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Pella in Jordan 2017

From Canaanite Town to Medieval Medina

By Stephen Bourke

The just-completed 2019 season at Pella (our very successful 40th anniversary season) will be reported in a forthcoming edition of the Bulletin.

Introduction

Excavations at Pella (Tabaqat Fahl) continued over a six-week period between 8 January and 15 February 2017, the twenty-ninth season of Sydney University excavations in conjunction with the Dept. of Antiquities Jordan.

Work this season concentrated on four main areas, all previously worked, although one (Area XXVIII) not for twenty years. The main effort on the south side of the main mound (Area XXXII), continued the exploration of two major architectural complexes, the Iron Age 'Civic Building' (Trench XXXIIF), and the Bronze Age 'Palatial Residence' below it (Trench XXXIIBB).

In a new development (Area XXVIII) some 15m to the west of the Palatial Residence excavations, we opened two new 9 x 8m trenches (Trenches XXVIID and E), to begin explorations in the region of what

we hope will prove to be the western rooms of the Bronze Age 'Palatial Residence'.

Towards the centre of the main mound (Area XXIII), we continued work on the Hellenistic 'town house' complex, expanding work some 5 x 4m to the east of 2015 exposures, while completing work in the original 15 x 5m exposure (Trench XXIIID). A new initiative (Trench XXIIIF), some 15m south of Trench XXIIID, began the exploration of a large Mameluke era (c. 1250–1500 CE) 'civic compound', probably a secular counterpart to the nearby mosque (Area XVII), dug more than thirty years ago.

Finally, excavations continued on the east summit of Tell Husn (Area XXXIV), this year concentrating on earliest strata at the base of the thousand-year long (c. 3700–2700 BCE) Early Bronze Age sequence (Trenches XXXIVE and F).

Refreshing Antiquity at the University of Sydney

The Chau Chak Wing Museum

By Paul Donnelly

For over 150 years the University of Sydney's varied collections have inspired and informed students, staff, and the broader public through providing a bridge to distant places, alternative vistas, and the natural world. Mid-2020 will see another phase in this long history with the bringing together of the three University collections of the Nicholson Museum, Macleay Museum, and the University Art Gallery into a single new building – the Chau Chak Wing Museum (CCWM).

From a NEAF perspective there are exciting developments in store for the University of Sydney's wide-ranging archaeological collections including an extensive selection from the NEAF-funded Pella excavations. Spanning the prehistoric Natufian Period to the era of the Roman Empire 12,000 years later, these objects in stone, earthenware, glass and bone were kindly donated to the University of Sydney by the Hashemite Kingdom of Jordan between 1979 and 1995 and document the millennia of day-to-day life during the waxing and waning of transient empires in the Jordan Valley. Along with other world-class material from key sites such as Jericho and Nimrud will be included some of the largest collections of antiquity in Australia from countries across the Mediterranean and Western Asia including Egypt, Mesopotamia, and Cyprus.

In the CCWM, the 30,000-strong Nicholson archaeology collections will be joined by over 400,000 other items including Indigenous art and culture, international and Australian art, scientific instruments, historic photographs, natural history, and ethnography; a diversity providing opportunities for potentially profound and surprising connections to the benefit of both object interpretation, and audiences. Funded by private philanthropy and substantial university funds, the purpose-made building has been designed by architects Johnson Pilton Walker (JPW) and is currently under construction at the front entrance of the university opposite Fisher Library. Across four gallery levels (plus a storage basement) the building's multiple galleries, three object-based learning studios, auditorium, school education room, and a 440-square metre temporary gallery will transform the relevance of all its collections, increase access, promote further research, and likely be destined to be a new high-profile cultural destination for Sydney.

You can learn more about the museum and see a scale model of the museum as part of the Nicholson exhibition, 'Connections'.

Paul Donnelly is Associate Director, Museum content at the University of Sydney and NEAF Vice President.





A view across the excavations on the main tell in 2017. In the foreground is XXXII BB and to the north (and at a higher level), XXXII FF.

Continued from Page 1

Trench XXXIIBB: The Middle Bronze Age 'Palatial Residence' and Below.

In the southern half of the deep trench west of the Fortress temple, initial work focused on determining the construction date for the impressive Middle Bronze Age 'Palatial Residence', under excavation for the past few seasons. Deep soundings were placed below palace floors in three separate areas of the complex. By the end of the first session, we were able to determine that the complex was built around the end of the Middle Bronze I period (c. 1850/1800 BCE), and then occupied and rebuilt several times over the next 500 years.

Work in the second half of the season, in a 3 x 4m sounding below and to the south of the palace, uncovered the corner of a much earlier mud-brick building dating from the Early Bronze I/II period (c. 3000 BCE). Although little more than a corner was exposed, chunks of red and yellow painted wall plaster suggest that this edifice was no mean construction. Below the EBA structure, Chalcolithic period (c. 4500–4000 BCE) deposits, including at

least one very large plaster-lined storage silo, were beginning to emerge by season's end. In a second deep sounding in the middle of the trench, even earlier Neolithic (c. 5500 BCE) material was noted among Chalcolithic period assemblages, suggesting that the earliest settled horizons on the mound are present not too far below the 2017 excavation stop-line.

Trench XXXIIF: The Iron Age II Civic Building and the Late Bronze II Stone-Paved Building

In the northern half of the deep trench west of the Fortress temple, work in 2017 began by exploring what proved to be the northern entrance way of the Iron Age (c. 950–800 BCE) 'Civic Building', itself under excavation since 1997. The narrow probe trench (3 x 7m) positioned between massive Byzantine period wall lines, exposed a single long wall, with large sections of small flat stone paving and plastered flooring on one side, and a line of five large flattened stone column bases lining its inner (east) face. These built features seem likely to form the inner eastern edge of a monumental entrance passageway. If Syrian parallels are valid, the western edge of the



A portion of the Byzantine Colonnaded Courtyard House in XXVIII.

passageway is probably located about 5m northwest of the wall exposed this season.

In the central region of the deep trench, below the 'Civic Building', traces of an earlier (c. 1050–950 BCE) somewhat smaller mud-brick complex were detected, this already known to exist from earlier work in the southern trench area. In 2017, only fragments of good quality yellow plaster floors were detected, although one find of note associated with this horizon was a 'peg-shaped' female figurine, featuring a crudely fashioned head capped with what appears to be a crown.

Below these 11th/10th century BCE deposits, a sequence of thick organic Iron Age I period (1150–1050 BCE) midden layers were encountered, and found to overlay a neatly constructed 'Stone-Paved Building', dating within the later Late Bronze Age (c. 1300–1150 BCE). A 10 x 7m area of neat paving, separated into three individual spaces by a 'T-shaped' intersecting passageway, was exposed by season's end. This area was (unfortunately for us) kept very clean, and was devoid of finds.

Trench XXVIIID: An Iron Age II Residential Compound

Area XXVIII, now located about 15m west of the western edge of the deep trench, had first been investigated between 1984–1994, where two small deep soundings (Trenches XXVIII A and B) had sampled the full stratigraphic sequence in what was then the untouched southwestern region of the tell. The two small probes had detected substantial Middle Bronze Age occupation, associated with

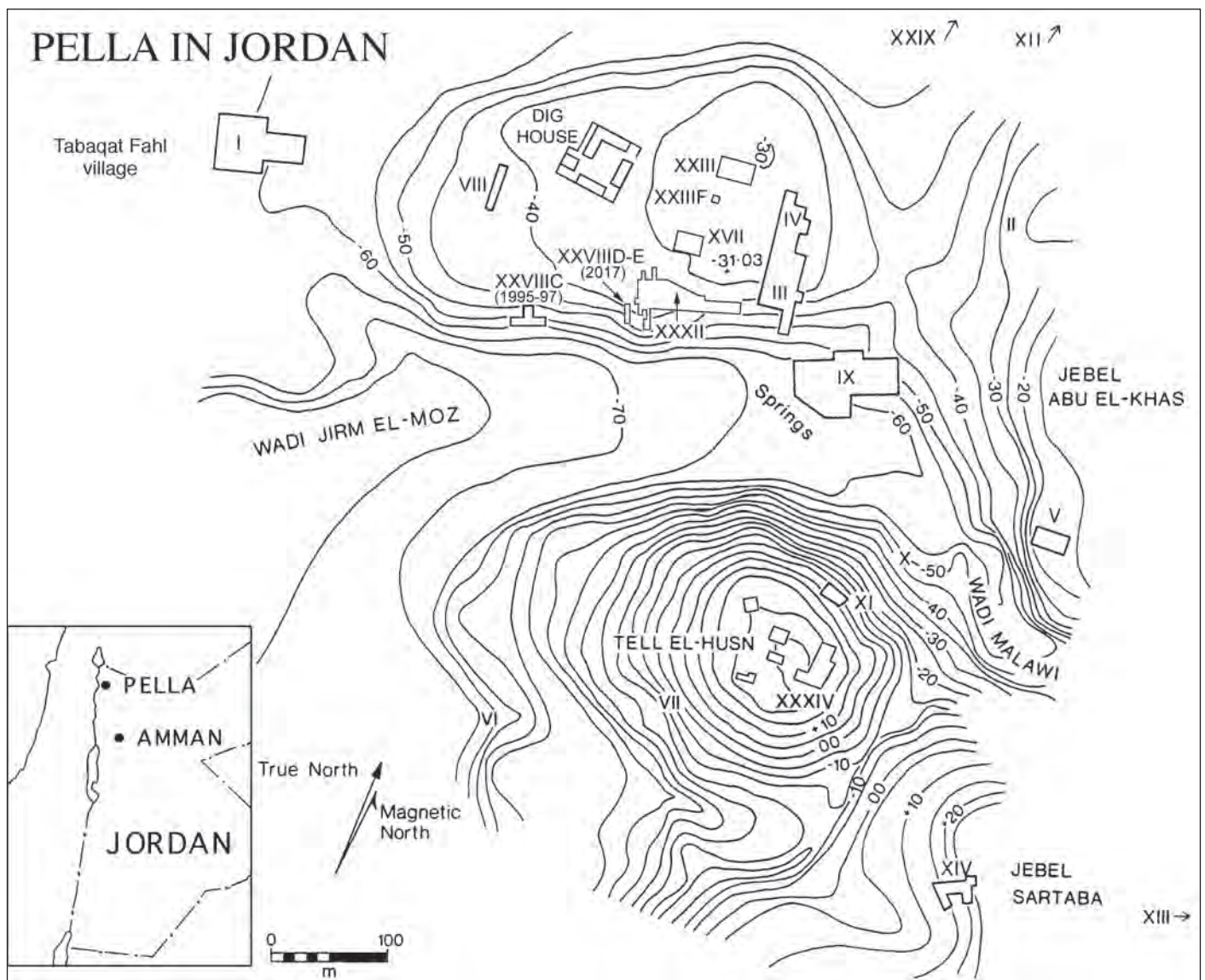
several cist and pit burials containing high status goods.

Our recent work exploring the large MBA 'Palatial Residence' in the deep trench 15m to the east has brought these early findings into renewed focus, as it seems possible that these burials may be associated with the south-western corner of the 'Palatial Residence' compound. In 2017 we decided to expand investigations in the area of the earlier probes, to see if we could more directly link MBA structures in the deep trench with extensions further to the west. To this end, we opened two new 9 x 8m trenches north of the first probe and beside the second.

In the first of the new trenches (Trench XXVIIID), extensive topsoil wash and fill levels had to be removed before the first late Iron Age (c. 8th century BCE) deposits were encountered. These overlay two phases of inter-cut Iron Age II residential/storage structures, the latest of which dated from the 9th century BCE, with the earlier perhaps a century older. The structures feature a series of long relatively narrow rectilinear rooms within a larger complex, itself flanked by a pebble-paved street-way on its west and southern sides.

In overall size and constructional form, this new complex of rooms seems to echo the multi-roomed 'Civic Building' located some 20m east of this new compound. It may imply that this south/central region of the tell housed many of the larger civic structures associated with the Iron Age city administration.

One noteworthy find was an elaborately carved



Contour plan of Pella in Jordan showing the areas where excavation was undertaken in 2017.

steatite hemispherical bowl, normally found in elite or palatial contexts. A fragment of a delicately modelled, crowned male ceramic figurine, perhaps that of a king, was also discovered in debris layers associated with the new complex.

Trench XXVIII E: A Byzantine Era Colonnaded Courtyard House

Trench XXVIII E was newly opened in 2017, 2m north of Trench XXVIII D, with a similar ultimate purpose, to examine the western reaches of the large Bronze and Iron Age Civic buildings encountered further to the east in the deep trench. However, as with most previously excavated trenches in the south tell region, early Islamic Abbasid period (9th century CE) wall lines and associated tabun emplacements were first encountered, set on top of what turned out to be originally a Late Byzantine (6th century CE) courtyard structure of some elaboration, reused fitfully throughout the subsequent Umayyad (7th–8th centuries CE) period.

The original Byzantine structure featured a mudstone-paved patio, opening out onto a small

(estimated at 7 x 7m) square internal colonnade, with limestone edging-blocks supporting the colonnade, and a mudstone paved courtyard floor. All mudstone pavers had been shattered by later activity, and in places dug away by a series of pits. The courtyard house was built in the early 6th century CE, and occupied until the second half of the 7th century CE, when ruined in a severe earthquake, perhaps that of 659 CE.

Towards the end of the season, a 3 x 1.5m sounding was placed through the courtyard floor, and this encountered one horizon of Late Roman (4th–5th century CE) period debris, and below this, deep fill layers up to a metre thick, sealing a fiery Iron Age destruction horizon, probably dating from the 9th century BCE, and well known from earlier work across the mound. The top of a substantial mud-brick wall and considerable burnt debris were detected, as work came to a close.

Trench XXIII D: The Late Hellenistic Town-House

In the centre of the main mound of Khirbet Fahl,



Bronze spoons and inscribed bowl from XXIIIF.

work continued on the Late Hellenistic 'town-house' excavations, removing the last of the Late Roman (3rd–4th century CE) overburden before exposing more of the Late Hellenistic (1st century BCE) phase of the very large town house, which has been under excavation since 2011. Further evidence for the extensive site-wide destruction at the hands of the Hasmonaean king Alexander Jannaeus (around 80 BCE) was recovered, along with another complete Rhodian amphora, with the name 'Sithinos' engraved in two places on the exterior.

Much fine-ware Late Hellenistic pottery was recovered, with a seven-spouted lamp, a globular amphora and a large platter bowl of especial note. One intriguing find was a miniature but exquisitely modelled white marble arm, probably from a composite statuette of a standing male figure with arm outstretched. All Late Hellenistic deposits have now been excavated across Trench XXIIID. A 3 x 4m deep sounding through the pebble-paved courtyard at the heart of the complex revealed traces of two earlier phases of Seleukid (2nd–1st century BCE) occupation, but no trace of Ptolemaic (3rd century BCE) occupation, consistent with all earlier soundings across the tell. Iron Age II deposits were reached at the base of this sounding towards season's end, but not excavated.

Trench XXIIIF: A Mameluke Period Hospice

A new 5 x 7m trench was opened in 2017 about 15m south of the main Area XXIII excavation field, to examine a large Late Medieval period complex of buildings, probably to be related to the Mameluke period (c. 1250–1500 CE) mosque (Area XVII),

excavated and partly restored in 1982. This first exploratory trench aimed to date the outer south wall of the complex (visible on the modern surface), and to begin the task of exploring the nature and sequence of the buildings set within this complex. This season three walls (and two rooms) of one major structure were examined. The original construction featured several arches, suggesting it was a building of some consequence. In all, three phases of construction and rebuilding were detected, all dated within the Mameluke (13th–15th centuries CE) period.

Finds included two decorated bronze spoons and a pair of tweezers, but the most noteworthy was a complete and beautifully preserved small bronze bowl, with carefully inscribed geometric symbols, zoomorphic illustrations and 'magic squares' filling the inner surface, and with Arabic text inscribed along its outer rim. The vessel appears to be an 'incantation bowl', intended to protect those who drank from it against snake bite, scorpion sting, and the bite of rabid dogs, among other things. Taken together with the measuring spoons and tweezers, it may form part of an assemblage linked to medical care. If this is so, then it may allow us to view the building as a hospice, perhaps part of a complex associated with the mosque, dedicated to the welfare of travellers and the local populace.

Husn Trench XXXIVF Lower: An Apsidal House of the EB I period

On the northeast corner of the Husn summit, work continued in the deep trench south of the 3.6m thick mud-brick circuit wall explored in 2013/15. This season excavations concentrated on the lower



Excavations in Trench XXXIV on the eastern face of Tell Husn.

two phases of Early Bronze Age I architecture (38th–34th centuries BCE), which pre-date the circuit wall and associated rubble-stone platforms. The later EB IB (35th–34th centuries BCE) phase of rectilinear architecture was built upon a metre thick E/W terrace wall, which levelled up the sharply sloping bedrock, facilitating the construction of a large multi-roomed dwelling set against and north of the bedrock slope.

The earlier of the two architectural phases was curvilinear or apsidal ('sausage-shaped') in form, and dates to the EB IA period (38th–36th centuries BCE). Much of the interior of the dwelling remains under the standing west baulk, but associated exterior work surfaces, pits and postholes, channels and clay features were exposed across a 3 x 9 m area. These work zones included grinding, washing and pit-storage features, perhaps associated with the processing of olives and other foodstuffs. Below the EB IA deposits, traces of earlier Late Chalcolithic period occupation (40th century BCE) were detected in a series of deep pits cut into the bedrock. Associated structures and work surfaces seem to have been removed in the subsequent EB IA constructional phase.

Trench XXXIVF Upper: An EB III House on the Hill

In 2015, in a 4 x 5 m area of the western upper margins of Trench XXXIVF, we encountered the very first evidence for EB III period (29th–25th centuries BCE) occupation at Pella. Previously, we had assumed that the township was deserted after the site-wide destruction at the end of the EB II period (30th–29th centuries BCE), but in this small exposure, we gained

the first evidence that this view was mistaken.

In 2017, we continued work in this enigmatic 4 x 5 m area, removing perhaps a metre of deposits associated with the occupation of a single (and apparently isolated) dwelling unit, before reaching the horizon of the well-known EB II period destruction. One further complete juglet was added to the EB III assemblage recovered in 2015, along with many fragments of EB II period platter bowls, forming a large assemblage strongly suspected as coming from a kitchen pantry, shattered in the severe earthquake that brought the EB II horizon to an end. Work ceased when EB II period floors and underlying deposits had been excavated.

Trench XXXIV: First Settlement on Husn

On the eastern margins of Tell Husn, excavations in Trench XXXIV have explored parts of three distinct gateways over the last several seasons of work. In 2015, the third and earliest EB IB period gateway (35th–34th centuries BCE) was detected projecting a short way east from under the edge of the easternmost rubble stone platform, itself dating to the EB II period. In 2017, we continued work in the area of this early gate, to clarify its stratigraphy and explore a 'blocking wall' that functioned to funnel traffic through the gateway. This earliest EB I period gate and a neat pebble-paved roadway had been built on levelled bedrock.

Clearing a long (15 x 2 m) strip outside and to the east of the gate and roadway, traces of even earlier Late Chalcolithic period (41st–40th centuries BCE), occupation was encountered. This consisted of a

series of neatly constructed plaster or stone-lined pits, small mud-brick features, and what may be a column support, all cut into or built upon levelled bedrock. In the light of similar discoveries at the base of the Trench XXXIV excavations, the presence of Late Chalcolithic structural remains, stone-lined pits and column supports in Trench XXXIV, suggests that this earliest horizon of occupation on the Husn east summit might be quite extensive. This mirrors a contemporary Late Chalcolithic horizon, close by on the lower western slope of Jebel Sartaba (Area XIV), where excavations exposed widespread Chalcolithic period structural remains in 2013/2015.

Summary

The 2017 excavations on Husn (Area XXXIV) extend the EBA occupational sequence back into the 38th century BCE, and forward into the 27th, suggesting more than a millennium of EBA occupation on the Husn east summit, much of it associated with massive stone architecture. Further work in the Middle and Late Bronze Age Palatial Residence, and in the Iron Age II Civic Building above it (Area XXXII), illustrates both the longevity and sophistication of Pella during the Bronze and Iron Ages. The Hellenistic town house excavations on the central tell (Trench XXXIID) further reveals the intensity of the Seleukid re-urbanisation process in the Decapolis cities, and the sophistication of urban life during this period. Further evidence for the elegance of Byzantine period domestic occupation is illustrated in new excavations (Area XXVIII) west of the deep sounding, while the strength and importance of the Mameluke period resettlement of Pella (Trench XXIIIF) is underlined by the discovery of what may turn out to be a hospice, set within a complex dedicated to the welfare of locals and travellers.

One view of the history of Pella could see it as consisting of a series of sharp urban 'pulses'—times of growth and expansion—followed by times of recession and decline. After a series of ever-more extensive village settlements stretching across later prehistoric times (c. 6500–3800 BCE), the first urban age of the EB I–III (c. 3800–2700 BCE) is followed by site desertion in the EB III–IV period (c. 2700–2000 BCE), before renewed vigorous growth across the second millennium of the Middle and Late Bronze Ages (c. 2000–1150 BCE), most recently illustrated by the Palatial Residence, and previous work on the monumental Fortress temple and city walls. After a short recession in the Iron Age I (c. 1150–950 BCE), again the city springs back to prosperity in the Iron Age II (c. 950–750 BCE), typified by the huge Civic Building recently explored, which implies the presence of a far stronger regional power in this part of north Jordan than previously allowed for, perhaps an independent kingdom.

After a 500 year-long desertion, the Hellenistic

town house excavations illustrate the strength of urban renewal under the Seleukid (c. 200–80 BCE) conquerors of the Decapolis cities, which ends in a savage destruction (c. 80 BCE) and only fitful occupation for the next 100 years or so. Roman rule (c. 60 BCE–300 CE) ushers in another wave of slowly strengthening urban life, which carries through into the early Byzantine period (c. 300–550 CE) without obvious break, further illustrated by the new discoveries on the southwest tell. The mix of light industrial and agricultural activities in the later Byzantine and Umayyad ages (c. 550–750 CE), uncovered across the southern tell in previous seasons, would seem to indicate another period of slow decline, before the major Umayyad earthquake (c. 749 CE) brought all significant occupation to a halt. Finally, the later Medieval Mameluke period reoccupation (c. 1250–1500 CE), can now be seen to be more extensive, sophisticated and prosperous than previously supposed.

Each individual focus of our recent work aims to explore distinct waves of urban life in all its particulars, both architectural and material. Comparing and contrasting these individual lifeways throws valuable light on all, and adds ever more nuanced colouring to the tapestry that is life across the ages at Pella in Jordan. We are privileged to be able to explore this rich history in a beautiful part of the modern Middle East. Long may we be able to do so. ■

A view across XXXIIF towards XXXIIBB near the end of the 2017 season.



Living in the Tombs

Monastic Life near the Valley of the Kings

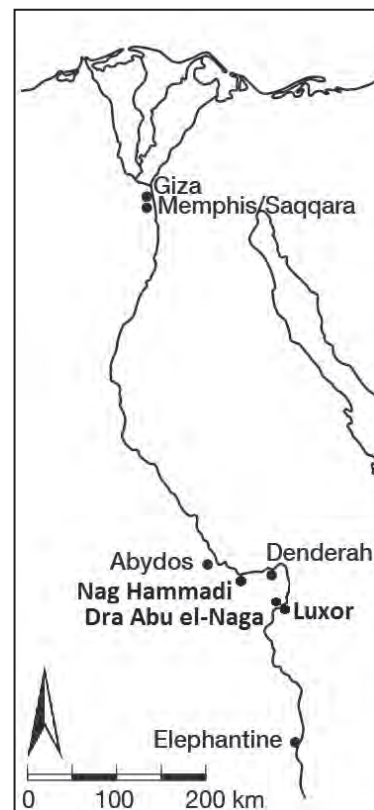
By Karin Sowada

The modern Bible is collected from many manuscript sources such as the Dead Sea Scrolls, ancient books stored in monasteries, and even verses scribbled onto artefacts. Many key documents come from Egypt, where the dry desert climate preserves organic material such as papyrus and parchment (treated animal skin) to a high degree. The earliest fragments of the New Testament are on papyrus and date to the late second or early third century CE. Many of these come from Egypt. At sites like Nag Hammadi, Mount Sinai and on the Theban mountains, early monks and hermits removed themselves from normal society to pray and study the Bible, copy its text, and live a communal life.

Macquarie University Theban Tomb Expedition

In the Theban area of southern Egypt near modern Luxor, a large monastery of great antiquity sits atop the desert mountain of Dra Abu el-Naga close to the Valley of the Kings. Mentioned in the ancient sources, the monastery of Saint Paulos was a thriving centre in Late Antiquity, from the 8th to 10th century CE. The site, now known as Deir el-Bakhit, has been extensively examined by a German archaeological mission since 2001. On the slopes below sits an

Map of Egypt showing the location of Dra Abu el-Naga.



extensive necropolis, including of decorated tombs built for officials of Ramesside kings of the late second millennium BCE.

Since 1990, several tombs have been the subject of systematic investigations by a team from the Department of Ancient History at Macquarie University, Sydney. Four New Kingdom tombs have been recorded under the leadership of Associate

The walk to TT 149 (indicated by the arrow).





2015 season courtyard excavation. The paved pathway leading into the tomb can be seen on the left.

Professor Boyo Ockinga. They range in date from the reign of Amenhotep III (date of reign c. 1390–1352 BCE) to Rameses IV (c. 1143–1136 BCE).

In the later New Kingdom, burial in the necropolis at Dra Abu el-Naga appears to have been reserved for New Kingdom priests and officials associated with the temple complex of Amun at Karnak. In fact, distant pylons of the great temple on the other side of the Nile River directly opposite are visible from the mountain. Most tombs conform to a standard design: entering through two pylons, a large open courtyard faces the Nile Valley; doorways in the rock lead to a decorated public chapel and the subterranean passages of burial apartments deep underground. Tombs were mostly plundered and often re-used in later periods for burials – in some cases, remains of the original objects were swept aside in the main burial chamber, and a new interment made. The period from around 1000–600 BCE was particularly active; in addition to re-using the old burial apartments, new shafts and burial chambers were cut and existing structures adapted.

A key feature of many tombs are the deep archaeological deposits of early Christian settlement activity, representing the latest and final phase of use. Three of the Macquarie tombs have extensive remains dating from the 8th–early 10th centuries CE, attesting to the habitation by monks linked to

the monastery. Nearby caves also contain graffiti associated with the community. Many tombs paid host to a 'cell' or small group of monks, who lived and worked from that location. Our archaeological evidence reveals that cells likely had a different function within the wider monastic community of the area.

Theban Tomb 149 (TT 149)

Over the last six years, work has concentrated on Theban Tomb 149 belonging to one Amenmose. He served as '*Royal Scribe of the Table of the Lord of the Two Lands*', i.e. the King, who was likely Rameses IV. Owing to the short reign of this king, tombs of his officials are relatively rare.

The tomb design is similar to the standard type from the era. Excavation of the courtyard, however, revealed evidence of a decorated pillared portico. Many fragments of brightly painted relief on limestone were discovered, enabling partial reconstruction of the decorative scheme. Remains of wall scenes were also preserved in the Broad Hall and Long Hall. What has eluded us, however, is positive identification of the vertical shaft leading to the main burial chamber of the deceased. Several shafts have been found but the one most likely candidate at the rear of the Long Hall has been thoroughly cleared of any the Late New Kingdom evidence, likely in

modern times.

Theban Tomb 233, alongside TT 149, belonged to an official of Rameses II named Saroy. We knew from our prior work on that tomb that extensive evidence of the monastic community such as ceramic cooking pots, wine jars, tableware and a large oven (or tabun) that the Courtyard of TT 233 hosted a communal food preparation and dining area. The extensive nature of these remains suggests that it served all the cells living in nearby tombs.

The archaeological remains of TT 149 were, however, quite different. Early in the excavations, it was found that several mud-brick walls constructed during the Late Antique/Coptic period created discrete rooms in the courtyard. These rooms flanked a splendid paved pathway leading into the tomb. It was made of carefully fitted slabs of irregularly-shaped limestone, polished to a dull sheen owing to much ancient foot-traffic. This alone immediately signalled that we were dealing with a very different type of space and a monastic cell with a separate function to that of TT 233. In addition, large quantities of pottery associated with food preparation were largely absent.

During excavation of an area around one of the walls, small pieces of papyrus emerged from the sandy matrix. Out came delicate excavation tools to ensure that nothing was damaged or missed. As work progressed, thin strips of blank papyrus were found, of the sort used for making scroll



Prof. Ockinga with a fragment of the original courtyard decoration.

View of the Long Hall statue niche at TT 149.



sheets. Pieces became more numerous, larger and some were inscribed with Greek letters in ink. Our excitement intensified when fragments written in an elegant scribal 'book hand'—a formal style used by the best-trained copyists—began appearing. We had so many fragments from this area that a box was needed for collection.

Inscribed papyrus and ostraca (inscriptions on ceramic fragments or stone flakes) were found previously in TT 233, but not grouped together in a small 'niche'. These inscriptions included prayers, lists of names, writing exercises, and even fragments of the Old and New Testaments. Associate Professor Malcolm Choat (Macquarie University) who studied the inscriptions, has recognised several scribal 'hands' and determined that the material was produced by practiced scribes rather than students.

Turning to the material from TT 149, we had a similar suite of material, along with a fragmentary list of the Books of the Bible. One of our largest pieces was about the size of a standard Post-it note, featuring Greek letters on both sides in a fine scribal book hand. The double-sided papyrus fragment immediately identified it as coming from a codex, a bound, leafed book identical to our own that replaced cumbersome papyrus or parchment scrolls of the Roman period.

Our astonishment magnified when Professor

Choat identified a segment of Genesis 2 based on photographs hastily emailed to Sydney from the field. He was able to further confirm the use of Greek script for writing the text in the Coptic language. Later during the excavations we found a reed pen consistent with scribal activity.

The team will return to the field in 2018–2019 to continue studying the material from TT 149. On the basis of the evidence—architectural, inscribed papyrus, pottery and objects—we may be dealing with a scribal cell which served the wider monastic community. This needs to be more clearly established.

Discoveries by the Macquarie team have provided an extraordinary window into the lives of early monastic communities and the transmission of the biblical text. It is through diligent scribal hands like those at Dra Abu el-Naga that much of the early manuscript evidence for the Bible has been preserved. To actually find some of this material was an exceptional experience for me as an archaeologist, even after nearly 30 years of fieldwork in the region.

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Fragment of Genesis 2 on papyrus (recto and verso).





The Hejaz Station in Damascus (2007).

Damascus 100 Years Ago

The Australian Light Horse and the End of an Empire

By Ross Burns

On 1 October 1918, units of the Australian Light Horse took part in one of the last engagements of the First World War in the Middle East. The long anticipated taking of Damascus by Allied forces was intended to bring to an end the Turkish hold on the Arabic-speaking provinces of its eastern empire, the culmination of the march northwards so successfully initiated by the Light Horse assault on Beersheba a year earlier.

What sort of city did the Australians find when they marched through on 1 October at 6.30am, a few hours before Lawrence of Arabia entered the city? Lawrence was clearly peeved that his plan to use the 'taking' of Damascus as the culmination of the bid by Emir Feisal to set up an Arab state to replace Ottoman rule in Syria, Iraq and Palestine had been upstaged. More powerful forces in Europe, though, had already determined that such a state was not going to happen and much of Syria and Iraq had already been promised to others.

By war's end, Damascus was already suffering from years of turmoil and disease. Hundreds were dying by the week from starvation and Turkish troops were left to see out their last hours virtually unattended.

Yet for much of the war, the city had been the

subject of a beautification program controlled by Ahmed Jemal Pasha, one of the key Young Turk officers in the central triumvirate that had seized control in 1909. Jemal had been assigned since 1916 to Damascus to command the Turkish war effort in the east but spent much of his time pursuing two other passions: archaeology and town planning.

Turkey's war effort in the eastern provinces was based on a close coordination with German forces as the Young Turk triumvirate had decided early in the war to throw in its lot with the Germans. Germany was anxious to use the Turkish springboard to launch an attack on the Suez Canal, take Egypt and cut off Britain's access to Iraq's oil and to India, the source of many of the troops fighting with the allies in France and Syria/Palestine.

Turkish-German war preparations, however, proved shambolic and two attacks on the canal failed, one foiled by an Australian attack on the Turkish army at Romani in Egypt in 1916. Turkish-German collaboration, however, revealed a serious lack of good intelligence on southern Syria, Palestine and the Sinai. German and Turkish commanders came up with an ingenious solution: use archaeology as a tool to gain a better appreciation of the lie of the land and its water resources. A special unit was set

up in 1916 under the eminent German archaeologist, Theodor Wiegand, to undertake a series of studies beginning with the first (and still the last) serious appreciation of the Sinai's historical remains.

Under Wiegand, a unit was based in Damascus with the wonderful title of 'Denkmalschutzkommando' (Command for the Protection of Monuments) and work began in late 1916 on a series of other studies of which the first two volumes were a survey of all the Classical and Islamic monuments of Damascus. This clearly was only of marginal relevance to the war effort but Wiegand and Jemal had decided to collaborate with a wider set of intentions in mind:

1. Wiegand proposed the plan as he wanted to rescue Syria's archaeological sites from the depredations of war
2. The German army went along with it hoping for better intelligence on southern Syria and the Sinai
3. The Turks wanted greater German involvement in their military operations targeting the Suez Canal
4. Jemal wanted to upgrade the urban and historical landscape of Syrian cities to underline the benefits of Ottoman rule over Arab lands.

Jemal, who clearly recognised that he had been marginalised by his two co-Young Turks by keeping him out of the way in Damascus, also had another passion to pursue: town planning. He had already tried his hand at turning other parts of Turkey's far-flung empire into minor versions of Paris: Adana in Cilicia and Baghdad in Iraq. Becoming the Haussmann of Damascus now became his passion

and one which went hand in hand with his desire to convey to the Arabs that the empire respected their culture and heritage; a difficult challenge given the mass executions of Arab nationalists that had taken place in Beirut and Damascus in 1915.

Jemal seemed intent on demonstrating that Feisal's campaign to seize the Arab heartlands spearheaded by Lawrence's forces, also needed to be countered with a propaganda offensive. Efforts to 'make Damascus great again' had already been initiated in the previous two decades, ever since pride in the city's magnificent range of historic monuments had been so seriously dented by the 1893 fire in the Great Mosque of the Umayyads. The Ottoman authorities had put enormous effort and resources into rebuilding the burnt-out interior of the mosque but also into opening and modernising many areas west of the old city's walls in the zone which had long been their favoured Turkish administrative, religious and recreational quarter.

The arrival of new roads, telegraph links, rail lines and an internal tramway system were already transforming the city and Jemal swung into action to bring them all together in the new prestige quarter focussing on Merdje Square with its central bronze column recording the opening of the telegraph line between Istanbul and Mecca in 1905. From 1911 the zone acquired a second focal point, the new railway station to service the line to Medina, the Hejaz Railway. The German archaeological program was a useful complement emphasising to the public that a city could be both proud of its Islamic past and a confident participant in the Sultan-Caliph's technology-driven empire. This, it

Australian War Memorial photo of workers putting the finishing touches at the plaza outside the Hejaz Station in Damascus, October 1918 (with permission AWM J02219A).





Australian graves at the Commonwealth War Graves cemetery at Damascus (2008).

was to be emphasised, was Syria's best option rather than throwing in its lot with a collection of Hejazi tribesmen.

Accordingly, Jemal put all his energies into city planning rather than turning his Fourth Army into a crack force. He had never favoured joining with Germany in the war but given that the Young Turks had made their decision, he would live with it as best he could; especially as he had exploited the secondment of German officers to be used in recording and protecting monuments. When faced, for example, with the floods of Armenian refugees who had poured, or been driven, south from eastern Anatolia in 1915, condemning them to perish in the deserts of Syria, Jemal could see no reason to waste his army's energies on a program of deliberate slaughter. He preferred to let them find useful roles in Syria and Lebanon: farmers, traders, on road or public work gangs. In this way the considerable population of Armenians survived the war and stayed on in Aleppo, Damascus and Beirut.

Meanwhile, Kemal's German collaborators were busy at work in 1917 in Damascus including the two key experts surveying, researching, recording and photographing all the historic monuments of the city and translating their inscriptions. For the first time the world had a detailed record of all the city's historic remains; a source which to this day offers the best compendium of Damascus's heritage and one

whose findings largely remain unchallenged. The two experts had the wonderful name combination of Karl Wulzinger and Carl Watzinger. Both were already recognised authorities in their fields: Classical archaeology and the interface between Byzantine and Islamic traditions in architecture. In a little over a year they put together their results in two volumes which were published soon after the war ended—an output which today might take numerous teams, international conferences, journal articles and epigraphic argy-bargy—not to mention 3D reconstructions, ethics reviews and copyright checks.

The Damascus entered by the Australian Light Horse a year later, then, was a remarkably well-presented city. In a series of finely detailed panoramic photographs of the city, now held at the Australian War Memorial in Canberra, we get a vivid picture of the city at the moment in October 1918 when the Australians rode in. Two new avenues had been created or upgraded, meeting in front of the gleaming limestone façade of the Hejaz Station. The superb 17th century Tekkiye or mosque / monastery for the mainly Sufi Turkish community—designed by the great Ottoman architect, Sinan—had just been refurbished by Jemal's German team. The mosque lay near the path of the clattering hooves of the Australians' horses as they proceeded tentatively along the banks of the Barada before encountering



Emir Faisal's party at Versailles. Prince Faisal (front) with Lawrence to his immediate left.

an animated crowd of Damascenes outside the city's Town Hall. The regiment was commanded by Maj Arthur Charles Olden who had been instructed to skirt around the city and not enter it but the milling crowd and the lack of any clear path around the walls to the north, made an approach along the Barada River unavoidable.

Olden, in real life the dentist at Narrogin in the wheat belt of Western Australia, dismounted and entered the municipal headquarters seeking an assurance the city would not seek to resist the Australians' transit. The acting Turkish-appointed governor greeted him with flowery prose and offers of the inevitable cups of tea. Anxious not to pre-empt the Arab forces expected later in the day, Olden and his unit remounted and crossed to the north bank of the river emerging on the road leading to Homs and Aleppo. Lawrence, when he arrived some hours later was furious at the assumed slight to his forces' role. Who arrived first was already a sensitive point since Lawrence would have been aware that any Arab claim to adopt the city as capital of an Arab kingdom led by a Hejazi monarch might already have been gazumped by the secret agreement between France and Britain to allocate Turkey's Arabistan provinces to these two European powers.

The final straw for Lawrence may have been the tense meeting between the Hejazi prince, Feisal, and the Allied commander Edmund Allenby at the Victoria Hotel in Damascus on 3 October. The minutes were taken by the overall Australian commander, Gen Harry Chauvel. Lawrence up to that time had chosen to remain oblivious to the agreements that would effectively ditch the commitment to the Arabs. According to Chauvel's record, Allenby turned to

Lawrence and asked:

'But did you not tell (Feisal) that the French were to have the Protectorate over Syria?' Lawrence said: 'No Sir, I know nothing about it.' (Allenby) then said: 'But you knew definitely that he, Feisal, was to have nothing to do with the Lebanon.' Lawrence said: 'No Sir, I did not.'

A. J. Hill. *Chauvel of the Light Horse*, Melbourne University Press 1978: 185

Lawrence then knew (if he didn't before) that the betrayal of the Arab cause and his own role (unwitting or not) in the whole pantomime of the 'Desert War' was starkly out in the open. A clearly conflicted Lawrence cut short his stay in Damascus, departing the same day for Jerusalem and military retirement.

In the Commonwealth War Graves Cemetery in Damascus, 132 Australian victims of the 1918 conflict, and of the diseases that afflicted them during and after the taking of the city, are buried. (172 more Australians were to be buried there as a result of another campaign in 1941 to expel the Vichy French from Syria.) Certainly the Australians in 1918 were unsuspecting participants in a wider game of empires and the losses were small compared with the major engagements on the Western Front in France and at Gallipoli. However, their part in the ending of the four century-long Turkish empire in Arab lands was an important one and has led to consequences still being felt to this day.

Ross Burns was Australian Ambassador in Syria from 1984-87 and has written a number of books on the history and archaeology of Syria—details at www.monumentsofsyria.com.

Tell me what you eat and I will tell you who you are

By Karyn Wesselingh

Written over 200 years ago by Jean Brillat-Savarin (1755–1826), the title statement is probably true for much of recent human history. Can what you eat define your cultural identity? As Australians, most of us would consider vegemite consumption as a strong indicator of cultural identity. A season at the Australian dig at Pella would not be complete without jars of vegemite gracing the table: it is one of the things that identifies us as Australian.

It was this association with diet and identity that I was trying to define when I studied the animal bones from Jebel Khalid in Syria, where an Australian team has excavated for more than 20 years until the Civil War broke out in 2011; and where I was lucky enough to spend two seasons working on my research. The site is situated on a rocky outcrop on the west bank of the Euphrates River and affords wonderful views up and down the river. This expansive view of the movements along the river was undoubtedly the reason why the Seleukids built a settlement here in the early 3rd century BCE.

The civil war has prevented further fieldwork and has resulted in the looting and destruction of the stores and parts of the site itself, but fortunately the majority of animal bones had been processed and studied. Animal bones are one of the most common finds from sites in the Near East and I analysed over

10,000 fragments during my time at Jebel Khalid. I was specifically looking at variations in the species recovered from the various areas of the site. There were very few fish bones overall, and given Jebel Khalid's location on the river, we could have expected fish to have been part of the diet. Most of the bones were collected by hand—so many of the small fish bones would have been missed—but analysis of results for each individual area showed that all of the fish bones had come from trenches on the Acropolis. I also looked at the results of the animal bone studies from previous seasons and found that overall there were at least ten-times more fish bones found on the Acropolis and Palaestra than for all other areas of the site. In addition, the diachronic analysis of the fish bones from the Acropolis has found that they were all recovered from the earliest phases of settlement.

One possible explanation for this pattern of distribution is that there was a regional prohibition on fish consumption that was embedded in the local indigenous culture. In the early days of settlement those people occupying the Acropolis and utilising the Palaestra identified strongly with Greek culture and were therefore not bound by any local food taboos. But in subsequent generations, as there was a merger of traditions, and a cultural identity that was more aligned with the local cultural norms, this taboo was adopted by the community at Jebel Khalid.

There is no evidence of long term occupation of the site prior to the Hellenistic period. The excavated structures including the Housing Insula,

View from the Acropolis Palace at Jebel Khalid.





Some of the fish bones recovered
from the Acropolis Palace at
Jebel Khalid.

Acropolis Palace, Temple and Palaestra, were initially constructed during the early phases of settlement. These buildings for the most part were constructed to a Greek or Hellenistic plan. This is not unexpected as the original inhabitants of the site were believed to have been soldiers from the Seleukid army, settled in the area to observe and monitor this river crossing. However, such major construction work as this would have required the use of local labour and we can see this local influence in both the architecture and the material culture. The temple is probably the best example of this cultural fusion with its modest Greek hexastyle amphiprostyle pseudo-Doric exterior but with a Near Eastern broad tripartite interior. From the early days of settlement there was a desire to appear Greek while paying some homage to the local traditions.

This 'Greekness' appears to have been reflected in the animal bones especially those areas that more closely align with Greek culture, such as the Acropolis Palace and the Palaestra. The Acropolis Palace, in its construction and material finds, made heavy allowance for receptions and entertaining. The governor and his men were expected to behave socially as Greek Macedonians banqueting on all kinds of meat. The animal bones from the Acropolis show a wide variety of animals, including domestic sheep, goats, chicken and pigeons, and wild fauna such as deer, onager and fish, were consumed as would have been expected from settlers with a Greek/Macedonian cultural identity. In Classical Greece the meat diet was often varied and included fish and other wild species. Fresh fish was considered a luxury item in ancient Greece.

If the Greek/Macedonians were prepared to eat fish, especially in the early days of settlement, why was fish consumption not apparent in the other areas of the site where the cultural fusion was more

evident, such as the Housing Insula? If the literary evidence, documented more than 400 years after the abandonment of the site, is to be believed, there was a taboo against the consumption of fish imposed by the regional deity Atargatis.

Atargatis, or the Syrian Goddess (so called by Lucian in his book *The Syrian Goddess*), was one of the principal deities of the region. At nearby Menbij, Lucian (c. 125–180 CE) comments on the presence of a temple and pond dedicated to Atargatis. The pond was filled with sacred fish including one fish adorned with gold jewellery. The Temple is now a football field, but the pond was still evident as late as 1909 when Gertrude Bell passed through and watered her camels there.

This association of fish with Atargatis and a prohibition against eating fish has been noted in other ancient texts. Athenaeus (born late 2nd century CE) notes that *'the Syrian Queen, Gatis ...announced that no one was to eat fish except Gatis'*. Porphyry (c. 234–305 CE) comments that if the Syrians ate fish they would suffer *'loss of self-control, their feet and belly swell'*. One could suggest that this was a protective taboo given that you might become quite sick from eating fish in such a warm environment if it is left for any period of time.

While the original Greek/Macedonian settlers ate fish, over time, with subsequent generations, perhaps the link with Greece and Greek identity became weaker and the occupants of the Acropolis came to identify more strongly with local traditions including the fish taboo, imposed by Atargatis. Ultimately they may have chosen to follow the local religious custom by not eating fish. In doing so they demonstrated that perhaps their cultural identity was more closely aligned to the local culture: they became Syrian Greeks. ■

The Duck's Tale

A Gem from Jericho at the Nicholson Museum

By James Fraser & Wendy Reade

James Fraser (Senior Curator, Nicholson Museum) starts the tale:

When Peta Seaton and I were working through the boxes and trays of Jericho materials in the Nicholson Museum storeroom early in 2018, we opened yet another old brown cardboard box and were puzzled to find amongst the debris a ceramic duck's head and tail. The box contained over a hundred small sherds of a finely shaped and burnished duck-shaped vessel. The neck and handle of the vessel rose from the duck's back, and the beak served as the spout. Two circular eyes and detailed head and tail feathers were incised. In place of feet, the figure was originally supported on a little ring base, now missing.

From Jericho to Sydney

This curious vessel had been made during the Canaanite Middle Bronze Age (c. 2000–1550 BCE) and was used in an elite building—probably a palace—at Jericho in the West Bank. However, the building had been destroyed by fire and the duck-shaped

vessel lay broken amongst the burned debris for the next 3,500 years.

In the early 1950s, British archaeologist Dame Kathleen Kenyon commenced excavations at the mounded tell. In 1954, her trenches hit upon the destroyed Canaanite palace, uncovering astonishing in-situ finds including the duck-shaped vessel alongside six store jars.

The duck is a remarkable find; Kenyon discovered only two such vessels at Jericho, and scant few other bird-shaped vessels have been discovered anywhere else. While Kenyon sent one duck vessel to the Ashmolean Museum in Oxford, she decided to send the other to the Nicholson Museum, as the University of Sydney had part-sponsored the dig.

However, the quantity and quality of Jericho finds sent to Sydney belies more than Kenyon simply acquitting her project of its reciprocal duties to its sponsors. Rather, Kenyon's decision to send rare objects to Sydney such as the duck-shaped Canaanite vessel (or indeed the famous plastered Neolithic skull) reflects Kenyon's close collegial relationship with Professor James Stewart, then Curator at the Nicholson Museum; it also suggests the goodwill generated by Stewart's student Basil Hennessy, who worked as part of Kenyon's team and with whom Kenyon was particularly impressed. Perhaps Kenyon also felt altruistic to a young colonial university that

The burnished duck-shaped vessel prior to its reconstruction.





The reconstructed vessel following conservation.

had only started teaching archaeology a few years before, in 1947. Finally, after the horrors of WWII, it is possible that Kenyon deliberately dispersed the materials to museums across the globe to best protect them should Europe plunge itself yet again into a devastating war.

Conserving the duck

Wendy Reade (Conservator, NEAF President) takes up the tale:

Although the curious duck vessel had been smashed into over a hundred pieces, someone had started to adhere the fragments into several larger sections. Yet the job was never finished, and the little duck vessel was packed away in the brown cardboard box in Sydney and forgotten.

My two excited colleagues had called me to the storeroom to see their new and as yet unrevealed discovery. When I entered they asked me in all seriousness my opinion of a tiny and unexpectedly nondescript bowl. A little puzzled, I looked at their meagre offering, and was forming a diplomatic response when they could bear the suspense no longer. Abandoning their tease, they produced the real prize in triumph. We laid out the little pieces of this treasure, six hands deftly holding as many pieces of the puzzle together as possible. It was nearly complete!

The box of fragments was delivered to the conservation lab where I laid out all the pieces on a clean white bench top, thinking the job of reconstruction of the already prepared larger

sections would make my job easier. But nothing's ever as easy as you think! The thin fine ceramic was not well joined so the sections were ill-fitting. One of the fiddly things about sticking delicate three-dimensional objects together is that even the slightest misalignment of one join becomes exaggerated as the pieces of the vessel are added, magnifying the problem. I had to take it all apart.

One trick I've learnt over the years as a conservator is that a little heat from a hairdryer can soften the adhesive of a poorly set join and it can be manipulated into place without having to dissolve the join and start again. But this only works if the world's favourite conservation adhesive, Paraloid B72, has been used. Other formerly popular adhesives do not soften when heated in this way and so have to be completely dissolved. Unfortunately, the adhesive that had been used was not B72, so complete deconstruction of the fragile joins was the only option.

The hairdryer certainly came in handy as I methodically rebuilt the duck piece by piece from head down to tail and around the burnished body. The ceramic had fired unevenly leaving it mottled buff to orange to black – helpful when doing a 3D jigsaw. And there was the thrilling potter's finger mark wiped around the junction of neck and vessel: a spellbinding connection to an individual across millennia past.

The Jericho duck vessel is now fully restored, and is on public display in the Middle East Gallery at the Nicholson Museum. ■

The Missing Years

Revealing Early Hellenistic and Early Roman Pella of the Decapolis

By John Tidmarsh

Since 1979, excavations on the main mound (Khirbet Fahl) at Pella by both the College of Wooster, Ohio, and the University of Sydney have uncovered material extending from Neolithic (c. 8000 BCE) to early Ottoman (16th century CE) times: a duration of almost ten millennia! Notable, however, was the apparent gap in occupation from the Late Iron II C (7th–6th centuries BCE) until the early second century BCE. Furthermore, although scattered early Roman (63 BCE–135 CE) pottery fragments and possible walls from that period were uncovered in the Civic Centre by the Wooster team, convincing architectural evidence of early Roman occupation was lacking.

Prior to 1979, archaeological soundings (limited to two squares on the main mound) had been carried out in 1958 by R.W. Funk and H.N. Richardson from the American Schools of Oriental Research. Although never fully published, the preliminary report stated that one of the sondages provided evidence of "Medieval and Early Arab occupation" in its upper layers as well as Byzantine, Late Hellenistic, and early Iron Age material below. Within the Hellenistic stratum, the excavators uncovered the corner of a "room"; its walls in their preserved courses were of stone, reinforced with ashlar masonry at various points, and had at least in part been covered with painted plaster. The presence of a "fine stone floor", however, suggests the possibility that the "room" may well have been a paved courtyard. From the

courtyard/room were recovered "quantities of pottery and objects including fine red-glazed ware ("Hellenistic Pergamene"), several nearly whole storage jars, an incised two-handled pot, 19 loom weights, and several shattered cooking pots". A thick layer of burned debris, including charcoal, showed that the house had been destroyed by fire.

Subsequently, extensive excavations on the main mound have uncovered abundant Hellenistic material with three main phases being isolated: first half of the second century (c. 200–150 BCE); later second–early first century (c. 150–80 BCE); and the end of Hellenistic occupation (c. 80 BCE). As previously encountered by Funk and Richardson, a thick destruction level of burnt wooden beams, charcoal and burnt mud-brick signals the end of the latest Hellenistic occupation phase in all plots. From within the destruction level, pottery—in particular jars with long-collared rims—as well as stamped Rhodian amphora handles and, especially, coins indicate a date for the destruction late in the first quarter of the first century BCE. The latest coin, from well within the destruction level, has been identified by our numismatist (Dr. Ted Nixon) as a bronze of the Jewish (Hasmonean) ruler Alexander Jannaeus minted in the twenty-fifth year of his rule (80/79 BCE).

The Jewish historian Josephus in his work *Jewish Antiquities*, tells us that under the Hasmonean ruler Alexander Jannaeus "...the Jews already held these cities of Syria, Idumaea and Phoenicia...and Pella—this last they utterly destroyed because the inhabitants did not promise to change to the national customs of the Jews..." And so it would seem that the destruction levels seen across the main mound, putting an end to the Hellenistic occupation, must

Hellenistic vessels excavated at Pella in Jordan.





View of Pella in Jordan overlooking the Jordan Valley. Tell el-Husn is to the left, the columns of the Civic Complex are seen in the mid-distance and the main mound is behind the Civic Complex.

have been the work of the Hasmonean king with the presence of the Year 25 bronze pointing to a date for the destruction of 80/79 BCE (or soon after) rather than the more generally accepted 83/82 BCE.

But things are not as straightforward as they may seem, for in *Jewish War*, his somewhat earlier work, Josephus makes no mention of the destruction of Pella by Jannaeus; rather, he specifically states that Pella was not destroyed. Thus: "*Alexander, on his part, captured Pella and went against Gerasa...*" and later in the same work "[*Pompey*] *also liberated from their rule all the towns in the interior which they [i.e. the Jews] had not razed to the ground, namely Hippos, Scythopolis, Pella, Samaria...*".

On the main mound, virtually no post-Jannaeus/'early Roman' (c. 80 BCE–135 CE) levels have been isolated, with Roman material from the third century CE immediately overlying the Jannaeus destruction level. And yet, even if we disregard the tradition—still the source of much controversy—that the Jerusalem Christians fled across the Jordan River to Pella before the destruction of their city in 70 CE, early Roman occupation should exist somewhere at Pella for the city sporadically minted coins as early as the reign of Domitian (ruled 81–96 CE). Furthermore, to the southwest of the main mound, several Roman tombs containing material as early as the late first century CE have been unearthed while in the Civic Complex, located in the Wadi Jirm el-Moz and mainly of late Roman and Byzantine construction, the Wooster expedition partially uncovered structures (odeum, baths, paved courtyard) that were, with

some caution, dated to early Roman times.

Recent work on the largely natural hill of Tell el-Husn has helped to unravel this seeming contradiction. Lying across the Wadi Jirm el-Moz to the south of the main mound, Tell el-Husn rises some 90m above the wadi. As well as the abundant remains of impressive Bronze Age occupation and a Byzantine military and cavalry complex of the fifth and sixth centuries CE, work on Tell el-Husn has also partially revealed several dwellings from the late Hellenistic period (c. 120–80(?) BCE) containing ceramic material identical to that on the main mound. However, in none of these structures is there evidence of a late Hellenistic destruction level (as seen on the main mound) but, rather, directly above the Hellenistic levels are walls and a paved stylobate, part of which has been destroyed by later Byzantine construction. The pottery associated with these walls and stylobate includes neck-ridged jars, bevelled lip cooking pots, late first century BCE/early first century CE Eastern Sigillata A vessels and wheel-made ("Herodian") lamps. Similar ceramic material—of early Roman date—is almost completely absent from the main mound.

Nevertheless, although there is no evidence on Tell el-Husn of the Jannaeus destruction level encountered on the main mound, it is possible that the tell was abandoned by its inhabitants following the Jannaeus conquest—as suggested by the absence of Jannaeus Type 7 coins (struck in the last three years of Jannaeus' reign and following his death) and autonomous 'City' editions usually seen

in cities where occupation under later Hasmonean rule continued—and only re-settled after the arrival of Pompey in 63 BCE. It is likely that it was at this time that a well-made ashlar wall was erected, short stretches of which have been uncovered on both the north and south slopes of the tell.

Accordingly, on current evidence it would appear that Josephus was 'partially correct' in both *Jewish War* and *Jewish Antiquities* for while much of the city (i.e. those buildings which covered the main mound) was destroyed by Alexander Jannaeus. This was not the case on Tell el-Husn where, after a brief period of abandonment, limited occupation was resumed at the end of the first century BCE before spreading on to the main mound some two centuries later.

"The Hellenistic period in Palestine and Transjordan is characterized by an extreme imbalance of archaeological data... a significant lack of both architecture and artefacts of early Hellenistic date, whereas Late Hellenistic remains are increasingly attested."

Since Robert Smith (College of Wooster, Ohio) former co-Director of the Pella Project, penned these words in 1990 the situation has changed somewhat for the early Hellenistic period in Palestine where excavations have brought to light increasing evidence for the third century BCE; however, east of the Jordan River, the period covering Alexander's conquest, the wars of succession amongst his generals, and the era of Ptolemaic control of the southern Levant (i.e., c. 330–200 BCE) remains only scantily attested in the archaeological record.

Pella was founded by Alexander according to the sixth century CE writer Stephanos Byzantinos or by Alexander's general, Seleukos I Nikator, as proposed by the historian Appian (c. 95–165 CE).

Both attributions remain unlikely while a further suggestion that Antigonos Monophthalmos (another general of Alexander's) was the actual founder finds, as yet, little to support it. Nevertheless, the fact that Pella is a Macedonian name (the capital of Hellenistic Macedon and birthplace of Alexander no less!) makes it probable that the site of Semitic Pehel or Pehir was re-founded as a Graeco-Macedonian settlement not long after Alexander's conquest of Syria-Palestine in 333 BCE. Archaeological data for such an early period at Hellenistic Pella are currently lacking with the possible exception of the battered torso of a feline—perhaps part of a funerary monument and dating to the late fourth or third century BCE—which had been unearthed by a farmer in the fields to the west of the main mound.

However, several finds in the early seasons of work had suggested at least a Ptolemaic presence prior to the city—and indeed the southern Levant—coming under Seleukid control in 200 BCE. The Australian excavations on the main mound had recovered a silver tetradrachm of Ptolemy II Philadelphos (285–246 BCE) as well as two bronze coins of the same ruler; unfortunately, none of the three coins were in a meaningful archaeological context. From Tell el-Husn, also out of context, had been retrieved a bronze of Ptolemy IV Philopater (222–205 BCE) as well as three imported black-glazed Athenian lamps produced between c. 400–260 BCE.

In 2009 excavations on Tell el-Husn, below the early Roman stylobate and structures mentioned previously, came upon strata from this earlier period. The pottery recovered from these levels, in particular a stamped Rhodian amphora handle dated c. 219 BCE, and an Athenian lamp produced in Athens between c. 400–260 BCE point to a probable date in the last quarter of the third century BCE. In the

Late Hellenistic walls and the Early Roman stylobate on Tell el-Husn.



northeast of the same plot, and as yet not linked to any architectural features, was a thick homogenous destruction level. Again, ceramics and stamped Rhodian amphora handles suggest a similar date to the above as does a Ptolemaic bronze coin from the destruction level of either Ptolemy IV Philopater (222–205 BCE) or Ptolemy V Theos Epiphanes (205–181 BCE). It is tempting to link the destruction level with the events surrounding either the capture of the city by the Seleukid ruler Antiochos III in 218 BCE—a victory that turned out to be only temporary—or, more likely, the permanent transfer of Pella from Ptolemaic to Seleukid control in 200 BCE.

Thus archaeological evidence has now demonstrated that there was indeed a Ptolemaic period presence at Pella—at least by the last quarter of the third century. This is consistent with the statement of Stephanos Byzantinos that *"There is also another Berenike, in Syria, which they call Pella"*. As Smith has pointed out, Pella in Jordan is really the only candidate and, while Stephanos is the only authority to make this claim, there is no strong reason to question it. The city could only have been given this name during the third century BCE—at the time of Ptolemaic control of the southern Levant—which leaves us with two strong candidates: namely Berenike I, the wife of Ptolemy I [332–282 BCE] and mother of Ptolemy II (282–246 BCE), and Berenike II the wife of Ptolemy III [246–222 BCE]. A third Berenike (Syra), daughter of Ptolemy II and

Arsinoe I, never a Ptolemaic queen although the second wife of the Seleukid ruler Antiochos II, is less likely. As things stand, the lack of archaeological material definitely earlier than the mid-third century BCE tends to favour the city being (re-) named after the wife of Ptolemy III; however, this could change with further excavation, bearing in mind that Beth-Shean—clearly visible from Pella on the western side of the Jordan River—was seemingly re-founded as Nysa-Scythopolis by Ptolemy II c. 260 BCE. Under Ptolemaic control, Nysa-Scythopolis functioned as a garrison controlling access to the Palestinian coast from the Jordan Valley via the Valley of Jezreel and as such was confined to Tel Beth-Shean itself. At the beginning of the second century BCE, once under Seleukid rule, its role as a garrison was diminished and *"...most, if not all, of the settlement of Beth-Shean was displaced from the ancient tell to Tel Istaba on the other side of the Jalud River ravine."*

So it would appear that Pella underwent a similar transformation to that of Nysa-Scythopolis/Beth-Shean. Following an occupation gap of several centuries, as was the case at Beth-Shean, Pella also re-appears as a garrison during the Ptolemaic era when, located on Tell el-Husn and with a clear view of the Jordan Valley, it controlled access to that valley from the hinterland via the strategic Wadi Malawi. However it was only after 200 BCE—under the Seleukids—that a prosperous town covering much of the main mound emerged. ■

A stamped Rhodian amphora handle associated with third century BCE structures on Tell el-Husn.



Loading Up

New Collaborations on Research on Chalcolithic Teleilat Ghassul, Jordan

By Peta Seaton

We put the patient on a small pillow and went behind the safety screen to run the CT scan. Only this was a perfectly healthy 6,300 year-old cornet cup from the late Neolithic/Chalcolithic site of Teleilat Ghassul in Jordan (approximately 5,000–4000 BCE). This cornet cup (TG 353, NM78.173) is in the collection of the Nicholson Museum.

Professor Basil Hennessy conducted University of Sydney/British School of Archaeology excavations at Teleilat Ghassul in Jordan from 1967–1977. Building on earlier excavations by the Pontifical Biblical Institute at Rome, Hennessy discovered a large Sanctuary precinct on the edge of the 20 hectare late Neolithic/Chalcolithic site. Through this research our knowledge of the revolutionary changes occurring in the economy, technology, international contacts and religious practices of these pre-literate and pre-urban people living in the southern Jordan Valley was step-changed.

Hennessy's results were leveraged by Dr Stephen Bourke of the University of Sydney (1994–1999) pushing the date of the latest Chalcolithic occupation to around 3800 BCE and deepening our understanding of the earliest production of olive oil, textile and dairy products, and how this influenced the uneven momentum and range of material culture expression in this period.

I was fortunate to be part of three field seasons at Teleilat Ghassul in the 1990s. Hennessy and Bourke made the material from the Area E Sanctuary available to me for research and publication. An important aspect of my analysis of cult and risk management was the study of the unique objects found in the sanctuary buildings and altar of this walled religious precinct.

Sanctuary B, the smaller of the cult buildings, contained an apparently spouted ceramic zoomorphic figurine, now in the Nicholson Museum (NM 78.165). Likely to represent a male sheep/goat it has a hollow ceramic body with four legs and a remnant of a head and neck. Recent closer examination of the object led to the realisation that something had originally been attached to its back, mounted on the 'spout', and now lost. But what was it?

At the Chalcolithic regional cult centre of Gilat, 100km away in the northern Negev, archaeologist David Alon found a pair of hollow ceramic sacred-purpose figurines comprising a seated woman bearing a milk churn vessel on her head, and a ram with three 'cornet'-shaped vessels along its back.

Peta Seaton and James Fraser with their 'patient'.



Was it possible that our Teleilat Ghassul animal bore a cornet cup or cups on its back like the Gilat 'Ram'?

Among the other finds from the Teleilat Ghassul sanctuaries was our 'patient', the cornet cup TG 353. Its pointed cornet base looked to be heavily reconstructed. Was it possible the original ceramic form be of a size and circumference to be a candidate to have been the original load from atop the animal?

How would we know exactly how much of the cornet cup was reconstructed? Visual observation could only take us so far.

At the University of Sydney's interdisciplinary Charles Perkins Centre, the Centre for Imaging has Australia's only Siemens Artis Pheno cone beam computed tomography machine. In an exciting collaboration already established by Nicholson Museum's senior curator Dr James Fraser, the Imaging Centre's Hybrid Theatre Facility Manager Veronika Tatarinoff and Technical Officer Zoe Williams were keen to put the machine through its paces on materials other than medical subjects, when time allowed.

The result was breathtaking. Zoe produced images which showed differences in density of the material in the vessel's body giving us a clearer idea of what was ancient, and what might be 'modern' reconstruction.

On this occasion, the imaging and later conservation analysis by Dr Wendy Reade has shown us that this particular 'patient' is not the one! The search continues for the missing load, and Dr Fraser is also pursuing CT analysis on the animal figurine. So watch this space!

This latest interdisciplinary collaboration between archaeologists, curators and scientists has shown us how to revisit the collections we have to continue to push the boundaries of the research questions we can ask of archaeological evidence—and test old observations—as new information and technology becomes available. And importantly, we are learning more about how to adapt highly sophisticated technology to answer questions about ancient materials. ■

Grant Report

By Holly Winter

Holly is a doctoral candidate at the University of Sydney and the recipient of the Leone Crawford Travel Grant in 2017.

In October 2017, I travelled to the United States and Canada for a research trip investigating archival material related to my PhD on understanding south Levantine Middle Bronze Age palaces (c. 2000–1550 BCE), and also to present a paper on my research at an international conference in Boston.

The focus of my PhD is to understand how Middle Bronze Age (MBA) palaces functioned, using the archaeological evidence as my primary source. The excavations at Tell Kabri in Israel are challenging traditional views of palatial function, claiming that an *oikos* economy or large estate model should be the preferred explanation of MBA palace function in the southern Levant. Since no administrative or redistributive paraphernalia has been uncovered in the palace building at Kabri, the excavators suggest rulership and redistributive economic functions are absent. In a recent article (*Palestine Exploration Quarterly* March 2018), I challenged this revisionist viewpoint, and proposed another, perhaps even more radical function, to explain the absence of administrative paraphernalia. I proposed that these 'Courtyard-style' palaces are 'palaces for the dead', devoted to the cult worship of deceased members of ruling lineages.

The objective of my US and Canada trip was to analyse unpublished material from several sites that have uncovered 'Courtyard' palaces (Shechem and Megiddo), and to consult with senior scholars resident at those universities. I hoped to uncover much-needed detail of burial finds and building alterations (and thus functional change), unpublished in the research monographs. Much of the notes and documents have not been digitised and required me to consult the archive directly. The second main reason for the trip was to present at my first international conference, the American Schools of Oriental Research (ASOR) annual meeting held in Boston from 15–18 November 2017.

Archival Material Search

The first stop on my US trip was the Oriental Institute of the University of Chicago, where I visited for 11 days. Here I was granted access to examine the Megiddo Archive, and its many unpublished field diaries, photographs and registers of pottery and objects from the 1925–1939 excavations by the Oriental Institute of Chicago. The field diaries were most helpful, shedding light on certain aspects of the excavations not documented in publications. There were also several images of the palace structure that



The Research Archives Library at the Oriental Institute of Chicago.

are of importance, and I even came across some fantastic photographs from the 1920s of Jerash and Petra!

Just before the conference in Boston, I had arranged with Dr Joseph Greene, Curator of the Harvard Semitic Museum, to visit and analyse the material related to the site of Shechem. The museum holds most field notes and documents related to the Drew-McCormick Archaeological Expedition to Shechem, the first major US research effort in the southern Levant in the post-WWII era. Harvard also had valuable records from the Austro-German excavations at Shechem between 1913 and 1934. It was here that I uncovered some very interesting unpublished images relating to the highly debated MBA Courtyard palace/temple at the site. There were also several very detailed German reports (translated by US scholars) that have been useful in reanalysing the palace building and its function.

ASOR Conference

At the ASOR conference I presented the recent focus of my research: "*A New Perspective on Middle Bronze Age Courtyard Palaces in the Southern Levant: Palaces of the Dead?*". It was a daunting but rewarding experience, presenting to a lively crowd of scholars and students, some of whose work I was discussing and mentioning in my presentation, particularly the Kabri team. It was only after my presentation that I realised the real impact of presenting at a conference, as many people came up to me afterwards to talk about my work and ideas.

Acknowledgments

I would like to thank NEAF for the opportunity to expand my research horizons. I would also like to thank the numerous scholars who generously gave their time and advice regarding my research while I was in the United States and Canada. ■

Petra

The Jewel in Jordan's Archaeological Crown

By Ben Churcher

This article first appeared in the magazine, Timeless Travels, in 2014. This year Timeless Travels celebrates its fifth birthday. For more, please visit: <https://www.timeless-travels.co.uk/>

In March 2020, Ben will be leading a NEAF tour to Israel and Jordan which, naturally, will include an in-depth visit to Petra. Contact Academy Travel for more details (02) 9235 0023.

As an archaeologist who has had the privilege to travel widely, I'm often asked "what is your favourite site?" While the pyramids at Giza are awe-inspiring in their size, the ruins of Palmyra in Syria evocative in their desert location and the Lion Gate at Mycenae majestic: I always answer "Petra" as no other site in the world is quite like Petra.

As an icon for Jordanian history, this popular and much-visited site is simply stunning. No other site in the world can match the entry into Petra and nor can they compete with the sheer artistry and labour that was expended in the creation of the site's monuments. The oft quoted description of Petra as 'the rose-red city half as old as time' is almost right: the site is set in a chain of rose-red (and yellow and buff) mountains, although the site, for an archaeologist, is not 'half as old as time', however, I won't let dry academic niceties detract from the more romantic notions that do capture the feeling one gets when at Petra.

Although a settlement has existed at Petra at least from the Iron Age (c. 7th century BCE), what visitors see today dates from an amazing flourish that occurred at the city around and shortly after the time of Christ. The builders of Petra were the Nabataeans, an Arab people who grew rich by controlling the overland route bringing vital incense from Saudi Arabia to the markets of the Roman Empire. To understand the importance of incense in the ancient world one must remember that, in what we would regard as an unwashed world without the modern levels of hygiene, the aroma of frankincense and myrrh would have been near essential to mask the smells of the every day. In addition, mountains of the exotic fragrances were burnt during religious ceremonies and it is no coincidence that the three wise men of Biblical fame presented the young Christ with gold, frankincense and myrrh: three equally valuable commodities of the time.

Frankincense and myrrh are both sourced from the sap of low, thorny trees that are endemic to southern Saudi Arabia and Yemen, and Petra, located in southern Jordan, was ideally situated to control





The al-Deir, or the Monastery, one of Petra's most imposing monuments. Note the person in the doorway for scale.

the trade routes bringing the incense north to Roman market places. Nor were the Nabataeans confined to Petra alone: at their zenith before Roman territorial conquests in the first century BCE, the Nabataean Kingdom stretched from southern Syria to the Hejaz Coast in Saudi Arabia and their influence spread even further.

It is no wonder that this trading entrepôt attracted the attention of the Romans as their interests turned to the Near East during the late Republic. The first clashes came in the middle of the first century BCE but it was not until 106 CE that the Nabataean Kingdom was formally annexed into the Roman Empire becoming the province of Arabia Petraea. The trading skills of the Nabataeans ensured that Petra continued to not only survive during this period but positively flourish and it from this time that most of the monuments we see today date. Still occupied during the Byzantine period (4th century CE and following), the strategic importance of Petra had begun to wane. The main reason for this was the 'discovery' of the monsoon weather pattern by the west during the Hellenistic Period (4th–1st century BCE) when traders sailed directly to India from the Red Sea bypassing trading centres such as Petra. Like most things, this discovery took time to be widely used, but following 50 BCE more and more trade was utilising the prevailing winds and

slowly the overland trade routes dwindled. Later, in the Byzantine period, Christian ceremony still used incense although not in the quantities used in the pagan temples. This double-blow of declining demand and being marooned from the main trade routes meant that the power and influence of Petra gradually faded although it was never abandoned. While memory of Petra vanished from western consciousness, the ruins and caves that dot the Petra area were used by the local Bedouin, the Bedul, as their home. Indeed, this situation continued until the modern period when the Jordanian government moved the Bedul families from Petra itself to a new, nearby settlement at Umm Sayhoun: however, for better or worse, the Bedul remain ubiquitous at Petra both as a reminder of their past occupation of the ruins and, increasingly, as touts and sellers involved in the tourist trade.

You have plenty of time to ponder this rich history as you make your way into Petra. On leaving Wadi Musa (The 'Valley of Moses' where a spring is shown to you where Moses stuck a rock with his staff to get the waters flowing) and purchasing your entrance ticket, you have a two kilometre walk to reach the ruins themselves. In the past people could hire horses with which to make this trip but the crush of horses and the dust they raised prompted the Jordanian government to insist that the journey be done on

foot: although for those really unable to walk the distance there are horse-drawn carriages available. But the walk is well worth it!

At first the valley is broad and beside the road are the first rock-cut tombs you encounter. These tombs, utilising the natural rock, are carved into blocks symbolising the personification of the Nabataean god Dushara who was represented as featureless pillars or blocks. These tombs involved cutting away the whole top of a hill or cliff face so as to leave only a block behind into which a small chamber was chiselled. Sometimes adorned with merlons (stepped or crenelated parapets), or sometimes left plain with perhaps just a carved pediment above the door, the function of these structures, as well as the more elaborate ones within Petra itself were part tomb and part used by families for feasting in the company of their ancestors. The larger are examples of façades par excellence. The viewer is presented with a soaring, elaborately decorated edifice, yet inside is a plain room often only with rock-cut benches on which the family would have reclined during their feast days. Also to bear in mind when looking at these structures is that while we are wowed by the striated and colourful sandstone that we see today, when in use these rooms were plastered and covered in frescoes. Often the roof had scenes from agriculture or the garden and the walls were decorated with frescoes to resemble block-work to make someone on the inside think the structure is built of stone blocks rather than being carved from the mountain itself. Additionally, we must imagine walled enclosures, often with gardens, in front of the façades: all of which have now vanished. So while the structures show their rose-red sandstone face today, when new they would have been softened by gardens in front and the sandstone covered inside and out with coloured plaster work. A very different scene to what we see today.

After passing through the broader valley you turn a corner and cross a modern dyke that prevents flood waters from entering the narrow entrance to Petra, the 1.2km long Siq. The modern dyke replicates an ancient one (look to your right and you'll see the tunnel the Nabataeans carved out to carry away the flood waters) and is a necessity after a 1963 tragedy in which 23 French tourists and their guide were swept to their deaths by flood waters before the ancient dyke had been re-built. At the entrance to the Siq, an arch until recently marked the formal entrance to Petra. Although the arch has now collapsed, you can still make out the arch supports and imagine how the scene once looked.

Then you enter the Siq proper. Shaped by nature, the Nabataeans made the Siq their own, paving the road, carving small temples, niches into the walls, and water channels along the side. Like something from an Escher drawing, stairs seem to lead up into

nowhere. Although weathered by wind, rain and time, what remains hints at the grandeur that met visitors to the site 2000 years ago.

As cliffs soar perpendicularly above you for 150m, scenes reminiscent of medieval Japanese landscape painting greet you with every turn. The spectacular rock formations, clinging, stunted trees, and way above, the blue desert sky make for wonderful imagery. As you walk along the Siq you can only imagine the mounting excitement that must have been felt by the Swiss explorer Johann Ludwig Burckhardt who was the first outsider to visit the ruins when he made his journey of re-discovery in 1812. Burckhardt had mastered Arabic by the time of his visit and in disguise using the name Sheikh Ibrahim Ibn Abdallah, he convinced the suspicious Bedul that he was a pious man who wanted to offer sacrifice at the tomb of Haroun (Aaron) which is located on a peak overlooking Petra. Burckhardt tells us that he was watched like a hawk and could not take too much interest in the ruins he was seeing in case it confirmed the Bedul's suspicions that he was a treasure hunter: but inwardly he must have been jumping out of his skin to be the first westerner to lay eyes on Petra in over a millennium. Burckhardt never made it to Jebel (mountain) Haroun as he ran out of time and offered sacrifice in the lower city before retreating and telling the outside world of his discovery.

Like Burckhardt your excitement rises the further you go into the Siq, your footfalls echoing off the canyon's walls. Then there is the Bucket List moment when you finally turn a corner and the full majesty of the el-Khasneh (the treasury) comes into view. This structure, carved from the cliff face, is the most ornate and best-preserved of all the monuments at Petra, and even if you have done the trip through the Siq a dozen times, it never fails to impress. At the foot of the el-Khasneh the area opens up and is often crowded with tourists, some shops and gaily dressed camels. Take note of recent excavations at the foot of the el-Khasneh that show us the ground surface on which we walk today is several metres higher than in antiquity. Looking down through some grates you see a lower register of buildings completely covered by the debris of numerous floods that have carried gravels down the Siq to be deposited at the foot of the el-Khasneh.

From the el-Khasneh, I recommend that you follow the flow of visitors towards the rock cut theatre but then turn to your left and begin the ascent to the High Place of Sacrifice. The climb is worth it: you not only leave the maddening crowds and Bedul touts behind but, on reaching the rock cut platform, you have a stunning view over the entire city. At the top you'll notice the so-called 'God-Blocks' that are unadorned pillars of stone representing the Nabataean deities, as well as numerous altars and



A detail of el-Khasneh (the treasury) showing some of the pristinely intact carving, and the damage done from rifle shot by treasure-seeking Bedul who believed the carved urns contained gold that would shower down when the urn was shattered.

basins to collect the blood of sacrificial offerings. The concept of holy mountains is a very Near Eastern thing. The Sumerians in flat Mesopotamia had to build artificial mountains that we call ziggurats on which to pray while at other sites such as Baalbek in northern Lebanon, altars consist of towers of stone on which the priests would have officiated. With mountains readily available, the Nabataeans could pray to Dushara from the top of actual mountains and one can only imagine the ceremonies taking place with the rich trading city laid out panoramically below them.

From the High Place of Sacrifice keep heading west as you descend past several lovely tombs towards one of the few free-standing buildings seen today: the Qasr el-Bint (literally the Fort of the Girl) that takes its name from a local legend. This building was a Nabataean temple with stairs giving access to a flat roof on which the ceremonies would have taken place: in keeping with the holiness of mountains but for those not wanting to walk up actual mountains!

Now you are in the heart of the city and back amongst the crowds. There are cafes and a restaurant here where you can revive somewhat before your next exploration. Although Petra was entered on to the World Heritage List administered by UNESCO in 1985 there remain issues. While not on the List of World Heritage in Danger, there are concerns about Petra both in terms of how to preserve the friable sandstone monuments and how to reconcile the needs of the local Bedul, the wider Jordanian community and increasing tourist numbers. The Jordanians know what a jewel they have in Petra and the government has increased staff numbers that have enabled campaigns of inspection and control, as well as strategies to manage tourist access and local community involvement, including the location and design of community-managed shop/kiosks. While the aim is there, it is hard to reconcile this with the needs of the local Bedul who rightly see Petra as 'theirs' and as a major source of income. This has resulted in a sometimes chaotic scene in the central city where children pester you to buy dubious souvenirs, or to ride their donkey/horse/camel, and ramshackle shops seem to sprout up in any available niche. It is a fine line that needs to be walked in these circumstances. Ancient sites benefit by having a bit of action and local colour, however, there is a limit and sometimes the tumult can get a bit much at Petra.

Our next destination should be the al-Deir or the Monastery. The path to this magnificent monument starts behind the government restaurant and winds its way up into the hills to the west. The site received its name from a cave that is known as the Hermit's Cell and when you get there you can well imagine what a great location it would have been for a medieval monk to secret himself away from society. Al-Deir is

one of the largest monuments at Petra and displays the typical classical façade. While at first glance the style seems very Roman with columns (note the unique Nabataean, horned, capitals in use at the al-Deir in contrast to the fine Corinthian capitals at the el-Khasneh), pediments and other accoutrements, in fact, scholars tell us, the architectural style is classical but influenced from the Alexandrian school in north Africa rather than from Rome itself. At the al-Deir you can clearly see the ubiquitous broken pediment that characterises many monuments at Petra and the massiveness of the construction leaves you gob-smacked: not the least you are confounded about how the Nabataeans chose the right location where the stone would allow the carving of such an edifice and the technical skill (akin to a sculptor) of visualising the finished façade before construction began.

While at the al-Deir, before you retrace your footsteps back to the central city, take some time to walk further to the west. Here, a short distance away, you will reach the edge of the escarpment where several small altars have been carved from the mountains with, weather depending, breathtaking views over the southern portion of the Jordan Valley, the Wadi Araba.

Once back in the central city, if you have followed this itinerary, you will be tired and ready to head back to your hotel in Wadi Musa. Remember that the entrance is a good 4km from Qasr el-Bint and it is mostly uphill, although at a gentle gradient. As you head back to the entrance you walk along the Colonnade Street or Cardo of the ancient city which has portions of paving preserved in places and the foundations of a civic arch. You may well succumb to the constant pestering to take some form of animal transport from Qasr el-Bint to el-Khasneh but make sure you agree on a price and stick to it (a common ploy at the end is for your chaperone to say: "yes, that price was for me, but what about something for my donkey/horse/camel"!).

As you move along the Cardo there are several other important monuments that could either be visited now, or as I would recommend, on a second trip into Petra (your ticket allows two days' of visiting that most people feel is a minimum to fully appreciate Petra). First, on your right, are the foundations of the Great Temple, painstakingly excavated by Brown University professor emerita Martha Sharp Joukowsky over many years. Although much ruined, this 7560m² precinct is comprised of a propylaeum (monumental entryway), a lower temenos, and monumental east and west stairways which in turn lead to the upper temenos: the sacred enclosure for the temple proper. This building is a blend of different cultures and uses elephant head capitals, frescos, and elegantly carved pilasters and capitals to great effect.

Continuing further on, you may notice a structure with a modern roof off to your left. In 1990 Kenneth W. Russell discovered the remains of a Byzantine era church on the north slope of the Colonnade Street, the excavation of which was roofed to protect the finds. The church contains beautiful mosaic floors, marble screens, side rooms, a baptismal tank, and a room where 152 burnt scrolls, now known as the Petra Scrolls, were found. This archive belonged to one Theodore who was born in 514 CE and most of the documents date from a sixty-year period, roughly 528 to 588 CE, and comprise of property contracts, out-of-court settlements and tax receipts that provide a wealth of detail about everyday life during the Christian period at Petra.

The other group of monuments that you cannot fail but notice are the so-called Royal Tombs carved into the cliff-face off to your left. They require a climb of some steps to be reached but the Urn Tomb is believed by scholars to be the tomb of Nabataean King Malchus II who died in 70 CE or perhaps the tomb of Aretas IV (c. 9 BCE to 40 CE) giving this group of monuments their name. Beside the Urn Tomb is the Silk Tomb, one of the prettiest of the Petra tombs due to the highly coloured sandstone into which it was carved, and the Palace Tomb, the massive façade of which is regarded as being influenced by the Roman Emperor Nero's Golden House in Rome.

Naturally we have only covered the highlights of Petra and the site is vast and would be rewarding for an enthusiast to spend days poking up this ravine and that to come across other rock-cut tombs and signs of Nabataean occupation. If your visit has the time, a trip to Little Petra, or al-Beidha, that is located a few kilometres from Petra and is easily accessible by taxi or rented car is recommended. This satellite suburb has its own mini-Siq and some finely preserved tomb façades. Most important is the aptly named Painted Tomb where fragments of the original covering layer of frescoed plaster remains to be seen. At al-Beidha you are likely to have the place to yourself and its small size makes for a more reflective visit following the vastness and grandeur of Petra itself.

A visit to Petra should be at least two days although a slightly exhausting visit, without many stops, could be completed in a day. Whatever you do, make sure that your visit is not one where you are just taken down the Siq to the el-Khasneh and then turned around again as happens with many visitors coming from cruise boats that bus people up from Jordan's port, Aqaba. While this gives visitors their 'wow' moment, it does not do justice to the site.

Give yourself a couple of days to really soak in Petra and its far-flung stunning monuments. While the walk in and out of the Siq each day will test your physical endurance, think of how fit you will be as you explore one of the world's great archaeological sites set in a stunning landscape! ■



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The Near Eastern Archaeology Foundation was established at the University of Sydney in 1986 to promote research into the archaeology of the Middle East and North Africa. Activities include the annual production of the NEAF Bulletin, a lecture program and study tours. Support for research is through travel grants, fellowships, publication subsidies and field program finance. Editor & Layout: Mr Ben Churcher © The University of Sydney, NSW 2006, Australia.

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