Palatial Residences

Mohammad al-Asad, Ghazi Bisheh

First day

III.1 AL-BADIYA

III.1.a Al-Qastal
III.1.b Qasr al-Mushatta

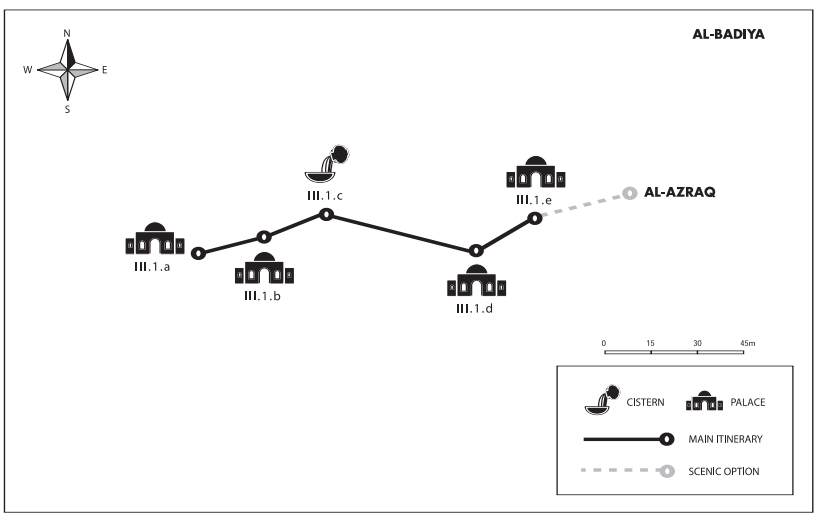
Al-Mushatta Façade at Berlin

III.1.c Al-Muwaqqar Water Reservoir
III.1.d Qasr al-Kharrana
III.1.e Qusayr ʻAmra

Opulent Lifestyles and Caliphs' *Entertainment*

SCENIC OPTIONS

Al-Azraq Nature Reserve
Al-Shawmari Reserve
Al-Azraq Wetland Reserve



Al-Qastal, detail of carved stone, al-Badiya.

Qusayr 'Amra, general view, al-Badiya.

Jordan has the largest concentration of Umayyad complexes usually referred to as "desert palaces" or "desert castles". Some scholars have rejected these terms indicating that the areas in which these complexes are located were not deserts during the Umayyad period. In fact, the irrigation systems that have been excavated in a number of them provide a clear indication of the agricultural activities they harboured. These complexes are too extensive to be referred simply to as "castles" or "palaces". A number of them can more accurately be described as estates or small settlements that contained residential quarters, a mosque, a bath complex and the infrastructure necessary for agricultural activities. Some also functioned as caravan stations and trading posts.

Our knowledge of these estates is far from complete, and many questions concerning their dates, patrons and functions remain to be answered. This is partly due to the lack of contemporary Umayyad literary sources and to the scarcity of inscriptions having survived *in situ*. Even without such supportive evidence, however, these Umayyad monuments remain of great historical importance. Although the construction of such estates outside urban centres was a short-lived phenomenon in the Islamic world, they are among the earliest known examples of Islamic architecture, and also the earliest examples of secular, and more specifically, palatial architecture from the Islamic world. They provide one of the few examples in ancient and medieval architecture where a significant number (more than 20) historical buildings of the same period, the same geographic area and the same building type are still

extant. In addition to being important material evidence of princely life in the early Islamic period, they also provide continuity with the Roman country villa that survived into late antiquity, and, therefore, can shed some light on this building type.

Numerous explanations have been given for these rather mysterious structures since scholars have studied them from the early part of the 20th century. They have been explained as "pleasure palaces" where Umayyad princes engaged in a variety of pleasurable activities including hunting and feasting. Another widespread opinion was to see in them an example of an early, romantic Muslim taste for life in the *badiya* (the edges of the desert) where the air is fresher and cleaner, and the Arabic language is purer than in the city. Although the modern term of *badiya* means the edges of the desert, during Umayyad times it referred to "estates in the countryside" and in this context the original Umayyad meaning of *badiya* has been retained. They have also been explained in socio-economic terms as centres of agricultural land that the Muslims inherited from members of the Christian Byzantine aristocracy who fled Syria after the Muslim conquests. It has also been suggested that they served as administrative and political centres where Umayyad princes met and strengthened ties with local tribal leaders on whose support the Umayyads greatly depended. More recently, the idea has been put forward that the complexes served as stations along trade and pilgrimage routes connecting *Bilad al-Sham* and *al-Hijaz*.

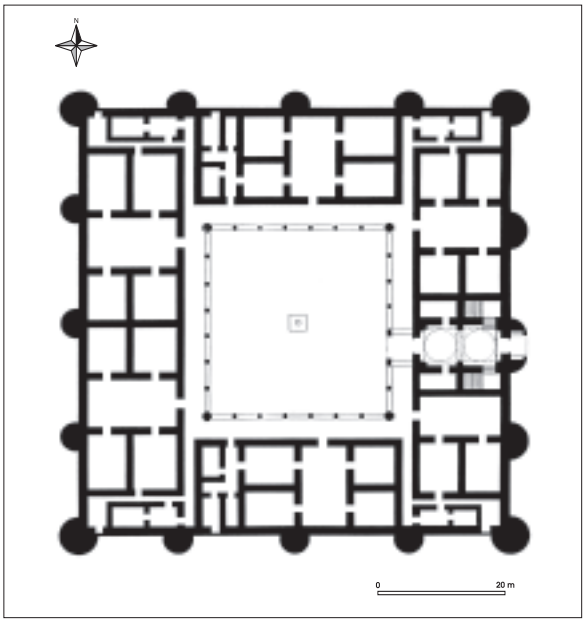
Detail of carved stone from Qasr Tuba, Jordan Archaeological Museum (Inv. Num. J 1950), Amman.

Probably, there is an element of truth in each of these explanations.

In many instances, these complexes include living quarters, a bath and a mosque. It is not unusual for the baths to predate the living quarters since the latter do not need to consist of permanent structures, but the baths do. The art historian, Oleg Grabar, has pointed out, that many of these complexes were intended for intermittent rather than permanent use, that they had high levels of amenities but few public functions, and that many

Al-Qastal, detail of carved stone, al-Badiya.

Al-Qastal, before 126/744, al-Badiya (P. Cartier, 1984).



of them tended to express and serve pleasure more than power.
Almost all of these complexes belonged to the Marwanid branch of the Umayyad dynasty, which consisted of the descendents of Marwan Ibn al-Hakam (64/684-65/685). It has also been suggested that Marwan's son, 'Abd al-Malik (65/685-86/705), assigned the areas of *Bilad al-Sham* to his sons in order to exert better control over the region, and that this system survived until the fall of the Umayyad dynasty two generations later. Based on this opinion, it is thought that the pattern of Umayyad patronage of these complexes corresponded to this division of the land. Complexes built in a specific area, therefore, were usually the work of the prince or princes (most of these princes later became *caliphs*) to whom that area had been assigned.

M. A.

Al-Qastal, corner tower of palace, al-Badiya.

III.1 AL-BADIYA

The only way to reach al-Badiya sites is by car or with locally organised tours. There is no entrance fee and the sites can be visited daily.

III.1.a Al-Qastal

Is on the Desert Highway about 25 km. to the south of Amman. From Hammamat Ma'in, the site can be reached by taxi or private transport in the direction of the Desert Highway; from Amman it is best to drive along the Airport Highway where the site is marked.

Al-Qastal is a large complex with a residential palace, a mosque, a bathhouse, a cemetery, domestic quarters and water harvesting systems.

The palace is about 68 x 68 m. It has four three-quarter round corner towers and in all 11 semicircular towers in between. Each of the façades contains three of the semicircular towers except for the east one, which has four towers, two of them flanking the entrance gate.

Originally, the palace is believed to have consisted of two stories, although the upper storey has not survived. The ground floor is composed of six *bayt*s (self-contained units) arranged around a central courtyard, with each *bayt* consisting of four rooms and a court.

The mosque is located to the north of the palace and has a rectangular hall measuring 16 x 5 m. entered through a rectangular court measuring 17 x 10 m. It is built of the same stone cut in the same size and shape as the palace. A minaret with a spiral staircase of 6 m. in diameter is still standing with a height of 6 m. and connected to the northwestern corner of the mosque. It may well be the oldest surviving minaret in Islam.

It is believed that the inner sanctuary of the mosque was covered over initially in wood but was replaced later by a stone barrel vault. The originally thin walls consequently were enlarged to support the weight and lateral thrust of the new roof.

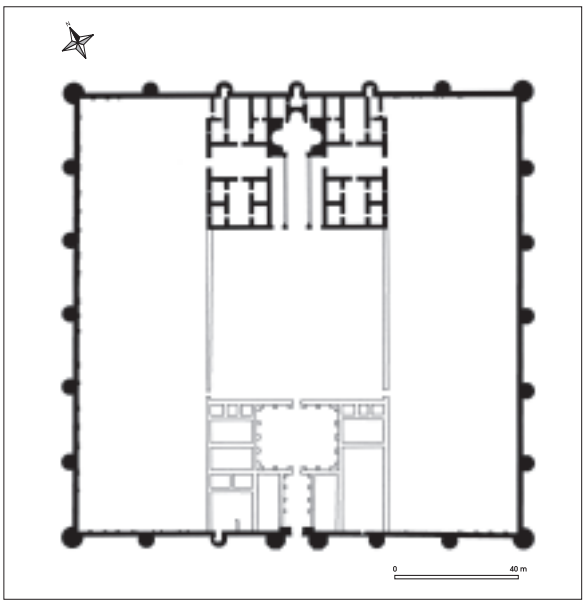
The cemetery, which is the earliest Muslim cemetery in Jordan, is located to the south west of the palace. A number of inscribed tombstones belonging to the Umayyad and Abbasid periods have survived and are now displayed in the Madaba Archaeological Museum. It could be of interest to note that earlier tombs of the cemetery may be oriented toward Jerusalem.

The water-collecting systems include a dam located about 1 km. to the east of the palace. The dam was made of a 400 m. long wall 4.30 m. thick. A cistern, which measures 30 x 22 x 6 m., is located about 1 km. to the northwest of the palace, and

Al-Qastal, view of corridor in palace, al-Badiya .

Qasr al-Mushatta, general view, al-Badiya.

Qasr al-Mushatta, al-Badiya (Grabar, 1973).



about 70 small cisterns are dispersed around the area of the palace.

Although it is agreed that most of the complex is Umayyad, considerable debate exists concerning its exact date. A reference in a later historical account supports the suggestion that it was completed before 126/744, but the actual time of construction is difficult to determine. It was also reused as residential quarters between the 6th/12th and 10th/16th century, during the Ayyubid and Mamluk eras, and a few minor additions to the Qastal complex date from that period.

M. A.

III.1.b **Qasr al-Mushatta**

The monument is very close to the Queen Alia

Qasr al-Mushatta, view of basilica-like hall facing the throne room, al-Badiya.

International Airport and about 35 km. to the south of Amman. Coming from al-Qastal by car proceed along the airport route, turn right at the airport hotel.

Qasr al-Mushatta measures about 144 m. in length and is the largest in size of the Umayyad palaces in Jordan. The complex contains an audience hall, a throne room, a small mosque and living quarters. It was never completed, and parts were ravaged by natural forces such as earthquakes. Its 1.7 m. thick outer walls are still standing at the height of 3-5.50 m. and a significant section of the southern façade with its beautiful and intricate relief carvings, was brought to Berlin early in the 20th century (see Al-Mushatta Façade at Berlin). Fortunately, enough has remained in place

Qasr al-Mushatta, view of the brick wall at the entrance, al-Badiya.

to verify the original splendour of this ambitious monument.

While the lower courses of the walls are made of stone, the upper parts, the interior walls and the vaulted roof were built of fired brick. The exterior walls are distinctive for 21 semicircular towers and four corner towers that are almost circular. The corner towers have an impressive diameter of 7 m., and the semicircular ones are slightly smaller (5.25 m. in diameter). Although the towers give the appearance of a fortified palace, they were not designed for defence since four of the towers served as latrines and the remaining ones were solid.

The complex is divided into three sections oriented along a north-south axis. Construction on the two sides never began, but the central section was partly completed. This middle part was further divided into three partitions with a central court and a southern and a northern section. Each of the northern and southern sections was divided further into three smaller units, and some of these subdivisions were divided again into three units. The southern part includes living quarters and a mosque, identified as such because it contains a niche facing Mecca. The northern section ends in an axially arranged throne room. The tri-apsidal room is preceded by a basilica-like hall with a triple-arched entrance.

The planning, construction methods and architectural details of the structure show a combination of Byzantine, Sassanian, and Persian influences. The use of stone in the outer walls was prevalent in Byzantine architecture and the use of brick for the interior walls and vaults was a Sassanian feature. This mixture of influences is also obvious in the decoration of the south façade (see Al-Mushatta Façade at Berlin). The massive size of this palace sets it apart from the much smaller palaces built by the Umayyads. It is believed that the palace was intended to accommodate a large number of people, perhaps the whole Umayyad court. It was also designed for ceremonial grandiose performances as is evident in the incorporation of the throne room and basilica-like hall.

A number of scholars have posited the Umayyad *caliph* al-Walid II as the builder of al-Mushatta and although there is no evidence to support the claim, al-Walid II, in his brief rule of less than a year between 125/743-126/744, had already become known as a prolific builder.

M. A.

AL-MUSHATTA FAÇADE AT BERLIN

Mohammad al-Asad

Al-Mushatta Façade, Pergamon Museum (Num. Ref. 743/44 n. Chr.), Berlin.

A significant part of the southern façade of al-Mushatta including the main entrance, was moved to the "Staatliche Museen zu Berlin" (The Pergamon Museum). During the rule of the Ottoman Sultan 'Abd al-Hamid (1293/1876-1327/1909), Jordan was part of the Ottoman Empire and was given the façade as a present to the German Kaiser Wilhelm II (1888-1918). The façade, standing to a height of 3.80 m., was brought to Berlin by German archaeologists who dismantled it for shipment. It is possible that the *Hijaz* Railway line that the Ottomans were building with German technical assistance, already passed near the site of al-Mushatta. This might have simplified the transport in bringing the prized façade by train to the Mediterranean port of Haifa from where it was shipped to Germany to be reassembled and displayed in Berlin.

The façade is divided into triangular sections that measure about 2.85 m. in height and 2.50 m. in width at the base. A large rosette highlights the centre of each of the triangles. The façade is sumptuously decorated with friezes of animals and vegetal motifs. The decoration of the triangles to the right of the main gate differs greatly in style and execution from that of the left triangles and it has been suggested that this is the result of work by different teams of craftsmen. The façade in front of the mosque is decorated with vegetal motifs and does not include animals, thus adhering to the already established Muslim tradition against human and animal representations in mosques. The decor of the façade was carved after its construction and the ornamentation of the blocks was never completed.

Some of the vegetal motifs reveal Coptic stylistic influences, while Persian iconography can be recognised in the use of mythical animals taken from Sassanian art. It is not unlikely that some of the craftsmen were recruited from Egypt and Iran.

Capital with Kufic inscriptions from al-Muwaqqar water reservoir, Jordan Archaeological Museum (Inv. Num. J 5085), Amman.

III.1.c **Al-Muwaqqar Water Reservoir**

The reservoir lies about 20 km. east of Amman. From al-Mushatta, turn back through the eastern route to Amman and follow the route of Sahab Azraq proceeding directly to the site of the reservoir.

The buildings of al-Muwaqqar have been destroyed almost completely. A few remains still existed at the turn of the century when the site was visited by early travellers and orientalists such as Alois Musil. When the architectural historian K.A.C. Creswell visited the site during the early 1960's, much of what the early visitors had seen had been destroyed, except for a few subterranean vaulted structures that have survived until today. The most important remains of the Umayyad complex is a vast reservoir that is still in use. It probably served caravans passing through the area, as well as the local inhabitants.

A few ornate capitals that once crowned the columns and carried an entablature have been salvaged from the site and moved to a number of museums. One of these capitals, today in the Archaeological Museum on the Amman Citadel, is of considerable importance. This capital belongs to a column, part of which has survived, that was once used to measure the water in the reservoir. The capital bears an Arabic inscription revealing that the reservoir was built by order of the caliph Yazid II from 103/722-104/723.

M. A.

III.1.d **Qasr al-Kharrana**

Lies 55 km. east of Amman on the north side of the road to Azraq. From al-Muwaqqar, continue the route of the Sahab Azraq highway. Typical Jordanian hospitality awaits the visitor in a Bedouin tent near the site.

Qasr al-Kharrana is a relatively well-preserved square building that measures about 36.50 x 35.50 m. It has two storeys of rooms decorated with stucco and

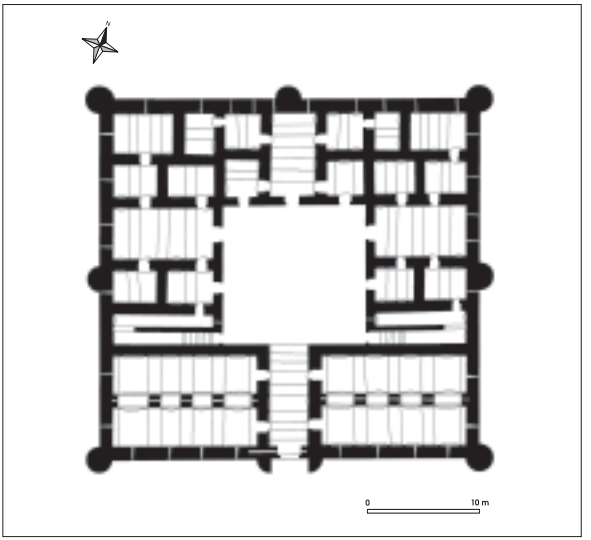
arranged around a courtyard with a cistern underneath it. Small rooms are annexed to two rectangular halls (around 13 x 8 m.) on the southern, or frontal, side which are "divided" by the entrance passageway. Two inner stairways are directly opposite the eastern and western sides and lead to the upper storey.

The *qasr* is built of stone rubble and was once covered with a coat of mortar. The four corners are distinguished by three-quarter round towers and a semicircular tower marking the middle of the eastern, western and northern façade. Two quarter-circle towers flank the entry gate in the centre of the southern façade.

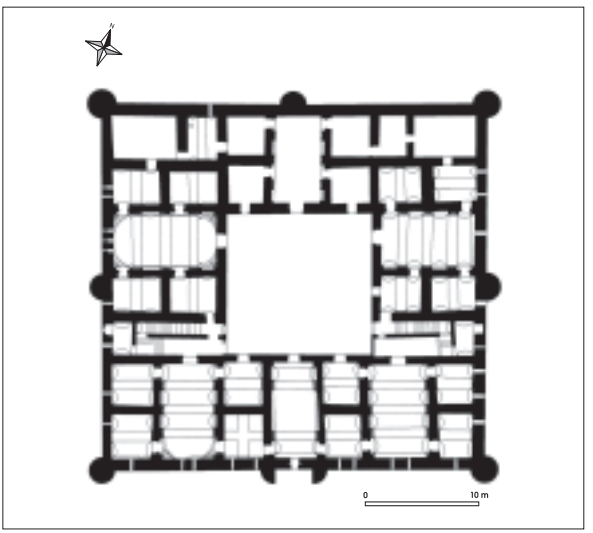
The façades of the structure are further articulated through the use of a herringbone design, diagonally placed bricks that run as a frieze around the upper quarter of the building.

In spite of Qasr al-Kharrana's fortress-like appearance, the building was not used for military purposes. The towers and the numerous arrow slits marking the outer façades are ornamental since the former are solid and the arrow slits too high above the floor to serve archers.

The *qasr* shows Persian influence in the building methods (rubble covered in mortar) and its decoration (of stucco finish). This has led K.A.C. Creswell, the renowned historian of Islamic architecture, to conclude that it was not an Umayyad but a Sassanian or Persian building going back to the Sassanian occupation of the area from 614 to 6/628. The Persians were not known to have carried out any building programmes, however, during their occupation. To the contrary, the idea



Qasr al-Kharrana, ground floor plan, before 91/710, al-Badiya (Utice, 1987).



Qasr al-Kharrana, upper floor plan, before 91/710, al-Badiya (Utice, 1987).

Qasr al-Kharrana, general view, al-Badiya.

Qasr al-Kharrana, view of interior hall, al-Badiya.

of simulating a fortified appearance, and the fact that the related structures were non-functional, is characteristic of other Umayyad palaces such as al-Mushatta.
A graffito found in the *qasr* gives the precise date of 27th *Muharram* 92/24th November 710, which is evidence that the construction was either before or around that date. There has been considerable debate about the exact date and while some have attributed it to the reign of al-Walid I (86/705-96/715), there are other suggestions dating it before 65/685. The latter year favours the argument that the palace is the only pre-Marwanid Umayyad palace known. As for the main function of Qasr al-Kharrana, it has been posited that it was used as a meeting place where Umayyad princes met with local tribal leaders.

M. A.

III.1.e **Qusayr ʻAmra**

Is 80 km. east of Amman and 16 km. east of Kharrana. To reach the site from al-Kharrana, continue on the same route along the Sahab Azraq highway. A Bedouin tent provides a

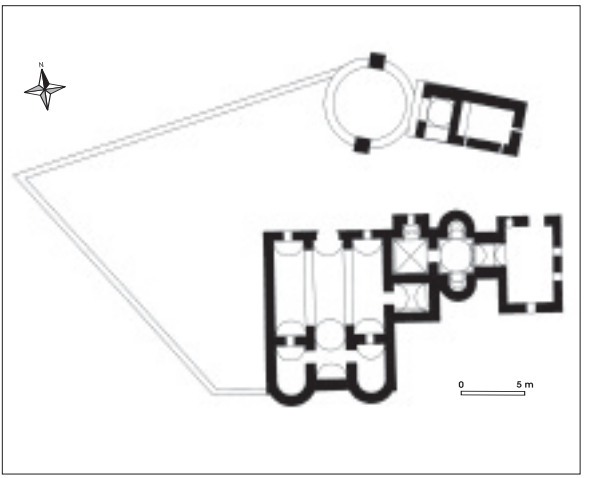
Qusayr 'Amra, furnace room behind the hot room, or caldarium, al-Badiya.

shady spot near the site where one can experience Jordanian hospitality.

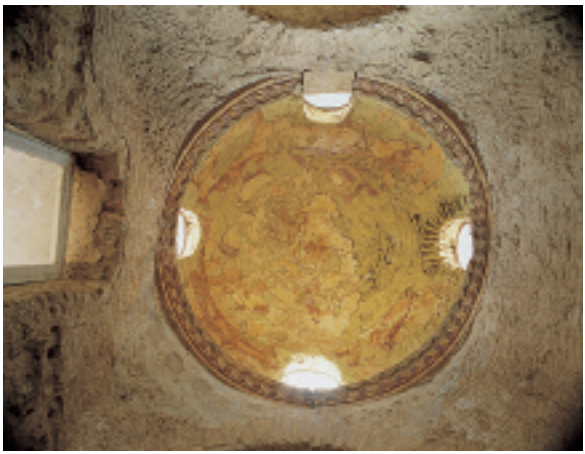
The term *qusayr* is the diminutive form of *qasr*, which (as the English "Castle") is derived from the Latin *Castrum*. This relatively small and well-preserved palace contains an audience hall and a bath complex. A hydraulic complex with a water wheel worked by animal power, a 40 m. deep stone circular well and a cistern provide ample water (see Water and Irrigation). Recent excavations have brought to light additional buildings about 300 m. northwest of the main residence which, together with its hydraulic installation, were part of a large estate.

The discovered remains consist of another small castle with rooms arranged around a courtyard, a watchtower and a second watering system similar to the first installation. With it were found retaining walls to prevent erosion of arable land in an agricultural plot.

The exterior of Qusayr 'Amra corresponds exactly to the spatial arrangement of the interior. The relatively small rectangular



Qusayr 'Amra, after 92/711, al-Badiya, (Grabar, 1973).



Qusayr 'Amra, painting of the Zodiac over the caldarium, al-Badiya (J. L. Nou).

audience hall measures about 8.50 x 7.50 m. and is bordered on the south by a set of three small rooms. The hall contains three barrel-vaulted aisles separated from each other by two slightly pointed transverse arches, one of the earliest examples of its type in Islamic architecture.

The baths on the east side of the audience hall, consist of three small rooms. The first of these is a barrel-vaulted "changing or disrobing room" (*apodyterium*) which leads to a "warm room" (*tepidarium*) covered by a cross vault and has a raised floor to allow for the circulation of warm air. The warm room in turn leads to the "hot room" (*caldarium*), which carries a dome on pendentives with four windows. A passageway that had a water tank on top of it leads from the hot room to an enclosure that contained the furnace. Ceramic pipes connected the water tanks to the baths, and drainpipes carried the used water from the baths to a nearby cesspool.

Qusayr 'Amra, painting of the Six Kings, al-Badiya (J. L. Nou).

Mosaic pavements have been found in two of the small rooms annexed to the audience hall. Other rooms were paved with marble, and marble was also used to panel the walls up to a height of 80 cm. The frescoes are, however, the most famous feature of the palace. The paintings, which cover much of the walls and ceilings, are the most extensive frescoes to survive from any secular building before the Romanesque period. The paintings deal with a wide range of subjects. In the reception hall are hunting scenes, nude or scantily dressed women and exercising athletes. There are also scenes of craftsmen at work like blacksmiths, carpenters, masons and stone cutters. A ruler, probably the owner of the palace, is shown surrounded by birds and flanked by two attendants and personifications of poetry, history and philosophy.

A famous painting of the bath complex represents the constellations of the Northern Hemisphere accompanied by

the signs of the Zodiac with the Great Bear (*Ursa Major*) and Little Bear (*Ursa Minor*), which adorn the dome of the hot room.

The best-known painting, however, is the "Painting of the Six Kings" at the southern end of the west wall. This painting depicts the Umayyad ruler surrounded by six sovereigns who have been identified as the Byzantine emperor, the emperors of Persia and China, the Visigoth king of Spain, the king of Abyssinia and a Hindu or Turkish king. It is seen as a symbolic representation of the family of kings to whom the Umayyad dynasty belonged. Underlying this theme is an allegory "showing" the exalted position of the Umayyad *caliph* accepted the homage paid to him by the most important rulers of the world .

Ancient Greek influence in many of these paintings can be recognised in their subject matter, and in the fact that some bear Greek inscriptions. The historian Glen Bowersock has remarked that in Qusayr 'Amra "(…) there is little sign, apart from the architecture of the buildings themselves, that the region was then firmly in the hands of an Islamic administration". He adds that what we see is an "indigenous Hellenism that is local, not alien". Some of the hunting scenes could fit this interpretation. They seem to have been inspired by local nomadic cultural traditions going back far beyond any Greek influence.

Qusayr 'Amra has been attributed to al-Walid I (86/705-96/715), under whose rule Umayyad power reached its zenith. This attribution is based primarily on the study of the painting of the Six Kings. It has been argued that most of the figures represent rulers (or their descendants, as in the case of the Persian king) that had been defeated by al-Walid. The brief rule and life of the Visigoth king of Spain, Rodorik, from 91/710 to 92/711 came to an abrupt end during al-Walid's reign when Rodorik was defeated by the advancing Muslim troops. If the interpretation of the painting is correct, the demise of Rodorik provides a date for the construction of Qusayr 'Amra in that the palace could not have been built before 92/711.

M. A.

Qusayr 'Amra, detail of the painting of the Six Kings, al-Badiya (J. L. Nou).

Mohammad al-Asad

Qusayr 'Amra, painting in the bath complex of a bear playing the lute, al-Badiya.

The palaces that have survived from the Umayyad period provide proof of the opulent lifestyles that Umayyad princes sought through their patronage of art and architecture. Reflections of such opulence can be found in the mosaic floors and stucco sculptures of Khirbat al-Mafjar, in the wall paintings of Qusayr 'Amra, and in the imposing basilica-like hall culminating in the tri-apsidal throne-room of Qasr al-Mushatta.

Much of what we know about the lifestyles of the Umayyads, however, comes from literary sources, the earliest of which date from about a century and a half after the fall of the Umayyad dynasty. Two sources stand out in particular. The first is *Kitab al-Aghani,* "The Book of Songs" by Abu al-Faraj al-Isfahani (284/897-356/967). This work of 24 volumes consists primarily of an anthology of songs and poems popular in 4th/10th century Baghdad, but it also provides information about manners and customs in the Umayyad and Abbasid courts. The second source is *al-'Iqd al-Farid*, "The Unique Necklace" by Ibn 'Abd al-Rabbihi (246/860-328/940). This work is a collection of writings designed to provide specific knowledge for a well-educated man of the time, and in addition, includes useful information about life at the Umayyad court. Exceptional for the period, both authors appear favourable to the memory of the Umayyads. The fact that al-Isfahani, although a *Shi'i* Muslim, was a descendant of the Umayyad family, and Ibn 'Abd al-Rabbihi was attached to the Spanish Umayyad court in Cordoba, may have influenced their opinion contrary to the otherwise negative attitude held by many of their contemporaries. The time that separates them from the Umayyads of Syria, nevertheless, leaves some doubt as to the accuracy of their accounts.

Kitab al-Aghani and *al-'Iqd al-Farid* reminds one that listening to songs (and sometimes participating in the singing) was a major courtly pastime of Umayyad princes. One is told that Yazid I, the second Umayyad *caliph,* was a composer and

introduced singing and musical instruments to the Umayyad court. Some of the troubadours who performed at Umayyad palaces became famous. One of them, the Medinese singer Ma'bad Ibn Wahab (d. 125/743-744) became a favourite at the courts of al-Walid I, Yazid II and al-Walid II. Yazid II especially was fond of two female singers, Habbaba and Sallama, both of whom were pupils of Ma'bad. Al-Walid II, on the other hand, not only enjoyed listening to singers, but also composed songs himself and played the lute.

The "Golden Age" of Arabic songs, however, came after the fall of the Umayyad dynasty. The greatest Arab singer probably was Ziryab (d. around 236/850). Ziryab was a freedman who first sang at the Abbasid court in Baghdad. His exceptional talent made his competitors jealous and intrigues instigated against him at court forced him to flee Baghdad. He finally settled in Cordoba, the capital of al-Andalus (Muslim Spain), where he found a patron in the Spanish Umayyad ruler 'Abd al-Rahman II (206/822-238/852). Ziryab is credited with introducing the sophisticated musical traditions from Baghdad to Cordoba, and initiating a musical Andalusian style. It was he who established the first conservatory of music in Spain and being an educated and refined person, he became a favourite and had his own followers in the Spanish Umayyad court. Information reveals that his contributions to courtly life ranged from introducing hairstyles to creating new culinary dishes and refining etiquette.

Al-Azraq Nature Reserves

The reserves and the ancient site are 110 km. east of Amman and 28 km. from 'Amra. They can be visited at any time during the day. Information: The Royal Society for the Conservation of Nature 06-5334610 or the Visitors Centre in al-Azraq 05-3835225.

Al-Shawmari Reserve lies a further 10 km. south of Azraq and the opening hours are from 7:30 am to 6:00 pm. The protected area encompasses 22 square kilometres and is one of the first of its kind in the region. The wildlife reserve also serves as an ideal place to reintroduce extinct indigenous fauna.

Al-Azraq Wetland Reserve is an oasis but it is best to check before visiting as it can be dry due to lack of rainfall. It protects the very fragile ecology of the marshland, which is a resting-place and feeding ground for migratory birds gathering here on their route to Africa. The marshland is, however, under constant threat of extinction due to the long draughts and depleted fossil water. The lack of surface water diminished the marshes and many flocks have had to bypass the reserve for want of food. Both the al-Shawmari and the Wetland Reserves are rare protected areas where visitors may still appreciate indigenous wildlife providing a glimpse of the rich and varied tapestry of flora and fauna that once existed in this region.

Palatial Residences

Mohammad al-Asad, Ghazi Bisheh

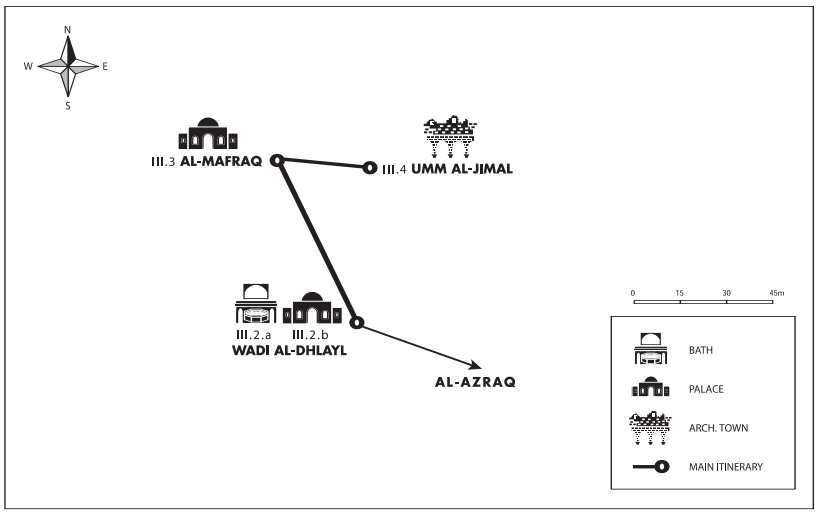
Second day

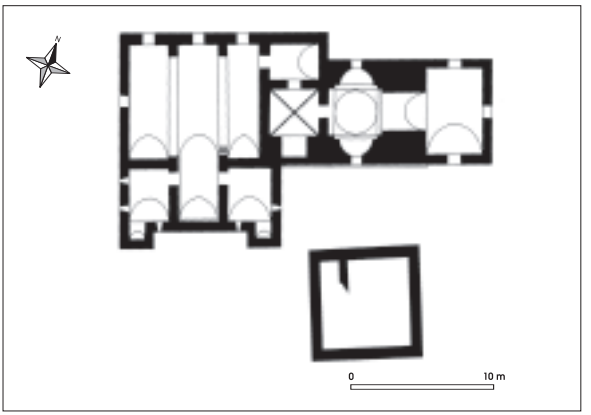
III.2 WADI AL-DHLAYL
- III.2.a Hammam al-Sarah
- III.2.b Qasr al-Hallabat

III.3 AL-FUDAYN (MAFRAQ)

III.4 UMM AL-JIMAL

Water and Irrigation





Hammam al-Sarah, 2nd/8th century, Wadi al-Dhlayl (Creswell, 1958).

Hammam al-Sarah, view of interior, Wadi al-Dhlayl.

III.2 WADI AL-DHLAYL

III.2.a Hammam al-Sarah

Is situated about 55 km. northeast of Amman and 2 km. to the southeast of Qasr al-Hallabat. To reach Hammam al-Sarah from Azraq take the main road between Azraq and Zarqa head north.

The plan of the building is strikingly similar to Qusayr 'Amra, though its masonry is better finished and its courses are more tightly joined. It consists, like 'Amra, of three principal elements:

Audience hall
Baths complex
Hydraulic structures

To these elements might be added a roofless mosque which is of recent construction.

The bath is entered through a door in the centre of the south wall; the entrance is spanned by a single monolithic lintel carved with a tabula ansata and two knotted wreaths. The audience hall is roofed by three tunnel vaults resting on the sidewalls and two intermediate transverse arches which sprang from two engaged pillars. The northeastern corner of the audience hall has a fountain pool, which received its water from the water tank situated to the east. At the back of the central aisle of the hall is an alcove; two doorways on the right and left sides of the alcove open into lateral rooms, which were paved with coloured mosaics. At the back of the side rooms, in the outer corners, are

Hammam al-Sarah, hypocaust, Wadi al-Dhlayl.

two small rectangular recesses, forming salients on the east wall. It is clear that the two recesses were latrines.

A door in the northwestern corner of the audience hall leads into the tunnel-vaulted disrobing room *(apodyterium)*. In the centre of the east wall is a door, which leads into the cross-vaulted warm room (*tepidarium*). On the far side of the room, opposite the entrance, is a nearly square recess covered by a tunnel vault. In the upper part of south wall there are three vertical grooves, which extend through the roof to the outside. These grooves were intended for pottery pipes, which served as chimney-flues. The floor of this room was sustained by 25 supports built of circular bricks. A door in the centre of the north wall leads into the hot-room (*caldarium*). To the left and right are two semi-circular recesses topped by semi-domes; the walls of the recesses, which served as a tub in which bathers could splash themselves with water, are pitted with small holes for the original marble cladding. The hot room was originally covered by a spherical dome built with 19 projecting ribs composed of wedge-shaped pieces of shale. The *hypocaust* consists of 16 supports arranged in four rows. On the north side is a tunnel-vaulted passage and at its far end is the stokehole. The vaulted passage opens onto an open-air walled enclosure, which was the service and storage area for fuel.

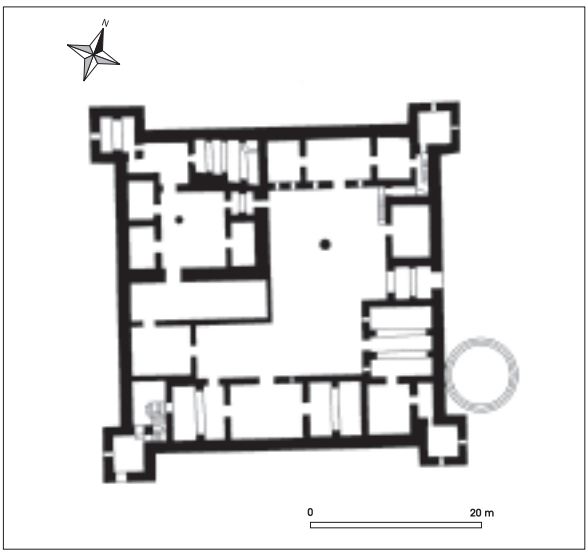
To the east of the bath proper are the hydraulic structures, which consist of three main features:
a) A raised square water tank, which allowed the gravitational flow of water.
b) A well 5 m. in diameter constructed of coursed masonry.
c) A round structure built largely of roughly shaped stones and rubble. It served as the space where the beast of burden walked round to drive the water pumping mechanism (*saqiya*) and to lift water from the well into the tank. Finally, it should be pointed out that Hammam al-Sarah should be understood not as an isolated monument, but in relation to Qasr al-Hallabat, which was rebuilt in the Umayyad period (see Qasr al-Hallabat).

G. B.

III.2.b **Qasr al-Hallabat**

Is about 65 km. east of Amman, 30 km. east of Zarqa and about 18 km from the nearest point (to the northwest) of the Via Nova Traiana. The site can be reached from Hammam al-Sarah on the same road between Azraq and Zarqa going north. Both sites are open during the day. There is no entrance fee.

The site of Qasr al-Hallabat comprises a conglomerate of separate and widely spaced units. These include: a *qasr* (castle), a mosque, a huge reservoir and eight cisterns dug into the western slope. In the plain next to the reservoir is an irregularly shaped agricultural enclosure with an elaborate system of sluices and a cluster of poorly built houses, which extends to the northwest of the reservoir. To these units should be added the baths complex of Hammam al-Sarah (see Hammam al-Sarah) situated 2 km. to the east of the castle.
The plan of the castle measures 44 m. in length with square corner towers, which project from the face of the enclosure wall. The entrance to the building is through a single doorway in the middle of the east wall. It opens into a passageway, leading to an open courtyard paved with flagstones. Originally a portico surrounded the courtyard because the walls facing this courtyard were plastered, which in some places preserved faint traces of paintings in dark brown. A series of oblong and nearly square rooms surrounds three sides of the central courtyard. The northwestern quadrant is occupied by an inner structure, which also consists



Qasr al-Hallabat, Wadi al-Dhlayl (Piccirillo, 1986).

Qasr al-Hallabat, detail of the mosque facade, Wadi al-Dhlayl.

of a central courtyard surrounded on all sides, except the south, by a number of rooms. This quadrant, is set apart from the rest of the building. It contained a small winepress and may have served as servants' quarters. In each of the two courtyards there is a cistern.

There were two inscriptions thought to be related to the architectural phases of the castle: one is in Latin, dated 212, and refers to the construction of a *Novum Castellum*; the other is in Greek and dated 529. Excavations and clearance work within the castle uncovered a total of another 142 Greek inscriptions, in addition to two Nabataean, one Safaitic and one modern Armenian inscription. The vast majority of the Greek inscriptions, engraved on regularly dressed basaltic stone, belong to an edict issued by the Byzantine emperor Anastasius (491-518) for the administrative and economic reorganisation of *Provincia Arabia*. It is likely that all the inscribed stones were brought from a nearby settlement, possibly Umm al-Jimal, and reused as building material during the Umayyad reconstruction of the castle. In the course of this reconstruction, the castle was provided with elaborate decorations in carved stucco, frescoes and coloured mosaics, and thus transformed from a fortified building into a palatial residence. This change was accompanied by a remarkable development of the site, which can be seen in the appearance of new monuments such as the extra-mural mosque, the agricultural enclosure with an elaborate irrigation system, and the bath complex of Hammam al-Sarah.

G. B.

Ghazi Bisheh

Jordan reached its highest degree of economic development in the Byzantine period, which included the ruralisation of the country. Archaeological surveys show that the number of rural settlements in the Byzantine period was higher than in any period preceding it. It is likely that the countryside flourished in the Byzantine period at the expense of cities, which shrank in size and population. The last decades of Byzantine rule, however, marked by continuous strife with the Sassanians (see The Umayyads: the Rise of Islamic Art) were a period of regression, though churches continued to be built. Unfortunately, Arabic sources on agricultural activities in Jordan during the early Islamic period are patchy and not sufficient to form a clear picture of the overall trend of agricultural development. This deficiency, however, is compensated by archaeological and epigraphical evidence, showing that the Umayyad *caliph*s and members of the ruling family had sponsored water-harvesting projects as part of a wider policy of land reclamation. The perceptive French scholar, Jean Sauvaget, noted that the commonly called Umayyad desert castles (al-Qastal, al-Muwaqqar, al-Mushatta, Qusayr ʻAmra, etc.) were always equipped with hydraulic structures such as cisterns, reservoirs, dams and aqueducts, and proposed that these buildings were centres for agricultural exploitation. These structures did not serve to supply the palace with water merely, but also to water fields and gardens. Innumerable cisterns dug out of the limestone rock dot the landscape in the immediate vicinity of al-Qastal, al-Muwaqqar, al-Mushatta and al-Hallabat. Substantial dams can be seen at al-Qastal and al-Qanatir (see al-Qanatir) situated halfway between al-Qastal and Umm al-Walid. An Arabic inscription tells us that Yazid I ordered the construction

South-East Dam, al-Qanatir.

of the reservoir at al-Muwaqqar. At al-Hallabat, the pre-Islamic fortress was transformed into a luxurious residence and fitted out with extensive decorations in mosaics, carved stucco and frescoes. This transformation was accompanied by the introduction of new structures: a bath (*Hammam* al-Sarah), an extra-mural mosque, a huge reservoir and numerous underground cisterns. Approximately 400 m. to the west of the *qasr*, an agricultural enclosure (270 x 220 m.), with an elaborate system of sluices for the distribution of water to the rectangular plots within the enclosure, was set up. A grandson of the *caliph* 'Uthman Ibn 'Affan owned al-Fudayn (see al-Fudayn) and large tracts of land around it. Unlike Iraq, where investment in irrigation was made in conjunction with the founding of new cities (*amsar, sg. misr*), for example Basra, al-Kufa and Wasit, in Syria, the wealthy Arab investors preferred unoccupied terrain and the development of new land, perhaps to avoid the claims of landlords and peasants, and to benefit from tax differentials. Since for new, undeveloped land one paid the tithe (*'Ushr*) instead of the higher land tax (*kharaj*), the tax differential offered a more lucrative return for private developers. Members of the ruling family, tribal chiefs and high government officials, therefore, began to seek generating revenue from the reclamation of wasteland (*Mawat*). This led to the expansion of the agricultural regime to marginal areas. An Arabic source describing the dominant traits of each Umayyad *caliph* related that the dominant trait of al-Walid I (86/705-96/715) was his love of building, the construction of the irrigation works and the acquisition of estates. During his reign, people avidly amassed estates and properties, confirming the Arab proverb, "people follow the religion-trait of their leaders".

North-West Dam, al-Qanatir.

Bath complex, al-Fudayn (Mafraq).

III.3 AL-FUDAYN (MAFRAQ)

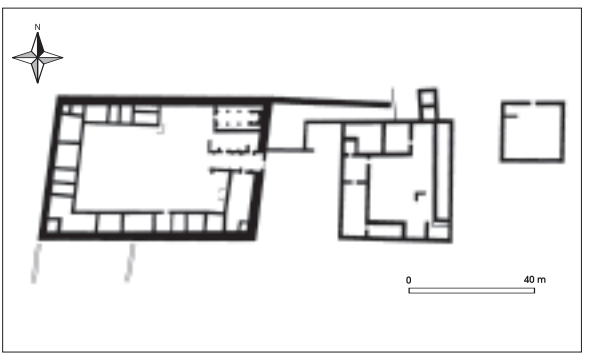
The site, located in present-day Mafraq where the road branches north to Syria and east to Iraq. It is about 70 km. to the northeast of Amman and most easily reached by car from Qasr al-Hallabat toward Zarqa heading north to Mafraq. Information: Dept. of Antiquities office at Mafraq 02-6231885.

The word *al-Fudayn*, diminutive of *Fadan*, is of Aramaic origin meaning high wall or tall and elevated building. The site was first occupied in the Neolithic and Bronze Ages. In the Iron Age, possibly in the 9th century BC, a fortified structure measuring 70 x 50 m. was built to defend the area against nomadic attacks. This structure was destroyed apparently in the 8th century BC, perhaps by the military campaign of the Assyrian king Tiglath-Pileser in 732 BC. In the Byzantine period the site accommodated a monastic complex (*al-Samra*), which was transformed into a palatial residence in the Umayyad period.

The ruins, which take the form of a rectangle (180 x 60 m.), consist of three main architectural units:

– A rectangular structure (70 x 47 m.) surrounded by substantial walls built of

Al-Fudayn (Cortesy of A. Husan).



gigantic blocks, some of which weigh up to five tons. On the inside, the plan consists of a central courtyard with a series of rooms built within the enclosed walls. The northeastern corner is occupied by a chapel with a mosaic pavement. To the south of the chapel, there is a passageway, apparently an addition from the Umayyad period. It was in this passageway that a cache of iron animal moulds was found, which included an elephant and a ram; the hiding place also contained a bronze "brazier", an incense burner and numerous steatite vessels.

A structure measuring 40 square metres with a central courtyard was flanked by rooms of various sizes. This unit was the residence of the owner of al-Fudayn. It was provided with a bath complex on the north side complete with a furnace, *hypocaust,* cold, warm and hot rooms as well as a hall for disrobing and relaxation.

To the south was a mosque with a complex history reflected in the modifications introduced into the original plan. The south (*qibla*) wall was coated with stucco panels, which may have dated from the early Abbasid period.

A small square structure measuring 20 x 20 m. of fairly late date.

Information on the history and owners of al-Fudayn has been obtained from the Arabic sources. The agricultural estate of *al-Fudayn* was bought by Khalid Ibn Yazid Ibn Mu'awiya, in exchange for *al-Khadra',* the palace with a "green" dome in Damascus. Later, it was transferred to Sa'id Ibn Khalid Ibn 'Amr Ibn 'Uthman, a great-grandson of the third Orthodox *caliph.* The new owner was extremely wealthy and in addition to *al-Fudayn,* he owned extensive estates and tenement apartments in Damascus. One of Sa'id's daughters married the *Caliph* Hisham Ibn 'Abd

Bath complex, hypocaust, al-Fudayn (Mafraq).

al-Malik, and another by the name of Sa'da was the wife of al-Walid II until her death before his accession to the caliphate. Upon her death al-Walid II married Sa'da's sister, "Salma" who was to die before the murder of her husband. The ownership of *al-Fudayn* apparently remained in the hands of the descendants of Sa'id until the end of the 2nd/8th-first 3rd/first quarter of the 9th century. During the reign of the Abbasid *Caliph* al-Ma'mun (197/813-218/833) Sa'id al-Fudayni led a revolt and claimed the caliphate. The revolt was, however, short-lived and ended with the escape of al-Fudayni and the destruction of *al-Fudayn* at the hands of Yahya Ibn Salih, commander of the army sent against the rebel. *Al-Fudayn* belonged to what might be called privately reclaimed land, and it was referred to in the Arabic chronicles as an agricultural estate (*Day'a*). Among the remarkable artifacts uncovered at *al-Fudayn* is a bronze brazier supported on four griffins with outspread wings. On the upper corners stand nude women with one hand stretched forward and another holding a bird or a torch. The sides are decorated with arcad patterns, six of which contain panels representing erotic scenes.

G. B.

Umayyad Mosque, carved relief, al-Fudayn (Mafraq).

III.4 UMM AL-JIMAL

The ruins are 20 km. east of Mafraq. The site can be reached by car from Mafraq going east to Umm al-Jimal. Information: Tourist Information Office 02-6267040.

The settlement of Umm al-Jimal consists of two parts. The first has survived in relatively good condition and archaeologists refer to it as the "town" of Umm al-Jimal. It was inhabited during the Roman, Byzantine and Umayyad periods from the 2nd to the mid-2nd/8th century. The second part is about half the size of the town and has been called the "village" of Umm al-Jimal. Unlike the town, the village, situated 200 m. east of the town, is totally in ruins. The village was inhabited during the Nabataean and Roman periods between the 1st and 4th centuries. The village of Umm al-Jimal was primarily a civilian settlement. It had no enclosure wall, which attests to the security that prevailed during the *pax romana* when the region became a Roman province in the early 2nd century. Remains show that the village was linked closely to nearby Bostra (in modern Syria), the capital of the Roman province of Arabia. In fact,

historical sources mention that residents of Umm al-Jimal even served on the Bostra city council during the 2nd and 3rd centuries.

The town of Umm al-Jimal, founded in the 2nd century, was a Roman military and administrative centre. The main occupants were Roman soldiers and administrators, while civilians continued to live in the nearby village. Parts of the *praetorium* (administrative seat) and the *castellum* (barracks) are still standing. In addition, one can see the remains of one of the earliest dated structures in the town, the northwest gate, which carries an inscription dated from the reign of the emperor Commodus (161-192). The gate was one of eight belonging to the defensive town wall.

During the Roman period, Umm al-Jimal was not very important as a civic community and held a secondary position to the major *Decapolis* towns of the area such as Bostra, Philadelphia (Amman) and Gerasa (Jerash). In fact, it lacked the formal layout and the monumental public spaces and buildings characteristic of such *poleis* (pl. of *polis*, ancient Greek city-state).

The town achieved considerable prosperity during the Byzantine period, especially during the 6th century. It was a period when imperial control weakened in the area, and a town Umm al-Jimal was probably responsible for its own defence. The town probably served as a stop for caravan routes passing through the region, and, more importantly, was a trading centre for agricultural products grown in the area. In contrast to the Roman period, noted for the growth of urban centres, the Byzantine period was characterised by increasing towns and villages in the countryside due to flourishing production and trade of agricultural goods. Umm al-Jimal is a typical example of these new and prosperous country towns and it is posited that the population of Umm al-Jimal, during that period, increased to about 3000.

It was during this period, that the town changed from a military and administrative centre to a domestic settlement, and became noted, as other areas during the Byzantine period in general, for extensive church building. The remains of no less

Umm al-Jimal (de Vries, 1998).
1 North Church
2 North East Church
3 West Church
4 Cathedral
5 Main Reservoir
6 "Praetorium"
7 Numerianos Church
8-9 Housing Complexes
10 South West Church
11 Barracks Chapel
12 Later Castellum
13-14 Housing Complexes

Barracks, Umm al-Jimal.

than 15 churches have been found. The largest is the Church of Julianus and while traditionally dated 345, latest research has shown that the church was not built until the late 5th or 6th century.

Presumably local Arab tribes inhabited both the village and the town, and inscriptions from the site indicate that the inhabitants were bilingual in Greek and in Nabataean, one of the earliest recorded local Semitic languages.

The town of Umm al-Jimal continued to be inhabited during the Umayyad period, but on a smaller scale than in the Byzantine period. Umayyad building activity was limited to adapting existing structures mostly, including the *praetorium*. Most of the rooms of the *praetorium* were replastered and a mosaic floor was installed in the "cruciform room". Inhabitation of the town does not seem to have lasted beyond the Umayyad period, and abandonment was probably due to the devastating earthquake of 131/749, which left most towns of the region in ruins.

The town was deserted until the early 20th century when members of the Druze religious sect moved there from nearby Jabal Druze, located to the north in modern-day Syria. They settled there for about three decades and reconstructed a number of the historical buildings in the town for their own use. At first glance, it is difficult to differentiate between the original and the reconstructed parts since the work done by the Druze closely resembles the original constructions. The French and British armies also used the town as military camps before the modern border between Jordan and Syria was drawn up in the 1920's. Following that, local Bedouin families inhabited the town until 1975, when the Jordanian government fenced it in to protect the archaeological site.

It is interesting to note that there is no reference to the name of *Umm al-Jimal* (Arabic for "Mother of Camels" which also meant the "Place of Camels") before the 13th/19th century. It is this name, however, which has led to the claim that the town served as a stopping place for caravans. The ancient name of the town remains unknown and none of the numerous inscriptions give any information about its first appellation prior to the 13th/19th century name.

The area in which Umm al-Jimal is located receives relatively scarce rainfall of about 100 mm. every year between the months of November and March. As

Praetorium, view of interior, Umm al-Jimal.

there are no wells or springs in the town and its environs, water had to be collected during the rainy season and stored in cisterns. Each of the houses had at least one cistern and a number of large public cisterns were distributed throughout the town.

One of the most striking features of Umm al-Jimal is the black basalt stone from which the buildings were constructed. The dark stone, which gives the town and even the ruins today a somewhat daunting sense, is volcanic rock that is abundant in the area. The stone was not only used for walls but also for the roof construction made of stone beams resting on corbels or on narrowly spaced arches. Even the doors were made of stone slabs rather than wood. This extensive use of stone is largely responsible for the survival of a considerable number of the buildings at the site.

M. A.

Praetorium, view of interior, Umm al-Jimal.