could, however, be reconstructed sufficiently well to convey a very clear idea of the character of the original decoration. The work was in all probability done by locals who drew both from the Hellenistic and the Sassanian repertory; some of the figure subjects are very Sassanian in style, others close to those of Coptic art. The most important feature of the decoration, however, is the way in which motifs that were later to be developed as typical of Islamic art as a whole were anticipated. This is especially true of the geometric window grilles in plaster; similar grilles of marble were used in the Great Mosque at Damascus. These grilles are delicate and restrained, whereas the rest of the stucco work at Khirbat al-Mafjar is rather vulgar. Yet the decoration is important, for the style is distinctive and reflects the influence of a single and rather strong personality. Hamilton, who excavated and published the palace, suggests that its builder was the athletic, poetic and forceful but eccentric Yazid III, who reigned for only one year (743).

Though it dates from about 728, the palace of Qasr al-Hair ash-Sharqi (Ill. 16) is similarly prophetic, for in its construction it heralds developments in military architecture that were to take place in the eleventh century and were to be transmitted to the West by the Crusaders. Most notable is the use of machicolations, that is, of a gallery projecting over the entrance with holes in its floor, through which boiling oil or other substances could be poured on to the heads of assailants. Its very remarkable facade has now been reconstructed in the Damascus Museum, and much of the stucco work that adorned it is also to be seen there; it is rather more restrained in style than that of Khirbat al-Mafjar. But not only is the great castellated entrance impressive. Two large painted panels of particular interest were also discovered, one representing the earth goddess set in a jewelled roundel of Sassanian character, the other showing a hunting scene (Ill. 17) clearly derived from a Sassanian prototype such as those known on many of the famous silver plates in Teheran or in the Hermitage Museum at Leningrad. The colours, however, are not those usual in Sassanian art, where red and blue predominate, but show a preference for pale browns and yellow, colours which were especially popular in Egypt.
The palace of Qusayr Amra, 724-43, was adorned with wall-paintings, mostly of a very Hellenistic character. Some show nude figures, some animals and human figures in a diaper pattern.

Of all the secular paintings of Umayyad Syria that have survived, however, the most important are those at Qusayr Amra. The palace there was on quite a small scale, but several of the rooms were decorated with paintings, which varied considerably in character. The roof of one room was domed and adorned with the constellations and signs of the zodiac; on the roof of another was a diaper pattern (ill. 18) with an animal or similar motif in each of its diamond-shaped compartments. On the walls of another room were depicted hunters and allegorical figures, while in yet another there were nude figures of bathers, some of them male and some female. The former derive from Hellenistic prototypes, but it has been suggested that the plump figures of the women reflect the Arab ideals of female beauty as expressed in the verses written by poets at al-Flāra before the days of Islam. Probably most interesting of all is a panel showing a number of figures who are to be identified as the kings overcome by the advance of Islam (ill. 19).

The group comprises the Byzantine emperor, in a rich costume of woven silk, the Sasanian ruler, Roderick, King of the Visigoths, the Negus of Abyssinia and two figures on a smaller scale who cannot be identified. The names of the figures are written above their heads in Greek and Arabic. The style of the painting is much more Oriental than that of the other compositions at Qusayr Amra, which are broadly Hellenistic, with figures shown side or three-quarter view, carefully modelled and treated naturalistically. The kings, on the other hand, are shown full face, in rigid poses, their limbs hidden by their heavy costumes, originally done in rich, bright colours. The style is in fact that which is generally associated with Sasanian art, and the work must surely have been done by a painter who had been steeped in the Sasanian tradition.

When Qusayr Amra was first discovered, the conservative character of most of the paintings gave rise to the suggestion that the work
was of quite an early date; subsequently, however, it was attributed to the eighth century. The presence of Roderick makes an early date impossible, for he only came to the throne in 720, and the paintings must clearly have been done after his accession; he died in 711. There is reason to date them before the fall of the Umayyad dynasty in 750; therefore a date between 710 and 750 is certain. One of the very fragmentary inscriptions that accompanies the paintings refers to a prince, and it would seem that one of the younger Umayyads, and not an actual caliph, was the patron who was responsible for the work. Of the princes the only possible ones are the men who were to become the future caliphs al-Walid II and Yazid III, and this being so, a date in the reign of Hisham, between 724 and 743, is indicated.

The palace of Qasr Amra and its paintings would thus seem to be one of the last works built for an Umayyad patron before the dynasty came to an end and the capital was transferred to Iraq. After that the construction of such a palace would have been most improbable, for a local governor could hardly have been responsible for a decoration of the character we see there. Moreover, with the departure of the Umayyads, Syria declined in importance and several centuries were to elapse before the area once more became significant in the story of Islamic art.

The last of the Umayyad caliphs was Marwan II, who made Harran in northern Mesopotamia his capital and was killed in 750. The great mosque which survives there was partly begun by him, but most of what now stands above ground is of later date. More no doubt remains to be discovered there, for the site has never been fully excavated; work begun by Professor Storm Rice was unfortunately interrupted by his untimely death in 1962. Only further excavations there or at other Umayyad sites will be able to tell us more about the minor arts of the period. Yet the nature of the mosaics, the stuccos and the paintings does suggest that already a style had been born. Eclectic though these works are in many ways, there is none the less something that marks them as Islamic rather than as Hellenistic or Sasanian, Nabataean or Ghassanid, and it was on the basis established in these early years that the future development of Islamic art was founded.

The Abbasid Period

We know from the texts that mosques were built during Umayyad days at Basra, Wasit, Kufa and elsewhere, but although the capital was moved to Mesopotamia in 750, and soon after established at Baghdad, there are very few monuments on a major scale which can be attributed to these early years. True, mosques still stand on many of the early sites, but they are all of a later date, while al-Mansur’s famous round city of Baghdad, founded in 762, has entirely disappeared, and as a part of the modern city now covers the site where it stood, it will probably never be excavated. Its plan was, however, broadly followed at Raqqa, where the walls can be traced, and portions of the original town survive above ground, notably the Baghdad Gate (III. 21), an impressive structure adorned with lovely ornamental brickwork. The defensive work there is of special interest because, in spite of subsequent additions, it would seem certain that the original layout has been preserved. Some of the methods of defence, including the oblique approach, were later brought to the West by the Crusaders, and represent one of the many legacies which the West owes to Islam. The quality of the architecture is shown by the number of carved limestone capitals dating from about 800, examples of which are preserved in various museums.

More spectacular than Raqqa, however, is the magnificent hunting palace of Ukhaider, near Kerbela, some 120 miles to the SSW of Baghdad (III. 20). Its plan is rectangular, and the high external wall, supported by semi-circular bastion towers, has an entrance at the centre of each side. It therefore follows the same plan as the Umayyad city of Anjar, but because it is preserved almost up to roof-level it is possible to gain a clearer idea of its character. Progressive ideas in defensive architecture were carried even further in its construction than in the Syrian structures or at Raqqa. There was an elaborate chemin de ronde along the top of the wall, from which an attacker
The palace of Ukhaidir, Iraq, c. 780. The building was set up early in the Abbasid period, but follows the general plan of the Umayyad palaces on the opposite side of the great desert.

The great court of the palace of Ukhaidir, c. 780. The palace was rectangular in plan, and was surrounded by a high wall. Within it was divided into a series of courtyards with chambers opening off. These chambers are called baytis by Creswell.

could be menaced from above, while the four gates consisted each of a chamber bounded by an inner door and an outer portcullis which could be lowered if the door was assailed, trapping attackers in a chamber where they could be exterminated at leisure.

The building itself is astonishingly impressive, standing as it does in isolation in the desert, far from any habitation. It is no less important in the history of Islamic architecture than it is spectacular as a ruin, for we see there in good preservation not only features of defensive architecture which are entirely new, but also a layout of the living quarters within the walls which was to be followed for many centuries all over the Islamic world. The main residential area was divided into a series of courtyards, each surrounded by narrow chambers, which Creswell calls baytis. At Ukhaidir these were covered with vaulted roofs and there was an impressive vaulted entrance hall (III. 22) at the western end, with pillars at its sides and with two upper storeys. The vaults and arches were all of elliptical form - the pointed version, although known in Syria, had not yet been developed in Mesopotamia. The elliptical arch had been used.
extensively by the Sassanians, and the whole palace had a very Sassanian character; indeed it was regarded as Sassanian until the discovery that one of the chambers on the ground floor was actually a mosque. Subsequent study has shown that it should probably be associated with Ibn Musa, a powerful court official who was exiled and made Governor of Kufa in 778. A similar but smaller castle, Aethan, marks a half-way stage between the two places, and was probably also built by Ibn Musa to serve as a resting place when he moved out to his desert palace.

We know nothing of the internal decoration of Ukhaidir, for neither stucco nor traces of paintings survive, but thanks to the German excavations conducted at Samarra just before the First World War and to those carried out more recently by the Department of Antiquities of Iraq, our picture of these arts is a fairly complete one. At Samarra the remains of extensive wall decorations in stucco were found and also fragments of some extremely interesting wall-paintings (ill. 23). These had adorned part of the harem in the first palace built by the Caliph al-Mutamid (833–41) and known as the Janaq al-Khaghani. Most impressive was a great scroll enclosing birds and animals. Birds and animals were also shown individually, usually within medallions adorned with dots representing pearls – a favourite Sassanian motif frequently used for textiles. There were also large figures of nereids and dancing girls, some of them in arcades similar to those which appear on Sassanian silver vessels. The figures were nearly all posed frontally, in the Sassanian manner, even though many of the motifs must ultimately have been derived from Hellenistic art. The rather heavy style of the paintings and the coloures, with red and bright blue predominating, were also essentially Sassanian.

The stuccos (ills. 24, 25, 26), which were used not only in the palace, but in many of the houses as well, were better preserved than the paintings, and often stood almost to roof height, covering the entire wall-space of the rooms. They have, for purposes of classification, been divided into three groups. In the earliest the decoration was moulded, and five-lobed vine scrolls formed the main theme; in the next group the stems of the scrolls were omitted and only bud-like designs were included. In a third and distinct group, the stuccos were carved as well as moulded; the carving was in low relief, with sloping margins – a technique known as schrägschnitt by the Germans, and usually called 'bevelled carving' in English. Prototypes for the first two styles, which Creswell designates A and B, are to be found on earlier sites in Iraq, such as Hira (eighth century) and Iskafir-bani-Junayd (c. 697), and similar stuccos have also been found at Varaksia near Bokhara, where they are probably to be assigned to the seventh century. Style B served as the basis from which the stucco work, which was later to become so important for the decoration of mihrabs all over Persia, was developed. The third, style C, appears to have been evolved at Samarra itself, though the technique was probably brought from Central Asia, where it had long been popular. It has been suggested that the Turkish troops, who formed the royal bodyguard of the Abbasid sultans, may have introduced it.
The Great Mosque begun in 847 by the Caliph al-Mutawakkil, which was built of burnt brick, is far more spectacular (ill. 27). Its plan (ill. 28) was that usual in early times, namely, a great court, with a covered sanctuary at one end and a smaller roofed area at the other; in the sanctuary there were twenty-five aisles, and the roof was supported on twenty-four rows of columns. The outer walls may have been decorated with mosaics, as tesserae were found in the course of excavations, but nothing survives in situ. Outside the enclosure and at its northern end was a circular minaret with a spiral ramp outside reaching the summit, and following the scheme of the temple towers or ziggurats of ancient Assyria. Soon after Mutawakkil had built the Great Mosque, he decided to move the site of the capital a few miles to the north-east, and a new palace, the Jafariya, and a second mosque, the Abu Dulaf, were built around 860. The mosque was on the same plan as that at Samarra itself, with a similar minaret with spiral ramp, but it was a little smaller. In use for a very short time, it is, today, an equally impressive ruin.

The rooms, adorned with stuccos, were single-storeyed, with walls of mud brick, and flat mud roofs. These and the upper parts of the walls had fallen in when the place was deserted and had filled the small rooms up to a height of some six feet, so protecting the stuccos until the day they were excavated. Since the excavation of the palace, most of the stuccos have been removed to museums and today the palace ruins are not very impressive.

24, 25, 26 Stucco wall panels from Samarra. Ninth century. These styles of stucco have been distinguished. In the first (ill. 24) the decorations were moulded and five-lobe vine scrolls were popular. In the second (ill. 25) buds supplanted the scrolls. In the third (ill. 26) the decoration was carved in the style usually known as 'bevelled' carving; the technique was probably introduced from Central Asia.
From the archaeological point of view, Samarra is of the greatest significance, because it was inhabited for so brief a space of time— from 838 until soon after 883—and though squatters may have continued to live there for a time after the capital was transferred to Baghdad, it is unlikely that any building of significance was done after it was deserted. The pottery and other small items which have been found in the ruins can therefore be dated exactly. Nor were craftsman idle. We know that superb silks were woven (ill. 29), and wall-paintings in the Fausaq palace reproduce the patterns of the silks and have helped to date textiles found elsewhere. Metalwork was no doubt produced, and quite a few wooden panels (ill. 30) carved in a style close to that of the stuccos have come down to us. But most important was the pottery and it was on the basis of finds from Samarra that the classification of Islamic pottery in Mesopotamia was first undertaken. The evidence made available from there has subsequently been supplemented as a result of scientifically controlled excavations at Susa, Hira, Nishapur and elsewhere, and a fairly exact system of classification has now been established. Quite a considerable number of different groups may be distinguished, some of them common to all the sites, others of a more local character.

One of the most widely spread types of pottery in early times was that with the decoration standing out in relief. Two variants exist. In the first, known as Barbotine ware (ill. 31), the vessels are usually unglazed and the decoration was applied in the form of a thin paste, in much the same way that icing sugar is applied to a cake. In the second (ill. 33), the decoration was moulded, and is rather more precise and delicate than in the first type. Geometric and stylized floral patterns were usual, and a few examples bear inscriptions. Of special interest is a bowl in the Damascus Museum bearing an inscription stating that it was made at Hira in Mesopotamia; fragments of a similar vessel were discovered at Hira itself. In this case the lettering is still significant for its content rather than for its appearance, but before long inscriptions were to play a leading role in Islamic decorations and were to become things of great beauty in themselves.
Vessels decorated in the moulded technique were also sometimes covered with green or yellow lead glazes and even lustre. Examples have been found at quite a number of sites, and Egypt was a centre of production as well as Mesopotamia. They may have been inspired by Chinese wares, for some of the designs are very Far Eastern in character, though others are of a more conservative, indigenous style. The delicate precise patterns were often very lovely and served to make of this group a really significant type of early Islamic pottery.

An ultimate Chinese inspiration is also to be assumed in the case of another type of pottery which was equally popular at Samarra and Susa and which also made its appearance rather earlier at Hira (Ill. 32). Here there is no relief, the fine white body being covered with a thick creamy tin glaze with a rather bold decoration in cobalt blue and green and sometimes also manganese brown or yellow. Wares that were closely akin were made in the uplands of Persia, and though comparatively simple, they constitute one of the most satisfying groups of early Islamic pottery. The colour schemes that we see here were later developed in Persia in association with a moulded design, to produce yet another important, and from the artistic point of view, particularly lovely group (see p. 68).
Quite distinct from this, but even more popular, was a type where the body was red or buff instead of white, and where the decoration was accomplished partly in coloured glazes and partly by the technique known as *graffito* (III. 64). The body was first covered with a white slip and the design executed by scratching through this with a thin point, so producing what is virtually a line drawing. The whole was then covered with a thin yellow lead glaze, which when fired left a dark tone above the exposed body and a pale one above the slip. Splashes of coloured glazes were also added, most often green, manganese or yellow. Sometimes the area adorned was limited by the engraved design, more often the two techniques had little actual relation to one another. The association together of the two techniques and the colours of the glazes at once suggest a comparison with the T'ang potteries of China, and the question arises as to whether this sgraffito ware was originally inspired by imports from the Far East. So far as the polychrome version is concerned, the answer is probably in the affirmative, but the simple sgraffito wares, where the scratched design was used alone, are quite distinct. These wares were so numerous and occurred over so wide an area that in this case an independent development in the Islamic world seems more likely (see p. 64ff).

If an ultimate Chinese origin is to be suggested with regard to some of the above groups, another important type found at Susa and Samarra is wholly Islamic, though there has been considerable dispute among the pundits as to which part of the Islamic world was responsible for the invention of this technique – lustre (III. 34). Mesopotamia, Persia and Egypt have all had their ardent supporters, but in recent years opinion has tended to harden in favour of Mesopotamia. The earliest lustre ware was polychrome, a rich ruby colour predominating, together with shades of yellow and brown. The motifs of decoration were mainly of a Sassanian type, and the Sassanian palmette and the double-winged motif were especially popular; no figures, animals or birds appear on the earliest examples. The fabric, usually of a fine texture and white in colour, was covered with a thin coat of transparent glaze, and then fired. On to the prepared surface the designs were painted in metallic glazes and the pots refired in a muffle kiln at a low temperature. The result was a delicate lustre surface, which was in itself attractive, over the designs, which were also usually of great beauty in themselves.

Some of the earliest and finest examples we know come from Samarra and for that reason Kuehnel and others have attributed the invention of the technique to Mesopotamia, suggesting that the vessels were made to satisfy the luxurious tastes of the Abbasid caliphs, even if they admit that in the late tenth century much of the finest work was done either in or for Egypt, under the generous patronage of the Fatimid caliphs. Others think that the earliest examples were actually made in Egypt, where they believe that the technique was discovered by chance in late Roman times. It is true that certain vessels of this period have glazes of a lustrous kind, but a long gap separates them from the earliest examples where the lustre was intentional and assumed its colour-changing character.
Moreover, some of the earliest examples of lustre in North Africa, the tiles of the mihrab at Qairawan (III. 35), dating from 862, are mostly Mesopotamian, even if a few of them are local imitations. On the whole therefore an eastern origin for the technique seems most likely.

More recently, however, another group of scholars have sought to deprive the Arab world of the honour of inventing this technique and have attributed the distinction to Persia. Undoubtedly much fine lustre pottery was made there at a later date, and greater originality and a more profound sense of decoration and of feeling for the technique was shown by the Persian craftsmen than by those of any other region. But whatever the situation was to be later, in the ninth century Persia was neither as important nor as rich as Iraq. The main source of patronage was in the hands of the caliphs, and it was thanks to their munificence that the first developments of this expensive technique were undertaken. It was not really until the twelfth century that Persian lustre pottery began to become important.

The Qairawan tiles serve to show the regard in which Mesopotamian pottery was held elsewhere, and there is evidence to indicate that other Mesopotamian arts were equally highly esteemed. The
wooden minbar or pulpit at Qairawan was also the work of Mesopotamian craftsmen (III. 36). Set up in 862, it was therefore made during the period when Samarra was the capital. It is of turned wood, and constitutes one of the earliest examples of such wood work that have come down to us; it was a craft which the Islamic world was later to exploit with great distinction.

The most important of all the Mesopotamian works overseas is, however, undoubtedly the Great Mosque of Ibn Tulun at Cairo (III. 37), whose patron was the son of a Turkish slave who was made Governor of Egypt by the Abbasid caliph. He soon became virtually independent and reached a position of great power which he used to enlarge and beautify the city, building a whole new suburb, together with a palace, a hospital and a mosque; the latter was begun in 876 and completed in 879. The houses, the hospital and the palace have disappeared, but the mosque remains, and has changed little despite extensive repairs done after a severe fire in 986. Its plan follows that of the earlier courtyard mosques of Mesopotamia, such as those at Samarra, but there are only five aisles on the qibla or sanctuary side. In place of the columns there are great rectangular piers, the roof is supported by pointed arches instead of horizontal timber beams, and the walls are ornamented with low-relief stucco work of very high quality (III. 38). The pointed arch had already been used in Syria, but in the mosque of Ibn Tulun we have one of the earliest examples of its use on an extensive scale, some centuries before it was exploited in the West by the Gothic architects. And it was used with extraordinary skill and understanding, for the arcades of Ibn Tulun are things of very great beauty, and the rather severe, formal lines of the stuccos that adorn the walls are equally satisfying. If in the ruins of the Great Mosque and Abu Dulaf at Samarra we can realize something of the grandeur of Abbasid architecture, in the mosque of Ibn Tulun it becomes possible to appreciate the style in all its beauty. It