publishing a series of excellent and wide-ranging site-, period- or theme-oriented studies (for example, Coppack 1990 and Yeoman 1994) which provide well-illustrated introductions; it is hoped that other European countries will aim for similar well-researched but accessible treatments of their medieval archaeology.

27

ARCHAEOLOGY AND ISLAM

Alastair Northedge

INTRODUCTION

The Middle East in medieval times is normally connected with Islam, which appeared from the time of the first revelation of the Qur'an to the Prophet Muhammad about AD 610 at Mecca in Arabia (Fig. 27.1). In addition to his qualities as a prophet, Muhammad was also a political leader, and created a community of believers, which by the time of his death in 632 stretched in a network of tribal alliances across the Arabian Peninsula. The subsequent early rulers of the Islamic state were called *khalifa* (in Arabic) or caliph (in English), successor or deputy, but more often Prince of Believers (*Amir al-Mu'minin*). Under the first four caliphs, the energies of the united tribesmen were diverted into raiding Syria and Iraq, respectively under the control of the Byzantium and the Sassanian Iranian dynasty (226–637 in Iran and Iraq). The unexpected success by hitherto despised tribesmen in defeating two of the major world powers of the time caused the collapse of the Sassanian empire, and the permanent amputation of the rich Near Eastern and North African provinces of the Byzantine empire. Lack of serious resistance permitted the Muslim armies in the west to reach Spain by 711, and Samarqand and the Indus valley by about the same time. Nevertheless, the natural limits of military expansion brought a halt, with the defeat of a raid at Poitiers in central France in 732, and a battle against the Chinese at Talas (present-day Dzhambul in Kazakhstan) in 751.

The state was initially Arab; the Umayyad family of Meccan origin settled in Syria and provided the first dynasty of caliphs (AD 661–750), governing a vast population of unbelievers. Under the succeeding Abbasid caliphs in Iraq (750–1258), the frontiers of the Islamic world stabilized, and increasing numbers

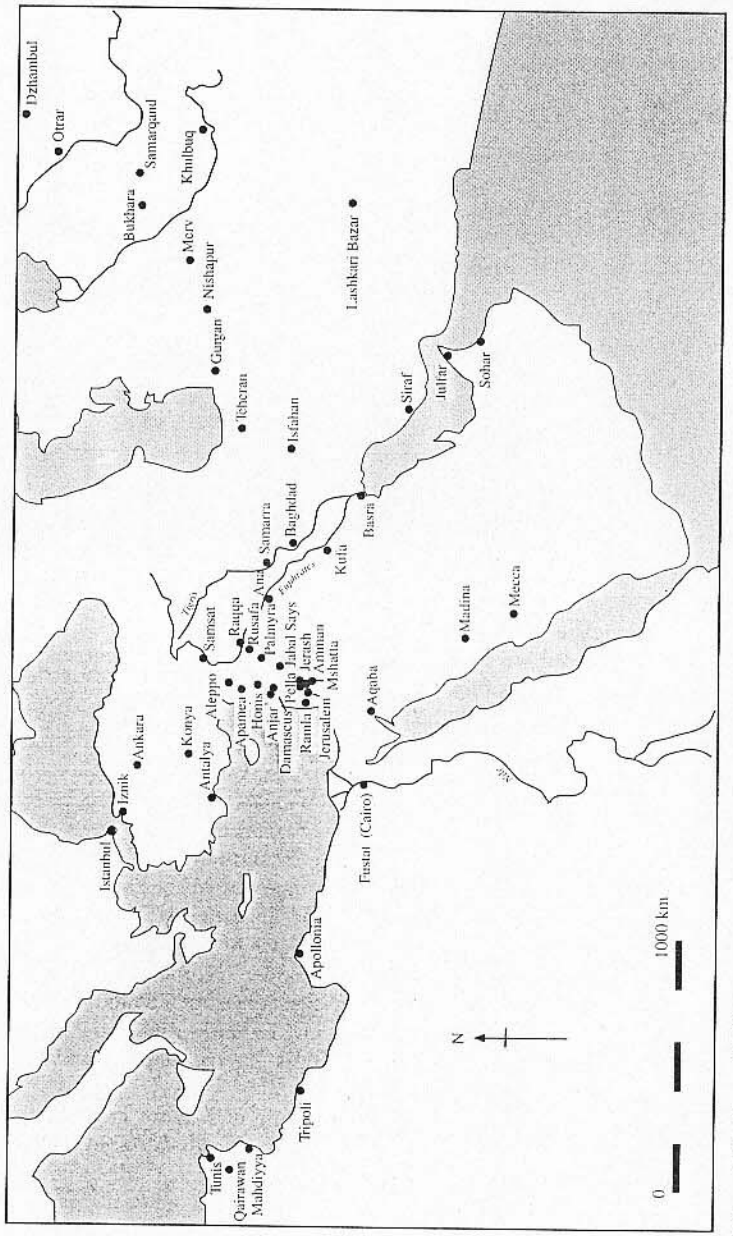

Figure 27.1 Map of Middle East and adjacent region, showing the principal sites mentioned in the chapter. Source: A. Northedge. Redrawn by D. Miles-Williams.

converted to Islam (Bulliet 1979). These two caliphal dynasties, and their imitators, the Umayyads in Spain (AD 756–1010) and the Fatimids in North Africa and Egypt (AD 907–1171), bear some resemblance to the empires of Late Antiquity. However, although the Muslim world has always retained a sense of unified identity since then, the vast areas under Islamic control led inevitably to political fragmentation, notably as a result of the decline of the Abbasid caliphate in the middle of the tenth century.

Out of the decay of empire and the decentralization of power was born the brilliant civilization of medieval Islam – the Saljuqs and their successors in Iran and Anatolia (eleventh–thirteenth centuries), the Ayyubids and Mamluks in Syria and Egypt (AD 1171–1260, 1260–1517), and further dynasties in North Africa, Yemen, Afghanistan and India. Although Arabic became the lingua franca of the Semitic Near East, partly because of its primordial role in the Qur'an, the Arab ethnic component of the population ceased to play an important role in politics, and was replaced by Iranians, and later Turks, who were introduced from the central Asian steppes as slave soldiers, and then arrived in tribal groups. Turks peopled the governments of the Muslim world from the Saljuqs until the early twentieth century. One effect was a new expansion of the frontiers of Islam. Turkish nomads flooded into Byzantine Anatolia after the battle of Manzikert in 1071, and it was a small group of Turkish *ghazis* or frontier fighters facing Byzantium, who created the Ottoman empire in the fourteenth century by invading the Balkans, reaching the gates of Vienna in 1529 and 1683, and finally seizing Constantinople in 1453. The Ghaznavid Turks invaded India in the eleventh century, and their successors up to the Moguls (1526–1858) islamized north-west India and Bengal to the extent that those areas now form the basis of Pakistan and Bangladesh.

The striking economic and cultural success of a society without centralized power – and thus permanent political conflict – received a setback from the Black Death in the fourteenth century but more from the peculiar geographical exposure of the Middle East to great conquerors: the meteoric passage of Alexander the Great through the region was repeated by the Mongols under Genghis Khan (1219–21) and the Il-Khans (1258–1335), by Timur (1370–1405), and finally by Nadir Shah (1736–47). Islam ceased to spread by conquest, but by contacts with neighbouring peoples, such as the Golden Horde in the now Russian Steppe, or the Uighurs in Sinkiang. Particularly trade played an important role – it was by that that Islam spread to Java, Sumatra and Borneo in the sixteenth century (Colless 1969), along the East African coast (Chittick and Rotberg 1975; Horton 1986), and by trans-Saharan trade to West Africa.

Although the Middle East experienced no renaissance of European type (for classical philosophy and scientific knowledge had never been lost, only rejected as unnecessary in the face of divine revelation), the re-emergence of centralized states occurred at about the same time as in Europe. The administration of the Ottoman

empire was reformed during the later fifteenth and sixteenth centuries, Safavid Iran was forced to follow, and Mogul India kept pace. It was only from the end of the seventeenth century onwards that the Islamic world ceased to rival the West, although it is now experiencing a revival.

THE ROLE OF ARCHAEOLOGICAL EVIDENCE

The study of the history of the pre-modern Islamic world has until recently been largely conducted through the medium of texts. The principal skill of orientalists lay in the decipherment and interpretation of Arabic, Persian and Turkish texts. Until the end of the 1960s even the analytical tools used by western historians were little known. Study of the archaeological remains of the Islamic world dates back to the end of the nineteenth century: it was an inevitable concomitant of the discoveries of early archaeologists in the Holy Land and elsewhere in the Middle East. However, they often lacked the dating tools to distinguish Islamic from earlier remains, a problem which still exists for the period before the introduction of polychrome glazed pottery in the ninth century. For example, a controversy continued for nearly a century, from its initial discovery in the 1840s, over the identification of the Umayyad desert castle of Mshatta in Jordan (Creswell 1969: 622–41). Worse, although some good work was done in the earlier part of this century, notably by the German archaeologist Ernst Herzfeld, by the French historian Jean Sauvaget and his archaeological compatriot Daniel Schlumberger, and by the English architectural historian K. A. C. Creswell, from the 1960s onwards the study of Islamic material remains has tended to be dominated by a group of art historians who even today are unskilled in the interpretation of the primary material which is the daily bread and butter of archaeologists, and who often pose only a narrow range of questions on the artistic development of Islam. The discovery of the possibilities of archaeology for giving a new viewpoint on the history of the Islamic world is a very recent development, starting not more than twenty years ago, and the organization of the basic tools of analysis, notably the pottery typologies, is still underway. At the time of writing, a useful dialogue is beginning to take place between Islamic historians, that is, textual specialists, who have not been aware of the different kind of questions that archaeology is capable of answering, and Islamic archaeologists, who have not had time to look beyond the primary material with which they have been dealing and who often only have limited access to the textual sources, which are voluminous but mostly not translated.

The theoretical arguments for the advantages and disadvantages of archaeological material compared with texts for explaining the past have been well-rehearsed: archaeology does not suffer from the prejudices and ideological biases of chronicle authors, although the material is often more difficult to interpret than a

text. It is well-adapted to explaining long-term economic and social evolution, but not so good at illuminating particular events, although many archaeologists would like that to be the case. At present the usefulness of archaeological evidence for explaining the evolution of Islamic society declines from early Islamic times onwards, as the quantity of surviving texts increases. Under the caliphs, archaeological evidence is vital for explaining the development of society and economy in the face of obscure and partial textual accounts; under the Ottomans it does not at present have much to add, by comparison with the quantities of data still to be deciphered from the central government archives in Istanbul, and the local archives of the *Shari'a* law courts, both of which go back at least four centuries.

THE HUMAN AND PHYSICAL ENVIRONMENT

The Middle East has always been a multi-cultural area. Within the eastern Roman empire, the Jews were the only major religious community to survive the three centuries of intense and rather intolerant Christianity between the Edict of Constantine and the Muslim conquests. At the same time, however, Christianity was also dominant, though not unrivalled, in areas outside the imperial frontier – in Ethiopia, some parts of Arabia, Iraq (but not Iran), Armenia, and Georgia. Islam was in practice much more easy-going, in spite of its current image of fanaticism. The first Muslims aimed to live from taxes on the other communities – the three religious groups which were declared protected communities ('People of the Book'): the Christians, the Jews and the Zoroastrians (the last by concession of equivalence). Logically, this implied permitting their continued existence, and indeed discouraging conversion. Although discouragement was only briefly applied, and financial exploitation only lasted two centuries, the recognition could not be revoked. Christian and Jewish communities, if they were willing to accept a second-class status, and were able to outlast periodic bouts of bigotry from their Muslim neighbours, were generally tolerated. The recently published excavation of the great basilica of the Holy Cross at Rusafa in Syria illustrates the continuation of the pilgrimage to this desert site until the time of the Mongol invasions *c.* 1260 (Ulbert 1986).

The Middle East is a particular type of environment, lying as it does in the desert belt of the northern hemisphere. While most of the mountain chains and the Mediterranean coast receive rainfall adequate for cultivation, the remainder of the region is dependent on water originating from outside the area (for example the Nile), or from the well-watered mountains. The irrigation methods used before modern mechanical devices were variable, ranging from simple flooding, and canals fed by animal- or human-driven lifting machines, to diversion of floods in the wadis (Yemen), long surface canals derived from the Tigris and the Euphrates (Iraq), and

underground channels (*qanat*, *foggara* and other terms) derived from raised water-tables in the mountains of Iran and elsewhere (see Chapter 14). This means that the environment in which humans live in the Middle East is more their own artificial creation than elsewhere, and it is relatively fragile: the best example is the south of Iraq, where a natural desert was turned into the home of one of the world's great civilizations in ancient Mesopotamia by irrigation from its two rivers (Adams 1965), but whose agriculture has today largely been ruined by a variety of natural and man-made disasters, including salinization and river-bed movement, the exact role of each of which stills remains controversial. But it is also true that the limited areas which could be turned into cultivable land by irrigation, together with the mountain and coastal areas where non-irrigated agriculture is possible, are intermixed in a patchwork with areas of desert.

The desert remained until modern times the domain of nomadic animal breeding, mainly camels, horses, sheep and goats. The settled states feared and disliked the desert and the bedouin (and their Iranian, Turkish and Berber equivalents), but always had to deal with the desert dwellers, and could often be toppled by them. While we may consider too simplistic the cyclic theory of history propounded in the fourteenth century by Ibn Khaldun, whereby a young and vigorous nomadic group conquers the settled land from a decadent dynasty, in its turn to become wealthy and decadent and replaced by yet another group, a surprisingly large number of Middle Eastern empires had tribal origins, both under Islam and long before. Islam itself came out of this milieu: although its leadership was of urban origin in Mecca, and its armies were manned by Yemenis, Omanis, Hijazis, and Syrian Arabs, all of whom were mainly cultivators, 'desert and sown' in Arabia are so closely intermixed that members of the same clan may be nomadic herders or sedentary peasants. The unifying factor is the tribal organization, which subsequently came to have a much more important role under Islam than before.

When Islam spread beyond its home region of the Middle East, it encountered new environments. The Muslim Arabs regarded the southern shore of the Mediterranean, with its dry Mediterranean vegetation and hinterland of desert, as not very different from the Middle East: Spain resembled Syria to the Muslims. However, Islam spread further than those environments which even remotely resembled the Middle East. In the steppes of Central Asia, the dense inhabited plains of northern India, the jungles of Indonesia and the desiccated lands of sub-Saharan Africa, it became a global civilization, where religion and its cultural baggage became the sole unifying factor.

THE ARCHAEOLOGY OF CONQUEST

The tribal origins of the Islamic state are clear: the Umayyad caliphate (661–750), conquering all before it from Spain to the Chinese frontier, was essentially supported by the Arab tribesmen. In its metropolitan province of Syria – in the larger sense of the modern countries of the Levant – it has been compared with the barbarian kingdoms of the west: a tribal aristocracy dominating a Roman provincial population, the principal difference being the existence of an ideology – Islam (Crone 1980). The written sources on Umayyad Syria are particularly poor, the early Arab chroniclers being mainly from Iraq and the east, and the Byzantine sources are fragmentary. Archaeology therefore plays a particularly large role in explaining the characteristics of this short period of rapid change, but the resemblance of the material – both the traces of building activity and evidence for pottery and other production – to their late Roman/Byzantine equivalents makes it difficult for archaeologists to reach a consensus. The Romanists see the continuation of the empire, and the Islamicists see a new beginning, in the same material. For example, the octagonal Dome of the Rock in Jerusalem (AD 691–92) is regarded by many Byzantinists as a perfect case of a palaeo-Christian *martyrium*, disregarding its differences in function and decoration from Christian architecture (Creswell 1969: 65–131; Fig. 27.2). These differences, relatively slight at first sight, are in fact important because they document a cultural revolution taking place slowly over two centuries. The archaeological remains of this period are also very rich. The Umayyad aristocracy loved decorated architecture, and the subsequent poverty of Syria during the ninth, tenth and eleventh centuries has left the remains on the surface.

Recent archaeological work in the Middle East has concentrated on those Roman cities which were abandoned under Islam. The location of the major cities changed very quickly after the conquest, partly because of the closure of the Mediterranean to international trade during the seventh century, but also because of the orientation of the Muslim world towards the Middle East rather than the Mediterranean. We know relatively little about Amman (Philadelphia) in Jordan (Northedge 1993), Damascus or Homs (Emesa) in Syria, or Tripoli in Libya, because those cities continue to be important today, whereas we have considerable knowledge of Jerash (Kraeling 1938; Zayadine 1986, 1989) or Pella in Jordan (McNicoll *et al.* 1982; Smith 1973, 1989; Walmsley 1988), Apamea in Syria (Balty 1981, 1984), or Apollonia in Cyrenaica, cities equally important in the late Roman period, because those cities disappeared from the map at an early stage, and with relatively little change after the conquest. The evidence of the excavations at Jerash and Pella, or Baisan on the West Bank (Tsafrir and Foerster 1994), has shown considerable continued small-scale construction and many finds under the Umayyads, but little monumental construction and no large mosques. This picture reflects the accounts in the historical sources of heavy taxation, and probably demonstrates that these cities

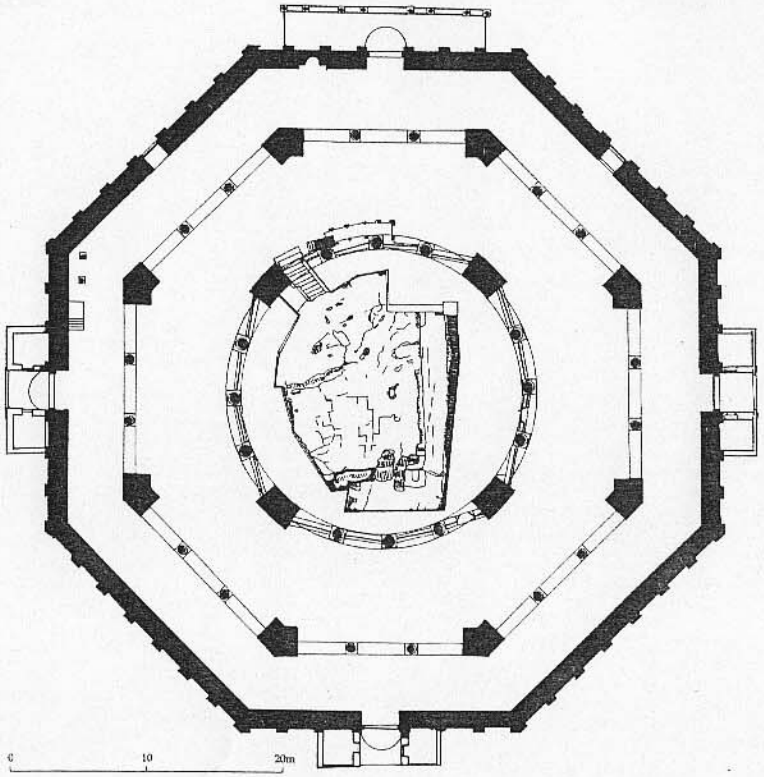

Figure 27.2 Dome of the Rock, Jerusalem (AD 691–92). Source: Petersen 1995.

remained largely non-Muslim until their abandonment. The preferred Muslim centres of settlement such as Amman and Damascus received large mosques at an early date (Fig. 27.3). Theoretical reconstructions, with some support from excavation, illustrate the narrowing of broad colonnaded streets into irregular market alleys, and have been taken as proof of deterioration from the Roman to a medieval mentality that was not interested in town planning (Hourani and Stern 1970; Kennedy 1985). One can, however, look at the question differently, and ask whether the organized town plans of the Hellenistic and Roman periods were not the exception, and the medieval city plans not simply a return to the pre-Hellenistic plans of the Iron Age.

The impact of the tribal aristocracy on Syria was very visible. The caliph 'Abd

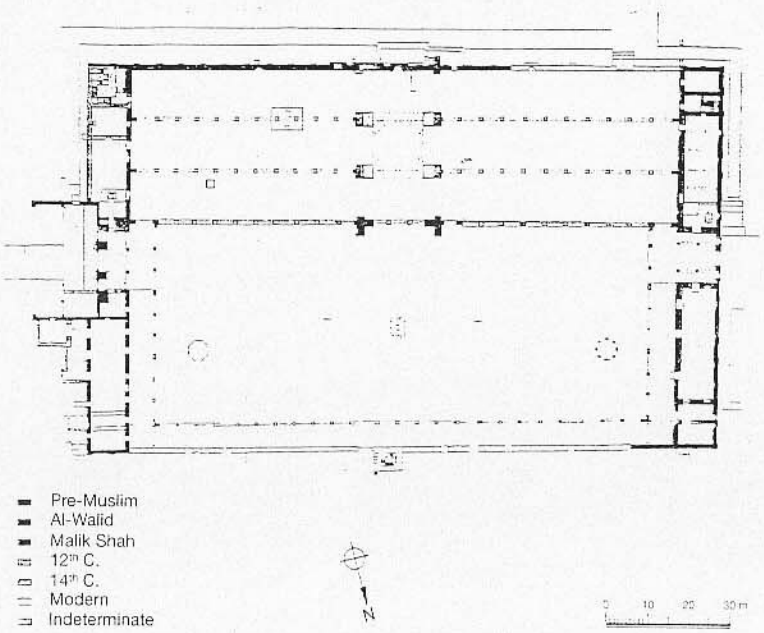

Figure 27.3 Plan of Umayyad mosque of Damascus (AD 706–14). Source: Creswell 1969.

al-Malik (685–705) introduced a programme of monumental religious architecture, beginning with the Dome of the Rock in Jerusalem (Fig. 27.2), which may have been intended as an Umayyad sanctuary based on Arabian sanctuaries such as at Mecca and elsewhere in the pre-Islamic period. At any rate it proved to be the sole building of its type, for Mecca came to be considered a unique symbol of God's intervention on earth (Creswell 1969: 65–131; Hawting 1986: 59–61). His successors continued the construction of monumental mosques, such as al-Aqsa in Jerusalem and the Umayyad mosque of Damascus (Fig. 27.3). These mosques varied in size from single chambers with a *mihrab* (the niche indicating the direction of Mecca), found in towns with small Muslim populations, such as at 'Ana in Iraq (Northedge *et al.* 1988: 17–19) and Jerash in Jordan, and in the princely settlements, to courtyard mosques of about 2,000 square metres in towns of greater significance to the Umayyads, such as Amman in Jordan (Northedge 1993) or Rusafa in Syria (Sack 1996), and finally to the courtyard mosques of the great cities, 10–15,000 square metres in size, such as in Damascus and Harran in Syria, Madina in Arabia, and Kufa or Wasit in Iraq (Creswell 1969, 1989).

The presence of the tribal aristocracy was also marked by a series of new

constructions on the desert edge and other traditional Arab settlement areas. Some come under the heading of the 'Umayyad Desert Castles'. In their most developed form, these were complexes of a quasi-feudal nature, composed of a square lightly fortified residence, an audience hall with bath, a small mosque, a series of houses of different sizes, together with storehouses and other buildings (Gaube 1979; Sauvaget 1967). The most perfectly preserved plan is Jabal Sais, located in the bowl of an extinct volcano in the Syrian desert 105 kilometres from Damascus (Sauvaget 1939), while the most grandiose was the residence of Caliph Hisham (AD 724–43) outside the walls of Rusafa in Syria (the plan of which is regrettably not yet published): four square castles and about thirty other buildings, with a garden pavilion recently excavated. The hierarchy of the plans suggests the attachment of a considerable number of followers to the lord in question – who was not necessarily the caliph, or even a member of the Umayyad clan, in spite of the superficial tendency today to attribute everything to the caliph – and this hierarchy reflects well the importance of clientage to a tribe (*walâ'*) during the Umayyad period. The square castles themselves are subdivided into independent apartments called Syrian *bayts* (Arabic for room, apartment, or small house) by Creswell, suggesting a familial structure of the entourage. The same hierarchy of plan is visible in the fortified orthogonally planned urban settlements of the period, such as at 'Anjar in Lebanon, where the same elements as in the desert castle complexes are present, but in a form which resembles a planned Roman city (Northedge 1994; Fig. 27.4).

According to the historical sources, the Arab tribal armies in Syria were settled in existing cities, and the only new foundation was Ramla in present-day Israel, founded by the Caliph Sulaiman (*c.* 715); regrettably little is known about its archaeology, as Ramla is still a substantially sized town. Outside of Syria, the Muslims settled in new cities, effectively tribal garrison cities, which were generically called *amsâr* (singular: *misr*), though use of this term in the texts is rather vague, and it is often used to mean simply a major city. The first two *amsâr* were Kufa and Basra in Iraq (*c.* 637); the organization of their tribal allotments around the mosque and governor's palace is well known from textual descriptions, but owing to later occupation the particular characteristics remain little known from the archaeological point of view, although the governor's palace at Kufa (*Dâr al-Imâra*) has been excavated (Creswell 1969: 46–64). Only at Fustat in Egypt, later replaced by Cairo, has a short section of the seventh-century plan been revealed in the recent French excavations at Istabl Antar – two narrow alleys with little booths and irregular houses (Gayraud 1991).

However, in general it is true to say that, outside the Fertile Crescent and Egypt, the archaeological traces of the transitional period are not very easy to see: the large investments made in architecture in Syria, and the new cities of Iraq and Egypt, at least leave easily visible traces. The principal obstacle is the pottery typology, the

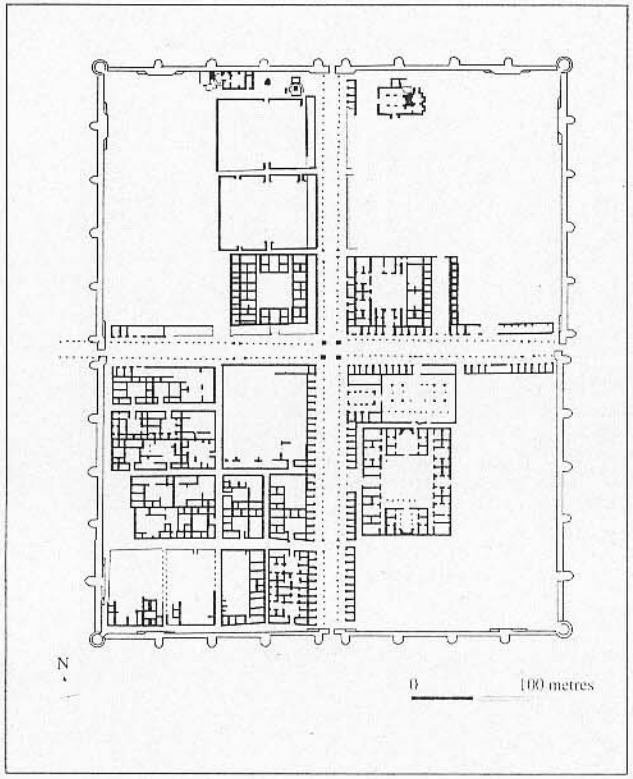

Figure 27.4 Plan of 'Anjar, Lebanon (AD 714–15). Source: Petersen 1995 (redrawn by D. Miles-Williams with additions).

main source of dating evidence in the Middle East for building remains which are not monumental architecture. The principal late Roman fine wares in the Mediterranean ceased to be manufactured at the end of the seventh century, but the first easily recognizable Islamic types with polychrome glaze date to two centuries later (Northedge 1997). As a result, many archaeologists have failed to detect eighth- and ninth-century remains, if they are not obviously new settlements such as Qairawan, the *misr* founded in Tunisia in the late seventh century and known for its ninth-century mosque. In the recent excavations at the sixth-century Byzantine fortress at Haïdra in Tunisia, the existence of transitional occupation was only recognized because settlement continued into the polychrome glaze period. The difficulty of

identifying new changes until well into the ninth century suggests that, for many people, life changed slowly and that there was relatively little economic activity, but it is also very likely that new work may well alter this picture in the future.

THE CREATION OF THE NEW CULTURE

In 750 the Umayyad regime was overturned by the Abbasid revolution, a genuine revolution caused by the stresses of rapid societal change. The Umayyads were accused of being irreligious, the truth of which is evident in the luxurious decoration of their palaces, such as Khirbat al-Mafjar at Jericho, where excavations revealed large quantities of mosaics and stucco decoration, including sculptures, a richness of decoration far surpassing their late Roman equivalents (Hamilton 1959). Underlying this was the crumbling away of the tribal state, with the increasing conversion of non-Arabs to Islam – there were scarcely any anti-Islamic revolts – and the economic dominance of Iraq over Syria. The Abbasid caliphate, established in Iraq from 750 to 1258, was in fact, at least initially, a late version of an ancient Mesopotamian empire, and an urban civilization, building on the bases of Kufa and Basra. We have little trace of early Baghdad, founded by al-Mansur in 762, as it lies under the modern city, but it was much written about and described (Lassner 1970). Its reflection survives in the residence of Caliph Harun al-Rashid (786–809) at Raqqa in Syria, a walled city built in 772 with the mud-brick and *pisé* palaces of Rashid scattered outside the walls (Creswell 1940: 39–48; Heusch and Meinecke 1985, 1989), and in the second temporary capital of the Abbasids at Samarra' on the Tigris to the north of Baghdad (836–92).

At Samarra' (Fig. 27.5) the Abbasids spread their brick and *pisé* palaces, and the military cantonments of their Iranian and Turkish army, out over 57 square kilometres of steppe only reoccupied in the last few years, around several former small towns, of which Samarra' itself developed into a city (Creswell 1940: *passim*; *Encyclopaedia of Islam* 1960–: s.v. Samarra'; Rogers 1970). The massive amount of data about military installations, Abbasid housing and living conditions, and industrial structures, has only begun to be analysed, in spite of eighty years of excavations. The Abbasid army was quartered at the capital, not on the frontier, and the cantonments are composed of grids of streets of small courtyard houses, dominated by the palace of the general (Northedge 1994). Evidence of hunting in game reserves, and horse-racing on courses 10.5 kilometres long, is also well-preserved (Northedge 1990).

The wealth of the Abbasid state, depicted by the remains of Raqqa and Samarra', was based on the land tax (Arabic: *kharaj*) – contrary to the conclusion of Hodges and Whitehouse (1983) – and the main contributor was Iraq. Under the late Sassanians in the sixth century the irrigation system was reorganized, and reached a

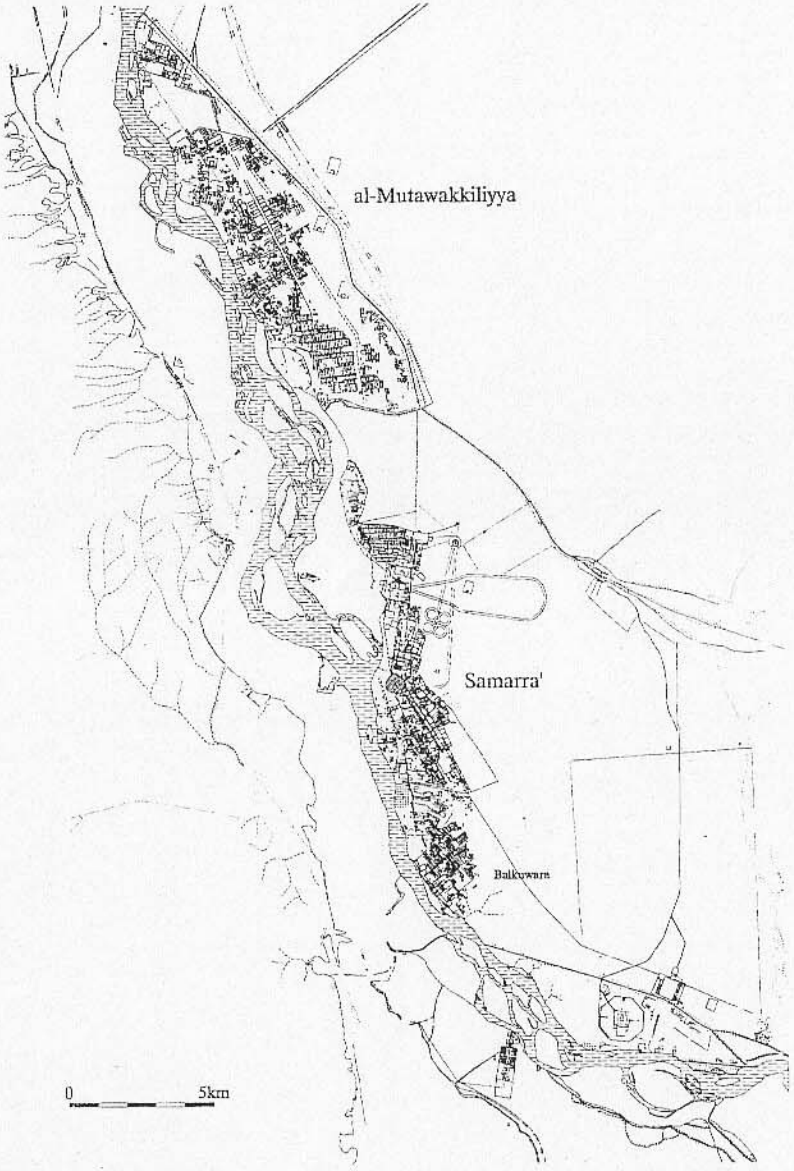

Figure 27.5 Plan of the Abbasid capital at Samarra', Iraq (AD 836–92); north is at the top. Source: Samarra' Archaeological Survey.

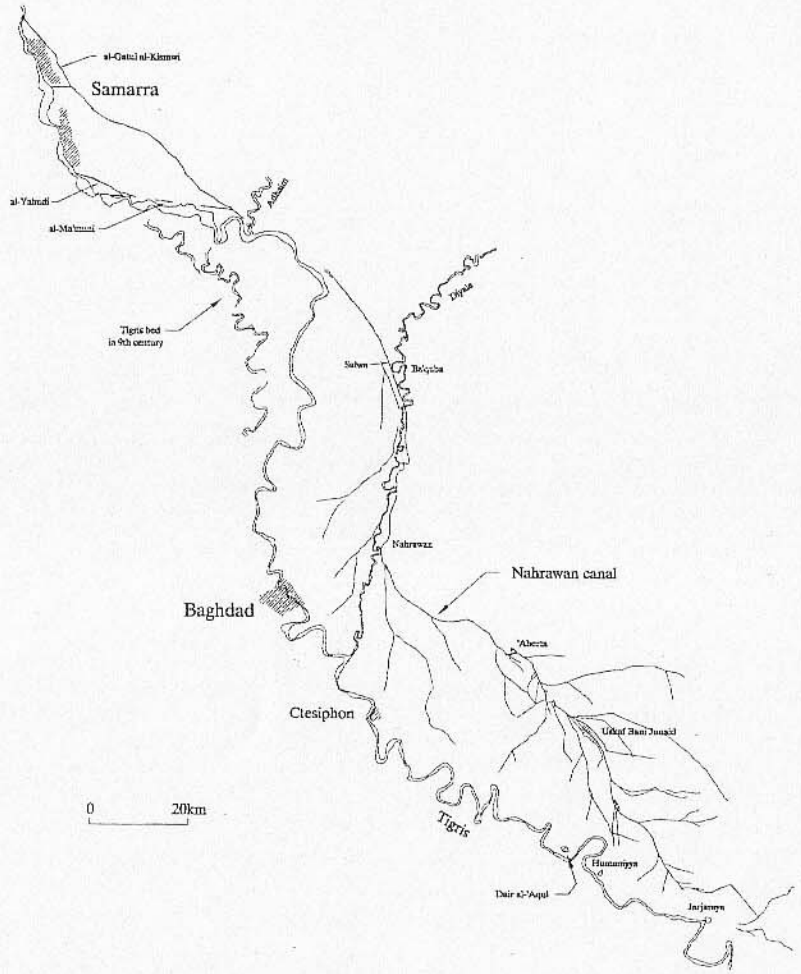

Figure 27.6 Map of Nahrawan canal system, Iraq; north is at the top. Source: Adams 1965, redrawn with permission of the Samarra' Archaeological Survey.

high degree of efficiency. Robert Adams, in his classic archaeological surveys of southern Iraq, revealed dense areas of village settlement around branch canals (Adams 1965, 1981; Fig. 27.6). Regrettably, no adequate excavation has yet taken place of sample villages; the village site of Tell Abu Sarifa in southern Iraq has been

excavated, but only for its archaeological sequence (Adams 1970). The character of life in the Jewish villages can be deduced from the Babylonian Talmud and other texts (Oppenheimer 1983). The surveys have shown that the system continued to develop until the early tenth century: Adams gave the ninth century for the date of large-scale contraction, but this date now has to be corrected to the tenth century, based on newer pottery dating, and corresponds to a point when the chronicles lament the dissolution of the Abbasid administration.

The collapse of the Iraqi economy, which did not recover until the twentieth century, is a central motif of Islamic history, for economic and political power passed from Iraq to Iran and Egypt. The reasons for the failure to rebuild the Iraqi system, destroyed in a relatively brief period of weakness, have proved a subject of controversy: was the land becoming uncultivable owing to salinization provoked by the flood of new irrigation water, as proposed by Adams, or was it that the fragmented medieval states which succeeded to political power were incapable of the effort to rebuild and administer a system of which the longest canal was 225 kilometres? At any rate, the most agriculturally successful regions in the Middle East subsequently were those that depended on short canals, easily repaired at a local level, such as in Iran and Egypt.

The most visibly successful economic phenomenon, from the late eighth century onwards, was trade and commercial investment. While the Arabs and ethnically related peoples had a long tradition of trade, being situated on the land bridge between the Indian Ocean and the Mediterranean, and the western end of the Silk Road, the initial impetus may have been given by the fact that the taxation system, which weighed heavily on peasants, scarcely touched merchants in the early days of Islam. Other factors also played a role: the importation of silkworm eggs to Byzantium in the sixth century – the revelation of a Chinese commercial secret – put an end to the Silk Road, and land transport from China. Arab seafarers penetrated further than their Sassanian predecessors, and established a colony at Canton from the middle of the eighth century (Sauvaget 1948). At this time new developments in Chinese ceramic technology, the invention of stoneware, porcelain and polychrome glazes, provided attractive products worth exporting which are easily visible in the archaeological record (Rougeulle 1991). The relative ease of long-distance transport for fragile objects across the Indian Ocean displaced the land route, and concentrated in the early period on the Gulf. The excavations at Siraf, an entrepôt situated in inhospitable terrain on the Iranian coast, directed by David Whitehouse between 1968 and 1974, have well illustrated the wealth of this trade, even in circumstances of political conflict (Whitehouse 1970, 1980). However, virtually every other port excavated on the Red Sea, the Gulf, and the Indian Ocean has revealed a similar story, for example Aqaba in Jordan (Whitcomb 1988), Sohar in Oman (Costa and Wilkinson 1987; Kervran 1984), and Julfar in the Emirates (Hansman 1985; Hardy-Guilbert 1991). With the decline of Iraq, the western terminus became the

Red Sea, and activity continued to develop until the penetration of European shipping into the Indian Ocean at the beginning of the sixteenth century.

Chaudhuri (1985), working on the seventeenth-century records of the East India Company, showed that, although the initial investment in ship and cargo was high, and there was a certain danger of loss of the ship, the profit realized on safe return was enormous. In the ninth century at least, profits were invested in local development, partly visible in the archaeological record, such as extensive copper mining in Oman (Costa and Wilkinson 1987), and steatite vessel production in the Saudi desert, far from the Yemeni origins of the type. But in the end, decline in internal security probably ended these initiatives, although Weisgerber (1980) suggests that exhaustion of potential fuel for smelting terminated copper production. At the same time, cross-Saharan routes were developed for importation of gold from West Africa, and coin hoards of ninth-century dirhams in Scandinavia demonstrate Viking trade along the Volga with the Middle East (Hodges and Whitehouse 1983).

The model of the Abbasid caliphate and its world was fundamental to the future of Islamic civilization. Its administrative systems, its architecture, and even its pottery, were imitated both in the east and the west – for example by the successor caliphates of the Fatimids in Tunisia and later in Egypt (909–1171), and the Umayyads of Spain (758–1010). In both these cases, the monumental architectural pattern of the Abbasids was followed: fine mosques in the city – al-Azhar in Cairo and the mosque of Cordoba – and an administrative city outside – Mahdiyya (916) and Sabra-Mansuriyya (947) in Tunisia, al-Qahira outside Fustat in Egypt (969), and Madinat al-Zahra' outside Cordoba in Spain (936). In the west, the minor architectural details were derived more from the Roman tradition: mosques were adorned with square buttresses, wall mosaics of glass *tesserae* as at Cordoba, and horseshoe arches invented in Syria. In the east, in Iraq, Iran and central Asia, the Samarran tradition of architecture, with round buttresses, decorations in carved stucco and brick, continued until the twelfth century. Central Asian palaces, such as at Khulbuq in Tajikistan and Lashkari Bazar (Fig. 27.7) in Afghanistan (Schlumberger 1978; Sourdel-Thomine 1978), both eleventh century, are directly derived from Samarra'.

THE MEDIEVAL WORLD

The collapse of the Abbasid caliphate in the second quarter of the tenth century led to the 'medievalization' of the Middle East, although the dynasty itself survived until the Mongol capture of Baghdad in 1258. The centralized bureaucracy of the caliphate, however theoretical its effectiveness may have been across the vast distances from Tunisia to India, was replaced by an ever-changing mosaic of states founded largely by military or tribal leaders with only rudimentary administration.

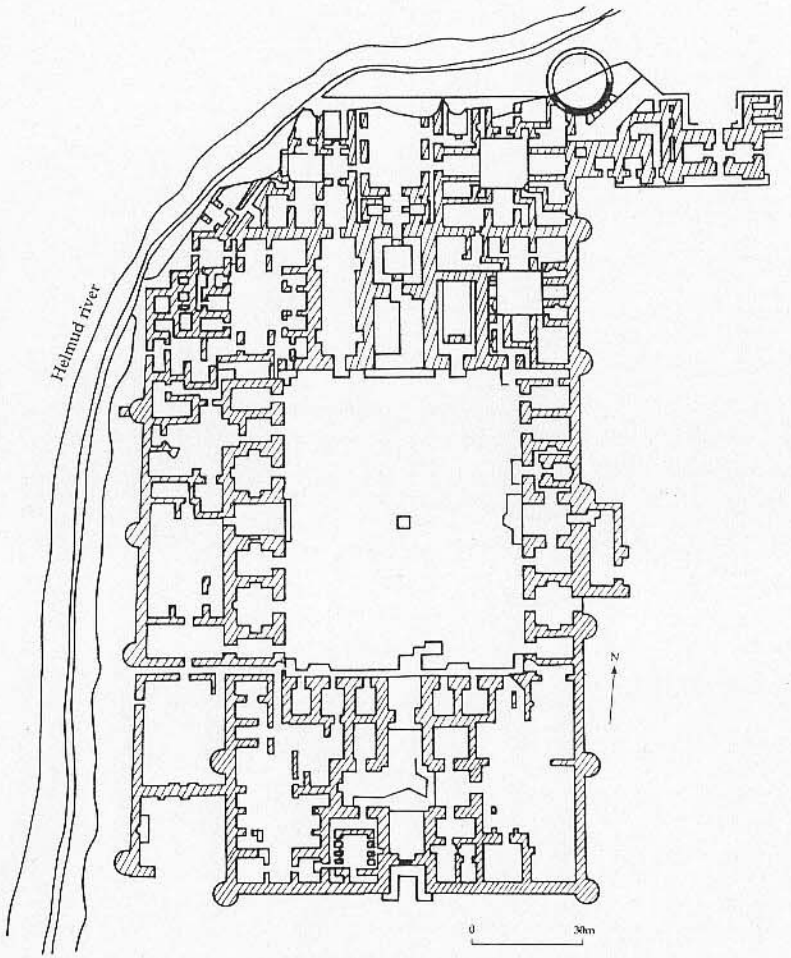

Figure 27.7 The South Palace, Lashkari Bazar, Afghanistan (AD 998–1030). Source: Petersen 1995.

In the course of the financial failure of the caliphate, an informal feudalism was introduced, the *iqta'*. To pay the army, tax collection rights over a region were offered to military leaders in return for providing an agreed number of soldiers; although the rights were in principal limited, in practice they were not, for officials

were excluded. Nevertheless, the *iqta'* did not lead to the kind of formal relationships of lord, knight and peasant typical of European feudalism.

These relatively ephemeral dynasties lacked legitimacy, which was vested in the caliph, and the caliph did not control the mosque, which was in the hands of the *'ulama'*, the religious scholars. The *'ulama'* were drawn largely from the ranks of the urban notables, often merchants. As a result, city and village became autonomous entities within the Muslim commonwealth, little – and usually only negatively – influenced by governments and their armies. It was for this reason that economic prosperity was possible in the absence of political stability. In particular, when an alliance was made between urban and rural institutions and the ruler, such as under the Saljuqs in Iran (1038–1157), a highly successful synthesis could take place, with great economic development, a period which was only terminated by the Mongol invasions (1219–58). It is unfortunate that, with the exception of Spain (for example: Bazzana *et al.* 1988), very little planned archaeological research has taken place on the evolution of urban and rural society in the medieval period.

Medieval urban settlement

A substantial number of excavations has brought to light urban data for the medieval period (eleventh–fourteenth centuries), but it is mostly fragmentary, for two reasons. In the case of the major medieval cities of Islam, the city is still occupied, and one can only reconstruct the medieval pattern under the overlay of later changes. For example, studies of this type have been made of Damascus (Sack 1989) and Aleppo (Sauvaget 1941). In the case of abandoned cities, only the two cases of Qsar es-Seghir in Morocco (Redman 1986; Figs 4.9, 16.7), and the port of Siraf in Iran mentioned earlier have been pursued with adequate persistence, resources and an overall vision; and not much of the latter excavation has been published in final form (Whitehouse 1970, 1980). The excavation of Aqaba in Jordan has also had considerable success in revealing an early medieval small port (Whitcomb 1988). Otherwise, greater or lesser areas of many cities have been cleared, only revealing parts of streets and houses without relationship to urban structure. In Iran, excavations have been published of Gurgan (Kiani 1983) and Nishapur (Wilkinson 1986); in Kazakhstan, Otrar (Baipakov 1992); in Syria, the citadel of Hama, Balis-Meskene and Mayadine; in Turkey, Samsat (Redford 1995); in Egypt, Fustat and the port of Qusair al-Qadim on the Red Sea (Whitcomb and Johnson 1978, 1982). Nevertheless, these excavations have normally brought to light rich finds, in particular large quantities of evidence for the evolution of ceramic production.

The essential problem is that urban structure was evidently different in medieval Islam from medieval Europe. The urban studies of surviving later Islamic cities, such as those of Damascus and Aleppo mentioned above, and studies based on

textual evidence (such as Lapidus 1967), show this clearly. The stereotypical physical model of the Islamic city, with its narrow alleys leading to the bazaar and the mosque, which was an oasis of peace at the heart of a densely inhabited city without open spaces (von Grunebaum 1961), is hardly likely to have been true of all Islamic cities during the millennium and a half of the religion's existence, and across the vast distances from Spain to India. Only archaeology can really answer this question, but it has not yet done so.

One question is that of fortification (Creswell 1952; *Encyclopaedia of Islam* 1960–: s.v. Sur [City Fortification]). Earlier Islamic cities were either not fortified, such as Baghdad, Samarra' and Fustat (Cairo) in the eighth and ninth centuries, or they followed the traditions of late Roman urban fortification, with regularly spaced projecting towers and no citadel. A citadel does not seem to have been built in Damascus until the eleventh century. It was the Crusades and their military technical developments that led to the construction of massive new citadels in Cairo, Damascus and Aleppo (Fig. 27.8) at the end of the twelfth and beginning of the

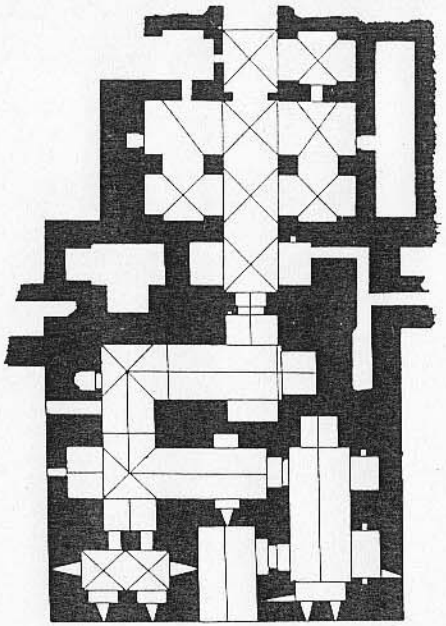

Figure 27.8 Plan of gateway to the Citadel of Aleppo, built by al-Zahir Ghazi in 1209–10. Source: Petersen 1995.

thirteenth centuries. Politics also played a role: it was at this point that sultans came to live in urban citadels. In later Islamic cities, citadels of considerable dimensions were built to accommodate palatial residences of the rulers, as for example in 1321 at Tughluqabad outside Delhi in India (Shokoohy and Shokoohy 1994; Fig. 27.9), or the eighteenth-century Arg at Bukhara in Uzbekistan. Urban fortifications were also later dominated by massive bastions, such as the thirteenth-century round tower at the entrance to the harbour at Antalya in Turkey. However, Islamic fortifications, although they installed loopholes for cannons, did not develop a new defensive architecture to adapt to the possibilities of firearms, as occurred in Europe.

Considerable evidence of urban domestic architecture has now been recovered from excavation, to the extent that it would now be possible to write a history of the Muslim house from Roman times to the present day. There is a considerable literature on the architecture and functioning of the house in the Middle East, written mainly by architects (for example: Warren and Fethi 1982), but this is based principally on surviving houses not more than a century or two old. The interesting but

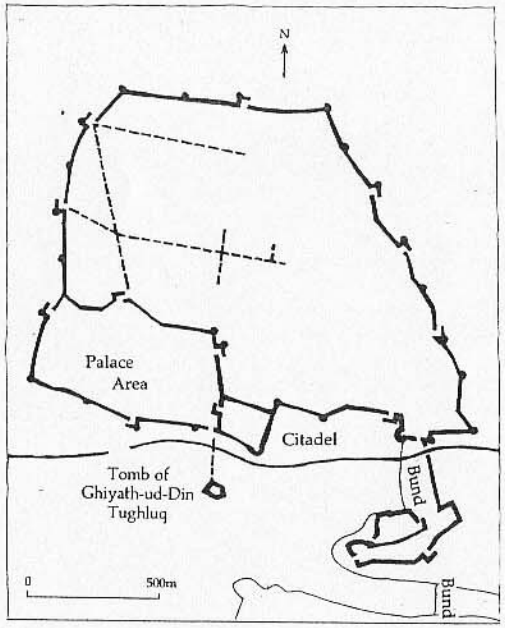

Figure 27.9 Plan of Tughluqabad, Delhi (1321). Source: Petersen 1995.

static vision of this literature can now be filled out by excavation results to reveal a significant chronological evolution. All the early Islamic houses that have been found are based on the courtyard plan inherited from Antiquity – the eastern Roman empire and the Near Eastern tradition. Even in the eighth century there are some rare cases where it is possible to distinguish a house inhabited by Muslims rather than by Christians – for example a house at the Amman Citadel destroyed with its contents in the earthquake of 747 and excavated by Harding (1951), or the early houses of Fustat (Gayraud 1991). The desert castles of the Umayyad period are characterized by the subdivision of their accommodation into separate apartments, suggesting the complexities of the extended family, and this type of subdivision was carried over into larger town houses, for example at 'Anjar in Lebanon (715) (Fig. 27.4), or Samarra' in Iraq (836–92). The specialized room functions found in larger Roman houses disappeared, and were replaced by a simple structure of reception rooms, multiple side rooms, kitchens and store-rooms. It is evident that what are called reception rooms were in fact the living rooms of the house, at least for the men. The form of the reception room in the Middle East became increasingly that of the *iwan*, a hall open on one side to the courtyard, first used in Parthian Mesopotamia in the second century AD. The *iwan* is common in the eastern Islamic world, and in Syria and Egypt, but did not spread to the western Mediterranean. The limitations on space in cities did not permit the complicated plans to be found at Samarra'. The smaller houses of the ninth century have one, two or four *iwans* and a number of side-rooms on a courtyard, as at Siraf in Iran (ninth–tenth centuries), or the levels of the same period at Fustat in Egypt (Fig. 27.10). This type of plan is carried over into thirteenth-century Syria, for example at Mayadine, or the Ayyubid palace in the Citadel of Aleppo. From the eleventh–twelfth centuries onwards, but not before, the installation of stone or brick benches intended to be laid with carpets for sitting on has been commonly observed. Nevertheless, in the smaller houses, there is no trace of the separation of the sexes, such as in a harem – the strict segregation of women was limited to the upper classes.

The picture is much brighter for urban monumental architecture, mainly religious, where this has been preserved within the matrix of later cities. Mosques, *madrasas* (theological schools), and mausolea from the medieval period have been widely preserved (Hillenbrand 1994). On the other hand not many of the palaces and large houses of the political élite have survived, apart from the houses of the Mamluks in Cairo. The political élite being transitory, it was not necessary to preserve the houses of vanished princes. The mosques, *madrasas* and mausolea served an ongoing function in the urban society. While the mosque obviously served as the focal point of the city's or quarter's prayer, the salaries of the *imam* (prayer leader) and muezzin being paid from the state budget or a *waqf* (religious endowment), the institution of the *madrasa*, having appeared in early form probably in the tenth century, has continued to evolve until today, mainly for the training of

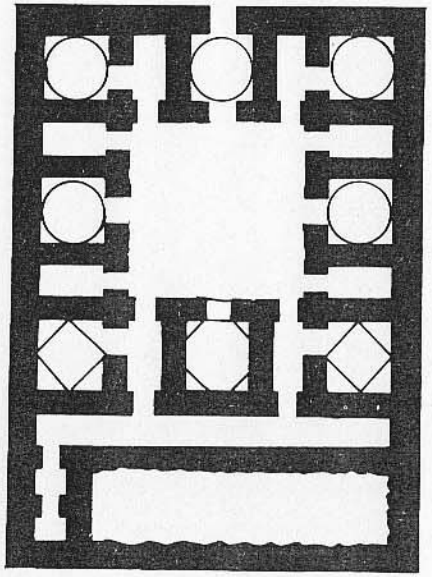

Figure 27.10 Medieval house plan of the pre-Mongol period, Merv, Turkmenistan (twelfth–thirteenth centuries). Source: Petersen 1995.

the personnel who served in the religious institutions. Large numbers of mausolea have survived, either because they were situated outside of the city, and their ruins have been preserved, or because they were situated in the cities and continued to be maintained, being included in the endowment of mosque–*madrasa* complexes, or because they served as the focus of saint veneration. Although this religious architecture served a function within the society, much of it has the names of emirs and sultans on it, to the extent that one recent book has described Islamic art as essentially a royal art (Brend 1991). In part it was the political élite that had access to sufficient capital funds (Lapidus 1967: 195–210), but also in an autocratic society it was not always wise for others to be ostentatious.

Trade and production

Several sections of medieval bazaars have been identified in excavation, such as at Siraf in Iran, and at Palmyra in Syria, but it is not possible to conclude much more at present than the simple observation that they were composed of small booths aligned on both sides of a street. In the state-built palace complexes, there is clear

evidence of formal market construction composed of long lines of shops along an avenue, as found at Samarra' in al-Mutawakkiliyya (861) and Balkuwara (*c.* 854), and at Lashkari Bazar in Afghanistan (built 998–1030). Allen hypothesizes that a courtyard building attached to the market at Lashkari Bazar may have been intended for the market supervisor, the *muhtasib* (Allen 1990). These formal markets were probably intended for provisioning the army, as individual soldiers would have been responsible for feeding themselves.

The architectural evidence of the traditional Islamic trading system – the urban *khan* which served as an entrepôt for the arrival of a caravan's merchandise, and the caravanserai which served as a stopping point along the traditional high-roads of the Middle East – is rather late in date. Although admonitions to princes to provide halting places in the desert can be found in texts as early as the beginning of Islam, the earliest buildings one can identify as having been constructed as caravanserais may be as late as the eleventh century. The first great wave of caravanserai construction took place in Anatolia under the Saljuqs in the first half of the thirteenth century, and thenceforth the provision for the trains of donkeys and camels that criss-crossed the Middle East became more and more elaborate up to the nineteenth century. Earlier than this time, it may be that accommodation was provided in forts along the road, such as at Örnek to the east of Dzhambul in Kazakhstan (Northedge and Rousset 1995). Surviving urban khans go back to the fourteenth century in Cairo, but it is highly probable that earlier courtyard structures identified in archaeological work served similar functions of storage and exchange.

In comparison to the extensive lists in texts and archives of products traded, the archaeological evidence from excavation remains fragmentary for the moment. Although considerable success has been achieved in identifying products from the Indian subcontinent on ancient Near Eastern sites, such as cloves, a similar level of work for the Islamic period is only just beginning. An interesting comparison for the importation of woods has been carried out on the materials excavated at the port of Qusair al-Qadim on the Red Sea coast of Egypt; in the Roman period many of the wood types were typical of India, whereas in the Islamic period all the types could be accounted for from the Nile valley (Hiebert 1991). Without doubt this difference is an indicator of the activity of one port, for the texts indicate the importance of woods, notably teak, as imports from the Indian subcontinent in Islamic times.

The most extensive work in the domain of trade and production has been done on pottery. Pottery plays a much larger role in excavation finds in the Middle East than in some other parts of the world, because of its quantity and state of preservation even in adverse environmental conditions. Although relatively few kiln-sites have been excavated, more extensive work has been done on the geographical and chronological distribution of excavation finds. It is evident that near the beginning of the Islamic period, probably in the early ninth century, a revolution occurred in

the production of finewares, which led to the replacement of the classical tradition of glossy finishes, and the Mesopotamian tradition of monochrome glazes, by polychrome glazed earthenwares (Northedge 1997). There is no doubt that the technical advances made in China a century earlier in the invention of stoneware, porcelain and T'ang three-colour earthenwares (*san-tsai*) – products imported to the Middle East (Rougeulle 1991) – stimulated Middle Eastern potters to new ideas, which then spread rapidly. The new ideas included decorative techniques not thought of in China, particularly metallic lustre painting. Nevertheless over the centuries the new advances which emerged from China, such as blue and white porcelain from the fourteenth century onwards, continued to dominate Muslim taste; for example, fifteenth-century finewares are frequently imitations of blue and white or celadon. In the twelfth century, or possibly a little earlier, a new stonepaste body, of silica with a small admixture of white clay and glaze, was invented to simulate the undiscovered secret of porcelain, and this fabric was used on finewares until modern times.

While Islamic pottery was much exported to East Africa and elsewhere in the Indian Ocean from the ninth century onwards (Horton 1986), the Chinese seem not to have been interested in pottery from the Middle East; however, they did appreciate Islamic glass, which has been found in a number of tombs, and temple treasuries. Although the quantity of Islamic glazed wares found on European medieval sites is not large, the technical superiority of Islamic pottery was appreciated by medieval Europeans, as can be seen in the *bacini*, Islamic glazed bowls which were used to decorate the exterior of two eleventh-century churches in Pisa, and the invitations to *mudéjar* potters living in Valencia in Spain after the *Reconquista* to work in France (Amigues 1992). The interesting point to note is that the technical advances in ceramics made by the Chinese were already having a world-wide effect, if indirect, long before the arrival of European explorers in the Indian Ocean in the sixteenth century.

It is equally interesting to note that excavation has shown that the increasing sophistication in fineware production, concentrated in a few specialist centres, was accompanied by a decline in unglazed commonwares. From the thirteenth century onwards, in the regions of the Arab Middle East, commonwares in rural areas are often handmade, roughly potted, and painted with elaborate primitive designs. A cognate process took place in North Africa, where the modern traditional pottery of Tunisia, Algeria and Morocco reflects a similar evolution, and probably also appeared not earlier than the thirteenth century. It remains controversial why this happened, but it probably reflects the economic relationship between village and city.

Rural settlement and agriculture

Study of the evidence for the evolution of rural society in medieval times has been limited. Many archaeologists have observed that occupation of the land in Islamic times was slighter in terms of numbers of sites than in the Roman or equivalent periods. For example, the UNESCO Libyan Valleys Survey in the region south of Tripoli found many fewer Islamic sites than Roman (Sjöström 1993). Large areas of Iraq surveyed by Adams had no Islamic occupation (Adams 1965, 1981). On the other hand in Syria there are more thirteenth-century sites than Roman ones in some survey areas (Bartl 1994; Northedge 1981).

Watson suggested that importation of new crop types from the Far East may have reduced the land area necessary for cultivation (Watson 1983). The truth is certainly more complex. Nomadic animal-breeding was more important than before. Farmers may have adapted better to the possibilities of the land, and given up the cultivation of steep slopes which were exposed to erosion. Minor environmental changes made different areas more productive. The most important factor, however, was probably security. Agglomeration of settlement into hilltop villages typical of medieval Italy was not possible in the Middle East, apart from in mountain areas. Security was in the fortified town, and the areas which could be cultivated around it. Nevertheless, in the only detailed study of the character of rural settlement made so far, at Khirbat Faris on the Kerak plateau in Jordan, Johns (1994) has concluded that the evidence shows a continuum of occupation in the area from Roman times to the present.

CONCLUSION

This brief survey points to the usefulness of archaeology as a source for the history of Islam. The archaeology of Islam is not the archaeology of a religion, but rather of a single world culture in the same way as Roman archaeology. However, Islam is a much more diffuse culture combining many different geographical regions in a single civilization. Over most of its spread, though not all, it took with it the cultural baggage of its Middle Eastern origins: the architecture, the patterns of living, and the styles of art. It is for this reason that it is possible to compare the fortress-palace of Tughluqabad outside Delhi in India (1321) with the Alhambra at Granada in Spain, developed over several phases in the same century. In the east, it was mainly of Iranian inspiration, though the Iranians themselves drew heavily on ancient Mesopotamia. In the Mediterranean it was principally Syro-Egyptian. The role of archaeology in Islam, as everywhere in historical archaeology, is to explore the alternative visions of the past that material evidence offers, and to fill out the aspects of that past that authors of the time were unable to see, or thought too familiar to explain.

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At the time of writing there are no worthwhile general studies of the archaeology of the Islamic world, or even interpretative studies of particular periods. It is particularly important to have an understanding of the history of the Islamic world: the *Cambridge History of Islam* provides a brief introduction, and the Longman *History of the Near East* series, edited by P. M. Holt, provides sufficient detail for archaeologists. Kennedy (1986) is the best introduction to the early period. For Iran, the *Cambridge History of Iran* is detailed and useful. For Islamic architecture, the most comprehensive starting point is Hillenbrand (1994). For the mosque, a particular but comprehensive approach can be found in Golvin (1974–78). Adams (1965, 1981) provides a classic discussion of long-term patterns of rural