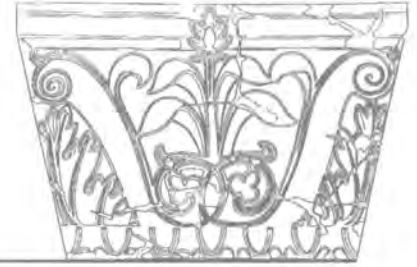


ACOR Newsletter

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Culture History of the Byzantine Ecclesiastical Complex at Petra

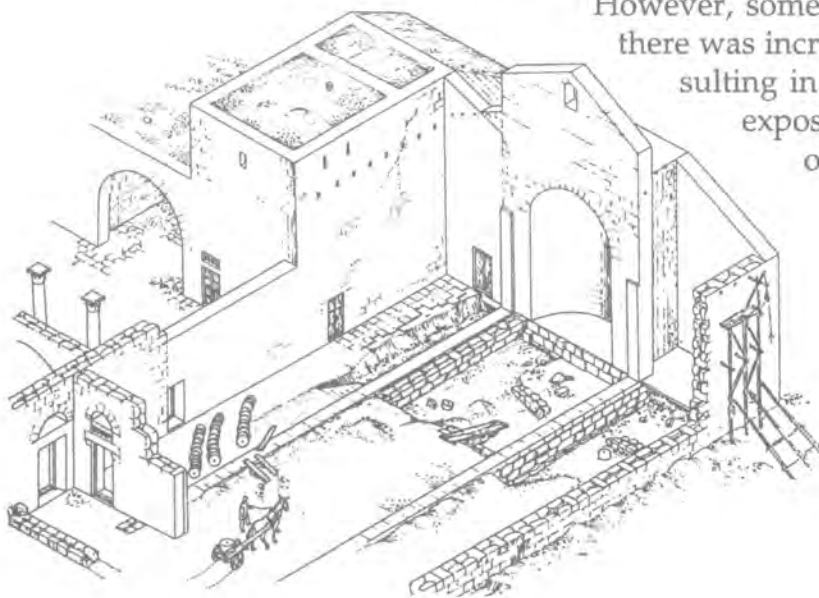
Zbigniew T. Fiema

Between May 1992 and April 1994, the American Center of Oriental Research (ACOR) conducted archaeological excavations in Petra at the site of a Byzantine ecclesiastical complex. The site is located on the gently sloping south side of Jebel Qabr Jumay'an, in the north-central part of the Petra valley, about 150 m east of the Temple of the Winged Lions. The total excavated area measures approximately 55 m (east/west) by ca. 22 m (north/south). The following is a short summary of information concerning the history of the site, based upon a stratigraphic-architectural analysis by the author and supported by studies conducted by architect Chrysanthos Kanellopoulos.

Pre-Church Phases

The excavations recovered evidence for the pre-ecclesiastical occupation at the site. A sequence of floors, and remains of domestic structures were found to the south of the southeast corner of the later church; these are dated to the first through third centuries A.D. The earliest substantial architectural remains at the site include walls in the northeast corner of the later basilica, which in this phase presumably formed a structure (Room XII). No impact of the otherwise well-documented earthquake of May 19, A.D. 363, could be discerned at the site.

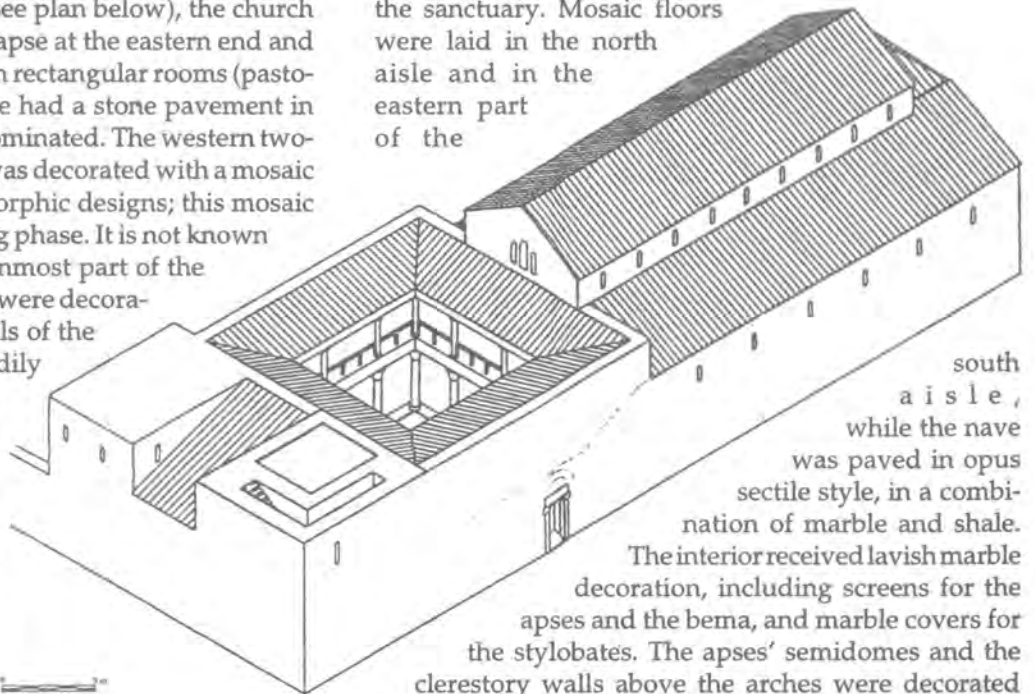
However, sometime in the later fourth century A.D., there was increased building activity in the area resulting in a domestic quarter. The excavations exposed what seems to be the southern wing of a residence. It includes three rooms (I, II, XII) and an open court (IIIA). Room I (=later Scroll Room) features the remains of three arches on which the floor of an upper story rested. Room II still displays traces of its original barrel vaulting. The rooms are well built which may explain why they were subsequently incorporated into the church complex. The drawing at left shows the church being built to the south of the earlier buildings.



The Ecclesiastical Complex

The data strongly suggest that the church complex was constructed in the early-to-mid-fifth century A.D. Furthermore, the complex had two clearly distinct phases. In the early phase (see plan below), the church consisted of a nave with an apse at the eastern end and two side aisles terminating in rectangular rooms (pastophoria) to the east. The nave had a stone pavement in which shale may have predominated. The western two-thirds of the southern aisle was decorated with a mosaic which included anthropomorphic designs; this mosaic was retained in the following phase. It is not known how the floors in the easternmost part of the south aisle or the north aisle were decorated in this period. The details of the early sanctuary are not readily apparent except for part of an abstract mosaic floor that was found in a probe under the later sanctuary. The early ecclesiastical complex also included an entrance vestibule (narthex), an atrium, and a row of three

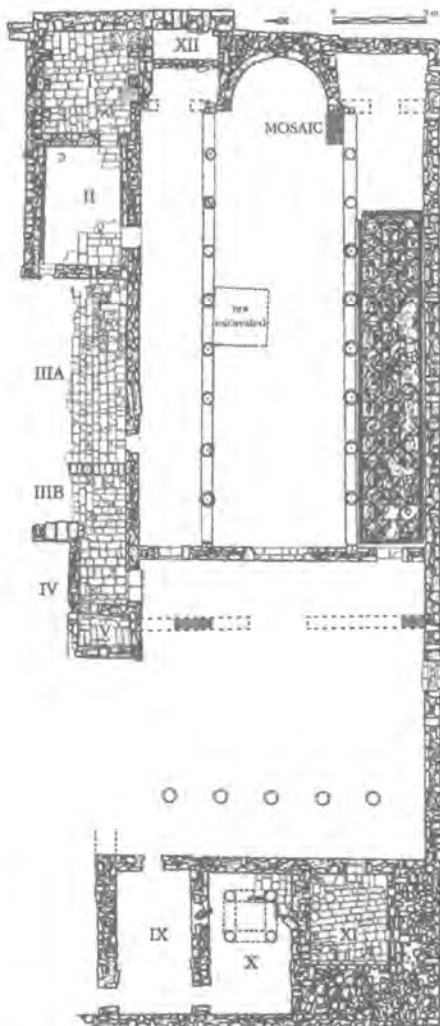
Subsequently, the complex was remodelled, probably in the early sixth century (see plan, p. 3). The changes in the church proper included the insertion of the side apses into the pastophoria and the construction of an elevated platform (bema) in the sanctuary. Mosaic floors were laid in the north aisle and in the eastern part of the



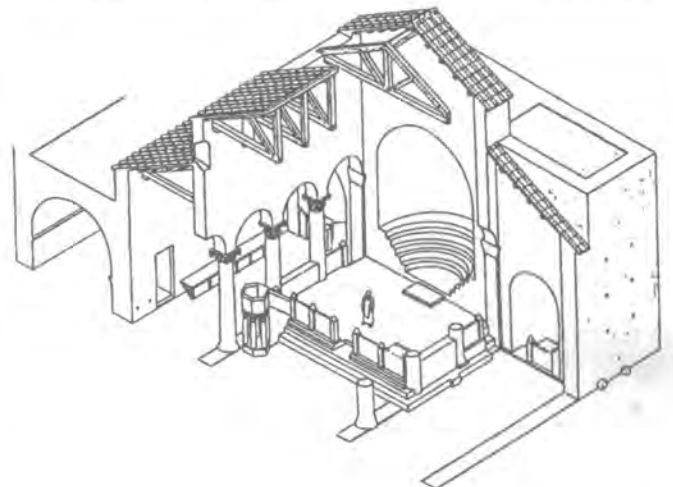
south aisle, while the nave was paved in opus sectile style, in a combination of marble and shale.

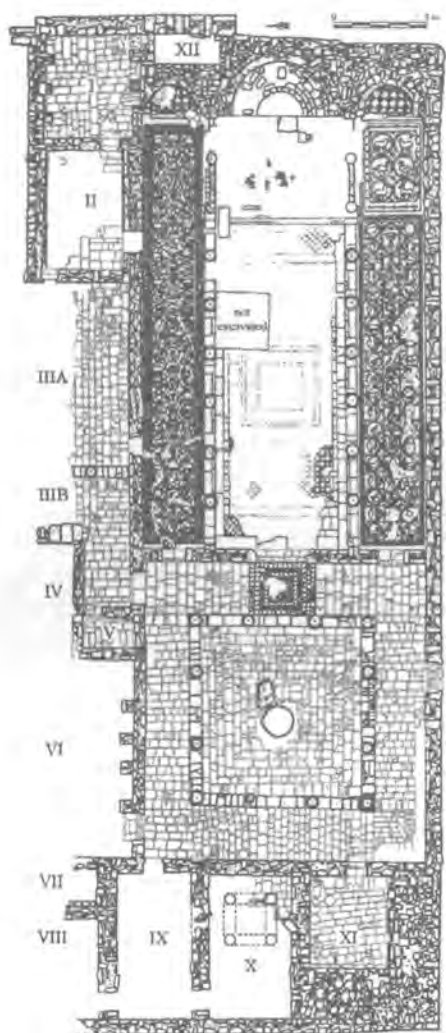
The interior received lavish marble decoration, including screens for the apses and the bema, and marble covers for the stylobates. The apses' semidomes and the clerestory walls above the arches were decorated with wall mosaics. Benches were installed along the walls. An ambo (pulpit) was erected in the northwest corner of the bema, probably in the same place its predecessor existed in the previous phase.

Activities outside the church proper included the demolition of the narthex, which expanded the space of the atrium. The atrium received a peristyle form with two-story porticoes (see drawing above). A large cistern and a settling tank were constructed in the center of the atrium. Beyond the new wall which limited the atrium on the north side, a large room (VI) was built, probably a chapel. Sometime later in the sixth century, a five-tiered, semicircular synthronon and, probably, a bishop's throne, were installed in the central apse (see drawing below). Room I may have become a repository for the



rooms (IX, X, XI) with a portico on the west side of the atrium. Parallels from elsewhere indicate that one of the western rooms (X) was a baptistry. Also, on its northern side, the complex incorporated domestic structures of the preceding phase, that is, Rooms I, II, and Courtyard IIIA (see drawing, p. 1). On the north side of the atrium, Room V and Courtyard IIIB were constructed at this time.





papyrus scrolls at the same time, although this may have occurred later.

The remains which date to the time directly before a fire destroyed the church at the end of the sixth century indicate that another reorganization or remodelling of the interior of the basilica had begun. Piles of construction materials such as wood, water and fluepipes, stone paving slabs, and hematite bits used in paints for ceramics and for wall plaster were

stored inside the church. Large storage jars were also located in the south aisle in this phase. To facilitate the storage and handling of the jars, a wooden deck was laid over the mosaic in the south aisle. Door panels and some metal fittings were removed from the doorways. The beginning of the removal of some of the marble furnishing from the church is also possible. The anticipated remodelling activities were never implemented. There is no indication whatsoever that these activities, nor any others for which the excavation have provided evidence, were connected to the earthquake of A.D. 551, which is elsewhere postulated to have had a severe impact on the city of Petra.

The latest certain date in the papyri is A.D. 582. A fire sometime after that date destroyed the church and caused its abandonment. Isolated acts of vandalism and looting seem to have occurred in the church proper immediately before the fire. The possibility of arson cannot be excluded. The nave and aisles were strewn with burnt wood and ash, but the church was still structurally sound. Room I was burned too, and the charred remains of the wooden ceiling covered the burned scroll archive. The atrium area, however, seems to have been largely unaffected by the fire.

Post-Ecclesiastical Phases

Following the fire, the atrium was cleared and a non-ecclesiastical occupation occurred there, primarily in the southwest corner where domestic installations for storage, food processing, and cooking were erected. Room XI and, possibly, other rooms were reoccupied. The gutted church was systematically stripped of useful material; the nave's marble floor was almost completely removed. Most probably, marble pavers and decorative elements were removed for reuse, or sale, while gold-plated tesserae and glass were collected for reuse or melting. Notably, much of the already broken marble furnishing of the church was left in place, which may indicate that marble-burning for lime was not a high priority. Also, the remaining metal door fittings were left in the derelict church. This non-ecclesiastical occupation continued well into the seventh century. Sometime during that century, the complex suffered a structural collapse, evidently due to a seismic event. However, some columns, portions of walls, and the semidomes over the apses may have survived. Following the first earthquake, a clearance of the atrium was attempted once again. No evidence of permanent habitation can be associated with this phase, although temporary occupation is possible. Activities took place in Room I and in the north apse, perhaps in an attempt to reactivate the old water channel which runs from the north. Also, the north half of the synthronon may have been removed at that time.

In addition to the continuous process of natural deterioration and decay of the ruins, the complex was certainly subjected to at least one more substantial seismic-related destruction. During that event, the apses would have completely collapsed. Later temporary occupations are indicated by the presence of Umayyad through Ottoman ceramics and Umayyad-Abbasid glass. However, these come from much disturbed layers. Simple stone enclosures and supports were erected in the atrium area to prevent it from being filled with collapsing stones. Limited farming and/or grazing could have begun in some parts of the ruined complex. The uppermost layers at the site consist of windblown and water-borne sand. The most recent remains at the site, probably dating to within the last 100 years, include a simple retaining enclosure northwest of the ruined church and evidence of stone clearing and ploughing.

The excavation phase of the Petra Church Project was funded by the United States Agency for International Development (USAID), with contributions from the Ministry of Tourism and Antiquities of Jordan and the World Monuments Fund. The project was directed initially by Kenneth W. Russell and then by ACOR Director Pierre M. Bikai, while work in the field was supervised by Zbigniew T. Fiema, Robert Schick and Khairieh 'Amr (1992-93), and by Zbigniew T. Fiema (1993-94). The drawings here are by Chrysanthos Kanellopoulos and the ground plans by Samer Shraideh.

The 1995 Field Season

Kerak Resources Project

In 1995 the Kerak Resources Project (KRP) opened a new phase of research in the Kerak district, where abundant archaeological remains have been investigated through a number of surveys and excavations. Between 1978 and 1983, the Miller-Pinkerton archaeological survey of the Kerak plateau located, described, and collected surface sherds from a total of 443 sites between Wadi al-Mujib and Wadi el-Hasa. In their pilot season, the 10 KRP team members completed an intensive surface study of 18 carefully selected sites, all of which had been previously examined by the Miller-Pinkerton survey. Through its multidisciplinary approach, the new Kerak project builds on the important work of N. Glueck, J.M. Miller, etc., by investigating both general and specific archaeological and environmental factors.

Like the rest of Jordan, Kerak is experiencing rapid population growth and economic development, and team members who participated in the earlier Miller-



Kerak Plateau Survey. Partially dressed limestone block from Site 364 on Jebel al-Batra.

Pinkerton survey noted serious recent damage at site after site. Sites included in the 1995 project were chosen because (1) they are threatened with damage or destruction by the increase in commercial farming and building around Kerak; (2) they represent different topographic-climatic zones and a variety of site types (e.g., towns, villages, fortresses); (3) they include substantial surface remains; and (4) they had yielded surface pottery from a wide range of historical periods but had little modern occupation. Along with a number of smaller sites, several well-known ruins, identified by the numbers assigned to them in J.M. Miller, ed., *Archaeological Survey of the Kerak Plateau* (Atlanta, 1991), were investigated, e.g., Khirbet Mdeinet 'Aliya (143), el-Mreigha (316), Nakhl (420), Khirbet el-'Akuzeh (428), and Mdeibi' (435).

The objective of the KRP is to document how inhabitants of this 875 km² stretch of tableland exploited the

natural resources available to them, including site location and access to local and long-distance trade goods.

Projects include continuing surface reconnaissance, focused studies by scholars representing various natural and social sciences, and excavation of a significant site occupied over several periods. Several sites are being considered, and excavation at one ancient settlement situated to take advantage of resources from several environmental and cultural zones will begin in 1997. In future seasons, surface survey and scientific investigations will continue across the region, though the latter will focus on the catchment area of the site under excavation.

In the 1995 pilot season, the KRP began along two major avenues of research. First, team members concentrated on the interrelationships between visible archaeological remains and those aspects of their environmental contexts subject to this kind of study—primarily water resources, climatic factors, surface geology, and geomorphology. The application of GIS technology assisted in this phase of research. Experts are completing petrological analyses of artifacts and geological specimens, and KRP will create a database of raw materials available for building, crafts, and industries.

Second, KRP participants studied and photographed surface structures and off-site features that reflect how people exploited the resources of the plateau to obtain food, clothing, and shelter. Along with other artifacts—primarily cereal-processing tools—found on the 18 sites, over 1,300 diagnostic sherds were saved to supplement the large collection made by the Miller-Pinkerton team.

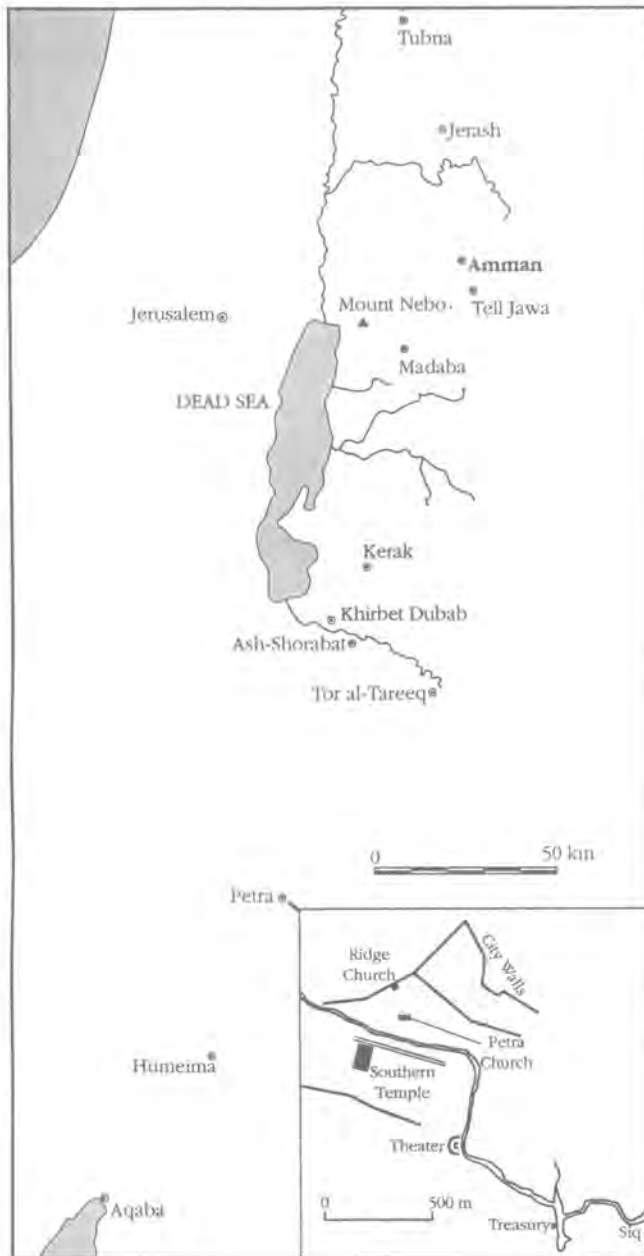
Gerald L. Mattingly
Johnson Bible College

Tor al-Tareeq

Under the auspices of the Wadi Hasa Paleolithic Project, excavations were undertaken in 1992 at the Epipaleolithic site of Tor al-Tareeq (WHS 1065) in west-central Jordan. The goal was to discern the various occupational episodes and to explore aspects of forager adaptive strategies. Situated on the south bank of the Wadi Hasa along the shore of a Pleistocene lake, the site covers an area of 812 m² below a collapsed rock shelter and fossil spring deposit.

The 1992 excavation opened two 4 m² units on either side of a 44 m trench excavated in 1984. Preliminary assessments of site chronology suggested a series of Kebaran occupations overlain by later Geometric Kebaran or Natufian deposits. Six radiocarbon determinations fall in the 16.9-15.6 kyr b.p. interval—dates compatible with other radiocarbon-dated Kebaran industries in the Levant. These dates are derived from the earliest occupation levels, however, and do not shed light on later deposits.

During 1994-95, an intensive analysis of the lithic materials was undertaken to sort out the various cultural deposits. A Kebaran affiliation for the lower levels



seems fairly certain based upon the radiocarbon dates, the associated typological markers (narrow backed bladelets), and an absence of geometric microliths. Generalized comparisons of these Kebaran levels with other assemblages in Jordan indicate similarities to early Epipaleolithic sites in the Wadi Hasa and Azraq Basin. More problematic are the upper levels at Tor al-Tareeq which contain a greater proportion of geometric microliths, many of which are wide, crescent-shaped pieces (Hasa lunates). The presence of numerous geometric forms and backed, truncated microliths set these levels apart from the earlier Kebaran occupations. The frequency of geometrics in these levels compares favorably to Middle and Late Hamran industries (regional variants of the Geometric Kebaran) from southern Jordan. However, the wide crescents from the geometric levels at Tor al-Tareeq are more similar to forms found in the Geometric Kebaran levels from Kharaneh IV in

eastern Jordan.

Lithic materials were also studied to ascertain changing lithic reduction strategies and to investigate what these meant in terms of forager behavior. Aspects of the cores, tools, and debitage were examined for three levels. Although raw material was consistently available, the results of these analyses suggest variation in lithic reduction strategies over time. The earliest Kebaran occupation is characterized by an intensive reduction strategy resulting in small-sized cores, debitage, and tools. The middle occupation, also assigned typologically to the Kebaran, is characterized by a less intensive reduction strategy resulting in significantly larger cores, tools, and debitage. The third occupation level, representing the Geometric Kebaran, is generally similar to the earliest level and marks a return to a more intensive reduction strategy. Fluctuations in forager site-use strategies over time are suggested by these patterns.

The location of the site on the edge of a lake implies a diverse natural environment with a variety of potentially exploitable plant and animal resources. This is supported by fauna and pollen studies which indicate a predominance of steppe species along with some woodland and riparian forms. The variations in raw material use, along with the varied resource base, very probably accompany fluctuations in mobility, occupation duration, and position of the site within the regional settlement system. One can infer from these changes that forager positioning strategies were flexible. Certainly, the relatively lush habitat of the eastern Hasa, with its juxtaposed ecotones, provided resources that enabled foragers to maximize flexibility in their subsistence strategies, both over the long term and in the course of the annual round.

Michael P. Neeley
Arizona State University

Tubna in Wadi Ziqlab

During June and July 1995, the Wadi Ziqlab project excavated a Chalcolithic site on the western slopes of Tubna, a modern village in al-Kura district, southwest of Irbid. The site is located on agricultural terraces overlooking Wadi Summayl, one of the two principal tributaries of Wadi Ziqlab. Lying at an elevation of 550 masl, the site was discovered through subsurface testing along a 1 x 2 m trench in 1993.

Although the site is heavily disturbed by recent agricultural activities including pitting, the removal of stone, and the planting of olives, there are Chalcolithic deposits more than 30 cm thick over an area of at least 1 ha. In the southern part of the site, excavations revealed several stone-lined pits (many of which had been paved over with small flagstones), many unlined pits, and portions of a long building with massive stone foundations more than 1 m thick that had been rebuilt several times. Farther north, excavations revealed the corner of a similar building, apparently dating to late in the Chal-

colithic, into which two stone-lined pit features had been inserted after its abandonment. One of these had been covered with small flagstones, as with some of the pits farther south, and contained fragments of Late Chalcolithic pottery, many of which appear to come from a single large vessel. The deepest deposits, only reached over a small area towards the south end of the site, contained small amounts of pottery from the Late Neolithic, including widely splayed strap handles.



An example of a Chalcolithic stone adze from site W12 near Tubna. Photo by P. Racher.

Although utilized flakes dominate the lithic assemblages at the site, there is also a large repertoire of bifacial adzes, axes, picks, and chisels, and smaller numbers of sickle blades and cortical scrapers. The last are made on broad, cortical flakes removed from flat nodules, rather than on the tabular flint commonly used for "fan scrapers" in the Chalcolithic era.

Detailed discussion of the finds awaits analysis. In addition to pottery and lithics, the samples include modest amounts of faunal bone (but very little human bone) and large volumes of soil that will be used for analysis of microfauna, phytoliths, plant macrofossils, microdebitage, and other categories of microrefuse. Residue analysis is being carried out on almost 100 sherds and fragments of grinding stone.

E. B. Banning
University of Toronto

Tell Jawa

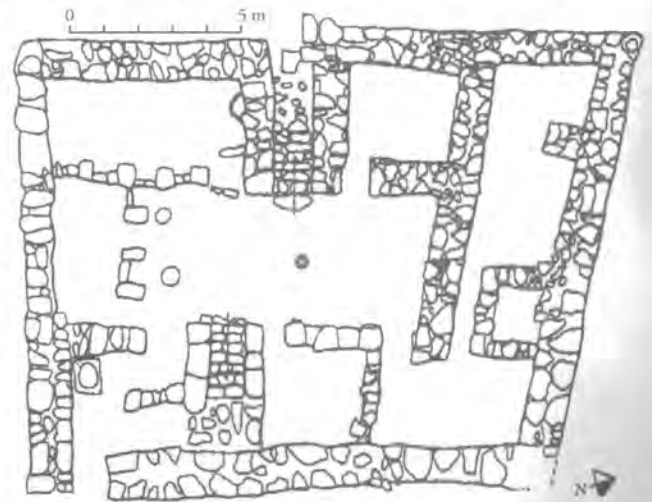
Excavation continued at Tell Jawa, an Ammonite site occupied during two phases of the Iron Age and resettled at the beginning of the Umayyad period.

Excavation of four Iron Age structures within the fortified town, exposed in previous seasons, was completed in 1995. Outer walls were exposed for all buildings except for a large housing complex, Building 300, that may have contained more than one house. This complex, adjacent to the fortification wall in the north-west corner of the tell, had more than 16 rooms surrounding a central cistern. Finds this season again suggested that these rooms were part of a domestic complex. Red-slipped bowls, a Phoenician-style jug, a black burnished juglet, large storejars (pithoi 1.10 m tall), a tabun made from a pithos turned upside down, basalt millstones, pestles, hand grinders, fragments of an ivory spindle, and unfired clay loom weights suggest occupation during several phases in the eighth century B.C.

Building 102 in the southwest (Field B) also provided

evidence of occupation, destruction, and rebuilding during the Iron Age. The interior walls were made of stacked boulders and the exterior walls of boulder-and-chink construction. This use of two or more styles of wall construction in the same building appears to be characteristic of Ammonite architecture. Also within Field B was the first example of a hand-built clay hearth used in association with an inverted storejar oven. Botanical remains recovered from ash discarded in antiquity yielded grape seeds, barley grains, and various legumes.

Two buildings formed of very large boulders on the southeast side of the tell (Field C) date to the late Iron II period. Building 800 was built on bedrock on the north



Building 800 at Tell Jawa. Drawing by Dayle Elder.

side and above earlier debris on the south. This house had 11 rooms on the ground floor, two stone staircases, and additional rooms on the upper floor. Stone pillars 1.80 m high separated the rooms from the central hall and supported the ceiling. Two hand-built clay hearths were found in the central hall along with ceramic vessels smashed on and around the hearths when the building collapsed. Beside one hearth, in a recess formed by a pillar and a crosswall, were a dozen or more unfired clay loom weights, probably in storage.

East of Building 800 was a heavy walled structure, originally a gate complex (Building 910). Evidence of the Iron Age road was recovered under a series of rooms constructed at a later phase in the late Iron Age II. Unfortunately, modern property walls prevented us from clearing the eastern half of the gate complex and uncovering the later road, probably located farther east under a modern cemetery. Scattered in the Iron Age debris were several mold-made figurines and a stone figurine of a man.

Excavation was completed in the Umayyad period house (Building 600) north of Building 910, and the staircase that led from the upper floor to the ground floor court was exposed. Only at this point did it become clear that the original structure, including the staircase, was built during the late Iron Age II and remodeled

extensively during the Late Byzantine or Umayyad period. A quantity of glass sherds and painted pottery indicates that in those later periods, Tell Jawa was a rich settlement that was probably in touch with the communities of Umm al-Walid and Umm er-Rasas, with which it shared ceramic traditions.

P.M. Michèle Daviau
Wilfrid Laurier University

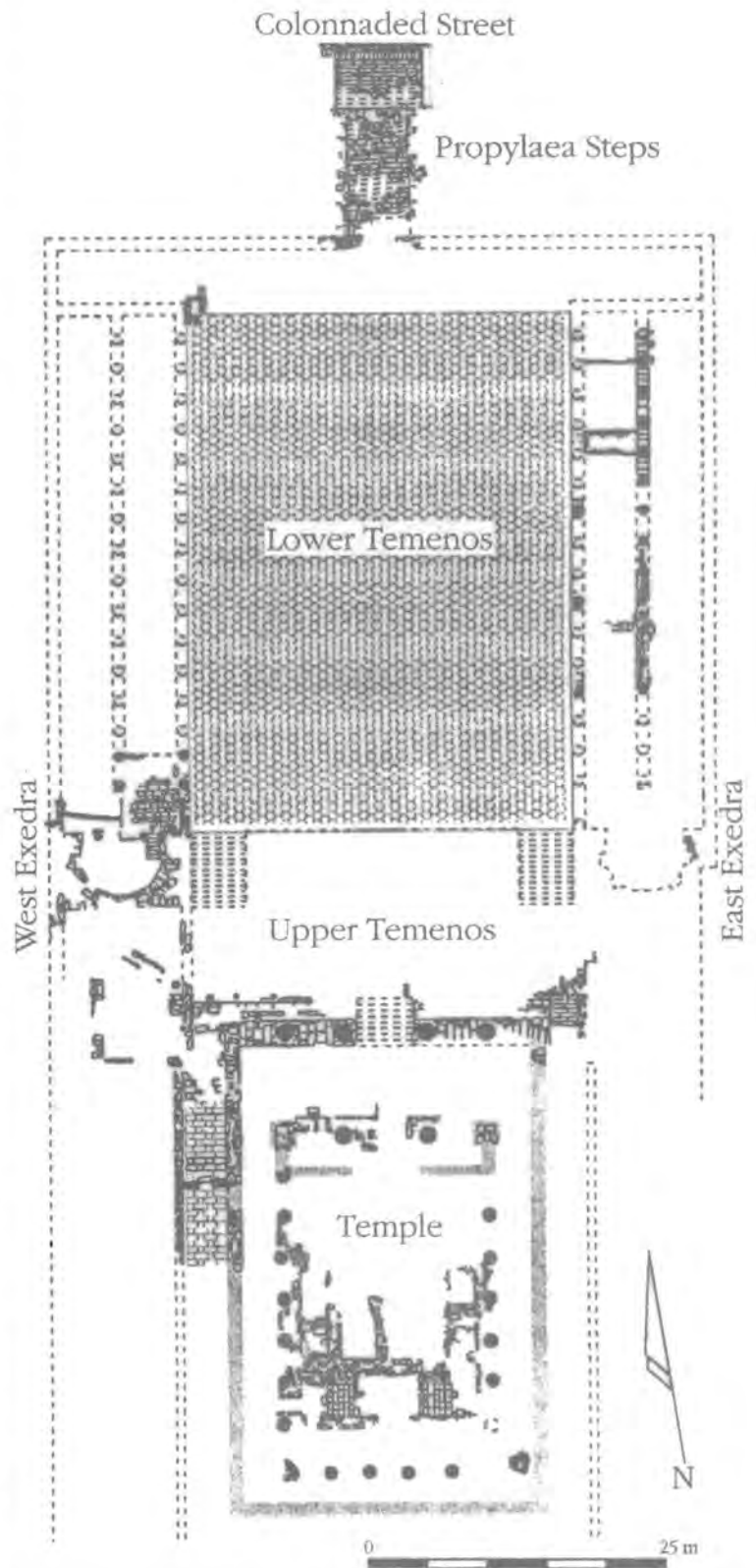
Petra, Southern Temple

The Brown University 1995 excavations at Petra's Southern Temple (Great Temple) suggest a span of activity at the site from the Nabataean through the Late Roman-Byzantine periods. Located south of the colonnaded street near the Qasr al-Bint temenos gate, this 7,000 m² precinct consists of a stepped propylaea and a double-colonnaded lower temenos bound on the west by an apsed exedra. A grand stairway leading to the upper temenos and to the temple itself has been partially uncovered. A tentative plan of the later of two building phases, dated to the beginning of the first century A.D., shows the double colonnade and hexagonal pavement of the lower temenos. Among the most striking 1995 discoveries was a 6 m depth of deposit below this phase where in situ arch springers and well-constructed Nabataean walls were revealed, indicating that the lower temenos had an earlier monumental construction phase. Thus, there may have been a Nabataean access to the temple's lower temenos from the street.

Though excavated to a depth of 6 m, no foundation level has yet been located for the buttressed 13-course exedra in the lower temenos west, but nine stages of its long use were charted. The outline of the eastern exedra has been recorded, confirming the symmetrical design of this great temple complex.

The architectural plan of the temple was clarified in 1995 with the excavation of the northeast temple forecourt, characterized by hexagonal paving stones, where an additional artery of the underground water canalization system discovered in 1993 was found. The stepped northeast temple podium was well preserved, and the northern extremity of the eastern walkway, which pairs the western walkway discovered in 1994, was exposed. In the temple interior, the pronaos was clarified with the recovery of a massive 2.5 m wide eastern anta wall and two inner columns. Both columns were supported by limestone Attic bases 2.1 m in diameter, carved in two pieces and perfectly preserved to a height of 0.7 m. Traces of red stucco adhered to the lower shafts of the columns.

Excavation continued in the adyton, where a vaulted



Preliminary reconstruction of the Southern Temple Complex. Plan by D. Pitney, L. Traxler, and P. Zimmerman.

eastern stairwell of roughly 11 m was recovered. Adjacent to its twin western stairwell was a parallel room, possibly vaulted, congested with collapsed columns. The Nabataean capital fragments found here were embellished with a profusion of fruits, flowers and vines.

The excavation recovered a greater-than-life-size head of the city goddess Tyche wearing a diadem with the crown in the form of the city gates as well as numerous sculpted elephant heads and trunks from the elephant-headed volutes that decorated the capitals of the lower temenos. Other artifacts in the computer database include Nabataean, Late Nabataean, and Roman red wares, lamps, coins, bone, glass, metal, tesserae, and fragments of molded stucco and painted plaster. The number of architectural fragments recovered—many of them delicately carved with complex floral and fruit designs—was overwhelming.

The Southern Temple architectural plan was clarified with excavation backed up by electronic distance measuring equipment and ground penetrating radar in an attempt to course the extensive underground water systems. The size of the principal columns of the temple and their gigantic decorative capitals indicate that the temple structure may originally have stood 19-20 m high. Some columns in the temple and in the lower temenos double colonnade have been partially re-erected.

Martha Sharp Joukowsky
Brown University

Humeima

The 1995 campaign of the Humeima Excavation Project, the fourth such campaign of excavation in the settlement center, focused on problems of the chronology and design of several major structures. In addition, great progress was made in preparing the site for tourism, and in protecting structures exposed to the weather.

Excavation inside the large Roman fort at the north edge of the site provided new information about both its chronology and design and about the character of the interior structures. The southern walls of the principia (headquarters) building were identified at the northern end of a courtyard which faced south on to the crossing of the east/west Via Principalis and north/south Via

Praetoria. The space south of the building was paved and probably partly roofed, and may have been part of a colonnade around the parade court. A wide, sturdy bench along the north wall may have been used as a podium from which the officers gave their daily orders. The presence nearby of a shrine or area for religious ritual is appropriate to such an interpretation. A sandstone altar and a statue base found next to each other here carried Greek inscriptions dedicated to Jupiter Capitolinus and to a "Savior God" still to be identified. The



Sandstone altar from Humeima

rough white plaster on the walls of the courtyard portico was marked at several points by charcoal graffiti, the subject matter including a palm tree, a man riding a horse or camel, an ostrich, and human caricatures.

Work in the southeast quadrant of the fort has begun to reveal the design of a barracks building. Although a uniform room dimension has not yet been identified, the general organization of the spaces is the familiar one of a long rectangular block of small rooms set back to back, lined up along the Via Praetoria. A drain built of stone slabs connected the excavated rooms with a central drain running north/south beneath the center of the road, which was paved with stone slabs at this point. The very substantial corpus of ceramics found in the barracks area this year indicates without a doubt that the fort was active in the first half of the second century A.D., possibly the first two decades of the century. A well-preserved silver denarius honoring the deceased empress Faustina the Elder (struck after A.D. 141) was found here, along with fragments of weapons and armor, and evidence of iron-working. The barracks, at least, were possibly abandoned for some time in the third century, reoccupied and remodeled in the fourth, and finally abandoned in the fifth century.

In Area F102, excavation was completed of a complex that was first occupied in the Roman period, perhaps as a domestic structure. The relationship among a series of late Byzantine and early Islamic interior partition walls and some Byzantine burials outside the west wall remained obscure until the discovery this season that the main building phase of the structure is a church complex of the mid-seventh century A.D. Several of the doors in the east wall of the church were identified, as was the south wall and the single apse with sandstone slab paving. The church apparently went out of use in the eighth century and was occupied by squatters who built numerous partition walls in the nave.

The remains of four late Byzantine churches have now been identified at Humeima, and we strongly suspect that there is a fifth. It is difficult to understand why such a large number of churches was built in this small settlement between the mid-fifth to the mid-seventh century, a question shared with some of the contemporary desert settlements of the Negev, for example. The proliferation of churches may reflect religious turmoil within the Christian church during that eventful period, while the destruction levels of the mid-seventh century may be associated with the Persian invasion, the Byzantine retaking of the territory, the subsequent Muslim conquest, or a major earthquake. Although all the churches at Humeima made extensive use of marble fixtures in the altar area, the extravagant mosaic floors seen elsewhere in Jordan, and as close by as Petra, are absent.

During a search for Nabataean or Roman period structures in the area of the Roman bath (E077) excavated in 1989, Structure E122 was identified and excavated. It is a small, probably domestic, structure built



Abbasid mosques at Humeima

during the later second century A.D. and abandoned sometime during the third century A.D. It seems likely that the Nabataean/early Roman period structure beneath the Roman bath was not an isolated structure of that period in this area of the site. If a Nabataean/Roman residential area is discovered here, it will provide important new information about early habitation practices at Humeima, since the early levels in the settlement center are now deeply buried in silt and occupation debris.

In Area F103, there was further excavation of the qasr and mosque of the Abbasid family. Excavation of the mosque revealed the projecting mihrab, and exposed remains of a second mosque built just southwest of the first one (below). The relationship and chronology of the two mosques are still to be determined. The main entrance to the qasr was also revealed, toward the center of the east side of the structure. It was set back from the line of the walls framing it. In the rubble just outside of the entrance, a silver dirham was found, struck in Wasit in A.H. 115 (A.D. 733/34). More remains of the fresco and carved ivory screen first discovered in 1993 were also recovered.

The generous loan of a front-end loader and dump truck by the Department of Antiquities allowed a great deal of progress to be made in preparing the site for tourism. Numerous robber holes were filled in, and excavation debris was carried away. Furthermore, consolidation of the Roman bath building was completed, and consolidation of one of the mosques was begun. A new road out to the site from New Humeima on the Desert Highway has been graded and is to be paved soon, so we anticipate increased numbers of tourists. Further work of site preparation and structural consolidation is planned as part of the 1996 excavation campaign.

John Peter Oleson, Khairieh 'Amr, and Rebecca Foote

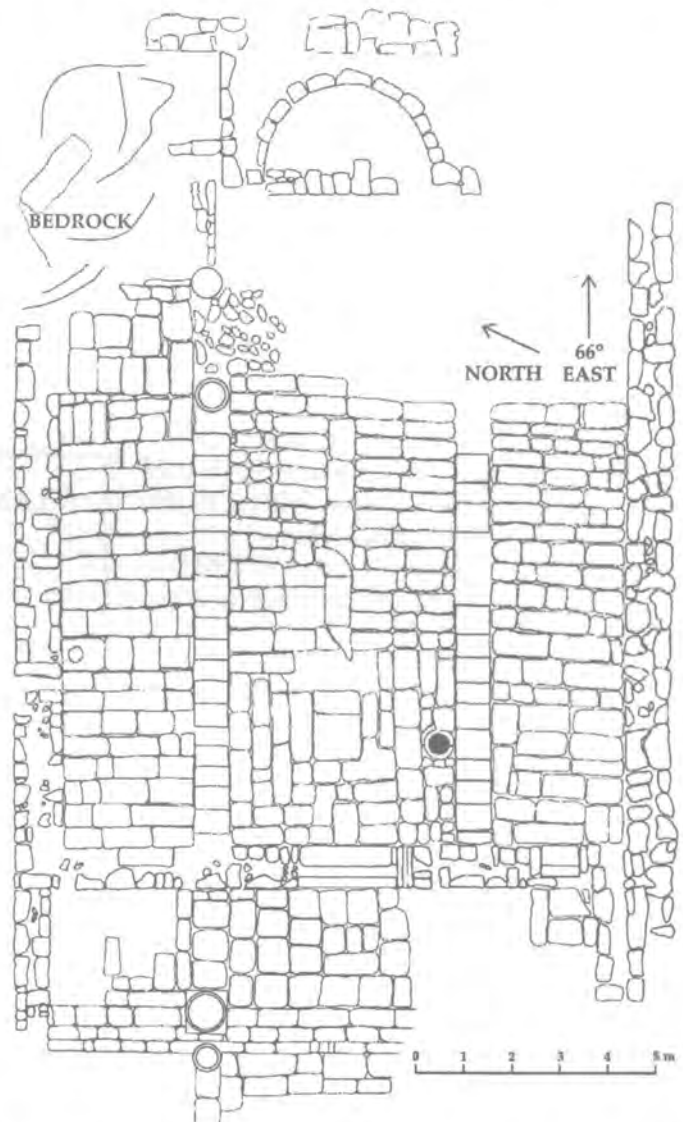
Petra, Ridge Church

The second season of excavations at the Ridge Church in Petra was conducted in October 1995. Almost all of the interior of the structure was cleared as well as part of the portico. Considering that most of the

superstructure has disappeared, the stone floor in the aisles and nave is in surprisingly good condition. A cistern measuring 2.8 x 3 m, cut into bedrock, was discovered under the western end of the nave. The roof of the cistern is supported by three arches, above which is the subfloor and then the floor of the church. The cistern's only entrance is just north of the southern stylobate.

No flooring was recovered in the chancel or apse areas, but it is now almost certain that at one time those areas were covered with a mosaic consisting in the main of white cubes measuring ca. 2.5 cm on a side. The chancel and apse areas measure 24.4 m², and the 6,500 mosaic cubes

recovered from the debris would have paved an area of approximately 4 m². As there does not appear to be any other area of the structure that would have been paved with mosaics, it can safely be assumed that these cubes are the remnants of the chancel and apse flooring. All



Ground plan of the Ridge Church by Pierre M. Bikai, Patricia M. Bikai, and Virginia Egan. The dark round area near the southern stylobate marks the entrance to the cistern.

that remains at present is part of the underlayment on the north side of the chancel. In the rest of the chancel area only earth fill was found, and the stone floor of the nave appears to continue under this fill, so it is possible that this structure began as a stone-floored basilica to which the apse and raised chancel were added, perhaps in phases.

Excavations to the west of the main structure uncovered more of the portico, which is 2.5 m deep. Set into the portico floor is a column base which is in line with the northern stylobate of the church proper; this can be assumed to have supported the roof of the portico. West of the portico, three steps descend 1.18 m to another pavement, only part of which was cleared.

A stone with a Latin inscription was found reused as one of the steps. The preliminary report on the inscription (by Z.T. Fiema) says that Latin inscriptions are relatively rare in Petra, and that the paleography of the text would indicate a date not later than the third century A.D., and possibly earlier. The text follows a typical commemorative formula and the preserved (lower) part notes the later stages of the career of the person honored by this dedication. He was a praefectus (commander) of Ala II Ulpia Auriana, an auxiliary army regiment stationed in Cappadocia. The inscription was commissioned by a Lucius who was a signifer (standard bearer). Since it was set up in Petra, the praefectus, who is not named in the preserved part of the inscription, may have been a native of that city.

In the restoration component of the project, much of the southern wall of the structure was consolidated, and a displaced column base was also set back in place. Finally, the area surrounding the structure was surveyed to a distance of approximately 30 m. Forty-five architectural elements were located on a plan, and most were moved up to the church. While it is not certain that all of these elements formed part of the original building, they are safer in the church than they were on the slopes.

Patricia M. Bikai, ACOR

Aqaba/Ayla

The 1995 season concentrated on excavating the areas immediately around the Abbasid mosque, with the aim of clarifying the history of the city soon after its founding around A.D. 650. Much of the very earliest urban architecture is hard to study as over the centuries the city has been slowly sinking into the ground, due to the impact of repeated earthquakes. The excavations in the wadi near the mosque revealed 4 m of stratified ancient occupation with over 2 m of Umayyad stratification beneath levels from the Abbasid and Fatimid eras. As much as 1 m of the Umayyad occupation was found below the water table in the

wadi.

Immediately south of the mihrab of the mosque, a courtyard from the Fatimid period was found; under it were Abbasid materials going down to a series of thick plaster floors.

Just east of the mosque we cleared a semicircular tower of the city wall (Gate 11). Within the city walls was a series of rooms that faced a 15 m wide street with a colonnade on each side; another series of rooms lined the northwest side of the street. The relatively formal classical layout of the street did not last long, however, as other ideas concerning town planning soon changed the layout inherited from the Roman-Byzantine world. The spaces between the portico columns on the sides of the street were filled in with walls that formed rooms of irregular shapes and sizes. This happened during at least four phases of construction during the first century after A.D. 650.

The architecture towards the center of the city is markedly different from that nearer the city walls. The city-center tends to have massive architecture that is very well finished; there are 80 cm thick walls, limestone floors and smoothly-plastered and painted walls. One such well-built wall was excavated at a right angle to the south side of the mosque and it seems to have enclosed one or perhaps two large buildings. These substantial structures just south of the mosque may have been associated with the earlier Umayyad mosque. They were perhaps part of the dar el-imara, the administrative center of the town, which is usually located adjacent to the congregational mosque.

Donald Whitcomb

University of Chicago



Aqaba/Ayla before the 1995 season

Update on the Scrolls

Pierre M. Bikai

The publication of the Byzantine documents found in the church at Petra has been undertaken jointly by the University of Helsinki and University of Michigan, under the leadership of Jaakko Frösén and Ludwig Koenen respectively. The following information has been provided by them, by Clement A. Kuehn, and by Zbigniew T. Fiema, historical consultant to the project.

Conservation work was completed in May of 1995 by the team from Finland and the publication phase began a few weeks later with the arrival of the University of Michigan team. In the fall of 1995, the Finnish team began their work on the scrolls in Finland and arrived in Jordan to work with the original documents at the beginning of 1996. In all 22 persons from the two groups worked on the transcription and interpretation of the scrolls. It will be recalled that all parties involved had signed an access/publication agreement and we are happy to report that the final division of the scrolls for publication purposes between the two groups was agreed to in late 1995. All 152 rolls, some written on both sides, contain documentary texts written mainly in Greek. The texts are economic documents dealing with possessions, dispositions and acquisitions of real estate and other types of property. There are sworn and unsworn contracts, agreements and settlements of disputes concerning loans, sales, divisions of property, cessions, registrations, marriages and inheritance. The various handwritings used by the scribes are almost identical with those found in Egypt, but the phraseology of the documents is somewhat different. Latin loan-words are used more often and differently in the Near East than in Egypt. There are at least two lines of text in Latin in the scrolls.

The texts cover a period of some 50 years between A.D. 528 and 582, i.e., during the reign of the Emperor Justinian and his successors. Many of the documents refer to Petra as Augustocolonia Antoniana Hadriana Metropolis of the Province Palaestina Tertia Salutaris. Names of other settlements, such as Augustopolis (identified with Udruh), Eleutheropolis (Beit Jibrin), Zadakathon (Sadaqa) are mentioned, together with numerous other places around Petra. Churches and other buildings are also mentioned, e.g., the Chapel of the Saint and Glorious Martyr Kyrikos in Zadakathon, the Church of the Saint and Glorious Martyr Theodoros in Augustopolis, the Church of our All-Holy Mistress the Glorious God-bearing (N.B.) Ever Virgin Mary in Petra, the Hostel or Hospital of the Saint and Gloriously Triumphant Martyr Kyrikos in Petra, and the Church of our Lord the Saint High-Priest Aaron. The latter may refer to the remains at Jebel Haroun near Petra where, according to tradition, Aaron, the brother of Moses, was buried.

Among the key figures in the texts are men of ecclesiastic, civilian, and military administrative ranks who bear typical Byzantine honorific titles. Almost every

man bears the status-name of the upper class, Flavius. Once, we find a woman named Kyra signing a marriage contract in her own hand. Some slaves have been identified, not only as property, but also as farmers.

One text concerns a question of water rights at a spring in Zadakathon. That document contains the name of Abu Karib ibn Jabala (Abu Kherebos), known from other sources. The historian Procopius mentioned that Abu Karib, the Ghassanid, had ceded some tribal areas (probably in northern Hejaz) to the Emperor Justinian and was appointed by him as a phylarch (ruler) of the local Arab foederati around 528/29. The date is fragmentary in the scroll, but sufficiently preserved to indicate the document was written after Justinian's Novella 47 (A.D. 537) which ordered the mention of the emperor's regnal year at the beginning of dating formulae.

Another text, dated to May 23, A.D. 537, involves a marriage which joins two of the families represented in the archive: Stephanous, daughter of Patrophilos, has recently married Theodoros, son of Obodianos. Theodoros seems to be a minor (under the age of 25) and is represented by a curator. The subject of this settlement is, first, the inheritance of the dowry of a deceased mother; the dowry includes immovable property, such as a house or land. Because of damage to the text, it cannot yet be determined whose mother—that of Theodoros or that of Stephanous—originally owned the dowry. If it was the mother of the bride, then it seems that the father of the bride used the maternal dowry as a dowry once again when his daughter got married. The document also directs who inherits the dowry if this or that person dies. The scroll then progresses into a second subject, Patrophilos's will. It specifies that if he dies, his daughter Stephanous inherits all of his property. The combination of these two subjects makes the document unique among papyri found in the Middle East and Egypt.

Previous understanding of the history of Byzantine Petra has been based on scattered pieces of information, and on a series of arguments *ex silentio*. Undoubtedly, both the ACOR excavations of the Petra Church, and the scrolls will make it necessary to reassess the history of Petra and southern Jordan. In the texts, the previously postulated economic decline in this era cannot be traced, and there is no evidence for the earthquake of July 9, A.D. 551, which is often thought to have caused the final demise of the city. Instead, the texts reveal the active and rich social and economic life of the city and its agricultural hinterland. As opposed to earlier times when Petra's wealth was generated by long-distance Oriental trade, the archives indicate that land-ownership was the backbone of Byzantine Petra's society. Significantly, the dating formulae in some dated Petra texts strongly imply that imperial orders reached the everyday praxis in the Near East more quickly than they reached Egypt. This confirms the continuing status of Petra as an important regional administrative center of the Byzantine empire in the sixth century A.D.

Madaba Archaeological Park Opened

On Nov. 12, 1995, the central section of the Madaba Archaeological Park and the adjacent Madaba Mosaic School were inaugurated by H.M. Queen Noor. Participants in the ceremony included H.E. Mr. Abdel-Elah M. Khatib, Minister of Tourism and Antiquities; Dr. Ghazi Bisheh, Director General of Antiquities; H.E. Mr. Romualdo Bettini, Ambassador of Italy; H.E. Mr. Wesley Egan, Ambassador of the United States of America; and H.E. Mr. Michel de Salaberry, Ambassador of Canada.



H.M. Queen Noor cuts the ribbon to the shelter over the Hippolytus Hall and the Church of the Virgin. Left: USAID/Jordan Director William T. Oliver and Mrs. Oliver; right: ACOR's Nisreen Abu Al-Shaikh.

With funding from the United States Agency for International Development (USAID), the central section of the Madaba Archaeological Park was constructed between 1991 and 1995 by ACOR in cooperation with the Ministry of Tourism and Antiquities. In addition to a long stretch of Roman street and a number of monuments that have been consolidated and conserved, it features a shelter designed by Ammar Khammash. The shelter houses two of Jordan's most important mosaics: the Hippolytus Hall and the Church of the Virgin, both from the sixth century A.D. (see *ACOR Newsletter* 6.1). Other mosaics from the region are displayed inside the arcades surrounding an ancient courtyard to the north of the shelter.

The project embodied a number of features that illustrate ACOR's philosophy in regard to such endeavors. Any project to develop an archaeological site should respect its many values: cultural, aesthetic, artistic, historical, religious, political, and economic. The interests of the donor agencies and, often, the local community are economic and political: tourism development and/or employment generation. The interests of the archaeologists and, again often, the local community are cultural, historical and, sometimes, political and religious. This project attempted to serve the various interests and to serve the site itself.

The area of the park had been excavated over a

period of a hundred years and there had been major finds there, most notably the mosaics, but these had been covered over and were not accessible. This left a large area of the city of Madaba which was essentially of no use to anyone. Further, the remains themselves were deteriorating. The archaeological park makes this important site accessible to tourists, scholars, and local residents alike and the remains themselves have been protected.

The project also created employment in the local community. Indeed, architect Khammash deliberately designed the buildings so that free and abandoned construction materials could be utilized as much as possible, thus leaving the greater part of the budget for labor expenses rather than for expensive materials. Additionally, unskilled laborers were trained in building techniques and a number of them are now employed in the private sector because of that training. The economic value to the community continues as the city now has a valuable asset to draw tourists. The impacts of this are already visible as small businesses catering to tourists open near the park. That the park is now an



H.E. Mr. Abdel-Elah M. Khatib, Minister of Tourism and Antiquities, Fr. Michele Piccirillo, H.M. the Queen, and Dr. Pierre Bikai at the Church of the Prophet Elias, another of the monuments included in the park.

asset to the city creates a secondary impact on preservation: the community has a stake in protecting the site.

The Madaba Mosaic School, also within the park, was inaugurated at the same time. Funded by the Italian and Canadian governments as well as by the Ministry of Tourism and Antiquities, it trains students in the conservation of mosaics and in the creation of new mosaics. The school is housed in a series of turn-of-the-century buildings which were restored and thus preserved from destruction by this adaptive reuse.

The Madaba Archaeological Park and Mosaic School thus serve Jordan's past, present, and its future.

Director's Report

Pierre M. Bikai

ACOR Projects

Madaba Archaeological Park and Mosaics Shelters, Ministry of Tourism and Antiquities and ACOR/USAID
Madaba, Burnt Palace Presentation Phase, Leen Fakhoury, architect, Ministry of Tourism and Antiquities and ACOR/USAID

Deir 'Ain 'Abata/Lot's Cave Conservation Project, Konstantinos D. Politis, director, Ministry of Tourism and Antiquities and ACOR/USAID

Petra Church Shelter and Conservation Project, Robert Shutler, architect, Ministry of Tourism and Antiquities and ACOR/USAID

Petra Roman Street and Shops Prefeasibility Study, Chrysanthos Kanellopoulos, architect, Ministry of Tourism and Antiquities and ACOR/USAID

Petra, Qasr al-Bint Conservation Project, Ministry of Tourism and Antiquities and ACOR/USAID

Amman, Ayyubid Tower Restoration, Antoni Ostrasz, architect, Ministry of Tourism and ACOR/USAID

Petra Church Project

Wall Mosaics Conservation, Na'if Zaban and Fatma Marii
Scroll Publication, University of Michigan: Ludwig Koenen, Traianos Gagos, Christopher Barnes, James Keenan, Robert Daniels, and Matthew Kraus. University of Helsinki/Academy of Finland: Jaakko Frösén, Erja Salmenkivi, Marjo Lehtinen, Mari Mustonen, Matti Mustonen, Jan Vihonen, Marjaana Vesterinen, Tiina Rankinen, Marja Vierros, Mari Mikkola, Maarit Kaimio, Antti Arjava, and Tiina Purola. ACOR: Zbigniew T. Fiema, Clement A. Kuehn, and Fatma Marii.

ACOR-Assisted Field Projects

Tell Nimrin, James Flanagan and David McCreery

Tell Jawa, P. M. Michèle Daviau

Wadi Ziqlab, Ted Banning

Humeima, John Oleson

Petra Southern Temple, Martha Joukowsky

Tell Safut, Donald Wimmer

McCormick Theological Seminary has established The Robert and Jean Boling Memorial Fund for International Travel and Study. The endowment fund will support "persons engaging in international travel and study for the purpose of deepening their experience of the global community—past and present—and their understanding of the things which make for peace." Those in the ACOR community who would like to contribute can contact: Jim Vondracek, McCormick Theological Seminary, 5555 S. Woodlawn Ave., Chicago, Ill. 60637-1692.

Kerak Resources Project, Gerald Mattingly

Abila, W. Harold Mare

'Ain Ghazal, Zeidan Kafafi and Gary Rollefson

Petra, Ridge Church, Patricia Bikai

Lehun, Denyse Homès-Fredericq

Aqaba/Ayla, Don Whitcomb

Lectures

July 19. Denise Schmandt-Besserat: From Counting to Cuneiform

July 25. Widad Kawar: Regional Costumes

July 26. Donald Wimmer: Tell Safut

July 31. John Oleson, *et al.*: Humeima

Aug. 5. Zeidan Kafafi and Gary Rollefson: 'Ain Ghazal

Aug. 8. Ludwig Koenen: Phoenix from the Ashes: The Petra Papyri

Aug. 9. Ted Banning: The Neolithic and Chalcolithic in Wadi Ziqlab, al-Kura

Aug. 16. Martha Joukowsky *et al.*: The Southern Temple in Petra

Fellows in Residence

Jennifer C. Groot Fellows:

Mary Reeves, Humeima

Angla Hummel, Tell Nimrin

Near and Middle East Research and Training Act (NMERTA)

NMERTA POST-DOCTORAL FELLOWS:

Clement A. Kuehn, Estates and Proprietors in Early Byzantine Jordan and Egypt

Jesse C. Long, Educational Strategies in Archaeology: A Study Project in Jordan

Zbigniew T. Fiema, Petra and Tuwaneh Publication Project

NMERTA SENIOR EDUCATOR FELLOWS:

Bill L. Turpen, A Descriptive Study of Two Magnet Secondary Schools for Academically Talented Students

Ronald Kirkwood, Development of an International Studies Course on Islamic Cultures, Histories and Societies

NMERTA PRE-DOCTORAL FELLOWS:

Megan Perry, Sampling Bias: The Nature of its Effect on Demographic and Epidemiological Analyses of Skeletal Remains in Jordan

Cathlene Hanaman, The Dynamics of Women in Jordanian Society

Pete Moore, The Paradox of Civil Development: The Jordanian and Kuwaiti Chambers of Commerce in Comparative Perspective

Najma Bachelani, Mobilization, Collective Action, and Democratization: Jordan

Barbara Kingsley, Sport and Jordanian Women

Maggi Moorehouse, Measuring Democracy in Jordan

Cheryl Steele, Democratic Processes in Jordan: Their Role and Impact upon the Middle East Peace Process

Eric V. Thompson, Islamic Organizations and the Chal-

lenge of Democratization

United States Information Agency Fellows:

Louise Cainkar, *A Social History of the Returnees from Kuwait in Jordan*

Andrew M. Smith II, *The Historical Geography of Wadi Araba, Jordan*

Nora Anne Colton, *Return Labor Migration to Jordan since the Gulf Crisis*

John Creed, *Environmental Politics in Jordan*

Denise Schmandt-Besserat, *Aspects of Neolithic Symbolism: the Socioeconomic Significance*

Charles Wilkins, *The Muslim Community of Jaffa, 1839-1856: History of a Muslim Community in Social and Political Transformation*

Scott Greenwood, *State, Business and Democratization in Egypt and Jordan*

Other:

Social Sciences Research Council ACOR-affiliated Fellows:

Ellen Lust-Okar, *Managing Crises: Economic and Political Liberalization in the Middle East*

Jill Crystal, *Authorization and its Adversaries in the Arab World*

Information about ACOR's fellowships can be obtained from ACOR, 3301 North Charles St., Baltimore MD 21218.

News and Notes

◆ July 3. A Jawa team member shows off the latest dig fashion: platform hiking boots!

◆ July 7. The 4th of July picnic is held at the U.S. Embassy. ACOR teams up with USAID in the volleyball competition and loses.



A dress made in Ramallah in ca. 1880—from Widad Kawar's collection of regional costumes on which she lectured during the summer.

◆ July 8. Francesca Bennett and daughter Christina come by to see *Papyrus Petra Thomas and Francesca Bennett*.

◆ July 8. Andrew Smith returns from a little hike: 11 hours down the Wadi Nukheila from Humeima to the Dead Sea. Question: "Did you find many sites?" Andrew: "No, it was more of a forced march!"

◆ July 8. Gary Rollefson makes a contribution to the endowment "because ACOR has done so much for me." Everyone is pleased.

Donors to ACOR

The following friends of ACOR contributed over the last months: Linda Apana; Robert J. Bull; Helen Cecil; Charlene Clapp; Carrie Dennis; Felix Emse, Jr.; Mr. and Mrs. Robert Forney; Harold Forshey; Reinhold Gotthard; Joukowsky Foundation; Burton MacDonald; Elizabeth Platt; Mr. and Mrs. Edward Riddle; Cynthia Shartzter; Christopher Wadsworth; and W. Chesley Worthington.

Donations to the ACOR Endowment were received from: Henry Christensen; Catherine Detweiler; Harold Forshey; Giraud Foster; Sy Gitin; Charles Harris; Linda Jacobs; Joukowsky Foundation; Kyle Kelso Fund; Nancy Lapp; Charles Miller; Doris Miller; Virginia Nichols; Anne C. Ogilvy; Randolph B. Old; Gary Rollefson; Sari Swets; Bert and Sally de Vries; H.R.H. Prince Ra'ad bin Zeid; and Judy Zimmerman.

There were donations to the Jennifer Groot Fellowship Endowment from Tim Ferrell and Bruce R. Gould. Robert J. Bull contributed to the Kenneth W. Russell Trust. There was a donation to the scroll project from the

Selz Foundation. The Edgar C. Harrell family have funded the Harrell Family Fellowship for 1995-96.

Donations of books for the library were received from: Pierre and Patricia Bikai; José Blázquez-Martínez; Robin Brown; Helen Cecil; CERMOC with the assistance of Aida Maraqa; Nora Colton and Fawaz Gerges; Thomas A. Dailey; Edith Dunn; Michael Finnegan; Volkmar Fritz; Traianos Gagos; Getty Conservation Institute; Scott Greenwood; Tim Harrison; Denyse Homès-Fredericq; Elsa von Joest; Martha Joukowsky; Tawfiq Kawar; Widad and Kamel Kawar; Sameh Khamis; Ian Kuijt; Let's Go Publishing; Hamdan Mansur; Glenn Markoe; Ansam Melkawi; David Merling; Ministry of Planning; New York University with the assistance of Meryle Gaston; Steve Nickerson; John P. Oleson; Nayef Qussous; Avraham Ronen; Mohammed Saadeh; Denise Schmandt-Besserat; Cynthia Shartzter; James Sims; Andrew Smith; Charles Tripp; Lars Wahlin; and Charles Wilkins.

◆July 17. Patricia and Glen discuss the bids for architectural work at the Burnt Palace in Madaba. Kathy Nimri: "If it's burnt, what do you need architects for?"

◆July 23. In the U.S., "Rome: The Ultimate Empire" is shown on NBC nationwide, garnering ratings of 15 which is apparently quite good. Remember Zbig and me as Roman soldiers and me in the beard as Johann Ludwig Burckhardt? That's the one!

◆Aug. 10. Traianos Gagos reports that *Papyrus Petra Patricia Maynor Bikai* appears to be a perpetual lease on some property at Petra. Patricia: "Wonderful! Now we can build a house there!" Bill Turpen: "And the back taxes?"

◆Aug. 14. In Berlin, Ludwig Koenen gives the keynote address at the International Papyrological Congress—on the Petra scrolls.

◆Aug. 20. There is a send-off party for the Joukowskys. At midnight, I take them and Gary Rollefson to the airport. The dig season is definitely over.

◆Aug. 24. Under Glen's supervision, the library security system installation is completed.

◆Aug. 26. On her last day in Jordan, fellow Barbara Kingsley gets her audience with H.M. Queen Noor. By chance, she also gets to meet H.M. King Hussein.

◆Aug. 28. Looking up from an accounting ledger, Kathy announces that she has "numeric fever."

◆Aug. 29. Former ACOR Director David McCreery asks for large scale maps which show where ACOR is. You would think he would already know!



Fatma Marii in the ACOR lab, surrounded by crates of wall mosaic.

◆Sept. 5. The conservation team of Fatma Marii and Na'if Zaban begin work on the glass wall mosaics from the Petra Church. This project was put on hold when the scrolls were found. There are literally thousands of

sections of mosaic—a real jigsaw puzzle. It is hoped that enough can be recovered to give an idea of what the mosaic once showed.

◆Sept. 7. I depart for Egypt with a Jordanian delegation. While there, we visit conservation and tourism projects.

◆Sept. 8. David McCreery and company have figured out where ACOR is. Everyone is relieved.

◆Sept. 9. Patricia gives a tour of the Citadel to the 56-member delegation of the Washington Institute for Near East Policy. They arrive late and ask her to do the tour in 20 minutes. "It's OK," one of them says, "we only gave the president of Turkey 20 minutes!"

◆Sept. 22. We wish we could joke about this but can't:

one after another ACOR scholars reliant in part on National Endowment for the Humanities (NEH) funding for their projects are reporting that the whole competition in their area has been cancelled because of a 40% funding cut at NEH. Among those affected so far are Wil and Ellie Myers (*Aerial Atlas of Jordan*), Tom Parker (Roman Aila), and Ludwig Koenen and the University of Michigan scroll team. ACOR itself has two applications in to NEH, one for matching funds for the endowment campaign and another for a fellowship program—so far those sections are apparently intact.

◆Oct. 5. A call from Washington confirms that the cuts at NEH are permanent. Funding which went to overseas research centers and to overseas archaeology projects is now gone!

◆Oct. 15. It is determined that 111 copies of Chrys's *The Great Temple of Amman: The Architecture* have been sold—making it a "best seller" for that kind of book. Kathy notes that *JADIS* is also in the "believe-it-or-not best-seller" category!!

◆Oct. 18. Zbig returns from a trip to Scotland where he lectured on the Petra project.

◆Oct. 28. A crew from Finnish TV arrives to do a show on (guess what?) the scrolls.

◆Oct. 28. It becomes almost impossible to get around as parts of town are blocked off for the Amman Economic Summit.

◆Oct. 29. Jaakko Frösén arrives to work with the TV crew. They spend the day at Petra.

◆Oct. 30. *The Mosaics of Jordan* is selling very well at Mount Nebo. The problem is that they always pay ACOR for the books with the \$1 bills they receive in the donations box. Glen and Kathy go crazy counting a zillion dollar bills!

◆Nov. 6. News comes in from Ludwig Koenen: Because the section of NEH he applied to for funding for the Michigan team's work on the scrolls has been closed down, NEH has instead offered an emergency grant. Jubilation!

◆Nov. 7. Patricia and Nisreen meet with the auditors for over three hours. It looked like they were having so much fun!

◆Nov. 14. Patricia and I leave for the U.S. for a two month break. The "Tyranny of Glen" begins.

◆Nov. 22. Jordan is rocked by a 7.1 magnitude earthquake. Chrys Kanellopoulos calls from Greece to check on the columns at the Great Temple. They are fine.

◆Nov. 29. The application to NEH for matching funds for the endowment campaign is turned down.

◆Dec. 17. Someone calls and offers to sell a piece of land—complete with "caves and three mummies!!" Sorry, we already used up December's budget allocation for mummies!

◆Dec. 25. Another fantastic Christmas meal prepared by Mohammed Adawi and his sons.

◆Dec. 30. ACOR's "White Christmas" arrives a couple days late—Abed drops a full bucket of paint off the ladder while working in the lobby.

ACOR Trustees Meet in Philadelphia

At the Nov. 18, 1995, meeting the main topics were the endowment campaign and the relocation of the ACOR (and ASOR) offices to Boston. In his report, ACOR President Artemis A.W. Joukowsky reiterated the importance of establishing a permanent endowment to support operations, the library, fellowships, and publications. He reported that the first year's goal of \$100,000 had been exceeded by \$38,000. He thanked the board for their 100% participation in the campaign.

The issue of the U.S. office was then addressed. The current arrangement with Johns Hopkins University under which ACOR's U.S. representative has an office at the ASOR offices in Baltimore was soon to expire so President Joukowsky entered into discussions with Dr. James Wiseman, Chairman of the Department of Archaeology at Boston University. As a result, Boston University has generously offered not only the space needed for offices for ACOR as well as ASOR, but also the renovations needed to the building. The move will probably occur in the summer of 1996.

Director Pierre Bikai reported that ACOR had received a \$1.5 million grant from USAID to continue work on the Amman Citadel, at Petra, and in the Madaba Archaeological Park. On the Citadel, restoration of the endangered Ayyubid Tower is the first priority; at Madaba, work will continue on the Burnt Palace sector of the archaeological park; and, at Petra, a shelter over the Petra Church will be built. Other projects, now under study, will be undertaken by ACOR during the course of the three-year grant.

In the evening, ACOR hosted a reception for all those attending the American Society of Oriental Research (ASOR) meetings in Philadelphia.

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ACOR Publications

The Mosaics of Jordan by Michele Piccirillo. Large format, cloth-bound volume (10" x 13") includes 303 pages in full color with 824 illustrations, plans and aerial photographs. \$175.00 (includes shipping). *The Great Temple of Amman* by Chrysanthos Kanellopoulos. The architecture of the so-called "Temple of Hercules" which was excavated, studied and partially restored by ACOR. \$80.00 (includes shipping).

JADIS: The Jordan Antiquities Database and Information System: A Summary of the Data, edited by Gaetano Palumbo. Basic information on nearly 9,000 archaeological sites from all periods. This 453-page, large format (11" x 9"), hard-bound volume is xero-graphically reproduced. There are 117 maps of site locations by region and period, plus one large fold-out map. \$40.00 (includes shipping).

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ACOR and its Newsletter

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Inquiries may be sent to ACOR, P.O. Box 2470, Jebel Amman, Amman, Jordan, Tel.: (962-6) 846-117, Fax: (962-6) 844-181, or to ACOR, 3301 North Charles Street, Baltimore, MD 21218, Tel.: (410) 516-3498, Fax: (410) 516-3499. The *ACOR Newsletter* is edited by Patricia M. Bikai. Printed in Jordan. The drawing on the cover page (a pilaster capital from the Petra Church) is by Chrysanthos Kanellopoulos.

ACOR FELLOWSHIPS IN JORDAN

AMERICAN CENTER OF ORIENTAL RESEARCH, AMMAN, JORDAN

Funded by the Samuel H. Kress Foundation:

KRESS FELLOWSHIP IN THE ART AND ARCHAEOLOGY OF JORDAN: One six-month fellowship per year for a pre-doctoral scholar conducting dissertation research in an art historical topic (subject to funding). Applicants must be a) U.S. citizens enrolled in a Ph.D. program, or b) enrolled in a Ph.D. program at a U.S. institution. The maximum award is \$15,000. This provides funds for international transportation, research funds, stipend, and room and board at ACOR. The deadline for applications has been extended to 5/1/96 for the period ending 9/1/97.

Funded by the National Endowment for the Humanities:

NATIONAL ENDOWMENT FOR THE HUMANITIES (NEH) POST-DOCTORAL RESEARCH: One four- to six-month fellowship for post-doctoral scholars at the institute in Amman during academic year 1996-97 (subject to funding). This fellowship is for research in the humanities, including, but not limited to: languages, both modern and classical; linguistics; literature; history; jurisprudence; philosophy; archaeology; comparative religion; ethics; the history, criticism and theory of the arts; those aspects of social sciences which have humanistic content and employ humanistic methods; and the application of the humanities to the human environment with particular attention to reflecting our diverse heritage, traditions, and history and to the relevance of the humanities to the current conditions of national life. Applicants must hold the Ph.D. degree and be U.S. citizens or foreign nationals who have lived in the U.S. for the three years immediately preceding the application deadline for the fellowship. The award provides transportation, room and board, stipend and research allowance. The maximum award is \$30,000. The deadline for applications has been extended to 5/1/96 for the period ending 9/1/97.

Funded by the United States Information Agency (USIA) and the Near and Middle East Research and Training Program (NMERTP) through USIA:

NMERTP POST-DOCTORAL: One (or more; subject to funding) 2- to 6-month fellowships for post-doctoral scholars at the institute in Amman during academic year 1996-97. This program is for those who have limited prior experience in the Middle East and who are from small colleges which do not have Middle East studies programs. Fields of study include anthropology, Arab and Islamic studies, economics, history, Islamic art/architecture, journalism, linguistics, political science, religion, women's studies, and other social sciences. The maximum award is \$24,800. It provides transportation, room and board at ACOR, and access to research facilities at ACOR, plus \$2100 per month stipend. Applications are due 5/1/96 for the period ending 9/1/97.

NMERTP PRE-DOCTORAL: Four (or more; subject to funding) 2- to 4-month fellowships for pre-doctoral students at the institute during 1996-97. These are available to students at the graduate level who have limited prior experience in the Middle East. Fields of study include: political science, economics, international relations, history, journalism and other social sciences (including archaeology and anthropology, but not Arabic language studies). The maximum award will be \$8,600. It provides transportation, room and board at ACOR, and access to research facilities at ACOR, plus \$750 per month stipend. Applications are due 5/1/96 for the period ending 9/1/97.

USIA FELLOWSHIPS: Two (or more; subject to funding), 2- to 6-month fellowships open to pre-doctoral and post-doctoral scholars from any area of the humanities and social sciences. These cover international transportation, room and board at ACOR, research expenses and a \$750 per month stipend (maximum value \$13,500). Applications are due 5/1/96 for the period ending 9/1/97.

U.S. CITIZENSHIP REQUIRED FOR ALL USIA and NMERTP FELLOWSHIPS

NMERTP, USIA, NEH, and Kress Fellows will reside at the ACOR facility in Amman while conducting their research.

For further information, contact ACOR, c/o ASOR, 3301 North Charles Street, Baltimore MD 21218, Tel.: (410)-516-3495; FAX: (410)-516-3499; E-mail: nee@jhuvms.hcf.jhu.edu or ACOR, P.O. Box 2470, Amman, Jordan, Tel.: 846-117.