a preliminary form of Classical Arabic. This represents early evidence of the flexible transfer of script to other languages and, with its dating around 200 BCE, constituting the earliest Arabic inscriptions we have at the present time.

The Arabic epigraph of the King of the Arabs, Imrul-Qasim from Nenana, dated 328 CE, in the Nabataean alphabet has been known for a long time. Other pre-Islamic Arabic inscriptions were found in Syria, including one old Syriac cursive which closely resembles early Islamic Arabic. One example is the inscription incised in stone on a building by one Sorahb from 568 in Harran in southern Syria. If we consider that in addition numerous cursive texts written on perishable materials have certainly been lost, it is clear that script and writing were common among the Arabian tribes of the pre-Islamic and Islamic periods and the rise of Arabic along with Islamization by no means came out of thin air.

However, apart from widespread Aramaic, these pre-Islamic Semitic languages and scripts were for the most part regional. Since the codification of the Qur'an, which followed initially unsystematic notations is traditionally dated back to the Caliphate of Uthman (644–656), and with its expansion in the rapidly growing Islamic world empire, the character of Arabic script acquired a completely new importance. While the numerous copies of the Qur'an are particularly helpful in tracing the development of Arabic script, the script is by no means limited to religious texts. From the beginning, important documents, letters, bills, and gradually scholarly works, literature and private notes, were written in Arabic, thus undoubtedly perpetuating pre-Islamic customs.

More effectively than Aramaic and Greek, the script served not only to propagate Arabic as the language of the holy Qur'an.
and the power of the caliphate, but it was easily transferred to Persia and its offshoots in Afghanistan and Tajikistan from the eighth century, somewhat more circuitously to various Turkic languages of Central Asia from the eleventh century, and from the fourteenth century to Ottoman, up to the language and script reform of the Turkish Republic in 1928. To this were later added the vernacular and literary language of Muslim Indians and Pakistanis, Urdu, as well as Malay and Bahasa Indonesia.

Soon, however, not only Muslims but also Arab Christians, Zoroastrians or Parsis as well as some Gnostic religions began to employ the Arabic alphabet for daily use, with the Christians using it increasingly for their religious texts as well. Only the Gnostic community of the Mandaeans in Iraq retained its script borrowed from Aramaic, and the Jews used the Hebrew-Aramaic script even for their special Persian and Arabic dialects. Some Oriental Christians initially used Syriac script for Arabic texts (kurschn). However, none of the non-Muslim communities have produced great works of art or found general recognition in the development of Arabic calligraphy.

In the beginning, codification of the Qur’an in precious parchment volumes in an upright format was still clearly dependent on Syriac codices of the gospels and the Bible. The lines of letters, leaning slightly to the right, not entirely even and hardly well-balanced, of an earlier script (mi‘râf, meaning ‘the leaning one’ according to the sources or ajzâ‘ after the region where Islam was proclaimed) are almost completely undecorated. Only the holy word draws attention to itself. These documents are manuscripts intended for preservation of the text of the revelation, which is memorized anyway and not intended to be read aloud fluently.

Already this first script contains the significant element of Arabic script, which like most Semitic alphabets is written from right to left: most characters are linked to each other and have special forms at the beginning and end of a word. Only six of them are not connected to the left, so a break sometimes occurs even within a single word. While this also applies to most of the later Arabic scripts, these early scripts have only thirteen or seventeen letter forms, which only over the course of time were differentiated by dots to represent the 28 Arabic consonants. Problems in reading undoubtedly produced slight variations in the text of the Qur’an, some of which have been handed down by theologians of different schools.

Obviously, something had to be done to avoid further confusion – on the one hand, the Qur’an was standardized under the caliph Uthman around 650 – and on the other, the secular chancellories shifted completely to Arabic after Syrian and Greek scribes under the caliph ‘Abdalmalik around 697. Both measures required the establishment of scriptoriums (maktab) under the caliph or one of the councils, later the viziers in the (divan) and rules of calligraphy. The schools – and also the scripts – were named after urban centres: the Hijaz region comprising the cities of Mecca and Medina stands for the origin of the revelation, Basra and Kufa in Iraq for various traditions and Damascus for secular tasks. The variants did not lead to great dogmatic differences, but older versions that have been discovered on individual pages of the Qur’an and in manuscripts recently found in Sanaa in Yemen were effaced from the parchment leaves and replaced by generally valid ones (known in codicology as palimpsests). Their significance has not yet been fully assessed, so it cannot be decided whether they are more important in terms of contents and whether they date from the time prior to editing the Qur’an under the caliph Uthman.

Equally difficult to read is a rounder script which spread rapidly at the time of the first Umayyad caliphate (661-750), starting perhaps from Damascus. The manuscripts tend to be square and some are already transverse rectangular. The script appears depressed but displays a greater sense of evenness and equal spacing between the letters. There are no spaces between words – only a very even distribution of letters in one line. The intention of creating an aesthetic appearance over the entire page, with exact lines and letter sizes, is readily apparent. The letters form even blocks in rows, with the effect achieved by having some of them elongated (masht), to avoid crowding the verticals above and below the base line. The black or brown black letters contrast well with the whitish parchment background – already preparing for classic rules of calligraphy as formulated in the tenth century (hijâ‘). In inscriptions in stone, on buildings and on implements, the script appears more angular; the most famous monumental form can be seen in the mosque Qur’an inscription inside the Dome of the Rock dating back to 692 (cf. essay by Kam in this book). It is usually classified with the script known as hijâ‘, named after the city of Kufa in early sources, but this is not certain because today this designation covers a wide variety of scripts from North Africa and Andalusia all the way to eastern Iran. They date from the second century after the hijra (ninth century CE) to the fifth
ابن نجج دينات الاصغر
وكل يوم نكرهه بالأخلاقيان
مئة عام ثورة عبد الملك
Textile messages – inscriptions on an early Islamic türk fabric

The fragment with an inscription to the caliph al-Mustansir Billah (427-482 AH/1036-94 CE) is part of a fine but wide-like linen cloth which was decorated at both ends with two narrow bands. The patterned band is worked in tapestry technique, which has been practiced in Egypt for centuries, using the finest silk threads in bright colours. Dark blue cartouches with white script are shown on a green background with little white volutes. These inscriptions repeat the formula near min Allāh ("Success from God"), separated in two cartouches, and the name of the Fatimid caliph al-Mustansir Billah, also separately in two cartouches. Typical of this particularly beautiful type of Kufic are the tails of some letters which are delicately drawn upward and the flat elongation of others, while small additional ornaments round off the picture.

Tapestry technique and the fine material permit a clear reproduction of the finest details in a minimum of space. Veritable textile masterpieces were created in Egypt, following the models of excellent calligraphers. Compared with the huge amounts of textiles which we know about from written sources, only a few examples have come down to us. Like this one, nearly all come from an Egyptian tomb, since only in Egypt was the ground dry enough to allow preservation of organic material.

Since the caliph al-Mustansir Billah ruled for 60 years, an especially large number of textile fragments from his time (türk) have been preserved which come both from the türk workshops working directly for him and from general workshops. Of these, just over 100 are known which bear inscriptions with his name or other references to him.

Giulio Helmerke
century H/eleventh century CE, or in the Maghreb even later (cf. Fig. 155). They vary the imaginative arrangement of the letters in tight or loose lines and almost always achieve an aesthetic perfection which delights the eye even of those who cannot read the script. However, the types of scripts subsumed under the designation ‘Kufic’ differ distinctly from each other, perhaps not alone by region but by certain studio traditions. Certain types of script used in early manuscripts for scribes in large Arabic encyclopaedias of the eleventh to the fourteenth centuries bear over 80 designations. So far it has proved impossible to attribute them precisely to the original pages. The descriptions are not exact enough and there are scarcely any colophons specifying the scribes and their origins at the end in this early period. Alphabets and clear designations of scripts are only available from the fourteenth century (Rigs. 17.34-35). However, researchers are beginning to analyze large manuscript collections more precisely and systematically distinguish between characteristic differences.

As in most north Semitic book scripts, the basic forms of the letters have additional diacritical marks, as shown by evidence from the first decades. Traditionally, their introduction is associated with the governor of Iraq al-Hijaz Ibn Yusuf (d. 714). Despite some assertions to the contrary, the use of colour – red, green or gold – is irregular. Various systems of dots have been used since the eighth century and presumably also entered subsequently in older manuscripts. At that time too, the short vowels missing in most Semitic scripts are indicated by dots, both initially and systematically. An early system is attributed to the grammarian and poet Abu Assad al-Dzalal (d. 688). In the tenth century, a regular system appears to have established itself which was then adopted by other scripts up to the present. Dots are used to distinguish letters, and small strokes and commas are used to replace vowels.

Almost all Qur’ans from the eighth to the eleventh century are bound horizontally, with the size and proportion of the pages from the very beginning also being critical for the size of the calligraphy. Later the paper and size of the script were apparently named and standardized in a hierarchical order which we now see as far not for Qur’ans, but “worldly” scripts; for example: Qur’an (for the books of the Qur’an), kufi (“half” and kufic, respectively “kufi” (“third”) for letters to personal names, etc. This has happened already in the eighth or ninth century at the height of the court scripts in the Abbasid caliphate, as suggested by the records of later calligraphers. The pages of the Qur’an are decorated with verse separators, sura headings, and here and there additional ornaments, at times also full-page decorations at the beginning or the end of a volume. They provide important information for a general chronological order. At the same time, however, calligraphers also developed variants and additions to the shapes of the letters which they gradually filtered from the celebratory and hieratic mode and made into a more pleasing decorative script for different purposes – the floral, knotted and ‘uninked’ Kufic which provides delightful variety with plant and floral ornaments and even animal heads and human manuscripts and in decorations on objects (Rigs. 18-20).

From the beginning of Islam, in parallel with the sacred scripts and some other texts on parchment in the different Kufic styles, there were other media, of which fewer have been handed down because of their perishability and neglect. Exceptions are the innumerable papyri from Egypt, particularly letters, official documents and bills. They were inscribed with a round script which was better suited to the rough material, with unmistakable similarities with Kufic, which were later called naskh or naskhī and distinguished according to several sub-groups. In rare cases, official documents were also written on fine textiles like silk, and more often epigraphical texts were embroidered on linen.

Paper was in use centuries before Islam in China; its manufacture spread after the first Islamic-Chinese battle on the Talas in Kazakhstan in 751. Paper mills were first documented in Sarakand and then in Baghdad in 794, in Egypt, North Africa and the Byzantine Empire in the 10th century, and in Sicily and Spain, from where the invention reached the rest of Europe, in the eleventh century. Initially its introduction had no influence on scripts, but more fluid styles must have become more common as materials became increasingly refined – both the composition of the paper and the preparation of writing by smoothing played an important role in the development of schools of the art of the book, as numerous technical descriptions suggest.

One of the best-known developers of the round scripts was the scribe and vizer Ibn Muqla (d. 940), historically documented as a calligrapher. But even for his systematization of the round script in six forms (qalam, plural qalam, etc.) we still lack precise allocations to authentic originals. Ibn Muqla formulated the rules for well-balanced script (al-khatt al-masub), based on mathematics, where size is measured by clusters of five to seven rhomboid dots. The names of the styles are also recorded differently – usually as thuluth, naskh, taqfi, rubfi, naskhi, mubqap and nisba, but they are described differently and only over time have they developed distinctly different forms. Ibn Muqla, from whom no authentically signed manuscript has been preserved, is the last of a series of legendary early calligraphers. The first is supposed to have been the Prophet’s cousin, son-in-law and successor (caliph). Ali ibn abi Talib, as his secretary. Several other companions of the Prophet and theologically unjustifiable created as originators of the script – among the new signatories of earlier manuscripts which have been preserved. Tradition also distinguishes between the calligraphers who established certain styles and those who were merely skilled in writing.

Ibn Muqla’s famous successor, Ibn al-Bawwab (d. 1022), is known to us from at least one Qur’an manuscript signed and dated 1001 in a fascinating dynamic naskh script with rich illumination. This is the earliest dated Qur’an we have in a round script; three other signed copies are preserved in libraries in Turkey. Naskh has become the preferred script for easily legible texts to this day for Qur’ans and prayer books, but also for carefully copied works of every discipline. The script of Ibn al-Bawwab does not appear as feared, merely more mathematically precise: it is exuberant and vibrant, so that it is believed that he relaxed the strict rules of Ibn Muqla somewhat. As more and more schools were formed, this inventive-ness was gradually lost, particularly in the late Ottoman Empire. Ibn al-Bawwab and his pupils were famous not only for their naskh but also for the ornamental, bold thuluth which is suited to book headings and decoratively written formulas (Rigs. 17, 21). Two hundred years later, the last Abbasid calligrapher Yaqut al-Mustansiri (d. 1298) ended this series of famous founders of calligraphy. Using thuluth, he created a school for the strikingly
The few extant manuscripts from the Abbasid caliphate in Baghdad and other centres make us painfully aware of the loss of the great art of the book in this period. Undoubtedly artistic development profited from the large number of small courts, such as that of Mosul, which promoted it. It is almost impossible to attribute other scripts to manuscripts, for example the large cursive script known as kufic for official documents. Easier to recognize is naskh which is attributed to the calligrapher Ali ibn Ubaydallah al-Rayhani (d. 834) for particularly fine, zastful manuscripts and Qu‘rans as well. The larger muhaqqaq became characteristic for monumental Qu‘rans at Mongolian courts in Iran and the Mamluk courts in Egypt (rns. 23-24). It is most easily recognized by the voweless markings drawn with a different, finer reed pen - which now at any rate are always found in Qu‘ran manuscripts. Rayhani plays a special role in the formation of schools of calligraphy since the masters tended to use it for their signature or comments and assessments of works submitted by pupils. This explains the derivation of the Ottoman term i‘zâ, for it, “permission” (to copy certain texts and masterpieces) (Cf. FIG. 27). However, we only know these scripts from later examples starting in the thirteenth and fourteenth centuries. So far we do not know whether they too were as strongly modified by major calligraphers as naskh, which changed from an elegant, round script to a typically slurred scholarly, rapidly written script. Finally, it spread over the entire Ottoman Empire and evolved into the rather pointed script still used today in nearly all Arab countries except for North Africa.

A small script known as abu‘lbid is usually mentioned outside the ‘Six Pens’ (FIG. 25, 36). It seems to have developed in early Abbasid times as a chancery script, but later, in keeping with its name (‘dust script’) was only used for microscopically small manuscripts, especially miniature Qu‘rans. Tulsar, mentioned earlier, seems to have changed since the late Abbasid period from a consistently very large, round and flexible script, if one may believe the drawings in Qalqashandi’s encyclopedia known only from copies of manuscripts.

The Maghribi script in North Africa and at times also in Islamic Andalusia is a special case (Cf. FIG. 19). It is sometimes said that copies of the Qu‘ran were written over much longer periods - therefore conservatively - in the same script. Actually, this is not true. Certain, usually newly created styles were not used for them but the classical styles were continually varied. In North Africa, however, various influential patrons and the entire culture of writing from the twelfth century almost to this day have kept to a practically unvaried round script. Qu‘rans were still written there on parchment up to the fourteenth or fifteenth century. Diacritical marks in Maghribi script deviate from standardized use and some loops under the base line are written with greater flourish, sometimes in a semi-circle.

Few examples of this simplifying distinction between scripts are found in manuscripts. Much more often, the scripts are complex hybrids which are difficult to distinguish. Consequently in the different schools of calligraphy, supplementary designations have become customary which, however, only help to exaggerate the discrepancy between cautious or ingenious inventions and ‘academic’ imitations. The latest manual by François Déroche logically recommends retaining the generic term naskh for Arabic round scripts. At any rate, anachronistic designations of styles in several new popular presentations of Islamic calligraphy do not make things clearer.

Iran, Central Asia and Mughal India

In the Mongol period in the thirteenth and fourteenth centuries, calligraphy and the art of the book experienced a tremendous upswing in the eastern Islamic world - both in the religious and the secular spheres, which began increasingly to separate from each other. Main areas of application were recorded already for the ‘old’ scripts. To these were now added critical innovations for literature, the art of the book at court and individual pages of calligraphy - Qu‘rans and theological works in general were only seldom written in the new styles. The most common style for ‘secular’ works, such as the Persian epic Shah-nama and poets’ anthologies in Central Asia and Iran in the thirteenth and early fourteenth centuries is a deep, but dynamic variant of naskh, which bends toward thuluth and is sometimes called early ‘thuluth’ because of its fluctuating base line. A further development of this is the most momentous script innovation, nasta‘liq (from naskh and the heretofore scarcely developed and known ‘thuluth’). It is attributed to the calligrapher Mir ‘Ali Tabrizi (d. 1276) in Iran in Timur’s time and his creative successor, and is used for poetry in the eastern Islamic world. Its primary characteristic is the greater flexibility of the base line which even within a single word can appear to descend or ‘hang’ (‘thuluth’). Some letters can then be thickened and elongated with great vigor (PISs. 34-35). To ensure legibility, the smaller individual forms are written very exactly, as in naskh (FIG. 26). Some special features of certain letters such as ‘ha’ are considered typical for Iran. However, the style is not only used for Persian but also for Eastern Turkic (Chagatay) and Uighur and was elaborated upon by several famous artists.

Nasta‘liq was particularly successful in monumental form on buildings, on tile panels and large boards, but also in stone and in numerous Persian verse inscriptions on tiles and small objects. Arabic texts are clearly distinguished and tend to be written in thuluth or naskh (PIS. 23).

Regional derivatives of this style developed, for example bi‘hari with its thick horizontal lines and special coloured characters in India in the fourteenth to the early fifteenth centuries. In China there arose a curved, lambent script (sinli) which was probably usually painted with a brush.

In the Timurid Empire, calligraphers are noted for outstanding achievements in creating new calligraphic styles and formulas. They too worked outside the capital of Herat for royal patrons at smaller courts such as Shiraz, Isfahan, Mashhad and in the religious centre in Qom. One of their innovations was a combination of different styles on a single page ordered according to aesthetic criteria - an odd number of lines, sequences of large and small scripts, diagonal lines and later lateral fields for coloured illumination which were done by the same master or an additional artist. For the first time, biographical details of several masters of this and following periods were collected in a treatise by the statesman and author Qadi Ahmad Qur‘i (d. after 1606) about Timurid and Safavid calligraphers and artists in which he also comments on their respective qualities. Since originals of so many of the masters described have only recently become known, and an illustrated edition is now impatiently awaited. The point of such works seems to be to weigh masters of this art as models and - for collectors - measure them against each other on the basis of different qualifications.
Sultan Ali Mashhadi (d. 1520) is considered the most famous successor of Khoja Mir 'Ali from Tabriz; his rhymed treatise on implements and the art of calligraphy is included by Qadi Ahmad in his work. He describes the various techniques, from cutting the nib to mixing various kinds of oak apple ink, the types of paper and finally the qualities of a good calligrapher. Some of his pupils had to emigrate - for political but probably also for economic reasons: Mir 'Ali Harawi (d. around 1550) had to leave Herat after the fall of the Timurid Empire with the conqueror Ubaidullah Khan Uzbek in the direction of Bukhara. Other masters such as Mir Khali Allah and Maqqui-i Tabrizi moved already in the sixteenth century to Mughal India, probably for higher wages. Mir Imdaaduddin, described by others as particularly brilliant, was a contemporary of Qadi Ahmad and is only modestly praised by him - he is said to have been killed for artistic arrogance by order of the great Shah 'Abbas in 1616. His style can be admired in a magnificent album and numerous individual pages and manuscripts. His roostlip exercises contain daring breaches of rules and dramatic overlapping of letters. In particular those exercise pages were kept on which he repeated letters and word groups until their embellishments pleased him and he copied them in the original manuscript. Today they are highly prized as modern calligraphic paintings.

Numerous pupils in Iran, India and in the Ottoman Empire can be traced back to these and other masters. Their works in the form of manuscripts and individual pages are increasingly being acknowledged (neg. xi). In particular in India it became customary to name works in the style of masters after these masters or even to assume their names completely. This did little to increase the awareness of stylistic developments, so much critical detailed work is necessary to differentiate works bearing the same name.

The most successful innovation before modern times was the development in the sixteenth century of the Iranian script known as shikasta ("broken") which serves to this day as a personal kind of stenography which is very difficult to read. It originated from roostlip with even greater swoops and less clear small letters as
FIG. 24
TIMURID ROYAL QUR'AN
Persian/Afghanistan, probably Herat; around 1395-1435
The middle field of this illuminated decorative page from a splendid Qur'an shows four lines of text in monumental gold muhaqqaq script, finely outlined in black. The heading in both cartouches is in decorative Kufic. The text is the sura 19 Maryam, named after Mary, which was revealed to the Prophet in Mecca. The ornamentation, mostly in lapis-lazuli blue and gold, corresponds to the style of the court book-making workshop of the Timurid prince Baybars Ghur in Herat.
AMULET SCROLL WITH QUR'AN

From or North India (Lucknow); 18th-19th century

This paper roll contains all 114 suras of the Qur'an in minuscule thuluth script. The parts of the text without writing produce additional fields in which Shi'i saints are praised. 'Ali and the Prophet Muhammad are invoked on the text page shown.
FIG. 26
CALLIGRAPHIC PAGE WITH VERSES OF LOVE
From, 11th half 15th century

The two Persian double verses by the poet Mawlana Mohammad Khazra are written in large nasta’liq script, which was called “the bride among the styles of calligraphy”:
How many Sugar-Lipped and Sweetly-Formed are there
Who indeed lack manly affection?
How many Sweet-Iyed are there
for whose sake hearts blossoms like gushing springs, like gushing springs?

FIG. 37 (Following double page)
QU’AN CITATION AND ADAGE BY ‘ALI IBN ABI TALIB
Mughal period. India, dat. 1534 H/1635 CE. on a page from an 18th-century album

Clearly by a pupil of Haji Macrud al-Tehri or another famous Iranian calligrapher, Darwish Haidar ‘Ali, son of the reformer of the Naqshbandiya order, Mohammed Murad, the lines are written alternately in nustush and naskh script, the signature and dating in naskh script diagonally on the side. Qur’an sūra 14, verse 45,
“So think not that Allah will fail to keep His promise to His messengers,” is supplemented by the praise “because they deserve the House of Honour [paradise]” and ‘Ali’s adage: “People told me that aspiration to profit would be shameful indeed - whereupon I answered: Is not the question in itself shameful?”
FIG. 29 (previous double page)

ALBUM PAGE WITH EXAMPLES OF DIFFERENT STYLES OF CALLIGRAPHY

Mughal period, India, early 17th century.

Three Persian calligraphies (above, below and right) are written in nasi' script and are attributed to the style of Mirza Abdulla (d. 1616 in Delhi). On the left is a text in the finest nast' życiuq in 'dust script' (qahar) size. The fragment of an Arabic decorative page in the middle, ascribed to Yaqut al-Mustasfir (see fig. 22), containing a line in thuluth and a smaller one in naskhi, reads:

The great ' Jihad' (Holy Struggle) consists of keeping passion away from the soul.

FIG. 29

DECORATIVE PAGE OF CALLIGRAPHY WITH POETIC VERSES

Isna, 16th century

The three texts on this album page written in the elegant nast' liéq script are two anonymous love poems (in the middle and in the pale green fields along the four sides) and a fragment from Sa'alik's Gulistan ("Rose Garden"). The four-line poem in the middle, for example, reads:

Of more beautiful than the moon have you become,

Lily-faced and silver-skinned,

Hold a mirror to your face

That you may see: You have become an object of admiration for other eyes.

FIG. 30

ALBUM PAGE WITH DIFFERENT FORMS OF NAST' LIEQ SCRIPT

Isna, 16th century

This page contains Persian verses and prose in three different sizes of script. The verses in the four-line middle field read:

Like the sun be one who walks alone,

As if he-

Her dagger (literally: eyelash) is only sharpened against us,

Her lock has become a spiller of much blood.
FIG. 31 (previous double page)
DECORATIVE PAGE WITH SHI'ITE INVOCATION
Iran or India; 17th/18th century
The Arabic inscription in ornamental thuluth praises the first Shi’ite imam with the well-known religious formula: "There is no hero apart from 'Ali and no sword apart from [his] shi'a, fidaa." 

FIG. 32
DECORATIVE PAGE WITH PERSIAN VERSES AND MAXIMS
Iran; 17th-early 18th century
This almost square decorative page, signed by Fazl Allah contains calligraphies in the usually complicated and difficult-to-read naskh script which was then and is still frequently used for personal letters.
Fig. 33

**SMALL ALBUM WITH CALLIGRAPHIC EXERCISES**

Ottoman Empire; 18th century

These two two-line pages from a thuluth alphabet show the connections (murakkabat) between the letters 'K' and 'M'. They belong to a calligraphy album (muratkke). They served primarily for practice in writing poetic or religious verses.
ALBUM PAGE WITH PART OF A CALLIGRAPHERED NASTA'LIQ ALPHABET
Mughal period, India; 18th century.
FIG. 38
FROM THE SAME ALPHABET IN NASTALIQ SCRIPT

This last page in a series of five with very elegant double combinations of letters in alphabetical order (naskhabut) also bears the pasted-on signature of 'Ali al-Katib, probably the famous Mir 'Ali al-Katib al-Harawi (d. 1344), but referring to "individual forms" of the letters (mufradat).
well as numerous, otherwise unacceptable ligatures. Sikkisto texts are written ornamentally almost like a dust script on single pages for poetry and letters (figs. 28 below, 32). It is sometimes confused, in more recent publications as well, with tīf iq which was revived in the eighteenth century and is heavier, larger and in some instances more markedly slurred (fig. 28 top, left and right).

The Ottoman Empire

The Iranian development of the ‘literary’ styles was taken over particularly in the Ottoman Empire with great enthusiasm and further developed in works of outstanding aesthetic quality. The designation tīf iq for Iranian nastaliq remained customary here for quite some time.

To this day Ottoman schools of calligraphy have significantly influenced the appearance of the Arabic alphabet, particularly in religion as well as in diplomacy and in chancery documents. Various authors have passed on a frequently quoted saying - “The Qur’an was revealed in Arabia, recited in Egypt and calligraphed in the Ottoman Empire.” As in Iran, individual great masters were extolled and described in biographies. Moreover, typically for the Ottoman administrative system, regulations for the schools apparently became increasingly strict. Since the sixteenth century we hear of entrance procedures and examinations for the most skilled, the permission to copy calligraphic texts is taken over from the science of dogmatic text transmission and the pupils’ works are countersigned by the masters. Copying masterpieces remained customary, as in Iran and India, but starting in the seventeenth century more precise references to the teacher and pupil became mandatory in the Ottoman Empire. The concentration of schools in the largest centres is striking – for the Turkish world almost only in Istanbul. The old Arab centres continued as Ottoman provincial towns with their own schools, but without much impetus.

Information in Ottoman biographies is concerned more with the formal traditional aspect than the aesthetic achievement; artistic statements are limited to a few criteria which to date have hardly been deciphered. Descriptions of the characteristics are extremely brief and in need of illustrations. Only recently have more Arab and Turkish research studies and overviews been produced. Some outstanding old masters are now emerging from the artistic darkness in a series of major reformers of Arabic script. Sheikh Hamdullah Amini (from Amasya, 1420–1520) is considered the forerunner of an ‘Ottoman’ style in nastaliq and thuluth (Turkish sīsā) as a successor of Yaqūt al-Musta‘ṣim and as the head of a school of calligraphy at court. He copied the Qur’an 47 times and also designed Qur’an inscriptions for mosques under Sultan Bayezid II. His pupil Ahmed Karahisari (d. 1556) succeeded him as head of the court studio – from this studio and his assistants and pupils we have the first Ottoman archive documents. His manner of writing in the same styles gradually became liberated from some of Yaqūt’s rules and at times led in monumental thuluth (sīsā call) to extravagant inventions such as letters successively linked to each other and in very sweeping lines. To illuminate the texts, he judiciously selected artists for a uniform, colourful, flowery style. The third grand master of the Ottoman Empire is Hāfiz Osman (d. 1658). His numerous extant works reveal very measured ‘individual’ forms in selected places which by their very rarity emphasize certain features all the more. Numerous individual folios and pious descriptions of sayings of the Prophet Muhammad assembled in leporello albums introduced this genre as a main field of practice of Ottoman calligraphy (fig. 33).

Ornamented Script

In Timurid times in the fifteenth century, the spread of individual folios of calligraphy seems to have increased. Preparations were made for this since in manuscripts, also Qur’an manuscripts, on one page the type of script and the size of the letters were exchanged irrespective of the contents in certain lines – usually the uppermost, the middle one and the lowest line were written larger and in a different script from nastaliq usually thuluth or later muhaqqaq. This was primarily for ornamentation’s sake, but may also have served to make the text more legible for long recitations. The custom of writing lines in a large type with others smaller or written diagonally appears in the fifteenth century, first with Iranian court calligraphers. From time to time and later regularly, the margins next to the small lines were decorated with ornaments or additional inscriptions. The texts are not only religious; Arabic, Persian and Ottoman poetry is combined with different quotations in this manner. Usually the leaves are bound together in groups and sometimes subsequently have decorative margines pasted around them, are strung in leporello form or are pasted on cardboard in albums. A distinction is made between standardized albums (mufradat), which contain for example nastāfiq or another alphabet, then double combinations of individual letters, and finally examples of verses in the large script described (1865, 34–35).
Persian and Turkish, more seldom Arabic, verses, usually double verses, are written diagonally slanting upwards to the left and decorated with ornaments in triangles in the corners and in the middle. Albums of these verses, also combined with miniatures and other pages of calligraphy, are called muraqqa’. Among other things, they serve as collections of famous old examples of calligraphy or copies in their style and were initially apparently combined arbitrarily and pasted like the western quodlibet pictures and pasticci in cardboards. This is attested by the famous Saray albums in the Topkapi Saray Museum and in the State Library in Berlin from the fifteenth and sixteenth centuries, which originally came from Timurid courts and early Safavid holdings. They demonstrate the regional mobility of the collections, partly as booty in the course of Ottoman conquests in Iran and partly as gifts or tribute. Corresponding examples from the seventeenth and eighteenth centuries come primarily from Mughal India — impressive albums, some of which contain works centuries old and in new borders. Western libraries in London, Berlin, St. Petersburg and the private Khalili Collection contain outstanding examples of these court albums. These albums may have served didactic purposes — perhaps they contributed outside the courts to a more marked development of schools of calligraphy. In the Ottoman Empire the number of teacher-pupil circles apparently increased considerably; even civil servants found enough time for an exchange in circles, as some private anthologies and poetry booklets attest.

Among the religious texts are a particularly large number of Sufi poems, teachings and stories. The strong promotion of ornamental and illustrative motifs in some Sufi circles also enriched calligraphy. The pictorial reshaping of letters and names or words into ‘letter pictures’ is probably a Sufi invention. They became known for the first time in Europe through the title vignette of an Arabic invocation in the shape of a bird in Adam Olearius’ travelogue about Safavid Iran dated 1647. The birds and animals depicted are special ones which attained popular fame from edifying stories. Calligraphers of the Mevleviye order (whirling dervishes) in the Ottoman Empire invented particularly imaginative, primarily mirror-symmetrical let-
ter pictures with symbolic forms such as dervish caps and the 'ideal face' (cf. following essay by Fremingen in this book). In Iran as well, the calligraphy inspired by Sufis enjoyed a new upswing in the nineteenth century and led to novel pictorial inventions by some masters which are still reflected in contemporary art (Fig. 36).

Collecting pious and not-so-pious epigrams and poems provided distraction and entertainment for educated circles throughout the Islamic world. This explains why they are also popular as ornaments on implements and in architecture. The same trend toward compositions of different scripts for different kinds of messages is found on objects, with the often highly ornate Kufic for religious formulas, while Arabic texts are usually written in naskh or thuluth and Persian or Turkish in naskh in the new styles and transferred to different materials. Apparently the models are derived from paper drafts; in some cases the quotations and words do not fit completely in the cartouches and medallions provided. The selection of texts certainly corresponds to a predominant style in certain areas and in certain circles of connoisseurs. The number of pious and Sufi formulas in proportion to general good wishes and verses indicates the taste and spiritual attitude of the buyers and owners. Increasingly, however, the characteristic tenor of the inscriptions on objects is lost and since the nineteenth century particularly in the Ottoman Empire has yielded to stereotypical words and illegible series of letters, surely under the influence of exports for Western markets and tourism.

A special development of Ottoman scriptoriums must be emphasized because it is characteristic of the official government style and the innovative spirit of this empire. The Ottomans created a new form of chancery document by placing the 'emblem' of the sultan as tugra under the invocation and over time ornamenting it in great detail (Fig. 37). The zelzeli design, always in the same shape, was slightly varied by specially trained scribes for each new ruler and later richly illuminated. These documents are splendid works of the court studio, and a special script was developed for them in the early sixteenth century, the divani ('used in the Divan, the vizier's council'), in a simple and a monumental variant (cf. divani). The strokes developed from the tafagh are almost impossible to forge because any alteration of the entwined lines would be noticeable, at the end of a line, the last stroke is extended to the margin. For less important government offices, especially those concerned with finance, scriptoriums had invented another kind of secret script, the siyya style, which in its square, distinctive style and constant use of abbreviations more closely resembles stenography. Its origin is uncertain; it may date back to Byzantine models.

With the abolition of the Arabic script in the Republic of Turkey in 1928, the great cohesion of Islamic countries in this medium was lost. Initial attempts to adopt Roman script for religious documents and the Qur'an failed due to fierce resistance from religious forces. Translations were always considered inadequate and were never allowed to replace the Arabic text. Today Arabic is again being taught in Turkey as a form of calligraphic exercise. To facilitate communication with Arabs and Iranians, modern Turkish, written in Arabic, would no longer be suitable. Many Arabic and Persian terms which made Ottoman Turkish one of the most difficult languages, are now Turkified. Thus it would be better from the start for all to learn Arabic, a fascinating, flexible academic language which uses one of the most elegant scripts and one highly suitable for its grammatical system.