

The Archaeology of Jordan: Achievements and Objectives

1 Location, topography and climate

Jordan is situated in the heart of the Arab World. The River Jordan forms a natural boundary between it and Palestine on the west. On the north, the frontier with Syria is also naturally demarcated by the River Yarmuk. On the east and south the country is separated from Iraq and Saudi Arabia respectively by vast stretches of desert and basalt country.

In Jordan there are three zones: a) the Jordan Valley, b) the plateau and mountains, c) the desert. Throughout most of its length the Jordan Valley is very fertile, but the extreme heat at the bottom of the valley, especially in summer, makes heavy work very difficult. The depth of the Jordan River varies from one metre at the fords to three and four metres elsewhere. The total length of the Jordan depression from Mount Hermon in Syria to the head of the Gulf of Aqaba is nearly 428 kms.

The plateau and mountains are mainly of limestone, except in the south where they are continued by the granite which forms the eastern wall of the Wadi Araba. In Petra and Wadi Rum, some mountains are of sandstone. The plateau has a climate similar to that of the Lebanon mountains, but drier and less wooded. This area is really an eastward extension of the Mediterranean province. The rainy season is from November to May and is heaviest from January to March. Summers are dry, rainless and hot, but evenings are generally cool and pleasant. July and August are the months of highest temperatures and the humidity ranges from 27 to 53.

The desert east of the Hejaz railway is gently tilted from west to east until it is submerged in the Arabian Gulf. The principal oases in the desert east of the Hejaz railway are at Azraq in the Wadi Sirhan depression, at Bayir in the south and at Jafr, 60 kms. east-north-east of Ma'an.

Brief archaeological survey

The archaeology of the Hashemite Kingdom of Jordan is unique in its characteristics so that it constitutes a national wealth of which Jordanians are very proud. Many archaeologists, and anthropologists too, believe that if civilization can be said to have begun when man gave up his nomadic life as a food gatherer and settled down to raise crops, then civilization was born in the warm and friendly

climate of the Jordan River Valley, mainly at Jericho. Important recent discoveries have revealed that this revolutionary transition in man's economic and cultural history occurred simultaneously at other places in Jordan, notably Beidha, Wadi Rum, the Jerash region and in Wadi al-Yabis, Wadi Dhobai and Kilwa. In fact, two Jordanian sites, Jericho and Beidha, each more than 10,000 years old, are thought to have been the world's first settled communities. If Jordan was not, in fact, the cradle of civilization, it was most certainly its nursery. Archaeological surveys carried out in the country show that Man's activities appeared in Jordan as early as the beginning of the Old Stone Age, some 450,000 years ago. Flint hand-axes and tools of the Palaeolithic Age are spread all over Jordanian land from north to south, but notably in the regions of Aqaba, Wadi Arabah, Wadi Rum, Ma'an, Jafr, Harranah and Azraq, east of Amman where also prehistoric animal bones were found. The best evidence for the Pottery Neolithic phase comes from Jericho in the Jordan River Valley. Other sites have been investigated in the Jordan Valley, such as Tell esh-Shuneh, Tell Abu Habil and Ghrubba in the East Bank of Jordan. A pottery Neolithic culture is also found in the Wadi Yarmuk. Cultural relations between these lands and other neighbouring countries such as Anatolia, the Syrian coast, northern Mesopotamia and Egypt, were extended during this period. Although it is believed that these sites are not typical of East Jordan, they do suggest that further excavations and investigations in this area may throw more light on the archaeology of this remote period.

Many sites from the Chalcolithic Age (copper-stone) (c. 4500–3150 BC), can be found in Jordan. Surface explorations indicate that there are numerous sites of this period in East Jordan. One of the most outstanding Chalcolithic settlements in the country is Tuleilat al-Ghassul, north-east of the Dead Sea, where excavations have been carried out since 1930. Some of the well-built houses discovered at this site were decorated with painted frescoes in polychrome. The most exciting find was that of a room, perhaps part of a sanctuary, which contained a colourful painting depicting what looks like a religious procession in front of a shrine. The Jordanian Department of Antiquities, with help from UNESCO and

ICCROM, together with Sydney University of Australia, who had financed and directed the excavations, were able to save a large section of this polychrome painting, which is now on display in the Jordan Archaeological Museums at Amman. The salvage of these frescoes, perhaps the second oldest known in the world after Catal Huyuk in Turkey, is a remarkable example of international co-operation for the salvage and protection of the Jordanian cultural heritage.

Belonging to this period are hundreds of dolmens (structures of two massive vertical slabs of stone spaced about a metre apart and topped with a third large stone slab; and in some cases closed in on one side with yet another slab) distributed on the mountainous regions overlooking Tuleilat al-Ghassul and Ghor Damiah and on the hills east of Jerash, around Irbid, and near Hesban and Ma'in.

Many sites belonging to the Early Bronze Age (c. 3150–2150 BC) mostly still unexcavated, could be listed. Two important sites are Tell esh-Shuneh and Tell Um Hammad esh-Sharqi. Two other sites have been excavated at Khirbet Wadi Wala and Bab ed-Dhra' in the Lisan (tongue) on the eastern shore of the Dead Sea. Here a large cemetery of several thousands of tombs were discovered. This cemetery is believed to be the largest ever discovered in the Near East. However, a series of Early Bronze Age fortified towns have been found along the edge of the southern Jordan Valley, south and east of the Dead Sea. At all of these sites there were burials, and at several, the cemeteries were quite extensive. The Bab ed-Dhra' culture has been designated as Late Chalcolithic by R. de Vaux, Proto-Urban by K. Kenyon, and Early Bronze Age I, by G. E. Wright and Paul W. Lapp. However, Lapp's discussion (BASOR, 189, pp. 12ff.) of Bab ed-Dhra' provides enough evidence to justify the designation of this culture as Early Bronze Age I. Yet, there are many questions to be answered concerning this site and the culture it has revealed. The recent survey carried out in this region by Rast and Schaub, has successfully fitted the site into its proper context—one of a series of fortified towns stretching southward along the *Ghor*. But while this survey resulted in disproving the singularity of Bab ed-Dhra', it raises a number of questions. Are these the only Early Bronze Age sites in the area? Were they more visible than other sites because of their fortifications? Can the extent of the cemeteries at these sites be accounted for simply by the populations residing at the sites themselves? More research is needed elsewhere in the southern Jordan Valley to find the answers to these and many other questions. However, one thing is sure, and that is there are more than 400 sites in this area alone waiting for excavation and research.

The Early Bronze Age towns were heavily destroyed around 2150 BC by invading nomadic tribes identified as the Amorites (the Martu in the Sumerian texts). Texts and archaeological evidence indicate that these newcomers arrived from the Syrian desert. The period extending from this date on to around 1900 BC is designated the Intermediate Period between Early Bronze and Middle Bronze Age. Material remains

of this period were found in a number of sites mainly at Ader, Khirbet Iskandar, Tell Iktanu, al-Husun, Amman and Bab ed-Dhra'. However, more excavations in other sites are needed to throw a clearer light on the cultural development of Jordan in this transitional stage from the Early Bronze to the Middle Bronze Age.

The tribes which invaded Jordan in the Intermediate Period were driven out of the country by the Hyksos or Shepherd Kings ushering in the Middle Bronze Age (1900–1500 BC). Jordan came under strong Egyptian influence during the Middle Bronze Age. Considerable archaeological material was uncovered in Amman, Na'ur, Mount Nebo, Tell Safut, and Midayineh. Jalul, a site situated at a short distance east of Madaba, is a very promising site judging by surface exploration, and should yield very important archaeological material which may contribute to our knowledge of this period and the period which followed, namely, the Late Bronze Age.

The theory of Dr Nelson Glueck that East Jordan was basically a nomadic area and that it had no permanent settlements from c. 1900 to 1300 BC (AASOR, 25–28, 1951, p. 423) can no longer be accepted in the light of new scientific and methodological surveys and excavations. The fine and impressive archaeological material discovered in tombs from Amman, Sahab, Na'ur and Tell Safut, can hardly be attributed to nomadic people.

Recent excavations and surface finds at Irbid, Tabaqat Fahil, Amman, Sahab, Madaba, Wadi Abu en-Naml, Jalul and many other sites surveyed recently by Emory University in southern Jordan show that the country continued to flourish during the Late Bronze Age (1500–1150 BC). Trade with Egypt, Greece and Cyprus greatly improved economic conditions in Syria, Jordan and Palestine. The archaeological finds at Tabaqat Fahil (Pella), Deir 'Alla and Amman indicate that this trade activity penetrated into the Jordan Valley and the Jordanian highlands.

The most prominent Late Bronze discovery was the temple at the Amman airport excavated by G. L. Harding and B. Hennessy. Pottery of Mycenaean and Cypriot origin was associated with the temple, as well as scarabs and bronze weapons. The temple shows strong affinities with Iranian temples, especially those at Susa and Persepolis, but more striking parallels are found in the Nabataean temples of Khirbet at-Tannur and Wadi Rum. G. L. Harding also reported a settlement of the same period near the temple, but this was not excavated.

Perhaps a parallel to the ancient situation can be found in modern times. In the nineteenth century AD East Jordan was mostly nomadic or semi-nomadic. Today, although a semi-nomadic life style is still found in the southern part of the country, there are also many urban centres. Perhaps the situation was similar in East Jordan in the Middle and Late Bronze Age-nomadism alongside urbanism.

A challenging problem is the identification of Tell Hesban with ancient Heshbon, described in the Bible as the flourishing Amorite capital at the time of the Prophet Moses

(c. 1300 BC). The 1968 and 1971 seasons of excavation have not yielded any traces of Late Bronze Age occupation—seemingly a challenge to the above discussion about urban settlements. Perhaps the Late Bronze Heshbon must be sought elsewhere or the biblical data re-examined.

The picture of East Jordan in the Late Bronze Age is far from complete. The main source of further information is material uncovered by the archaeologist. There are strong indications that much more can be learned about the middle of the second millennium BC in East Jordan through this means.

Jordan became thickly settled during the Iron Age (1150–550 BC). This is the age of the native Arab kingdoms of the Edomites, Moabites, Ammonites and Gileadites. All of these kingdoms and their capital cities are mentioned very often in biblical literature spanning the period from the Early Iron to the Late Iron Age. Many sites and monuments are available for the study of the material culture of Iron Age I and II. Through surface exploration for the most part over 250 sites of this period have been identified. Regrettably, only a few of these sites have been excavated.

The Edomite Kingdom appears for the first time in the Bible when it is mentioned that the king of Edom refused to allow the Israelites to pass through his land (Numbers 14–21). In Genesis 36.31–39 eight Edomite Kings are listed. Mrs Crystal Bennett of the British Institute of Archaeology in Amman, suggests that these kings may have been tribal *sheiks*, for no one of them succeeded his father as king. Perhaps the list reflects the city-state organization of Edom. Fortunately, some important excavations, undertaken at Tell Khalifeh, Tawilan, Buseirah and Um el-Biyarah, have greatly improved our knowledge of Edomite civilization. At Um el-Biyarah, a natural fortress situated in Petra and equated with biblical Sela', Mrs Bennett discovered in the ruins of an Edomite village the seal of *Qaus Gaber*, an Edomite King of the seventh century BC who is mentioned in the reign of Esarhadon (680–669 BC). But no evidence before the end of the eighth century BC was found—a fact which renders the identification of Um el-Biyarah with biblical Sela' rather difficult. The most exciting of the finds at Tawilan, excavated by Mrs Bennett again, was a scarab decorated with an altar surmounted by a crescent and star-divine symbols.

According to the excavators the evidence from Tawilan would invalidate the identification of Tawilan with biblical Teman. One of the most recent excavations was carried out at Buseirah, believed by Old Testament scholars to have been biblical Buzorah, situated at a short distance north of Tafileh on the famous King's Highway. Nothing earlier than the eighth century BC has been found.

Archaeological evidence indicates that the Kingdom of Moab flourished as early as the beginning of the thirteenth century BC. An important monument of this Kingdom is the Balu'ah stele, discovered in 1930 and now on display in the Jordan Archaeological Museum at Amman. W. D. Ward and M. F. Martin (ADAJ VIII–IX, 1946, pp. 5–29) date this stele

to the late thirteenth century or early twelfth century BC. Strong Egyptian influence is evident in the workmanship and rendering of the relief—figures of this monument. It does imply the flourishing urban occupation of Moab in the Late Bronze Age and perhaps even in the Middle Bronze Age. But the most outstanding find was the Mesha' Stele (The Moabite Stone) discovered in 1868 and now displayed outside Jordan in the Louvre Museum. This monument which has a long inscription is dated to the ninth century BC, and records the victory of Mesha' over the Israelites and their king Omri. More important, however, is the description of the king's urban and economic achievements in his country. He dug cisterns, built or rebuilt towns, fortified them and opened roads (the Arnon-Wadi Mujib road is mentioned). Excavations at Dhiban, the capital of king Mesha', by the American Schools of Oriental Research were carried out from 1950 to 1953. More information is now available on the material culture of the Moabites in the Iron Age II period (ninth to eighth century BC). At Madaba and Mount Nebo excavations revealed many tombs from the end of the Late Bronze Age and Early Iron Age. On the other hand, at Hesban, 7 km. west of Madaba, the Andrews University Expedition found no occupation earlier than the seventh century BC.

The Ammonite Kingdom which dominated the political and cultural history of East Jordan along with the kingdoms of Edom, Moab and Gilead to the end of the seventh century BC, had its capital at Rabbath Ammon (modern Amman). The Ammonites and their capital city Rabbath bené Ammon are mentioned very often in biblical literature spanning the period from 1300 to 587 BC (Genesis, 19: 36–38; Deuteronomy, 3: 11; Joshua, 13: 25; 2 Samuel, 11: 1ff, 12: 26–29, 17: 27; 1 Chronicle, 20: 1; Jeremiah, 49: 2–3; Ezekiel, 21: 25, 25: 5; Amos, 1: 14). From the twelfth century to the end of the tenth century BC, the Ammonites were engaged in what appears to have been predominantly defensive wars, first against the incursions of the Amorites and later the Israelites. As Rabbath Ammon was situated on the vital King's Highway, the Ammonites were active in the carrying of trade from the east and south of Arabia. During the reign of David, the Israelites most probably motivated by the desire to control this trade as well as the copper sources in Wadi Arabah, besieged Rabbath Ammon and seizing the water supply of the city, captured it and killed and tortured a great number of its inhabitants (2 Samuel 11: 14–21; PEFQS, 1878, p. 89). It was during this assault that Uriah the Hittite was placed by orders of the king in a post where he was certain to be killed, thus enabling David to marry Bathsheba his widow (2 Samuel 11: 14–21). The Moslem Arabs still traditionally associated the name of Uriah with Amman in the ninth century AD and allude to a mosque that was built on his tomb (al-Makdisi, Bibliotheca Geographorum Arabicorum, III, ed. M. J. de Goeje, 1866, p. 175).

From the middle of the ninth century BC the kings of Beth-Ammon or sometimes simply Ammon—as they were called by the Assyrians—are enumerated in the Assyrian texts,

first as enemies in the reign of Shalmaneser III (858–824 BC) and later as vassals in the reigns of Tiglath-Pileser III (744–722 BC) and Esarhaddon (680–669 BC). When Nebuchadnezzar—conquered the eastern Mediterranean area in the early part of the sixth century BC, the Ammonites fell victim to his power and much of the population was carried off to Babylonia into exile.

Archaeological, architectural as well as inscriptional remains, indicate that the Ammonite civilization attained a high degree of prosperity and refinement. The surviving remains of many fortress towers built from massive blocks of flints around the city of Amman, are a striking feature of their architecture. The arrangement, design, composition, strength and number remain to this day incomparable to any constructions of Western Palestine (ZDPV, 79, 1963, pp. 127f.).

Ammonite pottery from the thirteenth to the sixth century BC which is nearly common to all the Iron Age kingdoms of East Jordan, show a highly developed industry. Much of this pottery is covered with red or brown slip, highly polished and often decorated with horizontal bands of dark brown paint and sometimes with bands of white paint between them. In plastic art the Ammonites show an advanced stage in this field.

Four sculptures dating from the seventh century BC and probably used as capitals were recovered from a Hellenistic water-channel on the Citadel of Amman. Two other sculptures, a male and female, were recently discovered by chance during building operations near Khirbet Hajjar. They are dated in the Iron Age II. Historically important are a group of clay figurines which represent a horse-and-rider type and a small statue in limestone bearing the inscription in Old Aramaic characters, 'Yarah 'azar, chief of the cavalry'. Stylistically this statue shows connections with Northern Syria and Phoenicia. A ninth century Ammonite inscription in Aramaic was discovered outside the walls of the citadel of Amman and when deciphered was found to contain a royal record of a magnificent building scheme which was undertaken at Rab-bath Ammon. The excavation of Tell Siran on the University of Jordan Campus revealed a bronze bottle engraved with eight lines of Ammonite script, describing the magnificent works of king Amminadab, son of Hasal' el, son of Amminadab. The works include the planting of vineyards, the digging of cisterns and the erection of a monumental building. This is the most complete Ammonite inscription ever found and will be an important document for the study of the Ammonite language and script in the seventh to the sixth century BC. Middle Bronze Age rock-cave tombs were found to have been re-used during Iron Age I period in Sahab, south of Amman. These discoveries suggest the need of more extensive and systematic excavations in and around Ammonite territory to recover more archaeological material of the impressive Ammonite civilization.

Little is known of Jordan's history during the Persian domination (c. 539–332 BC). According to Herodotus, Darius I (522–485 BC), reorganized the administration of the Persian

empire into twenty *satrapies* or provinces. Jordan was placed under the fifth *satrapy* of Palestine. As more sites are excavated, surely more evidence of this virtually unknown period of Jordanian history will be available.

During the Hellenistic Age (332–63 BC), Jordan was almost completely hellenized, when the successors of Alexander the Great embarked on a programme of founding a chain of Greek fortified colonies along the ancient caravan trade-route from Damascus southward to Aqaba, and Greek became the *lingua franca* of the whole area. During the second half of the second century BC and down to the year 63 BC the history of Jordan is to be linked with the history of the Nabataeans and the events that took place in Palestine, starting with the revolt of the Maccabees in 168 BC and the later formation of the Hasmonaean Kingdom.

The Nabataeans were an Arab tribe, traditionally believed to have originally migrated from the Arabian peninsula to the land of Edom in southern Jordan, during the first half of the sixth century BC. Apparently, they gradually settled in the sites which were in the possession of the Edomites after the latter had moved to the richer land of Palestine. Petra became the capital of the Nabataean Kingdom, and the meeting centre of the trade-routes coming from the Persian Gulf and by western Arabia and the Red Sea. Nabataean power was constantly rising and during the reign of King Aretas III Philhellene (c. 85 BC), they controlled Damascus.

Romantically considered especially since the nineteenth century AD because of the re-discovery then of their extraordinary, beautiful former capital of Petra in southern Jordan, the Nabataeans are beginning to be considered more realistically because of the nature and extent of their kingdom, the uniqueness of their pottery, the international ramification of their widespread commerce, the high excellence of their agriculture, soil-conservation and water engineering and the Hellenistic-Arabian character of their art, architecture, religion and general culture. The Nabataeans made much out of little in the lands of their origin and adoption. Theirs was a record of remarkable accomplishment, extending from commerce to agriculture and from engineering to architecture and art. They carved entire cities out of mountains when necessary and performed prodigious feats of imaginative farming. Only an immensely able people could look at blistering wastelands, such as occur in the Wadi Arabah and the Negeb of southern Palestine, and envisage in them productive farms and burgeoning flocks and flourishing villages connected by thronged roads, and then perform the miracle of translating such dreams into living reality, as the Nabataeans did.

Quick to learn and eager for advancement, the Nabataeans readily assimilated in new environments whatever might promote their well-being. Many and diverse cultural influences were reflected in an altered form through the prism of their genius.

Much about the nature and extent of the Nabataean civilization can be learned from the character and spread of their unique pottery. Only a deeply rooted, permanently

settled people of advanced cultural and economic attainments could have produced it. Much of this wheel-made, kiln-baked ware was almost unbelievably thin, requiring high skills in its manufacture. It was beautifully decorated with sophisticated designs mainly floral and geometrical.

Nabataean cultural remains have been recorded, studied, described and illustrated by many explorers and scholars, perhaps more than any one archaeological subject in the Near East. Yet, in contrast little has been undertaken to investigate the earlier phases of their history and culture. The precise chronological sequence of Nabataean architecture, as well as of Nabataean pottery is, for example, still not established. More excavations and research into Nabataean sites are needed to throw more light on the origins of this remarkable civilization and its consequent development. Furthermore, the tensions between the Hellenistic culture and the indigenous Nabataean culture should be reflected in the material remains to be uncovered by the archaeologists. Such new data should illuminate the dynamics of cultural change and interaction.

In 63 BC the Roman legions under the leadership of Pompey arrived in Syria, and from Damascus he marched on to Palestine and Jordan. One of Pompey's first acts was to declare all Greek cities free in north Jordan. These cities formed a league which came to be known as the Decapolis or League of Ten Cities, and constituted a unique political phenomenon in the Roman Empire. Although subject to the Roman governor of Syria, they were given a considerable degree of autonomy. Among these cities were Damascus, Philadelphia (Amman), Gadara (Um Qeis), Pella (Tabaqat Fahl), Gerasa (Jerash) and a few others. The Nabataeans, by formal submission to the Romans, retained their territory up to the Wadi Zerqa including Hesban (Esbu).

Beginning with the first century AD, Jordan enjoyed prolonged peace and rising prosperity. In 106 AD the emperor Trajan finally broke up the Nabataean kingdom and annexed its lands to the newly created Province of Arabia, with its capital first at Petra and later at Bosra. A new magnificent road was built along the line of the older famous King's Highway connecting Damascus and Bosra with Aqaba (Aila) on the Red Sea, and was named the *Via Nova Trajana*. It is to this period, beginning with Trajan and the good emperors who came after him, that most of the magnificent Roman remains in the country belong, such as the ruins of Amman and Jerash and the later ruins of Petra.

Two nomadic tribes in East Jordan during the Roman period were the Safaitic tribe and the Thamudic tribe. Although their origins pre-date the Roman times, the bulk of the evidence regarding these tribes date from the early Christian era. This evidence is largely in the form of graffiti, inscriptions scratched on stones and basalt rocks throughout East Jordan—Safaitic in the north and Thamudic in the south. Thousands of these texts are already known especially along the ancient trade-routes crossing Jordan from south to north and from east to west. Apparently they were written by camel-drivers of the caravans which carried the trade along

these routes. Although many are very brief—sometimes giving only a name, they do indicate an interesting level of literacy and high degree of culture. Recently, the Department of Antiquities carried out a salvage excavation at the site of the new Queen Alia International Airport, south of Amman, where the contents of more than 130 burials were recovered. Preliminary studies of this large cemetery supported by the discovery of an inscription in Thamudic script, indicate that these burials belong to members of some Thamudic group. The paraphernalia found in these burials including jewellery, glass and ceramic objects and beads betray strong Graeco-Roman influence. This curious cultural and historical phenomenon certainly needs further investigation and research.

The Roman period extends to the beginning of the fourth century AD. Near the end of the third century AD the Roman Empire was divided between the East and the West. In AD 324 (with the death of Licinius) Constantine the Great emerged as sole ruler of the Roman Empire and established the capital at Byzantium, changing the name to Constantinople (modern Istanbul). This is considered the beginning of the Byzantine Age in the Eastern Mediterranean area.

Under the Byzantine Empire (AD 324–636), Jordan's population increased and apparently was very prosperous. Most of the Byzantine remains are located on sites previously occupied. Hence, almost every pre-Byzantine site shows evidence of some Byzantine occupation—an indication of how densely the area was occupied in Byzantine times.

The main archaeological remains of this period are the Christian churches found on sites throughout Jordan. The basic architectural plan was the familiar basilica used extensively in the Mediterranean world during this period.

But the most remarkable and impressive Byzantine cultural remains in Jordan are the mosaic pavements, found extensively throughout the country. Although the art form and technique pre-date the Byzantine period, a distinct development and local skills can be observed in the Jordanian mosaics. Hence, it is proper to speak of a distinct mosaic tradition as originating in the Byzantine period in Jordan. The centre of this development appears to have been at Madaba and Jerash. Madaba was virtually carpeted with mosaics during the Byzantine period. Most of these are floors in the ancient churches, but numerous private dwellings and other public buildings had mosaic floors. In some cases it is possible to date the structures through inscriptions in the mosaic floors or through stratigraphic evidence, although the latter needs considerably more refinement as more Byzantine sites are stratigraphically excavated.

The Byzantine occupation in central Jordan was very extensive. In Madaba alone, there are more than a dozen, large churches with colourful mosaic floors. One such floor, represents the map of Jordan, Palestine and Egypt and a plan of Jerusalem. Only a few of these churches have been excavated. Hence, a great deal of information about the Byzantine period in Jordan awaits the work of field archaeologists and the study of art specialists and historians.

All of these data must be integrated to extend the knowledge of Jordan's past history and to assess the significance of the various periods in the development of the civilization and culture of the Near East.

In the first half of the seventh century AD, a new force was emerging in the Arabian peninsula. The Prophet Mohammad had succeeded in uniting the Arabs under Islam. During his lifetime the Prophet preached the elements of the new religion of Islam, which centres on the oneness of God-Allah in Arabic. The Muslim creed states that 'There is no God but Allah, and Mohammad is his Prophet'. The Prophet's followers, inspired by his teachings, set out after his death to spread the religion. At Mo'tah, just south of the city of Kerak, the first clash between Muslim Arabs and the Byzantines took place, when a small Muslim force engaged the large and well armed opposing army. In AD 636 at the decisive battle of Yarmuk north of Um Qeis (Gadara), the Byzantines were routed and the Muslims marched on to Damascus, where eventually the Omayyad Caliphs established their capital.

As Jordan lay on the direct route from Syria to Arabia, it continued to have its importance, and for a time, life was peaceful and prosperous. Amman (Philadelphia) continued to mint coins under the Omayyads, who also built a magnificent Palace (Qasr) on the ancient Citadel of the city. The Omayyad caliphs and princes built many charming palaces and hunting lodges in the Jordanian desert. But when the Abbasids (AD 750-1258) moved their capital to Baghdad, Jordan soon became a forgotten land; not being on any particular trade route, or possessing any natural resources, the country was allowed to fall into decay. It was, however, still of sufficient strategic importance for the Crusaders in the twelfth century AD to occupy part of it and build castles there, notably at Kerak and Shobak. They also built castles at Tafila, Wöiera, Petra and Aqaba. The castle at Kerak was the most strategic and formidable military centre for the Crusaders who started to threaten and interrupt the Muslim pilgrimage to Mecca. Most of these Crusader castles are not fully excavated yet and need technical investigation to reveal their fine and intricate architectural design and lay-out.

One of the most outstanding examples on Muslim military architecture during the Ayyubid period (AD 1174-1263) is the castle at Rabadh near Ajlun. It was built by Izzudin Usama, one of the leaders of the famous Muslim ruler, Salah ed-Din Al-Ayyubi. The Muslims needed to provide security of transport between Syria and Palestine through this castle in central Jordan. Other Islamic castles built by the Ayyubids in this period were at es-Salt and at Azraq.

During the Mamluk period (AD 1250-1516) Jordan witnessed a great advance in architecture and agriculture. Azzahir Baibars who ruled from AD 1260-77, reconsolidated the castle at Rabadh and rebuilt the castle at es-Salt. But when one of his successors, Al-Ashraf Khalil finally drove out the Crusaders from the country in AD 1290, Jordan again lost its importance and was neglected by the Mamluk Sultans. The Mamluk's only concern at this time was to subdue the

nomadic tribes in order to render the pilgrim's road safe. This state of affairs continued under the Ottomans (AD 1516-1916).

After the break up of the Ottoman Empire and World War I, the mandate territory of Jordan was established and Emir Abdullah (later His Majesty King Abdullah) the founder of the Hashemite Kingdom of Jordan, moved his capital from es-Salt to Amman and assumed his constitutional power. Thus Jordan started on a long road of growth and prosperity, once again an important kingdom, a kingdom in history.

II The Department of Antiquities

With such a rich heritage, backed by recorded events and physical relics of every period dating from the Palaeolithic to the Ottoman, it is no wonder at all that Jordan should figure prominently in the study of archaeology. Since its establishment in 1923, the Jordan Department of Antiquities has been doing just that and is responsible for every aspect of archaeological work in Jordan. Its archaeologists have been participating with scholars from all over the world in excavating and identifying, preserving and consolidating the many precious relics and monuments of the past. International teams and institutions have been requested to help in the preservation of certain sites, such as *Qasr 'Amra* (Spanish), *'Araq el-Amir* (French), Qal'at er-Rabadh (British), Um Qeis (German & Danish), Umm el-Jimal (American), Tabaqat Fahil (Australian and American), Siyagha-Mount Nebo (Franciscan Fathers), Tuleilat el-Ghassul (UNESCO and the University of Sydney), Jerash and Petra (International Bank, UNESCO and the Jordan Government). Four countries continuously engaged in various archaeological activities have permanent centres in Amman: The American Center of Oriental Research, the British Institute of Archaeology, the German Evangelical Institute for the Study of the Holy Land and the French Institute of Archaeology.

Still, five decades later, what seems certain is that more lies beneath the soil than has been brought to light above it. Recent surveys have indicated that there are more than 200 sites in the Jordan Valley alone and hundreds of others scattered throughout East Jordan, from the Yarmuk in the north to Aqaba in the south. With the assistance of international friends, in funds and in talent, Jordan is determined to continue its search until the last sherd has been dug up and its cultural and archaeological heritage is maintained in the best possible condition. The discovery and preservation of these ancient sites, monuments of civilization, is a grave responsibility. 'We are care-takers' His Majesty King Hussein cautions, 'of a legacy that belongs not only to us, but to the world'.

For millennia, the protective sands of time have kept much of this legacy well hidden and intact. In this century, however as we construct the cement and steel buildings of our modern age, mindless bulldozers and power shovels begin to endanger the vast underground museum that is our heritage. To prevent inadvertent destruction of these treasures, the Department of

Antiquities has been undertaking a series of surveys covering the whole of Jordan. Wherever construction of a dam, a factory or a road is planned, an extensive survey and inventory is conducted. At each building site, an Antiquities officer carefully follows excavation work and stops the shovels at the first evidence of an archaeological find to evaluate its importance. With a soil as rich as ours, not in oil but in antiquities, such precautionary measures are most necessary and often yield exciting results.

The Department's activities have been inspired by its policy of promoting archaeological exploration and research, ensur-

ing the maintenance of the monuments, enhancing the surrounding areas, disseminating archaeological knowledge and establishing archaeological, historic, art and folk museums.

The two national universities in the country, the University of Jordan at Amman and the University of Yarmuk at Irbid have each established faculties of archaeology to teach and train interested Jordan, Arab and foreign students in this field.

The imminent future implementation of all these archaeological development programmes and ambitions needs an assessment of Jordan's cultural resources as well as its natural ones.