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HERACLEION & CANOPUS BENEATH THE WAVES

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MINERVA

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EDITORIAL

The Return of the King: Tutankhamun in Greenwich

Ever since Napoleon Bonaparte's scientists introduced the wonders of the Nile to the West in 1798-1801, our hunger for Egyptomania has remained unsatisfied. While quests, crypts, and biblical archaeology fade in and out of fashion, Egypt can do no wrong. From Shelley's Ozymandias of 1818 to the emergence of jazz in Harlem (inspired by ancestral black pride for the brilliance of the pharaonic lands) and through to Cleopatra's Needle on the banks of the Thames and Las Vegas's Luxor Hotel, ancient Egypt remains a cultural phenomenon. If only its secret could be bottled.

Today it can and has. When Tutankhamun first travelled to the British Museum in 1972, the public queued for eight hours to stare at the boy-king's golden mask. With visitor figures of 1.7 million, it is no wonder that the museum's Director, Neil McGregor, has just announced a £100 million development plan to build a new 1000 square-metre exhibition space to stage future blockbusters - the museum is still llicking its wounds at having had to turn down the 2007 Tutankhamun show because of restricted space.

And now he's back, with over 130 treasures from the Valley of the Kings going on display in London on 15 November after a tour across Los Angeles, Fort Lauderdale, Chicago, and Philadelphia. Highlights will include Tutankhamun's gold diadem one of four gold and inlaid caroche coffinettes which contained the pharaoh's zummified internal organs. Some 80 objects are drawn from other royal graves in the Valley of the Kings, including items from the tomb of Tutankhamun's great-grandparents. Rather than focus on glittering gold and Howard Carter's discovery of the tomb, these 'family heirlooms' will set the pharaoh in his own time to reveal the art, politics, religion, and cultural legacy of his era.

The exhibition also highlights the wonders of modern science through the 2005 forensic study of 1700 digital x-ray images captured by a CT scanner of Tutankhamun's mummy, with a special section exploring the mystery of his death. Although the show does come to no definitive conclusion, a world exclusive in this issue of Minerva reveals a likely pathological explanation (see pp. 12-14). Finally, a life-size bust created by the forensic team allows visitors to look into the eyes of the young pharaoh for the first time.

Long discounted as a white elephant and the defining symbol of Tony Blair's unsuccessful 'Cool Britannia' revolution, Greenwich's privatised Millennium Dome is now reinventing itself as the O2 Arena. Two outcomes are likely. The first is the re-awakening of the 'curse' of Tutankhamun, last mooted in 2005 when the million-dollar CT scanner broke down in the Valley of the Kings after sand clogged its cooler fan. Or more likely, a new generation of Egyptomanics will fall in love once more with the most illuminating window into the pharaonic court. But this isn't just archaeology as entertainment: Egypt's profits from the touring exhibition will support the construction of the Great Egyptian Museum near the pyramids at Giza. This new space will contain many of the collections now on display at the Cairo Museum, which has become far too small to display anything other than a fraction of the artefacts in its vast collections.

For more information about Tutankhamun and the Golden Age of the Pharaohs, see: The Official Companion Book with the same title; and www.kingtut.org, or purchase tickets from www.theo2.co.uk.

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MUSEUM NEWS

'Gaza at the Crossroads of Civilisation' in Geneva
With the Gaza strip a battleground of sectarian violence at the time of writing, an oasis of peace can be anticipated this autumn at the Museum of Art and History in Geneva. 'Gaza at the Crossroads of Civilisations' draws together 530 objects to reflect the widespread cultural tapestry of this region. Some 229 pieces derive from major excavations pursued at Tell Umm al-Amr, Blakhiyah, Jahlaliyah, and Tell es-Sakan from 1993-2006, with the remainder drawn from the private collection of Jawdat Khoury. In the words of Dr Mahmud Abbas, President of the National Palestinian Authority, this exhibition and collaboration is 'a unique occasion in a tormented age'.

The purpose of promoting this Palestinian showpiece in the calm neutrality of Switzerland is not as incongruous as it first sounds. The regions share two welcome connections. In 1894 the Genevan archaeologist Max van Berchem traveled to Gaza for his pioneering research into Islamic epigraphy, in the course of five days filling two travel books, taking 15 photographs and collating 40 index cards of inscriptions on 29 mosques and three Muslim mausoleums. Then, some 90 years later, excavations under Geneva Cathedral in 1980 revealed a mid-5th century AD Gazan wine jar. And as the current exhibition graphically demonstrates through its status as a second-millennium BC Egyptian administrative centre and rich Persian, early Christian, and Islamic archaeological finds, for millennia Gaza has been an international crossroads of great commerce and intellectual endeavour.

Despite the shadow of media negativity that clouds the Gaza strip, it is warming to learn that under the direction of Hamdan Taha of the Department of the Cultural Patrimony of Palestine (founded in 1994), Palestinian archaeologists have completed 500 salvage excavations, exposing myriad wonders from tombs to a treasure of 490 pieces of Ottoman silver found in a rock shelter near the village of Qabatiya. Meanwhile, international Palestinian collaboration has proved highly successful with the Dutch at Khirbat al-Mafjar, the Italians at Jericho, the Swedes at Tell al-Ajjul, and the French at Anthedon and Tell es-Sakan. A major conservation programme is also underway in the Palace of Hisham at Jericho with the assistance of UNESCO and financial support of the Italian government.

As should be expected at such a vital port city, the finds in this exhibition are delightfully diverse from a six-tonne marble statue of Zeus plucked by astounded peasants from a sandbank in 1879, to the treasure of Blakhiyah, comprising 20,000 copper coins wrecked off Athenian at the end of 4th century AD and minted in Rome and Lyon. Large-scale excavations at Umm al-Amr since 1996 have exposed the massive monastery of Hilarion founded in AD 329, while the mosaic complex uncovered at Jahlaliyah, 3km north of Gaza, by a Palestinian and French team from the École Biblique has exposed fascinating evidence of classical continuity into the Early Islamic period despite Greek inscriptions dated to AD 732 subjected to iconoclasm.

If this exhibition makes one clear and bold statement, it is that Gaza has, is, and will forever be an international crossroads of people and ideas. We can only applaud the sentiments of Patrice Mugny, Vice-President administrative advisor for Geneva, who writes in the excellent exhibition catalogue of this collaboration's intent 'to show the world, while current events are sombre, that Gaza has existed, exists, and will still exist tomorrow, differently to how we generally perceive it... Despite the sound of guns, this cultural project managed to obtain the authorisation of Israel, Egypt, the European Union and all Palestinian parties. May this harmony set a precedent for the future political stage'.

'Gaza at the Crossroads of Civilisation' is at the Museum of Art and History, Geneva, until 7 October. The project is directed by César Menz, Director of the Museum of Art and History Geneva, and curated by Marc-André Haldimann and Marielle Martiniani-Reber. A French language catalogue by M-A Haldimann, Jean-Baptiste Humbert, M. Martiniani-Reber, and Hamdan Taha is available (Chamyan/Editeur Neuchâtel, 2007; 256pp, 162 colour illus, paperback CHF 49; contact info@librar.ch, tel. +41 22 310 6450).

Sean Kingsley

The Archaeological Museum of Montelupo, Tuscany
The newly inaugurated archaeological museum at Montelupo Fiorentino, housed in the monumental former church and convent complex of the Saints Quirico and Lucia All'Ambrugiana, is now the venue for one of the most remarkable collections of ancient and medieval ceramics in Italy. It also displays important artefacts excavated during the last 30 years of archaeological investigation - still ongoing - in the area around Montelupo in northern Tuscany, at the border with Chianti. The latest research identifies the city originally as the mansio of Arnum described in the Tabula Peutingeriana as strategically located near the Roman Via Quinctia. The museum will act as a focus for specialised research on

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News

ancient and medieval ceramics, putting to good use its extensive collection of artefacts and catalogued sherds, as well as a well planned repository for the results of ongoing excavations in a particularly rich archaeological territory.

The museum itself oversteps a prehistoric site, a late Roman Republican site, and an 8th-century church - all excavated during the restoration work undertaken for the fitting of the new exhibition space. Among the most important objects are an Attic kylix attributed to the Codros Painter of active in Athens between 440 and 430 BC, and a mysterious clay oliphant possibly from a temple in nearby Montereggì. Pride of place is given to a unique gilded bronze basin, one of the most important Romanesque bronze objects found in Italy. This belongs to the 'Hansa-Schalen' group produced in present-day Denmark - most probably on the island of Gotland - an important medieval metallurgy centre under the rule of Henry I from 1106. How the basin fell into the River Arno near Empoli, where it was found under a great depth of gravel, is impossible to establish. The vessel is embossed and gilded and at its centre bears a medallion representing an enthroned ruler holding the imperial orb in his right hand and a sceptre crowned with an open flower in his left hand, encircled by an inscription which reads KAROLUS IMPERATOR (CHARLEMAGNE EMPEROR). Similar to two basins of the emperor Otto I (one in Riga and the other at Halle), this is the only known example bearing the image of Charlemagne. It is possible that the Montelupo basin was used for religious ceremonies to consecrate important churches.

The Montelupo Museum organises treks to four excavated sites: the 12th to 10th-century BC proto-Villanovan Bronze Age village of Bibbiani found in 1986 in the course of forest clearance; the Etruscan city of Montereggì, dating from the 6th to the 1st century BC and dominating the Arno Valley with many houses, a temple, and the monumental necropolis, of which the Tomba dell'Uovo is the only fully excavated tomb; two Roman villas at Vergigno; and the Oratorio del Limite on the River Arno.

The 25m diameter 6th-century BC Tomba dell'Uovo at Pulignazzo was discovered in 2002 and is shaped like a drum with a huge egg-shaped monolith on its apex - hence its Italian name - with an inscription which still awaits translation. Altogether, the tomb is similar to the famous Secondo Melone del Sodo at Cortona and indicates the presence of the necropolis of the nearby city of Montereggì on the opposite hillside, which awaits excavation.

The Roman villa of Vergigno is a preserved example of a villa rustica, whose main function was the production of wine for export. The villa is spread over 2000 square metres, with a residential component of 15 rooms on two floors, a 52m-long portico, and a bath-house. The outbuildings contained two kilns for producing ceramics for everyday use and rooms for processing grapes. This was a large agricultural enterprise, where the owner and overseer lived with their families, craftsmen, and as many as 70 slaves.

Datu Jones

Top: the domestic and industrial areas of the villa rustica of Vergigno near Montelupo (top) and its artistic reconstruction (above). Photos: courtesy of Ufficio Stampa Zeto M Progetto Cultura.

Right: the Roman Forum as it appears in 'Virtual Rome', looking on to the Rostra from the north-east. From left to right: the Temple of Saturn, Temple of Vespasian, Temple of Concord, and the Arch of Septimius Severus. Photo courtesy of Professor Bernard Frischer, University of Virginia.

'ROME REBORN' in Virtual Reality

To experience ancient Rome, specialists and public alike traditionally have had to rely on a disparate range of information from historical texts describing people, places, and events to extant monuments, and other sources of information like the Severan Marble Plan, Renaissance and post-Renaissance drawings and descriptions, and the famous Plastico di Roma Antica model built from plaster-of-Paris by Iulio Gismondi between the 1930s and 1960s. Collectively, this information has now served as the framework for the recent unveiling of 'Rome Reborn', a virtual model of the imperial capital haled as the world's biggest computer simulation of an ancient city.

This extraordinary project, which recreates Rome at its urban zenith in the reign of Constantine in AD 320, has been masterminded by Professor Bernard Frischer of the University of Virginia. In addition to its availability on the web (www.comerchorn.virginia.edu), 'Virtual Rome' will be reproduced for tourists on satellite-guided handsets and three-dimensional films in a theatre near the Colosseum, which, according to Frischer, 'will prepare them for their visit to the Colosseum, the forum, the imperial palaces on the Palatine, so that they can understand the ruins a lot better'.

This is especially the case with the Roman Forum, today largely in ruins and aptly described by the Encyclopaedia Britannica as the 'confusing bone yard of history'. In common with other monuments, the Forum may be viewed online as a series of still shots or, more impressively, as a short video clip. If the latter option is chosen, the viewer is brought into the public space from the north-east, proceeding along the awesome long façade of the Basilica Aemilia to the Arch of Septimius Severus. After a brief pause to view the arch's elevated inscription, the visitor is taken up the steps of the Temple of
Making History: the Society of Antiquaries at the Royal Academy

Many exhibitions naturally concentrate on the presentation of objects discovered by antiquarians and archaeologists over the past few hundred years. More broadly conceived is a new exhibition at the Royal Academy (15 September - 2 October), ‘Making History: Antiquaries in Britain, 1707-2007’, which focuses on the work and achievement of the Society of Antiquaries of London over the past 300 years. The exhibition, organised by the Royal Academy of Arts and the Society of Antiquaries of London to celebrate the Society’s tercentenary and comprising 190 works, will showcase for the first time treasures from Britain’s oldest learned society concerned with the study of the past. It will feature unique works of art, antiquities, and manuscripts of national historical importance from one of the oldest museum collections in this country, including a Yorkist procession cross recovered from the battlefield of Bosworth (1485), the inventory of Henry VIII’s possessions at the time of his death, and an early copy of the MagnaCarta. Also displayed are paintings of ancient sites and landscapes by Constable, Turner, Blake, and an extraordinary collection of English royal portraits from Henry VI to Mary Tudor.

The exhibition explores key stages in the creation of Britain’s historical narrative, from the earliest archaeological discoveries of the early modern age to the rise of professional historians and archaeologists in the 20th century. Emphasis will also be laid on how the past may be studied in the future. Another particularly interesting feature will be a special presentation of Stonehenge, Britain’s best known monument, revealing how our understanding of its history is ever-changing in the light of research and new discoveries, such as a recently unearthed Late Medieval drawing of the megaliths. Summing up the importance of the exhibition, the celebrated historian Dr David Starkey, guest curator, commented that ‘For me, history has always been as much about things - buildings, paintings, jewels - as written documents. So this exhibition won’t simply be a display of the Society’s treasures - wonderful though they are - it’s also an opportunity to show how history is made and why it matters’.

Dr Mark Merrony

EXCAVATION NEWS

Decapitated Nasca Skeleton & Ceramic Head Jar Found in Peru

The Nasca culture of ancient southern Peru is distinguished by two cultural traits: the artistic creation of the Nasca Lines, those giant desert drawings of lines, geometric shapes, and animals encompassing nearly 500 square metres, and the gruesome ritual of human sacrifice involving the decapitation of the victim and the subsequent preparation of so-called trophy heads for ritual use. Recent research on a decapitated skeleton dating to the Middle Nasca period (AD 450-550), discovered in 2004 at La Tiza by Professor Christina Conlee based at Texas State University, has fuelled the debate on the raison d’etre of this abominable practice.

This discovery is especially unusual because the skeleton was buried with a ceramic head jar painted with two inverted faces placed to the left of the skeleton, which its excavator believes is an indication that the victim was killed in a rite of ancestral worship. Forensic examination suggests that the individual was a male aged between 20 and 25 years at the time of his death, and bears the gruesome cut marks of its decapitation, most likely from an obsidian knife. The discovery is also interesting because it is only the third known Nasca head jar found in association with a decapitated body, although these vessels have been discovered at other Nasca sites and are often associated with high-status burials.

An alternative to the ancestral worship theory has been suggested by Professor Donald Proulx of the University of Massachusetts with the support of depictions on pottery. He contends plausibly that the various Nasca chieftains were fighting amongst themselves for access to resources and that trophy heads were symbolic of, or metaphorical for, regeneration and rebirth, mediated by shamans: ‘In the environmentally hostile world of the

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Nasca, many of the rituals carried out by the shamans related to propitiating and controlling the forces of nature... The prime purpose for taking heads was magical in nature - to ensure the continued abundance of the food crops.

Dr Mark Mernony

Mapping the Mediterranean: Italy's Archeomar Project

Initiated in April 2004, the first fruits of the 7.5 million Euro Archeomar project are now harvested. This ambitious project was designed by the Italian Ministry of Cultural Heritage in 'accordance with an ever greater understanding regarding the conservation of the underwater archaeological heritage' to create a master register of underwater archaeological sites in the southern Italian regions of Carpania, Basilicata, Puglia, and Calabria.

Conducted by a consortium of eight companies specialising in various sectors of archaeology, information technology, diving, and prospection, the survey combined remote sensing techniques (side-scan sonar, multi-beam, sub-bottom profiler and magnetometry) with visual surveys (divers and three Remote Operating Vehicles). A total of 630 sites were discovered through archival research (513) and diving operations (117) during 368 days of underwater exploration. Some 48% of the sites lie in depths of 0-12m, 33% in 12-50m, 13% in 50-100m and 6% over 100m: 27% of the sites are well preserved and 69% scattered; 26% are designated as high risk.

The most important and best preserved shipwreck lies off the coast of Capri in the vicinity of Boccia Grande and is a 1st-century AD wreck carrying Dressel 21/22 amphorae, largely still stacked in their original positions, with at least three rows still visible. In the area of Bocca Piccola off Capri, another shipwreck was found carrying a cargo of 1st-2nd centuries AD Tripolitanian amphorae from North Africa. A third spectacular site off Punta dell'Arcera holds a cargo of cylindrical late Imperial period amphorae, again from North Africa. The majority of the cargo appears still to be in situ. Amongst the medieval shipwrecks from the area of Salerno is a rare cargo characterised by over a hundred architectural solid marble pine cones spread over 30 x 9m, alongside glazed ceramic vessels, metal bars, and wood.

The 45 submerged structures include ancient port installations, coastal villas, and quarries. The prize discovery from Pozzuoli comprised rooms and structures facing on to a street with a brick-built colonnade, all running parallel to the coast and surrounded by marble architectural fragments and statues. The new information collected by Archeomar is helping the road joining Pozzuoli and Portus Julius, a vital route of commerce along the coast, to be reconstructed. At Vibo Valentia in Calabria near Formi coli a series of submerged structures were investigated at Forum Herculis, where walls and moorings stretched along 400 square metres of seabed.

The complete documentation from the Archeomar project comprises over 1940 photographs, 903 films, 80 side-scan-sonar images, 10 sub-bottom-profiles, and four photographic mosaics relating to 287 underwater archaeological sites. A further 476 have been registered based solely on bibliographical and archival information. As a result, 50 'SD-Cards' have been created to help manage underwater looting. These memory cards contain a georeferenced copy of the projects' data, providing police with direct visualisation, and contains information on the 753 identified sites, essential for the management and safeguard of the underwater archaeological heritage. A series of posters, brochures, DVDs, and a five-volume site catalogue will highlight this rich maritime heritage to the general public.

Dr Sean Kingsley

Middle Nasca burial at La Tiza containing a headless skeleton in a seated position next to a 'head jar'.

Photo: Professor Christina Conlee, Texas State University.

An amphora cargo on a 1st-century AD shipwreck in three superimposed layers found in 15m of water off Capri.

Photo: courtesy of the Archeomar Project.

ANTİQUITIES NEWS

Albania

Among the many antiquities stolen from Albania during the country's institutional crises in the 1990s were a Roman 2nd-century AD marble statue of Apollo from the UNESCO World Heritage site of Butrint and a Hellenistic 3rd-century BC marble statue of Artesis from Finiq, the ancient city of Phoinike, just 20 km from the Greek border. Smuggled into Greece, they are currently in the Piraeus Museum and their quick restitution was promised by the Greek Minister of Culture, George Voulgarakis, following talks in Athens with the Albanian Minister of Tourism and Culture, Ylli Pango, on 19 May.

Bulgaria

Yet another Thracian gold mask, c. 4th century BC, diameter 23cm, has been unearthed by Dr Georgi Kityo, this time in the tomb of an important chieftain near the eastern town of Silven, proving that the 'Valley of the Thracian Kings' extended from the centre of the country to the east. The mask depicts a bearded man with closed eyes, apparently made to be attached to a shield. (The earlier 2004 find was a 5th-century BC mask from central Bulgaria; see Minerva, May/June 2005, pp. 27-32). Among the other objects in the present tomb were a massive gold ring with an image of a bearded man and a Greek inscription reading 'Saviour of Asia', two gold cups, a 30cm-long silver rhyton with a doe's head, a helmet, and armours.

China

In an effort to further protect its cultural heritage, the Chinese government will put into effect a new regulation before the end of this year banning the export of 'cultural relics' pre-dating 1911, the end of the Qing Dynasty, thus moving the base line from the previous date of 1795. This development will now include important cultural relics produced, before 1949 and major ethnic minority relics earlier than 1966.

Meanwhile, construction workers in Nanjing have destroyed about ten 6th dynasty tombs, AD 220-589, apparently belonging to a wealthy family, while building a road and excavating for an IBEA outlet. Unfortunately, the fine under Chinese law for the destruction of ancient tombs is only between $6600 and $65,700. The law is poorly enforced and developers often prefer to pay the fine rather than to delay or cancel their projects.

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Greece
The bottom section of a 4th-century BC marble relief of Athena holding a shield, now headless, acquired by a Danish historian, Alexander Svenstrup, in Athens in 1897, was repatriated to Greece on 22 June in a gesture of goodwill by his family, although it certainly adds little if anything to the country's cultural patrimony.

A Roman marble male torso, perhaps Apollo, 1.3m high, stolen in 1991 from Gortyn, a major archaeological site in Crete, and previously registered with Interpol, has been traced to a Swiss dealer who voluntarily surrendered it to the Federal Culture Office in June. On 3 July a resident of Corinth was arrested for the possession of 1338 unregistered coins, rings, pottery sherds, and a few statuettes and vases from illegal digs. The police said that they were mostly small items and not very valuable, but all such activity is against the law.

Pakistan
About 100 ancient Pakistani figurines and pottery, some up to 7000 years old, were handed over to the Pakistani ambassador in Rome by the Italian Minister of Culture, Francesco Rutelli, on 25 June following the verification of their provenance. They were seized in 2005 by the Carabinieri at a northern Italian antiques fair, where they were being offered as Thai antiquities. A team of conservators will be sent to Pakistan to assist in their restoration.

Jerome M. Eisenberg, Ph.D.

NEWS FROM EGYPT

Important Intact Tomb Chamber Found in Upper Egypt
While excavating at the tomb of Uky, an important Middle Kingdom official, at Deir al-Barsha, an archaeological mission from the Katholische Universiteit Leuven, Belgium, under the direction of Dr Harco Williams, has found a polychrome wood sarcophagus and a wide array of funerary models and offerings inside an intact chamber in a rock-cut shaft. The deceased, Henu, was a courtier and a minor official of the late First Intermediate Period, c. 2060-2040 BC. Among the finds were two large wood statues of Henu, models of women grinding grain, brewing beer, and making bread; a rare depiction of four men producing mud bricks (only two others are known); and a large model boat, all of unusually fine workmanship. Only one other intact tomb of this period has been found in recent times - over 20 years ago. All of the others, slightly later in date, were uncovered in the late 19th and early 20th centuries.

Mummy from KV50 Claimed to be Queen Hatshepsut
Following a CT scan study made of several female mummies, Dr Zahi Hawass, Secretary General of the Supreme Council of Antiquities, has announced that one of the two mummies found by Howard Carter in 1903 in tomb KV60 in the Valley of the Kings has been positively identified as Queen Hatshepsut. Though the mummy was stretched out on the floor of the tomb, the fact that she had her left arm on her chest (the other arm was at her side) was taken to be a sign that this was a royal mummy. The mummy was removed to the Egyptian Museum in 1906.

A CT scan made of a box inscribed to Hatshepsut, found in another tomb, included a tooth that appears to belong to the mummy, a 50-year-old obese woman with bad teeth who had died of cancer. Interestingly, the tooth fits perfectly into a broken root of the jaw socket of the mummy. Tests of the mitochondrial DNA linked her to Ahmes-Nefertari, sister and wife of Ahmose I, the founder of the 18th dynasty, and mother of Amenhotep I. When Hatshepsut died, her stepson and successor, Thutmose III, attempted to wipe out all evidence of her reign, so it would be logical if her mummy was hidden away in such an obscure tomb devoid of decoration. Though it has been suggested several times that one of the two mummies might be the queen, some Egyptologists have reserved judgment on the find.

Mummy of High Priest Discovered at Luxor
An 18th dynasty mummy of a high priest of Amon, Sennefer, has been unearthed in Theban tomb 99 by a team under the direction of Dr Nigel Strudwick from Cambridge University. Among other mummies discovered were one with a brain tumour, a female wrapped in plaster, a foetus, and several mummies which seem to have suffered from arthritis.

Tomb from Reign of Akhenaten Uncovered at Saqqara
An archaeological team from the Rijksmuseum van Oudheden, the Netherlands, has located a huge 18th-dynasty tomb at Saqqara belonging to the priest Meri Neit, the chief superintendent of the god Aten. No mummy was found in the burial chamber, only four engraved canopic jars. Since an object bearing the cartouche of the 12th dynasty pharaoh Senusret III (Sesostris III) was found, it indicated that the tomb had been reused.

Loan of Rosetta Stone Requested for the Opening of the Grand Egyptian Museum
Dr Hawass has now formally asked for a three-month loan of the Rosetta Stone from the British Museum for the celebration of the opening of the Grand Egyptian Museum, being constructed near the Pyramids in 2012. Although he has promised to guarantee its safe return, the British Museum Trustees have to consider any political or legal ramifications that may take precedence over Dr Hawass's guarantee. The stone has left England only once since it was placed on view at the museum in 1802 - for a one-month exhibition at the Louvre in 1972.

Following his request for a loan of the head of Neferiti in Berlin, the Ägyptisches Museum has argued that it is too delicate to undertake any journeys. According to The Art Newspaper, Dr Hawass gave warning that if his request is refused, then 'we will fight to bring back this bust for good'. Other loan requests from Egypt for the museum opening include the Dendera Zodiac ceiling in the Louvre, the 4th dynasty statue of the builder of the Great Pyramid, Hemmama, at Hildesheim, and the 4th dynasty bust of the vizier Ankhaf, builder of the Khafre Pyramid, at Boston.

Jerome M. Eisenberg, Ph.D.

Minerva, September/October 2007
CHARIOTS, HORSES OR HIPPOS: WHAT KILLED TUTANKHAMUN?

W. Benson Harer

Controversy and speculation have abounded since the original discovery of King Tutankhamun in 1925. It was revealed he was just a youth when he died. The recent uncovering and computerised tomographic (CT) scanning of the mummy of King Tutankhamun in January 2005 provide fresh scientific evidence of multiple anomalies in the preparation of this mummy compared to other royal mummies of the era. While the mumification process varied over the millennia according to wealth, status, and style, its basic procedure was quite consistent for the royal mummies known from the New Kingdom. The brain was extracted through the nose. Then the liver, stomach, intestines, and lungs were extracted through a left abdominal flank incision. The heart was left in place, and the mummy was wrapped with a heart scarab to protect it and a wedjat-eye plate to protect the cranial incision. Arms crossed over the chest signified royalty. As we shall see, curiously, this sacred process was not the case for Tutankhamun.

The question of what factors the embalmers may have encountered to compel them to deviate so markedly from the standards of the day in such a lavish burial provides fresh insights into the cause of the king's death - a subject of great speculation, often of a sensational nature. Since no expense was spared in equipping him for the afterlife, was his body treated unusually? Was it abnormal? The answer must be that the condition of the king's corpse left no option but for unparalleled deviations from the norm.

These anomalies could be accounted for if the embalmers were confronted with a body with a lacerated, crushed chest, and a broken leg. They could have easily dealt with the leg, but a chest in such a condition would pose major difficulties in the embalming process. Perhaps they first tried to achieve some sort of normal configuration of the thorax, but failing that they chose to excise the damaged area by cutting the skin around it and neatly trimmed the ribs to remove most of the anterior chest wall.

Furthermore, the CT scan of the thorax shows it to be entirely filled by linen packing up to the level corresponding to the normal external chest (Fig 4). Therefore, the embalmers must have removed both the heart and lungs. Many scholars believe that Douglas Derry, Professor of Anatomy of the Egyptian University at Cairo, and Howard Carter removed the chest wall and failed to record it, but this is impossible because they could not have removed the heart while all the chest packing remained intact as it is today. The process can only have been implemented in antiquity.

Another recent theory is that the ribs were sawn through with a hacksaw and that the chest wall, including the clavicles, was removed en bloc by modern tomb robbers who stole the last string of beads left on the body by Carter. This would have occurred sometime between his reinterment in 1925 and 1968, when Professor Ronald Harrison of the University of Liverpool x-rayed the mummy. Such a violation would have been a formidable task for either Derry or the robbers because of the rock-hard packing, which would have reverted to an unyielding mass almost level with the chest. In turn, that would have resulted in cutting the ribs in a fairly straight line. Such is not the case, as is readily seen from both x-rays and the CT scans, which also prove that the clavicles are still present but displaced. The pattern of cut ribs is more compatible with the embalmers sawing, though in an irregular pattern dictated by the extent of the injury.

Also possible is the view that the officials and priests in charge at the time of the king's death considered such a horrific injury incompatible to the king in the afterlife and, therefore, had to be excised. This would especially be true if the heart was damaged by the initial injury and such a belief would account for the failure to preserve the excised section of the body. Thus, to avoid contamination by this defiled area, the arms were placed below it (Fig 5) instead of in the typical arms crossed position of other kings. I know of no other mummy, royal or otherwise, in which the chest was treated in this fashion. Such a belief would also justify the need for excessive amounts of sacred oils, which were poured over the body causing the 'spontaneous combustion' which reduced much of the linen wrapping to a carbonised state.

This excision would have exposed the heart and lungs, which could have been easily removed. Under these circumstances it would have been pointless to carry out the usual flank incision to extract lungs and abdominal contents, so instead they made a simple transverse incision from the left of the umbilicus to extract the abdominal viscera. Since the body already had a huge opening in the anterior thorax, it would have been pointless to suture the abdominal incision and protect that artificial orifice with the standard wedjat-eye embalmer's plate.

Since the chest was lying open, amuletic jewellery and a beaded 'bib' were used to cover that area where the sternum, ribs, and skin had been excised. A dozen layers of other protective jewellery above the bib also included a large 'scab of resin' as a meager substitute for the usual heart scarab", as Carter and A.C. Mace recorded in The Tomb of Tutankhamen Discovered by the Late Earl of Carnarvon and Howard Carter, Vol. II (1927).
Tutankhamun’s Death

Fig 6 (below right). X-ray of Tutankhamun’s chest. Note the absence of the sternum and anterior ribs.

Fig 7 (bottom right). CT scan of Tutankhamun’s chest confirming the identification of sawn ribs.

The photos taken by Harry Burton after the removal of the last layer of the cover of the thorax show the cut ends of the ribs (Fig 5), but neither Carter nor Derry remarked on this, nor did they describe the skin of the chest as being present or absent. The recent examination showed clearly that there is no skin present and that the entire section was removed by the embalmers. Furthermore, in that photo we can now clearly recognise that the protective strings of beads embedded in the resin and packing in the chest were at a level contiguous with the remaining chest wall.

It is equally clear from the original x-ray of the body that the sternum and adjacent ribs are absent, with the ribs cut more widely on the left than the right (Fig 6). Careful inspection of the original photograph of the exposed body shows that the cut ends of some ribs were visible but were not identified as such at the time. The recent CT scans provide confirmation of this, and of the fact that the ribs were neatly cut (Fig 7).

A corpse with a caved-in chest may also have posed some problems with the usual procedure for extracting the brain through the nose. Clearly this was attempted, but was probably unsatisfactory because of the difficulty in positioning the body prone with the skull properly aligned to permit drainage. This effort would have produced the first occipital fluid level as seen in most royal mummies.

In order to complete the process, the embalmers resorted to separating the first cervical vertebra, the axis, from the skull and pouring in additional resin through the foramen magnum, the large hole at the base of the skull. This would have been accomplished with the head pendant, anteriorly resulting in a second fluid level at a 90 degree angle to the first. This larger orifice would have permitted easy drainage of the liquified cerebral tissue by simply flexing the head forward from the supine position. King Aahmosis, the first king of the 18th Dynasty, is the only other royal mummy of the era in which the foramen magnum approach was used. The recent CT scans confirm that the embalmers did utilise the foramen magnum (Fig 9). Had this been done first, there would have been no need for the attempt to extract the brain through the nose.

Faced with a massive chest defect, which may have been considered an area of desecration, the arms were positioned below that region with the right arm on the left upper pelvis and the left over it to the level of the inferior thorax (Fig 8). In addition to the postu-
Tutankhamun’s Death

related chest trauma, the recent CT scan confirms the presence of a fracture of the distal femur, which occurred shortly before Tutankhamun’s death (Fig 8). Such a fracture would have posed no challenge to the embalmers to provide satisfactory alignment. Today, there are countless numbers of fractures in the brittle bones, but the left femur fracture is unique, with evidence of some of the embalming material visible within.

We can now see that the postulated injuries could have accounted for the embalming anomalies. But what could have caused such a pattern of injury? Trauma is the obvious answer, and there appears to be a consensus that Tutankhamun had an accidental death, with a chariot accident proposed as most likely. However, my analysis indicates that no type of chariot accident is likely to have caused such trauma.

Consider the nature of the chariot and possible related accidents. One would be well aware of the thundering hooves of a chariot approaching at speed, and there would have been an effort to avoid a collision, by assuming a defensive posture. The horses would have struck first rather than the body of the vehicle. The height of the axles of Tutankhamun’s six chariots was under 50cm. Even if it were turning so that the wheel hit first during a collision, it would have struck at about the level of the king’s knee. If it continued to roll over him, there would have been much more evidence than the postulated chest injury.

If the king fell from a speeding chariot, there would also have been a different pattern of injury. When people fall from a moving vehicle their bodies are in motion. This results in a tumbling action as they hit, with multiple fractures of extremities and often the skull and/or spine, rather than the isolated leg fracture. Tutankhamun’s body does not conform to this pattern. While an isolated open leg fracture could easily cause death, it would not justify the unique treatment of excising the anterior chest wall.

But what about an injury caused by the kick of a horse? Such an incident can befall a victim alone or in a large group; he only has to be in the ‘kill zone’ momentarily. The event can occur without warning and with lightning speed in the blink of an eye - the victim has little chance to avoid it. Tutankhamun was 1.7m tall, so a horse could easily have struck him in the lower chest. With little or no clothing in that area to protect him, the hooves would easily have torn the skin and fractured multiple ribs. Even if his lungs were not punctured, his chest would not have been able to expand adequately for him to breathe. The impact to the heart could also have caused instant death. The thrust of the kick would have been up and back. Since the boy-king Tutankhamun weighed only about 55kg, his body could easily have been tossed so that he fell in a manner as to fracture his leg on landing.

An isolated fracture, such as demonstrated on the CT scan, could have been a cause of death, especially if the skin was broken to permit infection. However, that explanation fails to justify the dramatic deviations from the typical mummmification of a king. It is unlikely that there was any further cause of the postulated chest trauma other than a kick from a horse.

Three other animals existed in Tutankhamun’s environment which in theory would have been capable of inflicting such injuries: the crocodile, the hippopotamus, and the wild aurochs bull. Certainly exposure to them would have been considerably less frequent than to horses. The aurochs bull, which kings are sometimes shown hunting in pharaonic art, is capable of inflicting the postulated injury. However, the circumstances of a hunt with the king in a chariot with a large entourage, facing a bull and gored in the chest like a modern matador, is exceedingly unlikely.

Travelling with an entourage, it is equally improbable that the king would have found himself in a situation on land where he could have been exposed to attack from either a crocodile or hippopotamus. However, he may have fallen out of a skiff, in which case a crocodile could have drawn him underwater and then devoured part of his body. However, a crocodile’s jaws would not have extended across his chest, and its sharp teeth would have inflicted damage to both the front and back. Tutankhamun’s body did not sustain such injury. An open fracture of the femur is also improbable from such an encounter.

Possibility (a) proposed in this article reported to upset small boats and then bite their victims. The hippopotamus has sharp tusks on the lower jaw, which can easily rip open the body, while the upper jaw serves as an anvil or vice. Such a hippo attack is defensive rather than gastronomic, and could have produced the damage postulated for the king’s corpse. Again, however, it is unlikely that the king and his entourage would have ended up isolated on land in such circumstances that a hippo could have caught him head on and inflicted such injury.

Death by hippo is an enticing consideration because of the association of the hippo with the evil god Seth. This would add a special component of evil and desecration of the body. It could explain why the arms were placed below the area of injury, instead of across the chest. Certainly officials would not have wanted to record the triumph of the evil Seth in murdering the young god king.

Beguiling as the hippo theory may be, I must rate this a distant second choice. His exposure to horses would have been far more frequent, and a horse can kick someone who is with a group and who just happens to be in the wrong place at the wrong moment. Therefore, a kick in the chest by a horse is the most likely explanation for the unique aspects of Tutankhamun’s embalmed mummy and the cause of his death.

The author wishes to thank Dr Zahi Hawass, Secretary General of the Supreme Council of Antiquities, for permission to study the CT scans of the royal mummies and for providing these illustrations.
Saqqara is the name of a small Egyptian town situated about 30km south of Cairo at the foot of the western desert, which rises to a height of 30m above the valley floor. It has given its name to one of the most important cemeteries of the ancient pharaonic capital of Memphis. For thousands of years the rich inhabitants of this splendid city - courtiers, civil servants, soldiers, priests, and artisans - constructed their tombs on the Saqqara plateau, and numerous pharaohs are also represented here by their funerary monuments. Foremost among these is the Step Pyramid of King Djoser (2630-2611 BC). Indeed, it is the royal pyramids and private mastaba tombs of the Old Kingdom (c. 2650-2150 BC) for which Saqqara is best known.

Very few tourists realise that Saqqara in fact boasts monuments of all periods of pharaonic history. Until recently, funerary architecture dating to the New Kingdom (1550-1070 BC) seemed to be virtually absent, despite the fact that lots of tombs of this period were found by treasure-hunters during the 19th century, and even during formal excavations at the beginning of the 20th century. However, these tombs have long since sanded up again, and the wall reliefs, statues, and small finds have left the site and can now only be seen in museums across the world. Even archaeologists had hardly any idea what these tombs looked like and where they might be located.

This situation has changed considerably since 1975, when a joint mission of the Egypt Exploration Society and the Leiden Museum of Antiquities started excavations in one of the centres of the New Kingdom necropolis, about 200m south of the Step Pyramid. Five years later a French team opened the first of a group of New Kingdom rock-cut tombs along the escarpment of the Saqqara plateau. Recently, Egyptian, Australian, and Japanese archaeologists have joined forces in searching for other remains of the period in three different places: around the pyramid of King Teti, on a rocky outcrop to the west of the plateau, and to its south at the adjacent site of Dashur. No longer can anyone deny the importance of the Saqqara necropolis during the heyday of the Egyptian Empire, when nearby Memphis was thriving as the administrative capital of Egypt, a centre of trade and commerce in regular contact with all parts of the known world, and a military stronghold and naval base. It is the elite of this cosmopolitan city who are represented in the tombs of Saqqara.

Fig 1 (above). Plan of the tomb of Ptahemwia, with its monumental gateway, courtyard, and three offering chapels.

No less than ten splendid monuments of the period were uncovered by the former Anglo-Dutch expedition, all dating to the reigns of Tutankhamun (1334-1325 BC), Ramses II (1279-1212 BC), or their immediate successors. In 1999 the expedition became a joint mission of the Leiden Museum of Antiquities and Leiden University and its first major success was the discovery of...

Fig 2 (below left). The tomb of the royal butler Ptahemwia from the east, built of mud-brick and paved and revetted with limestone, the structure dates to the reign of Akhenaten, 1353-1335 BC.

Fig 3 (right). Relief on the eastern gateway of Ptahemwia's tomb showing him seated with a pet monkey beneath his chair.
Fig 4 (right). Activities inside Ptahemwia’s pavilion: servants and musicians running to the door, other personnel preparing a meal, and the Lady Masta having a drink.

Fig 5 (below right). Relief depicting an unusual portrait of Ptahemwia, his head looking back over his shoulder, interviewing two lower officials in front of a pavilion.

of the tomb of Meryneith in 2001. This proved to date to the period of King Akhenaten (1353-1335 BC), the heretic Pharaoh who instigated a religious revolution whereby only the cult of the sun god Aten was allowed. Temples to the conventional gods of Egypt were closed; in some cases their cult statues were smashed, and their names wiped out from inscriptions, and the Pharaoh moved his residence to Amarna in middle Egypt in order to worship his new god at a virgin spot uncontaminated by ancient cults. The tomb of Meryneith allows us to witness all phases of these historic events from a Memphite perspective (see Minerva, July-August 2002, pp. 31-34).

In January 2007 the Leiden excavations bared yet another tomb of a contemporary of Akhenaten. This dig was carried out immediately to the east of Meryneith’s forecourt, where prior excavations had already indicated the presence of an adjacent monument. This was proved to be the tomb of Ptahemwia, whose main title was that of a ‘royal butler, clean of hands’. Previously, this person was only known from a pilaster in Bologna and a door-jamb in the Cairo Museum, both removed from the site in the 19th century. Royal butlers did not have the menial position suggested by the awkward translation of their title. On the contrary, they were not only responsible for the provisioning of the royal household, but also accompanied their master on his regular trips of inspection and on the battlefield. As trusted servants, who enjoyed a day-to-day contact with the monarch, they could acquire the position of a diplomatic envoy, or of an ‘interim manager’ sent out to solve administrative problems at a government institution. Thus, the royal butlers seem to have been omnipresent, both at home and abroad. The elevated position of Ptahemwia can also be recognised from the ‘gold of honour’ depicted around his neck, and from his other titles which indicate a high court rank. This butler must have had intimate knowledge of the personality of the heretic pharaoh.

His tomb is built of mud-brick and a considerable part of its limestone paving, revetment, and architectural elements are preserved (Figs 1-3). The monument forms a rectangular enclosure of about 10.5m wide and 16m long with walls still standing to a height of about 2m. The massive entrance gateway (perhaps once shaped like a temple pylon) is followed by a courtyard surrounded by porticoes of papyriform columns and by three chapels for the offering cult. The central chapel has a limestone floor, revetment, and two further columns, whereas the side-chapels just have mud floors and mud-plastered walls. The shaft to the subterranean tomb-chambers is situated in the centre of the court. This has obviously been entered before: only one of the original covering slabs is still in position.

As always, the main interest of the tomb lies in its wall-reliefs. Most of these have been executed in the shallow sunk relief, which was the favourite medium of the Amarna age. This date is confirmed by the characteristic details of the anatomy of the persons represented, several of which show elongated skulls, bulging stomachs, and thin arms and legs. At the eastern gateway, the door-jamb still show portraits of the seated tomb-owner with a monkey under the chair and part of an inscription stating the name and titles of the deceased (Fig 3). The west face of the east wall is only preserved to the north of the entrance. It is clearly unfinished and shows artists’ sketches in red ink, lightly incised figures, and some sunk relief lines, thereby allowing us to record all the stages of the production process. The main scene represented here is that of the transport of the mummy of the deceased; the back carrying the catafalque is being towed by a smaller rowing-boat, while mourners are depicted in a lower register. Similar unfinished representations cover the adjacent east part of the north wall of the courtyard. Here one can just make out some scenes from the Book of the Dead, notably the deceased and his wife ploughing the fields of the hereafter.

After a gap presumably left by the removal of the Bologna pilaster, the rest of the north wall has preserved its properly completed sunk reliefs, which still show part of the original colours. On the right is a scene of farmers ploughing their fields (Fig 8). Notably, the register lines and even the waterway depicted near the bottom are not straight but undulating, thereby suggesting a much freer conception of the landscape than is usual for Egyptian art. Further left is a depiction of the tomb owner himself, arriving at a tent or pavilion which is shown as a rectangular structure with a gabled roof. Perhaps this portrays the butler attending a tour of inspection (Fig 5). His portrait is especially interesting because of its unusual posture, with the head looking back over the shoulder, a position
which occurs elsewhere for the depiction of minor figures, but never for portraying the tomb owner himself. While Pahemwia still speaks to two minor officials, his Nubian bodyguards, charioteer, and sandal-bearer stand to attention. Servants inside the pavilion run to the open door with fresh drinks and a towel, followed by female musicians carrying a lyre, lute, and harp - very similar to how modern tourists are usually received at the entrance to their Egyptian luxury hotel. At a higher level, another servant pours a drink to Pahemwia’s wife, the songstress of Amun, Maia. Below, a sailor secures the sail of a boat moored to the quay in front of the pavilion. Thus, the whole scene has the character of a moment frozen in time and of a continuous space, filled with anecdotal episodes depicted with great naturalism. This style is very characteristic of the time of Akhenaten, when the depiction of nature in all its aspects was felt to be an appropriate tribute to the sun god. The resulting creative freedom has given us some scenes which are unique in Egyptian art.

The west half of this wall is occupied by a more formal scene of priests performing the Ritual of Opening the Mouth and presenting food offerings to the deceased and his wife. The latter are seated on chairs, accompanied by other members of the family and more offerings in a lower register. The main attraction of this scene is the depiction of two monkeys (Fig. 7) under the wife’s chair. Again they display a rare degree of naturalism, eating figs, dates, and grapes and at the same time trying to pull each other down from the strut of the chair. A further register of representations once ran along the top of the wall, but this is now largely lost. The opposite south wall of the courtyard is completely devoid of its original revetment, and even a large part of the limestone floor of this half of the tomb has been robbed away.

The west wall of the courtyard holds the doors to three chapels for the offering cult. Small parts of the door-jams and relief scenes have survived, mainly in the entrance and on the north wall of the central chapel. The latter depicts part of the funeral of the deceased, with a realistic image of the tomb itself, as well as some workshops where artisans are making arrows and other articles. Several loose relief slabs found in this area may allow us to reconstruct part of the funeral scene on the opposite south wall of the central chapel. Unfortunately, the stela which must have stood against the west wall has disappeared.

The tomb of Pahemwia seems to have been constructed and decorated at the same time as the earliest phase of the neighbouring monument of Merynith, which is now attributed to the second quarter of Akhenaten’s reign period (c. 1348-1344 BC). Both tombs are the earliest found by the Leiden Expedition. It remains to be seen whether the tomb of Pahemwia, too, was decorated in successive phases. Some of the scenes in raised relief seem to betray a slightly different style more characteristic of the reign of Tutankhamun.

We can only speculate why the reliefs on the north and east walls were never finished. Perhaps the owner just died unluckily; it is also possible that he fell from favour or was called to follow the king to Amarna. His name, ‘Pah is in the bark’, may have caused a problem when Akhenaten decided to stop the worship of the traditional gods of Egypt. Thus, it is possible that he lost the king’s favour and the esteem of others; as is also suggested by the intentional damage to his face on the north wall portrait. We hope to find out more about what happened to Pahemwia when we empty the subterranean tomb-chambers during our 2008 season.
HERACLEION & CANOPUS ARISE FROM THE WAVES

Sean Kingsley

Following pioneering underwater research in the Portus Magnus of ancient Alexandria, a natural extension for Franck Goddio and the Institut Européen d'Archéologie Sous Marine (IEASM) was to transfer eastwards to Aboukir Bay and its largely uncharted submerged mysteries (Fig 1). Throughout the 18th and 19th centuries, rumours of strange ruins lurking beneath the waves emerged from the sea, culminating with the publication in 1866 by Mahmoud Bey El-Falaki, astronomer to the Viceroy of Egypt, of a map of Alexandria siting the ancient town of Canopus on the coast of Aboukir Bay.

A crucial breakthrough in this exploration arrived from the skies in 1933, when the commander of the local RAF base, Group-Captain Cull, noticed the outlines of structures beneath the bay from his aeroplane. Prince Omar Toussoun, a scholarly expert on the Nile, was alerted and major archaeological ruins were detected 1.8km offshore, including the head of a marble statue of Alexander the Great.

Such was the meagre level of knowledge when Goddio started work in Aboukir Bay in 1996. His team essentially started from scratch, with the primary objective of tracing the contours of the ancient coastline and establishing their relief before they were inundated. Bathymetric surveys defined the current seabed topography in relation to antiquity. Geological survey and soil sampling allowed the team to differentiate between harbour floors, sand dunes, marshland, and riverbeds, while geophysical information was collected to locate archaeological remains.

Finally, excavations enabled the character of the submerged architecture to be 'fine-tuned' (Fig 1). The first results of this major survey and excavation project, which took 11 seasons and 25 full months from 1996-2005, are now published under the imprint of the Oxford Centre for Maritime Archaeology, with whom IEASM joined forces in 2003 to manage the academic publication of its research.

The Canopic region of Aboukir Bay, lying 30km north-east of Alexandria, encompasses a vast research area covering almost 11 x 10km and within it a number of port towns - Canopus, Menouthis, Heracleon, and Thonis. As Goddio argues, Thonis seems to have existed as a frontier post and emporium since the time of Homer, the 8th or early 7th century BC early Salitic period, when Herodotus set the story of Helen of Troy's abduction by ship by Alexander (Paris), the son of king Priam of Troy. Blown off course by storm winds, Herodotus writes that the vessel came 'to Egypt and the region where are found the mouth of the Nile now called the Canopic and the salt pans. On that shore there was, and still is today, a sanctuary of Herakles, where anybody's fleeing slave could get marked with the sacred signs and offer his person to the god, thus avoiding arrest...' Canopus itself was named
after the pilot of Menalos, who died there.

Herodotus calls the river mouth Thonis, the sole place open to Greek merchants. Later historical allusions confirmed this association, with Diodorus Siculus (90-30 BC) writing that the river Aegyptos ‘flows into the sea near the place called Thonis, the ancient warehouse of Egypt’ and that finally comes the Canopic mouth, which is sometimes also called Hecalethic’. Further topographic details are furnished by Strabo, who added that ‘Canopus is followed by Heraclion which has a temple of Herakles, and then comes the Canopic mouth and the beginning of the delta... It is said that in ancient times there existed a town called Thonis, after the name of the king who offered his hospitality to Menalos and Helen’.

Many years later, Strabo continues to disclose that Canopus contained a temple of Serapis ‘who is the object of much devotion and produces such healings that even people of the greatest merit have faith in him and come to sleep there for their proper recovery... But above all there is the crowd of those who go there for public feast days, coming from Alexandria down the canal; day and night it is covered with shipping, where men and women play flutes and dance without restraint in the most lascivious manner with the people of Canopus themselves who have huts on the border of the canal, well situated for this kind of licence’.

Finally, St Sophronius of Jerusalem, who lived around Canopus between AD 578 and 610, linked Menouthis with a monastery of the Evangelists at Canopus and painted a realistic picture of the local maritime landscape: ‘For it is placed on the shore of the sea, neither on a mound nor built on firm ground, but between the sands and the deep, from where it receives the twofold attacks and appeases the assaults like a mediator...’

Through an interdisciplinary approach combining historical evidence with nuclear magnetic resonance magnetometers developed by the French Atomic Energy Commissariat, bathymetric soundings, and side-scan sonar, Goddio’s team identified two major ancient sites. The first corresponds to the ruins discovered by Prince Toussoun in 1934, in addition to strong magnetic anomalies to the west (buried and unconfirmed visually). The second zone lies 6.5km offshore.

**East Canopus**

Some 1.8km from the modern port of Aboukir, Goddio’s team surveyed a range of structures spread across a 600 x 500m area of seabed. In contrast to the stereotypical image of a perfectly preserved underwater time capsule, the underwater remains at East Canopus manifest as an alignment of distorted archaeological material scattered along a 15m-wide and 2.3m deep fault line. These range from 145 fragments of shattered shafts from 40 red granite columns, each 5.5m high and spread across 120m, to limestone masonry blocks with capitals, and lintels intermixed with fragments of Pharaonic, Ptolemaic, and Roman statuary, red porphyry, gold Byzantine jewellery (Fig 2), and lead merchants seals.

At the nucleus of the site is an imposing structure (TW4) with walls 10m-long and 38m wide and a square platform of 10 x 10m flagstones at the main entrance. The pottery within this stone temple *temenos* spans the 4th century BC to 4th century AD. Covering 8000 square metres, this is the 4th century site of the Serapeum of Canopus mentioned by Strabo, which was later converted into the *martirium* of St John and St Cyprian according to the *Historia Ecclesiasticae* of Rufinus of Aquileia (AD 330-410). Goddio reinforced this identify through the discovery of the colossal head of a 2nd-century BC statue of Sarapis (Fig 3). Rather than toppled by the great earthquake and tidal wave of 21 July AD 365, the *martirium* was levelled by human hands: squared off Ptolemaic and Roman statue fragments and the removal of building blocks before the site was submerged reveal tell-tale signs of quarrying.

Around the temple/martirium complex are a series of hydraulic installations, including an impressive 3.4m diameter circular water-lifting well filled with *nagpaa* pots, whose wooden revetment dates to AD 280 ± 40 years. In general, East Canopus is rich in finds from Ptolemaic lead amulets to 6th-7th century Byzantine jewellery (earrings, rings, and crosses), late 5th to early 7th-century lead merchant seals, and Roman, Byzantine, and Islamic coins continuing until AD 729-30. The excavations also exposed four new fragments of the Foss of the Decades, a marble Harpokrates which completes the statue of Isis Lactans in Alexandria’s

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**The exhibition ‘Egypt’s Sunken Treasures’ remains on display at the Kunst- und Ausstellungshalle of the Federal Republic of Germany, Bonn, until 27 January 2008. For more information see: www.kah-bonn.de.**

**Minerva, September/October 2007**
Maritime Museum donated by Prince Toussoun, and a white marble Osiris Canopus statue. 

At a distance of 3.9km east of East Canopus, Goddio's team encountered strong magnetic signatures and a site characterised by a peninsula intercut by long, narrow depressions and stranded mounds across an area of more than 1km. Between the structures are a confusing web of canals, landing stages, piers and harbour basins. This maritime settlement is far different to any form experienced before in the classical Mediterranean, and is hugely complicated to map and interpret. Catfish carnage uncovered throughout the Grand Canal and its branches into the western lake prove that both contained fresh or only slightly salty water. Thus, the site was a unique ecological zone sheltered from the sea and Nile by myriad sand dunes, in character not unlike the bustling scenes of shore life in the Palaeostracum Goddio considers the mapping of this region more important than his work in the eastern port of Alexandria.

Heracleion-Thonis

The identification of Heracleion-Thonis and its temples immediately resulted in an exciting discovery of the ruins of the temple of Amon-Gerib and a stele inside bearing the name Heracleion-Thonis. An inscribed gold plaque in the north-western sector of the site also refers to the creation of a Heracleion on the peninsula. This 3-hectare temple is majestically set alongside the Great Canal, a large sacred waterway that linked the western lake with the central harbour basin and gave passage into the Canopic branch of the Nile.

The major archaeological and epigraphical material associated with the temple complex included aion余额 of Heracles is already world famous through its three colossal statues of Amon-Gerib (Fig 5), a pharaoh, and a queen, and the black granite stele found in situ among limestone blocks of the temple's north wall, stating that it was erected 'at the mouth of the sea of the Greeks, in the city whose name is the Thonis of the Sais' (Fig 6). The temple is littered with statues, amulets, gold, silver and bronze coins, bronze and gold ritual utensils, jewellery, bronze statuettes, and abundant pottery fine ware of the 4th-2nd centuries. The area north of the temple walls, characterised by flagstones and pavements, is rich with statuary, including 16 groups of fragments from a huge red granite bilingual stele covered with hieroglyphs and Greek inscriptions dating to the reign of Ptolemy VIII (170-163 and 145-116 BC). This monster inscription, 6.1m high and 3.1m wide, weighs over 15 tons and is notably the same weight as the three colossal temple statues.

The shoreline outside the temple has yielded fishing hooks, stone anchor stocks, and fine pottery of the late 7th to 2nd century BC, confirming a 'Homerian' origin, all scattered along the Great Mole. This limestone-paved platform served as a landing stage for the sanctuary and is surrounded by harbour basins to the north, west, and south. Three shipwrecks next to the mole never delivered their final cargo. The Grand Canal alongside, 40m wide in places, contained vast riches: well preserved cult objects, including libation lades, vases, basins, and bronze cups (Fig 3), often associated with animal bones, pottery, and ex voto miniature limestone and lead anchor stocks, as well as 200 ancient anchor stocks and six shipwrecks.

If the archaeology of the Grand Canal is dramatic, the Central Harbour Basin is even more of a marine archaeologist's dream, filled with ten shipwrecks dating between 470 BC and 280 BC. Some remain aligned in a row, all clearly smitten by the same environmental catastrophe: whether an earthquake or tidal wave remains unclear. Nearby, timber posts from landing stages reveal unparalleled early harbour works dating to 850–45 BC. The site is located near the Canopic outlet of the Nile, a complex with a strategic position between the eastern harbour basins and the western lake, accommodating merchant vessels sailing up the Nile towards Naukratis and with commodities servicing the Canopic region. This emporium was a principal maritime gateway into Egypt, developed long before the pompe and ceremony of Alexandria. The sheer volume of commerce that the port witnessed is fossilised in over 550 ancient anchors and 16 shipwrecks of the 6th to 2nd centuries BC, which have yet to give up their secrets.

Reading the Sea

This first volume on Goddio's research in Aboukir Bay, edited by Jonathan Cole of the Oxford Centre for Maritime Archaeology, is very much an overview of methodology and results. A vast amount of finds and architecture, carefully introduced here, will be published in forthcoming monographs. This volume has been long awaited in the field of marine archaeology to assess whether the work of the Institut Européen d'Archéologie Sous Marine has the ability to make the leap from sensational media headlines to formal science. It can and has.

The report successfully presents complex results in a comprehensible way, no mean feat given the technological wizardry that has previously dominated discussions of Alexandria beneath the waves. The best compliment one can pay this book is that it reads like a standardised final excavation report (though far better illustrated). This is no simple undertaking: Aboukir Bay is a scientific nightmare. Its ruins may lie in only 10–40m of water, but visibility is limited to less than 20m at East Canopus and less than 30m at Heracleion, making normal reconnoissance unrealistic. Further, very littleology protrudes above the seabed. At Canopus, in places ancient structures and artefacts lie 2m beneath sediments, while at Heracleion Goddio's team had to excavate through 50cm of shell and concrete just to reach the archaeology.

This is why the maps of wrecks and plans of artefact distributions initially look so very complicated (Fig 4): they are because the technology employed is new and unparalleled in marine archaeology. The very fact that Goddio has managed to map the complex interplay of tunnels, structures, and waterways -25,000 square metres at East Canopus and 900,000 square metres at Heracleion - is phenomenal. Accounting for only 0.8% of the total surface of Aboukir Bay, many secrets await discovery beneath these enticing Egyptian shores.

THE SPHINX REVEALED: A FORGOTTEN RECORD OF PIONEERING EXCAVATIONS

Patricia Usick

When Henry Salt (1780-1827) sent off his report on the 1817 excavations at the Giza pyramids, he cannot have foreseen that the work so carefully prepared in Egypt and then painstakingly edited in London - over 70 of his plans and drawings together with a scholarly text - would never be published as he had planned. Instead, the manuscript and drawings remained unstudied until their rediscovery almost 200 years later in the Egyptian archives of the British Museum. The work was to be entitled Sphingographia, or Drawings Descriptive of the Result of the Excavation Made at the Great Sphinx of Gizeh in the Year 1818, together with a memoir on The Excavation of the Sphinx, by Henry Salt Esquire, His Majesty's Consul General in Egypt, to which are Added Drawings of some Antiquities Found in some of the Sepulches near the Pyramids, with Explanations. Parts of the text were to appear three times: in 1818 in the learned periodical the Quarterly Review; in 1834 in J.J. Hall's biography of Salt; and in 1840 and 1842 in R.W. Howard Vyse's Operations Carried on at the Pyramids of Gizeh in 1837 (this time including some of Salt's fine drawings). But all of the important links between Salt's plans and references and his illustrations and text were omitted, and his discoveries became impossible to locate on the ground.

Salt, a trained artist, had accompanied Viscount Valentia on a tour of India, Ceylon, Abyssinia, and Egypt, and his drawings illustrated Valentia's

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Voyages and Travels (1809). Salt returned to Abyssinia on a government mission in 1809-11 and published his own Voyage to Abyssinia in 1814. Arriving in Egypt as Consul General in 1816, he sponsored many excavations and amassed important collections of antiquities, many of which came to the British Museum. In 1825 he published An Essay on Dr Young's and M. Champollion's Phenetic System of Hieroglyphics, with some Additional Discoveries. In Egypt, Salt travelled the Nile and made numerous drawings of ancient monuments and inscriptions which he hoped, but failed, to publish. Research shows that some of his drawings, thought previously to be lost, can now be traced.

Salt's Memoir was the dramatic account of the discoveries made by the Genoese mercantile captain, Giovanni Caviglā (1770-1845) at the Great Pyramid of Giza, including a survey and excavation of the surrounding necropolis and the first clearance of the Sphinx since ancient times. Caviglā had arrived in Egypt in 1816 at the age of 46 and worked at the pyramids of Giza for over two decades. A deeply religious man with an interest in mysticism and the occult, he devoted his working life to a quest to reveal the mysteries of the pyramids, yet produced a surprisingly prosaic account of his excavations, stressing his desire to uncover a hieroglyphic inscription with a Greek translation as a second Rosetta Stone to aid decipherment. Caviglā's literalist interpretation of the Old Testament eventually led to the excommunication of his published opinions (and possibly of the man himself).

Caviglā had been led down on ropes through intense heat and foul air and had unblocked the various stages of the deep vertical shaft or 'well' inside the Great Pyramid. At the very bottom he had burned sulphur in an attempt to clear the air. Later, while exploring and clearing the passage which descended from the pyramid's entrance, he smelled the sulphur, realized that he must be close to the bottom of the shaft, and broke through into the junction of the shaft and passage. On clearing the rest of the descending passage he discovered that it led to a previously unknown subterranean chamber below the centre point of the pyramid. Caviglā also climbed through the space at the top of the Great Gallery to explore the chamber, discovered in 1765 by Nathaniel Davison, which lay directly over the King's Chamber. Turning to the Sphinx, Caviglā uncovered a vast (now demolished) Roman staircase and esplanade, as well as fragments of the Sphinx's missing beard and the divine cobra from its brow (Fig 5). Caviglā and his workmen deftly the precariously cascading sands to dig out a great trench before the Sphinx, bringing to light an open-air chapel in the vicinity which were hieroglyphic stelae, Greek inscriptions, and sphinx and lion sculptures (Fig 7). Salt undertook the expense with Samuel Briggs, a merchant and banker, and Salt himself enthusiastically investigated the results, recording each find and speculating on the discoveries. His descriptions represent truly pioneering archaeology in their scrupulous attention to detail and to context at a time when most antiquities were leaving the ancient sites without any record of provenance. With hieroglyphs still undisclosed, Salt's accurate copies of the inscriptions, both hieroglyphic and Greek, are particularly valuable (Fig 6). Salt's Memoir reveals the provenance of two statues which were discovered in the Giza necropolis, and he made a detailed plan and description of the tomb in which one of the statues, and pieces of another, were found.
Salt’s landscape views of the desolate Giza tombs are very evocative (Figs 1, 4, 10) and his epigraphy is admirable (Fig 6). The lively scenes which he copied from the Old Kingdom tombs capture the character of those fine reliefs (Fig 3). He drew the excavations in progress and the finds in situ (Figs 8, 9) and attempted a reconstruction of the Sphinx. Salt’s ground plan (Fig 2) assigned numbers to the ‘Mausoleums’ he investigated and these tombs, and elements of the wall scenes decorating them can now be identified by their modern designations. According to Halls, it was the cost (presumably of reproducing the drawings) which prohibited publication. Salt was not a wealthy man and relied on the sale of his collections of antiquities to provide him with a pension.

The Memoir and drawings arrived in London in 1821 with a consignment of antiquities for the British Museum from Salt’s first collection. Caviglia presented the Giza finds to the British Museum. Luminaries of the time, including the topographer Colonel William Martin Leake, Charles Yorke, former First Lord of the Admiralty, and the traveller William John Bankes, read, edited, and commented on the text to prepare it for publication. An extract from a history of the pyramids by al’Idrissi, a 12th-century Arab traveller and geographer, written out in the hand of the explorer J.-L. Burckhardt (1784-1817), accompanied the text. Although Salt obtained a leave of absence to supervise the publication of his Memoir, pressure of work prevented his return to England and he was to die in office in Egypt in 1827. The manuscript and drawings came into the hands of Salt’s patron Viscount Valentia, now Lord Mountnorris, and on his death were sold at auction with the contents of his home, Arley Castle, Staffordshire, in December 1852, when they appear to have been purchased by the British Museum. Salt’s name lives on through his collections and many of Caviglia’s finds still bear the words ‘Presented by Capt. Caviglia’. Samuel Briggs, the joint sponsor of the excavations, was less fortunate. His name was to be perpetuated through Caviglia naming one of the smaller Queen’s pyramids as ‘Mr Briggs’ pyramid’, but this has proved to be a more transitory fame.

Fig 8 (right). Caviglia’s excavations at the Sphinx in April 1817. Signed ‘H. Salt’. It was only in 1926 that the Sphinx was completely cleared of sand.

Fig 9 (below left). The Sphinx. This sketch shows the earlier situation of the Sphinx before Caviglia’s excavations, and is dated 11 September 1816.

Fig 10 (below right). The mastaba tomb of Shepseskaf‘auskh, c. 2504-2500 BC. Giza tomb no. G. 6040.

The Sphinx Revealed: A Forgotten Record of Pioneering Excavations by Patricia Usick and Deborah Manley, British Museum Research Publication Number 164 (British Museum, 2007). Available at £20 from the British Museum, tel: 0207 323 8587 or online: www.britishmuseum.co.uk.

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Writing in the late 18th-century, the Abbé of Saint-Non referred to the collections in the National Archaeological Museum of Naples as 'a just homage given by a nation during a century aware of these fine arts, whose brilliance has given a new lustre to Italy and to modern Europe... As extraordinary as this may seem, the Abbé's assessment is true reflection of the most important museum in the world for classical archaeology. It is also true to say that the genesis of the Neapolitan museum and its collections were shaped by an unprecedented combination of remarkable factors in the 18th century.

This began with the accession of Charles III Bourbon to the throne in Naples in 1734. Crucially, Charles and his wife Maria Amalia of Saxony were from families with a long tradition of antiquities collecting. As a descendant of the Farnese family, the king was destined to inherit the foremost collection of antiquities in Rome; his wife inherited the fine collection of August of Saxony, which had been enriched with many statues discovered in Resina (Herculaneum) in 1711 by Prince d'Elbeuf. This provided the successful impetus for the monarchy to make Naples a flourishing centre of artistic culture.

Meanwhile, the extraordinary discoveries of d'Elbeuf at Resina initiated renewed excavations in 1738, and a flood of new discoveries, most notably the prosenium arch of the theatre of Herculaneum with its astonishing bronze and marble statues and inscriptions. The prodigious finds at Herculaneum directly inspired the large-scale programmes of excavation of the ancient cities in the area which were famously buried by the catastrophic eruption of Vesuvius in August AD 79.

Work commenced at Pompeii in 1748 and a year later at Gagnano to unearth the villas at Stabiae. The unique preservation of these sites produced the richest quantity of archaeological material from the classical world, and the royal villa in Portici, adapted as the 'Museum Herculaneum' in 1750, proved insufficient to house the burgeoning corpus of ancient art and artefacts from Herculaneum alone. With this problem in mind, Charles had also commissioned the Royal Villa of Capodimonte in Naples, which he conceived as the 'Museo Farnesiano'. But with his departure to become King of Spain in 1759 this project did not reach fruition.

The continual flood of discoveries at Pompeii, Herculaneum, and elsewhere forced the Neapolitan authorities to merge this material with the other royal collections in the old Palazzo degli Studi (University) in Naples (Fig 1) and a programme of refurbishment was initially undertaken by the architect Ferdinando Fuga, but more ambitiously implemented by Pompeo Schiattarelli in 1780, 'so that altogether it may stand to the greater glory of the Capital and the delight of the Public'. Today, more than two centuries after its completion, the sheer quality and quantity of its collections ensure that its still holds true. Collectively this material encompasses the bountiful material culture of the region from prehistory, the Greek colonisation of the 8th century BC, the Etruscan and Samnite era, the phenomenal collection of material from the destroyed Roman cities around Mount Vesuvius, and the Farnese Collection of sculpture from the Baths of Caracalla and elsewhere in the Roman capital.

Given the understandable prominence of material from Pompeii and Herculaneum, it is easy to overlook the fact that Campania was a hotbed of Greek and pre-RomanItalic culture, and this is reflected by many fine examples of painted ceramics, jewellery, sculpture, terracotta ornaments, and other objects from the region. Many of these are the handiwork of the Etruscans, who stamped their authority over Campania from around 800 BC onwards in the flourishing urban centres of Capua, Caetaria, Nola, and Nuceria. These emerged largely as a consequence of the fertility of the Campanian plain, and their excellent situation on the main communication route between the northern territories of the Latians and Etruscans, the south, and the interior. Etruscan material culture, especially pottery, was heavily influenced by Greek traditions from Neapolis, particularly the production of black-figure vases from the mid-6th century BC in Capua and the importation of painted vases in the Classical period at Nuceria.

By the end of the 5th century BC, the Etruscans were supplanted in Campania by the Samnites, who, like their predecessors, were also heavily influenced by the established Greek culture in the region, and their material culture was accordingly Hellenised in content and style. This is expressed in red-figure pottery and local tomb paintings (Figs 2-3), some of which depict warriors clad in local costume combined with Greek expression, such as hero worship and the Orphic-Pythagorean.

The dominance of Hellenistic culture in the region had its roots in the colonisation of southern Italy by Attic Greeks in the 8th century BC, and the many great cities - Paestum, Ruvo, Neapolis, and elsewhere in the region...
with their majestic temples, agoras, and theatres - ensured that it became known in ancient times as Magna Graecia ('Greater Greece'). Many splendid examples of pottery from these great artistic centres of production grace the collections of the Naples Museum, such as two splendid 5th-century BC Attic crateras by the Dinos and Niobides painters respectively (Figs 3, 4). The first shows mythological scenes from the cult of Dionysos, including the god with Ariadne and Hercules; the second example depicts Achilles slaying Penthesilea in a scene from the Iliad.

Most people visit the Naples Museum to view the bountiful collections amassed from the cities around the Bay of Naples - Herculaneum, Pompeii, Stabiae, Oplontis, and elsewhere - destroyed, yet uniquely preserved, by Mount Vesuvius in AD 79. Collectively, this material represents the greatest ensemble of classical material on public display in the world. The mosaic of Alexander exemplifies this majesty (Fig 6). Discovered in the House of the Faun, Pompeii in 1831 and dating to c. 100 BC, this large mosaic panel measuring 5.82 x 3.13m, depicting one of the great battles between Alexander the Great and Darius III (probably the Battle of Isos in 333 BC), is probably the most famous Roman mosaic ever discovered. This is a technical masterpiece most likely modelled on a famous 2nd-century BC painting by the Hellenistic master painter Philoxenes, and for this reason it was executed in opus vermiculatum (‘worm-like work’) comprising as many as one million cubes (testae).

From an artistic perspective the virtuoso detail, foreshortening, sense of liveliness, and movement, is unparalleled in ancient mosaic art. When Johann Wolfgang von Goethe saw this floor in 1832 he commented that ‘Neither the present nor the future will be able to comment fittingly on such a remarkable work of art, and we shall eternally be obliged, after all our studies and explanations, to contemplate it in wonder pure and simple’. Technically inferior, but no less charming, is the late-1st century BC floor mosaic from House VI in Pompeii (Fig 5). In this portrait a young noble woman - who no doubt once lived here - has her hair tied up in a bun, wearing a pearl necklace, and pearl earrings mounted in gold. The cubes are larger than the Alexander floor and are rendered in opus tessellatum (‘tessellated work’). These are two representative examples of many exquisite mosaics in the Naples Museum collection.

The unique preservation of the cities around Vesuvius ensured that an unprecedented number of wall paintings survived. These were masterfully categorised by August Maur in 1882 into four distinct styles and this scheme is still widely accepted. One of the most alluring examples from the Villa of Varanus or Ariadne in Castellammare di Stabia portrays a graceful female figure picking flowers in a garden (Fig 7), possibly human or divine - often taken to be the nymph Flora or Proserpine - beautifully rendered in the Third Style (20 BC - AD 40-60).

Many of the wall paintings and objects discovered in the 18th century were deemed erotic and fell foul of Bourbon censorship, and this material was either destroyed, securely contained on site, or locked away in museum cupboards or in separate rooms requiring a special permit to view. During the Restoration of 1819
the heir to the Bourbon throne, Francesco I (r. 1825-1830), visited the erotic collections of the Naples Museum and commented that ‘it would be as well to confine all the obscene objects, of whatever material, in one room, the only people allowed to visit this room being of mature age and proven morality’. As a consequence, the Royal Bourbon Museum officially inaugurated the ‘Cabinet of obscene objects’ to contain the ‘disreputable monuments of pagan licentiousness’. This of course stimulated public interest in the material, and after a chequered history of access and restriction, Il Gabinetto Segreto (The Secret Cabinet) was opened to the general public in the spring of 2000. The material thatcourts the most controversy are the risqué paintings from Roman mythology and the secular sphere (Figs 8-10). These may best be regarded as ranging from the vulgar, such as a shop sign depicting a caricature wall painting of an ithyphallic Hermes, to the erotic, as represented by the love-making scene from the House of Lucius Caecilius Iucundus, and the sensual, as in the depiction of the Venus Anadyomene (Venus Rising from the Sea). Other artistic media of an erotic nature include a range of sculpture, phalluses (in pottery and bronze), painted pottery, cameos, and other items.

Private luxury art abounds in every media in the Naples Museum, including arguably the finest example of ancient cameo-glass vases from the ancient world - the so-called ‘Blue Vase’ from Pompeii (Fig 11). This precious object was discovered in 1834 in a tomb near the Villa of the Mosaic Columns and is decorated with vine scrolls and cupids harvesting grapes - an overall scheme relating to the cult of Dionysos. Other notable examples of portable art from the seemingly infinite treasures of Pompeii include a silver hand mirror depicting a bust of Apollo from the House of the Menander (Fig 12) and a pair of gold snake-shaped bracelets (Fig 13) - a mere three exami-
The greatest visual impact in the Naples Museum is provided by the marble sculptures of the Farnese Collection in the naturally well-lit galleries on the ground floor and the extraordinary bronze sculptures beautifully presented in a subtly-lit room on the first floor from the Villa of the Pisons in Herculaneum. The Farnese Collection was first assembled by Alessandro Farnese, who became Pope Paul in 1534, and it grew rapidly to become the most famous antiquities collection in Renaissance Rome. Originally concentrated in the Palazzo Farnese in the Vatican, the collection was moved to Naples when Charles III came to the throne in 1734. Most of the sculptures were found in the Baths of Caracalla and elsewhere in the area in the mid-16th century and include such notable works as the so-called ‘Lar’, a colossal early-3rd-century AD statue of a curly-haired boy in a toga (Fig 17); an exquisite 2nd-century BC Aphrodite Callipygos (Fig 16); a 3rd-century statue of a Fallen Giant; a 2nd-century bust of Homer; and many other fine statues and busts.

The museum’s splendid large bronze sculptures, numbering 51, were largely discovered with 21 marble sculptures in the first phase of excavations at Herculaneum in 1750-1761 in a villa (the ‘Villa of the Pappi’) assumed to have once belonged to Lucius Calpurnius Piso Cesonius, the father-in-law of Julius Caesar. Many of the bronzes have a distinctively classicising style characteristic of the Augustan era, including a statue of Hermes resting on a rock (Fig 14), two statues of boy gymnasts running, and five peplaphori, female water-carriers (Fig 15). As well as distinguishing it in an aesthetic sense, this material also provides an extraordinary insight into the taste and world view of the upper strata of Roman society.

Perhaps the most remarkable factor about the Naples Museum are the factors which have enriched its collections. Not least, the uniquely preserved cities in the Bay of Naples, which bequeathed the richest and most diverse range of artistic objects from the ancient world. Bourbon power and patronage also played a crucial role in prising the extraordinary Farnese Collection from the Vatican, and promoting Naples as one of the greatest artistic centres in Europe. Bourbon conservatism may have denied access to the more risqué material from the prudish eyes of an 18th century public, but their passion for our shared classical heritage has ensured the survival of the most extraordinary collections of classical artefacts for the benefit of millions of people in the past, present, and future.
ROMAN HALMYRIS: SAILORS & MARTYRS ALONG THE ROMANIAN FRONTIER

Mihail Zahariade

lying at the mouth of the Danube on the Black Sea in the province of Moesia Inferior, modern Romania, Halmyris was one of the most strategic outposts of the Roman Empire (Fig 1). With its gates, streets, monumental public buildings, and private houses, this beautifully located Roman fort and town appears to all who visit it as still alive. The 6m-high stone walls, proof of the strength of the Roman army in a remote but vital artery of defence, conceal long forgotten secrets.

Ancient Halmyris is located near Murighiol on a rocky promontory raised above surrounding corn fields (Fig 2). Although the site was located on the Danube in Roman times, the modern course of the river is now a kilometre north of the site. Halmyris was first recorded in the modern era by travellers, who described the site and scholars who conducted survey work, while aerial reconnaissance and photography in 1981 shed light on its topography. The first systematic excavations were initiated in the same year by the Institute of Military Studies, and in 1999 a further programme of excavations was funded by the generous support of the Earthwatch Institute in Boston, Massachusetts.

Collectively, this research has provided a reasonably clear understanding of how the site developed from the Iron Age onwards. Settlement began with a 6th-1st century BC settlement of the native Getae tribe. In the 1st centuries BC and AD, Halmyris was drawn into the expanding sphere of the Roman Empire on the Lower Danube. This is confirmed by occupation levels containing a large hoard of Roman silver coins (of 100 to 44 BC) and 1st century AD Roman pottery. This was interspersed with local Getae coarse ware pottery, and Hellenistic coins and pottery from earlier occupation phases.

The entire region was absorbed into the Empire in the reign of Vespasian (AD 69-79) at which time Halmyris was converted into a naval base for the Roman imperial fleet in the region, the Classis Flavia Moesica, established adjacent to the pre-existing turf and timber fort.

The wars against the Dacian kingdom in modern Romania from AD 101 to 106 necessitated the reinforcement of the Roman defensive infrastructure along the Danube and the Black Sea. As part of this scheme, excavations indicate that a stone fort was constructed at Halmyris between AD 106 and 117 in the characteristic orthogonal plan, replacing its turf-and-timber predecessor. An altar dedicated to Hercules by the soldiers of the I Italica and XI Claudia legions on the completion of this project demonstrates the strategic importance given by the Roman authorities to Halmyris and its position. A larger port for an expanded naval squadron was also built at the same time.

As a result of these activities, a large civil settlement, inhabited mainly by legionary and navy veterans, rapidly expanded to the west of the fort. This is attested by the discovery of eight official altars with commemorative inscriptions, dedicated by ‘the residing Roman citizens’ (cives Romani consstantes), dating from AD 136 to 200.

Fig 1 (below), The location of Halmyris at the mouth of the River Danube and close to the Black Sea in the Roman province of Scythia Minor, modern Dobrudja in Romania.

Fig 2, Halmyris’ unusual triangular plan as it appeared from the air before the site was systematically excavated in 1981.

Fig 3 (below), Insula I, showing some of the principal monuments uncovered, including the northern and western gate area, bath-house, and Christian basilica.
These also record ‘the village of the mariners’ (a vicus classicornum). This would have attracted craftsmen and traders from other parts of the Empire, who would have integrated with the military population.

As a result of incursions by the Goths, the fort at Halmyris was enlarged with a more sophisticated defensive infrastructure in the late 3rd century AD. This was designed with an unusual triangular plan (Fig 2), probably for tactical reasons, with a 3.2m-thick defence wall, 13 U-shaped towers and bastions, with larger barracks, and three monumental gates, of which the north-eastern gate was oriented towards the harbour (Fig 3). This impressive work was finished by AD 301-306, as revealed by a Tetrarchic building inscription. The fort was also equipped with a luxurious bath-house at this time (Fig 7), which remains well preserved behind the northern gate.

The praetorium (the house of the commander), located at the intersection of the main cardo and decumanus streets, was rebuilt or repaired at this time.

After the troubles of the 3rd century Halmyris become a prosperous town in the 4th century, notwithstanding the severe destruction inflicted by the Huns in AD 384/385. As the civilian population expanded, Halmyras inevitably assumed a less military character, evolving into a fortified town by the 5th or 6th century AD, a phenomenon which became widespread across the Roman Empire in this period.

Halmyras flourished again in the reigns of Justin I (AD 518-527) and Justinian I (AD 527-565), as attested by Procopius of Caesarea’s Buildings. The site became one of the 15 important towns in the province of Scythia, as recorded in Hierocles’ list, and was declared a bishopric in the lists of the Notitia Episcopatum. This was confirmed in 2000-2001 through the excavation of a 35 x 17m 4th-century Christian basilica (Figs 4, 5) in the area between the northern and western gates. An astonishing and unique discovery under the aper comprised a crypt with a beautiful late 3rd century AD painted fresco (Fig 6). Archaeological and artistic evidence indicates that the basilica and its crypt were built in the reign of Constantine the Great (AD 307-337), and these seem to have been dedicated to the memory of two Christian martyrs, Epictetus and Astion, who were executed in the town during the reign of Diocletian on 8 July, AD 290.

The intriguing narrative of Epictetus and Astion is recorded in the Middle Ages in the large collection of writings known as Acta Sanctorum (The Acts of the Saints). Published together for the first time in 1643, and chronicling the lives of Roman and medieval Christian martyrs and saints, the story of Epictetus and Astion is based on an official report written during their trial of AD 290. This was copied down by a clergyman in the late 4th century and is preserved in a 9th-century manuscript, now in the Utrecht Library, Holland. The account contains remarkable eyewitness information about the structures excavated at Halmyris, along with scenes from everyday life, including houses, a forum, the praetorium, and the port and its ships.

The account relates that the priest Epictetus and his pupil, Astion, both originating from Bithynia on the south-west coast of the Black Sea, emigrated to Halmyris, where they would have lived for 17 years. Passionate Christians, they apparently performed astounding miracles, curing people and spreading their faith. Their activities, construed as treacherous to the pagan Roman state, did not escape the attention of the emperor Diocletian. Duke of Scythia Minor, who on an official visit to Halmyris decreed that they should be put on trial. The pair were subsequently decapitated.

Fig 5 (below). The martyrs’ crypt viewed from the west, after its excavation between 2001 and 2005. This contained the remains of Epictetus and Astion, and was incorporated with the church in the reign of Constantine the Great, who decreed that the bones of all martyrs executed during the great persecution under Diocletian (AD 284-305) should be interred in martyria basilicas across the Empire.

Fig 6 (below right). Fresco in the east chamber of the martyrs’ crypt comprising a polychrome laurel wreath enclosing an inscription, which preserves the name ‘Aston’, one of the martyrs buried here in AD 290.
When the church's crypt was first discovered, any connection between the subterranean chamber and the story of the martyrs was unexpected. As the excavation progressed, the crypt proved accessible by eight stone steps, which led to two narrow, rectangular stone chambers. The first, the so-called dromos, is 2 m long, 1 m wide, and paved with bricks. The walls are decorated with polychrome frescoes with vegetal motifs, which may represent Paradise. More remarkable is the chamber to the east. This has roughly the same dimensions, but has a plinth on each side. Here, extraordinarily, were two caskets bearing the bones of Epictetus and Astion.

The eastern wall of this chamber is also remarkable for its frescoes (Fig 6), which are reasonably well preserved, although they have faded since Late Antiquity. These are divided into two registers. The lower comprises a simple rectangle, outlined with a thick red stripe, which encloses the chi-rho monogram (symbolising the first two letters of the name of Christ). The upper register depicts two candleabra placed on each side of eight black concentric circles. Fascinatingly, a wreath of red, yellow, and blue flowers surrounds a black Greek inscription, which refers to the two martyrs buried there, and includes the name 'Aston'. Unfortunately, the name 'Epictetus' is no longer preserved. Interestingly, the Greek verb hybrize, meaning torture,

injure, or abuse does survive, and plausibly relates to the ordeal suffered by the martyrs.

The most crucial evidence are the bones scattered on the floor in both rooms of the crypt. Originally these would have been placed in two coffins, but evidence suggests that the tomb was probably vandalised in the 6th century AD by non-Christians when robbers broke through the crypt's roof. Anthropological analysis of the bones revealed that they belonged to two individuals, one aged between 61 and 67 years old, the other between 35 and 40 years old. This fits with the written account of the martyrdom at Halmyris of Epictetus aged 64 and Astion at 35. It is no coincidence that some of the bones, including clavicles and tibia, showed evidence of violence, with the second vertebra (located just under the skull) of the younger individual clearly having been cut by a sharp and heavy instrument. This physical evidence is consistent with the literary account of the martyrdom of Epictetus and Astion.

Although many investigated structures attest to the commercial and military importance of the site, such as the gates, bath-house, and monumental buildings, the discovery of Epictetus and Astion's remains in the basilica, continues to fire the imagination. The human bones, spread carelessly throughout the two chambers of the crypt, serve as a haunting reminders of Late Roman idealism and tragedy.

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'GREEK FIRE': A MEDIEVAL WEAPON OF TERROR

John Haldon, Andrew Lacey, and Colin Hewes

Greek fire is a term typically associated with medieval warfare, particularly the Crusades and the Byzantine Empire, that arouses intense curiosity but which is generally both misunderstood and misused. What the Byzantines actually called 'liquid fire' was a sort of napalm, and although its exact composition and method of use are still the subject of heated debate, recent research and practical experiments have thrown a good deal of light on the subject, to the extent that it is now generally agreed roughly what it was and how it worked. Historically, it probably did not radically affect the general course of Byzantine history and the fate of the empire, but because the 'secret' was lost it retains an enduring fascination.

'Greek fire' is actually employed almost entirely by Western commentators and is used in a way which frequently fails to distinguish between the Byzantine weapon, which the sources make clear was a type of flame thrower, and the regular and long-established use of incendiary missiles hurled by hand, or by catapult or other mechanical means. Although the western eyewitness Liutprand of Cremona uses the term ignis graecus for the Byzantine weapon in the Rus' attack on Constantinople in 941, as does the Norman chronicler Geoffrey Malaterra in his account of a battle in the year 1081, it is generally used indiscriminately by Western writers for both types of weapon, and more often than not for projectiles filled with, or carrying, combustibles such as pitch or oil. Whether the Arabs possessed such a weapon by the 830s is also a point for further research, as is the suggestion that they may in turn have been responsible for its transmission to China thereafter.

'Liquid fire' was first clearly attested in Byzantine sources in accounts of naval battles associated with the Arab blockade of Constantinople in AD 674-678; it last appears explicitly in the 1180s, and while it may still have been employed in the 1190s, by 1204 it appears no longer to have been available to imperial warships. So what was this mysterious substance that has so intrigued scholars for centuries?

It is widely agreed that liquid fire was, in fact, a petroleum-based weapon (a 10th-century Byzantine treatise gives a list of major sources for the supply of crude oil in the northern Pontic and Caucasian regions, for example). It had no connection whatsoever with explosive materials or mixtures, whether based on sulphur, quicklime, or saltpetre, as has been proposed by many earlier writers on the subject; and there is not a shred of evidence to suggest that any form of gunpowder-based or explosive-based weapon was known or available to the western world before the arrival of gunpowder proper in the 14th century. Nor was it simply the hurling of petroleum-based combustibles by catapult, as has more recently been suggested. So what are the sources?

That petroleum was the chief substance projected is quite clear from the 10th-century imperial treatise, De administrando imperio (On Governing the Empire), which reads: 'Outside the city of Tamara, the Chersonese is a well yielding naphtha. In Zichia [eastern shore of the Black Sea], near the place called Pagi, which is in the region of Paphlagonia and inhabited by Zichians, are nine wells yielding naphtha, but the oils of the nine wells are not of the same colour, some of them being red, some yellow, some blackish'. The treatise goes on to describe the presence of further naphtha springs and wells in the villages of Chambach, Saki, and Episkopion in the province of Derzene, and Srechibarax in the province of Tziliapet - all covering the regions from the eastern Crimea, north-western, eastern, and south-eastern Caucasus, western Transcaucasia, western Turkmения, and the Caspian coastal zone of northern Iran. These places lay one day's journey from the sea without changing horse.

The Byzantines, or their agents, must have been able to collect substantial volumes of oil in a relatively non-viscous and non-tarry condition, presumably in large storage amphorae and to store it in depots close to source to which naval commanders or other authorised personnel had access. In 812, the Bulgars captured 36 bronze cisterns and the liquid fire projected through them at Semembar in Thrace, so the key ingredients could clearly be stored for some time and remain functional. Byzantine diplomatic relations with the Khazars during the 8th-10th centuries played a central role in supply and demand and made clear both from the De administrando imperio and from the history of Byzantine-Khazar relations; for the same reason, relations with the Rus' (Kievan Vikings) during the

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11th century, and local rulers and client princes in the 11th and 12th centuries, were of great importance to the empire. The loss of influence or control over Tmutarakan in the 1190s, the decline of imperial naval power at the end of the 12th century, the intervention of the Cumans in the region at this time, the rivalry of Genoa, Venice, and local rulers, and the arrival of the Mongols in the 1220s were probably the major factors in barring Byzantine access to sufficient quantities of oil to permit continued use of the weapon thereafter. The liquid fire projector (as opposed to the age-old combustible projectile), disappears from the sources at precisely this time.

The various sources complement one another in describing the fire or flame itself as 'liquid' or 'sea' fire, or as 'prepared' or 'sticky' fire; in popular language it was referred to as 'brilliant/radiant'. It was projected or thrown from 'siphons' mounted on warships, either in the bows alone, from a platform decked over and protected by planking, or in addition on either side amidships. Its operation was accompanied by a loud roaring and thick smoke, and would not have been easily used in anything other than relatively calm conditions. The fire could only be employed at close range by a single siphonator (operator) for each device.

From this evidence, several elements or processes necessary for the operation of the device can be distinguished: the siphon or pump (although the word siphon seems often to refer to the whole device); a tube, clad in or made of bronze, which could be directed left and right as well as up and down, so must have been mounted on some type of swivel arrangement (and is hence referred to also as a 'swivel' or 'turner'); and a hearth or brazier on which the oil was heated. Other elements include tin (possibly for soldering or brazing parts of the device) and flax (for the hearth and also possibly for the ignition-torch at the nozzle).

For a long time historians have been looking - fruitlessly, as it turns out - for a 'secret' special ingredient, or a particular concoction. In fact, the real question should have been how did the device actually work? The term siphon had a variety of meanings, for example a hose or water-lead; a tube or siphon (used to draw wine from a cask); a small water reservoir; and a small earthenware pot. It was also used for a pump and could refer to a tube through which liquids could be projected under pressure. In this context of liquid fire, it appears to have the specific meaning of a hose or tube through which the liquid fire was projected. Sometimes the terms strepton (meaning something like 'swivel') and siphon are used for the whole apparatus, making it difficult to establish what each specific term really meant. But so far these accounts suggest that oil was pumped from a reservoir, which was heated over a hearth or grate, and projected under pressure through a swivel nozzle or tube. A 9th-century Latin account makes this process fairly clear: 'For when the Saracens go to war in a naval battle, they [the Byzantines] make a furnace in the bows of their ship, on which they rest a vessel of bronze filled with these oils, and placed fire under it, and one of the crew, by means of a tube made of bronze such as that called by country folk a squirt, with which boys play, sprays at the enemy'.

According to an inventory of equipment for an imperial war fleet dated to the year 949, each warship was equipped with either two or three siphones, depending on their class. In a fragmentary letter, we are informed that the imperial warships in action against the Rus fleet in 941 repeats this - 15 old warships were brought out to combat the attackers, each equipped with liquid fire projectors at bows, stern, and sides. The much later Russian Primary Chronicle, drawing on earlier tradition, notes that the fire was projected or dropped on the Russian boats 'from pipes'. In 10th-century Byzantine treatises on naval warfare, garnished in places though they are, it is clearly stated that in the standard dromon or warship the liquid fire siphon had a gangway and false deck with a plank breastwork built above it to protect the soldiers posted there and to repel enemy boarders.

There is some pictorial evidence from a 12th-century manuscript completed in Sicily, which supports the idea that the fire was projected from a tube, and not as a missile (Fig 3). There is also some evidence that a small, hand-held version of this device existed, although this remains even more shrouded in mystery. In an early 10th-century military handbook, the emperor Constantine VI refers to little siphones as something 'recently devised', and a 10th-century text on siege weaponry notes that if infantry soldiers armed with hand-held strepton shoot fire at the enemy from siege-ladders, they will drive their foe from their defensive positions. These texts confirm, first, that siphon and strepton were used interchangeably in certain contexts, and, secondly, since there is an illustration in the siege weaponry treatise showing a soldier holding a tube or siphon from which flames are ejected, it seems likely that these siphones were indeed tubes. Although Greek sources frequently use different and sometimes contradictory terms for the weapon in action, a jet of flames shot from a tube that could be directed up or down as well as sideways, seems to be the major characteristic of the weapon.

Given the use of the regular medieval Greek word for a pump or part of a pump in connection with the liquid fire projector, and the fact that it is generally agreed that the Byzantines were perfectly familiar with a variety of force-pumps, usually in relation to water, there seems no reason to doubt that this was the basis for the liquid fire projector.

Many uncertainties still surround these medieval naval flamethrowers. We do not know whether the Byzantines refined the oil. The evidence for heating the oil is ambiguous and indirect in the sources, and otherwise comes from western texts whose sources of information are unknown.

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**Fig 3.** A Byzantine dromon engulfs an enemy ship with 'Greek fire' discharged through a siphon operated from the prow. In John Skylitzes' Matritensis Gracaeus, a 12th-century manuscript, Biblioteca Nacional, Madrid.
and may be inaccurate or contaminated. In our modern practical experiment, heating the oil certainly produced a more effective weapon. Using a simple force pump, it was also demonstrated beyond any doubt that unrefined crude oil mixed with wood resin and heated over a brazier could be projected in a fierce flame (reaching over 1000 degrees) well over 10m to incinerate its target without danger to the crew of the machine or the ship on which it was mounted.

Experimental Archaeology - Replicating a Byzantine Warship's Siphon

To examine the construction methods and effectiveness of a Byzantine warship's siphon, a device was created with a two-man double-cylinder force-pump, a reservoir for the oil, and a swivel nozzle which could be operated by a single individual. The whole was constructed of traditional materials; the pump pistons were of wood coated in hemp and flax, the cylinders were of cast bronze, the piping of bronze/copper; and the valves of bronze/iron. Joints were sealed with hemp, pitch, and soldered, where appropriate, with tin. The entire process imitated the description of the construction of a double-cylinder water pump presented in the Pneumatics ascribed to the engineer Hero of Alexandria.

The Byzantine evidence strongly suggests that the nozzle - the swivelling pipe through which the oil was aimed and projected - was constructed from bronze. Roman fire-pump nozzles for attaching to the ends of leather hoses are attested archaeologically, fashioned from both iron and bronze, tapering in form from a rimmed end to which the hose was attached to the narrow outlet, and in some cases over 1m in length.

For the purposes of the reconstruction and experiment we were able to obtain a 25 litre drum of a related Byzantine light crude from a geologically associated Azeri oilfield. The Byzantine sources refer frequently to the oil as 'prepared', which we took to include the addition of resins to make the oil both more adhesive and to burn longer. The addition of organic resins to the oil, such as amber resin (pine resin), naturally further complicated the issue, but in the experiment it became clear that heating the unrefined oil greatly reduced viscosity, permitting at the same time the admixture and blending of the resins, which were stirred in by hand as the oil was warmed on its brazier. We added about 3kg of resin per 20 gallons and found that heating the mixed oil and resin to a temperature of some 60 degrees centigrade maintained a very fluid liquid, and also obviated the more solid elements blocking the pumping mechanism.

Two things became immediately apparent in operating the machine. The first was that in relatively calm conditions, which both Liukprand of Cremona and Anna Komnene make clear were necessary for the effective operation of the device, a fierce jet of flame could be directed for several seconds at a target up to 15m away. In our practical demonstration, several jets lasting a few seconds were sufficient entirely to destroy a vessel at 10-15m distance, and indeed the heat was so intense that even without burning the target vessel it would have been sufficient to destroy the crew or force them to abandon ship. The heat was such that the operator needed substantial modern fire-protection and a shield between himself and the nozzle, and the Byzantine accounts likewise suggest that the device and nozzle were located behind a protective bulwark and below an upper fighting platform. As the oil was expelled from the nozzle it burned with a loud roaring noise and a great deal of thick, black smoke - both features perfectly matching the accounts of some of the sources.

The secret of Greek fire lay, in fact, in a combination of a particular type of crude oil that just happened to be available to the Byzantines. Had the geology of the oil-bearing regions near the empire been different, then the oil would not have responded in the way it did. Greek fire is, in the final analysis, the result of one of those remarkable historical coincidences, in which the right person (or people) were on hand at the right time and with the right materials naturally available.

'Liquid fire' would be a relatively short-lived experiment in incendiary weaponry. Its use required adequate supplies of crude oil, and this condition could no longer be secured after the later 12th century, as the imperial fleet declined in numbers and efficacy and as the areas from which the oil had been collected became inaccessible to imperial agents. After Anna Komnene's account of its use and a small number of 12th century references, the liquid fire projector itself appears no longer to have been in use by the time of the Fourth Crusade, although references to pots and containers containing incendiaries and combustibles projected from catapults continue. Regardless, the secret was indeed the privilege of a particular family of artisans and engineers at Constantinople or not, a story current in Byzantine times, and whether the Arabs really possessed and employed a similar weapon, it has gone down in history as one of the most intriguing lost technologies of the pre-modern era. We can judge its importance only through the reports of those who employed it most effectively, the Byzantines. Whether we believe that it was as widely responsible for the naval victories ascribed to it or not, it provides a fascinating insight into both military technology and medieval and modern myth-making.
Palestine Exploration Fund

CHARLES WARREN: FROM JERUSALEM TO JACK THE RIPPER

Felicity Cobbing

The Palestine Exploration Fund (PEF) was founded in 1865 by a group of intellectuals, scientists, clergymen, and soldiers, with the aim of studying the ‘Holy Land’ through scientific survey and fieldwork. It was the first society of its kind to be formed for the area and, as such, was responsible for laying the foundations of much of the current scientific and academic research in this small, but culturally highly significant corner of the world. The PEF continues its work today, still operating under its guiding principles as an independent, non-political, and non-religious organisation.

One of the first and most important expeditions undertaken by the society was the exploration of the Temple Mount in Jerusalem between February 1867 and April 1870, led by a young Royal Engineer, Lieutenant Charles Warren, who had been seconded from the War Office. Permission from the Turkish Government to carry out the expedition was granted with the assistance of the British Ambassador in Constantinople.

General Sir Charles Warren, GCMB, KCB, FRS, as he became, was a true polymath - a Freemason, distinguished army officer, Commissioner of the Metropolitan Police from 1886 to 1888, and a founder member of the Scouts Movement. In addition, he was a cartographer and surveyor of considerable skill, and a scholar of rare perception and foresight, ahead of his time in many respects.

Then, as now, the site of the Temple Mount, also known as the Haram esh-Sharif, was perhaps the most religiously sensitive in the world, with two of the great monotheist religions, Judaism and Islam, laying claim to it as their own. Traditionally, it was where Solomon's Temple once stood, and later on in history where the huge Jewish Temple Enclosure was built by Herod the Great. The Haram esh-Sharif is the site of the third holiest shrine in Islam, including the Dome of the Rock, from where Mohammed is said to have ascended into heaven. With such rich cultural traditions, heavily laden with biblical and religious significance, the PEF had every reason to expect impressive results from any expedition they sent there and, as such, banked on a successful mission, which would in turn raise funds for its future ventures.

The society had specific questions that they hoped this mission would answer. Many theories put forward by scholars concerning the monuments of Jerusalem were founded mostly on armchair conjecture rather than actual field research, and the expedition was designed to test some of these ideas. It was hoped that Warren would be able to identify the exact site of the Solomonic Temple, date the Dome of the Rock accurately, ascertain whether the tomb of Joseph of Arimathea lay beneath the Church of the Holy Sepulchre, and locate the line of the ancient city walls and gates of the 1st century AD, as described by the Jewish historian Josephus. In addition, the PEF hoped to confirm the true locations of the City of David, the Castle of Antioch, the Palace of Herod, and the Pool of Bethesda. Given that most of these questions are still unanswered today, this was quite an ambitious wish-list, and, indeed, Warren's results raised as many questions as they answered. However, the quality and detail of his work ensured that the expedition was one of the most successful ever undertaken by the PEF.

Warren and his team of Royal Engineers (including Sergeants Brophy and Henry Birtles, and Corporal Henry Phillips, the photographer) landed at Jaffa on 15 February 1867 before transferring to Jerusalem. They were subsequently joined by William Simpson, a journalist and artist working for the Illustrated London News. It was through Simpson's drawings, published alongside Warren's accounts in this popular magazine (Figs 3, 6, 7), that the project gained a high profile back in Victorian England. Later, Simpson used these sketches as the basis for watercolours to illustrate his article. Despite his official permission to undertake the work, Warren encountered local opposition...
to his presence within the Haram enclosure itself. It was therefore decided to conduct the first explorations just outside the enclosure wall by sinking deep shafts into the accumulated rubbish of centuries to examine the platform structure. This was dangerous and at times highly unpleasant work, conducted in darkness, except for magnesium torches (Fig 3), with the sides of the shafts often caving in and raw sewage mixed in with other rubbish. The famous ‘Warren’s Shaft’, now excavated and visited by countless tourists, may have been an ancient shaft, possibly utilising a natural fissure in the rock, which may have formed a part of Jerusalem’s ancient water system. Once past the unreliable shafts, Warren and his men had to contend with decayed architecture and more untreated sewage.

Above ground there were other trials for the PEF team. Local suspicions about their photographer, Henry Phillips, and his bulky, unfamiliar equipment led to accusations of sorcery and black magic, which almost resulted in the confiscation of his camera and serious bodily harm. Obstruction from the local Pasha, despite the written instructions from Constantinople to cooperate with the expedition, proved an ongoing problem. At one point, Bir-tils was arrested by the Pasha’s soldiers and only released with an acknowledgement that he had been illegally detained after Warren had argued at length with the Pasha.

Despite these difficulties, the results of this endeavour were very successful. Important details of the Herodian Temple enclosure were revealed and understood for the first time, particularly in the area around ‘Robinson’s Arch’ (Fig 3). Warren’s hypothetical reconstruction of the arch, as a stepped access to the Temple Mount, with a deep supporting pillar plunging down into the depths of the Tyropoean Valley, was dismissed for many years, until more recent archaeological discoveries confirmed this reconstruction. In addition, the underlying topography of the city was defined, especially in the area of the Tyropoean Valley. Because of the sensitivity of the Haram enclosure itself, Warren was never able to sink shafts inside, but he did become friendly with the custodians of the Haram, who allowed him to study the Dome of the Rock and to investigate the rock-cut cisterns beneath the platform (Fig 6). Warren did not find, as he was hoping, any remains of a Solomonic Temple, which still eludes archaeologists today, and the archaeological artefacts he recovered were on the whole modest in nature, but he was able to seriously advance the study of the Herodian Jewish Temple and Enclosure, and the subsequent history of the Temple Mount.

Warren’s work in Jerusalem was not without controversy. One of the most contentious issues was the appearance of the Haram esh-Sharif in earlier times. There was a public difference of opinion between Warren and the famous architectural historian, James Fergusson, regarding the position of the Solomonic and Herodian temples on the Temple Mount, and the site of the original Holy Sepulchre. In his 1847 publication An Essay on the Ancient Topography of Jerusalem, Fergusson placed the site of the tomb of Joseph of Arimathea, and the original Byzantine church of the Holy Sepulchre, on the spot where the Dome of the Rock now stands rather than where the existing predominantly Crusader Church of the Holy Sepulchre is located. Heavily drawing on the description of the Temple Enclosure in the writings of Josephus, and the measurements of the monument in stades, he reconstructed the original Temple Platform as an almost perfect square, with the Jewish Temple on the south western side which overlooked the Tyropoean Valley (Fig 5). Working exclusively from two-dimensional plans produced by Frederick Catherwood in 1833, Ferguson assumed that the surface of the Temple Platform was flat, and the underlying topography did not undulate to the great extent that it did in ancient times. In contrast, Warren, observing the monument at first hand, was well aware that the Temple Platform was terraced, following the changes in bedrock level underneath, the Dome of the Rock occupies the highest terrace of the platform, where bedrock is at the surface.

In addition, by revealing the depth of the Tyropoean Valley, Warren showed how unlikely it would have been for the Jewish Temple to be positioned overlooking it. The Herodian Temple, it was assumed, was situated on the same spot as the preceding temple. Although he had no evidence of any pre-Herodian structure in this area, it was obvious that it could not have been where Fergusson had placed it on the edge of what would become the Herodian Temple Platform near to the bottom of the Tyropoean Valley (Fig 5) - hardly an appropriate location for the Holy of Holies. It was only with the construction of the huge Temple Platform that this area was elevated above the valley. Warren’s results disproved Fergusson’s theories emphatically, which the latter utterly failed to recognise. This affair caused quite a public
stir, as Fergusson was by far the most famous and senior man at the time, and was in addition a very close personal friend of Charles Grove, one of the founders of the Palestine Exploration Fund.

Elsewhere in Jerusalem, Warren explored the area of the Hospital of the Order of St John, the Muristan, which was subsequently buried beneath the new Lutheran church, and investigated the aqueducts, walls, and gates of Jerusalem. Outside Jerusalem, the PEF team conducted several reconnaissance surveys around the plain of Philistia on the Mediterranean coast, the southern end of the Jordan Valley and part of Transjordan, where they recorded many of the now famous monuments in the region, including the discovery of the famous 'Mesha Stela' found by Pastor Klein at Dibon. During this survey the team conducted a series of excavations on tellis near Jericho, but failed to identify the ancient city. Warren also spent time with the Samaritan community in the north of the country, studying their traditions and society in some depth.

Warren regularly reported back to the society, and these accounts were published in the successive editions of the PEF Quarterly Statement from 1867 to the end of 1870. In addition, a full account was published by the PEF in the Recovery of Jerusalem (London, 1871) and his work forms a substantial part of the Jerusalem Volumes of the Survey of Western Palestine (London, 1883). Warren also published a best-selling volume entitled Underground Jerusalem (London, 1876). The archive of his works, consisting of numerous plans, drawings, notes, of course Simpson's watercolours, and the photographs of Palestine and Transjordan taken by Henry Phillips, are now in the collections of the Palestine Exploration Fund in central London. These are available to members for research and reproduction.

Following his fieldwork in Jerusalem, Warren became a life-long member of the society, serving on its Committee for many years.

In 1886, Warren was appointed Commissioner of the Metropolitan Police, and is perhaps best known to the wider world as the officer in charge of the Jack the Ripper case. As the result of the serial killer's reign of terror in Whitechapel, this scandal attracted the horror and fascination of the press perhaps more so than any other criminal case before or since. As such, Warren was under extreme pressure to find the man responsible for these brutal and sinister crimes. His tactics and policing style were constantly criticised, mostly unfairly, and his failure to actually bring the person responsible to justice did not help. He resigned as Commissioner in November 1888, just before the Ripper murdered Mary Jane Kelly on the 9th of that month. It is interesting that every superintendent assigned to the case subsequently visited him at home to express their regret at his decision.

The Ripper case still continues to attract attention, and is the subject of numerous theories as to the identity of 'Jack'. One of these revolves around Warren's involvement with the PEF. One of the more curious aspects of the Ripper's murders was the strange carvings he made into the flesh of his victims. These have sometimes been interpreted as ancient writings of a foreign, possibly eastern language. As such, it has been hypothesised by some that the killer was in fact one of Warren's colleagues and close associates at the PEF, Lieutenant Claude Regnier Con-

Fig. 6. 'Bahr el Khabur or the Great Sea Rock-cut cistern under the site of Solomon's Temple', one of the huge cisterns Warren was permitted to explore because of his good relations with the guardians of the Haram esh-Sherif. Watercolour by William Simpson, 1870.

Fig. 7. 'Foundation of South East Corner of Haram Wall, Jerusalem'. Charles Warren and a colleague investigate masons' marks inscribed on ashlar blocks in the Haram Wall. Initially, he thought these were the marks of masons working on the Solomonic temple, but they actually relate to the Herodian structure, of which these ashlar blocks form a part. Watercolour by William Simpson, 1870-71.

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SOTHEBY'S RECORD-BREAKING
ALBRIGHT KNOX ANTIQUITIES AUCTION

Many records fell when Sotheby's New York put a world-class group of ancient treasures on the auction block, as reported by Jerome M. Eisenberg, Ph.D.

WORLD RECORDS BROKEN AT
SOTHEBY'S NEW YORK

Certainly no one had expected the remarkable prices that resulted in the 7 June antiquities auction conducted by Sotheby's New York. This included a selection of Greek, Egyptian, and Western Asiatic antiquities deaccessioned by the Albright Knox Art Gallery in Buffalo, New York. In recent years the museum, founded in 1862, has concentrated solely on modern and contemporary art, and the director and trustees therefore decided that they should sell off objects from other periods and cultures, irrespective of their importance, to bolster their meagre endowment in order to procure new works of much more recent art.

Some opponents of this decision filed a lawsuit in order to prevent the sale, arguing that the museum misrepresented its founding mission and violated its bylaws, and also some of the conditions of the bequests of the pieces. A 1962 museum publication had stated the museum's aims to collect 'outstanding works of art from those cultures where human expression and art have appeared to reach its greatest level.' The group's injunction, however, was denied because the museum's board of trustees had an overarching authority to manage the collection.

A number of medieval, Renaissance, and Oriental objects had already been sold earlier in spring for the museum at very high prices, in part due to an unprecedented amount of publicity aided by a large hardbound book previewing some of the major pieces, including the Chigi Vase. Most of the ancient objects had been published extensively and often appeared in major exhibitions. The remarkable prices received for them, however, were totally unanticipated, especially for the most important antiquity - an exquisite and elegant late Hellenistic/early Roman bronze figure of Artemis and the stag (Figs 1-2), c. 1st century BC/1st century AD. This 92.1cm-high sculptural group (plus a 31.8cm original base) was said to have been found in Rome before the early 1930s and was sold to the museum by Ugo Manci in 1935. Well-published and featured in 'The Fire of Hephaistos' exhibition of 1996 (see Minerva, May/June 1996, p. 28), the estimate of $7 million for this magnificent work of art appeared far too conservative and the consensus was that it would bring about $10 to $12 million (the previous record for an antiquity auction was $11,652,175 for the Roman marble 'Jenkins Venus' in London, June 2002).

At the point when it seemed that it would sell for a bit over $12 million, with the competition narrowed down to just two bidders, a third contestant entered the fray, and about ten minutes later Giuseppe Eskenazi, a foremost English dealer in Oriental art, won it for a private European collector for an astounding $28,600,000 (£14,345,749) (all prices in this report include the buyer's premium). This figure narrowly eclipses the world record for any work of sculpture - a marble and stone sculpture 'Bird in Space' by Constantin Brancusi brought $27,456,000 at Christie's New York just the month before. The world record for a sculpture was for Brancusi's 'Danaid' that sold for $18 million in May 2002. At last it appears that great works of ancient art have found their true place at the pinnacle of the world's fine art auctions.

A Roman marble funerary statue of a seated Roman poet (Fig 3), c. 50 BC-AD 14, h. 117cm, said to have been found along the Via Appia, was part of the G. Sangiorgi collection in Rome and appeared later at the Joseph Brummer Galleries, New York, in 1921, and again in 1936, when it was purchased by the Albright. The poet is dressed in the Greek manner and holds a book roll, identifying him as a professional poet. The hollowed-out back may have held his ashes. A Trajanic statue of an older poet in the Terme Museum, Rome, has a similar pose. The estimate of a mere $125,000-$175,000 did not prevent a determined European private collector reaching the staggering sum of $2,056,000 to acquire this majestic sculpture.

A badly scarred Greek marble head of a youthful female (Fig 4), late 5th century BC, h. 24.1cm, purchased from Brummer in 1924, was estimated at only $10,000-$15,000, but reached $132,000, no doubt due to its pedigree. Likewise, a small Roman marble torso, c. 1st century AD, h. 49cm, estimate $40,000-$60,000, sold for $144,000. A Roman marble season's sarcophagus

Figs 1-2. Late Hellenistic/early Roman bronze figure of Artemis and the stag, c. 1st Century BC/1st Century AD; H. 92.1cm.
Fig 3 (above). Roman marble funerary statue of a seated Roman poet, c. 50 BC–AD 140. H. 1.71cm.

(Fig 8), c. AD 280-290 (h. 62cm, l. 210cm, d. 71cm), was sculpted with the traditional erotes as the Four Seasons, but also with a charming depiction of Tellus, the earth goddess, accompanied by the Four Seasons appearing below the central medallion with a female portrait bust recut much later. Originally from the collection of the Marchese Ugo della Scala in Signa, Italy, it was first published by Antonio Gori in 1743. Acquired from Brummer in 1938, the estimate was only $70,000-$100,000 due to the recutting, but despite this, it took a bid of $252,000 to win it.

Two Attic vases were also part of the deaccessioned group. A large Attic black-figure deianeira lekythos by the Gorgon Painter depicting a satyr on a donkey galloping after a maenad (Fig 5), c. 568-550 BC, h. 31.7cm, was acquired from the Jacob Hirsh Galleries, New York, in 1933. Estimated at just $20,000-$30,000, it fetched an impres-

Fig 4 (above). Greek marble head of a youthful female, late 5th Century BC. H. 24.1cm.

sive $114,000. An Attic black-figure white ground lekythos by the Athena Painter, with Athena Promachos flanked by two Panathenaic Games hierocholoi (trainers), c. 500-485 BC, h. 29.7cm (Fig 6), was also purchased from Hirsch in 1933. Even though it bore a proper estimate of $40,000-$60,000, it sold for $108,000.

The five best Egyptian objects also realised unusually high prices. A limestone relief fragment with the head of a pharaoh, perhaps Mentuhotep III, or a deity (Fig 7), late 11th-early 12th Dynasty, c. 1957-1875 BC, 34.8cm x 40cm, from the noted collection of Alphonse Kann, Saint-Germain-en-Laye, was purchased at the American Art Association sale in New York in January 1927. The proper estimate of $150,000-$250,000 for this small relief did not deter Mr. Eskenazi from acquiring it for his client for the huge sum of $960,100. A life-size early 12th Dynasty black granite torso of the vizier Mentuhotep, c. 1918-1875 BC, h. 40.7cm, in the seated position of a scribe, bears an inscription on his shoulders and chest (Fig 9). Also acquired at the Alphonse Kann collection sale, it again bore an estimate of $130,000-$250,000 and unexpectedly rocketed to a phenomenal $936,000 from an anonymous telephone bidder.

A 25th Dynasty magnesite marble bust of a goddess, probably Hathor, in a nursing pose (Fig 10), 730-666 BC, h. 26.1cm, was purchased from Brummer in 1945. Although it had a very conservative estimate of $40,000-$60,000, it was finally won for $360,000. Bequeathed to the museum in 1942 by Arthur B. Michael, a bald red granite head of the 30th Dynasty (Fig 11), 380-342 BC, h. 19cm, was won by an anonymous telephone bidder for $600,000, far beyond its $100,000-$150,000 estimate. A superb encaustic Fayum mummy portrait of a bearded man of the Antinorite period (Fig 12), c. AD 138-192, 35.4cm, from the collection of Paul J. Sachs (1878-1966), the

Fig 7 (above left). Limestone relief fragment with the head of a pharaoh (Mentuhotep III?) or a deity, late 11th-early 12th Dynasty, c. 1957-1875 BC; 34.8 x 40cm.

Fig 8 (left). Roman marble sarcophagus, depicting erotes as the Four Seasons, with a recut portrait in the central medallion, c. AD 280-290; H. 62cm, l. 210cm, d. 71cm.
noted Professor of Fine Arts at Harvard and Associate Director of the Pogg Museum, was sold to the Albright by Brummer in 1938. Correctly estimated at $200,000-$300,000, it quickly rose to an unforeseen record price for a Fayum painting of $936,000 from a resolute American collector bidding by phone, several times the previous record. (In reporting the sale of a fine, though not as choice Fayum portrait at the Christie's New York sale of 7 December 2006, the writer remarked that its price of $262,400 was 'staggering'.)

The bidding frenzy continued with the offering of two major Near Eastern antiquities. A superb Protoliterate Elamite copper figurine of a bearded hero wearing a vulture cape, a cap surmounted by ibex horns and ears, and large, upturned, horn-shaped boots (Fig 13), c. 3000-2800 BC, h. 17.5cm, is a mate to the well-known Guennol Collection figure in the Metropolitan Museum of Art. Said to have been found in Telloh, Iraq, it was sold to the female worshipper of the Early Dynastic III period (Fig 14), c. 2800-2550 BC, h. 36.2cm, was acquired from the Pierre Matisse Gallery, New York, in 1937. Again, the estimate of $300,000-$500,000 was ignored as it handsomely broke another record for a Near Eastern stone figure, as a determined American private collector made the bidding sail to an impressive $1,720,000.

The 25 antiquities consigned by the Albright Knox Art Gallery sold for a phenomenal $35,849,000 hammer price, or a total of $40,576,000 with the buyer's premium. Many of the antiquities consigned by others at this sale obviously benefited from the excitement generated by the museum's offerings. (For the full report on this landmark sale see pp. 40-42.)

Fig 9 (above left). Life-size early 12th Dynasty black granite torso of the vizier Mentuhotep, c. 1918-1875 BC; h. 40.7cm.

Fig 10 (above centre). Magnesite marble bust of a goddess, probably Hathor, in a nursing pose, 25th Dynasty, 750-656 BC; h. 26.1cm.

Fig 11 (above right). Red granite head of the 30th Dynasty, 380-342 BC, h. 19cm.

Fig 12 (left). Fayum mummy portrait of a bearded man of the Antonine period c. AD 138-192; h. 35.5cm.

Fig 13 (right). Protoliterate Elamite copper figurine of a bearded hero, c. 3000-2800 BC; h. 17.5cm.

Fig 14 (far right). Sumerian alabaster figure of a female worshipper of the Early Dynastic III period, c. 2800-2550 BC, h. 36.2cm.

All Illustrations courtesy of Sotheby's New York.
THE SPRING 2007 ANTIQUITIES SALES

The ancient art market is being fuelled by a huge upswing in prices brought about by the sale of the Albright Knox Museum antiquities in New York. Jerome M. Eisenberg, Ph.D., presents his 34th bi-annual report of the American, English, and French sales.

WORLD RECORDS BROKEN AT SOTHEBY'S NEW YORK

To say that the 7 June antiquities sale at Sotheby’s New York was a resounding success would be a very conservative statement. Of the 116 lots, 25 were ancient objects, mostly masterworks, that were deaccessioned by the Albright Knox Art Gallery in Buffalo, New York. These alone brought an incredible total of $40,576,000 (all prices in this report include the buyer’s premium), including an astonishing $28,600,000 (£14,343,749) for the Roman bronze group of Artemis and the stag. Eight of the top ten lots, the least expensive bringing $600,000, were from the museum. (For the report on the museum’s objects see this issue of Minerva, pp. 37-39.) The prices for many of the other consignments in this auction were boosted immeasurably by the excitement generated by the Albright Knox pieces and through the unfulfilled frustration of bidders unable to obtain some of the institutions’ well-provenanced and well-published treasures.

An elegant Cycladic marble head of a goddess attributed to the Goulandris Sculptor (Fig. 1), c. 2500-2400 BC, h. 9.5cm, bore an appropriate estimate of $60,000-$90,000, yet it brought $120,000. A fine Corinthian bronze helmet, c. early 5th century BC, h. 30.5cm, from the William Herbert Hunt collection, estimated at only $80,000-$120,000, reached a generous bid of $270,000 from a phone bidder despite one cheek-piece missing its tip. In the Sotheby’s New York sale of the Hunt collection on 19 June 1990 it had sold for $115,500.

The powerful features of a monumental Roman marble head of Zeus (Fig. 2), late 1st-early 2nd century AD, h. 39.4cm, as well as an impressive provenance - the famed Lansdowne collection, acquired by the 1st Marquess of Lansdowne from Gavin Hamilton in Rome in 1776 (for about £11), were good reasons for it to sell for $276,000, well above the estimate of $100,000-$150,000. When sold at Sotheby’s London on 4 December 1972, mounted on a later bust, it realised just £420. A 1st-century AD Roman marble portrait head of a defied female as Cybele wearing a mural crown (Fig. 3), h. of head 26.7cm (total, with socle, 82.5cm), was mounted on a 17th-century alabaster and porta santa marble bust. Bearing an august Provenience - the collection of Pope Urban VIII (Cardinal Maffeo Barberini, r. 1623-1644), it moved to various Palazzi of the Barberini and Scliarra families until the early 20th century. A low estimate of $30,000-$50,000 did not stop it reaching $132,000.

A Roman marble head of Ganymede (Fig. 4), c. 1st century AD, h. 21.6cm, said to be from the Spencer-Churchill collection, sold at Sotheby’s New York on 12 June 1993 for £21,850. Now estimated at $30,000-$50,000, it went for $186,000 to a telephone bidder. Missing the separately carved crown on its...
remaining in the Palazzo Barberini until around 100 years ago.

A delightful Late Roman stone and glass mosaic *emblemata* panel depicting an elaborate harbour scene (Fig 6), early 4th century AD, 59.7 x 59cm, from the estate of the Los Angeles collector Gloria Desser (1923-2004) was acquired in

head, a Roman marble statue of a muse (Fig 6), c. 2nd century AD, h. 81cm, with a full estimate of $150,000-$250,000, was knocked down for $240,000. Though missing its head, a Roman marble draped statue of a girl, c. 1st century AD, h. 96.5cm, fetched $168,000, far beyond its estimate of $50,000-$80,000, perhaps in part due to its impeccable provenance - again from the collection of Pope Urban VIII,
the mid-1950s. Exhibited and published in the exhibition 'Antioch: The Lost Ancient City' (Worcester and Princeton, 2000), it was hotly contested by several institutions. The curiously low estimate of $40,000-$60,000 was rapidly ignored as it finally ended up with a winning telephone bid of a hefty $510,000, leaving several disappointed museums in its wake.

A charming 18th Dynasty Egyptian limestone figure of a lady wearing a long elaborate wig (Fig 7), c. 1390-1292 BC, h. 21cm, was purchased by a New Jersey collector from Royal-Athena Galleries in 1985. It bears a strong resemblance to the significantly larger limestone figure of the wife of Nakhte-Min in the Cairo Museum. Again, a very conservative estimate of $50,000-$80,000 did not deter several bidders from active competition, finally resulting in a winning amount of $360,000.

One of the surprises of the sale was the extraordinary price paid for a large finely-polished Assyrian gypsum block with a cuneiform inscription (Fig 8), 479 x 76.8cm, from the Northwest Palace of Assurnasirpal II, 885-865 BC. It was excavated by Sir Austen Henry Layard at Nimrud in 1845 and passed through the hands of the Parisian dealer Georges Feuardent in 1911, eventually to be acquired by the Los Angeles collector Phil Berg (d. 1983), who donated it to the Los Angeles County Museum of Art in 1971. Later deaccessioned along with two other much smaller fragments (both just 43.2 x 43.8cm) from the Berg collection, they sold at Christie's New York on 9 December 2005 when one brought $78,000 and the second, slightly damaged, a mere $28,800. The present example, more than ten times the length, was conservatively estimated at $125,000-$175,000, but the evaluation apparently meant nothing to two adamant bidders, with a final telephone bid triumphantly for the colossal sum of $1,608,000.

A very elegant flaring Pre-Achaemenid silver cup (Fig 10), perhaps from Urartu, c. 7th-6th century BC, h. 16.9cm, estimated for just $40,000-$60,000 brought $144,000. A Sasanian oval silver gilt bowl with canines, hares, and birds in eight circular medallions (Fig 11), c. 6th-7th century AD, l. 25.8cm, with an estimate of $50,000-$80,000, went for a healthy $192,000. Finally, a striking Sasanian silver gilt plate with a king on horseback at full gallop aiming his arrow at an attacking lion, with a wounded lion lying below (Fig 9), c. 5th century AD, diam. 19.4cm, was the cover illustration for the Sotheby's New York sale of 8 December 2000, when it was bought in at $270,000. Now estimated at $250,000-$350,000, it brought just over the reserve selling for $276,000.

This landmark sale of just 116 lots realised a stunning total of $47,194,020 ($23,669,222), with 97.5% of the lots sold, 99.9% by value, setting a record that may endure for many years to come. Whether the remarkable prices achieved at this sale and at the Christie's sale the following day will be translated into a rapid increase in antiquity pricing in the galleries (as is happening now with the modern and contemporary art markets due to the huge influx of funds from newly-minted Russian, Near Eastern and American hedge-fund billionaires) is yet to be seen.

CHRISTIE'S NEW YORK CONTINUES JUNE ANTIQUITIES SURGE

The Christie's New York antiquities sale of 8 June appeared to confirm the sudden increase in auction prices for select antiquities because many lots swept well beyond their estimates. An exquisitely sculptured late Hellenistic Greek marble torso of Artemis (Fig 12), c. 1st century BC, h. 78.7cm, was previously sold for $150,00 at Christie's New York on 5-6 December 2001. Estimated now at $180,000-$220,000, it brought a surprising $458,000 ($237,563) from an American collector. A sensitive over-
lifesize Greek limestone head of Hermes wearing a petasos (Fig 13), c. 4th century BC, h. 29.2cm, probably from Magna Graecia or Sicily, estimate $250,000-$350,000, sold for $348,000 to a private collector. A marble portrait of a Ptolemaic queen (Fig 14), c. 3rd century BC, h. 29.6cm, from the estate of the photographer Philippe Halsman, acquired in Paris in the 1950s-60s, could represent Arsinoe II. With a conservative estimate of $60,000-$90,000, it reached $132,000.

A slender Greek bronze female dancer, nude except for a provocative band-like perizoma hiding her buttocks, but leaving bare her pudendum (Fig 15), c. 2nd-1st century BC, h. 24.8, holds a krotalon (castanet). It sold for $144,000, again with an estimate of $60,000-$90,000. Despite much of the painting missing on the athletes depicted on the exterior, an Attic red-figure kylix attributed to a major painter, Onesimos, with a nude athlete in the tondo (Fig 16), c. 490-480 BC, diam. 23.1cm, brought $192,000 from an American dealer, considerably beyond the $60,000-$90,000 evaluation. A Corinthian bronze helmet, c. mid-6th
century BC, h. 26.7cm, estimate $60,000-$90,000, went for $108,000, even though it was restored and exhibited quite a bit of corrosion. Adorned with a wreath inset with garnet and blue glass, a late Hellenistic parcel gilt silver bowl with long petals (Fig 17), c. 1st century BC, diam. 13.6cm, similar to a pair in the Getty, brought $108,000, within its estimate of $90,000-$120,000.

A beautifully modelled Roman lifesize bronze head of a youth with tousled curls (Fig 18), c. 1st century BC/AD, h. 30.5cm, consigned by a British collector whose father acquired it before 1980, was the star attraction of the sale. An estimate of $300,000-$500,000 appeared to be conservative and this was borne out, after considerable competition, by the final winning bid of $992,000 from a European institution. Though headless, a large Roman marble draped female in the pudicitia pose, c. 1st century AD, h. 150.5cm, was won for $120,000, falling within its estimate of $100,000-$150,000. A lifesize Roman marble head of Apollo wearing a laurel wreath (Fig 19), 30.2cm, estimated at $80,000-$120,000, brought $144,000. Wearing a cylindrical diadem of overlapping leaves, a lifesize Roman marble portrait bust representing a priest (Fig 20), early 2nd century AD, h. 42.5cm, bearing a full valuation of $120,000-$180,000, sold for $144,000.

The head of a Roman marble statue catalogued as Mercury (Fig 21), c. 1st-2nd century AD, total h. 61.9cm, is ancient, but does not belong to the torso. From a 19th-century collection in Norfolk, England, estimated at $60,000-$90,000, it nevertheless reached $132,000, not much more than the value of the unjoined parts.

Similar in style to other recently auctioned mosaics, though much longer, a Roman marble mosaic panel 4.70m in length (Fig 22, detail) depicts a foliate-legged figure and erotes hunting a panther and a leopard enmeshed by elaborate acanthus scrolls. Though it attracted a great deal of attention it

Fig 22 (above left). Detail of a Roman marble mosaic panel depicting a foliate-legged figure and erotes hunting a panther and a leopard surrounded by acanthus scrolls; L. 4.70m.

Fig 23 (above right). Roman mosaic in marble and glass with two masks of old men from the New Comedy, 1st century AD; W 33.6cm.

Fig 24 (left). Large 6th Dynasty Egyptian wood figure of a striding man; c. 2148-2181 BC; H. 80.6cm.

Fig 25 (middle right). Egyptian gilt wood and bronze ibis, c. 664-30 BC; H. 32.1cm.

Fig 26 (bottom right). Egyptian bronze Horus falcon, 664-30 BC; H. 26.4cm.
Spring Antiquities Sales

Fig 27 (left). South Arabian bronze female figure, c. 1st century BC/AD, H. 47.1cm.

Fig 28 (right). South Arabian inscribed bronze plaque from the kingdom of Qataban, c. 4th-3rd century BC, W. 118.1cm.

Fig 29 (above right). Phoenician ivory plaque in Egyptianising style depicting two sphinxes flanking a sacred tree, c. 8th century BC; L. 17.4cm.

Fig 30 (below left). Bactrian silver ibex, c. 1st century BC or earlier; H. 19.4 cm.

went to an American collector for a reserve bid of $192,000 including the buyer’s premium, the estimate being $200,000-$300,000. Another Roman statue in marble and glass, with two masks of old men from the New Comedy (Fig 23), c. 1st century AD, w. just 33.6cm, from a 19th-century English collection, though evaluated at only $20,000-$30,000, reached $114,000.

A large (80.6cm) 6th Dynasty Egyptian wood figure of a striding man (Fig 24) originally from the Koller collection, Lucerne, with an estimate of $200,000-$300,000, brought $336,000 from a European collector. An Egyptian gilt wood and bronze ibis (Fig 25), c. 664-30 BC, h. 32.1cm, acquired by a French collector in the 1960s, estimated at $60,000-$90,000, realised $144,000 from a US collector. An estimate of $20,000-$30,000 seemed unusually low for an Egyptian bronze Heros falcon (Fig 26), 664-30 BC, h. 26.4cm, perhaps due to some restoration. However, it nevertheless climbed to $132,000.

The Near Eastern objects also fared well in the sale. A large and rare South Arabian bronze female figure (Fig 27), c. 1st century BC/AD, H. 47.1cm, sold to a collector for a sevenfold increase of $578,000, far beyond the $120,000-$180,000 estimate. In addition, a very large (w. 118.1cm) South Arabian inscribed bronze plaque from the kingdom of Qataban (Fig 28), c. 4th-3rd century BC, evaluated at $60,000-$90,000, sold for $156,000 to a different collector. The late Thomas T. Sotheby, founder director of the Indiana University Art Museum, purchased a superb Phoenician ivory plaque, l. 17.4cm, in Egyptianising style depicting two sphinxes flanking a sacred tree (Fig 29), c. 8th century BC, from Mathias Ronor in 1963 for his own collection for $400. Estimated now at an unusually conservative $25,000-$35,000, it ultimately reached an impressive $264,000 - and from an American dealer, a proud Bactrian silver ibex (Fig 30), c. 1st century BC or earlier, h. 19.4 cm, with an estimate of $60,000-$90,000, realised $114,000. The sale of 197 lots was obviously a great success. It totalled $7,963,160 ($4,042,213), with 82% of the lots sold by number and 93% sold by value. Again, provenance was a major factor in the sale.

HIGH PRICES AT CHRISTIE’S LONDON PRESAGE SUCCESS OF NEW YORK SALES

A combination of conservative estimates, many solid provenances, and a lively art market resulted in very successful results for the better objects in the Christie’s London antiquities sale of 25 April. A small (h. 16.2cm) Cycladic marble figure of a goddess of the Late Spedos type (Fig 31), c. 2500-2400 BC, was estimated at a very low £12,000-£18,000, most probably because of a restored break at the centre. It did not deter a European collector from acquiring it for £96,400 ($173,232). A large Minoan painted terracotta lamaz (Fig 32), c. 1400-1200 BC, h. 9.9cm, l. 98.7cm, from a 19th-century European collection, had two restored legs and was thus given an estimate of just £35,000-£45,000. It was purchased by an American collector for £50,400. An attractive late 6th century BC painted Attic terracotta female torso of a seated woman, h. 23cm, was evaluated at only £4000-£6000. At a Sotheby’s London sale of 29 November 1965 it fetched a trifling £230. Again, a decent amount of restoration was ignored as it flew to a surprising winning bid of £42,000 from a European dealer.
An elegant but headless over-life-size marble statue of a draped female, possibly a muse, wearing a chiton and himation (Fig 33), c. 1st century AD, h. 180cm, after a Greek prototype of c. 4th century BC, bearing an estimate of £70,000-£100,000, was finally knocked down to an American dealer for £210,000. A near-life-size marble torso of Aphrodite, 65cm, was catalogued as ‘Roman style’ and was valued at a mere £2000-£3000. It was previously sold as c. 1st century BC at Christie’s London on 2 July 1982, when it brought just £1800. Now at least several attendees obviously thought it to be convincingly ancient and it ultimately sold for £45,600 to a European dealer. A well-modelled colossal (h. 43cm) Roman marble left hand from a monumental statue (Fig 34), c. 1st century BC/AD, acquired in London about 1970-72, realised £54,000, far beyond the estimate of £6000-£9000, again purchased by a European dealer.

The sensitively sculpted upper part of an Egyptian quartzite ushabti of the heretic pharaoh Akhenaten (Fig 35), c. 1352-1336 BC, h. 13.3cm, from the ‘Per-neb’ collection, was purchased in Egypt between the 1920s and early 1940s. At the ‘Per-neb’ auction at Christie’s London on 9 December 1991 it was bought in at £42,000. Now rightfully estimated at £100,000-£150,000, it was sold to an English dealer, probably acting as an agent, for £204,000. Just the torso (with cartouche) of an Egyptian alabaster ushabti of Amenophis III, c. 1360-1349 BC, h. 10.4cm, even though estimated unwittingly at a trifling £2000-£4000, shot up to a winning bid of £36,000 from a collector. This might have been in part due to its exceptional provenance - the tomb of this pharaoh, KV22, was found by Napoleon's 1799 expedition to Egypt.
This piece probably left Egypt in the early 19th century and was now reputedly from an old English collection.

An attractive Sumerian limestone bull cup (Fig 36), 6.3cm, originally from the Charles Gilet collection, formed around the 1950s-60s, now consigned by Mr and Mrs Martin Stansfield, sold at Sotheby’s London on 11 July 1983 in an unrestored state for £9,900, then at Sotheby’s New York on 2 December 1988 for £33,000. Again, as often in this sale, a conservative estimate of £30,000-£50,000 did not keep it from bringing a healthy commission bid of £168,000 from an English dealer.

The sale of 266 lots realised £1,925,676, with just 78% if the lots sold by number and 85% by value. These numbers, however, do not reflect some of the exceptional prices realised for so many of the objects.

**BOISGIRARD SALE IN PARIS AGAIN FEATURES SUMERIAN ORANS**

As in the last ‘Arts d’Orient’ sale of Boisgirard & Associates at the Drouot Rooms in Paris, a fine Sumerian gypsum ex-voto statue of a female orans (Fig 37), c. 2500 BC, h. 17cm, received the highest price from a telephone bidder, 350,000 Euros (estimate 350,000-400,000 Euros), but the present example from the famed Erlenmeyer collection was seated and inscribed with five lines of cuneiform on its shoulder. (All French prices are hammer prices; the premium ranges from 13.5% to 17.5%.) In the Erlenmeyer sale at Sotheby’s London on 12 June 1997, it had already brought £155,500. Another larger Erlenmeyer Sumerian figure of a bearded male orans, c. 2500 BC, h. 32cm, was damaged, lacked the beard, chest, lower arms, and feet, and thus brought only 125,000 Euros (estimate 100,000-150,000 Euros) from the same bidder. At the Erlenmeyer sale it sold for £62,000.

A fine Mesopotamian white calcite ex-voto standing calf inlaid with lapis lazuli (Fig 38), Late Urk-Jenett Nasr period, c. 3300-2900 BC, h. 7cm, l. 10cm, from a Munich collection and acquired before 1972, estimated at only 50,000-70,000 Euros, sold for 135,000 to a different telephone bidder. A similar, though recurrent example, brought £168,000 at Christie’s New York on 7 December 2006 (see Minerva, March/April 2007, pp. 41-42, also for the female orans).

An important Baluchistani bronze support with five mouflons (Fig 39), late 3rd millennium BC, h. 17.5cm, diam. 31cm, rose to £190,000 Euros, comfortably beyond the estimate of 120,000-150,000, won by a European museum. An impressive Achaemenid bronze rhyton with the protome of an ibex (Fig 41), c. 6th century BC, l. 39.5cm, estimate 80,000-100,000 Euros, fetched £110,000 from a private collector. A magnificent large (l. 52cm) limestone recumbent ram from the Indus Valley (Fig 40), Harappan culture, c. 2600-2000 BC, was acquired by a private collector in 1950 but was first published in 1992. Bearing an estimate of 400,000 Euros, it realised 350,000 from a European collector, tying with the price achieved for the Sumerian orans.

A superb 18th Dynasty Egyptian limestone sculptor’s model of a face (Fig 42), h. 15.5cm, was purchased in 1942 from Tanou in Cairo, entering the collection of Maurice Bouverie (1901-1981), and was exhibited at the Basel Museum of Ancient Art from 1998 to 2001. It reached 80,000 Euros, the lower end of its 80,000-100,000 Euro estimate, secured by an American collector. Sporting handles in the form of erotes holding bees, an elegant gilt silver Hellenistic kantharos (Fig 43), 2nd century BC, h. 11.2cm, diam. 14.5cm, estimated at 150,000 Euros, obtained this amount from a European collector. While the auction, which contained 132 lots of antiquities, generally
brought very good prices, several important Persian silver and gold objects failed to sell.

**RARE EGYPTIAN AMULET STARS IN DROUOT PARIS SALES**

A very rare faience amulet of the Egyptian baboon-headed deity Thoth with tripartite wig, mumiform, squatting on a basket and representing a clypeus (water clock), portraying the royal offering in the temples on the day of the arrival of the inundation of the Nile (Fig 44), c. 4th century BC, h. 7.5cm, was offered in the Fraysse & Associés sale at the Drouot on 6 June. Other examples exist in the Louvre, the Brooklyn Museum, and a private collection in Geneva. The very modest evaluation of 15,000-20,000 Euros did not dissuade two enthusiastic buyers from waging a spirited battle, with the final hammer price reaching a stunning 130,000 Euros from a telephone bidder in the Near East, by far a world record for an Egyptian amulet.

The small antiquities collection, consisting of just 39 pieces, of Pierre and Claude Vérité was offered by Enchères Rive Gauche at the Drouot on 10 March. Pierre Vérité, a prominent tribal art dealer in Paris since 1934, was noted for his major collection of African and Oceanic art that was sold off last year. An Egyptian Ptolemaic wood and bronze ibis (Fig 45), h. 34cm, was estimated at a mere 12,000-15,000 Euros but succeeded in bringing a surprising 155,000. A Middle Kingdom wood model boat with 11 boatmen, though restored, again bearing a strikingly low estimate of 10,000-15,000 Euros, sold for 80,000.

Some 495 lots of antiquities were sold by Pierre Bergé & Associés at the Drouot on 27 April, including an important collection of inscribed Egyptian ostraca (pottery fragments), a few bearing drawings, of the Ramseside period (c. 1290-1080 BC), from the collection of Alexandre Varille (1909-1951). All illustrated in the catalogue, they were first auctioned individually, then offered as a group, the result being that they were preempted by the Louvre for the sum of 160,000 Euros. A rare ensemble of three 6th Dynasty wood statuettes of the same dignitary, all with fragmentary legs, h. 48.5cm, 46.5cm, and 43cm, from the collection of Charles Gillot (d. 1972), total estimate 30,000-45,000 Euros, were also preempted by the Louvre for 104,000. An over-lifesize Roman *bigio morato* marble headless statue of Mars (Fig 46), 2nd century AD, h. 165cm, of a type similar to the Ares Borgese, brought 132,000 Euros, just above the evaluation of 110,000-130,000.
Bronze statuette of a kneeling pharaoh.
Egypt, Third Intermediate Period. Published 1929.
Height: 10.3cm

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19-21 September. MEISTER & SONNTAG (AMS). General auction including ancient coins. Stuttgart. Tel. (49) 711 2484 7369; e-mail: info@ams-stuttgart.de; www.ams-stuttgart.de.

25-26 September. BALDWIN'S. General sale including ancient coins. London. Tel. (44) 20 7930 6879; e-mail: coins@baldwinsh; www.baldwinsh.sh.

26-27 September. OFFICIAL CONNEX AUCTION. Important ancient, British, and World coins. The Washington Hotel, Curzon Street. London. Tel. (44) 20 7016 1700; e-mail: coins@dmw.co.uk.

27 September. SPINK. Ancient, English, & foreign coins. London. Tel: (44) 20 7563 400; e-mail: info@spink.com; www.spink.com.

8-12 October. GORNY & MOSCH. Ancient & Medieval coins. Munich. Tel: (49) 8924 226-430; www.gmoinart.de.

9-12 October. FRITZ RUDOLF KÜNKER MÜNZENHANDLUNG. General sale including ancient coins. Osnabrück, Germany. Tel: (49) 541 96 20 233; e-mail: info@kuenker.de; www.kuenker.de.

22-23 October. IHS NUMISMATIKS. General sale of ancient coins. Zurich. Tel: (41) 1211 4772; e-mail: info@IHS-Numismatik.com; www.numismatik.com.

24-26 October. HESS-DIVO AG. General sale including ancient coins. Zurich. Tel: (41) 44 225 40 90; e-mail: mailbox@heissdivo.com; www.heissdivo.com.

EXHIBITIONS

UNITED KINGDOM

Birmingham

UNITED STATES

South Hadley, Massachusetts
HEADS AND TAILS: PORTRAITS AND PROPAGANDA ON CLASSICAL COINS. The exhibition focuses on the recent acquisition of more than 900 Greek and Roman coins donated by Mark Salton and Professor Nathan Whitman. MOUNT HOLYOKE ART-MUSEUM (1) 413 538 2245 (www.mtholyoke.edu). Ongoing.

AUSTRIA

Vienna
MONEY IN LATVIA. HISTORY AND PRESENCE. The exhibition focuses on the long history of currency in Latvia, from amber in the Iron Age, Roman currency comprising coins, silver objects, and silver bars; the Viking coinage of the medieval period, comprising Arab dirhams. KUNSTHISTORISCHE MUSEUM (43) 1 525 24 4025; (www.khm.at); e-mail: info@phkhm.at. Until 30 September.

ISRAEL

Tel Aviv
KADMAN NUMISMATIC PAVILION. Founded in 1962 by Leo Kadam on his coin collection and that of Dr Walter Moses. One of the largest and most important in Israel, emphasizing the history of Israel as reflected by its coinage. ERETZ ISRAEL MUSEUM (www.eretzmuseum.org.il); Permanent.

Rome
CAPITOLINE COIN AND MEDAL COLLECTION. Established in 1872 through Ludovico Stanziari’s bequest of his collection of ancient coins and precious gems. Major further holdings include donations given by Augusto Castellani, 456 Roman and Byzantine gold coins by Gaetano Campana, and Giulio Bignami’s collection of Roman Republican coins; and the ‘Treasure of Vila Alessandria’. CAPITOLINE MUSEUM (39) 06 3996 7800; www.museicapitolini.org.

TURKEY

Bodrum
Exhibit of the monetary and weight systems used in Anatolia, especially Caria. Genuine coins, as well as ancient and modern counterfeits, are also displayed. BODRUM MUSEUM OF UNDERWATER ARCHAEOLOGY (90) 252 316 25 16 (www.bodrum-museum.com). Permanent.

LECTURES

UNITED KINGDOM

25 September. HISTORY AND COINAGE IN THE REIGN OF KING ETHERLED THE UNREADY. Professor Simon Keynes, Lincoln Lecture. The British Numismatic Society, the Warburg Institute, London, 6pm.

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David & Solomon: Tales for Cold Winter Nights?

Sean Kingsley

The hunt for truth behind the biblical narrative of the 10th-century BC kings David and Solomon is far more than just an archaeological obsession. To many of Earth’s 3.2 billion Christians, Jews, and Muslims - 53% of the world’s population - the image of a United Monarchy in Iron Age Israel is sacrosanct. It has also become a barometer for measuring changing degrees of nationalism in the Middle East. Today, the edges of Jerusalem’s Temple Mount are honeycombed with trenches cut in search for Solomon, first laid down by Professor Benjamin Mazar in 1968-78. For the fledgling State, archaeology served as an umbilical cord linking David (1004-965 BC) and Solomon’s (965-928 BC) United Monarchy with the modern day - ultimate geopolitical validation.

No doubt it is precisely this politicised application of history that the University and College Union of England (UCU) objected to so fiercely at the end of May by voting to boycott Israeli academics. Even though Britain triggered the modern quagmire through its colonial mismanagement of Palestine under the mandate of 1920-48 and through the Balfour Declaration, and even though no modern Middle Eastern country from Turkey to Morocco embraces such democratic forms of education for men and women of all faiths, Israel has been branded enemy number one. A string of very different new books on David and Solomon now offers a truly honest opportunity to assess the UCU’s objectivity.

William Hamblin and David Seely’s Solomon’s Temple, Myth and History (Thames & Hudson) treads a traditional path by viewing the Temple as image and myth rather than seeking out historical truth. The reader is taken on an abbreviated journey across the archaeology of the Temple before its historical symbolism to early Christianity, Islam, and the modern era is assessed. As the authors assert in the Introduction, ‘This book is not the story of a place, but of an idea, whose origins lie before the dawn of history, and whose culmination extends beyond the apocalyptic twilight of mankind.’

Boiling down such a rich stock of texts, excavation reports, and folklore is no easy task, but this elegantly presented book succeeds with gems of information and rarely published imagery, such as an early 7th-century AD representation of the interior of the Temple in Sinaï from the Ashburnham Pentateuch and a Renaissance interpretation of Titus’ destruction of the Temple in AD 70 by Maerten van Heemskerck (1569). Hamblin and Seely impressively explain how the Church of the Holy Sepulchre was reinvented by Constantine as the New Temple. It was dedicated on the same day as Solomon’s house of God, the Sepulchre was seen as the centre of the world like Mount Moriah, perpetual lamps burnt within, and the church contained Temple relics, including the ring used by Solomon to bind the demons who helped build his house of worship. Thus, the book, a comprehensive introduction to a vast subject, ends with the same question that perpetually haunts the Arab-Israeli conflict: Are Jews and Arabs thus fated to remain forever poised at the Temple on the brink of disaster, as the children of Abraham struggle for their shared birthright?

This question of birthright is central to the most original and groundbreaking scrutiny of kings David and Solomon ever published. Israel Finkelstein and Neil Asher Silberman’s David and Solomon, In Search of the Bible’s Sacred Kings and the Roots of the Western Tradition (Free Press) smashes traditional biblical perceptions and modern prejudices. Once again, the authors begin by outlining the influence of these two icons on world history from Charlemagne, who was crowned Holy Roman Emperor on Christmas Day AD 800 and styled himself as a new David who would make a united monarchy of Europe a medieval reality, and Suleiman the Magnificent, who cultivated a public image as a second Solomon to sanctify the historical and religious authority of his empire.

A brilliant piece of academic sleuthing follows, outstandingly written in an authoritative and accessible style. Finkelstein has directed pioneering excavations and surveys in Israel - especially across Samaria and at Megiddo - so the book is grounded on hard data. The tale begins in Jerusalem, where the three features traditionally seen as Davidic: Warren’s Shaft, the Stepped Stone Structure (Fig 1), and the Tombs of Kings of Judah, are labelled a complete fallacy of dating. Indeed, for the entire period covering the late 16th to mid-8th century BC, archaeologists have discovered no more than a few walls and a modest scattering of potsherds in the City of David. Many scholars explain this invisibility through obliteration of building remains by erosion or later building. To Finkelstein and Silberman this is ‘simply untenable’ because impressive Middle Bronze Age (c. 2000-1550 BC) and later Iron Age II (c. 750-586 BC) structures are conspicuous. Are we to imagine that the centuries sandwiched in between managed to melt out of the archaeological record?

Compelling reasons place the true context of Deuteronomism history 200 years after the traditional date of the United Monarchy (1004-928 BC). According to Finkelstein and Silberman, ‘Archaeology has revealed a far-reaching series of changes that took place throughout the kingdom of Judah in the late 8th century BCE - a full two centuries after David and Solomon’s time. Jerusalem suddenly grew into a huge metropolis. In the countryside of Judah, many new villages appeared, and existing villages and towns experienced a period of widespread expansion. Fortresses, storehouses, and administrative centers were built throughout the kingdom. The appearance of inscriptions and
official seals testifies to the importance and widespread use of the written word.

Fascinatingly, this increased social and economic sophistication seems not to have been driven by internal change from Jerusalem, but by world politics to the east. By the mid-6th century BC the vast Assyrian empire, expanding from the Tigris and Euphrates Valley to the Mediterranean, was successfully constructing history's first globalised political and economic system. In 732 BC, the great Assyrian king Tiglath-pileser III seized Damascus, Megiddo, Hazor, and the Galilee before Shalmaneser V laid siege to Samaria in 722 BC and annexed Israel as an Assyrian province.

Within a few decades brand new suburbs flourished outside the city walls of the original City of David, surrounding or new fortifications wall over 6m thick. A 50m-long subterranean tunnel conveyed water into the city. In the space of a few years Jerusalem mushroomed from a modest hill country town of about 10-15 acres to a large, fortified city of almost 150 acres. The urban population rocketed from about 1000 to 12,000 people. To Finkelstein and Silberman the impetus behind this building boom was the decision of the Judeanite king Ahaz (c. 743-727 BC) to become an Assyrian vassal ruler. Judah was formally drawn into a wider economy as an active participant in long-distance commerce. The myth of Solomon's kingdom stretching from the Euphrates to the borders of Egypt (1 Kings 4:21) was a clever piece of spin stolen from the historical reality of Assyrian territorial domination.

The archaeological evidence for this expansion is compelling. Outside Jerusalem, Megiddo's stables were part and parcel of Israel's involvement in the international horse trade with Egypt, Rue, the Hittite empire, and Aram (Damascus), known from the Fort Shalmaneser Horse Lists dating to the days of Sargon II and from 2 Chronicles, where Solomon gathered together 1400 chariots and 12,000 horses. It was also during the 6th century BC reign of King Manasseh of Judah that the remote kingdom of Sheba in modern Yemen became famous for its aromatics. Not only is this trade and region mentioned in late 6th- and 7th-century BC Assyrian sources of Tiglath-pileser III, Sargon II, and Sennacherib, but excavations confirm the emergence of the Sabaeans kingdom at this time. The biblical thousand-and-one nights story of Solomon and Sheba', conclude the authors, 'is thus an anachronistic seventh-century set piece meant to legitimise the participation of Judah in the lucrative Arabian trade'.

Curiously, this report-inspired stability did the core of Deuteronomy's law code and its uncompromising prohibition against pagan idols and monotheistic cry for the one Temple in Jerusalem become a reality. Finkelstein and Silberman ascribe this literary work to King Josiah (640-609 BC), a 16th-generation descendant of David, about whom 2 Kings asserted that 'Before him there was no king like him, who turned to the Lord with all his heart and with all his soul and with all his might, according to all the law of Moses; nor did any like him arise after him'.

Intriguing complementary forensics for a retrospective fabrication of the story of David and Solomon is embedded in the United Monarchy's battle with the Philistines (biblical Peleset). Goliath's armour, as described in the Bible, bears little resemblance to contemporary military equipment emblazoned across the walls of the mortuary temple of Ramesses III, where this Sea People wear distinctive feather-topped headdresses and use a single spear but no heavy armour combination, such as the spear, jewelled, sword, and greaves so conspicuously worn by the giant Philistine warrior. But Goliath's armour was no fanciful creation - every item has a clear parallel with the standard hoplite soldier. These items were rare in the Greek world until the 7th century BC, but, as Herodotus reported, Carian and Ionian mercenaries servicing the Egyptian army's border forts took over the Philistine coast in the late 7th century BC and would have imported this technology with them. Archaeology has caught the Bible in a 250-year old white lie.

The appliance of science has now entered the Solomonic arena to calculate whether Jerusalem and Israel was really a barren backwater during the traditional 10th-century BC reigns of David and Solomon. Thomas Levy and Thomas Higham's edited papers in The Bible and Radiocarbon Dating, Archaeology, Text and Science by Thomas E. Levy and Thomas Higham (eds.) (Equinox Publishing, 2008. 435pp, 210 b/w illus. Paperback, £24.99).
cles 196:15). According to the Meshia inscription Madaba was then urbanised under Israelite control by the house of Omri. Analyses by Timothy Harrison and Celeste Barlow of 17 samples selected from the Iron II stratigraphic sequence associated with major building works, and submitted to the IsoTrace Radiocarbon Laboratory at the University of Toronto, have yielded calibrated dates clustered tightly in the mid-to late 9th century BC, well beyond the traditional era of David and Solomon.

An extensive line of 350 Iron Age sites comprising 58 fortresses, 1195 dwellings, 360 animal pens, 30 threshing floors, and 80 silos in the central Negev have long been viewed as expressions of the United Monarchy, gaining special emphasis, with the construction of the fortresses in particular, assigned to King Solomon and destroyed by Pharaoh Shishak. Radiocarbon samples obtained from the destruction level of the 27m-diameter elliptical Lower Fortress of Tell el-Qudeirat in northern Sinai by Hendrik Bruins and Johannes van der Plicht, and tested in Groningen, turned out not to be Solomonic but to range between 1103 and 1050 BC, 150 years before Shishak’s invasion. Similarly, a thin ash layer in the case of the elliptical fortress of Nachal el-Ram, consisting of 34 x 20m, 13km north-west of Mezipe Ramon in the Negev desert, has now been calibrated to 1006-972 BC, again too old for Shishak.

Radiocarbon analysis is thus galloping to the aid of the Low Chronology model. Or, in regional ‘Solomonic-type’ urban development. Yet part of the jury remains hung and unconvinced. Amihai Mazar’s 70 radiocarbon samples from Tel Rehov have produced readings of 925-895 BC for Shishak’s destruction of Stratum V, which comfortably fits the traditional 10th-century chronology for a United Monarchy. Notably, the charred seeds from which the radiocarbon samples were extracted were dated in Groningen by PGC radiometry, which can yield very tight measurements down to 12 years. Thomas Levy and colleagues’ research at the copper factory guarded by a 73 x 73m fortress of Khirbat en-Nahas in the lowlands of Edom, Jordan, has also revealed that the construction of the four-chamber Iron Age gate (architecturally comparable to examples from Megiddo and Hazor but Yigael Yadin labelled Solomonic) did indeed function in the 10th century BC.

The lack of a consensus for the divergent radiocarbon dates presented in The Bible and Radiocarbon Dating is explicable in several ways. Finkelstein refutes the reliability of Tel Rehov’s Low Chronology because he believes that some of the samples come from pits, refuse deposits, and street surfaces contaminated by old material. Mazar wisely admits that ‘over a timespan of about 80 years, we push the radiometric method to its limits of capability, and perhaps even beyond that limit’. Perhaps the last word on the debate should be left to the fierce wit of the late Andrew Sherratt summarising the Oxford conference’s conclusions and aptly quoting Sir Winfred Childe: ‘No one need mourn the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning’.

Not even before the extensive new data in this book could be digested, controversy has swirled once again: Elifat Mazar’s excavation in the City of David, conducted between February and August 2005, 200m south of the southern wall of the Temple Mount in Jerusalem. In the Preliminary Report on the City of David Excavations 2005 at the Visitors Center Area (Shalem Press), Dr Mazar presents monumental stone remains spread across 300 square metres as no less a building than King David’s palace. At least 28m long and up to 3m wide, its walls extend beyond the confines of the excavation area. Beneath lay Middle and Late Bronze Age pottery of the 12th-11th centuries BC, while additions to the building, designed to thicken walls for security or structural purposes, are apparently stratified alongside Iron Age IIA pottery spanning the 10th-9th centuries BC. The Monarchy ascribes this monumental building to c. 1000 BC and identifies it as the palace built by the Philistines for King David, best known from 2 Samuel, when ‘King Hiram of Tyre sent envoys to David with cedar logs, carpenters, and stone-masons; and they built a palace for David’. Its elevated geographical location also apparently fits 2 Samuel’s description of how ‘The Philistines marched up in search of David; but David heard of it, and went down to the stronghold’. Although Mazar claims radiocarbon dating of a bone sample has procured a Davidic reading, her note 124 detailing the carbon-14 probability percentages is regrettable unreadable due to typos. With her new reinterpretation, the colossal Stepped Stone Structure that dominates the City of David (Fig 1), the most monumental Iron Age architecture in the Near East, now morphs into a contemporary support for the podium on which the palace was set. Phoenix-like, have Solomon and David risen once more from the ashes? The dating criteria remain slim; Dr Mazar still has it all to prove.

Meanwhile, Finkelstein and Silberman’s David and Solomon remains one of the most thought-provoking archaeology books of the decade, not only an intellectually staggering and convincing piece of research, but a work that captures the true academic spirit of our age. While detached officers of the University and College Union in England boycott Israeli scholars, it is Israel’s academics who are showing the maturity and responsibility to seek an unwelcome historical truth. Finkelstein, an Israeli Jew, and Silberman demolish one of the greatest foundation myths in the world and the core of Israel’s identity. Welcome to the new Israel, the objective, academic Israeli willing to make painful concessions.

Finkelstein and Silberman portray the biblical story of David and Solomon as tales for cold winter nights, and rationally conclude that ‘We all live in a world of clashing nationalisms and global empire - the very themes that brought about the rise of the Davidic legend in eighth- and seventh-century BC Judah’. Our perspectives on those themes is uniquely modern. We no longer honestly hope for the resurrection of an Iron Age Kingdom. We can no longer rely on messianic dreams to overcome our shared nightmares. And we can no longer rely on the divine rights of the kings as the justification for the acts of our leaders’. Powerful words that should make the UCS bow its head in embarrassment. Words too, based on solid science, that the likes of Richard Dawkins and Christopher Hitchens, hell bent on naively denouncing the evils of religion, ought to pay greater attention towards. An epic United Monarchy may never have existed in the 10th century BC, but this story of how and when Israel invented itself speaks volumes about how ancient and modern societies and religions truly work.

UNITED KINGDOM

BRISTOL

IN THE PRESENCE OF GODS. Original watercolours made by Giovanni Bedoni of the tomb of the Egyptian pharaoh Seti I

UNIVERSITY ART GALLERY (44) 117 922 5371 (www.brls.

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CAMBRIDGE, Cambridgeshire

NEW LIGHT ON ANCIENT EGYPT. After 18

months of refurbishment, the Fitzwilliam Museum's Egyptian galleries have re-

opened with stunning new displays of over 1100 objects, many exhibited for the

first time. The exhibition is entitled: Tutankhamun's Treasures Back, giving a

new generation the chance to learn firsthand about the life and magic of this

ancient monarch. THE CENTRE (44) 02123 332 900 (www.fitzwilliam.


CAMBRIDGE, Massachusetts

GODS IN COLOR: PAINTED SCULPTURE OF THE ANTIQUITY OF

ART: AN UNUSUAL EXHIBITION OF FULL-SIZE COPIES OF

ROMAN SCULPTURES, INCLUDING SEVERAL WELL-

KNOWLEDGEFUL MASTERPIECES, WHOSE PAINTED DECO-

RATION, Faded over the millennia, has been painstakingly reconstructed.

Organised by the Stiftung Archäologie and the Staatliche Antikenkabinett

museum, Munich. MUNCHEN SACKLER MUSEUM, HARVARD UNIVER-

SITY (6 617 495-9400 (www.artmuseum.

harvard.edu)). 22 September - 20


DAYTON, Ohio

THE ROMAN WORLD: RELIGIONS AND EVERYDAY LIFE. More than 140 objects

including vessels, glass, jewelry, coins, textiles, and the 21 mosaics from the

Brooklyn Museum exhibition "Tree of Paradise: Jewish Mosaics from the Roman


INDIANAPOLIS, Indiana

CREATING ANTIQUITIES: INDIANAPOLIS MUSEUM OF ART (1) 317 923


ROMAN ART FROM THE LOUVRE. Some

180 prime examples of Roman art from the 1st century BC to the early 4th cen-

tury AD, including monumental sculptures, marble reliefs, mosaics, frescoes, terracotta,

and metal and glass vessels, all shown for the first time in Indianapolis.

INDIANAPOLIS MUSEUM OF ART (1) 317 923-1331 (www.ima.org). 23

September - 6 January 2008 (then to Seattle and Oklahoma City. Catalogue).

LANCASTER, California

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Kingdom sarcophagus, masks, and bronze and wood statuettes are among the antiques.

CITY OF LANCASTER ART GALLERY (1) 661 723-6250.

LOS ANGELES, California

SACRED GIFTS AND WORLDLY TREASURES:

MEDIEVAL MASTERWORKS FROM THE CLEVELAND MUSEUM

OF ART. The first travelling exhibition to showcase some of the treasures of Early Christian,

Byzantine, and Western Medieval art from a world-famous collection. J. PAUL GETTY

MUSEUM (1) 310 440-7700 (www.getty.edu). 30 October - 22

January 2005.

NEW YORK, New York

GREAT GIFTS FOR THE GODS: IMAGES FROM

EGYPTIAN TEMPLES. An important exhi-

bition dealing with the development of bronze and precious metal statues and statuets.

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879-5500 (www.metmuseum.org). 16

October - 18 February 2008 (then to Munich, Switzerland. Catalogue. (See the new issue of Minerva).

GLIMPSES OF THE SILK ROAD: CENTRAL

ASIA IN THE FIRST MILLENNIUM AD. A new installation featuring 37 sculptures,

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ums in the Persian, Khurasan, Sogdian, Chinese, and others in an array of differing influ-

ences. METROPOLITAN MUSEUM OF ART (1) 212 879-5500 (www.


NEW PERMANENT GALLERIES FOR HEL-

LENISTIC, ETURICKAN, AND ROMAN ART.

A completely refurbished Roman Court is the focal point of the re-installation.

The Australian Institute of Mediterranean Studies and the Black Bedroom from Boscoreale have

been newly reconstructed. A large display of the mosaic of the Roman villa at Boscoreale.

METROPOLITAN MUSEUM OF ART (1) 212 879-5500 (www.metmuseum.

org). (See Minerva, July/August, pp. 10-14).

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REINSTALLATION OF THE EARLY EGYPTIAN, IRRANIAN AND ROMAN EGYPTIAN ART GALLERIES. A larger space is now devoted to the museum's extensive collections of Predynastic and Early Dynastic art of the Roman Egypt. The architecture of the Old Kingdom tombs of Pemeb and Raaikma have been reconstructed. METROPOLITAN MUSEUM OF ART (1) 212 879-5500 (www.metmuseum.org).

REOPENING OF THE CHARLOTTE C. WEBER GALLERIES FOR THE ARTS OF ANTIQUITY ON 90A. An expanded presentation in the extensively renovated galleries, including new purchases and gifts, most notably the large collection of Nomic art from Eugene V. Thaw. METROPOLITAN MUSEUM OF ART (1) 212 879-5500 (www.metmuseum.org).

BUDDHIST SCULPTURE FROM CHINA: SELECTIONS FROM THE XIAN BELIN MUSEUM. Over 70 Buddha sculptures in stone, clay, and bronze, some excavated from archaeological sites as recently as 2003, are being exhibited as US for the first time. CHINA INSTITUTE GALLERY (1) 212 744-8181 (www.chinainstinate.org/gallery). 20 September - 8 December. Catalogue.

BON: THE MAGIC WORD. The first exhibition ever devoted to the Bon, a religious and cultural group living in the Himalaya and Central Asia, almost unknown to the Western world. Their religion and culture predate the northern advance of Buddhism up to the early 12th century. JAPAN, 212 620-3000 (www.mamnc.org). 5 October - 14 January 2008. PHILADELPHIA, Pennsylvania AMARNA: ANCIENT EGYPT'S PLACE IN THE SUN. More than 100 ancient artefacts, some never before on display, including statuary of gods, goddesses, and royalty, monumental reliefs, golden jewellery as well as personal items from the royal family, and artists' materials from the workshops of Amarna. Most of the show's artefacts date to the time of Tutankhamun and the Amarna Period. UNIVERSITY OF PENNSYLVANIA MUSEUM OF ARCHAEOLOGY AND ANTHROPOLOGY (1) 215 898-4000 (www.museum.upenn.edu). Until October.

WORLDS INTERTWINED: ETRUSCANS, GREEKS & ROMANS. A major reinstalla- tion and renovation of the museum's Classical galleries. Over 1000 works are now on view at the PENNSYLVANIA MUSEUM OF ARCHAEOLOGY AND ANTHROPOLOGY (1) 215 898-4000 (www.museum.upenn.edu).

TUTANKHAMUN AND THE GOLDEN AGE OF THE PHARAOHS. 50 treasures from the tomb of Tutankhamun, and more than 70 objects from other 18th Dynasty royal tombs throughout Egypt. JAPAN, 212 448-1200 (www2 fla.edu/tut) Until 30 September (the final view in the US). Purchase tickets: (1) 877 888-8587. (See Minerva, May/June 2004, pp. 9-13.)


GRAZ STONE IN CHINESE ART. ALTE GALERIE, LANDESMUSEUM JOANNITUM (43) 316 8017 9770 (www.museum-joanneum.at). Until 11 November.


VIENNA BEAUTY, MAGIC AND SCIENCE: PHYSICIANS AND MEDICINE IN PAPYRI FROM EGYPT. An exhibition to investigate the knowledge of physicians about healing and the functioning of organs and other body parts from Greek and Arabic texts from the 4th century BC to the 7th century AD. PAPYRUS SAMMLUNG UND PAPYRUS-MUSEUM, OESTERREICHISCHE NATION - ALBLIBETHES (43) 1 534 10 425 (www.onbi.ac.at). Until 31 October.

MEDIEVAL MASTERPIECES FROM THE NATIONAL MUSEUM IN WARSAW. An extensive exhibition of masterworks being held in the Grangerie of one of the most beautiful museums in the world. OESTERREICHISCHE GALERIE BELVEDERE (43) 1 7955 7134 (www.belvedere.at). Until 26 September.


CROATIA ZAGREB NEW EGYPTIAN COLLECTION EXHIBITION OPENED. Some 600 antiquities from the Middle Kingdom to the Roman period with symbolism the renowned 'Zagreb mummy' with its wrappings: the Egyptian 'linen book', one of the world's longest known Egyptian texts. ARCHAEOLOGICAL MUSEUM (385) 1487 3101 (www.amz.hr).


THE ANCIENT MEDITERRANEAN. An exhibition of ancient treasures from the museum, celebrating completion of the three-year renovation and the 100th anniversary of the museum. NY CARLSBERG GLYPTOTEEK (45) 33 41 81 41 (www.glyptoteket.dk). Until 31 December.


Pokfulam. Chinese ceramics and the Maritime trade Pre-1700. Over 100 pieces from the Tang to Qing dynasties, emphasising the importance of those ceramics made for export. UNIVERSITY OF HONG KONG, MUSEUM AND ART GALLERY (652) 2241 5300 (www.hkbu.hk/museum). Until 7 October.


Israel: Ohalo II: A 23,000 Year Old Fisherm- man’s Cavern on the Shore of the Sea of Galilee. The exhibition is devoted to finds Recovered from a prehistoric site on the shore of the Sea of Galilee between 1989 and 1991 by Dr Dani Nadel, the University of Haifa. HECHT MUSEUM (972) 4825 7773 (www.research.haifa.ac.il/hecht). Until December 2007.

Jerusalem. Three Faces of Monotheism. The similarities and contrasts of the shared Symbols of Judaism, Christianity, and Islam represented in antiquities, as an important key to understanding the foundations and developments of monotheism and its beginnings in the ancient world. BIBLE LANDS MUSEUM (972) 2561 1066 (www.bimj.org). Opened in June.

Masada. New Museum opens. A state-of-the- art museum with several unusual theatrai- cal settings has opened in June at this famed UNESCO World Heritage site, a symbol of the collapse of the Judean Kingdom at the time of the Second Temple. Nearly 700 artefacts from the Herodian and Second Temple periods provide a detailed storage and display, YIGAL YADIN MUSEUM (722) 8658 4207.

Italy: Bologna. The Archaeological Museum has reorganised the Greek section of its col- lections. The new rooms have been opened to the public for display. Pride of place has been given to the beautiful head of Athena Lemnia, a copy of a bronze original of the 5th century BC by Phidias, and to a 6th century amphora signed by Nikosthenes. The collection unifies private and public bequests in addition to the important collection assembled by the painter Pelagio Pelagia (1735-1860), including more than 200 Greek and Italian vases, 395 pieces of jewellery with precious stones and cameos, as well as statuary and funerary reliefs (39) 051 275 7211 (www. comune.bologna.it). Ongoing.


Chiusi, Siena. The Bonci Casuccini Collection of Etruscan Antiquities. One of the most important 19th-century collections of Etruscan antiquities previously dispersed among various museums is now on view at Chiusi and Siena. MUSEO ARCHEOLOGICO (39) 0577 224 811 (www.archeologiatoscana.it). Until 4 November.

Cortona, Arezzo. The Museo dell’Accademia Etrusca e della Civita has reopened with a new installation and new objects on permanent loan from the Archeological Museum in Florence and from current excavations near Cortona. PALAZZO CASALI (39) 0575 637 235 (www.museocasali.com). Opening. (See Minerva, January/February 2005, p. 37).


Melfi. The Museo Archeologico Nazionale in the Norman site of Melfi, where the 1st crusade was initiated in 1089, has recently been restored and its museum refurbished. On view are artefacts ranging from Prehistory to the Roman period, including the famous 2nd-century sarcophagus from Rapolla (39) 0971 21 719 (www.arcoep@art.beniculturali.it).

Milan. Eros and Thanatos. Dedicated to the gods of love and the personification of death as depicted through ancient sculpture and other artistic media. PALAZZO REALE (39) 02 87 56 72 (www.comune.milano.it/palazzoreale). Until 20 December.
MAGICAL TRANSPARENCY: GLASS FROM ANCIENT ALBANIA.CALUM. One hundred Roman glass objects found at Albahaca, modern-day Albania, in Liguria. MUSEO ARCHEOLOGICO NAZIONALE IN PALAZZO ALTEMS (39) 06 3956 7700 (www.archeoart.berlin cultural. It). Until 9 September.

SANT'ANTIQUA, Sardinia A NEW ARCHEOLOGICAL MUSEUM. Includes an adjoining archaeological park with a Phoenician-Punic excavations. MUSEO ARCHEOLOGICO FERRUCCIO BARRECA (39) 781 800 396 (www.comune.santantico.ca.it/museo/museo. Opened January 2006.

SIENA THE BONCI CASCINU COLLECTION OF ETRUSCAN ANTIQUITIES. One of the most important 19th century collections of Etruscan antiquities is now on view at Chiusi and in Siena. SANTA MARIA DELLA SCALE (39) 6577 224 811 (www.santamariadellascale.com). Until 4 November.

TRENTO GOLD OF THE NOMADS OF THE STEPPES: TREASURES FROM THE MUSEUMS OF UKRAINE. This exhibition of approximately 165 works of art comprises the finest Scythian gold objects from the Treasuries of the Ukraine Museum and the Archaeological Institute in Kiev. MUSEO CASTELLO DEL BUON CONSIGLIO (39) 0461 234 770 (www.buonsconsiglio.it). Until 11 November.

TURIN AFGHANISTAN: TREASURES SAVED. On display masterpieces from Afghanistan believed to have been lost. MUSEO DI ANTICHITA (39) 011 800 329 329 (www.museoantarichita.it. Until 23 September. (See Minerva, March/April 2007, pp. 9-12.)

THE TURIN CITY MUSEUM OF ANCIENT ART REOPENED. Situated in the magnificent 18th-century Palazzo Madama, one of the architect Filippo Juvarra's masterpieces (1724-1751), the collections on view range from the medieval to the Baroque. The display starts with the medieval lardary, which presents objects from the 8th to the 13th century AD, including sculptures, jewellery, a large black-and-white mosaic from the cathedral of Acqui, and the treasure of Desana, comprising Longobard and Ostrogoth metalwork. PALAZZO MADAMA (39) 011 443 3501 (www.palazzomadamadrenerito.it. Until 31 December.

REFLECTIONS IN STONE: AN IMPRESSIVE COLLECTION OF ANTIQUE EGYPTIAN STATUARY. An exhibition under the direction of the architect Dante Ferretti. MUSEO DELLA ANTICHTA ECIZIE (39) 011 561 7776 (www.museoegizi.it). Until 31 December.


VERONA ANCIENT BRONZE VASES FROM THE 5TH TO 1ST CENTURY BC, MUSEO ARCHEOLOGICO AL TEATRO ROMANO (39) 04 800 0360 (www.corona. verona.it. castelvecchio). Until 30 September.


KOREA OPENING OF THE NATIONAL MUSEUM OF KOREA. The new state-of-the-art complex has now opened, celebrating the 60th anniversary of the museum's foundation. (82) 2 2077 9000 (www.museum.go.kr).

MEXICO MONTERREY ISASI AND A FEATHERED SERPENT: PHARAONIC EGYPT AND PREHISTORIC MEXICO. An important joint exhibition of some 150 Egyptian antiquities from the Egyptian Museum, including statues of various pharaohs, and about 200 Prehispanic objects from the Museo Nacional de Antropologia will be an important part of the Universal Forum of Cultures Monterrey 2007. FUNDIDORA PARK. 20 September - 13 January 2008.

PAKISTAN KARACHI TALE OF THE TILE: THE CERAMIC TRADITIONS OF PAKISTAN. The ceramic traditions of Pakistan from Mehergarh in Baluchistan, c. 3800 BC, and the Indus valley, c. 2500 BC, to the present day in this recently opened museum. MOHATA PALACE MUSEUM (92) 21 5837 669 (www.mohatatapalacemuseum.com). Until 30 September.

RUSSIA ST PETERSBURG LITENESS OF CHINESE ART. The exhibition will feature an impressive selection of sculpture and other art from Antiquity and the Middle Ages from several European museums. STATE HERMITAGE MUSEUM (7) 812 710 9079 (www.statehermitagemuseum.org). 16 October - 13 January 2008.

MEROVINGIANS: EUROPE WITHOUT BORDERS. The rich legacy of the Frankish kings who ruled much of Europe from the 5th to 8th centuries, including magnificent gold scabbards, gold goblets, cloisonne buckles, and brooches. An Impor tant exhibition, including some of the 700 Merovingian-era objects taken by the Russians from Germany at the end of the Second World War, last seen in Berlin in 1939. Russia's State Duma passed a law in 1998 confirming their right to keep anything seized by the Soviets from the Germans, but Germany still hopes for their return. STATE HERMITAGE MUSEUM (7) 812 710 9079 (www.hermitagemuseum. org). Until 16 September. (See Minerva, July/August, pp. 19-21.)


SWITZERLAND GENEVE GAZA AT THE CROSSROADS OF CIVILISATION. A large exhibition displaying the multiple facets of the archaeological heritage of the Gaza Strip. MUSEE D'ART ET D'HISTOIRE (41) 22 418 2600 (www.ville. ge.ch/museo/mahg). Until 7 October.
TAYWAN
TAIPEI
NATIONAL PALACE MUSEUM REOPENED.
Following four years of renovations, the museum, which houses the world's largest collection of Chinese art, has reopened with many treasures on show for the first time, including Northern and Southern Sung dynasty ceramics. English captions have been added to the wall labels. Among the ongoing exhibitions are 'Art in the Sung Dynasty: Artifacts from the Horse-and-Chariot Pits at Hsiao-tun' and 'Compassion and Wisdom: Religious Sculptural Art', NATIONAL PALACE MUSEUM (886) 2 2881 2021 (www.npm.gov.tw/en).

THAILAND
BANGKOK
NEW CERAMIC MUSEUM.
Opened in March 2005, the collection holds over 2000 ceramics donated by Sunita Osathanugrah, mostly from Thailand, as early as c. 5000 BC and through the 19th century, featuring Khmer ceramics from Thai kilns and a major collection of ceramics from the 14th to 16th century Tai-Omkri sites in western Thailand. SOUTH-EAST ASIAN CERAMIC MUSEUM (66) 2 902 0299 (www.museu.ba.ac.th).

THE NETHERLANDS
AMSTERDAM
PERSIA.
An exhibition of Iranian art from the collections of the Hermitage including a Persepolis relief, Sasanian gold, and Islamic pottery. HERMITAGE AMSTERDAM (31 20 530 8753 (www.herm- itage-tg.nl). Until 15 September. (See Minerva, March/April, p. 61.)

LEIDEN
ASTERIX AND THE ROMANS.
An exhibition full of interactive games, exciting reconstructions and authentic objects. The Asterix and Obelix comic strips are the common theme running throughout an archaeological story about the daily life of Gauls and Romans. RIJKSMUSEUM VAN OUDHEDEN (31 71 316 316 (www.mmo.nl). Until 28 October.

JEWELLERY FROM ANTiquITY.
An overview of the most beautiful jewellery from the museum's collection including items from the Near East, Egypt, and Rome. RIJKSMUSEUM VAN OUDHEDEN (31 71 316 316 (www.mmo.nl). Until 13 September.

NIJMEGEN, Gelderland
ROMAN CAVALRY HELMETS.
MUSEUM HET VELD (0413) 24 360 88 08 (www.museumhetveldh.nf). Until 18 November.

MEETINGS, CONferences & SYMPOSIA
15-16 September. ANCIENT WORLD CONFERENCE. Presented by Ancient World Tours. Reading University. Tel: (44) 20 7195 2494. E-mail: info@ancientworldtours.com (www.ancientworldtours.com).
18 September. BRITISH ARCHAEOLOGICAL SOCIETY MEETS IN THE HOLY LAND. The One-Day Conference will be addressed by senior British, Israeli, and Palestinian Scholars and the lectures will include: Hinderper Reit at Tell el-Ajul and Tell el-Heis; John Garstang and Kathleen Kenyon at Jericho; Kathleen Kenyon at Jerusalem and Samaria; James Starkey and Owen Tudor at Lachish; Petrie and the Pictorial Map; and the Roles of the Palestine Exploratin Fund and the Anglo-Israel Archaeological Society. RIPA (31) 300 000 00 (www.ripa.co.uk).
21-23 September. EUROPEAN ASSOCIATION OF ARCHAEOLOGISTS, 13TH ANNUAL MEETING, University of Zadar and the Archæological Museum in Zadar, Croatia. E-mail: ea@anp.cs; www.e-e.a.org.

LECTURES

UNITED KINGDOM
CAMBRIDGE
8 September. AKHENATEN'S MUD BRICK CITY: RESIDENTS OF THE PAST, GUARDIANS OF THE PRESENT. Barry Kemp, Stephen Glanville Memorial Lecture. Fitzwilliam Museum, University of Cambridge. Contact: (44) 01223 332900. 5.30pm.
11 October. WATER, LIFE AND CIVILIZATION. Professor Steven Inskeep, Head of Environmental Sciences, University of Reading. A Palestine Exploration Fund Lecture, the Stevenson Lecture Theatre, The British Museum. Contact: (44) 020 7490 452. 6pm.
23 October. LIVING AT THE FOURTH CATACOMB: 150,000 YEARS OF SETTLEMENT HISTORY. Derek Welsby, Egyptian Exploration Society Northern Branch, Lecture Theatre 1, Soper Building, University of Manchester. Contact: Rosalie David (44) 0161 275 2647. 7.00pm.
25 October. THE CHURCH OF THE NATIVITY, BETHLEHEM. Dr Joan Taylor. Anglo-Israel Archaeological Society, the Stevenson Lecture Theatre, the British Museum. Contact: Diana Davis; tel: (44) 020 7691 1467; www.ias.org.ist. 6pm.
8 November. RECENT WORK IN THE TEMPLES AND CATACOMBS OF SAQQARA. Dr Paul Nicholson, Leiden Egyptology Society Northern Branch, Lecture Theatre, Bolton Museum. Contact: Tom Hardwick (44) 01204 352 212; tom.hardwick@bolton.gov.uk. 6pm.

AUCTIONS & FAIRS
28 September. Gorny & Mosch, Munich. Antiquities auction. Tel: (49) 89 422 6430 (www.gmonart.de).

APPOINTMENTS

Carol Wright has been named Curator of Antiquities at the J. Paul Getty Museum. Dr Wright has been at the Getty for 22 years, becoming Associate Curator in 1997 and Acting Curator in October 2000 upon the departure of Dr Coll Patricia. He is currently working on the organisation of the book The Greek Treasury of the Getty, which she has just published her book Looking at Glass.

Timothy Potts, Director of the Kimbell Art Museum since 1993, has been appointed Director of the Fitzwilliam Museum at the University of Cambridge, succeeding Duncan Robinson, who is retiring. Malcolm Warner, Deputy Director of the Kimbell will serve as Acting Director.

IN MEMORIAM

Professor Peter Ucko. One of the most influential archaeologists of his generation, passed away on 14 June aged 69. His professional career began to shape in 1956 when he studied Archaeology at University College London and, after obtaining a PhD in Egyptology he lectured at UCL with increasing brilliance and originality in Anthropology. Ucko's first book, Pseudoarchaic Auto Art, was co-written with his then partner Andree Rosenfeld. Shortly afterwards they moved to Australia, where he became Principal of the Australian Institute of Aboriginal Studies, where he met the anthropologist Jane Hubert, who became his partner for life.
Subsequently he became Professor of Archaeology at Southampton University where he weathered the storms of his professional career by forging the first World Archaeological Congress (WAC-1) against overwhelming conservative and Eurocentric opposition. This proved a substantial success, which produced 200 books from its sessions. This powerful determination - loathed and respected by many - was the hallmark of his character. In 1996 Ucko was appointed Director of the Institute of Archaeology at UCL, during which time he launched the first courses in Public Archaeology. He retired in 2006, and his contribution to his discipli-
ATTIC RED-Figure HYDRIA IN THE MANNER OF THE KLEOPHON PAINTER

To the left, a woman in a richly pleated chiton sits on a klismos; to the right stands another woman. On the floor between them is a kalathos above which hovers a large Eros holding a basket and a small chest.

Ca. 430 BC. H. 11 1/8 in. (33.5 cm).
Ex Spink & Sons, London; William Randolph Hearst collection, San Simeon, California, sold at Parke-Bernet Galleries, 1-6 April 1963, no. 91.
Published: J. Beasley, Attic Red-figure Vase-painters (1963), 1150.

Exhibiting at BAAF - The Basel Ancient Art Fair, 2-7 November, 2007
AN IMPORTANT
ROMAN MARBLE HEAD
OF ODYSSEUS

Bearded, wearing a pilos helmet
ornately decorated with a frieze
of erotes, rosettes, palmettes,
and lotus blossoms.
Late 1st-early 2nd century AD.
H. of helmeted head 13 1/2 in.
(34.3 cm); total H. with base
19 13/4 in. (50.2 cm).
Ex collection of Lord Bristol, Bury
St Edmunds, England, acquired in
the 18th century; Elderay collection,
England, c. 1920; French collection.

A magnificent drawing by the celebrated
German artist Johann Heinrich Wilhelm
Tischbein (1751-1829), now in the
Deutsches Literaturarchiv in Marbach,
depicts seven heroes celebrated by
Homer in the Iliad and the Odyssey.
These heroes were drawn after ancient
busts that Tischbein saw during his
lengthy stay in Naples at the end of the
18th century. The central bust, which is
identified as Odysseus in a description
published in 1801, is this very one.
Tischbein based his painting of
‘Odysseus and Penelope’ (1802) on this
sculpture, then in the possession of Lord
Bristol, who allowed Tischbein to draw
it at that time. The significant 18th-
century additions include the nose,
rear left part of the face, part of the
helmet, the bust, and base. These were
probably made by Bartolomeo
Cavaceppi (1716-1799) or his studio.

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2007

BASEL ANCIENT ART FAIR

Friday November 2nd till Wednesday November 7th

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Please visit our website for more information:
www.bAAF.ch