

Archaeological Diggings

CALIGULA

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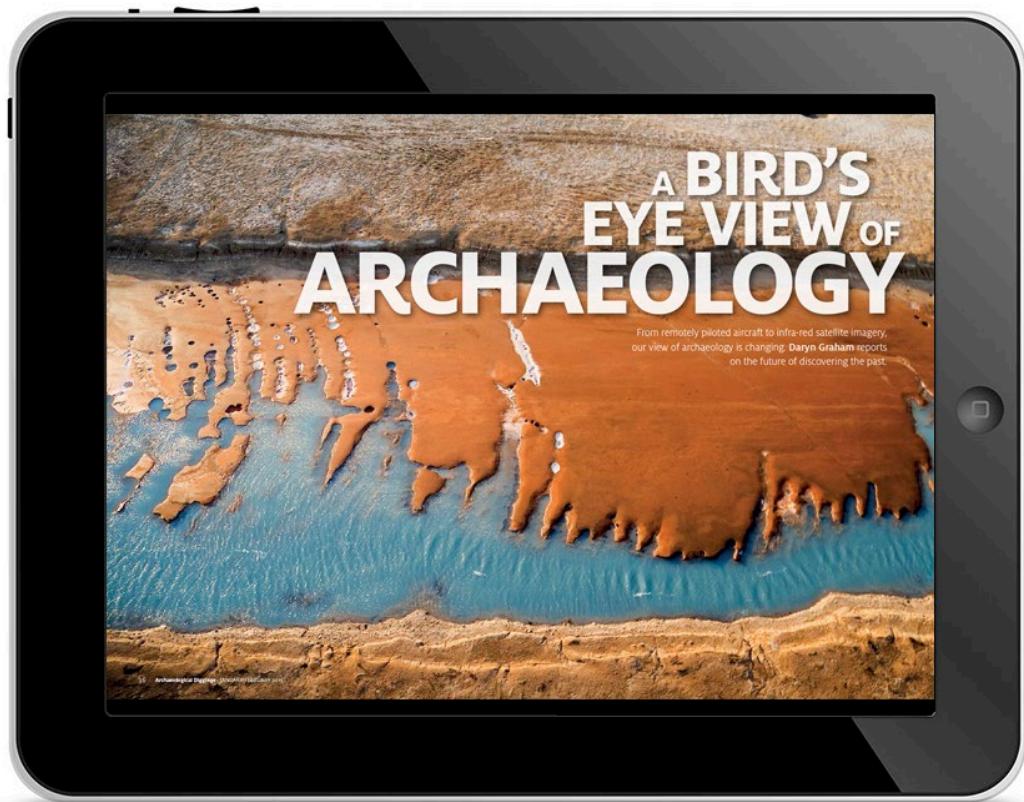


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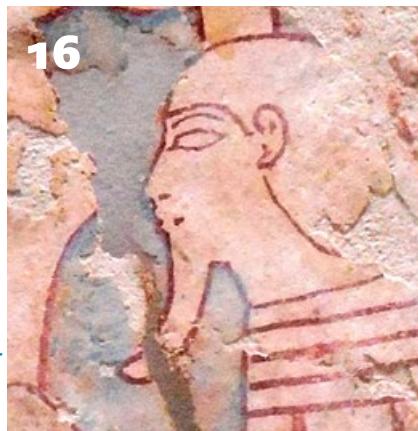


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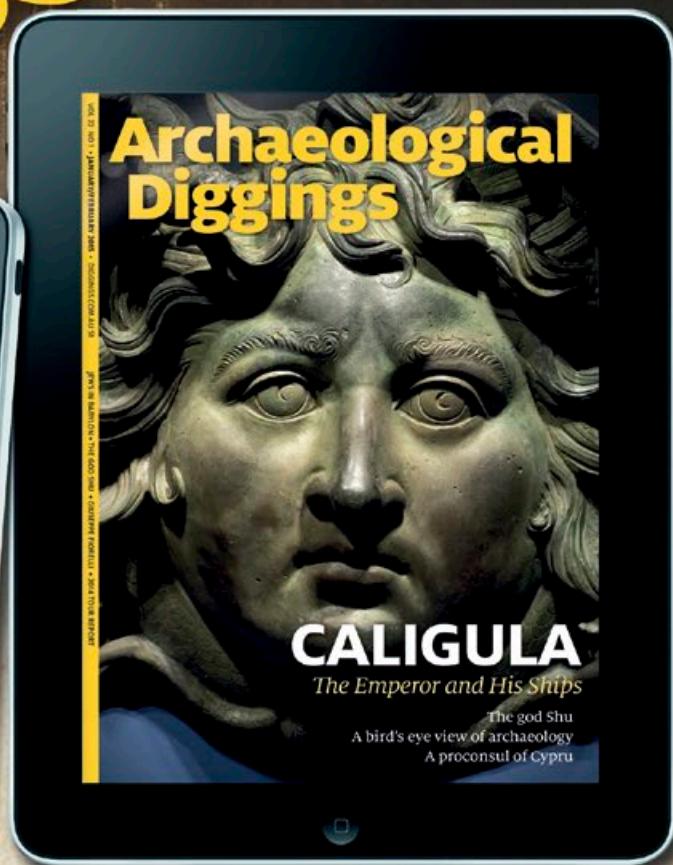
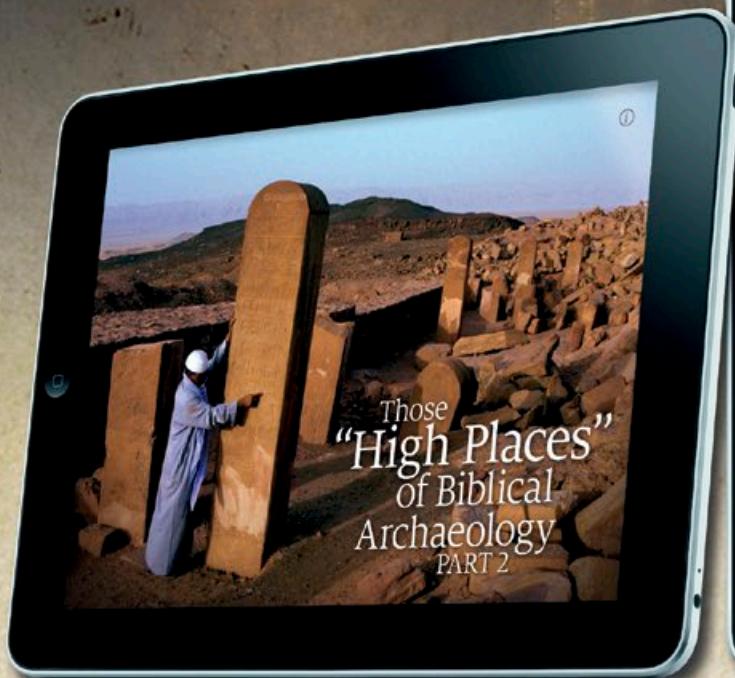
ON THE COVER: EMPERORS OF ROME:

CALIGULA. This bronze of Medusa, discovered in 1895, originally decorated one of the so called Nemi Ships, built on the orders of Emperor Caligula around A.D. 41.

Cover photo by Adam Eastland Art + Architecture—Alamy

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Sydney Siege and Charlie Hebdo

Just after Christmas last year, pick in hand, I began to dig the hard ground of our backyard to plant new lawn. I soon encountered rubble, turning the task into something of an excavation. As I unearthed broken bricks, a rotted boot, pieces of concrete, roofing tiles and iron mesh, I began to piece together the history of the construction of the house; rather than take the rubble to the local tip where they would have to pay for its disposal, the builders buried it beneath a shallow layer of soil. Little did they realise that down through the mists of time, a pick-wielding archaeologist would uncover their dastardly deed. As I laboured under the hot Aussie sun, I became somewhat annoyed by their actions; I began to characterise all builders as a bunch of cheap, lazy cheats!

But my disgust paled in the light of the events that were about to transpire. Firstly came the 2014 Sydney hostage crisis, which tragically ended, after a 16-hour standoff, with three dead, including the self-styled Muslim cleric hostage taker. Soon after, this was followed by the *Charlie Hebdo* shooting by two Islamist gunmen against the satirical magazine *Charlie Hebdo* in Paris, and then quickly after by another siege in a Jewish bakery in Paris involving a third gunman.

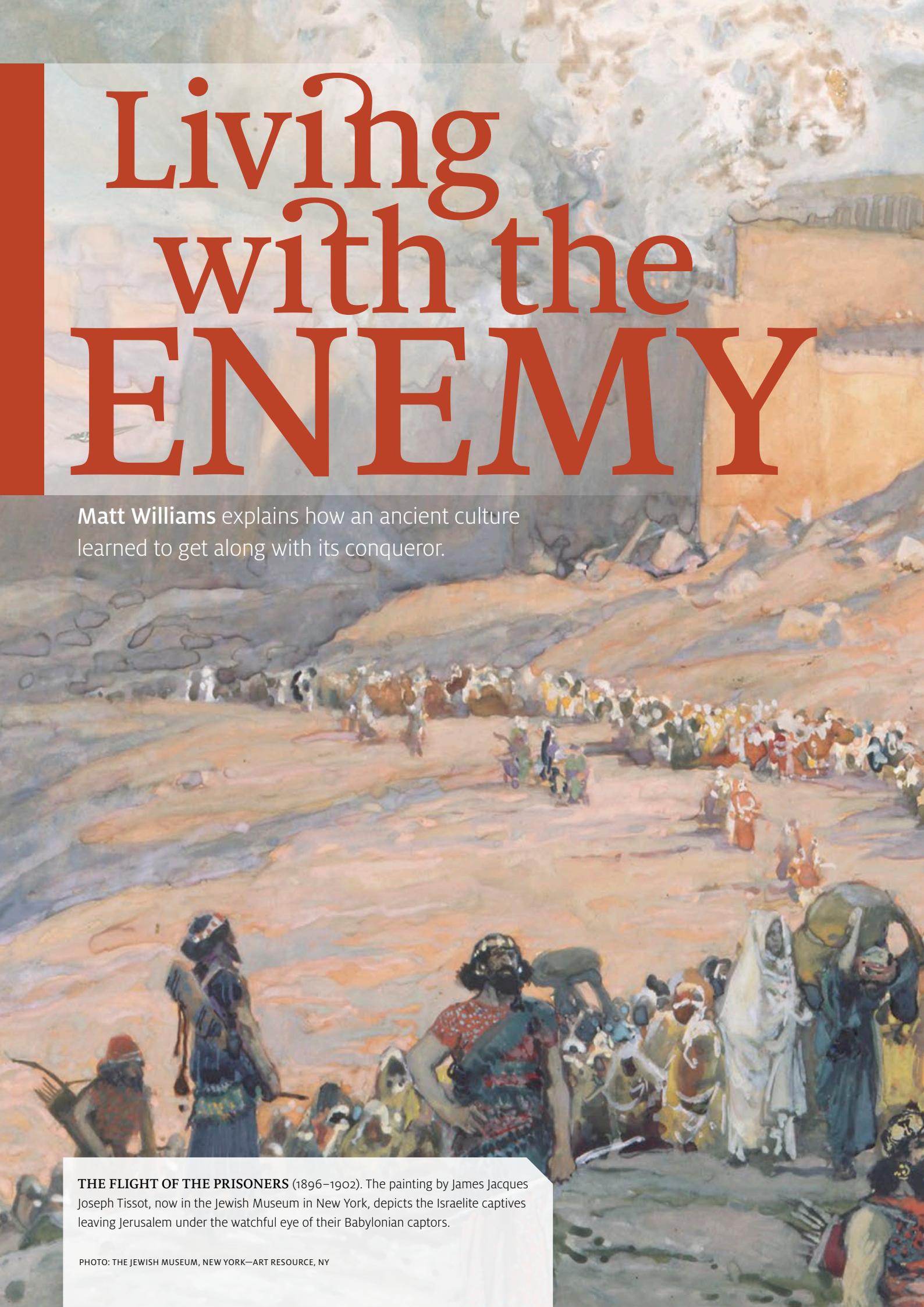
As expected, as the "evidence" emerged as to who was behind these brutal attacks, some began to view all Muslims as potential terrorists, giving little thought to the fact that around the same time as these events were playing out, half-way around the world some 132 Pakistani Muslim children were themselves victims of a cruel attack by Muslim Taliban extremists. And because the Sydney hostage taker was Iranian, some began to think negatively of all Iranians, without realising, as I've discovered on our recent tours to Iran, that they are a most gracious and friendly people.

Why do we generalise about people groups, especially in the negative? It's hardly fair to characterise a person in one area of life by the actions of another.

But enough maudlin musings. Rather, read on and be inspired by this issue of DIGGINGS: Matthew Williams opens a window on Jewish life in ancient Babylon; Daryn Graham looks at the life of Caligula "the crazy;" and I share the highlights of our recent tour to Egypt, Italy, Mexico and Peru. Enjoy the magazine.

Gary Webster
Editor

Living with the ENEMY



Matt Williams explains how an ancient culture learned to get along with its conqueror.

THE FLIGHT OF THE PRISONERS (1896–1902). The painting by James Jacques Joseph Tissot, now in the Jewish Museum in New York, depicts the Israelite captives leaving Jerusalem under the watchful eye of their Babylonian captors.





THE FAMOUS ISHTAR GATES of ancient Babylon, now housed in Berlin's Pergamon Museum. It is likely that the demoralised and weary Israelite captives walked through these imposing gates as they entered the city. **INSET**, detail of a flower on the Babylonian city wall.

RIVERS OF BABYLON," THE RASTAFARIAN SONG originally recorded by The Melodians in 1970, was covered by vocal group Boney M in 1978, and went on to become one of the UK's biggest-selling single records. Its lyrics echo the ancient cries of the psalmist of the Bible in Old Testament times. It's a message that resonates deeply with Rastafarian ideology of the struggle of living under oppression and a longing for social justice.

Psalm 137 in the Bible, the inspiration for the song, portrays the Judean captives in deep mourning over the destruction of their beloved city, Zion, better known as Jerusalem, at the hands of the Babylonians in the sixth century B.C.

It tells of the captives' torment as their Babylonian oppressors demanded of them joyful songs of Jerusalem whilst they lamented her destruction. The Judeans are said to have vowed that if they forget the joys of Jerusalem, both the work of their hands and the song of their mouths would be forever lost:

"By the rivers of Babylon we sat and wept when we remembered Zion. There on the poplars we hung our harps, for there our captors asked us for songs, our tormentors demanded songs of joy; they said, 'Sing us one of the songs of Zion!'"

"How can we sing the songs of the Lord while in a foreign land? If I forget you, Jerusalem, may my right hand forget its skill. May my tongue cling to the roof of my mouth if I do not remember you, if I do not consider Jerusalem my highest joy."

This psalm expresses the raw emotions of a broken and captive people, still hurting over the loss of their homeland, their city and their very way of life. The text provides a vivid impression of their emotional state as they cry for the destruction of Babylon through the smashing of her infants against rocks.

It is often stated that time heals a multitude of wounds and it was no different for the Judean captives in Babylon. At the time of their captivity and destruction of Jerusalem, they were angry and full of vengeance toward the Babylonians. Within 25 years, however, they had learnt to live side by side with their enemies, forming families within a cohesive society and carrying on economic activity to their mutual advantage. It appears that, although the political and religious powers were in conflict, the people put aside their differences in order to live with one another in harmony; a lesson from history that our present world would do well to learn.

THE RISE OF THE NEO-BABYLONIAN EMPIRE

The Neo-Assyrian Empire was the most powerful force in the Middle East for much of the seventh century B.C., but major defeats to the Babylonians at Ninevah in 612 B.C. and Harran in 610, left the former superpower shattered and scrambling for survival. The Assyrian king Ashur-uballit II subsequently sought the support of Pharaoh Necho II of Egypt to defend the last Assyrian stronghold, Carchemish. As the Egyptian forces were making their way towards Carchemish to support the Assyrians, Pharaoh Necho II requested permission from Josiah, king of Judah, to pass through Judean territory.

Josiah's refusal ignited a battle between the Egyptians and the Judeans at Megiddo in 609 B.C. The biblical books, 2 Chronicles and 2 Kings, record the Egyptian archers inflicting an injury to Josiah at the battle, his request to be taken back to Jerusalem and his subsequent death, leaving the Egyptians a clear path to unite with the Assyrians against the Babylonians at Carchemish. At

the battle of Carchemish in 605 B.C., the Babylon army overpowered the joint Assyrian and Egyptian forces, destroying what was left of the Assyrian kingdom and in the words of its king Nebuchadnezzar, "The Egyptian army withdrew before me." From this time forward, Babylon began taking control over the Levant and the majority of the Middle East.

THE DESTRUCTION OF JERUSALEM

The allegiance of the Judeans swayed as the control over the Levant began to shift from the Egyptians to the Babylonians. After the battle at Carchemish, Jehoiakim, King of Jerusalem, swore allegiance to Nebuchadnezzar by sending as tribute to him, temple vessels and members of the royal family, along with many of his nobles and promising young men, full of wisdom and knowledge. Nebuchadnezzar continued to return to Jerusalem for the next three years (604–602 B.C.) to levy tribute from his vassal kingdom. Then, as recorded in 2 Kings 24:1, just three years after becoming vassal to Nebuchadnezzar, Judah's allegiance to Babylon began to wane as they witnessed Nebuchadnezzar's attempt to invade Egypt in 601 B.C., fail and draw heavy losses on both sides.

This action was not without consequence, as recorded in the Babylonian chronicles. Once they had regained strength, Nebuchadnezzar returned to Hatti land—the Levant—on March 15–16, 597 B.C. (the 2nd of Adar), in the seventh year of his reign and besieged Jerusalem. Jehoiakim had since passed away and the Babylonians took his son Jehoiachin, his family, officials and courtiers, and 10,000 servicemen comprising of soldiers, craftsmen and artisans back to Babylon as captives, leaving only the rural population behind. In his stead, Nebuchadnezzar appointed Jehoiachin's uncle, Zedekiah, as vassal king, who soon after also rebelled, bringing upon Judah yet another attack which resulted in the destruction of Jerusalem and the captivity of 832 people. If that was not enough, 2 Kings 25:22–26 records that just four years after Jerusalem's fall, the appointed governor Gedeliah was murdered by a dissident party which brought yet another 745 Judeans captive back to Babylon, making a total of four major deportations of Judeans to Babylon.

PRISONERS OF WAR

The Neo-Babylonian Empire adopted a very similar prisoners of war policy to that of their predecessors, the Neo-Assyrians. The Neo-Assyrian Empire, which controlled the Mesopotamian region from 934 B.C. to 609 B.C., had strict policies and punishments when it came to rebellion. Their punishment was political surrender by persuasion, intimidation or military force, and the conquest was often swiftly followed by the imposition of a treaty of "eternal vassalage." This predominately entailed the enthronement of a vassal king and subsequent large-scale deportation. The Babylonians were all too familiar with this policy as Sennacherib, king of Assyria, in the latter half of the seventh century B.C., dispersed parts of the Babylonian population to various countries as a punishment for disloyalty to the Assyrian throne. Along with mass deportation, the Assyrian kings would often

provide logistical support to a vassal king to assist their control over the vassal kingdom. As mentioned earlier, this became the policy the Neo-Babylonian Empire took against its subjects during the first quarter of the sixth century B.C., including Judah.

RURAL DEPORTEES IN BABYLON

The evidence needed to understand daily life of Judean deportees in Babylonia came with the discovery of a number of cuneiform tablets. These tablets, written in Akkadian, record the name of a region titled “Town of the Judeans,” located in the Nippur-Keš-Kakara triangle. The identification of the town as a Judean settlement is done through a specific study of the Akkadian language called orthography. The system of Akkadian grammar uses gentilics, a suffix placed after the name of geographic regions, to denote an ethnicity. In the case of Town of the Judeans, the standard Akkadian gentilic ending (-a-a) is suffixed on the geographical term to produce *URU sa LU ia-a-hu-du-a-a* Town of the Judeans. The majority of contracts drafted from this town follow the same structure: the notation at the end of the tablet that records the name of the scribe, the date on which the transaction took place and the place in which the document was composed. The town's earliest attested date is drawn from a text ascribed to Nebuchadnezzar's thirty-third year (572 B.C.), 15 years post the destruction of Jerusalem. This means we have very early attestations of a town community specifically set up to accommodate Judean prisoners of war.

Over time, the orthography of Town of the Judeans changes. The construction began with the form *alu sa LU Yahudaia* as it appeared in the earliest text dated to 572 B.C., but by the time of our second oldest text, dated at 561 B.C. during the time of the Babylonian king Amel-Marduk I, the orthography changes to the toponym *URU ia-a-hu-du*. Because all subsequent attestations of the toponym al-Yahudu also lack the gentilic ending (a-ia), it is suggested that this indicates a change to an established Babylonian social and economic structure for the town of the Judeans. This demonstrates that the integration into Babylonian society and customs is well-established 24 years after the destruction of Jerusalem. Along with the integration into Babylonian social and economic life, there is evidence that the town had become a multi-cultural community and the changed toponym had retained the markers reflecting the origin of its original settlers.

Evidence for the multi-cultural diversity within Al-Yahudu comes from a study of specific names found in the corpus of texts. Within the texts from Al-Yahudu, there are approximately 138 of 400 individuals who bear the diagnostic YHWH theophoric element. A theophoric element is a “divine” meaning attached to a name to connect the individual with the respective god. In the case of Judeans, they would prescribe a YHWH theophoric element to their names because YHWH was their patron God. Using this as an identifying marker of Judean ethnicity, Judean names account for 34.5 per cent of the total names spanning 95 years, from 572 B.C. to 477 B.C. This means that the town that originated as a settlement for Judean captives became both multi-cultural and well integrated

into Babylonian society.

An analysis of the marriage contracts from Al Yahudu reveals to what extent the customs of the Babylonians had become norms within the town. The marriage contract of a woman named Nanaya-kanat is an example of such a document following the standard Babylonian formula. In Neo- and Late-Babylonian marriage contracts, the culturally assumed marriage rights are referred to in the first lines of the document. They record an oral exchange between the groom (or his father) and the bride's father (or agent). Nanaya-kanat's marriage contract follows this standard formula of “Please give me X, your daughter/sister (the *batultu/*nu'artu*), in marriage; let her be my wife. This was followed by: F/B/M agreed to the proposal and gave him X, his/her daughter/sister (the *batultu/*nu'artu*), in marriage.” Also implied in these statements are the Babylonian customs of non-negotiable rights, obligations and the responsibilities of marriage. This consists of recording the results of negotiated conditions, such as divorce arrangements or the particulars of dowries or other payments to be transferred. Nanaya-kanat's contract follows this structure through lines 11–18, where her divorce right to six minas of silver, her marriage and sexual obligations, and the consequence of adultery expressed by the clause, “she will die by the iron dagger” are present. In addition, only in the Neo-Babylonian period do we find clauses dealing with adultery, thus this is clearly following the Neo-Babylonian formula. The conformity to the structure indicates that this community was integrated with, and practicing, the Neo-Babylonian legal customs within the scope of public declarations and contracts.

Also implied within the contract is evidence of integration with Babylonian religious customs. The text states, “May Marduk and Zarpanitu decree the destruction of the one who contravenes this agreement; may Nabi, the scribe of Esagil, cut short his long days.” The god Marduk was the Neo-Babylonian state god and the majority of Babylonian architecture would bear his image with the goddess Istar. Zarpanitu was the spouse of Marduk and bore the title Queen of Esagil, so Istar was syncretised with Zarpanitu as the two major state gods of Babylon. Nabu is the Babylonian deity of wisdom and the son of Marduk. His connection with scribes and writing explains his inclusion in the marriage contract as the scribe of Esagil. Thus the use of Neo-Babylonian religious customs, even if purely for legality, is evident through the invoking of the gods Marduk, Zarpanitu and Nabu to protect the integrity of the contract.

Further evidence of the multiculturalism present at Al-Yahudu is obtained through a study of the personal names and their context within Nanya-Kanat's marriage contract. There are a total of 24 names in the contract, four are Babylonian, eight have the Yahwistic element, five are West Semitic or Aramaic, three unknown origin and another four damaged.

The bridegroom, Nabu-ban-ahi, and his father, Ki-na-a, both have Babylonian names. The groom's name includes the Babylonian theophoric element *Nabu*. Nabu was the son of Marduk and the god of vegetation and writing. The groom's name Nabu-ban-ahi means “Nabu, begetter of a



THE VIEW FROM THE GATES OF MEGIDDO TO THE VALLEY OF

JEZREEL BEYOND. This was the site of a battle between Pharaoh Necco II and King Josiah of Judah, in which the good king was killed.

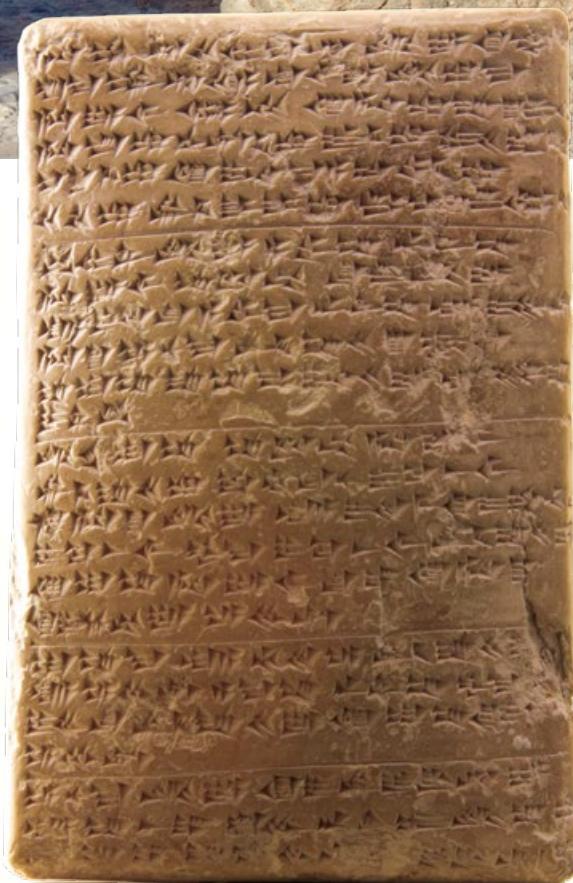
CUNEIFORM TABLETS like this one on the right, include marriage contracts, revealing that the Jews were integrated into Babylonian society and had adopted Babylonian legal and religious customs.

brother," and his father's name, Ki-na-a, means "truth."

The bride, Nanaya-kanat bears the Babylonian theophoric element *Na-na-a* prefixed on the verbal West-Semitic part of her name. The goddess Nanaya bore a syncretism with Ishtar from early in the Babylonian theology, and it is interesting that in the first millennium B.C. Nanaya became the wife of Nabu, who is the divine theophoric element in the groom's name. The second element of her name, *ka-na-ta* derives from the Akkadian grammatical G stem, *K-W/Y-N*, "to be firm, righteous, reliable." The bride's mother's name, Dib-bi-i is of unknown origin.

The eight Yahwistic names occur in the list of thirteen witnesses. *Sillemyah*, corresponds to the Hebrew name שָׁלֵמִיָּה (שְׁלֵמִיָּה) "Yahweh has recompensed"; *Nadabyah* corresponds to the Hebrew נָדָבִיָּה "Yahweh is generous"; *Yarimyah* corresponds to the biblical יָרִיםִיָּה (יָרִיםִיָּה) "Exalted is Yahweh"; *Natanyah* corresponds to the Hebrew נָתָנִיָּה (נָתָנִיָּה) "Yahweh has given"; *Barikyah* is similar to the biblical בָּרִקִיָּה "Yahweh has blessed"; *Sidqiyah* is similar to the biblical צִדְקִיָּה (צִדְקִיָּה) "My justice is Yahweh"; *Asilyah*, "Yahweh has shown himself noble," and the biblical parallel is אֲסִילִיָּה. *Pillelyah*, "Yahweh has interceded," is similar to the Biblical פָּלִילִיָּה.

The Judean captives were clearly in a distraught, emotional state in response to the destruction of Jerusalem and their subsequent captivity. Though, within 20 years, Babylonians, Judeans and West Semites were living within a town structured upon Babylonian social and political customs. The evidence of a multiplicity of ethnic names present in Nanaya-kanat's marriage contract demonstrates



the level of social integration present. It was not a small town of segregated ethnicities all functioning autonomously, but rather it was a community of mixed family units, interacting with one another on such a complex level that the town remained active right into the Persian period. It appears that the early sentiments of wishing the destruction of the Babylonian children upon rocks had receded and people of different backgrounds, histories and religions had learnt how to function together as a single society.

The evidence from history that even in times of wars, conquerors and deportations, people can learn to form a cohesive society together is a positive reminder for the human race that we can do it again. ♦

**DANNY HERMAN**

Israeli archaeologist and tour guide with a passion for sharing the history of his country with visitors.



THE CITY GATE This entrance into Et-Tell was built around the middle of the ninth century B.C. It was flanked by two solid towers on either side. To date, eight stelae have been discovered in the vicinity of the gate.



DR ARAV stands next to a plaque

commemorating the participation of American Universities in the dig at Et-Tell, about five kilometres (three miles) north-east of Capernaum, near the Sea of Galilee.

The plaque's design replicates that of an Iron Age standing stone found on the site.

MEETING DR RAMI ARAV, THE DIGGER OF BETHSAIDA

Beth-Saidah, or “House of the fisherman,” in Aramaic, is known in the New Testament as the home of three of Jesus’ disciples—Philip, Andrew and Peter (John 1:44). Jesus knew Bethsaida quite well, as He once healed a blind man there (Mark 8:22–25). But later on He cursed the town, along with Chorazin and Capernaum (Matthew 11:20–23), apparently because of opposition to His messianic proclamations.

Jewish historian Flavius Josephus records that in the year A.D. 30, Bethsaida was upgraded to a *polis*, fortified and renamed Youlias, perhaps in honour of Tiberius’ mother, Youlia.

Unfortunately, none of these sources provide any detail as to the exact location of Bethsaida, although it seems that Bethsaida would be located near Capernaum on the west side of Galilee; indeed Josephus mentions falling of his horse in Bethsaida and being taken to Capernaum, which would indicate that it was in close proximity.

However, Byzantine sources knew where Bethsaida was and indicate that churches were built at the site, yet Bethsaida is not mentioned in any Crusader period account or sources. Like Capernaum, its location was forgotten in the late Middle Ages.

Then Capernaum was discovered in 1838 by American scholar Eduard Robinson. Bethsaida—hometown of at least three fisherman and named after a fisherman—would be expected to be on the shore of the Sea of Galilee and not too far from Capernaum. And yet to this day a site matching these criteria has not been found!

So where is Bethsaida?

Already in the eighteenth century, a German Bible scholar Ulrich Jasper Seetzen suggested a location at a mound called Et-Tell (Arabic, "The Ruins") about five kilometres (three miles) north-east of Capernaum and not far from the Jordan river; however it is 1.5 kilometres (one mile) away from the Sea of Galilee.

This suggestion was repeated by Eduard Robinson, but in 1880 another German scholar, Gottlieb Schumacher, surveyed the site and concluded Bethsaida had to be closer to the Sea of Galilee, perhaps at a small site named El Araj.

The topic was raised again in 1968, when Israeli archaeologist Rami Arav again placed Bethsaida at Et-Tell, near the site of the miracle of the multiplication of fish and bread, which Luke (9:10) records as occurring in the vicinity of Bethsaida.

His presentation of this subject was published by local magazine *Haaretz*. Its English language version received considerable attention, mostly from American Christian readers, one of whom wrote to Arav, stating that for him, locating the site was more important news than the moon landing, which occurred the next year.

In 1969, Rami Arav launched a combined expedition of several American universities to dig the site. And Rami still comes every summer with his team to continue digging.

In June this year, I was fortunate to meet Arav at the site, along with American judge Abe Sofaer and his wife Marian. Not heat, sweat nor dust would deter Arav from showing us the latest finds, all explained with contagious enthusiasm.

In the lower levels, he told me, his expedition found the impressive remains of an Iron Age city. Rami suggest this is a relic of the biblical Geshur, a neighbouring kingdom to Judah, who had strong political ties with the House of David (2 Samuel 3:3 records David marrying the daughter of the king of Geshur). Other finds come from the Hellenistic period, but



A HELLENISTIC-ROMAN ERA COURTYARD UNEARTHED IN A HOUSE AT ET-TELL. The presence of fishing hooks and small, perforated stones suggests the courtyard might once have been used by a fisherman to dry and mend his fishing nets. The dating of such material is inconclusive, however.



DR ARAV EXPLAINS THE IRON AGE GATE COMPLEX at Et-Tell to Judge Sofaer and his wife, Marian. In 1967, the site was contained within the Israeli Jordan River National Park.

unfortunately, the evidence from the first century isn't clear enough.

So where is the temple that was built in Bethsaida in the first century? Where are the contemporaneous walls? Where is the Byzantine church? After nearly 30 years of research at the site, these negative results are disturbing. Such questions have been raised by many scholars, for instance by the late Anson F Rainey in his book *The Sacred Bridge* (pp. 256–259).

I have followed Arav's dig at the site for many years, becoming something of a fan after meeting him, but I'm still awaiting solid evidence confirming Et-Tell as, indeed, ancient Bethsaida. ♦

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SIMEON THE RIGHTEOUS AND SAN SIMON MONASTERY

The biblical Gospel of Luke records that when as a baby, Jesus was brought to the Temple in Jerusalem, a certain "righteous and devout person" named Simeon takes Jesus in his arms and blesses Him, then states to His parents: "This child is destined to cause the falling and rising of many in Israel, and to be a sign that will be spoken against, so that the thoughts of many hearts will be revealed. And a sword will pierce your own soul too" (Luke 2:34, 35).

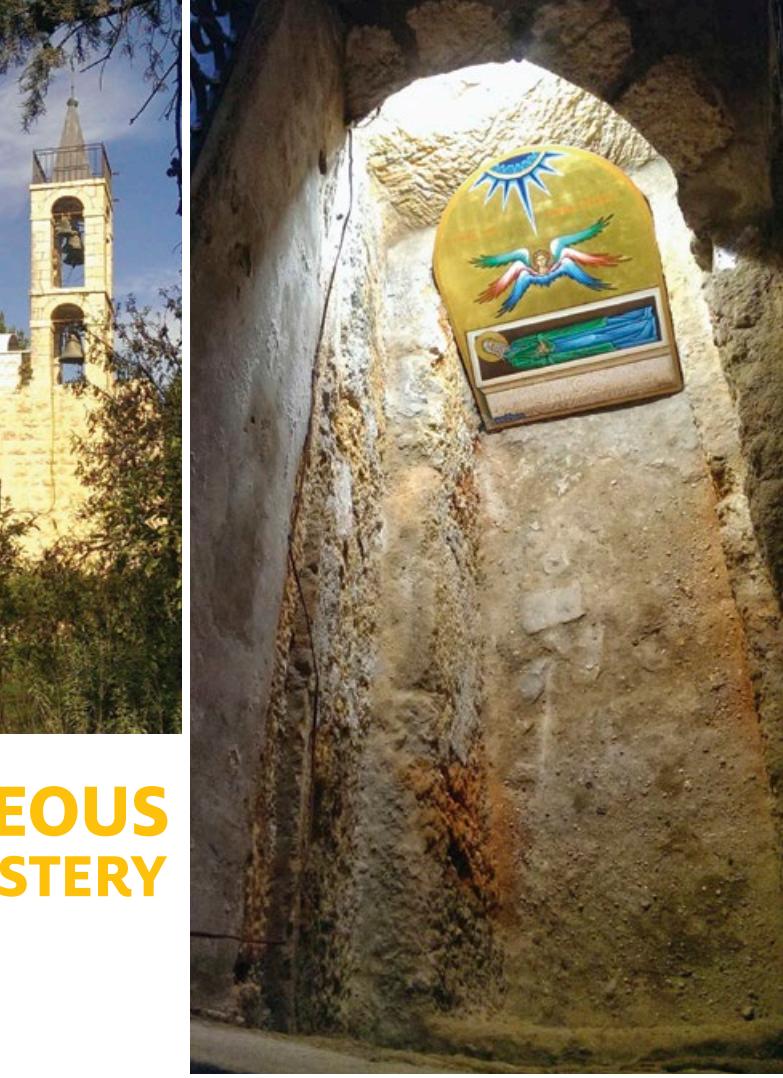
Despite this prophecy being of such great moment—Jesus' messianic role, even as an infant—neither the event nor the person Simeon are much mentioned in Christian history, commentary or art.

A Greek Orthodox monastery on a hilltop about five kilometres (three miles) southwest of the Old City commemorates, by local tradition, Simeon the Righteous ("San Simon"). The current monastery was built in the nineteenth century A.D. on top of the ruins of a Georgian monastery from the Middle Ages, which was the first to relate the site to Simeon the Righteous.

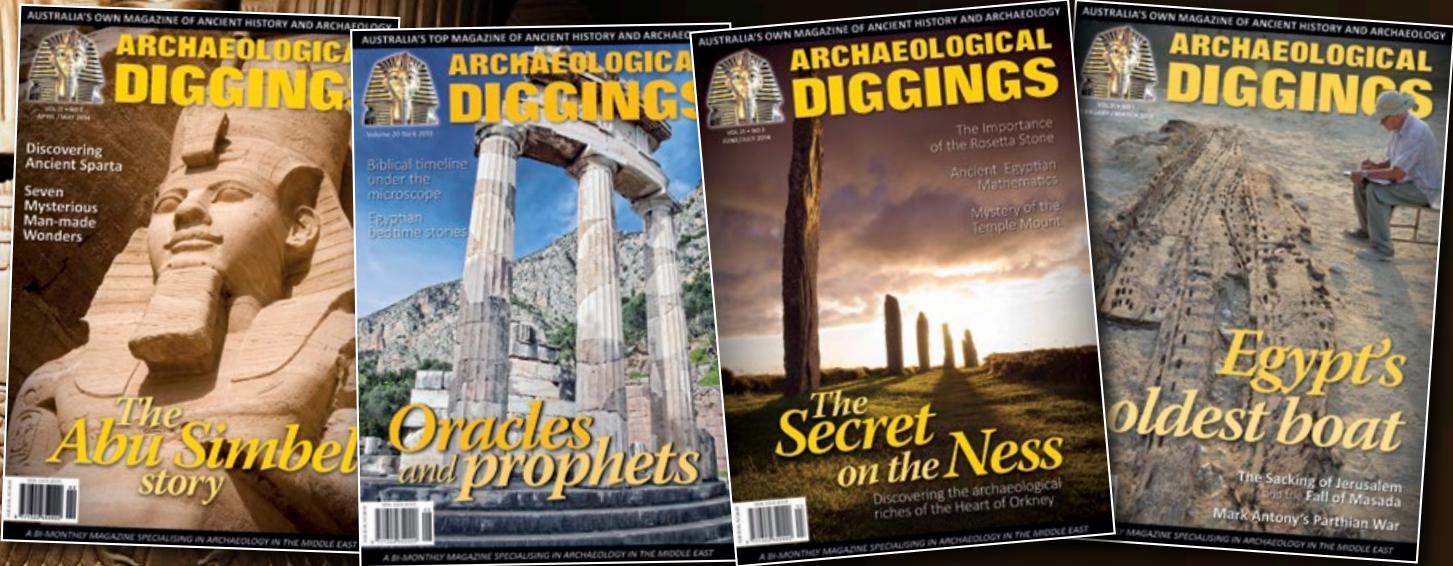
Today, and for the past 30 years, the complex is maintained by a single monk named Theodoritos and is closed to the general public. The monastery is surrounded by a number of Israeli neighbourhoods that have developed since 1948, with one named "Katamon," which is a place-name based on the Greek *Kata Monhs*, which translates as "By the Monastery," as one might expect. ♦

ABOVE: The Greek Orthodox San Simon Monastery, in Katamon, Jerusalem. Once on an isolated hill south of Old Jerusalem, the monastery is today in the middle of a large Jewish neighbourhood named after the monastery. It is open only to pilgrims.

TOP RIGHT AND RIGHT: A tomb found inside the monastery, traditionally believed to be that of Simeon.



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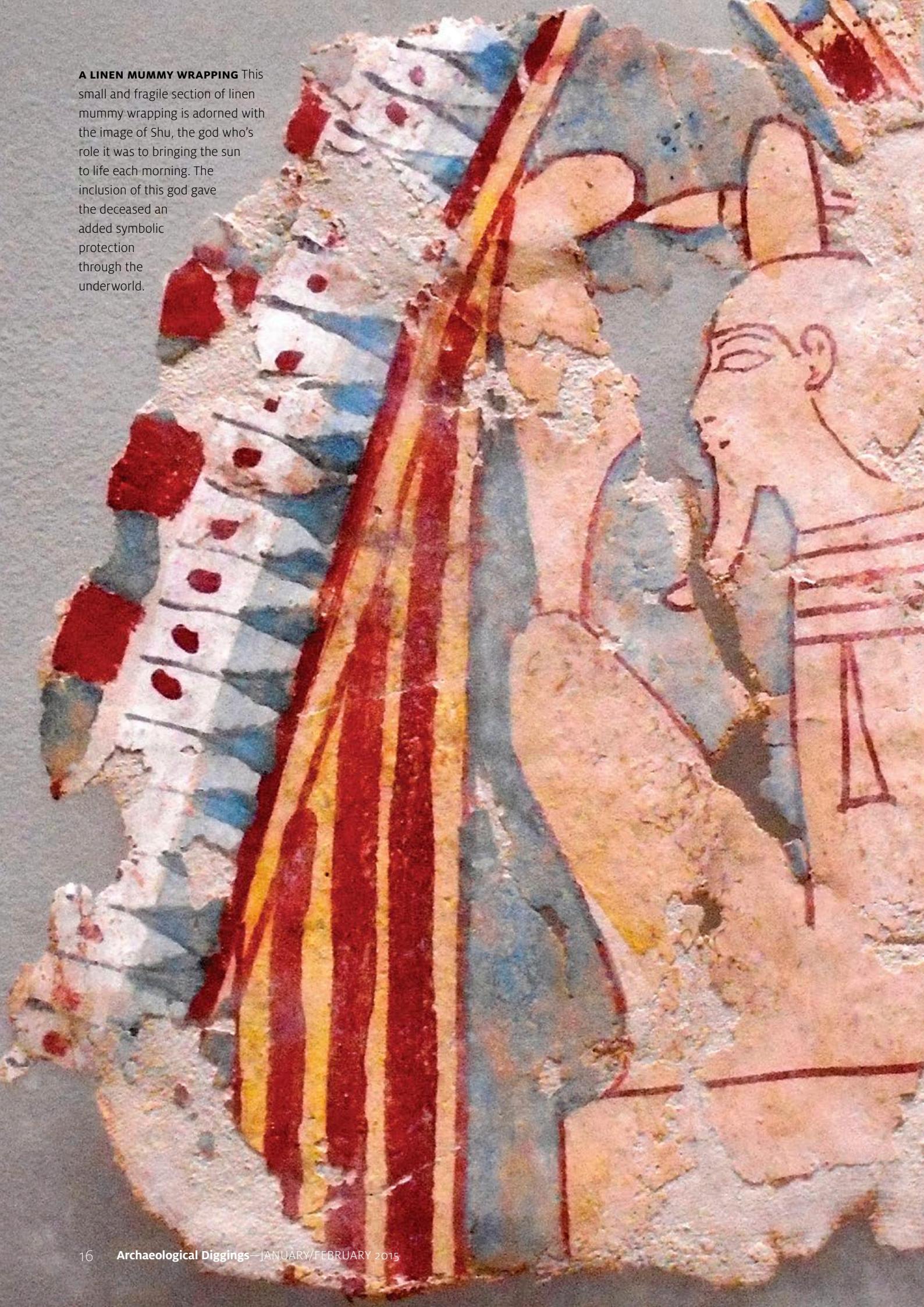
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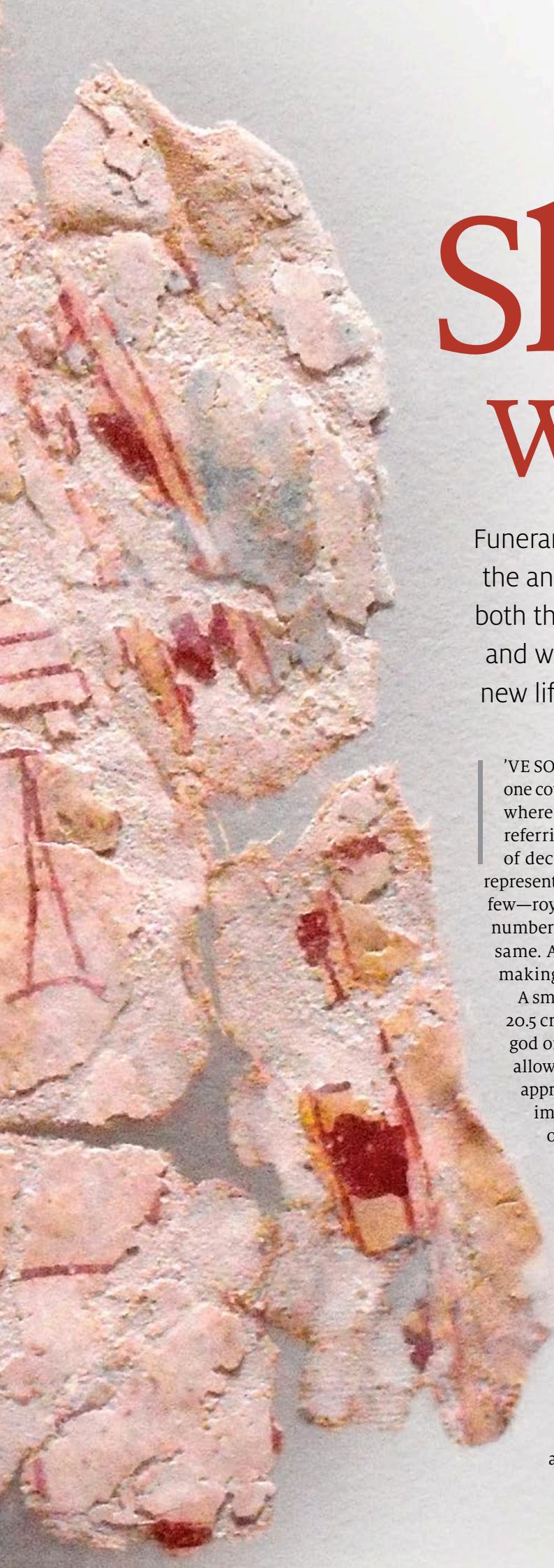
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A LINEN MUMMY WRAPPING This small and fragile section of linen mummy wrapping is adorned with the image of Shu, the god who's role it was to bringing the sun to life each morning. The inclusion of this god gave the deceased an added symbolic protection through the underworld.





If the Shu fits, wear it!

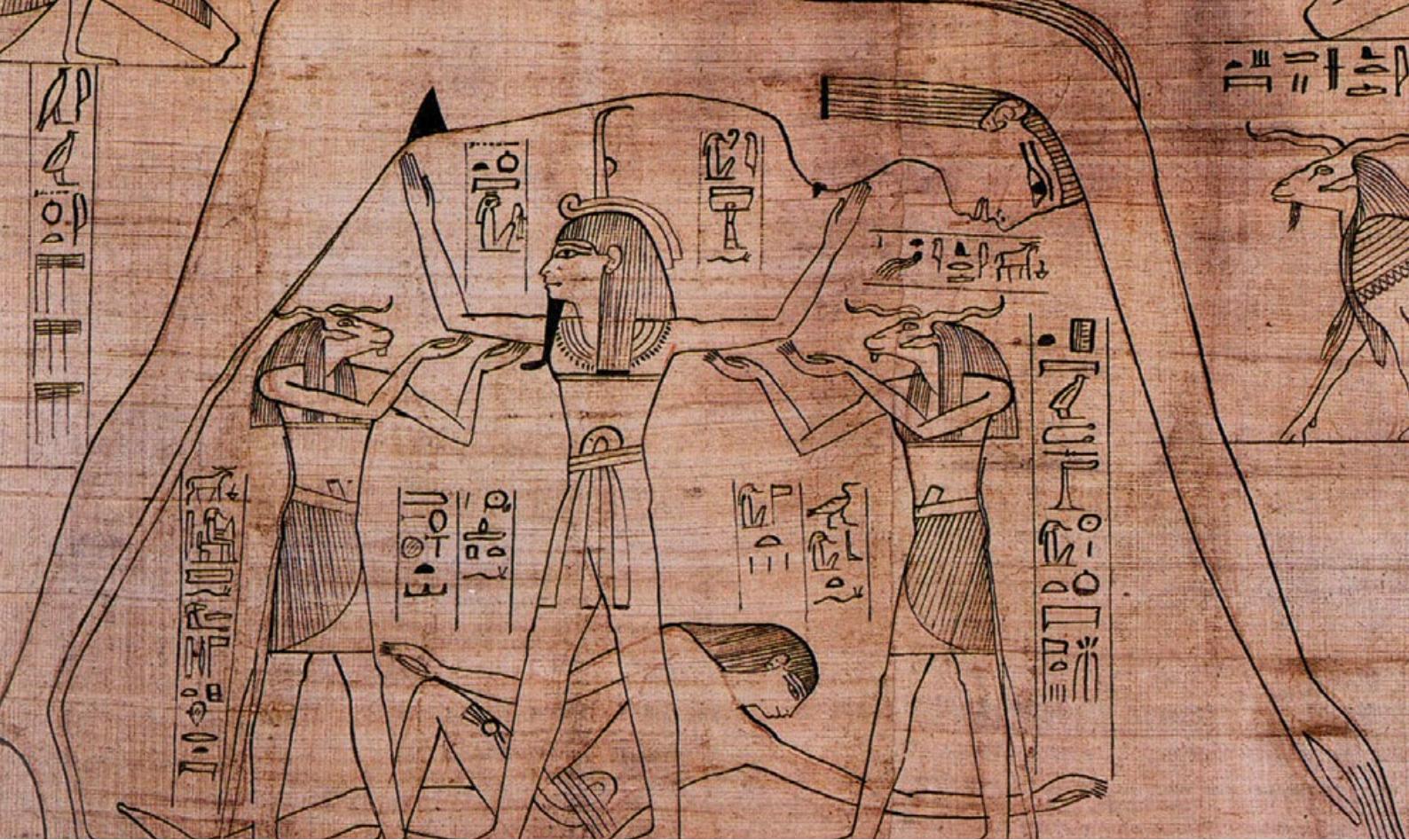
Funerary coverings and burial accoutrements of the ancient Egyptians help us understand what both the deceased and their bereaved believed, and what they anticipated awaited them in the new life just ahead. **Suzette Hartwell** explains.

I'VE SOMETIMES WONDERED WHAT WOULD BE THE RESULT IF one could choose one's own god for protection, versus the situation where the god was chosen for you. Sounds a little strange? I'm referring, of course, to ancient Egyptian times and the practice of decorating the deceased's linen wrapping with the painted representation of their god of choice. This occurred only for the elite few—royalty, priests and the very wealthy—who could afford it. A number of combinations may result, with almost no two being the same. Ancient Egypt's rich history is benefited by such decision making in the past.

A small and fragile section of linen mummy wrapping measuring 20.5 cm by 19 cm (8 in by 7.5 in) and adorned with the image of Shu, god of sunlight and dry air, has fortunately endured to this day, allowing us to learn something of this ancient practice and better appreciate it. This small, linen remnant with its complex array of images painted on a section of mummy wrapping—the subject of this article—presents a snapshot of the ancient Egyptian past. This rich history accompanied the person who was once wrapped in the covering, which leads one to ponder the context, design and symbolism of such an event.

CONTEXT

The provenance of the linen fragment, according to the gallery tag, is "Abusir," approximately 25 kilometres (15 miles) southwest of Cairo. But what was the context of the place where it was found and of the mummy itself? Without a mummy we have no way of knowing if this was created for a man, woman or child; but given that an elaborate, time-consuming and costly process was involved in mummification and preparation, we can safely assume the individual was either wealthy or, at the very least,



VIGNETTE FROM THE GREENFIELD PAPYRUS, the *Book of the Dead* of the priestess Nesitanebtashru, daughter of High Priest Pinudjem I, is one of the best surviving examples of a funerary papyrus. According to legend, Atum created his two offspring Tefnut (moisture) and Shu (air) by sneezing and spitting. They in turn gave birth to Nut (heaven) and Geb (earth). This vignette shows Nut stretched over the earth, represented by Geb, who lies below her. The toes of the goddess are at the eastern horizon, and her fingertips at the western horizon. She is separated from Geb by her father Shu, who holds her up with both hands. But such a separation didn't prevent Geb and Nut having four children—Osiris, Isis, Seth and Nephthys. The myths surrounding these four deities relate to the emergence of human society; the separation of earth and sky constitutes the creation of the world.

SHU FOR A PILLOW. Shu often appears on ancient Egyptian headrests as protection for the owner as they slept, as seen in this replica of an ivory headrest belonging to Pharaoh Tutankhamun from around 1324 B.C., found among the treasures of his tomb in the Valley of the Kings.

PHOTO: WAYNE FRENCH



had a high social standing. This artefact dates to the Late Period (713–332 B.C.), a window of time in ancient Egyptian history where the Dynasties 25 to 30 were nestled.

DESIGN

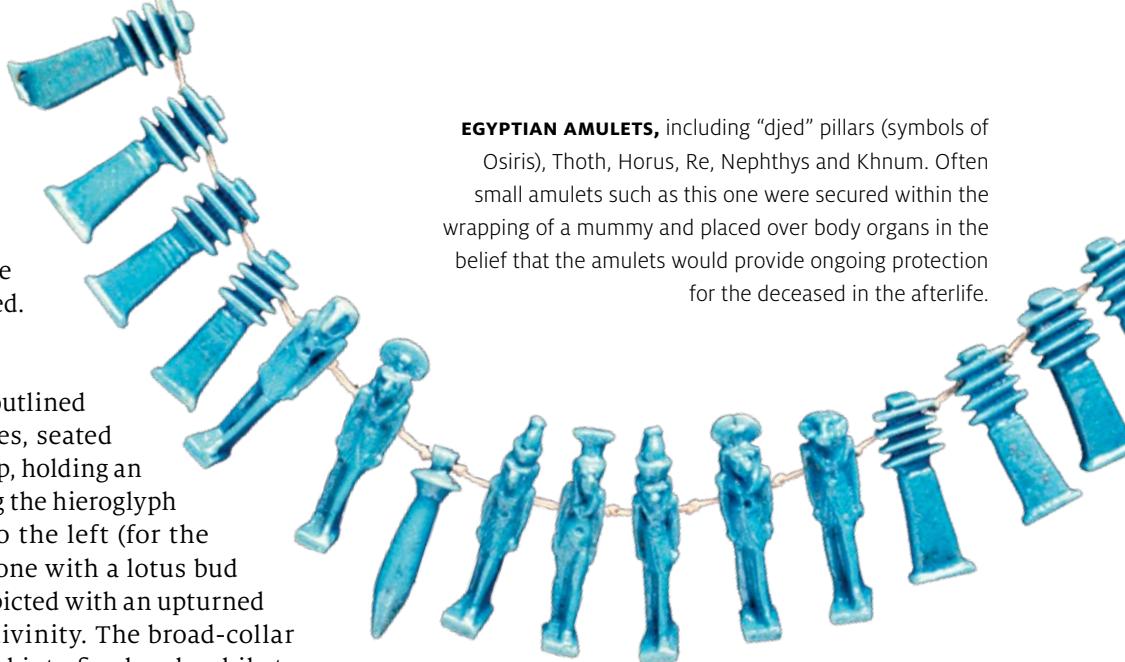
Shu is lightly portrayed, outlined in thin, reddish-brown lines, seated on a plinth, his knees bent up, holding an ostrich feather (representing the hieroglyph of his name) and facing to the left (for the observer). A scented wax cone with a lotus bud sits atop his head. Shu is depicted with an upturned beard, a characteristic of divinity. The broad-collar necklace he wears is divided into five bands while two counterpoises, one hanging lower than the other, in the frontal position on his chest. More artistic detail and colours are presented in the light blue background between Shu and the remnants of another much larger broad-collar necklace to his left. Within the bands of the necklace are lotus petals, painted in a classic combination of white, reddish-brown and light blue. The colours were sourced from the land of Egypt itself, from red ochre or iron oxide, yellow ochre, gypsum, azurite, copper, silica and calcium. By altering the mixture, lighter and darker shades could be obtained, which is observable on the fragment and allows for distinction of the features.

The paintbrush used would have been made by chewing pieces of papyrus reed at one end to make a frayed edge or nap, and plant fibres being doubled over and bound to form a handle. I like to think that our artist, while chewing the end of a reed in preparation, spent that time planning the format of the final picture: the placement of the god, the associated motifs and the overall strategic symbolism of the work, ensuring that all would fit, be in the correct orientation and also be quite recognisable.

In this case, the god Shu was painted in a gesso finish directly onto the linen, most likely while positioned on the chest of the mummy. The inclusion of this god gave an added symbolic protection through the underworld and may have been at the behest of the person when alive, as they planned for the afterlife, or by the family responsible after the person's passing.

PREPARATION AND SYMBOLISM

It is interesting to think of the preparation involved beforehand, prior to the painting of the linen and the mummification process, which usually took about 70 days. After a process of desiccation of the body, the elaborate wrapping of the deceased in linen would begin. This was a long, laborious and exacting project that used copious amounts of linen. Often small amulets were secured within the wrapping, placed prudently over certain organs on the body. Relevant words of protection would have been recited at this juncture in the belief that the amulets would provide extra protection for the deceased in the afterlife. After the final bandages were secured over and around the mummy, it was then ready to be painted and decorated.



EGYPTIAN AMULETS, including "djed" pillars (symbols of Osiris), Thoth, Horus, Re, Nephthys and Khnum. Often small amulets such as this one were secured within the wrapping of a mummy and placed over body organs in the belief that the amulets would provide ongoing protection for the deceased in the afterlife.

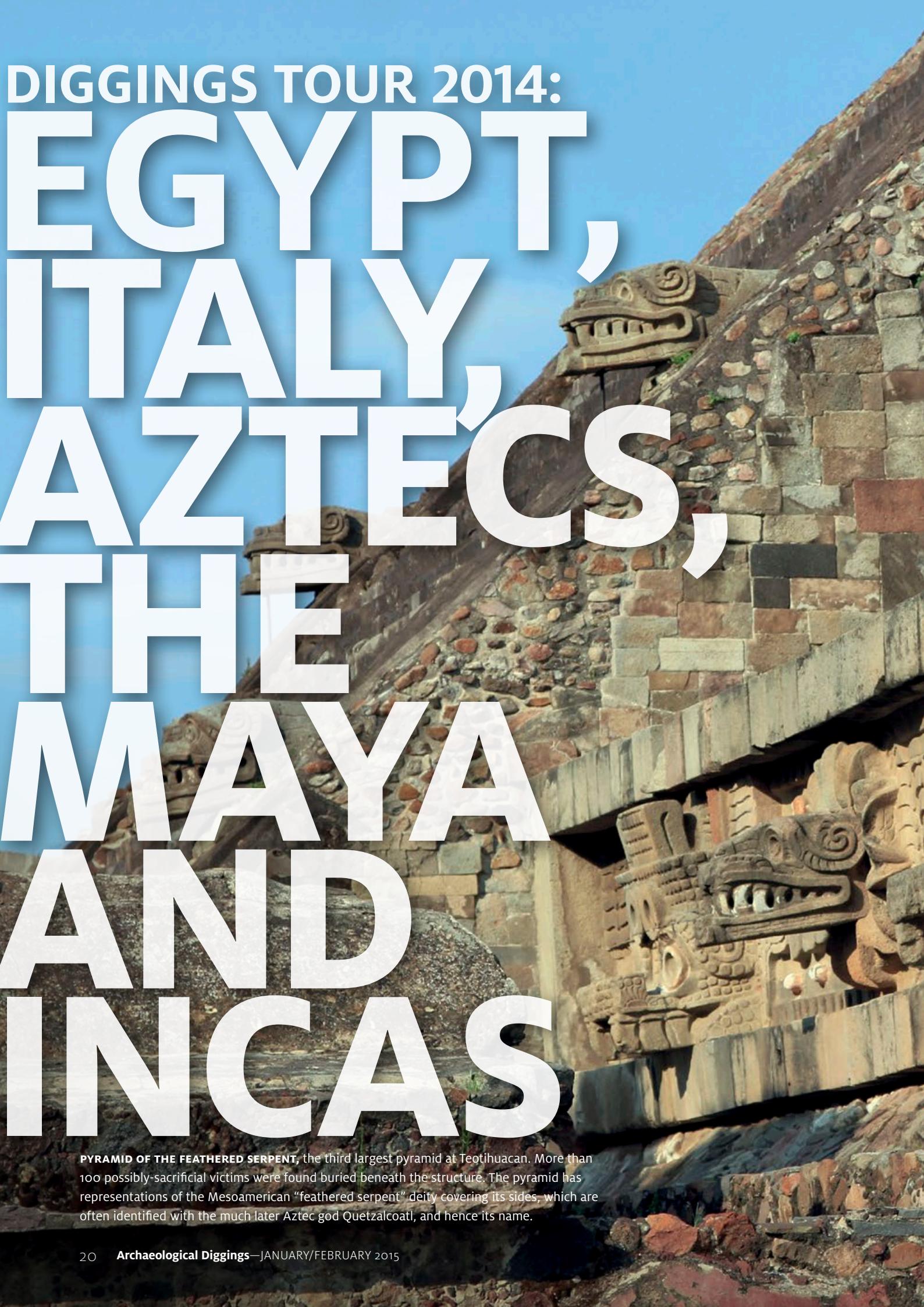
But who was Shu in the Egyptian pantheon of gods? Like so many Egyptian deities, Shu would have taken many guises. He is often depicted as the god of sunlight and dry air in a human form supporting his sister the sky goddess Nut, holding her aloft from their brother Geb, the earth god. Shu is mentioned in the myth of the Journey of the Sun Through the Netherworld. He is called upon in his very important role at the twelfth hour, at the end of the sun's successful but perilous night journey through the Netherworld, also referred to as the underworld. At this hour it was Shu's role to seal the exit to the Netherworld, allowing the sun to continue its daily journey across the sky. Shu was believed to dwell in the sun disk and had a role in bringing the sun to life each morning. It is this significant aspect of Shu that prevented him from being outcast during the reign of Akhenaten 1352–1336 B.C. (For a discussion on Akhenaten and persecution of the gods, see "Akhenaten's Amarna," ARCHAEOLOGICAL DIGGINGS, vol 18:6, 2011).

So important was Shu in the Egyptian pantheon that among the magnificent treasures of Tutankhamen is a unique ivory headrest for the pharaoh, symbolising the separation of the sky and earth. Shu kneels holding the headrest aloft, while two lions face away from each other at either side of him, representing the mountains on the west and eastern horizons. The placement of the head upon the rest then forms the combination of the hieroglyph "Horizon," a possible further symbolic indication that the pharaoh is identified with the composed sun on the horizon.

When you consider that although the artist would apply the requisite icons conforming to the known image of Shu and other decorative elements, each mummy was painted individually. What this means, in fact, is that each mummy covering was tailor-made, therefore becoming a bespoke dressing for the deceased and their presentation for the afterlife.

So while we may not have any idea for whom this particular funerary covering was made and so carefully decorated, we can deduce what they believed, what was important to them and their bereaved and what they anticipated for themselves in the new life just ahead. ♦

DIGGINGS TOUR 2014: EGYPT, ITALY, AZTEC'S, THE MAYA AND INCAS



PYRAMID OF THE FEATHERED SERPENT, the third largest pyramid at Teotihuacan. More than 100 possibly-sacrificial victims were found buried beneath the structure. The pyramid has representations of the Mesoamerican “feathered serpent” deity covering its sides, which are often identified with the much later Aztec god Quetzalcoatl, and hence its name.



The 2014 DIGGINGS tour report, with magazine editor **Gary Webster**.

EVERY YEAR, AND 2014 WAS NO EXCEPTION, OUR DIGGINGS tour participants enjoyed their trip with us. There were actually three tours—"Footsteps" to Iran, Jordan, Greece and Turkey; "Great Museums" to London, Paris and Berlin; and "Lost Civilisations," which visited Egypt, Italy, Mexico and Peru. In this edition, I'll report on the last.

EGYPT

Surprisingly, security was not the problem in Egypt many had anticipated. It is clear that it is becoming less of an issue, however, tourists obviously don't yet know this, as most places contained a relative handful of tourists compared to previous visits.

We began at the gigantic pyramids of Giza, just outside Cairo. To see them up close and to ascend the passageway to the burial chamber was a dream come true for many, while the visit to the adjacent Giza Boat Museum to see a large funerary boat, was the high point for others.

En route to Saqqara, we stopped at Memphis. Tour members no doubt wonder why we take them to this site, since little remains of the city that for some 500 years was the capital of ancient Egypt. Around 600 B.C., the Hebrew prophet Jeremiah predicted that the city (then called Noph) would be laid waste (*Jeremiah 46:19*). About the same time, the prophet Ezekiel predicted that its statues and images would be destroyed (*Ezekiel 30:13*). A cursory look around Memphis provides the evidence of the accuracy of these very specific predictions; the images are broken and little remains of this once great city. So total is its destruction, in fact, it led Egyptologist Amelia Edwards, writing of Memphis, to state:

*Where are those stately ruins which, even in the middle ages, extended over a space estimated at "half a day's journey in every direction"? One can hardly believe that a great city ever flourished on this spot, or understand how it should have been effaced so utterly. (Amelia B Edwards, *A Thousand Miles Up the Nile*, p. 99).*

Then to the Stepped Pyramid of Djoser at Saqqara, where we viewed the many sarcophagi of the sacred Apis bulls in the Catacomb of Serapeum. They are an incredible sight; the veneration the Egyptians had for these bulls is mind-boggling to the modern person.

As usual, Luxor lived up to its reputation as perhaps the most amazing place of antiquity for the visitor. The magnificent mortuary temple of Queen Hatshepsut at Deir el-Bahari, the intricate and beautiful paintings in the tombs of the pharaohs in the Valley of the Kings, the mighty Colossi of Memnon and expansive Karnak and Luxor temples, were jaw-dropping experiences.

In Aswan, there was the unfinished obelisk, then a ferry ride in a feluka to Elephantine Island to see an ancient Israelite settlement.



THE TEMPLE OF RAMESSES II at Abu Simbel, well worth the early morning start to the day.

AT THE ICONIC GIZA PYRAMIDS is the 2014 Diggings Tour group just outside of Cairo.



A 3 AM reveille to join a convoy to see the incredible Temples of Ramesses II and Hathor, built as a lasting monument to Ramesses and his queen Nefertari, was definitely worth the abbreviated night's sleep. At the Temple of Ramesses II, we saw up close an example of the historicity of the ancient biblical record: the Hittites are mentioned almost 50 times in the biblical text, but since historians could find no mention of them outside of the Bible, many believed it to be in error. However, the deciphering of Egyptian hieroglyphs confirms the Bible was accurate and this is confirmed in scenes chiselled into the temple walls, with Ramesses II depicted fighting the Hittite army in the Battle of Kadesh. Outside the temple is a copy of the peace treaty between the two nations.

Back in Cairo, we visited the famous Cairo Museum, which is like a giant warehouse stocked with thousands of ancient artefacts. It is impossible to see more than a sample. The tour group had one thing that they all had to see—the famous treasures of Tutankhamen. These are housed in their own air-conditioned section within the building.

When you see the amount of gold from this one tomb of a minor Egyptian pharaoh, it is obvious the Egyptians had access to large quantities of the precious metal. One can only imagine what treasures would have been buried with the great pharaohs Tutmoses III and Ramesses II.

Items of particular interest were the mummification tables, the Merenptah Stele, which mentions ancient Israel, another mute testimony to the historicity of the biblical

text; while the royal mummy's room was of particular interest to us. It was a little amusing to see Tutmoses III and Queen Hatshepsut lying so closely together, as it was Tutmoses III who had Hatshepsut's statues disfigured and her name removed from public building. Also, looking into the faces of the once proud ruler Ramesses II leads one to ponder the important issues of life. We could have been looking into the face of the Hebrew, Moses, who according to the biblical record, was raised to be an Egyptian pharaoh, but chose to trade his temporary throne and the pleasures and treasures that came with it for something more eternal yet less tangible (see Hebrews 11:24–26, 13–16; Matthew 17:3, 4; Jude 9).

Leaving the museum, we observed a small patch of papyrus growing in an artificial pond. Around 700 B.C., the Hebrew prophet Isaiah (19:7) made an interesting prediction about this plant, which once grew prolifically along Egyptian waterways, that it would not always thrive so. In fact, when adventurer Thor Heyerdahl came to Egypt looking for papyrus to make his experimental raft, he wrote:

Pharaoh lies in his tomb with reed boats painted on the stone walls. Stone in the desert and reeds on the shore of the Nile. Stone and reeds were nature's gift to the ancient peoples of the Nile. No papyrus grows in Egypt now (Thor Heyerdahl in Ra, in Signs of The Times, March 1996, pp. 14, 15).



THE VASTNESS OF THE COLOSSEUM has to be experienced to be believed.

ITALY

From Rome, we made our way to the ancient city of Pompeii, a city frozen in time. Palatial homes with gorgeous frescoes and piped water, an expansive agora, theatres and sports arenas, baths and brothels, even street-front “fast-food outlets” reveal that this city was given over to luxury, pleasure and debauchery; but it failed to heed warning signs of its impending destruction.

The ruins of Pompeii take on a “sameness” after an hour or two, so the amazingly intact nearby city of Herculaneum, also destroyed by the A.D. 79 eruption of Mount Vesuvius, had an attraction. The frescoes in this ancient city have incredible colour, giving the appearance that the city might have been destroyed only recently.

From Pompeii we returned to Rome, to visit first the Colosseum, which while breathtaking in size, is also sobering, as one thinks that there, citizens of Rome wiled away days entertained by the gashing and goring of their fellow humans as they fought to the death. Noted British historian Sir Arnold J Toynbee, as he examined 21 world civilisations including ancient Rome, saw in such behaviour the sign of a civilisation on the brink of collapse (see “Why Civilisations Fail,” ARCHAEOLOGICAL DIGGINGS, vol 20:4, p 42), a warning for our own generation, also fixated on violence, gore and mayhem.

Archaeological excavations in the basement of the Church of St Clemente in Rome revealed an amazing Mithraic altar for sun worship. Mithraism and other forms of sun worship were widely practiced in the ancient Roman Empire. A visit to the Roman forum with its temples and victory arches, and to the Palatine Hill where the Caesars lived in sumptuous luxury, revealed just a little of the magnificence of the ancient empire. The Arch of Titus was of particular interest, as it depicts the seven-branched candlestick of the Jewish Temple being taken from Jerusalem after the destruction of the city by the Romans, in A.D. 70.

We then took a train to Turin to the Turin Shroud Museum and the Turin Archaeological Museum. The Archaeological Museum lived up to its reputation as one of the best for ancient Egyptian artefacts outside Egypt. We were particularly interested in the Turin King List and the Palermo Stone because of



ABOVE: A fragment of the Turin Egyptian King List used to determine current Egyptian chronology.

TEOTIHUACAN AZTEC TEMPLE OF THE SUN. Some in our group took up the challenge and climbed to the top of this rather steep pyramid.



the list of Egyptian Kings they both contain. These lists, with others, have been used to determine our current Egyptian chronology.

While in Turin, we visited the spectacular Waldensian Valleys, which lie at the foothills of the Alps on the border of Italy and France. We were intrigued with the history of these hardy people, who lived for centuries in this remote part of Europe in order to avoid religious intolerance and persecution. It was inspiring to visit their training school where they copied the Bible by hand. We walked to one of the caves in which they hid when oppressed by the army of the Medieval Church for believing differently and for distributing the Bible to homes and hamlets of Dark Ages Europe. The British poet John Milton refers to them in his sonnet, "On the Late Massacre in Piedmont," which described the persecution meted to them.

MEXICO

From Italy, we flew to Mexico to visit sites connected with the Aztecs. The tour started in Mexico City, which is built on the ruins of the Aztec city of Tenochtitlan, which was destroyed by the Spaniards under Cortes in 1521. The Aztecs dominated a large part of Mesoamerica from the fourteenth to sixteenth centuries A.D. Sun worship, in which Huitzilopochtli was the personification of the sun and of war, was central to Aztec religious, social and political practices. While human sacrifice was practiced throughout Mesoamerica, the Aztecs took it to an unprecedented level. For example, in the reconsecration of the Great Pyramid of Tenochtitlan in 1487, they reportedly sacrificed some 80,400 prisoners over four days, although this number is in dispute.

Just outside Mexico City are found the amazing pyramids and ruins of Teotihuacan, a pre-Columbian and pre-Aztec, Mesoamerican city. The city was thought to have been established around 100 B.C., with major monuments

continuously under construction until about A.D. 250. The city possibly lasted to between the seventh and eighth centuries, but its major monuments were destroyed around A.D. 550. It is now the most visited archaeological site in Mexico, where dominating all the surrounding ruins are the Pyramids of the Moon and the Sun of which the Sun pyramid is the highest. Some in our group took up the challenge and climbed to the top of this rather steep pyramid. Human bodies and animal sacrifices were found during excavations of these pyramids, causing scholars to believe that the people offered human sacrifices as part of a dedication when buildings were expanded or constructed.

Then to Yucatan to visit sites connected with the Maya. First, we enjoyed a visit to Uxmal, one of the most important archaeological sites of Mayan culture. It was founded about A.D. 500 and was dominant from A.D. 875 to 900. Thanks to its good state of preservation, we get a good idea of how the entire ceremonial centre looked in ancient times. Outstanding structures are the Pyramid of the Magician, a stepped pyramid structure; the so-called Nunnery Quadrangle, a large Ballcourt for playing the Mesoamerican ballgame; and a number of other temple-pyramids, quadrangles and other monuments.

From there we bussed to Chichen Itza, a spectacular Mayan site in the Yucatan. This city was one of the larger Maya cities in the period A.D. 600–1200. The dominant structures are the step pyramid Temple of Kukulkan (a Mayan feathered serpent deity similar to the Aztec Quetzalcoatl), standing about 30 metres (100 feet) high. It was voted one of the New Seven Wonders of the World in 2007. On the spring and autumn equinoxes, the northwest corner of the pyramid casts a series of triangular shadows that evokes the appearance of a serpent wriggling down the staircase, which scholars have suggested is a representation of the feathered-serpent god Kukulkan.

The Great Ball Court in Chichen Itza, is the largest, best

preserved such court of ancient Mesoamerica. It measures 168 metres (550 feet) by 70 metres (230 feet). High up in the centre of each of the long walls are rings carved with intertwined feathered serpents. At the base of the high interior walls are slanted benches with sculpted panels of teams of ball players. In one panel, one of the players has been decapitated, his wound emitting streams of blood in the form of wriggling snakes. Nice!

Also of great interest was the Skull Platform, which shows impaled skulls, and the Platform of the Eagles and the Jaguars, which is decorated with panels depicting eagles and jaguars consuming human hearts. A causeway leads to the Cenote Sagrado, a natural sinkhole, where it is believed the Mayans conducted human sacrifices during times of drought. Archaeological investigations support this, as thousands of objects have been removed from the bottom of the cenote, including gold, carved jade, copal, pottery, flint, obsidian, shell, wood, rubber and cloth, as well as skeletons of children and men.

Finally there was El Caracol, which means "The Snail," a round building on a large square platform, which gets its name from the stone spiral staircase inside. The structure is theorised to have been a proto-observatory with doors and windows aligned to astronomical events, specifically around the path of Venus as it traverses the heavens.

PERU

From Cancun we went to Lima, Peru, where we visited the temple complex of Pachacamac, 40 kilometres (25 miles) southeast of Lima. Most of the buildings and temples were built around A.D. 800–1450, shortly before the arrival and conquest by the Inca Empire. There, archaeologists have identified at least 17 pyramids. By the time the Inca confederacy invaded the area, a small state called Ichma was using Pachacamac as a religious site for the veneration of the Pacha Kamaq, the creator god. The Ichma joined the Incan Empire, which used Pachacamac as an important administrative centre. The Inca maintained it as a religious shrine and allowed the Pachacamac priests to continue functioning independently of the Inca priesthood.

From Lima we took a flight to Cusco, capital of the mighty Inca Empire (circa A.D. 1200–1532). In Cusco we visited Qurikancha, which literally means "the Golden Place." This was a most important temple, dedicated to the sun god Inti, at the time of the Inca Empire. It featured a large, solid gold disc studded with precious stones, representing the Inca sun god Inti. Spanish chroniclers describe the Sacred Garden in front of the temple as a garden of golden plants with leaves of beaten gold, stems of silver, solid gold corn cobs and 20 life-size llamas and their herders of solid gold. The temple was destroyed by Spanish invaders and the gold looted. Now only a curved outer wall and partial ruins of the inner temple remain, with the Convent of Santo Domingo standing on the site.

Saksaywaman, a walled complex on the northern outskirts of the city of Cusco, is the most important of the Cusco ruins. Like many Inca constructions, it is made of large, polished dry-stone walls, with boulders carefully cut to fit together without mortar. The stones are so closely spaced that a piece of paper will not fit between many

of the stones. The estimated weight of the largest stones vary from 128 tonnes (140 ton) to almost 200 (220 ton). Because of its location high above Cusco and its immense terrace walls, this area of Saksaywaman is frequently referred to as a fortress.

The following day we visited sites in the Sacred Valley. This valley of the Incas is close to Cusco and the ancient mountain city of Machu Picchu. It is the heartland of the Inca Empire. We visited a number of sites in the valley, including Kenko or Q'inqu, which is one of the largest *wak'as* (holy places) in the region. It was believed to be a place where sacrifices and mummification took place. The next was Tambomachay, a series of aqueducts, canals and waterfalls running across terraced rocks. It may have served as a military outpost guarding the approaches to Cusco, or could have been a spa-type resort for the political elite. Finally it was to Ollantaytambo, an Inca archaeological site 60 kilometres (40 miles) northwest of Cusco. It was the royal estate of Emperor Pachacuti who conquered the region then built the town and a religious ceremonial centre. The town provided lodging for the Inca nobility, while the terraces were farmed by retainers of the emperor.

The Inca site of Machu Picchu was the final major destination of the 2014 DIGGINGS tour and the favourite site for almost the entire tour group. Little wonder, since the scenery on the bus and train journey up to and at Machu Picchu is breath-taking. The backdrop of the Machu Picchu site nestled in the Andes mountains is spectacular in anyone's estimation. Archaeologists believe Machu Picchu was built as an estate for the Inca Emperor Pachacuti (1438–1472). It is the icon of the Inca civilisation and the South American tourist brochure.

The city was built in the classical Inca style, with polished dry-stone walls. Its main structures are the Inti Watana, which is an Inca astronomic clock or calendar, the Temple of the Sun, and the Room of the Three Windows. These are located in the Sacred District of Machu Picchu. There is evidence at Machu Picchu of retainer sacrifices, in which human sacrifices were made to accompany a deceased noble in the afterlife. Though human sacrifices occurred, it was much more common to offer animal, liquid and dirt sacrifices to the gods.

2015

The 2015 DIGGINGS tour will again include Aztec, Mayan and Inca sites in Mexico and Peru—plus Lake Titicaca and the majestic Iguazu Falls on the border of Argentina and Brazil! Tours will also take participants to Iran, which we believe is one of the most friendly and safest countries of the Middle East for the tourist, and one of the best places for archaeological sites; Turkey, with its famous biblical sites of Ephesus and Pergamos; Patmos, where the biblical book of Revelation was penned; Jordan, including Petra; Israel, home of the Bible; Greece, with its classical history; and Carthage, nemesis of Rome (see advert, back page).

If you are interested in these sites, don't miss the next issue of DIGGINGS, where we'll share the highlights of the "Footsteps" tour, which took our travellers to Iran, Jordan, Greece and Turkey. ♦

CALIGULA

From Emperor to Despot

Madman or megalomaniac, it made little difference to his rulership, as **Daryn Graham** explains.

MARCH 28, 1929 WAS A SUNNY DAY ON LAKE NEMI, SOME 30 kilometres (20 miles) south of Rome. Just beneath the lake surface, an ancient ship once owned by the infamous Roman emperor Caligula was about to see the sun for the first time in nearly 1900 years. Then, just over two years later in 1931, a second such ship was likewise retrieved from its watery grave in the mud on the bottom the lake. These two ships are today known as the “Nemi Ships” and the story of how they were recovered from Lake Nemi is almost as impressive as their ancient past.

The Nemi Ships had been known of by locals around Lake Nemi since medieval times, as fishermen found numerous ancient artefacts in their nets. But they did not know those artefacts came from two of Caligula’s own ships. They only knew that something very old and very important lay submerged on the bottom of the lake. Then in 1535, the local authorities commissioned a professional diver to be lowered in a diving bell to the bottom of the lake, where he found one of the wrecks. The presence of a second ship was not detected until the nineteenth century. But the means of retrieving the ships and their cargo remained elusive. They certainly could not be simply lifted to the surface; the ships’ wood was too fragile. Eventually, it was agreed by engineers of the Italian Navy that the only way to retrieve the ships would be to somehow drain the entire lake, but that seemed an impossibility.

Impossible it would be until 1927 that is, when Italian dictator Benito Mussolini ordered the Italian army and military, as well as Italy’s leading engineers and crowds

of workers to figure out a way to drain the lake. Mussolini had hoped to rouse Italian patriotism and national pride in Italy’s Roman past, but the engineers were unable to come up with a feasible plan to lower the water level of the entire lake. That was until an ancient Roman underground aqueduct was discovered near the shore of the lake. The aqueduct had been used in Roman times to siphon excess water from the lake, pass it under a nearby hill and from there, exit onto the other side of the hill as irrigation for farms. The engineers decided they would attempt to pump the water in the lake into the aqueduct and in that way drain the lake.

Immediately, work began. It was a hard and tedious business, but within two years of commencing, the first ship appeared on the surface of the water and two years later, as the water level continued to fall, so did the second. It was a great achievement. But just when total success seemed within grasp, disaster struck. Lake Nemi is actually a volcanic crater, and on August 21, 1931, a small eruption

MARBLE BUST OF EMPEROR CALIGULA,
in Warsaw, Poland. In his insistence to
be treated as a god, Emperor Caligula
ordered temples to replace the heads of
the most famous statues of Greek deities
with his own head, setting the pattern for
future Roman emperors.





occurred spewing an estimated half-a-million cubic metres of volcanic mud up out of the crater. Work simply had to cease. However, after the crater became quiet again, on February 19, 1932, work and pumping recommenced so that by October that year, the lake was low enough for engineers and archaeologists to walk across the lake floor to examine the ships.

The ships are astounding. Each one measured 70 metres (230 feet) long and 25 metres (80 feet) wide. Being so wide, each ship had five keel beams to support their weight. It was also clear from the technology used on these ships that these were pleasure craft for the emperor. Each had mosaic-decorated decks that were heated from beneath like Roman imperial palaces. They had gilded-copper roof tiles and exquisite marble columns and sculptures. They also had bronze water taps for both hot and cold water, water wheels to remove excess water from the ships' hulls, water pumps to supply fresh water to people on board and even rotatable statues of the Roman goddess Diana!

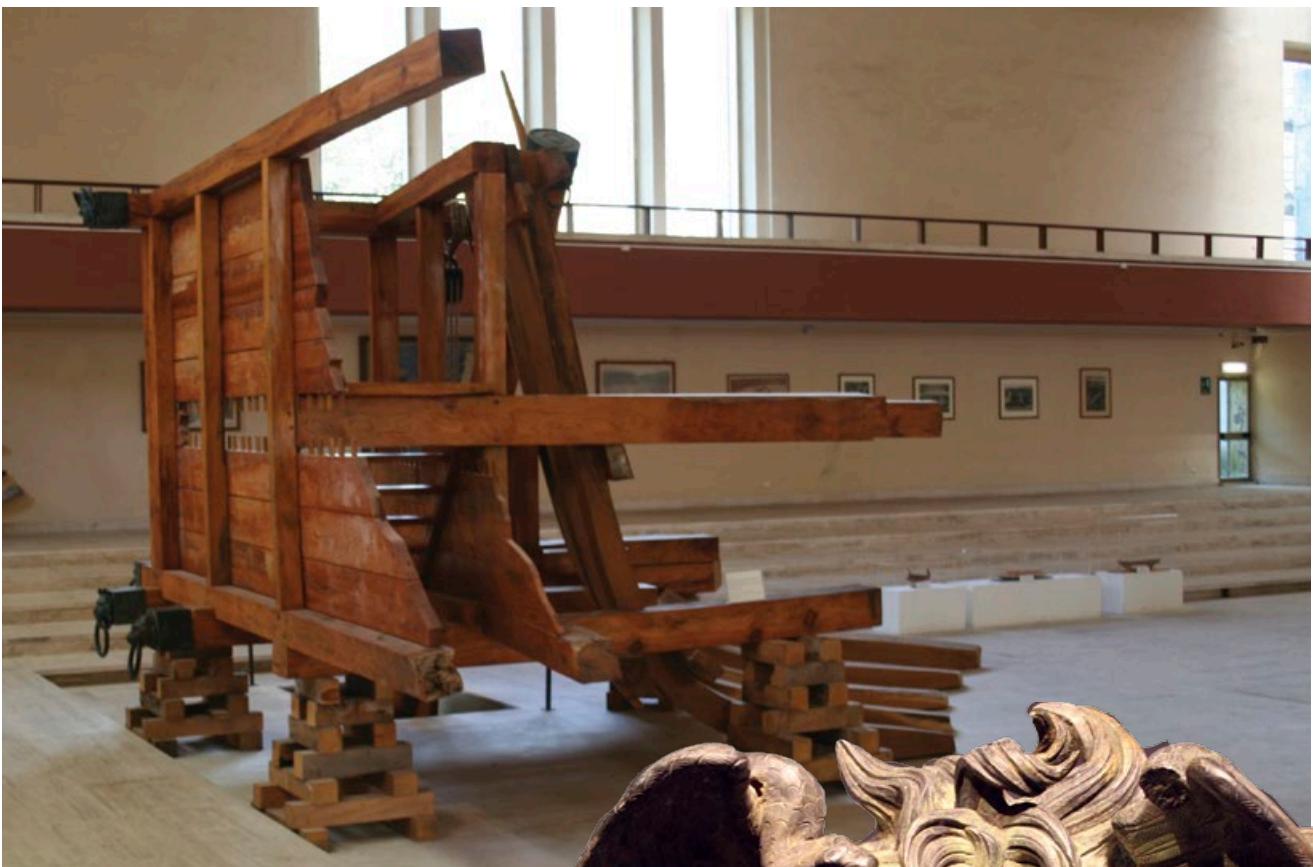
These ships once belonged to the Roman emperor Caligula. Caligula had succeeded Tiberius in A.D. 37, aged 25.

By all accounts, his reign started out well enough. Early on, the young emperor seemed to promise so much more hope than his old and depraved predecessor, Tiberius. As a sign of a fresh approach, Gaius—Caligula's actual name ("Caligula" was simply his nickname from childhood)—refused to deify Tiberius; his old regime would not be idealised or esteemed under the reign of the new emperor.

Immediately, Gaius adopted a vast building policy and this proved the greatest achievement of his reign. As

historian Anthony Barrett put it, Gaius took "a genuine personal interest in the visual arts," and by taking upon himself the example of the great builder-emperor Augustus, Gaius saw in architectural building "a chance to grace the Roman world with a tangible symbol of his greatness" (*Caligula: The Corruption of Power*, p. 192). In Rome, the Temple of Augustus and the Theatre of Pompey were completed, and an obelisk was brought from Egypt to serve as a centrepiece of Gaius' huge new racetrack in Rome. The obelisk originally came from Heliopolis in Egypt where it had been erected by an unknown fifth dynasty Pharaoh. Augustus had the obelisk moved to the Julian Forum in Alexandria and it was from there that Gaius had it transported by ship to Rome. Today this obelisk is known as the Vatican Obelisk and it stands proudly in St Peter's Square, having been moved to its current location in 1586 by engineer-architect Domenico Fontana.

Nearby in the Tibur district, the Claudia aqueduct system and the Anio Novus amphitheatre were built. Pliny the Elder admired these engineering constructions and considered the Claudia Aqueducts to have been the best examples of their kind in his own day and a "supreme wonder of the world," commenting that they made water flow "into Rome from the fortieth milestone at such a high level as to provide water for all the hills of the city" (*Natural History*, 36, p. 122). Meanwhile, in Sicily many temples and public buildings were restored, Syracuse's walls were repaired and Sicily's harbours were improved, meaning that grain could be imported into Italy from Egypt with greater ease and safety. Further afield, Gaius had more great



A RESTORED PORTION of one of the Nemi vessels dating to the rule of Caligula, on display in the Nemi Museum of Ships, Italy. Sadly most of the original ship was destroyed by a fire in 1944, an archaeological casualty of World War II.

THE HEAD OF MEDUSA discovered on the large Nemi ship. The bronze fittings are the most important set of objects found on the Nemi ships. The larger ship was essentially an elaborate floating palace, which contained quantities of marble, mosaic floors and even heated baths.

Watch 1931 footage of the discovery of the Nemi boats in our iPad edition of DIGGINGS.

plans too. He planned to restore the palace of Polycrates on the Greek island of Samos, to finish the Temple of Didymaeon Apollo in Ephesus and to cut a canal through the Isthmus at Corinth in Greece—he even sent a chief centurion there to survey the work.

Not long into his reign however, Gaius became gravely ill almost to the point of death, but although he recovered, the trauma to his brain triggered in him not just ongoing mental illness issues but also fits of rage and extremely brutal violence. It is impossible to know exactly what condition Gaius had, although in the mid-twentieth century, medical psychiatrist A T Sandison diagnosed epidemic encephalitis (see “The Madness of the Emperor Caligula, in *Medical History* 2, pp. 202–209), but in 1978, V Massaro and I Montgomery diagnosed the emperor’s condition as a virus that effected the central nervous system with residual mental symptoms (see “Gaius—Mad, Bad, Ill or



All Three,” in *Latomus* 37, pp. 894–909). What is without debate however, is that Gaius was never the same again and his Roman biographer Suetonius, writing some 80 years later, put it aptly that the emperor had become a “monster” (*Caligula*, p. 22).

Untreatable, Gaius began to overindulge, which only served to worsen his state of mind. His incestuous relations with his sisters became infamous, as did his despotic murders. Once, when Gaius thought his butcher’s meat too expensive to feed the wild animals he had collected and caged for a public spectacle, decided to feed them convicted criminals instead. On other occasions, Gaius was heard loudly boasting in deranged manner, “I can treat anyone exactly as I please!” (*Ibid*, p. 29). Without remorse, Gaius



THE CLAUDIA AQUEDUCT was started by Emperor Caligula in A.D. 38 and officially finished by Emperor Claudius in A.D. 52. Caligula ordered its construction because the seven existing aqueducts used in his time were inadequate due to the increasing demand for water for consumption and the city baths. It is on account of its massive arches that the Claudia is one of Rome's most visually impressive aqueducts.

even killed one of his sisters and her unborn baby. Such behaviour soon turned the Roman citizenry against Gaius. But he didn't care. He was heard to remark of the Roman people, for example, "Let them hate me, so long as they fear me" (*Ibid*, p. 30). But all this violence, far from satisfying Gaius, only served to accelerate the total "breakdown of a previously tormented mind," as historian Arthur Ferrill comments (*Caligula: Emperor of Rome*, p. 118).

Despairing that his violent appetite could not be quenched, Gaius embraced the cult of Diana, which was notorious at the time for its wild abandon. Diana was herself the Roman goddess of the wild and her cult attracted many Roman urbanites who yearned for escape from the bustling Roman cities. But such escape came at a cost, with it would appear, some Diana worshippers indulging in ritual killing and on occasion, even human sacrifice. But that suited Gaius' violent state of mind.

It was the cult of Diana that brought Gaius to Lake Nemi. The area surrounding the lake was considered to be especially sacred to Diana, and on its shore was a temple to Diana that had stood for centuries. Soon Gaius was consumed by the cult and in A.D. 39, he left Rome altogether and retired to Lake Nemi, where he had his two pleasure ships for his entertainment and wanton depravities. The ships would have once been a breathtaking sight, given that Lake Nemi itself was only 1.5 kilometres (1 mile) across, these ships would have seemed to dwarf all around them.

However, the Nemi Ships, as grand and beautiful as they

were, could never calm Gaius' vain distemper and in just one year, Gaius decreed that throughout the entire Roman world numerous temples were to be dedicated to himself as a god (*Cassius Dio, Roman History*, 59. 28, pp. 1–7). Then he did the unthinkable: he decreed that a statue of himself be set up in the Holy of Holies in the Jewish Temple in Jerusalem. That statue he commissioned depicted himself dressed as the Roman god Jupiter and he had planned to have it set up there by military force, if necessary. As Arthur Ferrill puts it, "no emperor had ever gone so far in offending the Jews" (*Caligula*, p. 148). According to the Roman historian Tacitus, the Jews "flew to arms" and Judea was on the point of open revolt (*Histories*, 5, p. 9). But even the protests of Agrippa I, who was of Jewish royal stock and who had also been a childhood friend of Gaius, could not stop the emperor's vanity for long.

Only Gaius' assassination stopped his statue being erected in the Jerusalem temple. Gaius was by then a hated despot, an object of scorn among the armies and even the Praetorian Guard, the royal bodyguard. On January 24 of A.D. 41, while on a trip to Rome from his beloved Lake Nemi, Gaius and his wife and child were mercilessly executed by Praetorian Guards. So the kind of violence that Gaius had indulged in proved to be his own undoing.

Not surprisingly, it was those closest to Gaius, those who had seen his violence so often, who turned on him in the end. Cassius Chaerea and Cornelius Sabinus, tribunes of the Praetorian Guard, and many other conspirators



THE VATICAN OBELISK, at 25.5 metres (83.5 feet) tall, this is the only obelisk in Rome that has not toppled since Roman times. The obelisk came from Heliopolis (Cairo), Egypt, and is possibly the oldest monument in Rome. Emperor Augustus originally transported it to Alexandria, where it stayed until A.D 37 until Emperor Caligula shipped it to Rome to serve as a centrepiece of his new racetrack. He also built the grounds of what is now the Vatican in central Rome. **LAKE NEMI** is a small almost circular volcanic lake some 30 kilometres (20 miles) south of Rome. In 1931, Mussolini ordered the lake drained, exposing Caligula's two ships for the first time in nearly 1900 years.

including Gaius' own courtiers, launched their murderous plot and killed the emperor. It was at that point, the Roman historian Cassius Dio tells us, that Gaius "learned by actual experience that he was not a god" (*Histories* 5, p. 9).

While these events were taking place, Agrippa I began to encourage Gaius' uncle Claudius, who Gaius had often made fun of because of his physical disabilities, to seize the empire for himself. According to the Jewish historian Josephus, Agrippa counselled Claudius to "not let such an empire slip out of your hands, especially after it had seemed to come to you of its own accord" (*Jewish Antiquities*, 19, p. 236). Roused by Agrippa's exhortations, Claudius ordered his bodyguard to take control of the royal palace in Rome and within hours, the Praetorian Guard had pronounced him emperor. The next day they led him to the Senate House and Rome's Senators officially ratified Claudius as the new emperor in place of Gaius.

And so it was that not long after Claudius became Rome's new emperor, he had the so-called Nemi Ships scuttled and sent to the bottom of their lake, where they would remain for 1900 years. It was a sign that as far as the

Romans were concerned, Gaius and his reign of vice and violence was best forgotten. With Mussolini's recovery of the ships though, interest in Caligula and ancient Rome increased dramatically throughout Italy and Europe. By returning to their Roman roots, many relearned history's lesson that total power corrupts.

It was a lesson the Italians experienced for themselves under Mussolini. Then in the closing stages of World War II, Hitler's retreating German army shelled and destroyed the museum holding the invaluable Nemi Ships, which Mussolini had had purpose-built to exhibit and study them.

The story of the Nemi Ships is signature to the emperorship of Caligula and his despotism, a despotism which while it can indeed stimulate intense productivity, it can also result in the most horrible brutality and persecution, especially where a despot has no self-mastery and the state has no constitutional checks to control their violent whims.

Watch for the next instalment of "Roman Emperors," featuring Emperor Claudius, in the next issue of ARCHAEOLOGICAL DIGGINGS. ◆



"THE CONVERSION OF THE PROCONSUL" was part of a collection of designs for tapestries commissioned from Raphael by Pope Leo X, in 1515. In this one, the apostle Paul strikes blind the Jewish sorcerer Elymas who tried to prevent him and Peter from converting the proconsul Sergius Paulus to Christianity. Witnessing this, the proconsul comes to believe in the Christ.

L SERGIUS PAULLVS
ASIAE PROCOS
CHRISTIANAM FIDEM
AMPLECTIT VR
SAVLI PREDICATIONE



Sergius Paulus, Proconsul of Cyprus

The Bible is a reliable reference to all manner of people and places, many obscure, and provides the starting point for much historical sleuthing. **Titus Kennedy** looks at one such personality.

ACCORDING TO THE BIBLICAL BOOK OF ACTS, Sergius Paulus was the Roman official presiding over the Mediterranean island of Cyprus around the middle of the first century A.D. In the narrative of Acts 13:4–7, the apostle Paul meets him while travelling across Cyprus to the city of Paphos. Luke, the author of Acts, according to second and third century A.D. sources and indicative evidence from the New Testament, calls Sergius Paulus the “proconsul” (Greek, *anthupatos*) of Cyprus and notes that he was situated in Paphos at the far western end of the island. So what is the evidence of the existence of a Roman official named Sergius Paulus during the first century A.D.? Did such a ruler exist in Cyprus? Was his title proconsul? Was the government of the island based at Paphos? And, if so, approximately when?

According to Strabo, a first century B.C. to first century A.D. geographer and historian, Cyprus was a senatorial province during the Roman Empire in the first century A.D., meaning that the senate appointed a proconsul to

rule the island each year. Ancient Roman records, such as the writings of Cicero, also demonstrate that the religious centre of Paphos was selected as the capital of Roman Cyprus. The city of Paphos, as the book of Acts indicates, is located on the far west side of the island and archaeological excavations confirm that it was a substantial Hellenistic city during the first century A.D. This city functioned as the Roman seat of power and is where the proconsul would have been situated during his term of office.

Multiple inscriptions containing the name Sergius Paulus appear to portray the man as a person of prominence in the Roman Empire of the first century A.D. A Greek inscription discovered at Soloi, which is just north of Paphos, mentions a proconsul named Paulus during the middle of the first century A.D. (*IGR III*, 930). A portion of the inscription translates as, “He also altered the senate by means of assessors during the time of the proconsul Paulus.”

Although the text mentions only the “Paulus” part of his name, it does specify him as proconsul. Of linguistic



THEATRE OF NEW PAPHOS. Constructed around 300 B.C., the venue was used for entertainment for more than six centuries. It was located towards the edge of the town and positioned so that those sitting in the auditorium were able to look across the town to the harbour. The University of Sydney has been excavating the site since 1995 and estimates it could seat more than 8000 spectators.

significance is the fact that the author of Acts uses the Greek *anthupatos* (Acts 13:7) to designate the position of Sergius Paulus as proconsul. According to the *Greek-English Lexicon*, this Greek term is the equivalent of the Latin term *proconsul*.

In around 22 B.C., Caesar Augustus made Cyprus a senatorial province, which meant one would expect to find a *proconsul* there rather than a *prefect*, such as in Judaea Province, where Pontius Pilatus is called a *prefect*, and Luke uses different Greek terminology to designate this. Further, the mention of the thirteenth year of Caesar Claudius places the inscription in the early 50s A.D. and necessitate that the proconsul Paulus referred to as being in power at an earlier time than the inscription had ruled on Cyprus prior to the early 50s A.D. A boundary stone inscription recording Curators of the banks and channel of the Tiber River in Rome mentions "L Sergius Paulus" as one of these Curators during the reign of Claudius and specifically allows the year to be determined as A.D. 47 (*CIL 6.31543*). The "L" probably is an abbreviation of the name Lucius.

Since only men of the highest political and social ranks could rule provinces and receive prestigious appointments in Rome, it is unlikely that more than one Sergius Paulus of high rank in the Roman Empire existed during the middle of the first century A.D. Another stone inscription, this one found at Pisidian Antioch, appears to also mention this "L Sergius Paulus," but due to the fragmentary state of the inscription, that reading of the name must be tentative or, and no information about the potential official titles or

positions of the person is known (Yalvac Museum).

Although neither the exact identity of this potential L Sergius Paulus is known, nor his possible role in the Roman government, perhaps he was a relative of the Sergius Paulus ruling on Cyprus—or one and the same Sergius Paulus. This particular inscription is not as clear as the two previously mentioned, but it may connect Sergius Paulus with Pisidian Antioch. This could be significant, because later in the narrative of the book Acts (13:12–14), after Sergius Paulus converted to Christianity, Paul and Barnabas travelled to Antioch. It is possible, though unconfirmed with only a hypothesis based on circumstantial evidence, that the reason Paul and Barnabas travelled to Antioch after Cyprus was because Sergius Paulus had family ties there. If so, the L Sergius Paulus mentioned on the stone inscription from Antioch may further illuminate the life of the proconsul Sergius Paulus who held positions on Cyprus and in Rome. A fourth, and most tentative inscription also exists that has been suggested as possibly attesting to the Sergius Paulus mentioned in the book of Acts (*IGR III, 935*).

Epigraphic investigation of this inscription suggests that the caesar mentioned in the text is Caligula, not Claudius, placing the official referred to in the text slightly earlier during the reign of Emperor Caligula (A.D. 37–41). This chronology does not oppose connecting the inscription with the Sergius Paulus of the book of Acts. Instead, it gives additional insight into the life and chronology of this official. However, there is a problem with this inscription, as the section of the text that may or may not mention a



A STONE INSCRIPTION found at Pisidian Antioch appears to mention one L Sergius Paulus.

Sergius Paulus is fragmentary, with the “Paulus” portion of the name missing and the text preceding “Sergius” appears to be the name “Quintus,” which is nowhere else associated with a Sergius Paulus. Therefore, connecting an inscription that appears to mention a Quintus Sergius during the reign of Caligula with the proconsul Sergius Paulus of Acts, the proconsul Paulus inscription from Cyprus, or the L Sergius Paulus of two other inscriptions would be unfounded.

Yet, the inscriptional attestation of a prominent Sergius Paulus in the Roman Empire who held the position of proconsul of Cyprus during the reign of Emperor Claudius does appear to be substantiated by multiple sources. Therefore, at least two but perhaps three references to a powerful Roman official named Sergius Paulus probably do refer to the Sergius Paulus on Cyprus. Interestingly, Pliny the Elder in his *Natural History* (circa A.D. 77), may even note this Sergius Paulus as a source of his writings about Cyprus.

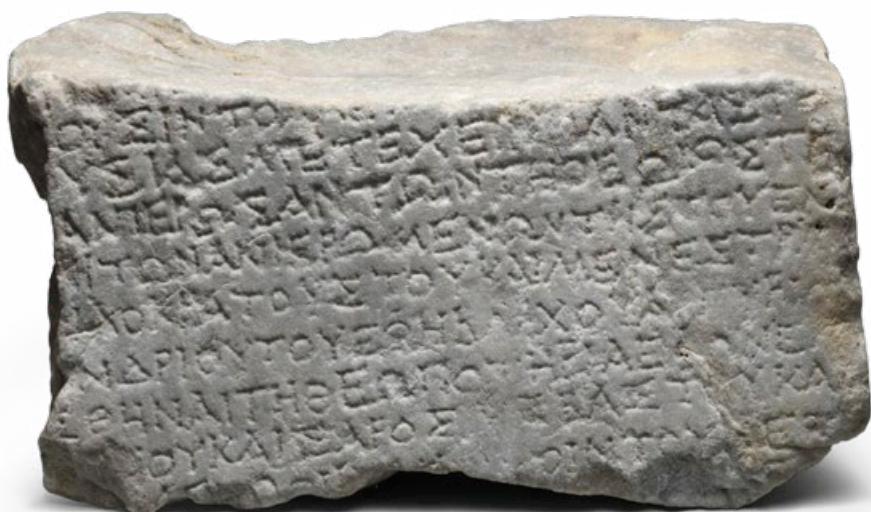
While the precise dates that Sergius Paulus held the position of proconsul on Cyprus aren’t known, two inscriptions

demonstrate that his career as a Roman official encompassed the middle of the first century A.D. and specifically during the reign of Emperor Claudius (circa A.D. 41–54). Following the chronology of the book of Acts, Paul and Barnabas should have arrived on Cyprus in around A.D. 45 or slightly after. If Sergius Paulus was appointed a Curator in Rome in A.D. 47, then he may have moved to Rome upon his return from Cyprus, which was typically considered a province Romans did not want to live in.

Thus, the proconsul Sergius Paulus encountered by Paul not only appears in ancient Roman records, but the chronological data situates him as proconsul in Cyprus during the reign of Emperor Claudius, likely just prior to A.D. 47, and one inscription may even connect him with the city of Pisidian Antioch, in accord with the narrative in the book of Acts. ♦

THIS FRAGMENT OF AN INSCRIBED MARBLE BLOCK

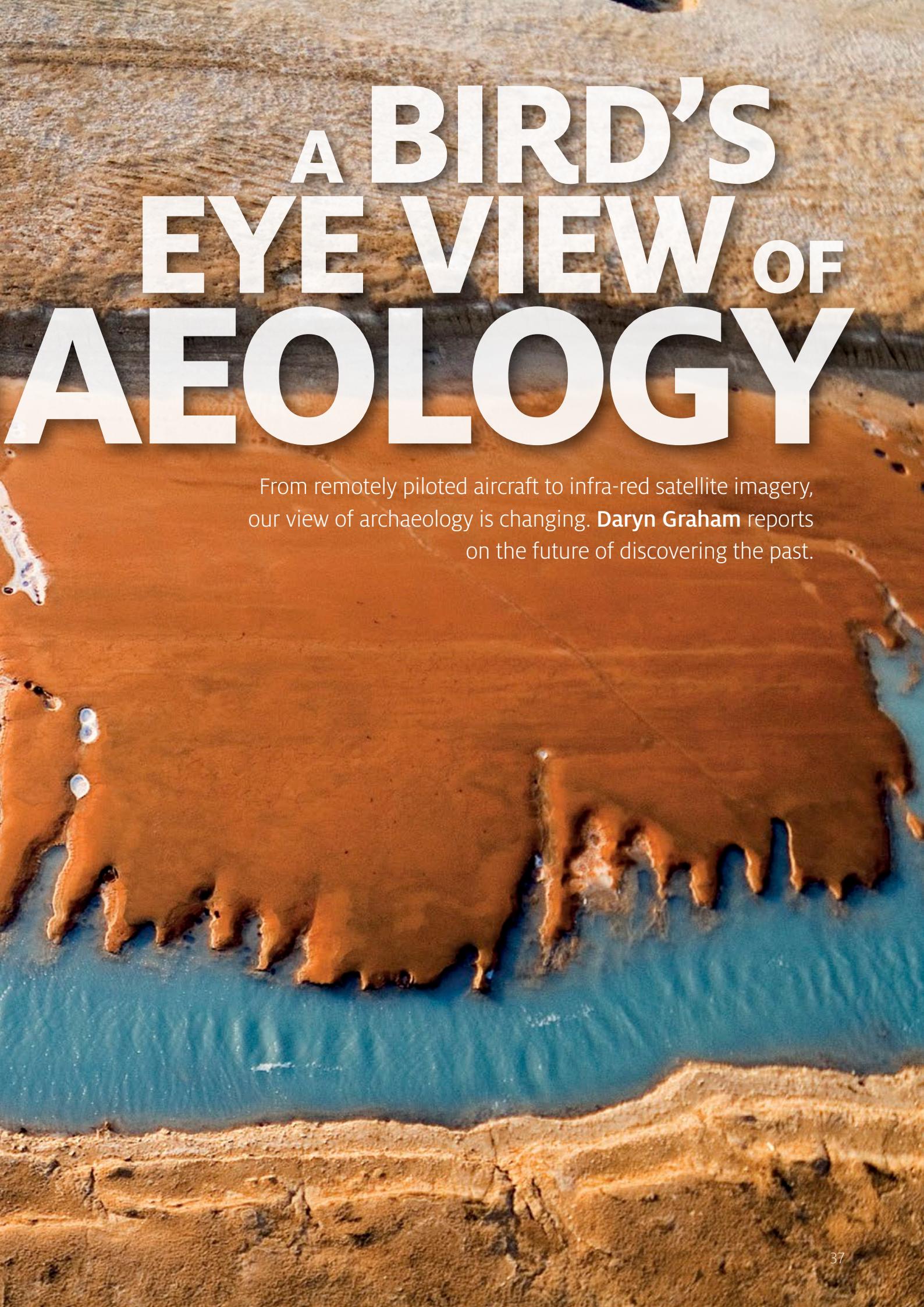
contains part of a decree regulating sacrifices and offerings at a temple site. The name of the reigning emperor is lost but can be hypothesised as Tiberius (A.D. 14–37), Gaius Caligula (A.D. 37–41) or Claudius (A.D. 41–54). The fragment also contains another Roman name, Quintus Sergius, whom some scholars have identified as the Roman governor of Cyprus, Sergius Paulus, who befriended the apostle Paul.



An aerial photograph of a coastal area. In the foreground, there's a large expanse of blue water with several small, dark, irregular shapes that could be birds or small boats. To the right, a wide, light-colored sandy beach meets the water. In the background, there are rolling hills covered in dry, brown vegetation. The word "ARCH" is overlaid in large, white, sans-serif capital letters across the upper portion of the image.

ARCH

A BIRD'S EYE VIEW OF AEOLLOGY

An aerial photograph showing a dramatic coastline where a light-colored, eroded cliff face meets a bright blue sea. The cliff edge is jagged and irregular, with several small, white, circular structures perched on its top. The sky above is a hazy, warm orange and yellow, suggesting either sunrise or sunset.

From remotely piloted aircraft to infra-red satellite imagery, our view of archaeology is changing. **Daryn Graham** reports on the future of discovering the past.

WE HAVE ENTERED AN EXCITING NEW ERA FOR archaeology. Satellite and aerial imaging is revolutionising the way that archaeologists work

and how we detect the past. This technology is certainly a far cry from its beginnings in the autumn 1906 when one Lt Philip Henry Sharpe took to the air in a woven basket suspended beneath an army hydrogen balloon and flew over Stonehenge, snapping the first aerial photos of the famous site.

But even then, archaeologists could see that Sharpe's photos were the beginning of something exciting for the future of archaeology. Osbert Guy Stanhope Crawford, a contemporary archaeologist, dreamed that one day in the future, field archaeologists would become like the birds!

These days, technology has turned Crawford's dream into reality. Today, archaeologists can use imaging from NASA and commercial satellites orbiting at 700 kilometres (430 miles) above the earth. Pioneering this field of expertise is Dr Sarah Parcak from the University of Alabama in Birmingham. Over the last five years Dr Parcak has utilised infra-red satellite imagery to locate over 1000 tombs, 3000 settlements and 17 pyramids lying just under the surface of the sands of Egypt which the naked eye has never been able to detect.

Whereas the human eye detects only the colours of the spectrum, infra-red technology can detect density, even under the ground's surface, and since mud-bricks of the type used in ancient Egypt have a higher density than sand, they show up under infra-red imaging from the satellites, even if they lie buried under that sand. Once the images are taken by satellite, the data is then beamed back to Parcak's computer which allows her to see many different and varied ancient sites throughout Egypt that lay hidden from view for literally thousands of years.

Perhaps Dr Parcak's proudest achievement in using this advanced technology is the discovery of Tanis, one of ancient Egypt's greatest capitals of the second millennium B.C., which has lain hidden under the silt of the Nile Delta for some three millennia. Using infra-red satellite imaging, Parcak was able to not just see Tanis but also to comprehensively map it out.

"From space you can see the whole settlement's detailed network of streets and houses," she comments. "Our map is incredibly clear; it literally looks like something you'd pull out to help you navigate a town you might visit today."

According to Parcak, this is only the start of where new technology will lead archaeologists. "There are many thousands of additional sites that the Nile has covered over with silt. This is just the beginning of this kind of work."



PREVIOUS PAGE: AN AERIAL VIEW OF THE DEAD SEA. The Dead Sea, popular for its healing qualities, attracts the attention of archaeologists and scholars, in addition to tourists, because of its multi-faceted heritage. Many archaeological sites are threatened by looting as a result of the demand for artefacts in the antiquities black market, and the area is rich source of such. Aerial photography is one method being used to assess and monitor changes in sites that may include illegal activity.

PHOTO: DUBY TAL—ALBATROSS



OCTAGONAL ROMAN STRUCTURE with a huge central plunge bath was discovered in 2000 by the Kent Archaeological Field School, UK. Aerial-Cam images were used in 2013 to create this 3D model which allowed the structure to be viewed from any position including a true vertical perspective for comparison with site plans. The baths were probably built at the time of Constantine, the first Christian emperor, and used for Christian baptism by immersion.



ABOVE: Micol's pyramidal mount, one possible pyramid discovered by Angela Micol using Google Earth. Her goal is to travel to Egypt to ascertain on the ground if the sites she identified really are long-lost ancient pyramid complexes.

RIGHT: Australian archaeologist, Vere Gordon Childe, was among the first to use aerial photography in the 1920s, surveying the Neolithic site known as Skara Brae (**FAR RIGHT**) in the Orkney Islands, Scotland.



Archaeologists across the world are beginning to use the same or similar technology, with fantastic results. And not surprisingly, because it saves a lot of time and thus a lot money. What once could take up to four years to pinpoint can now be done in a matter of weeks.

In Cambodia, Dr Damian Evans of the University of Sydney, Australia, had utilised light radar and powerful GPS technology to locate Lingapura, the lost, ancient capital of the Angkorian empire. Dr Jason Ur from Harvard University has also had his own breakthrough, identifying some 1200 sites in Iraq utilising 1960s spy-satellite images, which, he believes, make up "the richest archaeological landscape in the Middle East." The technology has also located camouflaged Mayan cities in the jungle of Guatemala and helped unlock the secrets of the construction of the moai head-statues of Easter Island. In summary, satellite technology is revolutionising the way we approach archaeology.

You don't have to be a university professor or professional archaeologist to make a major discovery, either. A few years ago, from the comfort of her home in North Carolina, Angela Micol used Google Earth to locate two pyramidal mounts, one near the Fayum Oasis and the other near the city of Abu Sidhum, Egypt, which she thought might actually be long-lost pyramids. What's more, she might be right!

Despite the concerns of sceptics, an expedition team was sent to the site at Abu Sidhum and detected metals and an underground tunnel under Micol's pyramidal mount, possible proof that this extremely weathered, but pyramid-shaped mound might have once been a royal pyramid. Micol says her goal now is to travel to Egypt with a team of scientists and videographers to prove whether the two sites she found on Google Earth really are long-lost ancient pyramid complexes.

But air-imaging isn't only useful for identifying hidden important archaeological sites. In fact, it's being used as a means of surveying and recording an archaeological excavation itself, albeit from a lower altitude. Perhaps the most important use of aerial photography today for the purpose of recording the archaeological data taken during actual digs is low-level aerial photography. In recent years the field archaeologist, British Royal engineer and professional photographer of 20 years, Adam Stanford, has led the way in this area, having developed "Aerial-Cam," which is now being used across the globe to record archaeological sites.

EARLY DAYS

The era of aerial photography arrived with the development of the spotter planes over the trenches in World War I, which contemporaries believed would be as revolutionary



for archaeology as the telescope was for astronomy. This was turned to civilian uses in the 1920s when an Australian archaeologist, Vere Gordon Childe, educated at the University of Sydney and Oxford University, began using aerial photography over the Orkney Islands. He located the Neolithic site now called Skara Brae. A Marxist at heart, Childe hoped to find an ancient Marxist-style utopia and in 1927, he found something there which reflected this view.

Childe identified and excavated the ruins of a number of house-dwellings, all built close to one another thousands of years ago and all virtually of the same size, suggesting the existence of some kind of a close-knit, egalitarian community. Of course, the ancient dwellers of Skara Brae knew nothing about Marx, but Childe's discovery and excavation there marked a shift in archaeology away from merely recovering information about the ancient world's elite like pharaohs, kings and emperors and toward a better understanding of everyday interaction between ordinary people in the society of millennia ago.

A NEW VIEW

After World War II, low-level aerial photography became more popular at important dig sites. First, platforms and extension ladders were utilised, then later scaffolding and cherry-pickers, as well as Unmanned Aerial Vehicles (UAV) such as kites, blimps and remote-control aircraft, allowing

greater manoeuvrability and improved perspective. But a breakthrough came in 1970 when the Royal Commission on the Ancient and Historical Monuments of Wales invented the "High-Spy" camera. A camera was fixed to a telescopic mast, which was mounted to the back of a Land Rover to access even the most remote archaeological sites. However, at the time, the technology was still basic and so expensive that few archaeologists used it.

UP A POLE

In 2006, this changed when Adam Stanford developed his own form of "high-spy"—Aerial-Cam—using far more advanced and affordable technology. Aerial-Cam employs a high-resolution (12.3mp) Nikon Digital SLR camera mounted atop a 22-metre (70 feet) telescopic mast, the optimum height for the best detailed and accurate photo-taking of dig sites. The mast itself is fastened to the rear corner of a four-wheel drive, giving it a steady, sturdy base. The mast is then extended into the air and the camera lens view atop it is fed back to a monitor on ground level via a boosted USB connection. This allows the project director or supervisor at any dig site the great luxury of being involved in the photographic capturing process itself, as well as camera pointing, focussing, speed, aperture and so on. Once Aerial-Cam has taken its photos overlooking the excavation site, those photos can then be written to CD



METHODS OF PHOTOGRAPHY

Remote, low-level aerial photography like that done by Adam Stanford of Aerial-Cam provides safe, cost-effective ways of recording excavation sites, utilising a variety of techniques for detailed, high quality images.

Traditionally, aerial photographs are taken by aircraft or by setting up high scaffolds, which are both costly and time consuming. With today's remote technology, cameras can be controlled from ground level, opening up solutions such as:

- 1** A remote camera atop a 22-metre telescopic mast fixed to a Land Rover.
- 2** Kite-Cam and aerial drones, known as RPAs (Remotely Piloted Aircraft).
- 3** Hand-held Pole-Cam, a mast for walking surveys similar to the Tri-Frame mounted Mast-Cam used for building interiors.

See Aerial-Cam in action in our iPad edition of *Archaeological Diggings*.



ORTHOPHOTO OF AN IRON AGE ARCHAEOLOGICAL SITE IN ENGLAND. An orthophoto is an aerial photograph geometrically corrected and adjusted for topographic relief, lens distortion and camera tilt. Unlike standard aerial photography, an orthophotograph can be used to measure true distances because it is an accurate representation of the earth's surface. Adam Stanford took this image of a recently exposed site by Wessex Archaeology using a kite-cam. For an idea of scale, Adam's Land Rover can be seen at the top right of the image.

or uploaded directly to some remote location for storage, analysis, dissemination and publication even while the excavation is being undertaken.

There are a number of advantages for the archaeologist. As Stanford explains, it allows for a more detailed and accurate recording of excavations and findings. "As archaeological excavation is a destructive process, and in a lot of cases the evidence will only be available for recording for a relatively brief window of opportunity, I feel it's very important to ensure the photographic record is of the highest quality possible. Hence my insistence on using the best cameras available!"

The use of high quality cameras atop a 22-metre (72 feet) mast means that archaeologists can achieve far more detailed images than what one gets from planes, drones or satellite. And there are other uses at any dig site already excavated. Notes Stanford: "Close study of the images as they are taken has in some cases led to the discovery of features that have previously not been noticed."

Stanford has even allowed for use of the technology to those areas which are too inaccessible for a four-wheel

drive. He has developed a lightweight tripod that can be carried to those sites too difficult to reach by vehicle. But, for the moment, this method has less potential for height, as the tripod only supports a shorter mast.

Stanford's work is a welcome addition to both present-day and future archaeology; Aerial-Cam is now used by commercial archaeologists, university field studies teams and other special project workers across a range of archaeological sites, from the pre-historic to contemporary industrial.

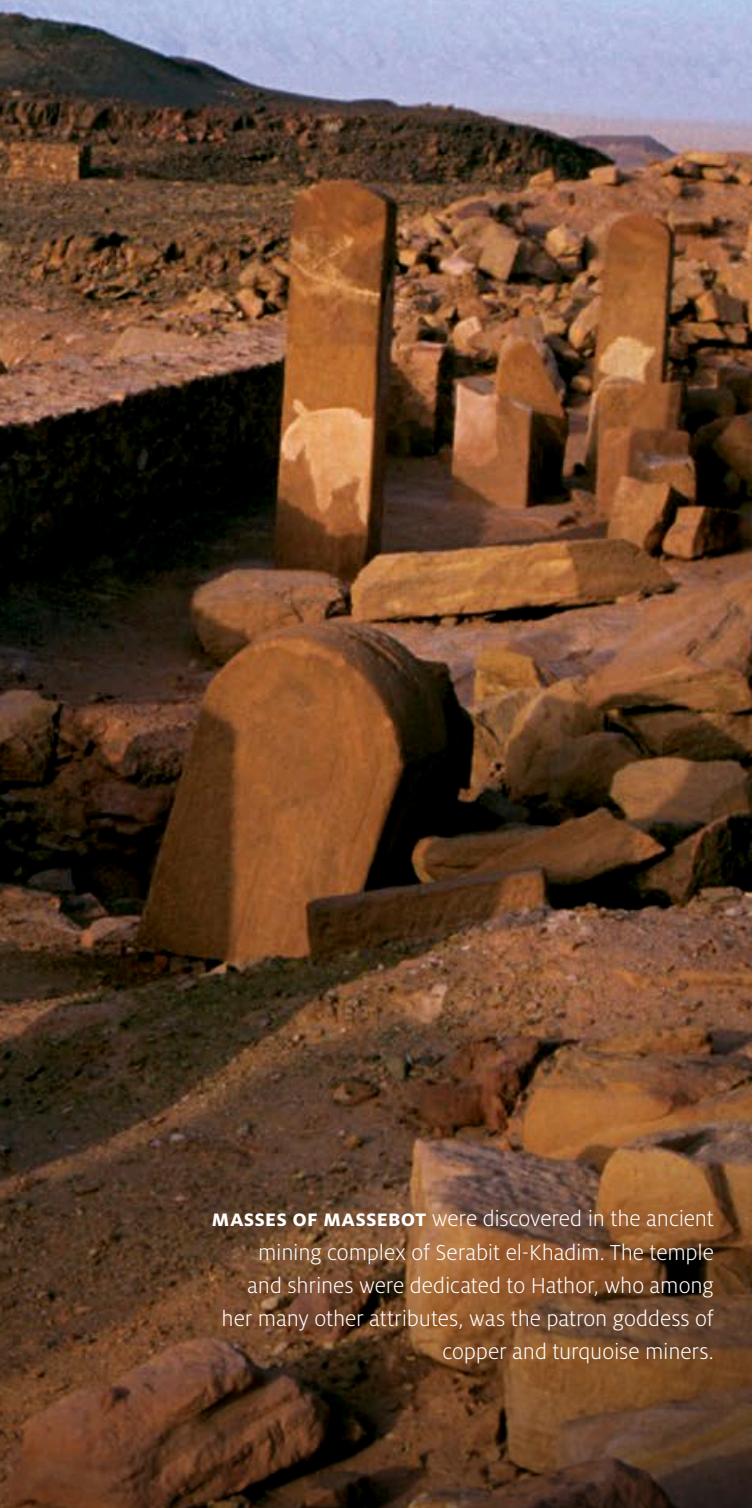
Technology is catching up to what archaeologists of the past could once only have dreamed about: a bird's-eye-view. As technology progresses ever further and economies improve, no doubt that technology will become ever more available to locating, identifying and recording many more important archaeological sites all over the world, strengthening our own connections with our ancestors and humanity's common ancient heritage. As Dr Parcak puts it, new technology make us "think bigger, and that's what satellites allow us to do. Indiana Jones is old school; we've moved on from Indy. Sorry, Harrison Ford." ♦

Those “High Places” of Biblical Arch



aeology

PART 2



MASSES OF MASSEBOT were discovered in the ancient mining complex of Serabit el-Khadim. The temple and shrines were dedicated to Hathor, who among her many other attributes, was the patron goddess of copper and turquoise miners.

PHOTO: CHICUREL ARNAUD—HEMIS—ALAMY

It is probably the nature of the “high place” itself that explains why it has been so elusive to modern research, according to archaeological scholar

Lawrence T Geraty.

THE BIBLICAL EVIDENCE CONSIDERED IN A recent issue of *ARCHAEOLOGICAL DIGGINGS* indicated that the high place was a cultic installation borrowed initially from the Canaanites but frequented throughout the history of Israel—both in the service of Yahweh as well as in the service of the deities of the surrounding peoples. Its typical features included standing stones (massebot), memorial stones, altars for sacrifice and burning incense, cult objects symbolising 'Asherah (the mother goddess of Canaan), along with several other types of images.

PAUCITY OF ARCHAEOLOGICAL EVIDENCE

In this article, we turn to a summary of the finds provided by Near Eastern archaeology that may illustrate the biblical data. It may come as a surprise to learn that Palestine has yielded very little evidence for the “high place” in the biblical period. This fact is all the more astonishing in light of the intensive archaeological activity there in recent years. Of course, many of the sites that have been excavated recently in Israel and Jordan were never occupied in Bible times and even if they were, due to the accident of discovery and since very few mounds are ever completely excavated, archaeologists may not have dug in the area of that occupation. But it is probably the nature of the high place itself that explains why it has been so elusive to modern research: the summit of a mound, where the high place was frequently built, was often the first area of the mound to be denuded, either by natural or artificial causes. Since the typical simple installation was in the open air, perhaps it is expecting too much to even today find high places preserved “on every high hill and under every green tree” (2 Kings 17:10, RSV) as they were in the days of Israel’s prophets.

The recognition that there is a paucity of discovered Israelite high places is a comparatively recent insight, however. An older generation of scholars found high places wherever they found standing stones, “cup marks” or cultic implements. No longer is the presence of these phenomena considered sufficient evidence for a high place. It is now known that standing stones served as common structural elements in the buildings of the Iron Age (the archaeological term for the Israelite period in Palestine). And when these stones were set up as markers, they may have served any of several functions, only some of which were cultic. Such stones could serve as memorials, commemorative votive stones, markers of treaties or covenant relationships, representations of deities at “council,” or surrogates for individuals who wished to be represented continually before their deity at the sanctuary.² It is now



THE OBELISK TEMPLE OF BYBLOS, LEBANON, built between 1900 and 1600 B.C., is named after the many obelisks discovered standing in the temple's courtyard, dedicated to the Egyptian deity Arsaphes. The temple was originally located above the ruins of the Great Temple, but excavators dismantled the Obelisk Temple and reconstructed it to the east of its original location, to facilitate the archaeological excavations of an earlier temple beneath it.

known, too, that “cup marks,” which are common in Palestinian limestone bedrock, are often a result of natural causes, but even when they are man-made they may have served some profane use. Though cultic implements were obviously used for religious purposes, it is clear they were appropriate almost anywhere, never being restricted solely to a high place. Thus older handbooks that use these phenomena to argue for the identification of high places must obviously be used with caution.

Having stated the case for the discovery of Israelite high places negatively, what do we have to illustrate the biblical data? Strangely enough, we have to leave either the biblical period (chronologically) or the Israelite territory (geographically) in order to find meaningful parallels from archaeological discovery.

EVIDENCE FROM SURROUNDING COUNTRIES

Open-air temples—all of them with standing stones—that have been found in countries surrounding Israel, have often been referred to as high places. The field of 140 stelae found at Ashur (modern Qalat Sharqat in Iraq), one of the ancient capitals of Assyria, falls into this category. These two rows of stones—some crude, some squared, some as high as three metres (10 feet), some inscribed with the names of kings who ruled from the fifteenth to the seventh centuries B.C.—were thoroughly excavated and published by Walter Andrae when he worked for the German Orient Society between the turn of the century and the outbreak of World War I.³ Rather than a high place in

the biblical sense, however, these rows of stones may have served as a “walk-in calendar” since they were arranged in chronological order and the names inscribed on them were names from eponym lists that were used by the Assyrians to compute dates.⁴ To be compared to the standing stones of Ashur are the massebot in the contemporary temple of Dagon at Ugarit (modern Ras Shamra in Syria),⁵ though again, this phenomenon is probably not identical to the biblical high place.

Closer to Israel and closer to the Israelite high place was the so-called Obelisk Temple of Byblos in Lebanon, excavated in the 1930s by Maurice Dunand and published by him in the 1950s.⁶ The phase of the installation dates to the nineteenth century B.C. and was characterised by more than 40 standing stones of all sizes grouped in an open court around a cella and pro-cell, which were built on a raised platform in the open air. Several of the massebot even had offering tables positioned in front of them, so there is no doubt as to their cultic function. One of the stones contains a dedication to the Egyptian god Arsaphes, who may have been assimilated to Reshef, the well-known Canaanite god of the underworld.⁷

South of Palestine at Serabit el-Khadim in the Sinai Peninsula, Sir Flinders Petrie in 1905 discovered a nineteenth century B.C. Egyptian temple in whose environs were many massebot. The site of several turquoise mines worked by the Egyptians, it is best known for its Proto-Sinaitic alphabetic inscriptions from the fifteenth century B.C. In the same general vicinity along the ridges was a



ROBINSON'S HIGH PLACE IN PETRA is one of the best known and best preserved high places in the Middle East. It was carved out of the rock of the mountain summit by the Nabataeans and contains a central court, a bench where the sacrifice was most likely prepared and an altar of burnt offering on the east (far left in picture), with a flight of steps leading to its top.

series of cairn cemeteries, which W F Albright, the dean of American Palestinian archaeologists, studied again in 1948. He was convinced that these phenomena provided the clue to the origin and development of the high place, which he saw to be funerary in character.⁸ His theory, however, has not found general acceptance.

At Timna, between the Gulf of Aqaba and the Dead Sea, in the region of the Arabah, where the Egyptians and Midianites exploited the copper deposits, Beno Rothenberg discovered two installations in the 1960s that may have served as high places between the fourteenth and twelfth centuries B.C.⁹ They each had curtain walls around an area that included a cella, massebot, basins and offering benches. One of them is built up against the sandstone formation known to tourists as Solomon's Pillars.

That some of these cultic installations from surrounding countries are parallel to the biblical high place at least in function is probable, but because of the distance in time and space, details cannot be pressed.

PETRA

One of the best known and best preserved high places in the Middle East is the so-called Robinson's High Place (Zibb 'Atuf to the Arabs), in the mountain fortress of Petra in Transjordan. Petra was in Edomite territory during biblical times, but by the end of the fourth century B.C. it had been taken over by an Arabian tribe known as the Nabataeans and it was they who carved their monuments out of the rose-red sandstone characteristic of the region.

And it was probably they who cut the famous high place out of the solid rock.¹⁰

Despite the difference in time and place from the Israelite period, Albright suggested that this high place "probably carries on the tradition of ancient Israelite high places more closely than any other extant installation."¹¹ Kurt Galling, the noted German archaeologist, agrees that the "high places' often mentioned in the [Old Testament] may be thought of as similar to the places of worship at Petra."¹²

The main features of the great high place can be seen in the image. It is approached by a flight of steps, which, like the other features, is cut into the solid rock. The central court is about 14 metres (47 feet) long and 6.7 metres (22 feet) wide, and about midway of its length is a rock platform about 1.5 metres (5 feet) long and half as wide. It has been suggested that this 15-centimetres- (5 inches) high platform was either the pedestal for the 'Asherah or where the sacrificial victim was killed (there is no positive evidence for human sacrifices).

To the north of this is an 8.2-metres- (27 feet) long bench on which the sacrifice may have been prepared for the burnt offering, while south of the court was a water tank or laver—approximately 2.75 metres (9 feet) square and 1.2 metres (4 feet) deep—probably used for ablutions. Ascent to the rectangular 2.7 by 1.8 metres (9 by 6 feet) by 0.9 metres (3 feet) high altar of burnt offering on the east was made by a flight of steps leading up to its top, which contains a shallow pan, perhaps to receive the fire. Just to the south of this first altar is another one with its own



THE ROUND ALTAR PLATFORM OF MEGIDDO (centre) is constructed of rough stones. It has a diameter of 7.6 metres (25 feet), stands 1.2 metres (4 feet) high, and is believed to date from the mid third millennium B.C.

flight of steps, but the second is round. It probably served either for drink offerings or for the place of slaughter, because near its centre are two concentric pans, the larger nearly 1.2 metres (4 feet) in diameter and the smaller 0.5 metres (1.5 feet) in diameter, and from this inner basin a conduit over 0.9 metres (3 feet) long leads to a tank where the liquid was caught. Near this installation, but farther to the south, are two 6-metre (20 feet) obelisks, which were exposed when the surrounding rock was hewn away, probably for building purposes in the town below. Altogether, it is a most interesting and impressive site to visit and is well worth the climb.

SITES IN PALESTINE PROPER

Though most of them are not as spectacular as the one at Petra, Cis-Jordan does have several sites where high places have been found. They appear to be of at least four different types. One type may be called a "cairn high place." Such a heap, carefully constructed of rough stones, could serve either as an altar or as a commemorative installation. Albright and Ruth Amiran each excavated



UNWALLED GEZER HIGH PLACE. Originally discovered laying down, archaeologists re-erected the series of 10 standing stones in 1968. The function of the block with the rectangular hole has been the subject of debate. Was this an altar for blood sacrifices?

an example of the latter in 1924 and 1953 respectively, on a ridge near Malhah, southwest of Jerusalem.¹³ The date of these two tumuli was fixed by pottery toward the end of the Judean monarchy around the seventh century B.C. Much earlier are the cultic cairns found at Megiddo by Gordon Loud and at Nahariyah by Moshe Dothan.¹⁴ The round altar platform of Megiddo (known as installation 4017), also constructed of rough stones and visible at the site today, is 7.6 metres (25 feet) in diameter and 1.2 metres (4 feet) high! It seems to date from the mid third millennium B.C. though it was in use down to the early second millennium B.C., when it was associated with three nearby sanctuaries. At a later time within the Middle Bronze Age (twentieth–sixteenth centuries B.C.), some 30 to 40 massebot were erected over the high place, so its cultic function continued for many centuries.¹⁵ The Nahariyah cairn, nearly 6 metres (20 feet) in diameter, was found near a small shrine of the eighteenth century B.C., with which it was later associated. The shrine itself was probably dedicated to the Canaanite goddess 'Asherah.¹⁶

A second type of high place is represented by the famous

unwalled Gezer high place.¹⁷ It was first excavated and then covered over again by R A S Macalister shortly after the turn of the century, but has recently been re-excavated by a Hebrew Union College Expedition directed by William Dever. Since its reconstruction for visitors in 1968, it is well worth examination. The installation consists of a north-south line of 10 monoliths or massebot, the tallest of which is 3.3 metres (10 feet 9 inches) in height and the shortest half that. Just back of one of the pillars a square block was found with a 38-centimetres- (15 inches) deep rectangular hole cut in its upper side. Its function has been the subject of debate, with suggestions ranging from a laver or altar for blood sacrifice to a base for an 'Asherah. Around the bases of the stones, all of which were erected about 1600 B.C., was a low curb and a narrow paving of limestone chips. In the general vicinity Macalister found a number of infant jar burials, two interconnected caves in bedrock and a cistern containing some human bones. Combining all these elements, which modern scholars now know come from widely differing chronological ages, Macalister reconstructed an eclectic cultus that involved child sacrifice and oracular consultation in the two caves. Since there is no evidence for this fanciful interpretation, his theory must be abandoned. Mrs Anita Furshpan, who re-excavated the installation for the HUC Expedition, has suggested that it functioned as a place of covenant making for groups around Gezer. Drawing on treaty and covenant making parallels in Palestine and Syria, she suggests each of the stones may have been set up by a covenanting unit, accompanied by a blood sacrifice on the block.¹⁸ This interpretation, too, however, is far from certain.

A third type of high place is a smaller, walled installation of the kind made famous by Yigael Yadin's excavation at Hazor. There he found among several shrines from the Late Bronze Age (fifteenth–thirteenth centuries B.C.), the unroofed shrine 6136 in Area C of the Lower City. It was built up against the slope of the earthen Hyksos rampart and contained 10 small basalt massebot in an apsidal niche at the back of the high place. The most interesting standing stone had inscribed on it two forearms stretched upward toward a divine lunar symbol—a crescent and a disk. On one side of the row of stones was a basalt statuette of a seated male figure with an inverted crescent pendant on his chest. Benches for offerings lined the walls.¹⁹ A similar high place from the Israelite period may have been found at Beth-shemesh by Duncan Mackenzie.²⁰ Unfortunately his research was not completely published and therefore is difficult to interpret.

A fourth type of high place in Palestine is Shrine E 207, found at Samaria by the Joint Expedition in the 1930s.²¹ It is similar to the one at Petra in that it is formed by a trench, trapezoidal in layout, cut from the solid rock. The trench itself is 6 metres (20 feet) wide at the top, 4 metres (13 feet) wide at the bottom, and about 3 metres (10 feet) deep. The inner area, connected with the outer area by a 2.4-metre- (8 feet) wide rock bridge, is about 30 by 26 metres (100 by 85 feet). There was no sign of a building nor any other cultic artefacts, but the excavators presumed it to be a high place dated ceremonially to the eighth century B.C.

HIGH PLACE MODELS AND SURVIVALS

Not only have some actual high places been found, but archaeological discovery has provided us with several ancient models. The Louvre in Paris contains a bronze model from the twelfth century B.C. of an Elamite high place found in Susa. Among the equipment of this "Sittshamsi" (as the model is known) are massebot, lavers, altars, possible statues and perhaps even an 'Asherah.²² The Cyprus Museum in Nicosia displays two interesting clay models of ancient sacred enclosures from the northern coast of the island. From Tomb 22 at Vounous comes the late third millennium B.C. model of a circular open-air enclosure, or temenos, surrounded by a wall with a gate set in one side. Within, a ritual ceremony is taking place with attention centred on three human figures who seem to be wearing bull masks and holding snakes. Figures of both people and bulls crowd the area.²³ The seventh century B.C. sanctuary of Ayia Irini was excavated by the Swedes in 1929 and its enclosure found to contain a libation table and altar surrounded by 2000 terra cotta votive figures representing bull figures, worshippers, war chariots, armed men and centaurs—all of which now take up most of a room in the museum.²⁴

Besides these visual aids from ancient times, modern survivals of high-place-type activities may be helpful in understanding the biblical data. One such survival is the annual Samaritan Passover celebration, which takes place in a rectangular enclosure of rough stones on the summit of Mount Gerizim. Another survival may be the cult of the hero shrines (called *welis* in Arabic), which dot the summits of mountains and hills throughout the Middle East. Here Arab peasants gather to mourn or rejoice, depending on the occasion.

IN CONCLUSION

As George A Barton has written, "These ancient places of worship which archaeology has brought to light are eloquent witnesses to the pathetic way the men of Palestine 'felt after God, if haply they might find him' (Acts 17:27), and the pathos is not lessened by the fact that they thus continued to grope, even after the clearer light was shining about them."²⁵ With these vain attempts to erect massebot in a cultic setting as a background, we may hear with renewed appreciation the word of the angel of the church in Philadelphia: "He who conquers, I will make him a pillar in the temple of my God; never shall he go out of it, and I will write on him the name of my God, and the name of the city of my God, the new Jerusalem which comes down from my God out of heaven, and my own new name" (Revelation 3:12, RSV). ◆

Dr Lawrence T Geraty (PhD Harvard University) is President Emeritus of La Sierra University and a former President of the American Schools of Oriental Research.

At the time of writing this article, he was professor of Old Testament Studies at Andrews University.

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Giuseppe Fiorelli

By Patricia Pierce

OF THE EARLIEST PIONEERS OF ARCHAEOLOGY that have excavated Pompeii, none has left a greater mark on that site, or on the actual practice of archaeology right around the globe, than Giuseppe Fiorelli. His periods of tenure at Pompeii are renowned for both his revolutionary tendencies (in his life and his work) and sound practice, as he channelled his flare and innovation into discovering and uncovering our ancient past.

Born on June 8, 1823, in Naples, Italy, Fiorelli's life would centre on the historical Neapolitan bay. Even as a youth, Fiorelli took a burning interest in his ancient Italian heritage and especially the history of the Bay of Naples—the setting of his childhood and youth, and also his career as an archaeologist. In the 1840s, Fiorelli landed a job working as an inspector over excavations at Pompeii. In this capacity Fiorelli was able to take part in what archaeologists did there, but as a mere inspector he was something of an outsider in the final decision-making process, thus leaving him free to fantasise and imagine what excavation would be like there if he were in charge.

But Fiorelli was no mere fantasiser. He had been swept up in the nationalistic zeal that was spreading throughout Europe at the time, and whereas earlier excavators had often looted Pompeii of its treasures to

give to the king of Naples, Fiorelli withheld them for the higher purpose of further study, getting under the Neapolitan king's skin, so to speak. Fiorelli also recruited his archaeological team working at Pompeii as soldiers, a militia and raised a rebellion against the king in the cause of a united Italy. Finally, in 1848, the authorities in Naples had had enough and Fiorelli was arrested and imprisoned for sedition, his writings, including excavation notes, seized and burned.

When Fiorelli was acquitted and released some two years later, he was viewed by many Neapolitans as an unemployable revolutionary. But in 1853, he scored a job as director of excavation at Cumae, under Count Leopold of Syracuse. He had realised in prison that revolution was not his thing and that archaeology certainly was, as it proved to be. After seven years as director at Cumae, Fiorelli had re-established his reputation as a gifted and hardworking archaeologist.

At the same time, there was change in the politics of Naples. A new king came to the throne in 1860 and in 1863, Fiorelli was reinstated in Pompeii, this time as head of excavations and director of the Naples National Archaeological Museum. Italy and Italians were certainly changing. The king even supported the idea of Fiorelli directing a national museum within Naples itself.

POMPEII'S SILENT WITNESS. Archaeologist Giuseppe Fiorelli developed many of the techniques used in site excavation, which has increased our understanding of the cultural history and urban fabric of past civilisations such as Pompeii.





THE WONDERS OF POMPEII is an 1871 woodcut of Fiorelli inspecting the excavations made at Pompeii under his direction in the 1860s.

PLASTER CASTS OF BODIES AT POMPEII were made when early excavators at Pompeii came across a void in the hardened ash, made by organic remains decomposing after the ash/mud had set hard. It was Fiorelli who came up with the idea of pouring concrete into the voids and excavating around them. Today, a clear polymer is used, allowing archaeologists to see the relation of artefacts and any bones.





RUINS OF CUMAE. Fiorelli landed a job here as director of excavation in 1853 and re-established his reputation as a gifted and hardworking archaeologist. Many of Cumae's sites are Roman, but several are eighth century B.C. Greek.

During this term of employment, Fiorelli employed the best of archaeological practices of his day, together with his own newer and well thought-through techniques. He broke with the convention of digging first to base street level and work upwards from there, and instead introduced a top-down method, whereby excavation began at the top strata of soil then carefully worked down through the ages, recording every artefact until street level was eventually reached. This is still practiced by archaeologists everywhere. Fiorelli also divided Pompeii into topographical sections, regions, insulae and domus for referencing purposes. To this day those same referencing categories exist in all books on Pompeii.

But of all of Fiorelli's ground-breaking innovations, his most famous is his plaster casts. While excavating Pompeii, Fiorelli noticed that there were many cavities in the ash soil where bodies of the victims of the A.D. 79 eruption of Mount Vesuvius had been but had long-since dissolved. Fiorelli thought about how he might recapture something of those bodies' shapes and he developed the idea of poured plaster to fill the cavity and record the shape. Once the plaster dried, he would remove the surrounding ash and dirt and see what shapes they were. The result was the incredible contorted shapes of the long-lost dead, caught in their final acts, moments before death. The technique has been applied to cavities left by animals, plants, furniture and other perishable materials elsewhere.

Fiorelli's time at Pompeii has been hailed by Colin Amery and Brian Curran Jr as "the first time a holistic understanding of Pompeii's history and urban fabric" had been attempted and reached (*The Lost World of Pompeii*, Frances Lincoln Ltd: London, 2002, p. 47). As a reward for his tireless and passionate work at Pompeii and his great successes overseeing work there, in 1875, Fiorelli was appointed Director-General of Italian Antiquities and Fine Arts in Rome. But Fiorelli was not one to rest on his laurels and withdraw from life and in the following year he founded his own monthly periodical of archaeological findings from around the world, called *Notizie degli scavi di antichità* (Notes on Excavations of Antiquity), which continues to be published.

Fiorelli died on January 28, 1896, from undetermined causes, while still the director-general. With his passing went one of archaeology's greatest pioneers, not just in Pompeii, but globally. But his legacy lives on. It would be considered an entirely "un-archaeological" thing not to see Fiorelli's techniques being used at excavations today. So, next time you happen to be working at an archaeological site, you will now know who established its main practices and excavation methods: Giuseppe Fiorelli. ♦

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SINCE THE VERY earliest days of Christianity, believers of Christ have instinctively congregated for church services. For the first two centuries after the death of Jesus, the majority of Christians met in larger private residences until purpose-built meeting places were constructed. Here are some of the oldest of these. Most of the sites contain only sections of the original buildings, but nonetheless, are still upheld as sites sacred to believers.



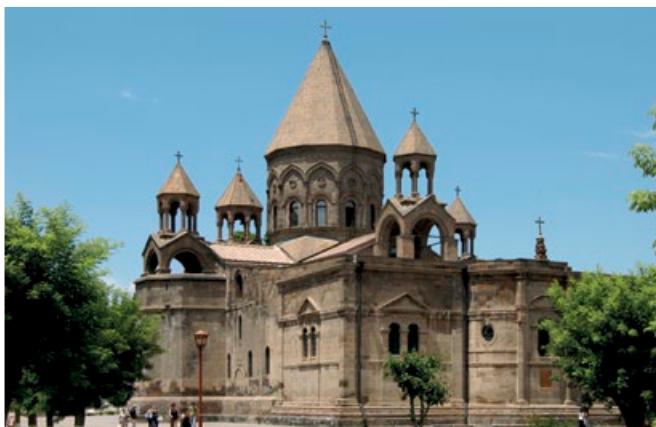
1 Basilica of Sant'Ambrogio, Italy (45.462425, 9.175806)

Although the remains of the original structure, Basilica Martyrum, are now concealed, this church retains the original cross-shape and has been in continual use since its establishment in A.D. 379–386. Buried under its floors are the graves of Roman-persecuted martyrs. Over the centuries, this edifice has grown in structure and sacredness.



2 Church of the Holy Apostles Peter and Paul, Serbia (43.161111, 20.526944)

Humble and ancient is the locally-known Church of St Peter, a site that has been continuously worshipped on since the fourth century. The original cupola and columns are well-preserved, as they have been incorporated in the many restorations over the centuries, retaining the still-visible original art.



3 Etchmiadzin Cathedral, Armenia (40.161769, 44.291164)

Inside the oldest cathedral in the world are traces of the original vaulted basilica that tradition says was begun in A.D. 303 by Gregory the Illuminator after Christianity was adopted as the state religion. It was, and is to this day, the most important religious and political site in Armenia.



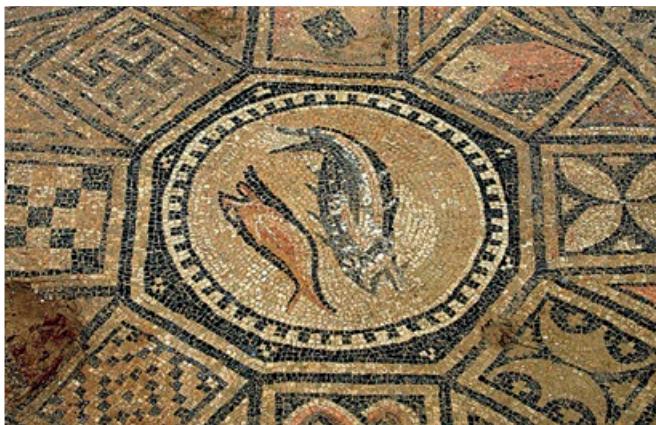
4 Church of St Peter, Turkey (36.209263, 36.178338)

Although the oldest structures inside the cave church date to the fourth century, tradition lists the cave to a much earlier time as the place Peter preached the gospel in Antioch and where believers first adopted the title "Christians." Fragmentary mosaic and frescos remain of the fourth century interior decoration.



5 Dura-Europos Church, Syria (34.747711, 40.726864)

Dura-Europos is an amazingly preserved Roman walled city and within its walls is the oldest-known surviving church in the world. Converted from a house in around A.D. 200, beautiful, coloured frescos of Jesus and other Bible narratives still adorn the plaster walls. The open location of the church demonstrates Christian worship was tolerated in this Roman-governed city.



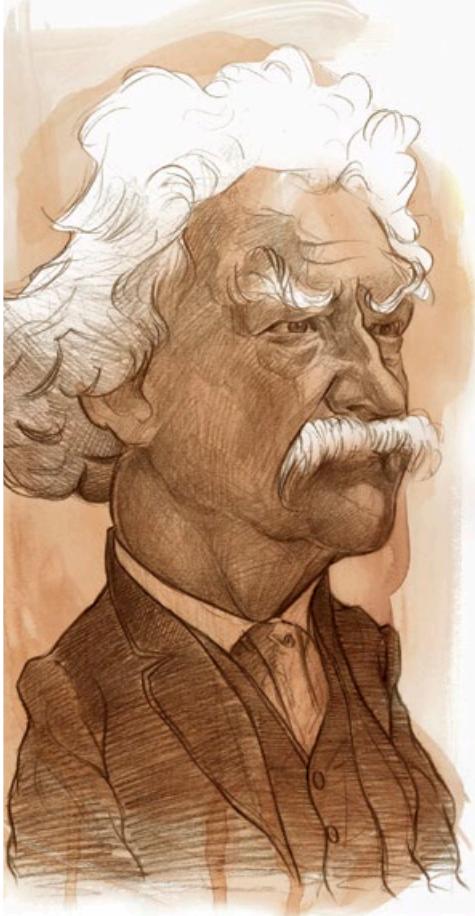
6 Megiddo Church, Israel (32.571058, 35.189733)

Speculated to be late third century A.D. is the ancient Megiddo church found inside the walls of the town's modern prison. A well-preserved mosaic has been uncovered with an inscription to Jesus Christ and images of fish, an early Christian symbol. Moving the prison has been contemplated as a result of this find.



7 Monastery of Saint Anthony, Egypt (28.923889, 32.35)

The monastery and church was started in A.D. 363 and built over the small cave within which the ascetic monk Anthony dwelt during his life of abject devotion. Its location is remote, harsh and high within the Sinai mountains, and is still a functioning monastery, while also acting as a pilgrimage site for Christians worldwide.



Part 5 Ephesus

Mark Twain's *The Innocents Abroad* chronicles the author's (Samuel Langhorne Clemens) "Grand Tour" to Europe and the Levant. Originally written as a series of newspaper dispatches, it is a humorous and satirical account. Travelling aboard the steamer USS *Quaker City*, the travellers visited Turkey, the Holy Land and, finally, Egypt. In this issue, the fifth of our series, the tourists visit the biblical site of Ephesus, another of the so-called "Seven Churches" of Revelation and a city of some notoriety in the biblical narrative.

A RAILWAY HERE IN ASIA—IN THE DREAMY realm of the Orient—in the fabled land of the Arabian Nights—is a strange thing to think of. And yet they have one already, and are building another. The present one is well built and well conducted, by an English company, but is not doing an immense amount of business. The first year it carried a good many passengers, but its freight list only comprised eight hundred pounds of figs!

It runs almost to the very gates of Ephesus—a town great in all ages of the world—a city familiar to readers of the Bible, and one which was as old as the very hills when the disciples of Christ preached in its streets. It dates back to the shadowy ages of tradition, and was the birthplace of gods renowned in Grecian mythology. The idea of a locomotive tearing through such a place as this, and waking the phantoms of its old days of romance out of their dreams of dead and gone centuries, is curious enough.

This has been a stirring day. The superintendent of the railway put a train at our disposal, and did us the further kindness of accompanying us to Ephesus and giving to us his watchful care. We brought 60 scarcely perceptible donkeys in the freight cars, for we had much ground to go over.

At ancient Ayassalook, in the midst of a forbidding desert, we came upon long lines of ruined aqueducts, and other remnants of architectural grandeur, that told us plainly enough we were nearing what had been a metropolis, once. We left the train and mounted the donkeys, along with our invited guests—pleasant young gentlemen from the officers' list of an American man-of-war.

The little donkeys had saddles upon them, which were made very high in order that the rider's feet might not drag the ground. There were no bridles—nothing but a

single rope, tied to the bit. It was purely ornamental, for the donkey cared nothing for it. . . .

We all stood in the vast theatre of ancient Ephesus—the stone-benched amphitheatre I mean—and had our picture taken. We looked as proper there as we would look anywhere, I suppose. We do not embellish the general desolation of a desert much. We add what dignity we can to a stately ruin with our green umbrellas and jackasses, but it is little. However, we mean well.

I wish to say a brief word of the aspect of Ephesus.

On a high, steep hill, toward the sea, is a grey ruin of ponderous blocks of marble, wherein, tradition says, St Paul was imprisoned 18 centuries ago. From these old walls you have the finest view of the desolate scene where once stood Ephesus, the proudest city of ancient times, and whose Temple of Diana was so noble in design, and so exquisite of workmanship, that it ranked high in the list of the Seven Wonders of the World.

Behind you is the sea; in front is a level green valley (a marsh, in fact) extending far away among the mountains; to the right of the front view is the old citadel of Ayassalook, on a high hill; the ruined Mosque of the Sultan Selim stands near it in the plain, (this is built over the grave of St John, and was formerly a Christian Church); further toward you is the hill of Pion, around whose front is clustered all that remains of the ruins of Ephesus that still stand; divided from it by a narrow valley is the long, rocky, rugged mountain of Coressus. The scene is a pretty one, and yet desolate—for in that wide plain no man can live, and in it is no human habitation. But for the crumbling arches and monstrous piers and broken walls that rise from the foot of the hill of Pion, one could not believe that in this place once stood a city whose renown is older than tradition itself.



It is incredible to reflect that things as familiar all over the world today as household words, belong in the history and in the shadowy legends of this silent, mournful solitude. We speak of Apollo and of Diana—they were born here; of the metamorphosis of Syrinx into a reed—it was done here; of the great god Pan—he dwelt in the caves of this hill of Coressus; of the Amazons—this was their best prized home; of Bacchus and Hercules who both fought the warlike women here; of the Cyclops—they laid the ponderous marble blocks of some of the ruins yonder; of Homer—this was one of his many birthplaces; of Cirmon of Athens; of Alcibiades, Lysander, Agesilaus—they visited here; so did Alexander the Great; so did Hannibal and Antiochus, Scipio, Lucullus and Sylla; Brutus, Cassius, Pompey, Cicero and Augustus; Antony was a judge in this place, and left his seat in the open court, while the advocates were speaking, to run after Cleopatra, who passed the door; from this city these two sailed on pleasure excursions, in galleys with silver oars and perfumed sails, and with companies of beautiful girls to serve them, and actors and musicians to amuse them; in days that seem almost modern, so remote are they from the early history of this city; Paul the Apostle preached the new religion here, and so did John, and here it is supposed the former was pitted against wild beasts, for in 1 Corinthians 15:32 he says: "If after the manner of men I have fought with beasts at Ephesus," etc., when many men still lived who had seen the Christ; here Mary Magdalene died, and here the Virgin

THE LIBRARY OF CELSUS IN EPHESUS. When Mark Twain toured the site in 1867, the Library lay in ruin. It wasn't until the 1960–70s that this façade was rebuilt in a massive restoration project, which is considered to be true to the historic building and now serves as a prime example of Roman public architecture.

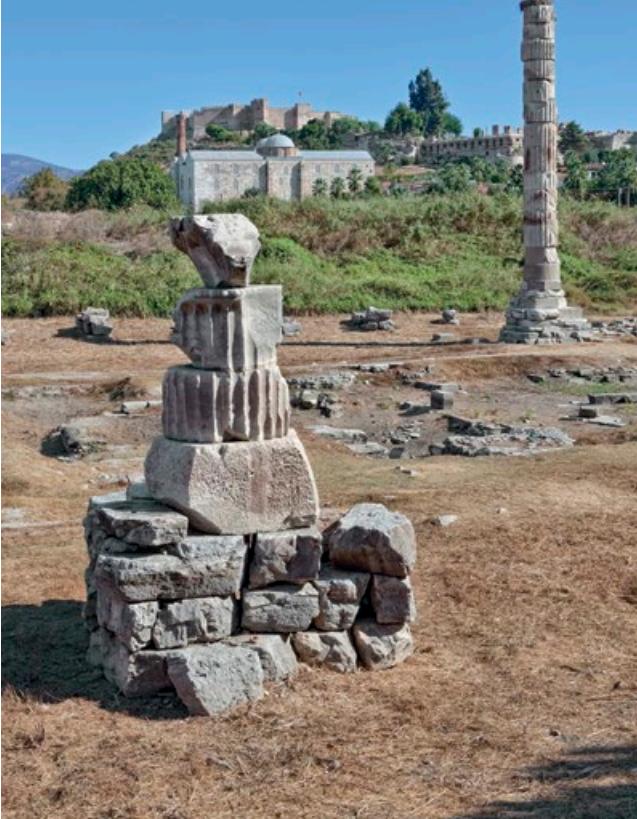




THE THEATRE OF ANCIENT EPHESUS, originally build by the Greeks in the third century B.C., was later renovated by several Roman emperors making it the largest theatre in Asia Minor. It was here that a mob rioted against Paul, crying, "Great is Diana of the Ephesians" for two hours.

THE GRAVE OF JOHN THE REVELATOR, in the Basilica of St. John, was constructed as a tribute to the apostle by Justinian in the sixth century A.D. Because the Christian church had been taken over under the Muslims, Twain incorrectly identified the building as the Sultan Selim Mosque.





A SINGLE COLUMN FROM THE TEMPLE OF ARTEMIS (DIANA). When Twain visited Ephesus in 1867, it was a marshy field. Two years later, John Turtle Wood discovered the remains of the temple once hailed as one of the Seven Wonders of the ancient world.

Mary ended her days with John, albeit Rome has since judged it best to locate her grave elsewhere; six or seven hundred years ago—almost yesterday, as it were—troops of mail-clad Crusaders thronged the streets; and to come down to trifles, we speak of meandering streams, and find a new interest in a common word when we discover that the crooked river Meander, in yonder valley, gave it to our dictionary. It makes me feel as old as these dreary hills to look down upon these moss-hung ruins, this historic desolation. One may read the Scriptures and believe, but he can not go and stand yonder in the ruined theatre and in imagination people it again with the vanished multitudes who mobbed Paul's comrades there and shouted, with one voice, "Great is Diana of the Ephesians!" The idea of a shout in such a solitude as this almost makes one shudder.

It was a wonderful city, this Ephesus. Go where you will about these broad plains, you find the most exquisitely sculptured marble fragments scattered thick among the dust and weeds; and protruding from the ground, or lying prone upon it, are beautiful fluted columns of porphyry and all precious marbles; and at every step you find elegantly carved capitals and massive bases, and polished tablets engraved with Greek inscriptions. It is a world of precious relics, a wilderness of marred and mutilated gems. And yet what are these things to the wonders that lie buried here under the ground? At Constantinople, at Pisa, in the cities of Spain, are great mosques and cathedrals, whose



LIBRARY STATUE OF SOPHIA (WISDOM), completed in A.D. 135, demonstrates the amazing craftsmanship of the Ephesians. This statue is a replica, as the original has been removed and is now on display in the Ephesus Museum in Vienna.

grandest columns came from the temples and palaces of Ephesus, and yet one has only to scratch the ground here to match them. We shall never know what magnificence is, until this imperial city is laid bare to the sun.

The finest piece of sculpture we have yet seen and the one that impressed us most (for we do not know much about art and can not easily work up ourselves into ecstasies over it) is one that lies in this old theatre of Ephesus which St Paul's riot has made so celebrated. It is only the headless body of a man, clad in a coat of mail, with a Medusa head upon the breastplate, but we feel persuaded that such dignity and such majesty were never thrown into a form of stone before.

What builders they were, these men of antiquity! The massive arches of some of these ruins rest upon piers that are fifteen feet square and built entirely of solid blocks of marble, some of which are as large as a Saratoga trunk, and some the size of a boarding-house sofa. They are not shells or shafts of stone filled inside with rubbish, but the whole pier is a mass of solid masonry. Vast arches, that may have been the gates of the city, are built in the same way. They have braved the storms and sieges of three thousand years, and have been shaken by many an earthquake, but still they stand. When they dig alongside of them, they find ranges of ponderous masonry that are as perfect in every detail as they were the day those old Cyclopians finished them. ♦

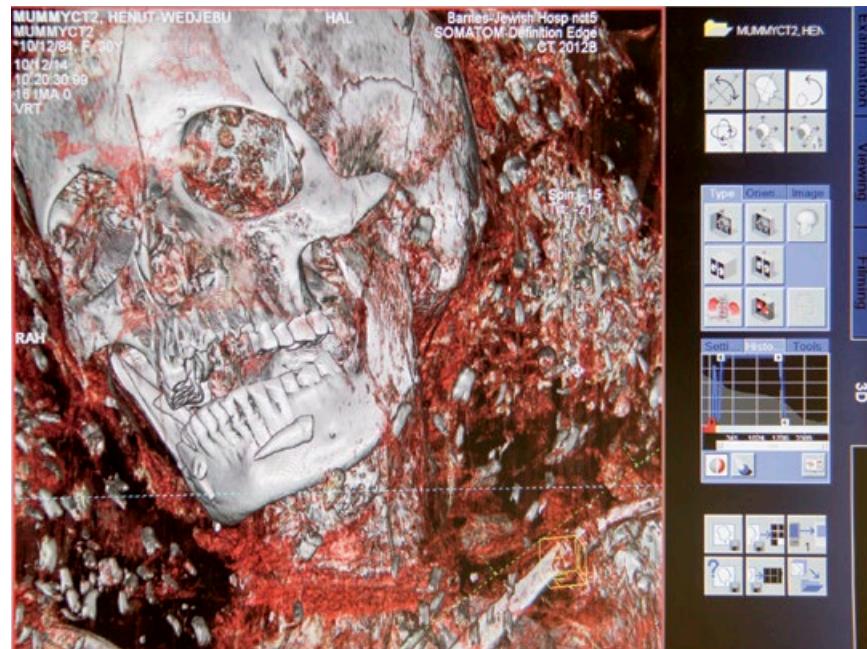
Mummies receive CT scans

MISSOURI, USA

Medicine recently teamed up with the Saint Louis Art Museum and the university's Mildred Lane Kemper Art Museum to scan some very unusual patients: three Egyptian mummies. The mummies, two of which are on long-term loan to the Saint Louis Art Museum from the Kemper Art Museum, were carefully transported across Forest Park and scanned one by one in a state-of-the-art computerised tomography (CT) scanner.

Among the early findings: One of the mummies already was known to have a brain, but scans revealed she also still has lungs. In many mummies, lungs typically were removed prior to burial. The scientists—radiologists with the university's Mallinckrodt Institute of Radiology—discovered that the same mummy also has an array of small objects around her head. It appears to be a headdress or embellished shroud, but other possibilities include packing material or debris.

The scientists were surprised to find that a second mummy appeared to be significantly shorter than



his sarcophagus. Further scanning revealed that his head had been dislodged from his body, perhaps when grave robbers ransacked his tomb. They found an item on his chest that may have been a burial amulet missed by grave robbers. They hope to use the scanning data to reconstruct the item with a 3-D printer.

The mummies' burial containers and wrappings identify each by name. The Saint Louis Art Museum's mummy is Amen-Nestawy-Nakht, a male; the Kemper Art Museum mummies are Pet-Menekh, also a male, and Henut-Wedjebu, a female.

—Washington University, Saint Louis



Watch a video of the
Mummies going in for their CT
scan in our iPad edition of DIGGING



4000-year-old CD-ROM decoded

KOZANI, GREECE

The Phaistos Disk was discovered in 1908 at the palace of Phaistos, in the northeastern part of the Aegean Island of Crete. The round clay object, tentatively dated close to 1700 B.C., displays an unknown language on both sides which is carved in a circular fashion, from outside to the centre.

The decoding of the disk has puzzled specialists for over a century, however new findings describe the disk as "the first Minoan CD-ROM" featuring a prayer to a mother. Gareth Owens, Erasmus coordinator at the Technological Educational Institute (TEI) of Crete, speaking at the TEI of Western Macedonia, said the disk is dedicated to a "mother."

"The most stable word and value is 'mother,' and in particular the mother goddess of the Minoan era," said Dr Owens. He says there is one complex of signs found in three parts of one side of the disk spelling *I-QE-KU-RJA*, with *I-QE* meaning "great lady of importance" while a key word appears to be *AKKA*, or "pregnant mother," according to the researcher. One side is devoted to a pregnant woman and the other to a woman giving birth.

—The Archaeology News Network



Silent evidence of A.D. 363 earthquake

SEA OF GALILEE, ISRAEL

The skeleton of a woman with a dove-shaped pendant was discovered under the tiles of a collapsed roof by archeologists from the University of Haifa during the recent excavation season at Hippos-Sussita. They also found a large muscular marble leg and artillery ammunition from some 2000 years ago. "The data is finally beginning to form a clear historical-archaeological picture," said Dr Michael Eisenberg, head of the international excavation team.

The city of Hippos-Sussita, which was founded in the second century B.C., experienced two strong and well-documented earthquakes. The first was in the year A.D. 363 and it caused heavy damage. The city did, however, recover. The great earthquake of A.D. 749 destroyed the city, which was subsequently abandoned completely. Evidence of the extensive damage caused by the earthquake of 363 was found in earlier seasons. None, however, was as violent, thrilling and eerie as the evidence discovered this year.

To the north of the basilica, the largest building in town that served as the commercial, economic and judicial centre of the city, the dig's senior area supervisor Haim Shkolnik and his team unearthed the remains of several skeletons that had been crushed by the weight of the collapsed roof. Among the bones of one of the women lay a gold dove-shaped pendant.

This year, evidence was found for the first time that the great earthquake of A.D. 363 had destroyed the Roman bathhouse, which was uncovered by the team run by Arleta Kowalewska from Poland. Like the basilica, it too was not rebuilt. According to Eisenberg, the evidence found so far shows that the earthquake was so powerful it completely destroyed the city, which took some 20 years to be rebuilt. Among the wreckage from the bathhouse, an excellent Roman marble sculpture of a muscular right leg of a man leaning against a tree trunk was found. "It is too early to determine who the man depicted in the sculpture was. It could be the sculpture of a god or an athlete; it was more than two metres [six feet] tall. We hope to find more parts of the sculpture in the coming seasons to shed some light on his identity," said Eisenberg.

—University of Haifa



Animal sacrifice at Megiddo

KOZANI, GREECE

Who the gods worshipped at Tel Megiddo more than 5000 years ago remains unknown. But the ceremonies that took place at the vast Great Temple unearthed there clearly involved animal sacrifice. The evidence was found in two long, narrow corridors in the main structure of the impressive temple, which were full of bone refuse. So was a third corridor which served as an access path to them.

The archaeologists excavating the Great Temple—Dr Matthew J Adams, Prof David Ussishkin and Prof Israel Finkelstein—postulate that the corridors (*favissae*) served to ritually discard the bones after the animals' sacrifice. We cannot know why they stored the bones, but it could have had to do with cultic belief in the sacred nature of the sacrificial refuse.

The bones themselves were examined by Dr Brian Hesse and Dr Paula Wapnish from Pennsylvania State University, who discovered that different locations along the corridors were used to store different debris from different stages of the animals' carcass processing. Most of the remains found—more than 80 per cent—are of young sheep and goats. The rest were cattle.

The structured deposit of the remains "lend support to the sanctity of the process and suggest that there was a ritual dimension to the discard process," suggest the researchers in an article published last April in *The American Journal of Archaeology*.

The temple was one of the largest structures in the Near East of its time (Early Bronze Age, 3300–2500 B.C.). The corridors with the bones were in its rear. The bones in the

western corridor contained bones with cut marks, which probably came from early stages of carcass processing. The bones in the eastern corridor showed signs of burning, indicating they were "the remains from later stages of carcass processing and utilisation, i.e., discard from meals and burned detritus," Hesse and Wapnish wrote.

Also, the western corridor contained lots of limb bones, while the eastern one had mainly head fragments but few limbs. This bolsters the hypothesis that each corridor was used as a deposit for sacral refuse resulting from different rituals or different stages of a ritual. That's about all that can be said about the religious rituals at Megiddo at the Early Bronze Age, says Finkelstein. Precious little else is known about sacrificial activity in temples in ancient Israel and the Levant at that time period.

It would be reasonable to assume that animals were sacrificed at the temple from its construction until it was abandoned about a hundred years later, but that cannot be proved. Archaeologists are divided on why the temple, in which so much had been invested, was abandoned: some think there is evidence for a "killer earthquake" that hit Megiddo, which is located on the Carmel fault, but others reject that theory.

The temple was discovered in 2010 by the Tel Aviv University Megiddo Expedition, which has been working at the tel since 1992. Although the temple at Tel Megiddo is the biggest of its time—at least found so far—it isn't the only example of construction on a vast scale to be found in ancient Israel.

—Ran Shapira, Haaretz



Detail of a 10th century B.C. Hebrew alphabet inscription written out in their traditional sequence, discovered at Tel Zayit.

Rare exhibition coup for university museum

MICHIGAN, USA

In a few months, the Siegfried Horn Museum at Andrews University in Berrien Springs, Michigan, will exhibit 48 ancient fragments of possibly religious ceramic figures depicting humans and horses. Dating from the eighth to sixth century B.C., they were excavated over more than a decade ago, ending in 2012 at Tall Jalul in Jordan.

While small, the exhibition, part of a one-year loan agreement with Jordan, will be something of a rarity. In recent decades, countries that house remains of the ancient world have become determined to keep archaeological finds within their borders. Partly as a result, many smaller archaeological museums at religious-affiliated schools across the United States, lacking the financial resources to buy works or borrow actively from other collections, are scrambling to increase the museums' appeal.

For example, in 2005, a dig at Tel Zayit in Israel run by the Pittsburgh Theological Seminary unearthed a stone inscribed with the earliest known specimen of the Hebrew

alphabet. While the stone attracted intense interest in the world of archaeology, it remains in Israel. Ron Tappy, professor of Bible and archaeology at the seminary and director of its Kelso Museum of Near Eastern Archaeology, said a year's loan of the piece would be difficult because of costly insurance and liability issues.

"We are not in a position to buy collections of artefacts," Dr Tappy said. To convey some of the excitement of the find, he said, "there is a small corner of the museum dedicated to the discovery at Tel Zayat."

Even Andrews University, which is involved in two major digs, has a relatively small museum of six exhibition halls. While there are hopes to move the museum to a larger space, Constance E Gane, its curator, acknowledged that getting the funding is difficult and that the school, which had always supported the digs, now faces financial pressures.

—Geraldine Fabrikant, New York Times

Pharaonic temple under Egypt house

AL-BADRASHIN, EGYPT

A group of men discovered a 3400-year-old pharaonic temple from the reign of warrior king Thutmose III (pictured is his basalt statue in the Luxor Museum) under their house in a city south of Cairo. Antiquities Minister Mamdouh al-Damaty said the seven men made the find during an illegal excavation in Al-Badrashin, 40 kilometres (25 miles) from the capital. The men, using diving equipment, had come across the temple in ground water after digging for nine metres (29 feet).

A team of experts from the ministry took over the excavation work, while the seven men were detained but later released because the area was not a heritage site. The monuments found include seven tablets, several column bases made of pink granite and a pink granite statue—remains of the temple from the time of Thutmose III, Damaty said. "We will start an excavation project in the area to find more," he said.

—AFP



PARDON ME!

In the September/October issue, I note that England is not included in the map of the Roman Empire under Caesar Augustus ("Augustus, First Emperor of Rome," page 30)! Wasn't England invaded by Julius Caesar in 56 B.C.? And didn't the Romans occupy England until about A.D. 400?

—Bunny Camps, Belrose, NSW

Editor: Julius Caesar first tried to invade in 55 B.C. and then again the next year, but a revolt in Gaul (modern-day France) drew him away and he failed on both occasions. It wasn't until A.D. 43, in the reign of Emperor Claudius, that the Romans successfully invaded Britain, capturing a considerable swathe of territory. It then stayed part of the Roman Empire until around A.D. 410-425.

NEW IDEAS

Thank you for your beyond-excellent magazine. I always enjoy your reports on the latest finds. I would like to make some observations and give some suggestions for future articles.

First, in respect to Egypt, speaking of their medicines, we know they used the skulls of the dead mixed with resin to discourage mould and

that they used mouldy bread as a poultice for wounds, not knowing that penicillin was the active agent. We know many medications found in Tutankhamun's tomb, but how much did they really know?

Second, bearing in mind that the Egyptians loved spectacle and ceremonial occasions, why is that they only wanted elephants for their ivory? I know of two Pharoahs at least who were attacked by those animals. And from where did the name of Elephantine Island, come?

Third, could you publish something on the Pharaoh with the silver sarcophagus, which was found around the beginning of World War 2 but then covered up until a later time?

Finally, I would be interested in reading something of the lesser-known queens of Egypt, who assumed power either when the Pharaoh was off at war or with a child Pharaoh on the throne.

—Althea Connolly, Killara, NSW

CONGRATULATIONS!

I want to congratulate the Diggings team on the new look of the magazine. The new layout is a great improvement. I have also been enjoying the broadening of the scope of news and articles that has been included. Having lived and breathed Diggings for so many years it is comforting to see the magazine going from strength to strength. I still look forward to each new issue and take pleasure in reading it from cover to cover. I am also enjoying the continuing focus on Biblical archaeology and particularly articles that reinforce the importance of the Biblical records to our understanding of history. Having a passion for Biblical archaeology it is getting harder to find publications that credibly cover relevant topics. I was a little sad to see the Tut mask disappear off the new-look cover. He had been part of *Diggings* since it was started by David Down. That being said, I do think that you have done a fantastic job with the new look. Keep up the good work.

—Michael Browning, former editor of
ARCHAEOLOGICAL DIGGINGS

Editor: Well, thank you. And we'd like to know what other readers think of our recent issues of ARCHAEOLOGICAL DIGGINGS. If you have a comment, we'd love to hear from you.

CONTACT US

Have kudos or a question? Then write to us: The Editor, Diggings, Locked Bag 1115, Wahroonga NSW 2076, Australia, or email editor@diggings.com.au. Include your full name, address and email (if possible). Keep your letter brief—around 100 words or so. Letters may be edited for clarity and length.

Archaeological trivia answers for page 66: 1. Josiah (pg) 2. Tuthmosis III (p63) 3. Cairo Museum (p20) 4. Nut (p19) 5. Waldensian Valley (p23) 6. Church of St Peter, Turkey (p55) 7. Fiorelli (p51) 8. Sam Clemens (p56) 9. Gregory the Illuminator (p55) 10. The Vatican Obelisk (p33) 11. Hathor (p45) 12. Diana of the Ephesians (p33) 13. Aerial-Cam (p40) 14. Vere Gordon Childe (p41) 15. Beno Rothenberg (p46)

The Agora

Public noticeboard of items of interest and readers' comments

DIGGINGS Upgrade Nears the End

Over the past year, your ARCHAEOLOGICAL DIGGINGS has undergone a huge transition. We first created and installed a whole new subscription system in order to give you better service.

Next we gave the magazine—digital and print editions—a makeover, adding new features along with a new look. We're proud of our digital edition, with its videos, extra pictures and third-party direct connection options. Check it out!

Then came our website. It had been running in a very lean format, but it is being upgraded to a more comprehensive, informative and integrated site. It is being integrated with our HopeChannel.com site, which is our broader media organisation, producing TV programs, DVDs and other magazines, in fact much of what you see advertised on these pages. We'll be constantly adding to the site, populating it with back issue content, information and future events.

We delayed publication of the December 2014–January 2015 issue (21:6), making it the January–February 2015 issue (22:1). We've done this in order to align the issue volume and month of publication with the calendar year. (Note, you will not have lost an issue, as your subscription is based on issues remaining.) And we apologise for the inconvenience.

The final phase of our transition to a modern, integrated-media magazine is to give you control over your subscription online, allowing you to alter personal details, receive communication by email and renew your subscription.

DIGGINGS Tours

The 2015 itineraries and price list brochures are now available. Email info@diggings.com.au for the information

Events

2015 DIGGINGS Seminars

DIGGINGS editor Gary Webster is presenting a number of archaeology-related lectures in 2015, beginning in Poland of all places. "Ancient Mysteries Reveal the Future" features illustrated presentations along with archaeological exhibits. To date programs are scheduled for:

Poland: Lodz, March 7–28

Sydney NSW: Epping and Thornleigh, Saturday, April 11

Brisbane Qld: Albion, Saturday, May 23 Salisbury, Saturday, October 17.

For more information, contact the editor Gary Webster.

Brisbane, Qld **The Diggings Club** meets on the second Sunday of each month at 1 pm in the Central City Library, 266 George Street, Brisbane. For further information, phone Veronica Mason on (07) 3219 3097.

Sydney, NSW **Macquarie University** holds regular seminars and one-off events on ancient world studies. For more information, run an internet search of "Macquarie University ancient world history seminar."

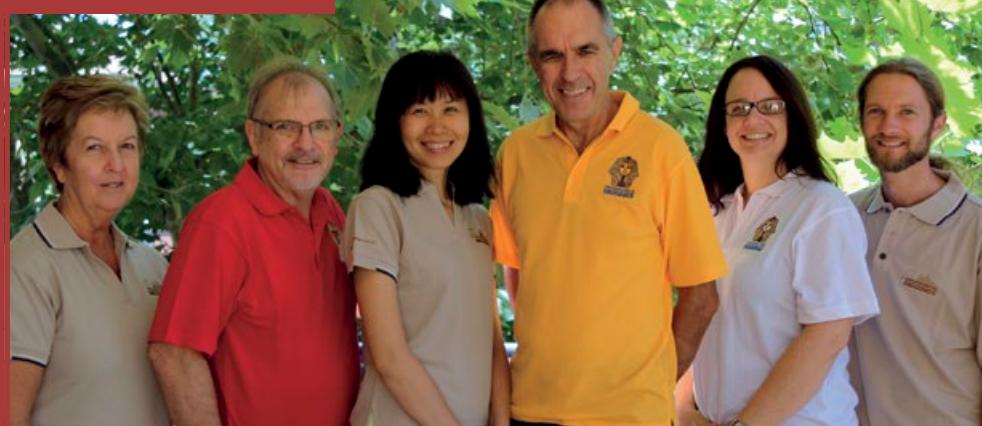
Gold Coast, Qld **The Pharos Club** meets in Southport on the first Saturday of each month at 1 pm. For more information, please contact Maureen Hughes on (07) 5531 1394.

Adelaide, SA **The Ancient Egypt Study Group** meets on the first Tuesday of each month at 7:30 pm in Clarence Gardens, Adelaide. **The Hieroglyphs Study Group** meets on the third Tuesday of each month. For further details, please phone (08) 8276 7945.



Meet Your DIGGINGS Team

The ARCHAEOLOGICAL DIGGINGS team is quite compact, mostly working part-time. And for 2015, we are joined by Melody Tan. Pictured (left to right) are office assistant, Naomi Hurst; associate editors Lee Dunstan and Melody Tan; editor, Gary Webster; copy editor, Kerri Hillsdon and designer, Shane Winfield.



1 I am a king of Judah. My refusal to allow the Egyptian forces to pass through my territory ignited a battle at Megiddo in 609 B.C.

2 I am known as the warrior king and recently an illegal excavation has discovered a temple from my reign under their house in a city south of Cairo.

3 I am a giant warehouse. I am stocked with thousands of ancient artefacts, including the famous treasures of Tutankhamen.

4 I am the Egyptian goddess of the sky. My brother is often called upon in a very important role at midnight, when the sun makes its perilous night journey through the underworld.

5 I used to be home for a group of people persecuted for their religion. The people copied the Bible by hand. I am in northern Italy.



6 I'm a cave church where tradition claims an apostle of Jesus preached and believers first adopted the title "Christians."

7 I was born 1823. My childhood was spent near one of the greatest archaeological finds of all time in Italy. I was once arrested for sedition against the government. I eventually worked for the government as inspector to excavation.



8 I am not an archaeologist. I was a popular American author of the nineteenth century (and continue to be so). I wrote under a pseudonym.

9 In A.D. 303, it is believed that I started a vaulted basilica in a certain cathedral.

10 Erected by an unknown Pharaoh, I originally stood in Heliopolis in Egypt. I was transported to Rome in the early first century A.D.

11 It is I, the patron goddess of copper and turquoise miners, that the Massebot of Serabit el-Khadim was dedicated to.

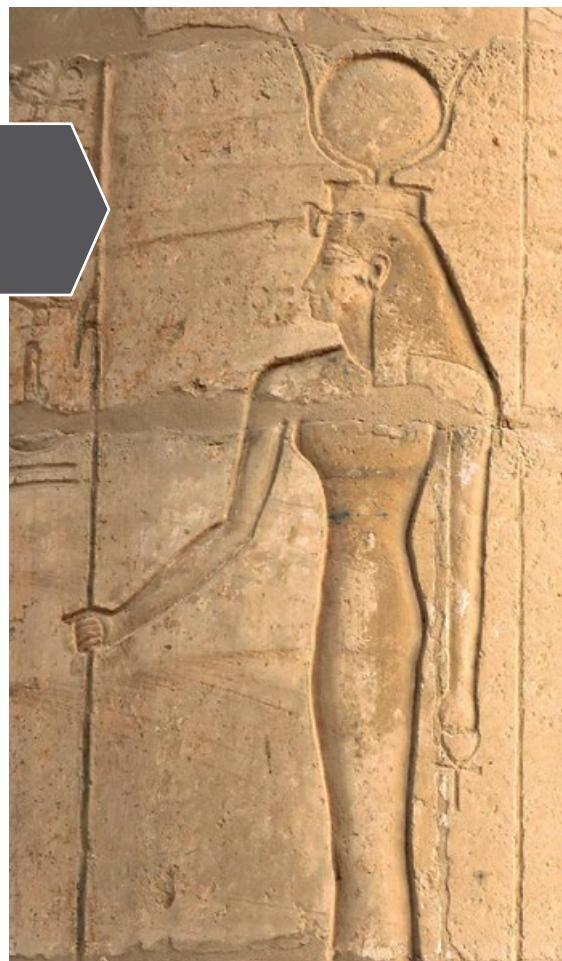
12 A mob once rioted in my name. I was notorious in ancient times for the abandon in which I was celebrated. I was the goddess of choice of the Roman elite. Some worshipers indulged in ritual killing and human sacrifice. It was me who attracted Gaius to Lake Nemi, an area sacred to me.

13 I have an elevated view of earth. I sit atop a pole in the manner of Simeon Stylites.

14 I am an expatriate Aussie. I was educated at Oxford. I am a Marxist. I attempted to use archaeology to advance my socialist cause.

15 I am an archaeologist. I found two installations that may have been the infamous "high places" of Caanan of the 14th to 12th centuries B.C. One of them is built against the sandstone formation known as Solomon's Pillars.

ANSWERS ON PAGE 64



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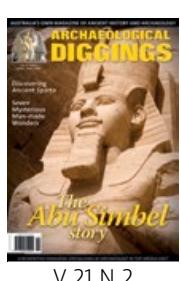
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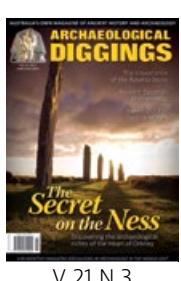
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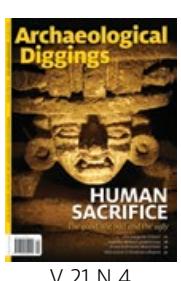
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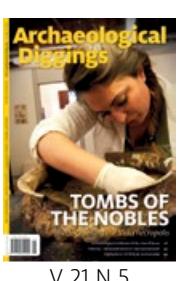
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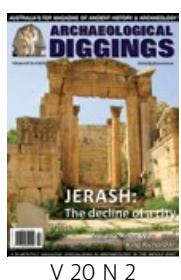
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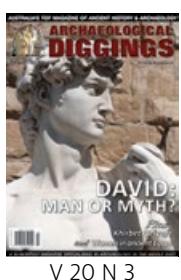
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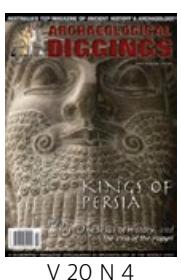
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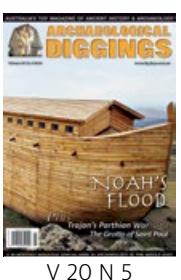
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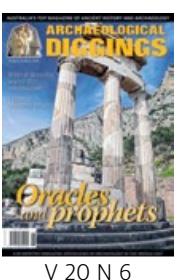
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V 20 N 5



V 20 N 6



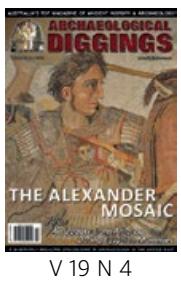
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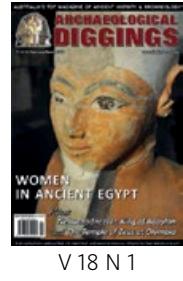
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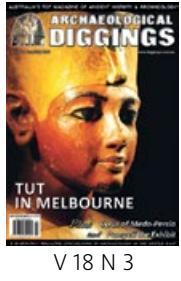
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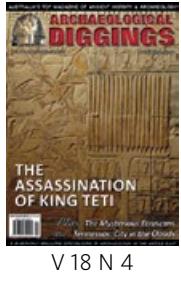
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V 18 N 3



V 18 N 4



V 18 N 5



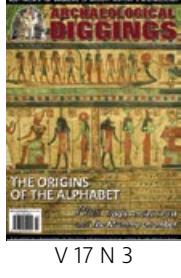
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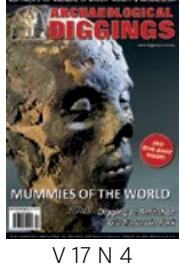
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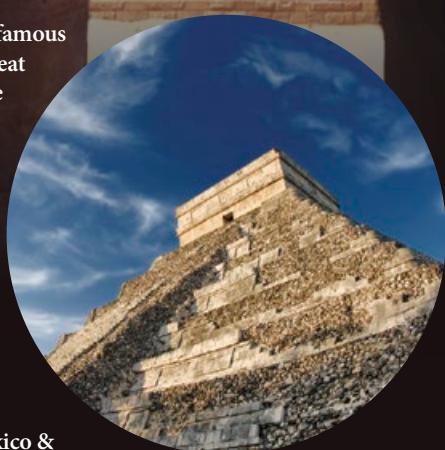
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