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The Ayl to Ras an-Naqb Archaeological Survey

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The Ayl to Ras an-Naqb Archaeological Survey project was in the field from the end of April to mid-June 2005; this was the first of a projected three seasons.The main objective of the survey is to discover, record, and interpret archaeological sites within the Ayl to Ras an-Naqb region – in an area of ca. 806 km^2 (map, p. 2). Another objective is to determine the settlement patterns in the region from the Lower Paleolithic (ca. 1.4 mya) to the end of the Late Islamic period (A.D. 1918). As there are a number of Pleistocene lakes within the survey territory, a third objective of the project is to investigate the period(s) in which they were "active." Overall, the project's objective is to add to the store of archaeological information on human presence and the human use of the area's resources in the southern segment of the Transjordanian plateau, that is, from Wadi al-Hasa in the north to Ras an-Naqb in the south.

Remnants of a structure at Site 193, Khirbet al-Wahida, looking southwest

The survey territory, which is to the south of Petra/Wadi Musa, consists of three topographical zones: Zone I, an area to the west where elevations are between 1500 and 1100 m; Zone II, the mountainous region where elevations range from just over 1700 m to the north of the village of Ayl to 1500 m in the south at Ras an-Naqb; and Zone III, from the 1500 m line on the east towards the 1200 m line, that is, towards Ma'an (see map).

Northeast corner of the interior of a cistern at Site 121, Khirbet Umm Rujm

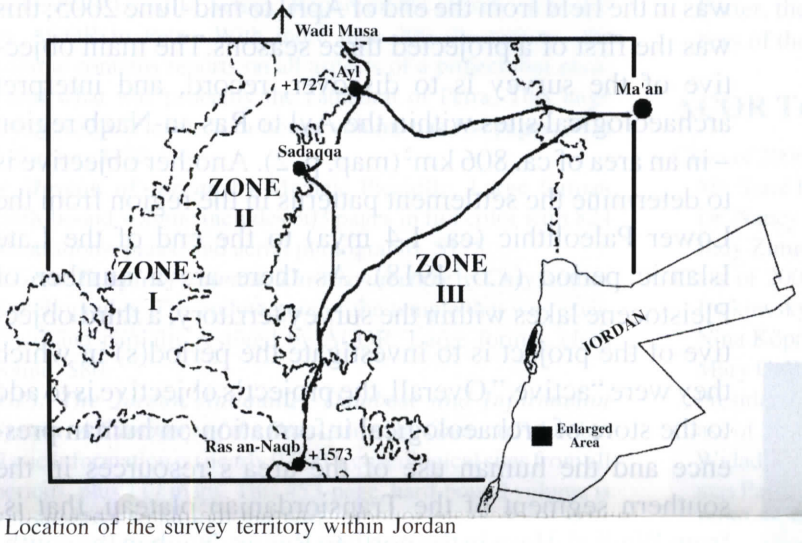
Mediterranean climate dominates in Zones I and II; annual precipitation is as low as 50 mm in the former to around 300 mm in the latter. In Zone III, the climate is arid, the vegetation Irano-Turanian. This is the steppe where the "desert" meets the "sown."

Over the past 100 years a number of researchers have carried out archaeological surveys and, to a very limited extent, excavations in the region. However, no comprehensive survey of the area had been undertaken previous to the present project's work.

Various methodologies will be used during the course of the project. However, during this first season, a comprehensive and systematic examination of the greater part of topographical Zone II was carried out. The major, north-south roadway in the area runs through this zone, and the watershed is located here. As a result of the latter topographical feature, wadis flow to the southwest and southeast through this zone and into Zones I and III. We examined these wadis and the ridges between them. As a result, we discovered the majority of the project's 209 sites in this way.

Relative to the examination of the Pleistocene lakes in Zone III of the survey territory, we carried out pedestrian transects of segments of the lakes and collected associated materials, mostly lithics. As a result, we found lithic materials ranging from the Lower Paleolithic to the Epipaleolithic (ca. 18000-8500 B.C.). This indicates that at least some of the lakes were "active" during periods over a long span of time.

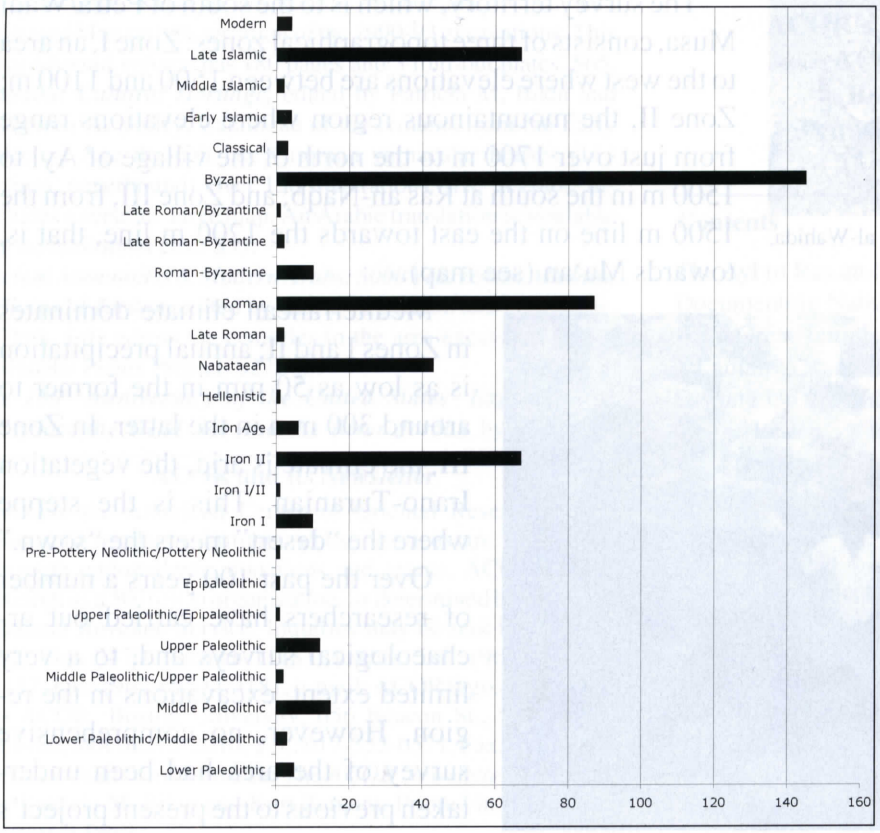
Agricultural towns/villages/hamlets, camps (seasonal), farms, forts, roads, and watchtowers were among the types of sites surveyed this season. The evidence of past agricultural activity is not surprising because Zone II is presently an area that is intensively farmed for the growing of barley, lentils, and wheat, in particular, and for the pasturing of goats and sheep. It is most probable that this area would have been a source of food for the inhabitants of a major center such as Petra.



Location of the survey territory within Jordan and the topographical zones of the survey area

Relative to the cultural-temporal units represented in the survey territory, we identified evidence of human presence from the Lower Paleolithic to the Epipaleolithc, and especially during the Iron II, Nabataean, Roman, Byzantine, and Late Islamic periods (chart). We were not able to identify evidence of sustained human presence in the survey territory for the Chalcolithic, Early Bronze, Middle Bronze, and Late Bronze periods. In addition, there is little evidence for settlement in the area during the Hellenistic and Early and Middle Islamic periods. It would appear, therefore, that there were periods when the area was sparsely, if at all, populated.

It was the growing and harvesting seasons in the survey territory during our first infield season. Thus, we were able to witness the number of Bedouin that are present at this time of year and their activity relative to their crops and animals. It is unlikely, however, that tent dwellers would be able to inhabit the area, especially the regions of high elevation, during the winter months.



Cultural-Temporal Units represented at the sites of the 2005 season

The members of the survey team were surprised at the number of architectural remains at sites found in Zone II. These sites indicate the intensity of past farming activity in the area especially since the Iron Age. Relative to the Pleistocene lakes, there was little or no ceramic materials associated with them. This probably indicates that they dried up before the historical periods.

Project team members acknowledge the help of Dr. Fawwaz al-Khraysheh, Director General of the Department of Antiquities, and his staff, especially Ashraf Rawshed, departmental representative. They also express gratitude to Pierre Bikai and the ACOR staff who helped with all aspects of the project. The Social Sciences and Humanities Research Council of Canada is providing major funding for the project. [The authors are from St. Francis Xavier University-ed.].

Documenting Nabataean Cemeteries in Southern Jordan

During June 2005, two field projects sought to identify and document Nabataean cemeteries at two sites in southern Jordan. The Petra North Ridge Project mapped the visible architecture of probable Byzantine houses and Nabataean tombs in Petra, while the Wadi Ramm Cemetery Survey used ground penetrating radar (GPR) to identify and delineate the Nabataean cemetery at the site. Previous exploration at each site has focused primarily on large-scale, public architecture rather than residences or burial places of the average inhabitant. Bioarchaeological research exploring the biology of regional residents also has not been a research priority. Yet these sites have the potential to broaden our perspective of southern Jordan during the Nabataean, Roman, and Byzantine periods through exploration of their cemeteries and domestic structures

Petra North Ridge Project

Exploration of Petra's North Ridge during 2005 sought to identify and map visible ancient structures and tombs within a ca. 6 km^2 area in preparation for future excavation. In addition, more recent features constructed by local bedouin such as terrace walls, wind breaks, or small structures were

Terracing along the North Ridge slope within Petra

recorded. The research area was delineated by the Ridge Church, the Blue Chapel Complex and the Petra Church to the east, the top of the North Ridge to the north, a ridge running down to Wadi Mataha to the east, and Wadi Mataha itself to the south. The survey did not include the area below the Petra Church plateau, an area that extends down to Wadi Musa.

Most of the documented walls and structures were located on the steep slope of the North Ridge and along the banks of Wadi Mataha. On the other hand, very few ancient walls were mapped within the plateau at the bottom of the North Ridge slope. This is likely due to the pattern of erosion, and numerous structures, perhaps some that are well-preserved, may exist within the flatter sector underneath the deposits. The North Ridge slope additionally was bisected by extensive terracing, probably dating to within the last 100 years. Almost all of the tombs noted during the survey had been robbed recently,

Tomb 16 (robbed) with capstones on the Petra North Ridge (view to the NW)

although it was apparent that a large corpus of ceramics, and in some cases bones, remained within the tombs. Additionally, the documentation of tombs well down the North Ridge slope suggests that more tombs exist underneath the ancient structures.

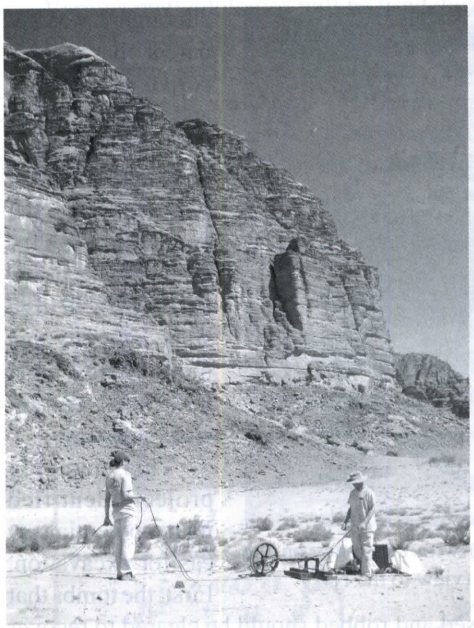
This mapping project identified many potential areas for excavation. First, the tombs that are already exposed and robbed should be cleared to recover any remaining material (either cultural or skeletal), and to document the tomb's architectural style. Few tombs have been properly excavated within Petra, thus even imperfect data can significantly increase our understanding of the city's mortuary practices. Additionally, small soundings within some of the better defined structures and along some of the ancient walls could help identify their date and function and elucidate the occupational chronology of the North Ridge. It would also be fruitful to excavate soundings within the plateau below the North Ridge slope to identify structures within this area.

Wadi Ramm Cemetery Survey

The 2005 season of the Wadi Ramm Cemetery Survey sought to identify the cemetery associated with Nabataean and Roman occupation of ancient *Iram* through ground penetrating radar (GPR). Discovery of the cemetery can add to research of small waystations and religious centers such as that at Wadi Ramm. Bioarchaeological analysis of human skeletons from the cemetery may illuminate migration patterns, disease, health, and diet of the Thamudic tribes residing in the Hisma region of Jordan. Comparisons between these burials and those from Aila, Petra, Khirbet edh-Dharih can elucidate social and economic relations between these sites. Additionally, this research could potentially add another dimension to investigations of Nabataean mortuary rituals.

The GPR is able to detect subsurface archaeological features whose electrical properties contrast with those of the surrounding soil. It may identify disturbed soil, breaks in the natural stratigraphy or soil profile, or reflections from buried archaeological features. The effective depth of investigation of GPR depends upon the matrix through which the signal must travel and the GPR signal frequency. Conditions at the site were generally well suited for GPR survey and signal penetration was excellent.

Initially we hypothesized that the ancient cemetery would be located underneath the modern cemetery, along the slopes of the hill containing the temple and related structures, or along the modern street leading to the village. Unfortunately, extensive construction along the street prohibited GPR survey



Surveying Block D at Wadi Ramm with the GPR

of this latter area. Seven grids (Blocks A-F) totaling 8300 m^2 were laid out in the environs of the Nabataean temple, the "bath" complex and related "villa", and the "southern village". Block B (1800 m^2) was laid out directly south of the main concentration of Islamic graves and within the recently constructed site perimeter wall. Block C (600 m^2) was located in between Block B and the bath/villa complex. Additionally, Block A (1000 m^2) was placed immediately east of the perimeter wall surrounding the site, Block D (1200 m^2) on the slope north of the bath/villa complex and perimeter wall, and Block E (2400 m^2) to the south of Block B and the perimeter wall. Furthermore, Block F (400 m^2) was established on a small rise between the "southern village" and the temple and bath complexes that contained tomb-like surface features. Finally, Block G (900 m^2) was placed near the southern village.

GPR data were examined as profile views and as "time slices," planview maps isolating specific depth ranges. All of the survey areas contain discrete reflections, either isolated or clustered, that are not inconsistent with Nabataean tombs. Unfortunately, individual tombs would not be expected to show patterning that would explicitly identify them as such. While an isolated tomb might not be distinguishable from a boulder, the patterning of multiple tombs may be more suggestive. Marked Islamic graves within the survey area are generally expressed only in the near-surface, and are distinct from suspected Nabataean graves. Five of the six survey areas showed linear and rectilinear horizontal patterning indicative of architectural features. While architectural features were not the object of the investigation, their appearance is helpful in two ways. GPR response can be quite variable under different conditions, and the response to stone architectural features can help inform our identification of tombs or other less obviously patterned stone features. Mapping previously unknown architecture also gives us insights into intra-site patterning, providing context within which to interpret more ambiguous anomalies. Ground truthing (testing of geophysical interpretations) has not been performed, but would greatly inform interpretation of these data. Verification (or refutation) of preliminary interpretations and insights into feature composition and geology can allow us to revise or elaborate our interpretations, and to do so with greater confidence.

The authors gratefully acknowledge the Department of Antiquities of Jordan and the American Center of Oriental Research for their assistance. Funding for this project was provided by an East Carolina University Research Grant Development Program Award, a grant from the Joukowsky Family Foundation, an ACOR Kenneth Russell Fellowship, and an ACOR/CAORC Post-doctoral Fellowship.

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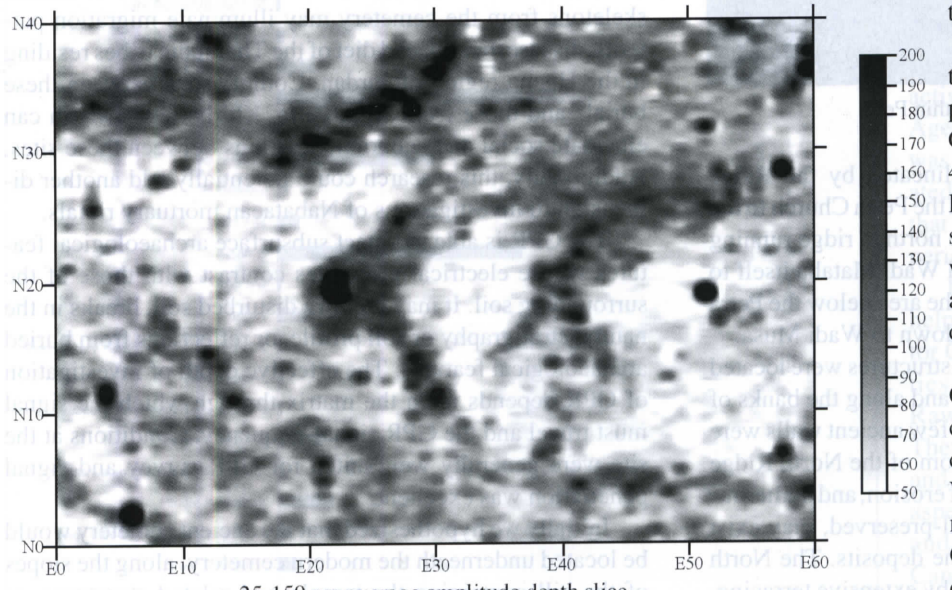


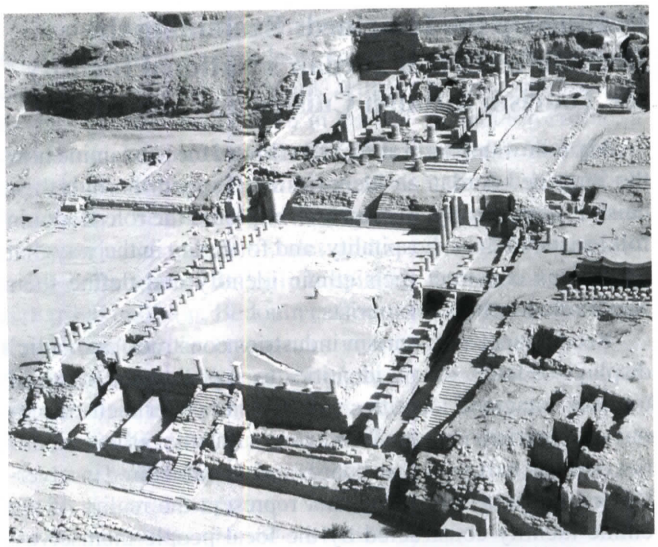
Results of GPR survey in Block E at Wadi Ramm showing reflections (dark areas) from possible architectural features

Petra Great Temple

Brown University archaeologists excavated numerous trenches in all areas of the Great Temple to elucidate the stratigraphy and the layout, but only three areas will be covered here.

This season's excavations showed that the Nabataeans created an entry passage from the street below to the Great Temple. This access measures 40.85 m in length with a total of four landing platforms and five series of steps, which are well preserved. All wall and step surfaces were plastered and some of the wall surfaces were decorated with lively floral designs.

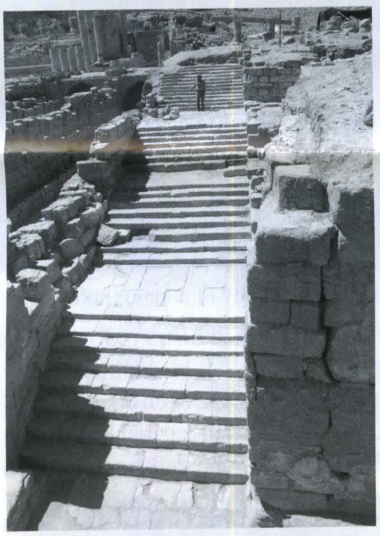
The Lower Temenos West Cryptoporticus excavations were successful in exposing the "open" hall connecting the West Cryptoporticus West and the Propylaeum. A sounding near the center of the West Cryptoporticus between the vaults located in the east and west walls of the gallery uncovered two east to west transverse walls forming a passageway be-



Aerial photograph of the site after the 2005 season; all photos by Artemis A.W. Joukowsky

tween the vaults. The stratigraphy revealed early construction activity in the area of the Lower Temenos and that floodwaters flowed farther south of the current wadi bed before the Petra Great Temple was constructed.

In the excavations of the Upper Temenos West Precinct Wall, an elegant Roman Bath complex was discovered with semicircular bathrooms and a frigidarium accessed through a richly-appointed marble-covered room with semicircular features at each of its four corners. Of interest are two Greek inscriptions that were found—one inscription uses the Homeric word "prudence" and dates to the 2^{d} or 3^{d} century A.D.



West Entry Stairs of Trench 102/103

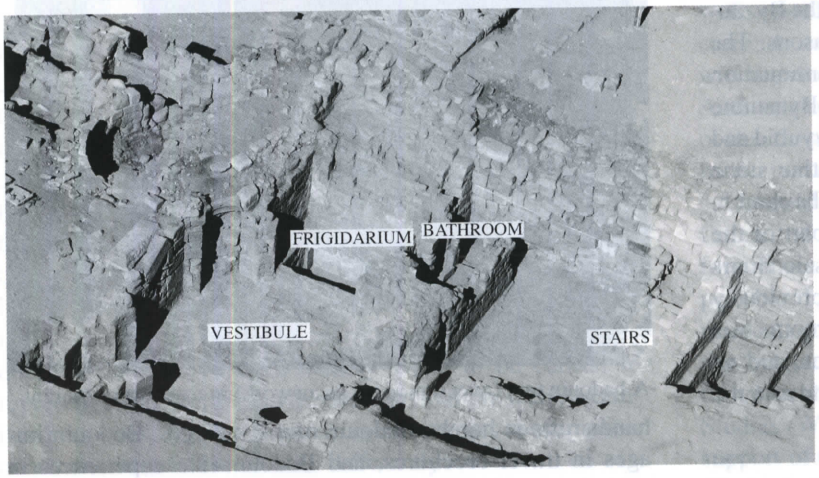
The southern area of the West Precinct Wall was excavated and a monumental cistern measuring 38.8 m^2 with an average depth of 1.96 m; it could hold 19,572 gallons of water. A large stone basin (0.82 m in height) was also part of this complex.

A sounding in the Great Temple East Pronaos, between the East Corridor Wall and doorway the East Anta of the *distyle in antis* and the stylobate wall of the *tetrastyle in antis* temple, proved the *tetrastyle in antis* structure was a later addition to the original façade.

A sounding in the center of the Theater floor in the temple proper revealed the construction technique for the theater and the stage—the architects reused a small column drum as a central pivot point for the laying out of the semicircular seating. Additionally the north-south central artery of the canalization was revealed.

In the temple, exploration of the West Temenos Retaining Wall's relationship to the Temenos Platform revealed that the current temenos wall is a later addition, and that the original temenos platform was narrower than it is currently. Examination of the temple West Walkway revealed conclusively that the temenos platform is made up of a monumental fill, built over bedrock and stones. This platform was supported and bolstered on the west by a West Temenos Retaining Wall.

Martha Sharp Joukowsky, Brown U.



Trench 105/106 Roman Baths

Ya'amun

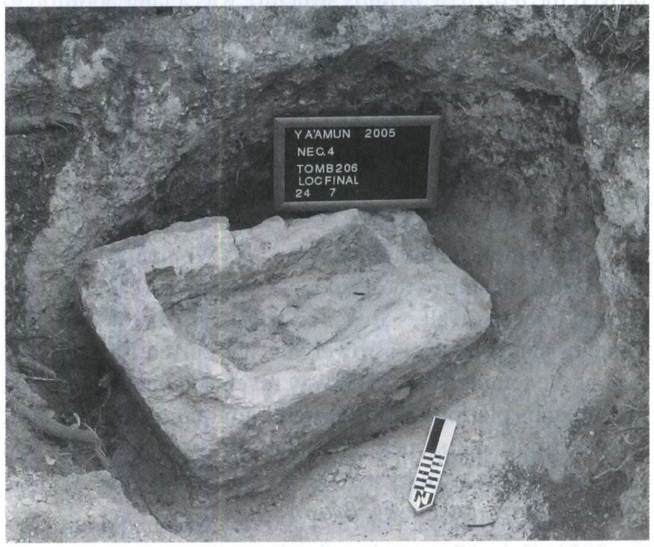
The seventh season of excavation by the joint University of Arkansas (King Fahd Center for Middle East and Islamic Studies and the Anthropology Department) and Yarmouk University (Faculty of Archaeology and Anthropology and the Anthropology and Archaeology Departments) bioarchaeological field school took place from June 26 to July 25, 2005. The field school, with staff and students from both universities, also employed 40 workers from the surrounding area.

At the close of the 2004 season, we had excavated a total of 189 tombs at the Ya'amun site in four necropolises. This year we concentrated on Necropolis III and Necropolis IV, having determined that there were no further tombs in I and II. We excavated 18 tombs and, although all had been robbed, recovered a minimum number of individuals—20 adults and 10 subadults—in complete and fragmented skeletons and a large number of human teeth. Preliminary analysis of the skeletal material showed healed fractures primarily on ribs, limb bones, and bones of the hands and feet, and arthritis of the vertical joints of the spine, arms, and legs. One Byzantine-period child, aged about 2 from Tomb 198, showed evidence of iron deficiency anemia.

The tombs also yielded several artifacts, among them polished bone weaving tools, a tabun (in pieces), an iron bracelet from a skeleton, a tubular amber bead, and what appear to be chunks of raw glass (found in the tabun location); these could be indicative of a glass-making operation. There was also pottery including an Iron

Age I painted jug, a Late Roman cooking pot, an Early Byzantine oil jug, an Umayyad lamp piece showing a grape design, a Mameluk painted pot and lamp piece, and a local Ottoman lamp piece.

For many years we have excavated horizontal shaft tombs which contained sarcophagi for children and infants. We had always wondered where the sarcophagi were carved. This



The unfinished tomb

year in Tomb 206 we discovered where. In the middle of a small row of horizontal shaft tombs with sarcophagi, we found an unfinished tomb. It was clear that the sarcophagus was being carved as the entranceway was being cut out of the rock. What this situation tells us is that when the sarcophagus is finished, the horizontal shaft is cut, the infant is placed in the sarcophagus, and the sarcophagus is simply covered and pushed into the tomb. The illustration is of a sarcophagus that is half finished and still attached to the rock on the bottom; the project was abandoned when the carver broke the end off the sarcophagus. It is our thinking that the infant was then buried in the tomb just to the right of the unfinished tomb.

Work on the tell, as in 2004, was undertaken by Yarmouk undergraduates fulfilling their field school obligation in the B.A. program, under Dr. Turshan's supervision. Their training in excavation methods and techniques focused on uncovering the walls of the room rebuildings adjacent to the Byzantine church; this was work begun in previous seasons. The results of this season show clearly that there is a continuation of the walls and rooms that have been dated to the Byzantine and Umayyad periods, with continued use in the Ayyubid and Mameluk periods. A continuation of the Byzantine stone pavement was discovered under the south baulk of the church. In addition, a mosaic floor appeared in the east part of the church near the apse. The newly discovered mosaic floors consisted of geometric designs similar to the previously uncovered floor. A continuation of the two vestry rooms was also noted, but only the foundations of both rooms, and no evidence of Umayyad or Mameluk periods was found near the apse of the church.

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Dishing Up the Imagined: Examining the Bedouin-ization of Jordan's National Identity for Tourism through Cuisine and Hospitality

My fellowship term at ACOR allowed me to examine how the imagined Jordanian identities are formed through their cuisine. Specifically, my research explored the role Bedouin folkloristic images, hospitality, and food play in the way that Jordanians construct their ethnic identity and define their social relationships for tourists.

Recent tactics of tourism industries construct 'authentic' displays of local, ethnic identities to appeal to the sense of tourists' imagined identities and in turn bolster their economies via tourism income. However, 'authentic' ethnic identities constructed by tourism boards and manufactured in advertising campaigns often does not represent the reality of the ethnic identity constructed by the local people themselves.

A "welcome coffee" is offered in the lobby of a major hotel

With economic motivation, the tourism industry in Jordan has latched onto the idea of creating a national Jordanian identity that can be marketed. As a result, they have been commercializing the image of the Bedouin and Jordan's tribal heritage in order to attract tourists. For example, one can find Bedouin

A bedouin tent (over a modern framework) in a tourist restaurant

handicrafts in hotels, Bedouin tourist villages, Bedouin images in travel brochures, and Bedouin-like experiences in package tours in Petra and Wadi Rum.

Today, many world cultures are marketed based on their food. In fact, entire package tours are geared toward the experience of food and drink within the host culture. An example of this can be seen in the use of Bedouin coffee, a prime social drink, to enhance tourists' 'authentic' Jordanian experience. Sitting and drinking coffee in the desert of Wadi Rum with a Bedouin sheikh has been an image romanticized in centuries of travelers' tales and is seen by foreigners to embody the idea of Bedouin hospitality. In keeping with this rich tribal tradition, Bedouin coffee served under a 'Bedouin tent' is frequently seen on tours, in restaurants and in many of the major hotel lobbies, enticing guests to 'experience' a taste of Jordanian life. Tour companies offer multi-day excursions, with names like "A Taste of Culture", where one can dine with 'real' Bedouin families in the desert each evening, or one can experience a *mansaf* dinner (Jordan's national dish made of rice, yogurt, and lamb) under a Bedouin tent in Wadi Rum; one can even participate in a 'traditional, authentic Bedouin wedding party'. One popular tour employs Bedouin women to teach participants how to prepare, cook, and serve Jordanian food. While these foods do play an important role in contemporary Jordan, it is not necessarily the role that has been put forth by the tourist agencies.

A cooking class for tourists in Wadi Musa (Petra); the author is on the left.

Anthropology has shown that food both brings people together and separates them, that food fills a symbolic need. Humans interact and deal with food in a cultural manner on a daily basis and food is the basis of every economy. Food triggers memory: when people talk about how a favorite dish is prepared and eaten, or what dishes are served at a particular ceremony, memories can surface about other aspects of their lives. This information can help illustrate how food preparation and consumption are closely connected with the social ties of a group and help to define their identity. Drawing from literature on the construction of nation-state identity, and how individuals relate to this identity, this study explores the question of how Bedouin identity came to be chosen to represent the whole of the Jordanian population. It also examines how the state, local population, and tourists consume this constructed Jordanian identity differently.

In order to better understand the role that food plays in Jordanian culture, I have employed several different sampling methods of data collection that have assisted me in exploring the question of how imagined Jordanian identities are formed through their cuisine. Learning about traditional Jordanian food and customs has required a survey of written historic accounts of travelers, early ethnographies, and histories. Artifacts, such as cookbooks (local versus tourist), newspapers, and magazines on contemporary Jordanian culture and cuisine, have been gathered and are being analyzed.

A display of coffee pots in a souvenir shop

I also visited the main tourist destinations in Jordan (Amman, Jerash, the Dead Sea, Petra, Wadi Rum, and Aqaba) along with some of the lesser-visited sites. During these visits, I examined hotels, restaurants, and shops, and surveyed such tourism artifacts as menus, brochures, and tour group advertisements. In addition, I participated in tours of Wadi Musa and Wadi Rum in order to better appreciate the experiences tourists are taking away with them.

Through opportunistic sampling and later through snowball sampling, I conducted short semi-structured interviews with tourists to learn about their experiences with Jordanian cuisine and culture and to ascertain their impressions of Jordanian identity. As well, I conducted informal interviews with tourism workers in order to get a sense of their attitudes towards the identity the industry has helped to create. I was fortunate to speak with several people who are with the Jordanian Tourism Board and some others who are responsible for the tourism marketing strategy of the Aqaba Special Economic Zone Authority. In addition, several professors of anthropology and tourism at Yarmouk University were kind enough to share both their time and their expertise with me. Data collection during this phase has been by verbal means, as well as still photography and video recordings. While I am currently in the early stages of analysis, the results of this study will be presented as my Master's thesis for the Department of Anthropology at the University of South Carolina. The format of this thesis will include both a written section and a visual media portion presented in the form of an interactive DVD.

I would like to take this opportunity to thank ACOR and the Council of American Overseas Research Centers (CAORC), for without their assistance this research would not have been possible. I would also like to thank the staff and my fellow residents at ACOR who made my fellowship not only productive but such a rewarding and enjoyable experience. In addition, I would like to thank the Walker Institute of International Studies (WIIS) at the University of South Carolina for their support of this project.

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