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## Pella in Jordan 2011

### Early Bronze Age Fortifications, a Late Bronze Age Palace and a Hellenistic Villa

by Stephen Bourke

#### Introduction

Archaeologists from Sydney University and associated Australian institutions, along with 34 NEAF-sponsored volunteers coming from all over Australia, and 55 local labourers from Tabqat Fahl and surrounding villages, together completed another successful six-week season of excavations at Pella in Jordan between 9 January and 17 February 2011. This season saw excavation in four main areas: three previously explored, and one a new initiative.

Excavations in Area XXXII, located on the south side of the mound, continued recent work exploring the sequence of Bronze and Iron Age Civic buildings located west of the Bronze Age Fortress Temple, and earlier prehistoric structures beneath it. After a fifteen year lay-off, work resumed in the central *tell* region (Area XXIII), further exploring an extensive Late Hellenistic 'Villa' complex first detected in 1983. Across the summit of the southern hill of Tell Husn (Area XXXIV), recent work on the origins and sequence of the massive Early Bronze Age (EBA) fortification system intensified. Finally, a new initiative

saw excavations begin on a large ecclesiastical structure located in the high eastern periphery of the Byzantine-era city (Area XXXVIII), approximately 100m to the northeast of the Sydney University excavated East Church.

I shall discuss the first three excavation areas in turn while the final excavation area in Area XXXVIII will be discussed by Kate da Costa later in this Bulletin.

#### Area XXXII: Above, Beneath and Beside the Fortress Temple

##### *Excavations beneath and east of the temple*

Excavations in a 3m x 5m deep sounding (XXXIY) beneath the eastern cella of the Fortress Temple had reached Late Chalcolithic period (ca. 4200 BCE) deposits by the end of the 2009 season. In 2011, three phases of Chalcolithic occupation were encountered, the first two rather scrappy, but the earliest featuring fragments of two neatly constructed rectilinear stone and mud-brick



*A Iron Age II vessel is excavated in trench XXXIIBB.*

building complexes, separated by a neatly-constructed street.

Finds consisted of extensive deposits of flint tool-making debris, much evidence of bone tool manufacture and numerous items associated with weaving (spindle whorls, bone spacers, loom weights), suggesting the complex may have been associated with textile manufacture.

In a 4m x 4m trench (XXXIIT), located immediately east of the southern tower of the Fortress Temple, work was dominated by the excavation of a huge concrete-lined cistern, cut down against the east face of the tower. The aim here was to recover an occupational sequence against the east face of the tower to further explore its complicated building history.

However, much of the season was devoted to the excavation of the cistern, which proved to be of Late Umayyad or Early Abbasid date (ca. 700-900 CE). It contained much well-preserved bone and pottery dating to a period that is little known on the main mound. As well, the cistern produced three noteworthy finds, a lead horse-shaped brooch, half of a beautifully carved translucent alabaster lid, and a silver dirham coin. In the final stages of the season, excavations below the cistern revealed deep wash gully fill layers dating from the Iron Age II (ca. 700 BCE), which unfortunately had removed virtually all occupational strata directly associated with the temple tower.

Nonetheless, the east face of the hollow tower was fully exposed for the first time, demonstrating that the entire eastern end of the tower had been constructed at the one

time late in the Middle Bronze Age (MBA; ca. 1600 BCE), which in turn means that the earlier MBA (ca. 1700 BCE) solid stone buttress that underlay the hollow tower did not project as far east as the later tower's east end: and that's what we were trying to find out in the first place. We now have a better idea of the facade of the earlier MBA 'pre-tower' temple.

### ***Excavations west of the temple***

In a 10m x 5m trench (XXXIIBB), located around 15m west of the Fortress Temple, we added further to our understanding of the multi-roomed Iron Age Civic Building, which has been under excavation since 1997. A small area in the north of the trench produced tight stratigraphy of the Iron IIA period (ca. 1000-800 BCE), with traces of two separate destruction levels, the first associated with the early (mud-brick) phase of the Civic Building, and the second with the later (stone-walled) reconstruction of the Civic Building. It would appear that the first destruction may have been associated with earthquake activity around 950-925 BCE, and the second with human military activity around 850-825 BCE. From the second (and final) destruction, several complete pottery vessels and a small basalt plate was recovered.

After these residual Iron Age II layers were cleared away across the north of the trench, a series of deep pits dating to the Iron I period (ca. 1100-1000 BCE) were encountered. These pits were numerous, extensive, deep, and inter-cut, very similar in all respects to the sequence from trench XXXIIAA (east of XXXIIBB), excavated in 2009. The deep pitting had the effect of removing much of



the underlying LBA stratigraphy, although wall lines were relatively unaffected.

These wall lines of what we are tentatively identifying as a LBA palatial residence, extended across trench XXXIIBB, although more than 90% of their thick plaster floors had been removed by the Iron I pits. The wall lines found in XXXIIBB defined one large room immediately west of the courtyard rooms found in XXXIIAA in 2009. The southern extension of XXXIIBB contained a stone-lined feature, which may either be a water collection device, or just possibly an elaborate ablutions facility. Given the general placement of the palatial residence along the southern edge of the mound, it is perhaps no surprise that the small (but well-constructed) structures in the southern trench area suggest the back end of the complex is not too far away beyond the southern baulk. We are slowly beginning to understand the orientation and design of this major Bronze Age structure, very probably the administrative centre contemporary with the stone-phases of the Fortress Temple, located no more than 5m to its east.

Over the last few seasons of work, the northern face of Area XXXII excavations have been pushed perhaps five metres north of the main deep excavation area, with an ultimate aim of extending perhaps 10–15m further to the north to explore the northern (main) facade of the Iron Age Civic Building, and the Bronze Age structures below it. In 2009 trench XXXIIEE excavated a long sequence of Abbasid (ca. 850 CE) through Iron Age II (ca. 850 BCE) deposits in an effort to expose more of the Iron Age and earlier structures. This effort was only partially successful, as intervening Byzantine mosaic pavements complicated and ultimately restricted soundings below the Byzantine levels.

In 2011, we extended the northern exposure, through the excavation of new 6m x 4m trench (XXXIIF), placed immediately west of XXXIIEE, aiming to remove the last section of Late Antique layers above the Iron II materials. Here a thin Abbasid period (ca. 850 CE) layer sealed extensive Umayyad period (ca. 700 CE) architecture, which had been rebuilt across (and cut through) earlier late Byzantine (ca. 500 CE) stone architecture. This early Byzantine material included an extensive black and white mosaic pavement, which had been much cut about (and built upon) by later Umayyad rebuilding. By the end of the season, the Byzantine mosaic was fully exposed, resting on (and sealing) the Iron Age materials below. Next season promises to be exciting, as the mosaics will be lifted and the Iron Age Civic structure (with its thick destruction horizons rich in artefacts) further exposed.

### **Trench XXXIID: The Hellenistic Villa Excavations**

The central tell area has long been investigated by all who have worked at Pella, dating back to the Americans Funk and Richardson's first probe in 1958. Sydney University opened their first trench (XXIIIA) close by the Funk and Richardson probe in 1983, checking the stratigraphy of that first investigation and exposing parts of a major residence of the later Hellenistic period (ca. 100 BCE). Two new 10m x 5m trenches (XXXIID and E) were excavated to the west and east of the original probe in 1987, to examine the latest Mameluke period (ca. 1250–1400 CE) Islamic occupation. In 1988 work continued in both trenches, exposing Abbasid through Umayyad (ca. 650–850 CE) occupation. At this time, further work on the Hellenistic villa occurred in a slightly expanded trench XXIIIA.

In 2011 excavations in trench XXXIID recommenced,



*Section drawing underway at the end of the season in trench XXXIID.*

with the aim of exposing more of the Late Hellenistic villa across the western 10m x 5m area of XXIIID. Below residual Byzantine wall lines, a thin phase of Late Roman architectural phase (ca. 250 CE) was detected in patches, before extensive Late Hellenistic destruction deposits were encountered. Below these debris layers, two phases of inter-twined Late Hellenistic period (ca. 150–80 BCE) architecture was slowly uncovered.

A large villa-like residence, featuring well-built mud-brick and stone living rooms, occasionally fitted out with polychrome plastered decoration, marble architraves and bronze statuary, built around stone-paved courtyards is gradually being revealed. It includes at least one dedicated work area for weaving, as we found a loom burnt *in situ* in 1988. It was first constructed around 150–125 BCE, and extensively rebuilt around 100 BCE (after earthquake damage?) before being completely destroyed in a city-wide disaster around 83 BCE, probably at the hands of the Hasmonaean king Alexander Jannaeus. From the destruction debris, a broken (but complete) Rhodian wine amphora and a shattered (but restorable) Eastern Sigillata Red Glazed plate were highlights of the season, along with coinage and pottery dating from around the 80s BCE, consistent with a Jannaeus destruction date.

The complex being revealed is an important structure of some majesty, as parts of this one building stretch across a 25m x 15m area. The thick destruction horizon of around 83–82 BCE has preserved much of the final occupation layer intact, making it a realistic option to seek further materials (architecture and artefacts) in adjacent trenches already partly excavated. We next plan to re-open trench XXIIIE, east of the original area to explore further this fascinating and well preserved snapshot of Pella's Hellenistic occupation.

## **Tell Husn East Summit Excavations**

### ***Trenches XXXIVE and XXXIVF***

The monumental stone terracing and fortification walls on the eastern summit of Tell Husn were first investigated in detail in 1994–95. Renewed work began again in 2009 in two places, the area of the EBA gateways (XXXIVE) on the southeast corner of Husn, and the main exposure adjacent to the northern terrace (XXXIVF) on the northeast corner of the summit. In both areas, 1990s probes into the earliest layers were expanded in search of more extensive information on the origins of the fortifications. In 2011, work continued and expanded that begun in 2009.

In 2011, excavations in trench XXXIVE began by removing the stone pavement of the earlier of two superimposed EBA gateways. Below the paved roadway, a large semi-circular stone wall some 6m long was encountered. This hollow construction seemed to have been filled with layers of debris, with no obvious occupational surfaces encountered. It ran in under the later stone terrace platforms to its north, and under the early gateway to the south, and rests on the bedrock layering at the base of the Husn hillside.

Its purpose is still elusive, although semi-circular exterior wall lines (of much debated purpose) are known outside the city gates at contemporary Khirbet Zeiraqon north of Irbid. Whatever the structure turns out to be, it is certainly part of a monumental construction, which probably acts to protect the approaches to the city gate, although its current location on the edge of a steep slope continues to puzzle.

One final surprise remained. Beneath the curved wall line, extensive patches of Late Chalcolithic occupation (pits, stone-lined bins, small stone bench-like features) were found cut into the uneven bedrock escarpment, which follows the tell slope down to the east. This solves a long-standing mystery. On the nearby western slopes of Jebel Sartaba, extensive Chalcolithic period farmsteads (ca. 4000 BCE) had been discovered in excavations between 1981–1983. It had always seemed a puzzle that no Chalcolithic occupation had ever been found on the adjoining east slopes of Husn during the extensive excavations here in the 1980s.

Now the answer is clear. Chalcolithic occupation did exist, but directly upon the bedrock, and when this had been scarped away or overlain with massive EBA and Byzantine ruins, it had been obscured. We can now say that Chalcolithic occupation spread onto Husn at around the same time as it took root on Jebel Sartaba. The large volume of olive residue recovered from the Sartaba excavations suggest the main reason for the move into the hills was horticulture: then, as now, the hillsides were ideally suited to growing olive trees.

In trench XXXIVF, excavations in 2009 expanded on two small 2m x 2m soundings that penetrated down to bedrock in 1995. The 2009 excavations exposed a 7m x 2m 'slice' through EBA I structures (ca. 3400–3200 BCE), located below the large stone fortification terracing. In 2011 we aimed to expand the 'slice' of these early layers into a 7m x 5m area excavation, so that we might recover more of the rooms, floors and built structures associated with the early occupation, seeking to gain a better understanding of the life circumstances of the earliest Bronze Age occupants of Husn.

Before any of this could happen, a large constructional fill deposit of later Middle Bronze Age (MBA) stone terracing had to be removed from the northern area of the trench. In so doing, we finally located the clear northern edge of the MBA fortress platform, and recovered some nice MBA/LBA period (ca. 1500 BCE) pottery. After the MBA remains were cleared away, a large and well constructed east–west running mud-brick wall and contemporary floor surfaces abutting the later EBA stone terracing (ca. 3000 BCE) were encountered. Surfaces below the floors were found to contain extensive stone chip deposits, very likely to be the debris from the construction of the stone platforms. Earlier pre-platform deposits were exposed, but not excavated.

As a final act of the 2011 season a thin 10m x 1m slot trench was laid out north of the main XXXIVF exposure,





*View from the main tell towards Tell Husn.*

along the inner line of the later stone terracing. Much to our surprise, this slot trench revealed that the northern terrace platform, earlier thought to have been largely eroded off the north-eastern face of Husn, continued on (at a much lower level) for a further 5m north of the original north baulk of the XXXIVF trench line. Although much of the superstructure had indeed been eroded away, a thin base layering had survived to the full 15m extent originally proposed for the squarish terrace.

Even more exciting was the discovery of a small segment of a 3.2m wide east–west mud-brick-on-stone circuit wall abutting this newly discovered terrace/platform at its north-western corner. It is the long sought-after fortification wall that ringed Husn in the EBA. As with the platform associated with it, we had assumed that the extensive erosion of the north face of Husn over the millennia had removed all trace of the wall, but a thin mud-brick course and the stone footings have been preserved along the northeast edge of the summit. At present, we only have a thin ‘slice’ of this wall, and will certainly investigate it further next season.

### **Exploring the Husn Peripheries: Trenches XXXIVB and XXXIVT**

In 2009 trench XXXIVB, located on the western edge of the Husn summit, was excavated down through Byzantine and Early Roman street deposits before encountering Early Hellenistic occupation, and a large east–west EBA stone wall set into the bedrock. At the end of the 2009 season, a number of pits were detected associated with the wall, were detected but not excavated. In 2011 these pits were excavated, but proved to contain nothing beyond pottery

fragments and bone. Close study of the wall construction suggested a two-phase sequence with an earlier wall set into bedrock and a later rebuild cutting through it at its western end. It is probable that the pit deposits are also two-phased, in sequence with the walls.

Trench XXXIVT was originally a 10m x 10m test scrape opened in 1993 to examine a Hellenistic gateway sequence on the southern side of the Husn summit. In 2011, a 3m x 3m deep probe was excavated on the southern periphery of the original scrape, to sound the area for earlier architecture. Fragments of Byzantine period terrace walls, and a large Hellenistic stone foundational layer (probably associated with the footings of the east pier of the 1993 Hellenistic gateway) were excavated, before a short stretch of a plaster-faced EBA (ca. 3000 BCE) mudbrick wall was uncovered. The probe demonstrates the presence of EBA architecture on the southern periphery of Tell Husn, allowing us to determine that the entire Husn summit was occupied during the EBA. The nature of this occupation across the southern and western peripheries will be the subject of future seasons of excavation.

### **Conclusion**

Across the periods Pella continues to produce monuments of the greatest importance to the history and archaeology of Jordan. The EBA remains on Tell Husn are of the first importance for understanding urban origins in the Jordan Valley, arguably one of the earliest and most important centres of urbanism in the region. The Fortress Temple and the associated LBA Palatial Residence to its west are critical monuments illustrating a second phase of urban life during the Middle and Late Bronze Ages. □

# Lion-Adorned Monumental Gate Complex Unearthed at Tell Tayinat, Turkey

by Timothy P. Harrison

Excavations by the University of Toronto's Tayinat Archaeological Project (TAP) have unearthed the remains of a monumental gate complex that provided access to the citadel of Kunulua, capital of the Neo-Hittite Kingdom of Patina in southeast Turkey. Associated with the gate, but found discarded out of position, was a magnificently carved stone lion figure, measuring approximately 1.3m in height and 1.6m in length. The lion is poised in a seated position, with ears back, claws extended and roaring. A second sculptural piece, part of a large statue base, depicts a human figure flanked by lions, an iconic ancient Near Eastern cultural motif known as the *Master and the Animals*, which symbolized the civilisational imposition of order over the chaotic forces of the natural world.

The Tayinat gate complex is reminiscent of the great staircase excavated by the British archaeologist Sir Leonard Woolley in 1911 at the contemporary royal Hittite capital at Carchemish. The great staircase, or citadel gate, at Carchemish was also adorned with lion sculptures, and it was approached via a long processional way flanked with ornately carved stone blocks, or orthostats, forming a monumental ceremonial approach to the citadel area.

The presence of lions, or sphinxes, and colossal statues astride the master and animals motif in the citadel gateways of the Neo-Hittite royal cities of Iron Age Syro-Anatolia continued a Bronze Age Hittite tradition that accentuated their symbolic role as boundary zones, and the role of the king as the divinely appointed guardian, or 'gate keeper', of the community. By the 9<sup>th</sup> and 8<sup>th</sup> centuries BCE, these elaborately decorated gateways, with their ornately carved reliefs, had come to serve as dynastic parades, legitimizing the power of the ruling elite. The gate reliefs also formed linear narratives, guiding their audiences between the human and divine realms, with the king serving as the link between the two worlds.

The Tayinat gate complex appears to have been destroyed following the Assyrian conquest of the site in 738 BCE, when the area was paved over and converted into the central courtyard of an Assyrian sacred precinct. The smashed remains of stelae carved in Hittite Luwian Hieroglyphic script hint of an earlier Neo-Hittite religious complex that might have once faced the gateway approach. Scholars have long speculated that the reference to Calneh in Isaiah's oracle against Assyria alludes to their devastation of Kunulua (i.e., Tayinat). The destruction of the Luwian monuments and conversion of the area into an Assyrian religious complex may represent the physical manifestation of this historic event.

The stylistic features of the newly discovered lion closely



*Stone lion sculpture that adorned the Tayinat citadel gate.  
(Photo Jennifer Jackson)*

resemble those of a double-lion column base found in the 1930s in the entrance to one of the temples that formed the Assyrian sacred precinct. Whether reused, or carved during the Assyrian occupation of the site, these later lion figures now clearly belong to a local Neo-Hittite sculptural tradition that predated the arrival of the Assyrians, and were not the product of Assyrian cultural influence, as scholars have long assumed. The Tayinat lion thus provides new insights into the innovative character and cultural sophistication of the diminutive Iron Age states that emerged in the eastern Mediterranean in the aftermath of the collapse of the great civilisational powers of the Bronze Age at the end of the 2<sup>nd</sup> millennium BCE. □



*The lion being transported to the Antakya Archaeological Museum.  
(Photo Lynn Welton)*



# What a Relief!

## The Conservation of Two Assyrian Archers from the Nicholson Museum

by Wendy Reade

When an Assyrian craftsman from the once great capital of Nineveh, in modern Iraq, put chisel to stone nearly 3000 years ago, he could not have imagined that his beautiful relief work would travel half way round a world he could not know.

The Nicholson Museum is home now to the stone relief of two Assyrian archers standing side by side with bows raised, arrows poised to fire, stepping with left feet forward in unison. There is little known about the history of this relief from the time it was carved until it was excavated by Sir Austen Henry Layard in the 1840s and then purchased in the 1950s for the museum. This relief would have been part of a larger scene that lined a palace wall in the 9<sup>th</sup>–7<sup>th</sup> centuries BCE until, sometime after excavation, it was cut from the scene and shipped back to London, to a world fascinated by biblical studies.

The reliefs were originally painted, but the colour usually does not survive. Characteristically, the figures were carved in profile in two-dimensional space, in a similar manner to Egyptian representations. The depiction of archers, who usually served as soldiers, is not uncommon in Assyrian art, while the king's prowess was often shown in hunting lions with bow and arrow. The Nicholson archers typically have large beards, filleted hair and well-defined musculature, especially of the legs.

The reliefs were carved from the typical grey-white local stone, sometimes known as 'Mosul marble', a kind of gypsum. It is ideal for carving, but is also fragile. The lower right corner of the Nicholson relief is missing, broken off. In a previous restoration the stone slab was encased in supporting plaster, which was painted a dark pinkish-brown, at odds with the natural creamy-white stone mottled in grayish and yellow-brown hues.

The missing stone corner was replaced by plaster on which was modelled wavy lines representing water, including fanciful curls for waves, and two fish swimming. The plaster encroached on the relief obscuring the edges and marring the surface in jarring white. At some time in the past, an insoluble adhesive (now yellowed) had been applied to several of the cracks across the stone and dripped carelessly here and there.

The stone is fissured all over: was this damage caused in a conflagration in ancient times? Black sooty dirt (from a smoggy London?) had since filled every crack and pore of the stone, waxy grime gleamed from the high points of the relief (years of handling or household polishing?), yellow accretions and a raised network of webbed brown accretion disfigured the pitted, somewhat powdery, surface (a result of aggressive previous cleaning treatments?).

In all, the relief was in poor condition.

The conservation treatment, following microscopic examination, involved the removal of the reconstructed plaster water scene, and the overlying paint and plaster, to reveal the edges of the stone. The stone surface was cleaned with a gentle sympathetic abrasive applied with damp cotton swabs. The insoluble adhesive and accretions were carefully removed with hand tools. Slowly, the original beauty and detail of the relief came back to life, revealing the craftsman's tool-marks and small holes along the archers' arms, most likely to be attachment points for adornments. Despite this, the dull, damaged nature of the clean stone surface, combined with the naturally mottled colouring of the stone, and its sometimes deeply cracked and overall fissured appearance, made its 'readability' more difficult and left the fragile stone unprotected.

It was decided to coat the stone with microcrystalline wax, a stable synthetic, which sets hard, and buffs to a low sheen. The wax has improved the appearance of the relief, its surface stability and protection against particulate and other substances that could permeate the porous stone surface. The cracks still appeared dark even when cleared of their clogging dirt. By filling them with the same wax bulked with tiny glass balloons, the cracks became less visible and were protected from anything further lodging in them. Finally, the glaring white plaster was painted with acrylic artists' colours toned to blend with the stone.

Modern conservation treatments are carefully designed, primarily to preserve and stabilise, to be as unobtrusive and harmless as possible, and (ideally) to render the objects suitable for study and display. Thanks to these techniques, the archers can once again stand proud and face the public.

*My thanks go to Michael Turner, Curator, Nicholson Museum, for permission to publish this article.*



*The archers before treatment (left) and following treatment (right).*

# Reading the runes

## Insights into the inhabitants of medieval Jam

by David Thomas

As archaeologists, we dream about being able to ‘personalize the past’: discovering a few biographical details about the people whose remains we dig up. It is so much easier to relate to someone you can put a name, if not a face, to. On the rare occasions when this is possible, we usually gain insights into royalty and the uppermost echelons of society. Rarely do we have the opportunity to peer into the lives of the rank and file. Consequently, the masses tend to be treated... well, en masse: we generalize about large swathes of past societies and forget that they consisted of individuals with different social and ethnic backgrounds, faiths, ages and genders.

### The mysterious tombstones from Jam

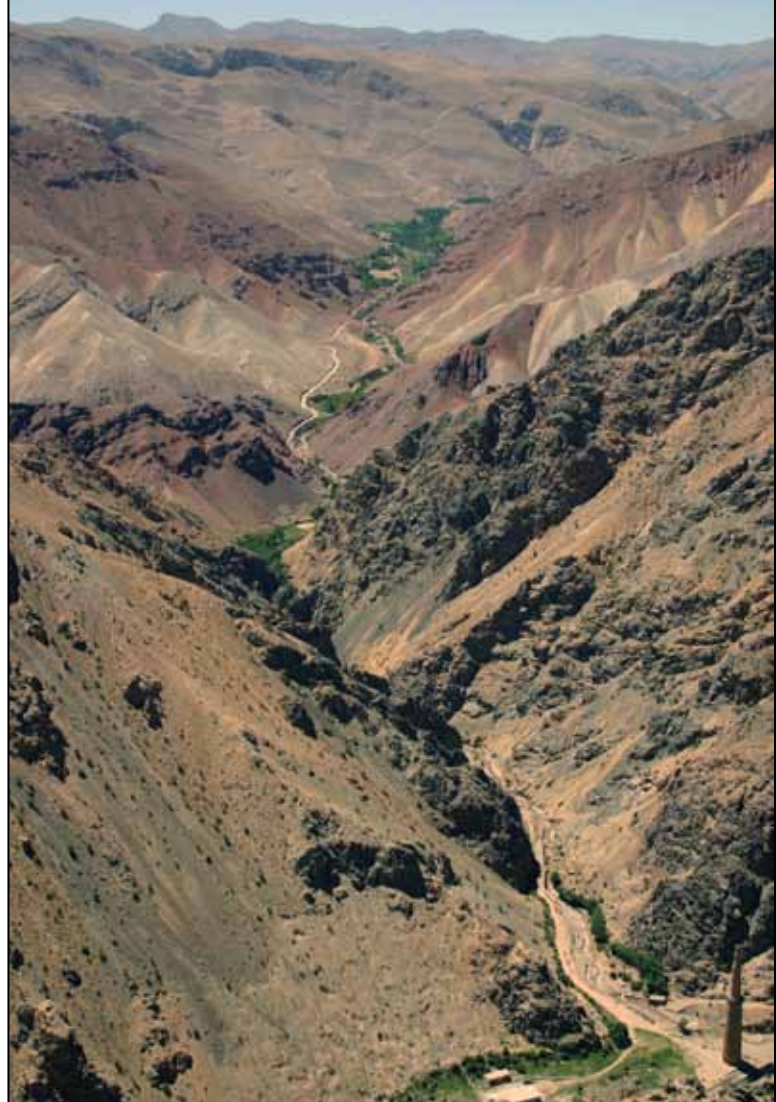
In 1962, the architect Andrea Bruno discovered four roundish stones inscribed with Hebrew writing about a kilometre south of the Minaret of Jam in central Afghanistan. Jam is thought to be Firuzkuh, the summer capital of the little known Ghurid dynasty which came to prominence ca 1150 CE. The discovery in this remote mountain valley, however, was not unique: a small number of medieval Hebrew inscriptions are known in the region, reflecting a time when Jews and Muslims coexisted in relative harmony. What is remarkable about the tombstones from Jam are how many have since been found and the insights they provide into life at the Ghurid summer capital. The discovery of three more tombstones by the Minaret of Jam Archaeological Project in 2005 brings the total number of tombstones found at the site to seventy-four. The following example from Tombstone 3, translated by Erica Hunter, gives an idea of the sort of information the inscriptions record:

לאס ראזה טנת | נב קחצי פורעמ ובִּקְתָּ | בקעי נב סהרבא  
Jacob son of Abraham | son of Isaac known as “the strong”  
| year one thousand 459 [i.e. 1148 CE].

### What do the inscriptions tell us?

Many of the inscriptions on the tombstones are, like the example above, frustratingly incomplete or brief. When studied as a group, however, they reveal fascinating glimpses of life at Jam, at least from the male perspective—as Erica Hunter has pointed out—none of the tombstones belong to women.

The language used in the inscriptions is Judaeo-Persian, but the inscriptions are written in the Hebrew script. Several scholars have highlighted the subtle combination of Hebrew names and Persian nicknames as evidence of ‘enculturation’, the process by which a person adapts to and assimilates the culture in which he or she lives. All the year dates use the Seleucid calendar, while Persian nouns for ‘day’ and ‘year’ are combined with Hebrew names of the



*View from the centre of Jam (note minaret at bottom right) south towards the Jewish cemetery.*

days and months. Erica Hunter concludes that although the Jews living at Jam “remained under the overall jurisdiction of the Ghurid authorities, the community appears to have enjoyed a high degree of religious autonomy and probably retained a certain amount of independence when dealing with internal matters; such as divorce and inheritance”.

Probably the most interesting information in the inscriptions is that relating to the occupations of the deceased. Various professions are listed including trader, damask (a type of fine cloth) weaver, accountant, religious teachers and leaders, and goldsmith. The tombstones, therefore, indicate that the Jews living at Jam were not simply traders, as we might at first have surmised. Shaul Shaked has questioned the literacy or attention to detail of the carvers of several of the tombstones, given the grammatical errors on them, but whatever the general level of education among the community, the tombstones provide evidence of a vibrant community of craftsmen, financiers, entrepreneurs and teachers (both secular and religious), who actively practiced their faith in the heart of a Muslim empire in Central Asia.

This is not surprising in itself, given the large numbers of Jews who lived in other urban centres in the region, such as Nishapur, Merv and Balkh, where the Jews’ Gate formed part of the city walls. An estimated 40–70,000 Jews are thought to have lived in nearby Ghazni around



this time. Eugen Rapp, one of the first scholars to study the tombstones from Jam, noted that the modern Jews of Afghanistan have a tradition of being descended from the 'lost ten tribes of Israel': the ruins of the synagogue in Kabul are said to date to the time of Nebuchadnezzar II of Babylon, who conquered Jerusalem in 597 BC and sent the Jews into exile.

Just over half of the tombstones from Jam date to the reign of Ghiyath al-Din, the greatest Ghurid sultan, who reigned from 1163-1203 CE (see chart on next page). This suggests that the Jewish community grew significantly in the second half of the twelfth century, probably in response to the vast quantities of loot which reputedly flowed into the Ghurid heartland from their campaigns in Central Asia and extensive raids into the northern Indian sub-continent. The most recent tombstone, dating to 1220, fits with the abandonment of the site after the Mongol sieges two years later.

The dates on the tombstones, however, also provide us with a few chronological headaches. Six of the tombstones predate the historical account of the founding of Firuzkuh around 1146, with the earliest one dating to 1012. It is possible, but unlikely, that there was an existing settlement at Jam, prior to it becoming the Ghurid summer capital: Eugen Rapp suggests that the earliest tombstones belong to refugees who withdrew to an isolated place, a description which certainly befits Jam. Alternatively, the Jewish community may have erected markers to venerated ancestors in its cemetery, although you would expect the inscriptions to reflect this act of memorial, as modern examples in Melbourne General Cemetery do.

The most likely explanation for the early dates, to my mind, is that the community brought the remains of their venerated ancestors with them when they moved to Jam. Michael Lever recently pointed out that this theory has a

Biblical precedent: "And Joseph made the Israelites swear an oath and said, "God will surely come to your aid, and then you must carry my bones up from this place [Egypt]" (Genesis 50: 25).

An easier conundrum to solve is the fact that the dates on the tombstones are relatively evenly distributed throughout the year, rather than being restricted to the summer months. Although Firuzkuh was the Ghurids' summer capital, it is likely that a caretaker population would have lived at the site throughout the year, to maintain the site and prevent looting.

Cemeteries of the period are commonly found on the edge of settlements, and the Jewish cemetery at Jam fits this pattern. It may also be significant that the cemetery is out of sight of the 65m high minaret at the centre of Jam. The minaret is ornately decorated with, among other inscriptions, the entire text of the Surat Maryam. This chapter of the Quran tells the story of Mary, the mother of Jesus, and lists numerous prophets common to the Jewish, Christian and Islamic faiths. Janine Sourdell-Thomine argues that the choice of this chapter was deliberate, a condemnation of idolatry and non-Muslim beliefs. The minaret may, therefore, have been partly designed as an emphatic visual statement about the power and virtues of the Muslim faith. It is also interesting that we found a pottery kiln and other evidence of manufacturing near the Jewish cemetery: perhaps the Muslim authorities sought to make a symbolic link between the 'impure' Jewish community and the polluted environs of this industrial part of the site.

### **How did the Jewish community come to be at Jam?**

One of the intriguing aspects of the discovery of the tombstones is a reference to a Jewish merchant in the



*One of the seventy-four Jewish tombstones from Jam.*

Tabakat-i Nasiri, the main chronicle about the Ghurids. According to the thirteenth-century historian al-Juzjani, Amir Banji, one of the founders of the Ghurid dynasty, was travelling to Baghdad to resolve a dispute with a rival, when he met a Jewish merchant. The Ghurids were reclusive mountain folk, so Amir Banji had little idea as to what to wear and the appropriate etiquette in the Abbasid royal court. Amir Banji wanted to make a good impression in his audience with Harun al-Rashid (the caliph of *Arabian Nights* fame), so he asked his more worldly travel companion for some advice. He discarded his rustic clothes and appeared before the caliph in “a tunic, a cap, boots, and breeches... dress befitting an Amir and becoming a great personage”. The change of wardrobe, and attention to his ‘p’s and ‘q’s, did the trick: the caliph found in favour of Amir Banji, and in return for the merchant’s crucial advice, Amir Banji agreed to let a number of the “Children of Israel” settle in his territory. Although the tale is probably fabricated, the discovery of the tombstones adds further weight to the argument that Jam is the Ghurids’ summer capital and may explain why the Jewish community was first established there.

### Future research

Unfortunately, little is known about where each of the tombstones were erected within the cemetery, and most, including those transported by Bruno to Kabul for safe-keeping, have since disappeared. It is very difficult, therefore, to analyse possible family groupings and chart the growth of the cemetery, let alone the extent of the site although Ulrike-Christiane Lintz’s on-going doctoral research will hopefully shed further light these questions.

The fact that the cemetery has never been surveyed properly, and that one of the tombstones we recorded turned up in a pile of boulders being used to reinforce the base of the minaret, suggest that much could be discovered by further fieldwork at the site. If it is possible to return to Jam one day, and religious sensibilities permit, it would be fascinating to re-excavate a few of the robbed graves and collect bone samples for isotope analysis. This might reveal whether the deceased came from the local area or further afield and add another chapter to the intriguing story of the Jewish community at Jam. □

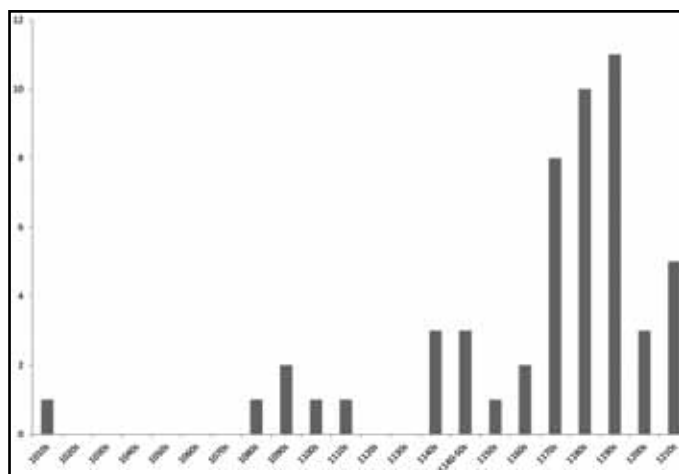


Chart of the recorded dates on the tombstones.



Our guide, Bahuddin, with Tombstone 3.



# Revisiting an old site

## Publishing Ambelikou in Cyprus

by Jenny Webb and David Frankel

Everyone knows that archaeologists dig things up. What happens next is, like most research, longer, slower and less glamorous. The British archaeologist Sir Mortimer Wheeler famously wrote 'All excavation is destruction. Excavation without publication is wanton destruction' (*Archaeology from the Earth* 1954). All too frequently, however, final site reports go unwritten. This presents those of us who work in the same part of the world or on similar material with a moral dilemma. To what extent do our obligations go beyond publishing our own fieldwork to taking responsibility for publishing that of our predecessors?

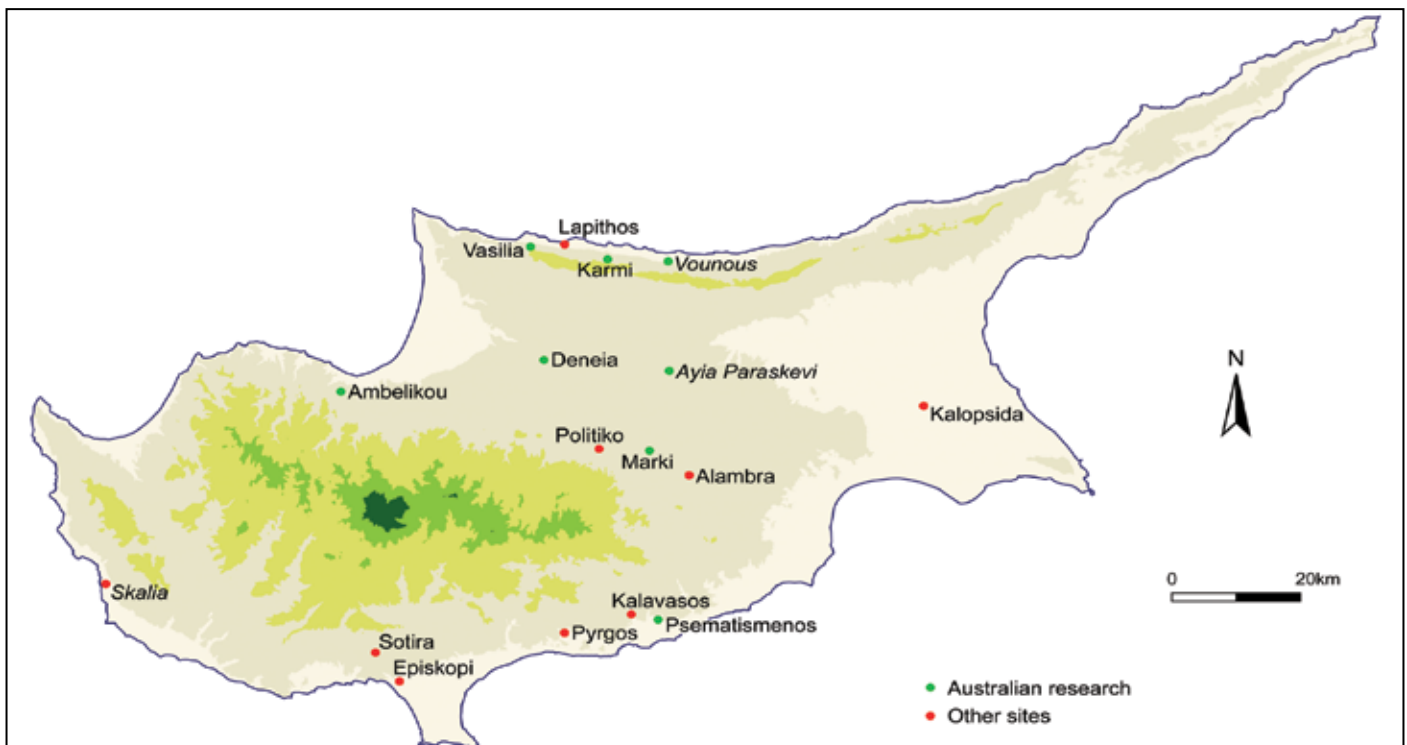
As we have discovered, returning to unpublished sites excavated in previous generations is a valuable exercise. The fieldwork may not have been carried out in the way we would choose, key evidence may have been missed, field-notes lost and finds misplaced but there are still rich veins to be tapped. Unique sites are brought to view and there are surprise discoveries to be made on museum shelves. Re-working old excavations for full publication is surely as important an activity as undertaking new excavations.

Our current project involves an excavation undertaken in 1942 by the Cypriot archaeologist, Dr Porphyrios Dikaïos, on top of a high hill near the village of Ambelikou in northwest Cyprus. The site dates to an early phase of the Middle Bronze Age and lies close to Skouriotissa, one of the most extensive copper ore bodies on Cyprus. Dikaïos decided to excavate here following the recovery of sherds dating to about 2000 BCE some 19m from the surface

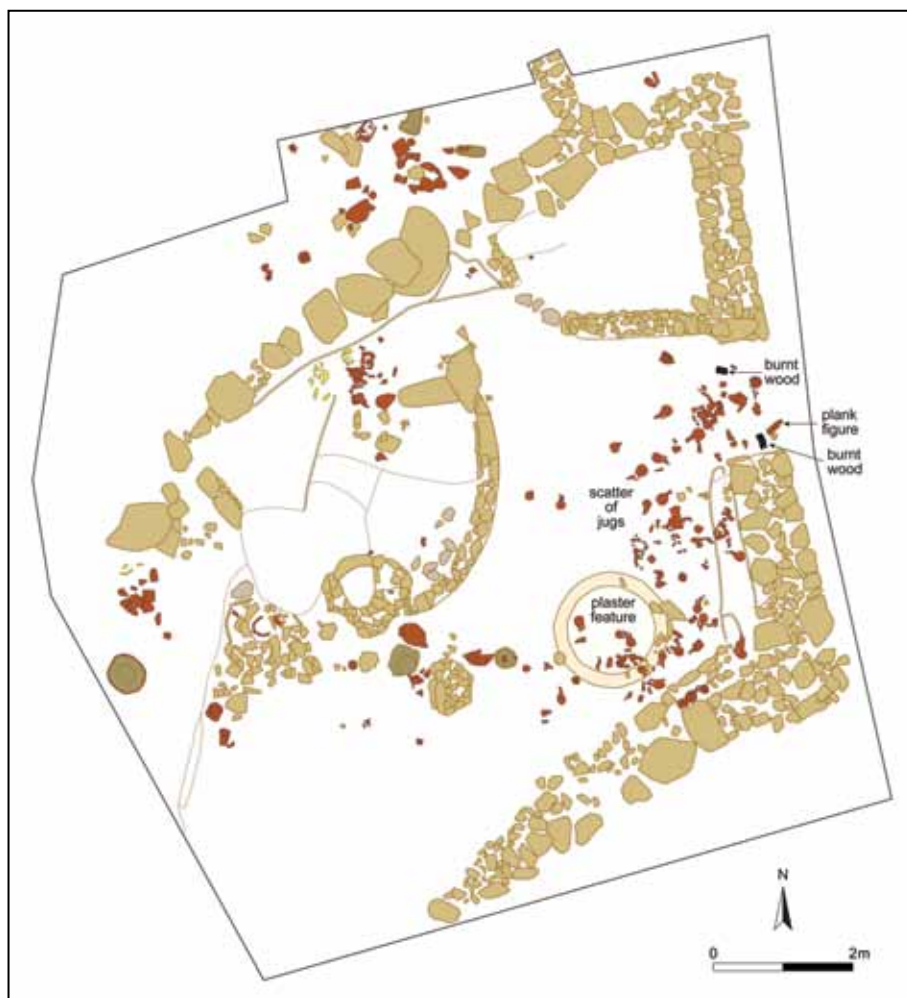
where a modern copper mining adit intersected ancient workings. Dikaïos, then acting Director of the Department of Antiquities, was not able to spend much time so far from Nicosia and the excavations were largely left to experienced assistants. Although clearly recognising the importance of the site, Dikaïos' main research focus was on establishing the sequence of Neolithic and Chalcolithic developments on the island and he wrote only brief preliminary notes on the excavations. These included a plan of the architecture of one of the two areas excavated and photographs of some of the more important finds, including a crucible and a two-sided clay casting mould. Since then, the site has been widely cited in the literature as having produced the oldest direct evidence for copper shaft mining in Cyprus and for the recovery of ore, slag and other items indicating on-site smelting and casting. In the absence of full publication, however, none of this has been seen in its full cultural and behavioural context.

In the early 1980s Dr Robert Merrilllees was given permission by the Cyprus Department of Antiquities to publish the Ambelikou excavations. In 1984 he produced a report on the topography and history of the site and the discoveries in the mines. Some 20 years later he made his documentation available to Dr Anne Dunn-Vaturi, who took over responsibility for the preparation of the final report. Anne compiled the field-notes and photographs and arranged for drawings of a selection of artefacts from the site in the Cyprus Museum. Personal circumstances, however, precluded her from continuing and, in 2010, we took on the task of completing the project with the help of generous funding from the Shelby White-Leon Levy Program for Archaeological Publications.

Unfortunately there are no field notes describing the progress of the excavations. We have detailed plans, however, of the architecture in the two main excavated



Main Early and Middle Bronze Age sites in Cyprus, many the subject of Australian research.



*Plan of the potter's workshop showing the scatter of jugs and other pottery smashed by the destruction of the building.*

areas, both showing the find-spots of more complete vessels and stone artefacts. There are also black and white photographs of varied quality. When we first looked at these we realised immediately that the site had exciting aspects which we had not envisaged. In particular, the plan and photographs of one area show a scatter of over 50 vessels, almost all cutaway-spouted jugs, across the floor of one room. These had been heavily burnt as a result of a severe conflagration. This was a clear case of a catastrophic abandonment – a rare circumstance in archaeology and one which is particularly valuable because it provides unequivocal associations of artefacts and their place of last use. The fire appears to have been an isolated incident, confined to one building. The concentration of jugs, furthermore, suggests that this area was not used for everyday activities. Dikaios himself suggested that the room was a potter's workshop, something otherwise unknown for Early and Middle Bronze Age Cyprus. This indicates that Ambelikou was not just a mining village but engaged in the full array of activities found on other settlements of the period.

These unexpected observations gave a new impetus to our engagement with the site and the project was transformed from a relatively mechanical duty to one with challenging research potential. It also became clear that we would need to re-examine and document more fully the artefacts.

Here we were again fortunate, for the Cyprus Department of Antiquities has a rare policy of storing all the finds from their excavations so that all complete items, sherds and surface finds were still available in the Cyprus Museum. Moreover, the many jugs that captured our imagination had been carefully mended, probably in the months immediately after the excavations. Without this prior painstaking work this venture would have foundered before it had even started.

In May 2011 we spent three very pleasant weeks in the Cyprus Museum in Nicosia with a small but expert team which included Dr Kathryn Eriksson, also an authority on Bronze Age Cyprus. During that time, we were able to draw, photograph and fully document over 200 pottery and stone artefacts and examine over 70 trays of sherds. The fact that we were able to process so much material in such a short time was entirely due to the efficiency of the staff of the Cyprus Museum, who carried seemingly endless trays of cutaway-spouted jugs to our workroom. We were rewarded with the discovery of much interesting material, including a heavily distorted bowl, damaged while

in a leather hard state and subsequently 'fired' in the conflagration, and a jug with a firing flaw on the neck. Both confirm the presence of a potter's workshop.

While carrying out our more conventional documentation of the pottery we were also able to bring a new technique into play. Over the past few years archaeologists have begun to take advantage of the development of hand-held portable devices to measure the elemental composition of material using X-ray Fluorescence. Although not a substitute for more comprehensive analyses, we now have the tools to assay large numbers of samples quickly and efficiently: importantly, without damaging the items. Because it must have been made locally, the assemblage from the Ambelikou potter's workshop provides a valuable starting point for characterising the clays used at the site and identifying those vessels brought in from elsewhere. The results of our analyses show clearly that most Red Polished vessels were locally made, while those of Drab Polished ware have a distinctively different chemical composition and must have been brought to the site from elsewhere. More analyses are needed to confirm precisely where they came from, but we can be confident that this was somewhere in the west of Cyprus where this fabric is found in large quantities. The finer, more highly decorated juglets and bowls of Red Polished ware were also made of different clays. These are stylistically similar to vessels





*Six of the four dozen jugs from the potter's workshop.*

in the north of the island and probably came from that region. This movement of vessels and their contents to Ambelikou was no doubt related to networks associated with the distribution of copper from the site.

There is, in addition, one more reward for resuscitating this old excavation. The function of the so-called 'plank-shaped' figurines characteristic of the late Early and Middle Bronze Age in Cyprus has long been a matter of debate. Complete examples have most often been found in tombs. We now have sufficient fragments from settlement excavations to indicate that they were also used, broken and discarded in habitation deposits. Their functional context in settlements, however, was quite unknown. Just outside the doorway of the catastrophically abandoned room at Ambelikou, beside the burnt stump of the door jamb, lay a large, complete and very handsome plank figurine. Its location suggests that it was attached to the door or doorpost or, perhaps, dropped by someone as they fled the burning building. Of course this does not resolve questions of the meaning, function or significance of such figurines, but we now at last have one piece of good contextual evidence to contribute to the constant flow of analyses and speculations. This information would, of course, have been available decades ago had the excavations been published in a timely manner.

The importance of Ambelikou in the reconstruction of early mining and metalworking has long been recognised. Some years ago analyses were undertaken of the slag contained in the crucible and of copper ore and manganese-oxide flux found at the site in order to investigate smelting procedures. It was suggested that this evidence attests not copper smelting but only copper melting at Ambelikou. We are working with archaeometallurgists to examine and

publish these data in more detail.

The Ambelikou settlement is a significant unpublished excavation. Having been hidden from view for almost 70 years, the architecture and the finds will be ready for publication as a *Studies in Mediterranean Archaeology* monograph in 2012. This is of particular importance in view of the fact that Ambelikou is now located within occupied north Cyprus. This area has been inaccessible to archaeologists since the Turkish invasion of the island in 1974, providing an even greater imperative for the publication of assemblages from this region. □



*Plank figure found beside the doorway of the potter's workshop.*

# Temple to Church?

## The Mystery Building of Area XXXVIII at Pella in Jordan

by Kate da Costa

Under Emperor Commodus in the 2<sup>nd</sup> century CE, Pella in Jordan minted a number of coins to celebrate her civic status. One of these coins shows a large temple on top of a significant hill, with an arcaded street at the foot, behind which rise the walls and roofs of a prosperous Roman town. Since 1979, our first season at Pella, we have been searching for a major Roman temple to complement the increasing number of religious buildings which have now been uncovered at the site. Of the three churches, the West and Civic complexes were excavated by Wooster College. The East Church in Area V, and the mediaeval mosque on the top of the *tell*, were both exposed by Sydney University. In addition, a Chalcolithic cult installation (we can't quite call it a temple) and the Middle Bronze to early Iron Age temple complex in area XXXII are well known to NEAF members.

During the first season at Pella, while walking around the slopes of Jebel Abu al-Khas, Anthony McNicoll was intrigued by the wall lines and broken columns which he subsequently excavated as Area V. Early scholarship saw the systematic erection of churches on top of destroyed pagan shrines as a demonstrable sign of the "Triumph of Christianity". However, despite some notorious examples of attacks by Christians on pagan temples, more modern research has made it clear that most temples were left for some decades to simply decay, before being demolished or used as quarries for building materials (*spolia*). Very few churches were ever built directly on pagan shrines. It is also clear that only some, very specific, temples were destroyed when in use and replaced directly by a church. Ruined temples were reused for a variety of functions and church use was infrequent. Churches, too, were built of *spolia* from a variety of buildings, not only temples. However, since early churches were built while paganism still existed, the deliberate use of previously religious structures carried additional overtones than, say, the reuse of ruined bath houses. There was clearly a special relationship between the two types of religious edifice, reflecting the lingering influence of the old ways – of belief and behaviour – which were critically influential in the formative 4<sup>th</sup>–6<sup>th</sup> centuries CE.

Deichmann, in his seminal study of Christian reuse of temples, was very cautious in identifying direct conversion rather than quarrying (Deichmann 1939; subsequent work has not changed the position: Vaes 1984–6, Caillet 1996). There were certainly celebrated, even notorious examples of Christian destruction of temples still in use. Libanius complained of mobs of rampaging Syrian monks (*Libanius Pro Templis*, trans. Norman 1977). Indeed, Fowden attributes the relative scarcity in Syria of temple

sites compared with churches to their activities (1978, 68). Ward-Perkins has discussed the contrasting patterns of temple and church throughout the empire, arguing for a stronger tradition in the East of the deliberate destruction of temples and the building of significant churches on the remains (2003, 286). He proposes that this difference reflects the state of settlements in the 5<sup>th</sup> century: the entire centre of Western towns and cities were already largely in ruins, whereas in the East, more vibrant cities required the replacement of monuments in their still active centres. Even within the East, however, Ward-Perkins has seen differences in practice, with the retrofit of standing temples far more common in Asia Minor than in the south eastern provinces, such as Palestine (2003, 289–291).

We can sense, from the ancient sources, disquiet amongst sections of the population for the reuse of the material of pagan buildings, indicating a deep-seated belief in the potential power of the forces imbued in the very stones. When the *Marneion* of Gaza was destroyed in 402 CE, down to bedrock, a new church was erected on the same site. Most of the earlier building had been burnt but the remaining slabs of marble veneer were reused to pave the streets – a symbolic trampling of paganism which was none too subtle. But some pagans, particularly women, refused to tread on the pavers (*Life of Porphyry*, Mark the Deacon, esp. 69). Similarly, many saints' lives tell of the holy one struggling with, and defeating, demons in old ruined temples (see for example the *Life of Matrona*, XVIII–XXI (Symeon Metaphrates). This cleansing of demons by a saint becomes a *topos* in early Christian literature, so that we must imagine that in the popular mind, the actual temple was seen as possessing special, magic or even satanic, powers.

We have tantalising glimpses of pagan worship at Pella. Temples to Herakles, Athena, Nike and Tyche are known on Pella coins. The life-sized thighs of a draped male, in black granite, were found as *spolia* in the foundations of the Civic Complex church by the Wooster team, and now grace the clothes-drying area of the dig house courtyard. These knees must have been part of the cult statue of Serapis, probably from a temple somewhere near the Civic Complex church (Smith 1992, 200–203; see also Weber 1993, 47–49). Robert Smith, director of the Wooster team, also uncovered evidence for the worship of Semitic deities at Pella. He identified at least two local cults from inscriptional evidence on reused blocks in the Civic Complex church. The Arabian Heavenly God and "the gods who are worshipped at the same altar with him" are attested (1992, 203–204).

There was, then, a strong research imperative to excavating what Tony hoped was a temple which had been quarried to build a church directly next to the pagan site. The Sydney team elected to excavate the southern building. It was thought that this was most probably the temple, as it appeared the larger of the two ruins. It quickly became clear that the building was in fact a church, now usually known as the East Church. Excavations there showed that





*View east from the main tell towards Area XXXVIII.*

it was erected some time in the 5<sup>th</sup> century, was stripped of its interior decoration at a time which could not be dated, and finally destroyed in an earthquake.

During the late 1990s and early 2000s, efforts to locate a temple on Tel Husn occupied our attention. There is no doubt that Tel Husn was the largest hill at Pella, and, with a colonnaded street running east west at its foot, it fit the orientation of the Commodus coin. Hopes were raised when a stylobate was exposed on the northern edge of Husn, but quickly dashed when it was revealed on the first day of the season to be a reused section in a much later building.

But Area V kept drawing our attention. Back in 2004 I went back to have another, much closer, look. We could see the monumental staircase reaching a building north of, and higher than, the East Church. There were the remains of columns at the top of the staircase, made of the same greenish stone of the East Church narthex columns: which Tony had clearly seen as reused spolia. What appeared most intriguing about the northern building on al-Khas was its apparent square shape. We do know from excavations from Palmyra to Petra that many Semitic temples are square in ground plan.

Temples functioned not only as religious structures, but as official, public buildings within the classical Graeco-Roman *polis*. Their walls were used to display civic inscriptions and each building and its decoration existed due to the euergetic system of public funding by individual

local aristocrats. Within settlements, they were situated with conscious regard for aspect and symmetry. Barely one hundred years after the recognition of Christianity by Constantine the Great, paganism had been largely removed from public life, and urban topography was already experiencing the fundamental change from a classical Graeco-Roman *polis* to a mediaeval town.

The '*kallos*' of a city, its image and beauty, was an important concept in the early empire, and we see the struggle to maintain public buildings, into which category temples fell, as part of the ending of this idea of 'The City' in the 4<sup>th</sup> century. Pagan buildings were protected against Christian attack from as early as 346 CE. Laws issued as late as 399 ordered the protection of temples and shrines, within the context of the preservation of heritage (Dalley 2003: *Codex Theodosianus* 16.x.15; also Speiser 2001b, 12). But in 435, imperial edicts required the general demolition of temples and shrines (CTh. 16.x.25). Of course, pagans did not fade away as quickly as their shrines (Lane Fox 1987). Two edicts in the Justinianic Code date most likely as late as the reign of Zeno (474–491) and were designed, unsuccessfully, to end 'Hellenic' cult once and for all, despite repeated prohibitions on pagan sacrifice from 381 onwards (Trombley 1993–4, 81: CJ 1.xi.9–10, 474–491 CE). However, for at least two generations after the public practice of pagan sacrifice had been outlawed, most temples still stood, often derelict, within the landscape.

There ought to have been several temples within a

city the size of Pella, not just the temple shown on the Commodus coin. Thinking of the concept of '*kallos*', we imagined the urban layout of Roman Pella. As far as we know, based on Pam Watson and Margaret O'Hea's Pella Hinterland Survey, the roads from Tiberius to the north and Jarash to the south, both led to the western end of the wadi between the main tell and Tel Husn. From there, we are sure that a colonnaded street ran eastward, with the Odeon on the north side, and the street ending at the base of Jebel Abu al-Khas. Numerous columns were dug up by the Water Ministry excavations when the pumping station was installed, but have no more specific provenance. Roman urban topography was often 'theatrical' – building were sited to end vistas, or to make some other clear visual impact. Thus, when standing at the hypothetical west gate of the city, and looking along the east–west colonnaded street, a viewer's eye would be drawn to the slopes of Jebel Abu al-Khas, making it the obvious place for town planners to erect a significant building.

Given the other evidence from Pella of pagan worship, concepts of urban planning, the visible wall lines and particularly the apparent square shape, I was quietly confident that excavation to the north of the East Church would reveal, at last, a Graeco-Roman period, possibly Semitic, temple. As can be seen, if we were to uncover a temple, quarried to build the church to its south, this would provide extremely important evidence for the study of this critical time period in the entire Levant.

I was wrong.

By the end of the first week of excavations in January this year, as part of the 2011 season, the team had revealed a square building, but one which had been built no earlier than the 5<sup>th</sup> century CE, and which shared many architectural features with the East Church. The style of wall masonry, the thick cement render on the lower parts of the internal walls, and the pink, grey and white pavers of the south (and later north) passage of our new building, were nearly identical to the East Church. Our building is certainly square, and it has internal walls and a central room with an apsidal east end. Because it is placed so much higher than the Church, we were confident from the beginning that it could not be a baptistery. By the end of six weeks of hard work, a little over one third of the building has been excavated. It is clearly an ecclesiastical structure, that is, it is related to the church hierarchy, but we do not have enough information yet to identify it.

The monumental stairs, topped by two columns, reached a narrow terrace which had been surfaced with mudstone pavers. This terrace had curved walls at each end (*exedrae*). From the terrace, reached by two more steps, were three doors: a single door to north and south, and a double door in the centre. North and south were paved passageways, with pink limestone and grey mudstone pavers identical in colour and size to those in the north and south aisles of the East Church. The centre door led to a wide central room, original floored in white marble. The very lowest part of the walls of this room may have been faced with

marble as well. Unusually, the back, southeast room of the building was floored with a simple coloured mosaic: a geometric pattern of small rosettes with a large flower within each diamond. This panel was bordered with a crow'sfoot pattern. As the mosaic became smaller behind the internal apse of the central room, smaller space filling patterns were used. Although nothing remains *in situ*, we excavated considerable numbers of plaster pieces with embedded glass and stone tesserae, suggesting all the walls, including the terrace *exedrae*, had been decorated with shiny wall mosaic.

Very little pottery was recovered beneath the floor packing of the building, but appears to be 5<sup>th</sup> century in date. At some point, which we as yet cannot date, the building was damaged. The sequence, as in the East Church, is unclear, but at least some of the wall mosaic was stripped from the walls, and the marble floor of the central room was removed. This indicates robbing, rather than earthquake damage. The basic structure of the building survived, at least in the north, east and south passages, as our excavations showed that the building was in use in a domestic function when it was destroyed in a massive earthquake. Outside the north passage door, on the terrace area we found evidence of a kitchen area, with a hearth and basalt grinding tools. Originally stored on shelves in the southeast room, we excavated an assemblage of storage, cooking and table ceramics and glass vessels, intermingled with some metal objects. These were smashed on the mosaic floor, under the substantial stone tumble of the buildings walls. The vessels in this destruction level have their best parallels in the 749 CE destruction debris of Pella Area III and IV, excavated by Sydney University from 1979 to 1983. There did not seem to be any use of the central room, so perhaps the roof of this area had been destroyed earlier.

What are the special features of this new building at Pella, and why is its identity mysterious? This was the most prominent ecclesiastical structure at Pella: when complete it stood much higher than the neighbouring East Church. It was also apparently the most lavishly decorated: we have recovered considerable amounts of wall mosaic, in much larger amounts than survived in the East Church, and it appears that even the exterior *exedrae* of the terrace had glistening wall mosaic decoration. The central room's apse does not reach the eastern wall of the building, and there was apparently a passage way behind the apse. Two holes in the front wall of the building, each side of the main door, once allowed pipes (robbed from the building in antiquity) to project, presumably carrying water to basins placed between each door way. The building itself sits on a projecting outcrop of unusual bedrock, with considerable amounts of cracked flint. This bedrock seems to have been kept clear of soil and was visible outside the building to its north, where we suspect a secondary path entered the building.

Our two choices for identity are an *episkopeion*—Bishop's audience hall—or *martyrion*: chapel marking the



site of a miracle or the grave of a saint. Neither building type is very common, and most are unique in layout anyway. *Episkopeia* are particularly rare, but the few that are known are associated with churches and have central apsidal reception halls. At first I dismissed this suggestion, because I did not think bishops would set up their thrones to be higher than a church. But further reading on the position of bishops in the world of late antiquity reveals a more complex process. By the 5<sup>th</sup> century, the authority and personnel of the Roman state were withdrawing from the outer parts of its Empire; indeed, the Western half of the Empire was 'lost' by the end of the century. Increasingly, the Church hierarchy filled the void; not surprisingly, as the men who rose to the rank of Bishop were of the same class of men who earlier had been the leaders of local councils or even appointed as governors of provinces. The Church, exempt from taxes, was increasingly wealthy, as vast fortunes accompanied men and women into ecclesiastical orders, or families without heirs left their estates to the Church to fund masses. In many cities, the Bishop was the most important, and often effectively the wealthiest citizen, the man to who people turned when catastrophe struck. The Bishop was also the person to adjudicated disputes, witnessed legal documents and increasingly acted on behalf of the emperor in local affairs. It is not difficult then to see a proud Bishop of a small town like Pella deciding to raise his audience hall in a particularly prominent place.

However, why would a Bishop have water pipes issuing from the front of his audience hall, and why would he have the back rooms, rather than the front, paved with mosaic? The central room, with its very high status marble floor, was clearly the most important room. But coloured mosaic 'outranks' mudstone pavers, yet in our building, mosaic appears to pave the passage way behind the apse. Only two churches in the southern Levant appear to have this feature of a passage linking the *pastophoria*: the church at 'Ein Ha-Shiv'ah/et-Tabgha on the northern shore of Lake Galilee, and the middle phase of the monastery church at Tiberias. Neither has been published other than scanty schematic plans (Ovadia 1970, nos. 46b and 178a). The 'Ein Ha-Shiv'ah/et-Tabgha church marked the traditional site of the miracle of the Multiplication of the Loaves and Fishes. The Tiberias church had before it a narrow passageway with exedra ends. Closer to Pella, the basilica at Mar Elyas, north of 'Ajloun, also has a narrow terrace in front with at least one exedra end, possibly two<sup>1</sup>. Churches, or rather chapels which mark the site of a miracle or a saint's grave are often relatively small and mark a specific spot. This is in contrast with the larger basilica (rectangular) churches we are familiar with, which had the function of accommodating large numbers of people. However, very often a chapel was associated with a larger basilica church, when the fame of the site spread more widely.

<sup>1</sup> I thank Ana Silkatcheva for providing plans and translations of the Arabic excavation reports of Mar Elyas which she is including in her study of mosaic workshops in northwest Jordan.



*Paving in the southwest room with the exedrae beyond. The East Church (standing columns) visible in the top left corner.*

Since my predication of a Roman temple proved completely wrong, I hesitate to define the function of our new building until next season when we hope to uncover the interior of the apse, and the full length of the back wall. In the meantime, I incline to the idea of a martyrion: the special character of the bedrock seems likely to have allowed a spring to arise and the water could then have been piped to the front to fall into basins as holy water. The presence of the mosaics at the back of the building, rather than the front, and the pipes do not seem to fit the little we know of bishop's audience halls. Prosaically, since there is no room for a residence around our building, or near the East Church, I cannot see a Bishop walking up from his palace in the town, all the way to Jebel Abu al-Khas to hear petitioners.

Whichever it is, this mysterious building will provide the best example of its type in the Levant. In addition, the large quantities of wall mosaic which survive seem to be the largest amount of this type of decoration that survives from a rural church anywhere in the Byzantine world. This already makes our building of prime importance for the understanding of the transmission of Late Roman art into the mediaeval period. Yet again, the exploration of a new area at Pella has changed the way we understand the site, and will add significantly to the history of the Late Roman and early Islamic periods. □

# Turning up the heat in the dating game

## Using thermoluminescence to study cairns in Jordan

by Jamie Fraser

Thirty years ago, in *Ancient Palestine: A Historical Introduction*, Gösta Ahlström famously chided Levantine archaeologists for being “tell-minded”. Archaeologists rarely venture beyond the city-walls of the region’s mounded tell sites, Ahlström argued, and he lamented the fact that the rural hinterlands on which these cities relied remained *terra incognita* despite a century of research.

Fortunately, if Ahlström was to re-write his book today, this charge would no longer stick. The last few decades have seen a remarkable surge in the number of surveys in rural areas, demonstrating that the countryside has just as rich an archaeological heritage as *tell* sites themselves.

The site of Pella, in the Jordan Valley, is no exception. While the University of Sydney has been excavating at Pella since 1979, one of the most significant contributions to our understanding of the site was the “Pella Hinterland Survey”. Conducted between 1994–96, this survey explored 36km<sup>2</sup> of Pella’s rural hinterlands in which the directors, Pam Watson and Margaret O’Hea, encountered thousands of archaeological features and sites. Although the survey was primarily interested in the rural landscape during Roman and Byzantine times, Watson and O’Hea recorded all the features they found, from Palaeolithic flint scatters to Classical farmsteads and wine-presses: the hills around Pella were a rich canvas on which residues of rural activity had accumulated for millennia.

### Cairns in the Pella hinterlands

One of the most striking features the survey found was over 630 stone-built cairns, thought to be tomb monuments of the Early Bronze Age (EBA; ca. 3300–2000 BCE). However, cairns are notoriously difficult to date because they rarely contain archaeological artefacts. For example, although Watson and O’Hea didn’t excavate any of the cairns they found, they did “rigorously clean” a cairn in which robbers had exposed a stone-lined burial chamber beneath a tumulus of small rocks. Unfortunately, the only artefacts that remained—some foot bones, a handful of bone beads and two undiagnostic ceramic sherds—were undatable. Nevertheless, cairns elsewhere in the Levant, particularly in the Negev desert, have yielded human burials interred with EBA grave goods, and so it was tentatively suggested that the cairns of the Pella hinterlands were part of a megalithic, mortuary landscape associated with one of the region’s earliest urban centres at Pella.

In 2007 and 2009, I returned to the Pella hinterlands with a team of ten Australian and Jordanian archaeologists to further explore this megalithic landscape as part of



*Chamber in cairn excavated by the Pella Hinterland Survey.*

my doctoral research. To what extent were all cairns EBA monuments? And to what extent were they tombs? Generously funded by NEAF and the Australian government’s Endeavour Awards, we surveyed in detail several clusters of cairns that the Pella Hinterland Survey had identified. Assisted by workmen from the local village, we then excavated 16 cairns in three different topographic and environmental zones.

The fieldwork demonstrated that the term “cairn”, used by every survey in the southern Levant, is actually a broad church that includes a variety of features from small amorphous rubble piles to larger structures with architectural elements. Such morphological diversity implies that cairns were probably built for different reasons at different times. Indeed, the absence of obvious burial chambers in many cairns suggests that a large proportion of the Pella cairns were not built as tombs at all, but were constructed for a variety of reasons including as cultic monuments, as territorial markers, or, more prosaically, as agricultural clearance piles.

However, a discussion of the various reasons behind why cairns were built could run for several pages, so instead I’ll concentrate on the thorny problem of when they were constructed. Unfortunately, like the cairn cleared by the Pella Hinterland Survey, most of the 16 cairns



we excavated were devoid of cultural remains. However, five cairns yielded small amounts of nondescript pottery sherds. These sherds are undatable by conventional archaeological means, and would have been ignored or even thrown away in the course of a usual excavation in the Middle East. Nevertheless, these sherds comprised the only archaeological material found in any of the cairns, and so remained our only hope for dating the cairns from which they came.

## Thermoluminescence Dating

Consequently, I took a selection of sherds to the Thermoluminescence Dating Laboratory at the University of Wollongong, where the laboratory's director, David Price, subjected the sherds to a thermoluminescence analysis. Thermoluminescence dating is a scientific technique that can be used to directly date pottery. The technique works something like this: minerals present in the clay used to make the vessel, particularly quartz and feldspar, contain long-lived radioactive isotopes. These isotopes, mainly potassium, thorium and uranium, decay at a constant rate over time, releasing electrons. However, these electrons don't have enough energy to escape the mineral, and so they become trapped in the mineral's crystalline structure, where they accumulate at a constant rate.

However, the accumulated electrons can be released from these traps if the vessel they are in is heated to 500°C, which causes the vessel to emit the electrons as light. For example, when a pottery vessel is first fired in a kiln, all the rogue electrons trapped in the vessel's clay matrix are released, clearing the pottery of the latent thermoluminescence that its minerals have acquired when they were originally resting in the clay bed where the potter found them. This firing process thus sets the pottery vessel's "thermoluminescence clock" to zero; the isotopes in the vessel's clay matrix start to decay afresh, and the rogue electrons start to accumulate anew.

Thermoluminescence, as the name implies, is a technique that uses heat (thermo) to release these electrons, which are emitted as light (luminescence). By rapidly heating a pot sherd to 500°C in a controlled laboratory environment, it is possible to measure the amount of light that is emitted from the sherd as the electrons are released. By working backwards, scientists can then calculate the amount of decay undergone by the minerals' radioactive isotopes since the vessel was fired, and so calculate the age of the sherd itself.

Although the technique is accurate, it is unfortunately not particularly precise, usually producing a date with a +/- bracket that corresponds to about 10% of the age of the sherd itself. Other scientific dating techniques, such as radiocarbon dating, have a higher precision and so are more commonly used for archaeological dating, whereas thermoluminescence is often used to determine whether un-provenanced artefacts are genuine antiquities or modern fakes.

However, radiocarbon dating can only date carbonized remains of once-living things, and thermoluminescence is ideal for dating archaeological contexts devoid of these remains. As the five cairns excavated in the Pella hinterlands contained nothing but a handful of small sherds, thermoluminescence was the ideal technique to extract some chronological information from the cairns.

## The results

As the chart below shows, two sherds found in a large rubble cairn at Tell er-Ras provided dates within the 3<sup>rd</sup> and 4<sup>th</sup> millennia BCE, corresponding to the general EBA date we expected. However, the six remaining samples from the four remaining cairns produced dates that clustered in the Roman, Byzantine and Early Islamic periods, and this was a complete surprise.

The results are important because they suggest that the megalithic landscape of the Pella hinterlands was not just an EBA phenomenon, but a much later one as well. Although the neat cluster of dates in the late 1<sup>st</sup> and early 2<sup>nd</sup> millennia CE initially surprised us, upon reflection these dates make perfect sense. The Classical periods in Jordan saw an unprecedented intensification of the rural landscape. Indeed, Watson and O'Hea initially instigated the Pella Hinterland Survey in order to investigate how a burgeoning rural population shaped the landscape at this time, when Pella was a major city of the Decapolis. It is somewhat ironic, then, that perhaps the majority of the 630 cairns recorded as EBA are probably off-site features associated with the very phenomenon that the Pella Hinterland Survey was looking for.

The study also demonstrates that problems involved in dating isolated rural features such as cairns are not due to the features themselves, but rather are a result of the inability of archaeologists to adapt field methodologies that are better-suited to dating artefact-rich settlement sites. In this respect, Ahlström's charge of "*tell*-minded" archaeology remains valid today. Although small, undiagnostic body-sherds are often discarded by large-scale *tell* excavations, these modest potsherds have the potential to help us date "undatable" features in the countryside, and so solve some long-standing archaeological problems. □

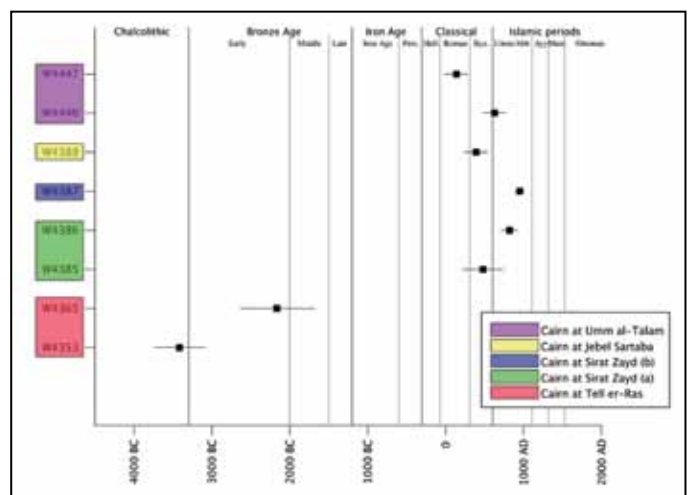


Chart of thermoluminescence dates.

# Rhodian Amphorae and Alexandrian Architecture

## Burials at the 'Tombs of the Kings' in Paphos, Cyprus

by Craig Barker

The way people bury their dead is usually a conservative custom; even in a time of social, economic and political upheavals the ritual of burial can be slow to change. Such is the case with the burials from within the so-called 'Tombs of the Kings' in Nea Paphos, in Cyprus. The architecture of the tombs and the grave goods buried with the deceased provide a fascinating insight into the profound changes that were occurring on Cyprus, and indeed more widely across the Eastern Mediterranean, in the 3<sup>rd</sup> and 2<sup>nd</sup> centuries BCE.

The University of Sydney has been working in Paphos since 1995 under the auspices of the Department of Antiquities of Cyprus. Under the direction of firstly Emeritus Professor Richard Green, and more recently, under my and Dr Smadar Gabrieli's supervision, the team has been excavating the Hellenistic-Roman period theatre of the ancient city.

Nea Paphos was the capital of the island in the Hellenistic period and for large parts of the Roman domination of Cyprus: the World Heritage listing of Paphos is testament to the rich cultural and archaeological record of the city. Beautiful preserved mosaics from the so-called House of Dionysos and the House of Ion, and the reconstructed 2<sup>nd</sup> century CE Odeon give an indication of a bustling urban centre built around a natural harbour, which acted as a major lynchpin for maritime trade between the Aegean and Alexandria for centuries. Indeed, the Ptolemaic control of the island from the third century BCE saw a strong cultural and artistic link between Paphos and Egypt, which is reflected in the archaeological record of the city, with a strong Alexandrian influence discernible. The remnants of the second century BCE phase of the theatre's stage building is just one of these many tantalising glimpses into the Ptolemaic influence on the island as the entablature and other fragmentary architectural features recovered are distinctively Alexandrian in style.

The theatre was located in the north-eastern quarter of the town, cut into the southern slope of Fabrika hill, and was first constructed around 300 BCE. The spread of theatre and theatrical performance from its Greek heartland to the East in the aftermath of Alexander the Great's conquests is one of the key indicators of the spread of the Hellenistic *koine*: a common language and common cultural ideal. The theatre of Paphos is indicative of these changes, and also of the significant role the harbour of the city played in receiving and spreading ideas. Through careful excavation, the Australian team has been able identify a structure that was used as a venue for entertainment



Map of Paphos showing the location of the major ancient monuments.

for over six and a half centuries until the earthquakes of ca. 365 CE, and one that underwent at least five major phases of reconstruction where the theatre has been rebuilt according to contemporary Hellenistic and then Roman tastes for entertainment and architectural fashions. More recent seasons of excavations by the University of Sydney have concentrated on developing an understanding of the theatre's precinct, with a nearby *nymphaeum* (fountain complex) and the paved surface of a Roman road exposed recently. As well as enabling us to research the development of this important public building and its impact upon the urban layout of the city of Nea Paphos, the excavations have also served as a training ground for students of archaeology and contributing volunteers, many of who are NEAF members and supporters.

One of the exciting aspects of the theatre excavation has been the chance for team members to get involved in other archaeological investigations of Paphos through participation in the work of the Department of Antiquities, including assisting rescue excavations of tombs and associated study and recording of various finds. The main subsidiary project of the Australian team in Paphos has been our involvement with the recording of grave goods from the excavations of the so-called 'Tombs of the Kings'.

The 'Tombs of the Kings' constitute the largest and most important Hellenistic cemetery on Cyprus. Obviously, despite the name, there is no royalty interred in the tombs, as they date to an era after the abolition of the kingdoms of Cyprus. Indeed the site was known locally as Palaeokastro (or the old ruins) for centuries; it has been only since the 1930s that it becomes known by the more evocative





*View of the Paphos theatre excavated by the University of Sydney.*

title. Despite various attempts at clearing tombs over the years, including work by the American consul, cum-looter, of the 1870s, Luigi Pamla di Cesnola, and by local authorities using prisoners as labourers in the 1920s, it has only been since 1977 that the site has been investigated with any degree of scientific measure. The University of Sydney 'Tombs of the Kings' Project had its inception at the invitation of Dr Sophocles Hadjisavvas, the former Director of the Department of Antiquities of the Republic of Cyprus, and the excavator of the site between 1977 and 1990. The project was designed to record and catalogue all finds from the excavations at the site and to prepare the results for Hadjisavvas's final publication.

No matter what the cemetery is now called, it is hard to deny the impressive nature of the rock-cut tombs located on the coastline, 2km north of the ancient city walls. Hewn out of the bedrock are a series of eight known (and a series of as-yet unexcavated) peristyle tombs, alongside hundreds of shaft graves, smaller chamber tombs, and a burial tumulus partially inspired by the Macedonian royal burials at Verginia. The chamber tombs represent a Hellenistic continuation of traditional Cypriot funerary architecture dating back in one form or another to the Bronze Age (indeed the Australian connection to the study of these tombs is strong: the Nicholson Museum is home to material excavated from Bronze Age chamber tombs by James Stewart and Basil Hennessy in the 1940s and 1950s, and more recently, David Frankel and Jennifer Webb from LaTrobe University have excavated several Early Bronze Age chamber tombs).

However, the peristyle tombs are a different story. Large peristyle tombs with a stepped *dromos* (entranceway), leading into an open central atrium, with burial chambers cut into the bedrock are not previously known on the island. The 'Tombs of the Kings' tombs instead demonstrate a direct architectural influence coming from Ptolemaic monumental burial grounds in north Africa; in particular the Tombs of Mustafa Pasha in Alexandria, but also the Hellenistic necropolis at el-Alamein. The Egyptian influence is perhaps strongest at the Paphos tomb designated as Tomb 8 which has a large central bedrock block; it is in many ways reminiscent of the mastaba tomb tradition. What the peristyle tombs strongly suggest

is an attempt to replicate the traditional architectural form of a house and to cut it into the ground with burial chambers replacing rooms. In particular, the tomb designated Tomb 3 is impressive with a Doric triglyph and metope design around the central atrium. They are by far the largest tombs on Cyprus. Like the chamber tombs, individual burials in these tombs were either in the form of shaft graves carved into the floor or *loculi* burials carved into the walls. In either form the deceased was left with an impressive array of grave goods in the form of ceramic plates and bowls (both local and imported), glass vessels and jewellery, lamps and terracottas. In some tombs there was evidence for funerary pyres on which were tossed ceramic items after funerary feasts. Although many of the tombs were looted or disturbed by stone quarrying, these objects represent a significant corpus of Hellenistic ceramics and other finds that will provide a valuable contribution to the archaeological understanding of the island when published.

Architectural study suggests the bulk of the peristyle tombs of the 'Tombs of the Kings' necropolis date to the second century BCE. Our analysis of the grave goods supports this suggestion, with the bulk of the ceramics dating to the second century (although there is evidence for use of the tombs from the third century BCE until the third century CE). Dateable finds such as the 700+ stamped amphora handles and the few coins also confirm that the bulk of the burials at the necropolis date to the middle of the second century BCE. As with the theatre, it demonstrates the profound influence Alexandria had over its colony at the pinnacle of the power and prestige of the Ptolemaic kingdom.

It has long been argued that the tombs may have represented the family burial plots for the Ptolemaic administrative elite serving in Paphos away from their home in Alexandria while the local Paphians continued to be buried in shaft graves or chamber tombs. A closer inspection of the grave finds suggests a more complex interpretation than this. A burial custom recognised by the Australian team, and one which is distinctively unique to Paphos and the western area of Cyprus at least from the Geometric period onwards, is a custom of burying two identical ceramic shapes with the deceased.



Example of a peristyle tomb at the 'Tombs of the Kings'.



Tomb 3 at the 'Tombs of the Kings'.

The Hellenistic form, most commonly, is for the deceased to be buried with two Rhodian amphorae (in the case of shaft graves care was taken to bury them upright and they were usually positioned on either side of the deceased person's head or feet; with *loculi* burials, the amphorae were placed near the entrance of the burial). It is worth noting that this duplication has also been noted at the 'Tombs of the Kings' in the form of two plates, two jugs and two *amphoriskos*. This duplication of a type of grave good is noted in burials in the elaborate peristyle tombs, as well as the chamber tombs, which makes the distinction between the funerary architecture less obvious. Could it be that the Paphian population, at the height of the city's wealth and influence, were eager to adopt the fashions and trends of Alexandria in all aspects except one: the ritual of internment of duplicate grave goods; albeit one adapted slightly to use transport amphorae as the predominantly

preferred object. Could it be reflecting the conservative nature of burial customs, that even in a period of profound cultural change, there was one old custom that still could be clung too?

The 'Tombs of the Kings' is an extraordinary archaeological site with unique architecture. However, by analysing the grave goods we are given a far more interesting insight into a society dramatically changing during the Hellenistic period; on one hand adopting new traditions such as new forms of theatre architecture and Alexandrian-styled tomb architecture, but on the other clinging to the traditional duplication burial customs of the region of western Cyprus. It is a rare insight into the otherwise little understood burial practises of Hellenistic Cyprus. □



Tomb 8 at the 'Tombs of the Kings'.



# THE NEAR EASTERN ARCHAEOLOGY FOUNDATION CELEBRATING 25 YEARS

by Maree Browne and John Tidmarsh

Last year, 2011, was the 25<sup>th</sup> anniversary of the Near Eastern Archaeology Foundation (NEAF) at the University of Sydney: an occasion we celebrated at a very successful dinner held at the Women's College on Friday 25<sup>th</sup> November 2011.

The foundation started life as The Australasian Research Foundation for Cypriot and Near Eastern Archaeology Limited, set up at the University of New England in 1973 under the auspices of Basil Hennessy, then incumbent of the Edwin Cuthbert Hall Chair of Middle Eastern Archaeology at the University of Sydney. Also heavily involved in the inauguration of the original foundation was Mrs Eve Stewart, widow of Basil's former mentor and eminent archaeologist (and previous incumbent of the Edwin Cuthbert Hall Chair) Professor James Stewart.

Initially it was envisaged that the Australasian Research Foundation for Cypriot and Near Eastern Archaeology would be based in Cyprus (with money for its headquarters generously provided by Mrs Eve Stewart). However, the subsequent Turkish invasion of the island in 1979 made this impossible and so in March 1984 Basil Hennessy applied to transfer the foundation to the University of Sydney and re-name it as the Near Eastern Archaeology Foundation.

On 3 June 1985 the University Senate approved the establishment of NEAF as the 24<sup>th</sup> foundation of the University of Sydney and in January 1986 it commenced operations.

From 1985 Basil Hennessy was the first Director of the Foundation until his retirement from the University in 1991 when Professor Dan Potts, current occupant of the Edwin Cuthbert Hall Chair, assumed the Directorship.

The first President of NEAF was the late Sir Herman Black (then Chancellor of the University), to be followed in 1987 by Maree Browne who was responsible for setting up many of the activities which are now an integral part of the NEAF year. In 2003 Maree stepped down to be succeeded by Dr John Tidmarsh, the current President. Throughout this period, the workings of NEAF has been overseen by a Board of which is elected annually and meets throughout the year.

As well as honouring the memory of James Stewart, Basil Hennessy's intention in establishing NEAF was (in his words) "to set up something in Australia to which Australian students could apply for financial support to do overseas field work". This aim has remained one of NEAF's key priorities over the past 25 years and through awards such as the Catherine Southwell-Keely and Leone Crawford Travel Grants, the Sam Eames Grant-in-Aid, as

well as smaller Grants-in-Aid, more than \$150,000 has been awarded to postgraduate research students enrolled in Australian and New Zealand universities. Many of the recipients of these scholarships now hold academic positions at a number of the world's leading archaeological centres and institutes.

Of equal importance is the aim of the Foundation to make Near Eastern archaeology more accessible to the community at large. At first this was achieved through a series of evening lectures on Near Eastern, Cypriot, and Egyptian topics, as well as lectures given through the University's Centre for Continuing Education. Over the years the program has been expanded to include private museum viewings, international tours led by experienced archaeologists, study days and weekends and, since 1993, the opportunity for paying volunteers to work alongside archaeologists at the University of Sydney's excavations at Pella in Jordan. In fact, the Pella Volunteer Scheme is now the major source of new members for NEAF, with some 350 volunteers having worked at Pella: many for two or more seasons.

In 2011 NEAF started a series of seminars for members on the history and archaeology of the Ancient Near East, with the first two in the series dealing with the 4<sup>th</sup> through to the 2<sup>nd</sup> millennia BCE. Held on Saturday mornings in the seminar room at CCANESA, the Centre for Classical and Near Eastern Studies of Australia where the NEAF office, along with the NEAF library available for members' use, is now located, these talks have proved extremely successful and will certainly continue in 2012 when we plan to advertise the series to non-members, as well as to members of NEAF. By these methods NEAF aims to bridge the gap between the world of the academic archaeologist and that of the interested member of the general public.

Furthermore, as well as having its own web site (<http://sydney.edu.au/arts/sophi/neaf/>), NEAF now puts out this annual Bulletin. The first NEAF Bulletin appeared in December 1987 and was largely the brainchild of the late Jon Hosking, one of NEAF's staunchest supporters. It continued to be issued three times per year (in black-and-white) until superseded in 2010 by a larger, colour bulletin (Volume 54). Both the web site and Bulletin are under the editorship of the irreplaceable Ben Churcher.

Throughout the period of NEAF's existence, the Foundation has been fortunate to have such a dedicated group of paid staff and volunteers manning the office. They include the late Pat Smith, Michael Newton, Dr Alan Walmsley, Dr Kate da Costa, Dr Sam Gibbins, Dr Mel Kennedy and, currently, Karen Hendrix. NEAF's finances have long been under the careful of scrutiny of our Treasurer, Dr Stephen Bourke, and our vice-President, Dr Wendy Reade, assumes many administrative duties. It is in a large part due to their efforts that NEAF has continued to flourish for a quarter of a century, with its current membership standing at a very healthy 383.

*Our thanks go to Karen Hendrix for her research into the early history and other aspects of NEAF for this article.*





# NEAF ARCHAEOLOGICAL TOURS

NEAF, in conjunction with the Centre for Continuing Education (CCE), run several Study Tours a year to places that would be of interest to all people interested in archaeology and history. Our tour to Mexico will be departing soon and there are still places available, but be quick! NEAF has several other tours in the pipeline for 2013. Please refer to the NEAF website or contact Lissa Sharp at (02) 9036 4766 (The Centre for Continuing Education: [lissa.sharp@sydney.edu.au](mailto:lissa.sharp@sydney.edu.au)).



## Mexico: Pyramids in the Jungle

**21 March to 10 April 2012**

**with Ben Churcher**

Three great cultures dominate the history of Mexico: the Olmec, the Maya and the Aztec. These cultures span the period from 1200 BCE to the conquest of Mexico in 1521 by the Spanish commander Hernán Cortés whose exploits is one of the great 'ripping yarns' of modern history.

Instead of the drier, 'movie' landscapes of the north, the tour heads south from Mexico City, staying in towns dominated by Spanish colonial architecture, and travelling through a varied landscape—from thick forests to dry savannah—dotted with innumerable historical and archaeological sites.

Together, it is sure to spark an interest in the incredible history and fascinating culture of Mesoamerica.

Please refer to the NEAF web site for more information and details.

## Pella Volunteer Program January-February 2013

Pella in Jordan is not only one of the longest running excavations in Jordan but, if you ask us, it is also one of the more fascinating sites in the Levant and certainly one that is set in a truly wonderful landscape.

With over 20 years experience at running the Pella Volunteer Program we are confident that we can provide a 'full-immersion' experience for anyone who has ever wondered what it would be like to part of a major Middle Eastern excavation. Working alongside professional archaeologists, conservators, illustrators and photographers, participants of the volunteer program are included in all facets of life at Pella while they live and work at the site.

In addition, excursions to some other gems of Jordanian archaeology are part of a volunteer's time at Pella as weekly trips are taken to nearby sites in the company of archaeologists who have broad experience in both Jordanian culture and its long, fascinating history.

It is a rare opportunity to help excavate deposits dating to the very beginnings of urban life, or to reveal a house from the period following Alexander the Great, or, like the photo right, to be the first person to hold a small basalt bowl since Solomon was on the throne!

Please join us by filling in an application form that can be found at the NEAF website to register your interest.



**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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