charged background. In a related group, which was developed in the thirteenth century, and which is sometimes associated with Agkhand, the incised lines coincide with a carefully painted design in green. Later still, another variant (ILL. 67), with scribbled engraving and careful painting in brown and green, was also developed; the type is associated with the name Amol.

Finally, a group may be distinguished in which large areas of the slip were removed to produce a champlévé design, usually under a deep green glaze (ILL. 68). Heavy, flat-footed bowls, with curved rims and jugs with necks like birds or animals, were most usual. The name Gabri has come to be associated with the type. There were numerous variants both of technique and ornament from vessels where the designs were grand and majestic to those where the designs were delicate and flowing. Generally the latter are perhaps a century later than the others. The place-names – Agkhand, Yasukhand, Amol and so on – associated with all these groups have varied with the years and are not to be regarded as very reliable, for most of the examples that are known have been named by dealers and they cannot always be relied on as indicating the correct localities where the vessels were found, still less those where they were made.
(III. 64). More scientifically controlled excavations concerned with the Muslim age in Persia are badly needed.

Bowls with a fine white body and a decoration in cobalt blue or green, like those already encountered at Samarra, were made in Persia from the ninth to the eleventh century, and another family with white body must have been related. Here the decoration was either moulded or carved, sometimes being pierced right through the body, which then assumed the character of a semi-porcelain. Chinese models no doubt had a role to play in the evolution of the technique. Vessels usually take the form of beakers; they date from the twelfth and thirteenth centuries, and seem to have mostly been made at Rayy. In a closely related ware, glazes of deep blue or brown were substituted for the cream-coloured ones of the other group, and the technique was elaborated for the decoration of objects of considerable size, which even included small coffee stands or tables; it was exploited both at Raqqa in Syria and also in Egypt.

Moulded decorations also characterize another group which is usually known as Lakabi ware (III. 65), but the areas in relief were also coloured, blue, yellow, purple, green and pink being used to pick out the designs against white or cream grounds. Flat plates or dishes ornamented in this technique were often extremely beautiful, although the potters never mastered the art of preventing the colours from running in the vertical position. Kashan was probably the main centre of production. The designs of the silhouette wares, which were painted in black on a fine white body under a transparent ivory or turquoise glaze, produced a somewhat similar effect, for their margins were so clearly defined as if they were in relief as well as in black. This technique has been associated with Rayy.

However, Rayy potters seem to have excelled, especially during Seljuk time (1037-1256), in the production of two other groups of luxury ware, namely, lustre and the so-called Minai or polychrome painted ware (III. 66). Both techniques were difficult and complicated. In the Minai wares the bodies, of a fine white consistency, were painted in pale blue, green or purple under the glaze, and fired. Black outlines and details of the designs were then added in
67 Amol ware bowl, from the author's collection, is characterized by a thin sgraffito decoration with delicate green line. Twelfth or thirteenth century.

68 Dish, depicting dancers and hyenas, decorated in relief under polychrome glazes. This type of ware is usually known as Lakahi and was a luxury ware restricted to the use of rich patrons, and examples were probably always rare.
vitrefiable colours which were of great variety, comprising blue, grey-blue, turquoise, green, yellow, brown, black, red and gold, and the variety was intensified by the fact that the grounds were sometimes coloured also, lilac or turquoise-blue being usual in addition to white. The colours were then set by a second firing. The painting was in a delicate, miniature-like technique, and figural subjects, often of a narrative character, were favoured. Very similar drawings characterized the lustre wares from the later twelfth century onwards and the designs of the two groups are often so alike that one may conclude that the same artists worked in both techniques. Their drawings on this durable material serve to give an idea of what works on more fragile materials like paper or plaster which have now perished might have been like. The Minai pottery was perhaps made at Kashan and Saveh as well as Rayy.

The introduction of lustre into Persia took place at a comparatively late date; the earliest example we know that can be definitely dated is a bottle of 1179, now in the British Museum. The technique was fully mature at the outset, so that it must have been introduced from outside, and both Mesopotamia and Egypt have been suggested as the immediate source of inspiration. As time went on, however, the work became more fluent, reaching an apex in the twelfth century. As stated above the designs were delicately and beautifully painted in ruby, carmine or gold, sometimes singly, sometimes combined, and included in addition to arabesques and leaf-forms very vivid human figures (ill. 65). Horsemen (ill. 66) seem to have inspired the painters particularly, and this composition was admirably suitable. Sometimes the backs of these were coloured blue and occasionally the lustre was on a blue ground. The best of the bowls seems to have been made at Rayy, while the potters of Kashan and Sultanabad specialized in the production of lustre tiles and large vessels. Work continued, in any case at Kashan, until the fifteenth century, whereas at Rayy it does seem to have been resumed after the Mongol conquests of the early thirteenth century.

Around 1300 another type of pottery came into fashion – the blue and black (ill. 70). Kashan was the main centre of production, but work was also done at Sultanabad, Saveh and Sultaniana. Sometimes the surface of vessels of this type were moulded or engraved, sometimes the colours were used without a relief background, the decoration being painted on in black and the whole covered with an attractive deep blue glaze. Moulded designs of very similar character were also used alone, without the black, under turquoise or other glazes.
The Minai technique, as well as those where a moulded or pierced decoration predominated, was essentially Persian and these methods were never developed elsewhere. Other techniques, like lustre, blue and black, and above all sgrafitto, were popular all over the Islamic world. The problem of where they were all invented is, however, very complicated, and though we know that there was a great deal of interchange, there was also probably a good deal of independent invention also. Only when we find fairly advanced techniques appearing suddenly in an undeveloped area, as was the case with certain types of sgrafitto and moulded wares of Persian type that occur in Afghanistan in the twelfth century, can we be sure that a technique was introduced from outside.

In addition to the pottery, a few examples of metalwork of the Seljuk age in Persia are available. Heavy mortars in bronze with inscriptions round the rim were in common use. Jugs and ewers which were close to Sassanian prototypes continued to be made; sometimes their necks were in the form of birds or animals, and metal vessels like these inspired some of the types of pottery (Ill. 70).
cauldron in the Hermitage, signed Muhammad ibn 'Abd al-Valîd and Masûl ibn Ahmad, done at Herat in 1163 (ill. 73). It remains unsurpassed in the story of Islamic metalwork. A dozen or so other signed and dated pieces of inlaid work of this age survive which can also be assigned to Persia rather than to Mesopotamia.

Some very fine jewellery was made at this time, and the rulers were great patrons of fine weaving, rather linear, all-over designs being especially popular. Glass, though it never equalled that of Syria, was also made and adorned with gold and bright enamel colours from the thirteenth century onwards.

73. Bronze kettle with inlaid design, signed by Muhammad ibn 'Abd al-Valîd and Masûl ibn Ahmad. Inlaid work of this type was at one time all attributed to Mosul, but it is now known that the technique was practised in Persia, Syria and Egypt. Herat, 1163.
that the system was actually evolved in Persia, even though the domes of the Masjid-i-Jami are later in date than that at Cordova. The Isfahan domes are remarkable because of the beauty of the brickwork, but at Cordova decoration was added which is somewhat over-ornate. It included mosaics supposedly done by craftsmen brought from Constantinople for the purpose, but there is nothing very Byzantine about the character of the work. The horseshoe mihrab and the tiers of hexafoil arches that bound the mihrab chamber show a degree of elaboration not reached elsewhere in the Arab world, yet they are typical of the ornate Hispano-Mauresque style.

A minaret was added by Abd er Rahman III (912-61) and further additions were made by al-Mansur in 987. Today the area that formed the sanctuary has nineteen aisles, and is the third largest mosque still extant, being exceeded in size only by the Great Mosque of Samarra and that of Abu DulaF near by. It is enclosed by a great stone wall, and in the structure itself, stone and brick courses alternate in the same way as in the Byzantine world or as in the great Umayyad city of Anjar in the Lebanon; the system was probably inspired by an Umayyad example in Syria. The double arches, one above the other, however, constitute an unusual structural feature; the idea was perhaps suggested by one of the Roman aqueducts, of which there are several fine examples in Spain.

Except for the mosque there is little that survives from Islamic times in Cordova, but there is a small mosque at Toledo, the Bab Mardoum, and a whole city, Medinet az-Zahra, founded by Abd er Rahman III in 936 and subsequently deserted, available as a more or less unencumbered archaeological site. Excavations there have not only produced important finds but have also made possible a fairly thorough reconstruction of what a city of tenth-century Islamic
Spain was like. The city stands in terraces on a sloping hill-side, surrounded by walls, but the layout was irregular and the houses are of little architectural interest. The houses were built mainly of stone, and, as in Mesopotamia, stucco was liberally employed for decorating the wall surfaces (III. 76). This stucco and a number of brick floors set in geometric patterns are the only constructive features of artistic interest that the city has to offer. Elements of Byzantine art are more obvious here than in Mesopotamia, and the stuccos, plainer and less elaborate than those of Samarra, are easily identifiable as Spanish. However, the flat ceilings of the houses — they occur again in the mosque at Cordova — and perhaps also the multiple lobed arcades, are features that may well be of Mesopotamian inspiration.

The finds of minor works at Medinet az-Zahra were less numerous and interesting than those from Samarra; no fragments of frescoes have appeared, and the pottery was limited to barbotine wares — mostly jugs — and vessels with a painted decoration in green and brown on a yellow ground. Both types owed their basic inspiration to Mesopotamia, but were developed locally very rapidly. The results were, however, of a very provincial character, and it was not until several centuries later that any really high-class pottery that was distinctively Spanish began to be made, in the form of a particularly rich and accomplished lustre ware. The first mention of this occurs in 1066, when reference was made to the "golden pottery of Toledo". In 1154 Calatayud in Aragon was mentioned as a centre of its production, but potteries also seem to have existed at Manises, Paterna and Valencia, and there were probably factories in North Africa also, though their products seem to have been confined to rather simple wares with a two or three-colour decoration. The typically Spanish pots, distinguished by their great size and by the elaboration of their forms, are all of rather later date.

Of the other arts the most important and distinctive was probably that of ivory carving (III. 77). Rectangular and, more particularly, circular caskets, with a very profuse decoration of exuberant palmette scrolls, birds and animals, were most usual. One of the earliest, now in Madrid, is dated 964, and examples of the later tenth century are comparatively numerous. Their style is akin to that of Fatimid work in Egypt, but has a distinctively Spanish flavour and it is not difficult to tell the products of the two countries one from the other. A little later, however, a new centre grew up in Sicily, producing work which was very like the Spanish, both in the method of ivory carving and textile weaving. In this case it is not always easy to be sure which works are Sicilian and which Spanish (see p. 130).
As was usual in the luxury-loving world of Islam, the manufacture of fine textiles was also much in favour in Spain and seems to have begun immediately after the Islamic conquest. Andalusia was the most important centre, and Idriṣ notes that there were as many as eight hundred looms there; in the tenth century there were looms at Almeria and soon after they existed at Malaga, Seville, Granada, Balza, Murcia and Alicante also. One of the earliest of their products that survives is the so-called ‘Veil of Hisham’ (III, 78), now in the Academy of History at Madrid, which is identified by an inscription in fine large-scale kufic letters. But when no inscriptions or historical records are available it is not easy to distinguish the early Spanish work from that executed in Egypt. Only after the tenth century did the Spanish style become more clearly marked.

During these early centuries North Africa enjoyed a considerable degree of independence. Morocco was ruled by the Idrīḍ kings from 788 to 774, with the capital at Fez, and around 800 an independent dynasty was set up under the Aghlabids in Tunisia, with its capital at Qairawan, which rapidly became one of the holiest cities of Islam. Its famous mosque was founded by Hisham in 724, and the
three-storeyed minaret (ill. 81) dates in part at least from this period, though the earliest parts of the mosque itself and the layout of its plan belong to 836. The work of this century also includes the famous tiled mihrab and carved wood minbar or pulpit which have already been mentioned (see p. 43). They are probably to be dated to 862, as are the pointed and horseshoe arches (ill. 79) of the arcades and the dome in front of the mihrab (ill. 80), which recalls Umayyad work in Syria. A few of the capitals belong to this period also, but most are earlier ones re-used. The mosque was severely damaged when the town was sacked in 1054, but it was restored then and on more than one subsequent occasion, notably in 1294, when the spectacular gates were added.

At Tunis itself two important mosques were set up under the rule of this same dynasty (800-909), that of Sidi Okba, restored by Ziyadat Allah in the early ninth century, and that of Zaytun, also rebuilt in the ninth century. There is also an important mosque at Sousse dating from 850.

In 902 the Aghlabids captured Sicily, which thereafter became a Muslim outpost and an important centre for the production of textiles and ivory carving, though we cannot associate any fine pottery with the island and no mosques of importance survive there. But the link with Egypt was more significant than that with Tunisia, for in 909 the Fatimids came into power at Qairawan and soon after established themselves in Egypt. Sicily became a part of the Egyptian empire, and Arab control of the island really only ended with its conquest by the Normans in 1061. Even then contacts were maintained, and the ceiling of the Palatine Chapel at Palermo, painted in 1154, is an essentially Fatimid work (ill. 82). Its paintings may be compared with some perhaps a century earlier recently discovered in a bath building near Cairo (ill. 83) and now in the Museum of Islamic Art there.

83 Wall-painting from a bath near Cairo. Eleventh century. The style of the Palermo ceiling is similar to it. Both are interesting for they show that there was no very effective ban on figurative art, in any case so far as secular work was concerned
Though Egypt was one of the first areas to be conquered by Islam, and though there are records that mosques and other buildings were founded by the governors who represented the Umayyad caliphs there, nothing now survives from those early years. Indeed, although the great mosque of Amr at Fostat was founded at the time, there is no part of it that can be dated to before 827, when its size was doubled at the orders of the Abbasid Caliph al-Mamun, and there are only a few small areas of masonry that can be assigned even to that date, for most of the building, as it stands today, is to be associated with a restoration accomplished in 1407 and much of the actual construction is as late as the nineteenth century. The mosque of Ibn Tulun (c. 868) must, as we have shown, be counted as a Mesopotamian work, due to the close association of its patron with Abbasid Mesopotamia. But the more or less contemporary Nilometer (861) (III. 84) is wholly Egyptian and retains its original form. Its style is already distinctive from anything of the same age elsewhere, and we find there stone masonry of great excellence and precision which heralds that of the later Cairene mosques. A very clearly marked style of low-relief carving, quite different from that of the stuccos of Ibn Tulun’s mosque, was used for its ornament; the pointed arch was already fully developed, in a form quite distinct from the elliptical type that was used at an early date in Persia. True pointed arches had, however, already been used in Syria and Palestine, as in the cistern at Ramleh (789). Indeed, though the mosque of Ibn Tulun was basically Mesopotamian and though its political relationships with Mesopotamia were close during the second half of the ninth century, cultural links between Egypt and Syria were even closer. When once he had established himself as independent ruler of Egypt, Ibn Tulun soon assumed control of the whole area as far north as Antioch.

The Tulunids remained in power until 905, but after that date Egypt was once more brought under the sway of the Abbasids for a time, and it was not really until about 970, when the city of Cairo was founded near to the old Fostat as the capital of the new Fatimid dynasty, that Egypt became truly independent. The Fatimid dynasty was to survive until 1171, and though the sultans of the dynasty were not always very successful or admirable, the two centuries of their rule were from the artistic point of view perhaps the most glorious in Egyptian history. During this period there was a great deal of building, and it was a Fatimid patron who was responsible for the famous mosque of al-Azhar (III.85), founded about 970, though
there have been various additions since, notably that of the main gate in the twelfth century. The central portion of the sanctuary is, however, original, as is the decoration in low-relief stucco work, which represents a development from the style of that used by Ibn Tulun. The wooden door of the mosque, now in the Arab Museum (Ill. 87) was presented by al-Hakim in 1010, and shows something of the same rather rounded manner as the stuccos; the stone work, both in al-Azhari’s and in al-Hakim’s mosque (Ill. 86) which was built between 990 and 1013, is rather more monumental. Al-Hakim’s mosque has a large court and a fine, though small, brick dome over the mihrab, probably original, though most of the rest of the building is to be assigned to a period of reconstruction under Beybars.

Several other important mosques were built under Fatimid patronage, notably that of Mustansir Billah (1036–94), one of the most active patrons of the dynasty, but there is no finer example of the art of this

age than the stucco mihrab which was added to the mosque of Ibn Tulun in 1014—it is known as the Mihrah of al-Afdal (Ill. 88), and served as the prototype for a great deal of carving in later times.

Secular work of the period was no less superb, for it was during the last quarter of the eleventh century that the fortifications of the city were re-erected in stone and that the magnificent gates were built, of which the Bab el-Futuh is perhaps the finest (Ill. 89). Their construction was no doubt stimulated by the capture of Jerusalem by the Seljuks in 1071, and the rulers must have felt all the more content with these strong defences when soon after a new foe appeared on the scene in the guise of the Crusaders, who entered Jerusalem in 1099. The fine stone masonry, the pointed arches, the elaborate voussoirs and the defensive conception of these structures all represent developments which were to follow in Romanesque and Gothic architecture a generation or so later. Palaces were no
excavations were actually of cut glass, not crystal. In addition to scrolls, birds and animals of a very Sassanian type, these vessels sometimes bear inscriptions also. In three cases these inscriptions provide dates; one vessel, in St Mark's Treasury at Venice, is of the tenth and the others are of the eleventh century.

The earliest examples of Islamic pottery that we know from Egypt would appear to have been imported from Mesopotamia, but the local potters soon turned to the new styles and the importance of the art grew with the rise of the Fatimids. We know of it mainly from fragments; whereas in Persia excavations have produced large numbers of complete vessels, finds of whole pots in Egypt have been few and far between, though the rubbish-heaps of Fostat have produced literally hundreds of pieces, especially the bases of bowls. Vessels with a white body and an incised decoration under alkaline glazes appear to have served in more day-to-day needs, but lustre was also developed at an early date.

89 The Bab el-Futuh, Cairo. The gate forms part of the impressive fortifications erected during the last quarter of the eleventh century. These embody various features which were later taken to the West by the Crusaders.

doubt important also; ruins of some, as at Mahdia, have been excavated in other parts of North Africa.

Production of the arts on a minor scale was no less important than developments in architecture and good work was done in pottery, even more so perhaps in the sphere of textile weaving. Very good carvings in ivory and wood and fine works in metal were also produced. But perhaps most outstanding of all were a series of very distinctive rock-crystal ewers decorated with designs of birds or fantastic animals in a bold, extremely effective style (Ill. 90). Some of these found their way to the West, where they have been preserved in cathedral treasuries ever since. The records state that work of the type was done at Basra, but all the examples that have survived – some 170 are recorded – are Egyptian. Fragments bearing similar high-relief decorations which were found during the Samarra
Though the craftsmanship was less skilful than in Mesopotamia and Persia, the bodies coarser and more sandy, and the shapes somewhat lacking in refinement, the lustre was of high quality and the designs skilful and varied. Formal patterns, fish and human figures of a very Hellenistic character, were favoured, and flowing calligraphic patterns were considerably developed. Two types are known, one monochrome, the other polychrome, and the technique was spoken of in especially glowing terms by the traveller Naṣr-i-Khosrau when he visited Egypt between 1046 and 1050. It would seem that some of the pieces were made for Christian patrons, for Christian subjects appear, and there is a particularly fine example of the early twelfth century in the Victoria and Albert Museum, which bears the figure of a priest swinging a censer (ill. 91). It was signed by the potter Saʿd, whose work is characterized by a habit of scratching through the lustre ground with a thin point. Another famous potter was called Muslim. If the numerous signatures in Arabic which appear on the bases of fragmentary bowls from Fostat are to be taken as a guide, it would seem that the potters were mostly Arabs.

The most important kilns were situated in the neighbourhood of Cairo, but it is possible that work was done in Upper Egypt also, and a particularly fine vase with a decoration in gold lustre, also in the Victoria and Albert Museum (ill. 92), has been attributed to that area by Bulter; his dating to the ninth or tenth century is, however, too early. With the end of the Fatimid dynasty in 1171 the centre of production moved to Damascus and links with Raqqā which had perhaps existed in very early times were renewed. But one type remained important in Egypt, the unglazed water jugs with perforated filters in the necks, often of very ornate character.

If the pottery of the Fatimid age is mostly fairly distinctive and easy to recognize as Egyptian, the same can hardly be said of the metalwork, for incense burners, aquamaniles and other vessels which are closely akin to the Persian ones seem to have been made
in quite large quantities both in Syria and Egypt. The largest and most spectacular of these incense burners is in the form of a grif
and is now preserved in the Campo Santo at Pisa (III. 91). The birds
and animals whose forms these vessels take are similar to those carved
on the rock-crystal jugs, and belong to the old animal repertory of
the Near East so popular in all the arts from Sassanian times onwards.
Sometimes they appear again on the textiles, but in general inscrip-
tions were tending to come into favour in Egypt as a decoration for
the woven stuffs rather than figural patterns. Though script was
everywhere being developed as an ornament, it was probably never
so popular as it was in Egypt, where it soon became the distinguishing
feature not only of Egyptian textile weaving, but also of embroidery.

Egypt had been a very important centre of the textile industry
since Pharaonic times, though it is possible that the fact that more
has been preserved there, due to the dry climate, than elsewhere has
led to something of an over-estimation of the role of the Egyptian
looms as against those of Syria, Persia or the Byzantine world. Be
that as it may, there is a mass of material which is to be classed as
Coptic, even if it is not all Christian, and a good deal also that was
produced for Muslim patrons, whatever may have been the religion
of the workmen who made the textiles. The typical Coptic stuffs,
with small-scale figural designs usually depicting Christian scenes,
continued to be produced long after the Islamic conquest, and many
of the examples in our Western museums were probably executed
during the days of the Fatimid caliphate. It is, however, the purely
Islamic textiles that concern us here and not the Coptic ones, and
many of them were not only of great technical excellence but also
of very great beauty. Both silks and linens were in favour for high-
class work, and they were probably made at a number of different
centres. Akhmim, which had been important in early times, was
certainly one of them. Some of the designs are purely decorative,
some are figural, and some consist only of inscriptions, which in
many instances are most beautiful, because of their delicacy and the
reticent balance of the designs. Also they are useful for they often
contain names and so help to date the textiles. Silver thread played
a significant part, and its presence serves to distinguish a group

93 Bronze grif probably made in Egypt in Fatimid times.
In style it is akin to the small incense burners, but it is actually
almost a metre high. Eleventh century

usually known as the 'Tiraz' stuffs. Like the rock-crystal ewers, these
textiles, even when they bore inscriptions giving the name of a caliph
of Islam or a dedication to Allah, often found their way into Western
cathedral treasuries, where they have been preserved ever since. The
so-called 'Veil of St Anne' at Vaucluse may be noted (III. 94), because
it bears an inscription stating that it was made at Damietta on the
Nile Delta in 906/7.

In addition to the woven stuffs, which were of great importance,
textiles with a pattern produced by resist-dyeing were also made.
The technique, which had been in use since late classical times,
consisted of covering parts of the material with a resist, such as wax,
and then dipping it into a dye, so that the design was produced
either in the dye colour or by its absence, as the case might be.
Embroideries, characterized by the richness and multiplicity of the
colours used, were also important from Fatimid times onwards.