Trouble land
Afghanistan's Beogram hoard

Shaping the Western artistic tradition
Greek and Roman masterpieces in the British Museum

Between fire and water
The Bronze Age eruption of Thera and the tsunami that followed

Ice Age art
Archeology of Creswell Crags

Beyond the river
Bringing the land and history of Jordan into focus

When X marks the spot
Rediscovering the Aigina Jewellery

Treasure from a troubled land
Afghanistan's Beogram hoard

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The past 20 years have seen Minerva, founded by Dr Eisenberg in 1990, grow into a unique publication combining auctions, news, and reports from the antiquities trade with articles and news about museums, exhibitions, and excavations. While our focus has always been on the ancient art and archaeology of Egypt, the Near East, and the Graeco-Roman Mediterranean, many issues – including this – have contained articles and news features that span a far wider scope in both space and time.

Our previous issue’s editorial began with Winston Churchill’s famous quote: ‘There is nothing wrong with change, if it is in the right direction.’ Although I am not naturally repetitious, I thought it important to reiterate this because Minerva has been enhanced to bring it in line with the presentation of a magazine in the second decade of the 21st century – an essential move. Perhaps most importantly, the decision has been taken to give our text greater clarity and we have aimed to achieve this by replacing the old font with one that is clearer and more comfortable to read.

For our established readers these changes will be immediately apparent and I am confident that Minerva loyalists and new readers alike will universally endorse them.

Despite the alterations in the design and layout of the magazine, our traditional ethos remains unchanged: to publish cutting-edge articles and new discoveries from the archaeological world, the very best museum exhibition features, and the ever-popular biannual antiquities sales reports. The atmosphere of excitement, enthusiasm, and creativity that pervades Minerva is set to carry the magazine into its third decade of publication with unswerving zest. As ever, we welcome the comments and opinions of our readers, so please let us know what you think of the new look of the magazine.

Dr Mark Merrony
Towards a virtual museum?

A ground-breaking project could usher in a new way of documenting and presenting artworks and archaeological artefacts. Researchers are attempting to capture sculptures and other ancient objects in a three-dimensional (3D) format that is as real as the original masterpieces themselves.

The main aim of the project is to develop effective methods of 3D documentation of objects of cultural heritage, and to establish a European Virtual Centre of Competence in 3D digitisation. Trials have commenced at the Victoria and Albert Museum, and at Petworth House in West Sussex. At present, the experiments are being conducted primarily on sculptures, although over the next three years monuments and other artefacts will also be recorded. Various methods are used to produce the 3D scans, including digital photogrammetry (a type of remote sensing technology) and laser-scanning tools. To gain the high level of detail on smaller artefacts, the item is placed in a portable dome and then photographed under controlled lighting. However, not all objects give easy access to 3D imaging. Items with polished, reflective surfaces, such as jewellery, are especially difficult to capture. Part of the research will therefore focus on these problems and seek to improve existing methods.

Although the project is still in its developmental stage, the technology could provide significant cultural and commercial advantages. Rather then members of the public or academic researchers planning visits to museum collections to fit in with specific dates and opening hours, the new technology would allow the world of art and culture to be accessed online. Viewers could also rotate objects in every possible direction and zoom on to details which might remain hidden in a museum showcase.

Professor David Arnold, who leads the project from the University of Brighton, has stressed that while significant progress has already been made in the field of 3D documentation, the day when computer users can expect to discover the world’s treasures at the click of a mouse is still far away. The task of recording and cataloguing the countless numbers of artefacts and works of art held in the world’s museums and private collections would require a Herculean effort, although as the scanning technology becomes more affordable and widely available, members of the public might in future also be able to contribute by uploading their own records. Nevertheless, such a process would undoubtedly take many decades to complete.

The advantages the project would bring are, however, worth the struggle. According to Professor Arnold, ‘What you see at any given time in a museum is only the tip of the iceberg. There are many more things in storage than on display and all these could be recorded and made available for 3D viewing... And if you miss an exhibition at the Victoria and Albert Museum, then the items may not be on view again for another 35 years. This is where digital access comes into its own. Everything a museum holds could be available and accessible at almost any time.’

Elena Taraskina
Aston University

UNDERMINING JORDAN’S HERITAGE

In the northern Jordan Valley, the Damiyah dolmen field is becoming increasingly threatened by encroaching development, which is placing many of these ancient monuments at risk. According to the World Monuments Fund (WMF) dolmens across Jordan ‘are being lost at an alarming rate.’

The problem is most acute around the village and tell site of Damiyah, where about 300 dolmens, together with a number of rock-cut tombs and stone circles, are still to be found. These prehistoric monuments are increasingly endangered by quarrying activities; the travertine rock from which many of the megalithic structures in Damiyah are formed is in high demand for modern construction projects. Although Jordanian law protects dolmens and other archaeological monuments from direct destruction, quarrying can nevertheless take place around the megaliths, often getting extremely close to them. As the WMF report makes clear: ‘With only a negligible barrier left to protect them, many of the fragile dolmens are now suspended on quarried pillars and left vulnerable to collapse.’

The quarrying has also fundamentally altered the landscape within which the dolmens were intended to be seen and appreciated. It is therefore becoming increasingly difficult for archaeologists to attempt to understand how the ancient monuments related to the natural environment into which they were raised 5500-6000 years ago. If the extraction of the travertine continues unchecked in the region around Damiyah, then Jordanians risk losing an important part of their ancient heritage and a potentially lucrative source of tourist revenue.

Benazir Siddique
London School of Economics and Politics, Dubai
Evidence of long-distance wine trade?

The results of an underwater survey undertaken off Cape Greco on the south-east coast of Cyprus were announced by the Department of Antiquities last October. The project, which was sponsored by the Institute of Nautical Archaeology at Texas A&M University and received financial assistance from the University of Pennsylvania and RPM Nautical Foundation, took place in summer 2009 at a wreck site that had originally been identified in 2007.

Although no trace of the ship was visible on the seabed, the wreck site was clearly marked by more than 130 amphorae, the pottery containers used in the transport of liquids and foodstuffs around the ancient Mediterranean. Although cargo was sometimes jettisoned by the crew during storms in order to lighten the ship and allow it to better ride out heavy weather, the scatter of so many amphorae, as well as finds of non-cargo items which appear to come from the ship’s galley, leave little doubt that they originated from a shipwreck.

The amphorae surveyed at the wreck site were types commonly in use during the early years of the 2nd century AD. This was the territorial high-water mark of the Roman Empire when Trajan (r. AD 98-117) extended the borders of the Empire across the Danube into Dacia (modern Romania) and eastwards as far as the head of the Persian Gulf. However, the final two years of Trajan’s reign would see the borders of the Empire across the Danube.

In an effort to alleviate growing food shortages in Rome and other cities across the Empire, in AD 92, just a few years before the ship sank off Cape Greco, Domitian passed an edict preventing the creation of new vineyards across the Empire while ordering many established ones to be turned over to the local market. However, the discovery of Gallic wine amphorae off Cyprus indicates the need for a re-evaluation in the scale of the long-distance wine trade in the 188 years in which Domitian’s edict was in effect.

It is, however, unlikely that the ship which sank off Cape Greco had carried the amphorae direct from the north-west Mediterranean to Cyprus. Instead, the cargo of Gallic wine had almost certainly been transported on a number of previous vessels before it reached the eastern Mediterranean and its watery grave off Cyprus. The ship at the wreck site was also likely to have been too small to conduct trade across the length and breadth of the Mediterranean. The relatively limited number of amphorae on the seabed and the wreck’s location in the shallow waters off Cape Greco indicate it was not a large vessel.

James Beresford

Tombs in flood and fracture zones

Conservation expert Richard Parizek (Pennsylvania State University) has identified 30 out of a possible 63 tombs in the Valley of the Kings that are carved in fractured rock, which is prone to flooding, while four tombs show signs of previous flooding. Urgent action is required to ensure that tombs at risk of water damage are adequately protected.
At the beginning of October 2009, two Italian archaeologists, the twin brothers Angelo and Alfredo Castiglioni, used the archaeological documentary film festival held in Rovereto, northern Italy, to showcase their 13 years of fieldwork in the Western Egyptian desert.

It was in this hostile part of the Sahara that they claim to have discovered artefacts that may pinpoint the location where a mighty Persian army was swallowed up by a sandstorm in 525 BC. If the brothers’ discoveries are proved correct, they will have solved one of the greatest mysteries of antiquity. According to the historian Herodotus, writing a century after the incident, the Persian king Cambyses II (r. 530-523 BC) dispatched an army 50,000 strong from Thebes to the oasis town of Siwa with orders to enslave its people and raze the Temple of Amun. This vast force travelled across the desert for a week to an oasis generally thought to be the modern town of El-Kharga, almost 200km west of the Nile. The great army is known to have made its way this far, but after leaving the oasis nothing more was ever heard of them. However, the inhabitants of Siwa would claim that, a few days later, ‘as the soldiers were eating their midday meal, a powerful and deadly wind rose up from the south, bringing with it vast columns of swirling sand which engulfed the soldiers and caused them to completely disappear’ (Histories, 3.26).

It is this lost army that the Castiglionis bothers to completely disappear (Histories, 3.26). They claim to have discovered Cambyses’ army as ‘unfounded and misleading’.

Supreme Council of Antiquities, has therefore questioned the Castiglionis’ discoveries, regarding their claim to have found Cambyses’ army as ‘unfounded and misleading’.

Dr Hawass’ skepticism is perhaps justified. In 1977 the reporter Marcus Smith wrote a story for Associated Press under the headline ‘Lost Army Found’, in which it was claimed that thousands of human bones and Achaemenid weapons had been found near Siwa Oasis. It would later emerge that the story was a hoax. If their discoveries are substantiated, then the Castiglionis will also have outdone some of history’s most famous explorers and adventurers. During the early 19th century the great pioneering Egyptologist Giovanni Belzoni searched in vain for clues to the whereabouts of the vanished army. In the 1930s both Orde Wingate, later famous for forming the celebrated Chindits, and the Hungarian Count László Almásy, whose adventures in the deserts of North Africa were to prove the inspiration for Michael Ondaatje’s 1992 novel The English Patient, also made fruitless attempts to find Cambyses’ army. If, however, further research confirms the Castiglionis’ assertions, then it would finally bring an end to a mystery that has spanned more than two millennia.

James Beresford

AUSTRIAN ARCHAEOLOGISTS EXCAVATING NEAR TELL EL-DABA, THE ANCIENT CITY OF AVARIS, LOCATED IN THE EASTERN DELTA OF THE NILE, HAVE RECOVERED A SEAL THAT PROVIDES EVIDENCE OF CONTACT BETWEEN BABYLONIA AND NORTHERN EGYPT DURING THE MIDDLE OF THE 2ND MILLENNIUM BC.

The Castiglionis indicate desiccated water sources accessed by ancient wells. It was while focusing on this line of march that the brothers claim to have come upon a mass grave and the shards of hundreds of water pots.

The Castiglionis’ decision to release their findings as a documentary film rather than through an archaeological journal has unfortunately made it more difficult to corroborate their claims. Dr Zahi Hawass, the influential Secretary General of the Egyptian Supreme Council of Antiquities, has therefore questioned the Castiglionis’ discoveries, regarding their claim to have found Cambyses’ army as ‘unfounded and misleading’.

If their discoveries are substantiated, then the Castiglionis will also have outdone some of history’s most famous explorers and adventurers. During the early 19th century the great pioneering Egyptologist Giovanni Belzoni searched in vain for clues to the whereabouts of the vanished army.

James Beresford

Greek archaeologists excavating near Tell el-Daba, the ancient city of Avaris, located in the eastern delta of the Nile, have recovered a seal that provides evidence of contact between Babylonia and northern Egypt during the middle of the 2nd millennium BC, they announced at the end of October 2009. A cuneiform writing tablet that was also recently unearthed at Avaris had provided indications of contacts between the Babylonians and the Egyptian delta.

Avaris was the base of the Hyksos (‘Desert Princes’), from where they expanded in the late 18th century BC, using their mastery of chariot warfare to win control over the whole of the Delta region and most of northern Egypt during much of the 17th and 16th centuries BC.

Irene Forstner-Müller, head of the Austrian Archaeological Institute’s (ÖAI) office in Cairo, expressed the desire of the ÖAI to open a museum near the Avaris archaeological site. It is therefore hoped that the seal, together with other artefacts recovered from the Avaris excavations, will be placed on display in the near future.

James Beresford

Tutankhamen’s Tomb receives makeover

Brown spots that have appeared on the wall paintings and on other surfaces around the burial chamber of Tutankhamen in the Valley of the Kings are due to be fully investigated during a five-year project to restore the tomb of the boy pharaoh. The Supreme Council of Antiquities (SCA) will join forces with the Getty Conservation Institute to carry out the project, the first two years of which will focus on investigating the deterioration of the wall paintings, while the remaining three years will be spent on maintaining and conserving the tomb complex.

FINDS IN THE MAREAN BASILICA

Polish archaeologists Professor Hannah Szymariska (University of Warsaw’s Centre of Mediterranean Archaeology) and Dr Krysztof Babraj (The Archaeology Museum, Kraków) have discovered a second baptistery on the eastern side of the main nave of the Byzantine basilica at Marea, thought to have been built in the 5th century AD. Several hundred coins, fragments of a marble bowl for holding holy water, and 100 small water vessels and olive lamps have also been discovered at the basilica site.

Georgina Read
PALACE OF JAPAN’S LEGENDARY SORCERESS QUEEN

Archaeologists working in the city of Sakurai, in Nara Prefecture, 800km south-west of Tokyo, have unearthed the remains of a large building, originally raised on stilts. It is argued that the structure could be the palace of Queen Himiko who, at the beginning of the 3rd century AD, ruled over Yamatai, one of the numerous warring kingdoms that covered the Japanese islands. As one of the most popular characters in Japanese history, the semi-legendary Queen Himiko has inspired films, animation, comic books and computer games. There is, however, virtually no evidence of the queen in the historical documents of Japan. It is only through Chinese texts that knowledge of her reign over the kingdom of Yamatai has been preserved.

According to one of these early sources, written at the close of the 3rd century AD, Japan had suffered from several generations of endemic warfare and social unrest throughout much of the 2nd century AD. It was agreed that a woman leader could bring peace and stability, and Himiko was therefore placed on the throne of the Yamatai kingdom. Once she had gained power the Chinese records state: ‘She spent most of her rule engaged in magic and sorcery, which she used to bewitch the people. Throughout her reign she remained unmarried, although her younger brother helped her govern the country. After she became queen, she was seldom seen again, except by the one thousand women who were her servants. There was also one man who brought her food and drink and acted as her means of communication. Himiko’s residence was a palace surrounded by towers and stockades, closely guarded by soldiers in a state of constant readiness.’

It is the palace referred to in ancient Chinese texts that Japanese archaeologists now believe they have discovered in Sakurai. With pottery found at the site dateable to the early 3rd century AD, the structure is from the period at which Himiko is thought to have reigned. Estimated to have had a floor area measuring almost 240m², the building at Sakurai is the largest ever discovered in Japan of the early 3rd century. Three other buildings of similar date located close by, and which were constructed on the same alignment, indicate that they were all part of a single complex, planned and constructed at approximately the same time. Such a cluster of buildings is unprecedented in Japan at that period, and Taichiro Shiraishi, Director of the Chikatsu Asuka Museum in Osaka Prefecture, has observed: ‘The orderly alignment of the buildings from east to west is sure proof that they were part of the Yamatari royal palace.’

The discovery of the large stilted structure in Sakurai comes only a few months after a team of archaeologists, led by Professor Hideki Harunan from the National Museum of Japanese History, argued that a large burial mound in the city contained the tomb of Queen Himiko. Constructed in a distinctive keyhole shape, the burial mound is 272m in length, far larger than any of the other tombs raised in the area.

While it had traditionally been assumed that the mound was constructed later than Himiko’s reign, radiocarbon dates attained from carbonised organic material excavated from a moat surrounding the tomb have pushed back the date of the mound’s construction to the middle of the 3rd century AD; a date that corresponds with the time when Himiko is believed to have died. The size of the tomb at Sakurai also supports what Chinese histories describe of Himiko’s burial: ‘When the Queen died, a great burial mound was raised, stretching over a hundred paces in diameter. More

Rare Roman cameo glass vase unveiled

Bonhams announced in October 2009 that a glass vase that had been undergoing specialist study in the firm’s London auction house, is an extremely rare 2000-year-old Roman cameo glass vessel. The vase was originally presented to delegates at the 18th Congress of the International Association for the History of Glass, held at Thessaloniki, northern Greece, last September. Its unveiling caused considerable excitement among the scholars in attendance – understandably, given that only 15 other Roman cameo glass pieces are known to have survived from antiquity. In addition to being extremely rare, ancient cameo glass antiquities also provide an unrivalled insight into the technical skills mastered by ancient glassworkers.

Roman cameo glasswork was formed by blowing two layers of glass together, a cobalt blue base layer and a second layer of white glass. Once the piece had cooled, the topmost layer of white glass was carefully cut away by a skilled engraver who painstakingly shaped intricate cameo-style representations of figures and other subjects while revealing the second layer of glass underneath, which formed a translucent blue background. The skill, time and effort required to produce such a vase was enormous, and the cost of a piece produced in this fashion would have limited it to the wealthiest and most distinguished of Roman families.

It is believed that the production of cameo glass was extremely short-lived during antiquity, and the technique appears to have been focussed on the Julio-Claudian period (27 BC – AD 68), though there was a very brief revival of the technique in the 4th century. While cameo glass was produced by Islamic craftsmen during the medieval period, in the West the process was lost until the 18th century, while it became especially popular during the Art Nouveau movement at the turn of the 19th and 20th century.

The piece currently undergoing study at Bonhams is not only joining an exceptionally small and artistically important collection, but is of a quality that makes it one of the most significant of all the surviving examples of the Roman engravers art.

At 33.5cm, it is almost 10cm higher than the famous Portland Vase held in the British Museum. The recently unveiled piece is also in a better state of preservation than the Portland Vase, retaining its base and lower register, upon which is etched a battle scene featuring six mounted figures, while five slain warriors lie beneath the horses hooves. Above, on the
EXCAVATING THE BAX FARM BATH-HOUSE

Excavations undertaken at Bax Farm in Kent during the summer of 2009 saw 82 students, drawn from many of the leading universities in Britain, gathered for three weeks of archaeological investigation at the site. By the time the excavation drew to its close, the archaeologists had exposed a unique and magnificent late Roman octagonal building containing a huge central plunge bath, probably constructed at the time of Constantine, the first Christian Emperor of Rome (r. AD 306-312).

An evaluation trench dug in 2006 had uncovered the concrete base of a large Roman corn mill, while geophysical surveys had also revealed a huge ‘hollow-way’ road leading down from other Roman buildings to a possible harbour. Earlier Iron Age ditches and later Anglo-Saxon buildings all added to the rich archaeological tapestry of the site.

However, the jewel in the archaeological crown of the site is the unusual Roman octagonal bath-house, which is unique in south-east Britain. The structure is about 14m across and has arcaded columns surrounding a central octagonal pool, 4m in width. The walls of the building were originally covered with painted plaster, while small tesserae, cut from black, yellow, red and blue stones and tile, were set into the floor. The blue painted floor of the plunge bath had also survived, as had the Roman lead piping which supplied the bath with water.

Octagonal buildings of this type have previously only been found in south-west Britain, at sites like Lufton and Holcombe. The motivation for the construction of these elaborate and exotic buildings in Britain has generated many theories, but most experts tend to assume that the astonishing octagonal frigidarium at the centre of the building was used for Christian baptism or even Jewish baptismal bathing. Similar structures in Ravenna and Rome certainly appear to have functioned as early Christian baptisteries. This scenario is further reinforced at the Bax Farm site by the discovery of a Roman lead seal, probably a ‘redemption of the first born’ medal, depicting a special kind of five-branched menorah used in the ceremony of baptism.

The corpus of excavated pottery and coins suggest that the octagonal Roman building at Bax Farm was built during the reign of Constantine and can be associated with his time in Britain; the province where he was proclaimed Augustus following the death of his father at York (Eboracum) in AD 306. It therefore appears likely that this type of sophisticated and unusual structure was introduced to Britain and the Western Roman Empire so that large numbers of people could be baptised into the new state-sanctioned religion of Christianity.

Some of the rooms at Bax Farm had underfloor heating as well as alcoves containing hot plunge baths. Of particular interest is the discovery of an apse set beyond the south-west perimeter of the octagonal building, which enclosed a hot room heated by a hypocaust. Archaeologists also uncovered the masonry base of a large cold water basin or labrum. Fragments of a stucco ceiling indicate that above the central pool and its fountain was a large dome set on pendentives, which would have echoed and reflected the sound of cascading water. Ceilings such as these would have been possible with the columns or arcading bearing the vertical pressure while the ground floor walls provided a buttressing effect, counteracting the outward thrust of the heavy dome. Such highly sophisticated engineering is generally associated with the Eastern Roman Empire. Why such complex architectural structures were being erected in Britain, an outpost of the Empire well removed from its Mediterranean heartlands, is a question that will continue to prompt much discussion over coming years.

Paul Wilkinson
Kent Archaeological Field School

than a hundred attendants followed her to the grave.’

The location of Himiko’s kingdom of Yamatai is, however, a highly contentious topic. While many scholars place the state in south-west Honshu, the largest island in the Japan archipelago, and a region that includes the modern city of Sakurai, others believe Yamatai was to the south-west, in Kyushu, the most southerly of Japan’s four main islands. While the discovery of the large building at Sakurai strengthens the claim that Yamatai was located in Honshu, the sites of large buildings have also been discovered in Kyushu.

Excavation of the burial mound in Sakurai would obviously offer the best hope of proving whether Himiko really was interred inside. Digging into the tomb is, however, prohibited by the Imperial Household Agency, which has designated the mound as a royal burial place with connections to the Japanese Royal Family. Equating the newly discovered palace and nearby tomb with Himiko, the sorceress queen of Yamatai, will therefore remain a bone of contention amongst archaeologists well into the future.

James Beresford

upper frieze of the vase, a Dionysiac scene is featured in which the skill of the engraver is clearly demonstrated in the berry-laden wreaths crowning the heads of the maenads, and the well defined musculature of the male figures. It is, however, the imploring facial expression of a woman, kneeling at the feet of a soldier, which most clearly emphasises the care, delicate touch, and keen eyesight required to carve such figures using only hand tools and working without any magnifying aids.

It is therefore little wonder that Chantelle Rountree, head of antiquities at Bonhams, has stressed the significance of the vase: ‘It is of major importance. Academically and artistically it is priceless. Scholars will be evaluating this find for decades.’

While experts continue to carry out detailed research into the iconography on the vase and attempt to trace the history of its recent ownership, should it become available on the international art market the piece would probably command prices that would make it the most valuable glass object ever to come to auction.

James Beresford
The dawn of British art

Murray Eiland reviews recent investigations carried out in the Creswell Crags that have transformed our knowledge of cave art in Ice Age Britain.

The find of Britain’s oldest cave art reads more like a piece of fiction than part of a thorough academic investigation. Over a dinner in Oxford in late 2002 a team was formed, consisting of Paul Bahn, a well-known and highly respected independent archaeology researcher and writer; Paul Pettitt of the University of Sheffield; and Sergio Ripoll, UNED, Spanish Open University in Madrid. Their aim was to look at British caves to try and find traces of Ice Age art (Fig 1). On 14 April 2003, the first morning of a preliminary three-day survey starting at Creswell Crags, a limestone gorge honeycombed with caves and fissures (Fig 2), located on the borders of the counties of Nottinghamshire and Derbyshire, the goal was achieved. One of the caves, known as Mother Grundy’s Parlour, yielded what at the time appeared to be a small horse-head, but which now seems to be a complex figurative design.
Later in the day, the north-facing and therefore gloomy interior of Church Hole Cave was also investigated. Previous excavations carried out from the late 19th century had demonstrated Upper Palaeolithic occupation (c. 40,000-10,000 years ago). Now empty of much of its sediment, the Palaeolithic floor level of Church Hole would have been some 1.5m higher than is presently the case. This left rock-cut figures to be found by later researchers, including a ‘bird panel’ in the passage, and an animal that looks like an ibex engraved on the wall near the back of the cave (Fig 4).

When the first archaeological exploration of Church Hole Cave took place in the 1870s, it is likely that, even if the early excavators of the cave did see the figures engraved onto the cave wall, they would have assumed they were modern creations. Only in 1880, when reports of the cave art found at Altamira in northern Spain was first published, did researchers open their eyes to the great antiquity of figures carved and drawn onto the walls of caves (Fig 5). When the first archaeological exploration of Church Hole Cave took place in the 1870s, it is likely that, even if the early excavators of the cave did see the figures engraved onto the cave wall, they would have assumed they were modern creations.

Regardless of the number of artworks carved in the caverns of the gorge, what is not in dispute is that the Creswell caves have yielded the only known portable figurative art from the British Ice Age. The art from across Western Europe during the Upper Palaeolithic shares several important themes. While pride of place goes to caves in France and Spain, the engraved bones found in the Creswell caves nevertheless display a surety of line. A carved horse-head found in Robin Hood Cave leaves a viewer in no doubt as to the creature represented. Lines have also been
etched onto the horse, which have been interpreted as either spears or possibly fencing erected to divert the animal to a kill site (Fig 6). A more enigmatic bone from Pin Hole Cave which was unearthed in the late 1920s depicts what has been interpreted as a masked, dancing human male figure (Fig 8). Other scholars have suggested the face is not masked but portrayed in an exaggerated ‘cartoonish’ style. Debate continues to swirl about these two objects. The horse-head has obvious parallels with French Magdalenian (17,000–12,000 BP) sites, one of the distinctive cultures of the Upper Palaeolithic, named after a site in the Dordogne region of south-western France. It has been suggested that the bone could have been brought to Britain by hunters tracking animals to summer feeding grounds before heading back south at the end of the season. When it was originally discovered, it was suggested that the engraving was a much more recent creation, and that it may even have been planted in the cave before or during the excavations which took place in the late 1920s. ‘Pin Hole Cave Man’ also has detractors who note that, rather than an intentional piece of art, the bone may simply be no more than a fortuitous accumulation of lines.

The questions that may be directed at the portable art from Creswell Caves revolve around provenance, but cave art raises other concerns. Interestingly, with one or perhaps two exceptions, all the art is from the Church Hole cavern. Previous excavations demonstrated that this cave had the least amount of human activity during the Palaeolithic, and fewer backed blades were recovered here than from the northern side of the gorge. Theories have therefore been put forward that suggest the cave may have had some special spiritual significance. The region as a whole would have offered Magdalenian groups a rich hunting ground, with large prey such as horses, cattle, and perhaps even migrating reindeer, all potentially on the Palaeolithic menu (Fig 3). Caves, including Church Hole, also contained large numbers of bones belonging to Arctic hares that were probably hunted and trapped for their fur as much as their meat. A bone needle, awls, and what is possibly a thread winder, also indicate that the production or repair of clothing was practiced in the gorge (Figs 7a, 7b, 7c). Archaeological excavation of Church Hole Cave also recovered traces of red ochre. While this may suggest that the cave walls were painted, ochre was also used to preserve skins and finds of the pigment may further suggest that the hunter-gatherers using the Creswell Caves were fashioning clothes and equipment from hides and furs. Most of the figures etched on to the wall of Church Hole Cave occur near the entrance of the cavern, which indicates that natural light was an important consideration for the Palaeolithic artists. Sadly, the mouth of the cave has also suffered the most erosion. While much initial work was conducted with artificial light, later research tended to use natural light and also drew upon knowledge of the local geology to determine which lines were likely to have been engraved and which were natural features. Recent investigation has concluded that many figures initially assumed to have been etched onto the cave walls are in fact natural features. However, Ice Age artists did incorporate the contours of a cave into their work, so in some cases it may be very difficult to tell the difference between natural and engraved features. Even in bright light, many of the features are unclear, particularly...
when captured in photographs. A group of forms that appears to the modern viewer as lines may have represented schematic women drawn upside down or, perhaps more obviously, long-necked birds intended to represent species such as cranes, herons, bitterns, or swans (Figs 9a, 9b). Fortunately, part of the section of cave wall featuring these engraved forms has been overlain by a thin stalactite film. Because of the decay rate of isotopes of uranium within the calcite, this provides an excellent material for very precise aging of the material. In the case of the Church Hole Cave, it was determined that the figures representing birds or women were more than 12,800 years old. This accords well with radiocarbon dates obtained from human altered Arctic hare bones, which were also recovered from Church Hole and were dated to 15,700–13,200 years old. Perhaps the most distinctive and easily identified figure from Creswell Caves is a water bird believed to be an ibis (Figs 10a, 10b, 10c). It follows a contour of the Church Hole wall, though the natural feature of the cave has clearly been elaborated and brought to greater prominence by human agency. The relatively large head and beak are particularly well defined, although the eye may be a natural feature and its location may well have guided the subsequent engraving.

The discovery in 2003 of Ice Age cave art in Britain triggered a flurry of expeditions to revisit other caves in the hope that more discoveries would be made. To date there has been a mass of negative evidence. However, with an average of one decorated cave discovered in France every year, and even more found in Spain, Bahn and Pettitt are therefore confident that it is only a matter of time until more British cave art is discovered in either an unknown chamber inside a known cave, or on the walls of a newly opened cave. The evidence that has come to light from the Creswell caves since 2003 certainly underscores the fact that there is no longer any reason to suppose that Upper Palaeolithic peoples in Britain did not produce cave art. The evidence from the wall of Church Hole Cave also suggests that a reassessment of the carved horse head and ‘Pin Hole Cave Man’ engraving is required in order to determine their validity and relationship to the rest of the archaeology found within the cavern and elsewhere in the Creswell cave complex.

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Located on the important maritime route that linked Europe, Asia and Africa, Cyprus has always been positioned on a crossroads of cultures, and, throughout the Ages of Copper and Bronze, the island functioned as the cultural intermediary that linked Greece with the civilisations of the Near East and Egypt. The Cypriots benefited from this strategically important position to import commodities and ideas and export products manufactured on the island, with Cypriot pottery found all over the eastern Mediterranean. However, despite their pivotal location on the shipping routes of the ancient world, Cypriot society and material culture maintained a distinctive individuality throughout prehistory.

Between 1927 and 1931, the Swedish Cyprus Expedition, led by Einar Gjerstad, John Lindros, Erik Sjöqvist and Alfred Westholm, carried out archaeological excavations at 21 sites across the island. The expedition unearthed 18,000 artefacts ranging in date from the Neolithic through to the Roman imperial period. About 12,000 of these objects were brought back to Sweden and, although additional Cypriot material was acquired in later years, it is the artefacts from the original four-year expedition that make up the vast majority of the pieces on display at the Medelhavsmuseet in Stockholm, where they form the largest and most important collection of Cypriot archaeology outside Cyprus.

Following a lengthy closure for extensive refurbishment, the Medelhavsmuseet reopened the Cypriot gallery early last year. A major donation from the A. G. Leventis Foundation allowed the collection to be moved to a new location in the tiled inner courtyard that forms the central hall of the Medelhavsmuseet (Fig 1). Not only does the collection now hold pride of place at the focal point of the museum, but its relocation and remodelling has also allowed the museum to place a far larger proportion of the archaeological finds on public display.

On entering the gallery, the visitor’s attention is immediately drawn to the immense wedge-shaped blocks housing the exhibition showcases. The huge constructions are rather attractive, but give an impression of weight and heaviness that contradicts the very sense and meaning of the cults and culture of early Cyprus: these were focussed on open-air sanctuaries comprising constructions of wood and white limestone, and bathed in sunlight.

Statuettes primarily depicting female figures appear among the earliest settled communities of Cyprus from the Neolithic into the Chalcolithic (Copper Stone Age) period of prehistory. Traditional scholarship tended to view these figurines as evidence of a maternal deity – the so-called Mother Goddess, who was worshipped to sustain farming communities. This had added potency on Cyprus, which, according to ancient myth, was the birthplace of Aphrodite, the goddess of fertility. Victorian antiquarians tended to regard these prehistoric figurines as prototype forms of the later goddess, an idea given renewed momentum in the closing decades of the last century with the research of Marija Gimbutas, who regarded ‘Old Europe’ as being a matriarchal society centered on the cult of the Mother Goddess (see Minerva, November/December, 2009, pp.12-15). Such theories have, however, been fiercely disputed in recent years, and the female (and, indeed, the handful of male) figurines found across prehistoric Cyprus can be interpreted in a variety of other ways, including as symbolic forebears of a family cult and matriarchal progenitors of a village clan. Pottery figurines found across the island, which have both male and female individuals depicted, have also been interpreted in different ways.

The re-opened Cypriot Gallery in Stockholm’s Medelhavsmuseet has drawn some criticism for its presentation of information, but it is nonetheless an attractive setting for a unique collection, says Marie-Louise Winbladh.

Fig 1. The central hall of Stockholm’s Medelhavsmuseet. The large wedge-shaped blocks contain the showcases in which are displayed the artefacts of the museum’s Cypriot collection. Photo courtesy of Johan Foweling.
female sexual attributes, were perhaps also perceived as potent fertility symbols. The figurines are usually thought to have safeguarded the fertility of humans, animals and the crop-bearing fields, as well as protecting the home from evil powers. Cruciform figures, made in the southwest of Cyprus between about 3000-2500 BC, have been found at sites across the island, and have become the archaeological trademark of the Chalcolithic Age on Cyprus (Fig 2). Women, wishing for a favourable and healthy childbirth, wore them around the neck as amulets. The figurines were also buried in tombs, possibly symbolising rebirth and the guarantee of making it to the next life.

In the exhibition the visitor is not provided with any information about the rituals and cults of early Cyprus and their connection with social and economic practices; instead, the emphasis is on the later worship of the goddess Aphrodite and her impact on Classical Greece. This is somewhat confusing, as the early fertility cults in Cyprus had little in common with the pantheon of deities that dominated later periods of Greek and Mediterranean history.

Religion on Cyprus also appears to have been shaped by economic development, based on the mining, production and trade of copper – the abundant ore deposits would provide a source of prosperity for many of the communities of Cyprus. Throughout antiquity, the island was famous for its rich copper mines and smelting of the metal was being carried out by the late 3rd millennium BC. The trade in copper also led to Cyprus developing economic links and social contacts with the Levant, Anatolia, Egypt, and the Aegean world during the course of the Bronze Age. The mining and working of the metal also seems to have been an important factor in promoting social change among Cypriot communities. The Medelhavsmuseet gallery could do more to draw visitors’ attention to the importance of copper mining in Cyprus’s history. Even important artefacts such as swords are hidden away in a corner of a small case with very little explanatory information accompanying them.

Borne along with copper and the other commodities that were traded between Cyprus and its neighbours, influences from the Near East appear to have led to changes in the design of religious terracotta sculpture on the island. A new type of female figurine with broad hips and a bird-shaped face is thought to have originated from Syria, where she was an image of the Oriental fertility goddess Ishtar or Astarte (Fig 4). It is also commonly believed that immigrants, probably from Anatolia, influenced the design and techniques of pottery production. From the Cypriot Chalcolithic period, and on into the Bronze Age (c. 2400-1100 BC), many pots appear to have been produced to fulfill a specifically ritual function. Some had a round body – perhaps intended to symbolise the cosmos, or the cycle of nature – while offerings, such as fruit and seeds, also appear to have been placed in small bowls positioned on top of the ritual pots.

About the middle of the 3rd millennium BC, smiths started to alloy copper with tin to produce bronze. With tin unavailable on Cyprus, the metal had to be imported from regions such as the Taurus mountains in southern Anatolia, further stimulating overseas trade. Tin possibly also came to Cyprus from as far afield as the Iberian penin-

The figurines are thought to have safeguarded the fertility of humans, animals and the fields, as well as protecting the home from evil powers.
During the Cypro-Geometric period (c. 1050-700 BC), Phoenicians established colonies on Cyprus and introduced their own deities to the island. Finds of statues of a male figure wearing a tunic covered by a lion skin, while brandishing a club and holding a lion, are reminiscent of both the Phoenician Melqart and the Greek Herakles. During 1929–1930 the Swedish Cyprus Expedition also excavated a temenos, a sacred enclosure, situated on the acropolis of ancient Kition (modern Larnaca) on the southern coast of the island. A large number of sculptures, virtually all depicting men, were recovered from deposit pits dating to c. 560–450 BC. However, the most impressive temple at Kition was dedicated to the goddess Astarte, who had probably been introduced to Cyprus by Phoenician merchants and colonists, where she would become equated with the Greek goddess Aphrodite.

Beginning about 850 BC, the Astarte sanctuary was the focus of the religious life of the town and, for more than 600 years, was one of the most important sanctuaries on Cyprus. Like many other temples and religious sites on Cyprus, it was also built close to the copper workshops, possibly indicating that metallurgy was under the supervision of the priesthood, with the bounty derived from both the copper mines and agriculture dependent on the gods. The most imposing building excavated by the Swedish Expedition to Cyprus was the royal palace at Vouni, situated on a hilltop site on the northwestern coast of Cyprus. The palace contained impressive staircases, store-rooms, and what has been interpreted as a sauna. The archaeologists also discovered sculptures that had originally been positioned along the large staircases. A magnificent life-size head in limestone was found in the palace, and what has been interpreted as a sacred prehistoric object (Fig 6).

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The famous statue of a youth recovered from the sanctuary site of Mersinaki on the western coast of Cyprus also dates to the early 5th century BC (Fig 11). The limestone statue is of great interest, because rep-
resentions of naked men are rare in Cypriot art and the carving indicates the adoption of non-Cypriot traits into artistic and religious life on the island during the Archaic and Classical periods of antiquity. Apollo Lykios – Apollo the wolf-god – was venerated at the sanctuary of Mersinaki, and a dedication to him, dating to the early 3rd century BC, was found by the Swedish expedition at the site.

Large and imposing life-size terracotta statues from Mersinaki can also be seen at the entrance to the Cypriot gallery, their right hands raised in a gesture of adoration towards the gods. The statues are all broad-shouldered men wearing the Greek chiton and himation. Their curly hair and beards are arranged in a Greek fashion, but their frontal position and severe expressions are uniquely Cypriot (Fig 12). Mersinaki was, however, a sanctuary primarily dedicated to the Greek gods Apollo and Athena. The warrior goddess seems to have been one of the earliest Greek deities to be worshipped on Cyprus, and inscriptions bearing her name date to the Archaic period, while finds from Mersinaki, such as a limestone carving of Athena mounted on a four-horse chariot and wearing her characteristic Corinthian helmet, emphasise the importance of the goddess to the religion of Cyprus from at least the Archaic period (c. 750–480 BC) (Fig 13). Also on display in the gallery is a unique splint armour of iron and bronze dating to the 6th century BC: a votive offering recovered from a sanctuary dedicated to Athena in the central Cypriot town of Idalion.

Despite its flaws, the new Gallery of Cypriot Antiquities in Stockholm is an attractive space, and allows considerably more finds to be exhibited than was previously the case. The new location of the collection also places the Cypriot artefacts at the heart of the Medelhavsmuseet – a location which such an important collection firmly merits. For scholars and the public alike, a visit to the Cypriot gallery at Stockholm’s Medelhavsmuseet offers the opportunity to glimpse a culture that retains much of its mystery despite the ground-breaking research carried out by the Swedish Cyprus Expedition 80 years ago. 

Additional reporting by James Beresford

The Medelhavsmuseet is located in Gustav Adolfs Torg in central Stockholm. Open Tuesday–Friday 12–8pm; Saturday–Sunday 12–5pm. Admission 60kr.
The Aigina Treasure was memorably described by Dr Reynold Higgins as ‘a rich, beautiful and very perplexing collection’. Throughout his long and distinguished career in the Department of Greek and Roman Antiquities at the British Museum between 1947 and 1977, Higgins was fascinated by this assemblage of elaborate jewellery, made of gold, carnelian, lapis lazuli, amethyst, jasper, and rock crystal and accompanied by a single golden cup. Indeed the Treasure has both fascinated and frustrated scholars since it was acquired by the Museum in 1892. Fascination arises from the rarity of such rich assemblages and the desire to unlock the historical and cultural information that the Treasure holds. But frustration derives from the lack of known archaeological context. The Treasure was said to come from the Saronic island of Aigina, but the circumstances of its discovery were cloaked in mystery. From the time of its emergence and during the first half of the 20th century, this made it difficult to determine where, in the ever-growing picture of the earliest age of Greek history, the Aigina Treasure truly belonged.

The research of Reynold Higgins provided the first major breakthrough. In 1957 he published his theory that the Treasure was Minoan Cretan work, dating to c. 1700-1500 BC, and this view was widely accepted. Other archaeologists continued to search out either foreign influences or indeed foreign elements in the assemblage, but, after Higgins, most scholars were content to incorporate at the very least a mediating role for Minoan Crete into their conclusions.

Higgins’s work remains highly important to this day, but much new information has come to light since his illuminating studies, particularly from the ongoing excavations on Aigina that have increasingly shown the remarkable importance of the island during the Greek Bronze Age. An awareness of this, combined with the exciting possibilities of applying modern scientific techniques to the objects, prompted the British Museum to arrange an international colloquium to consider the Treasure anew. The results have recently been published in *The Aigina Treasure: Aegean Bronze Age Jewellery and a Mystery Revisited*. This includes papers by a distinguished group of scholars, along with a complete technical analysis of the artefacts that make up the Aigina Treasure, undertaken by the Museum’s Department of Conservation and Science.

The discovery of the Aigina Treasure

Probably the greatest surprise arising from the colloquium was the fact that more can now be said about the elusive find-spot of the Treasure. In a paper that updates Higgins’s extensive detective work on this question, Dyfri Williams has pointed to the significance of a hitherto overlooked plan of the port of Aigina. Appearing in a published volume in the Greek and Roman Department library of the British Museum, this has actually been annotated with a hand-written indication of the place where the Treasure was found. This was done in 1913 by A. H. Smith, then Keeper of the Department, following a visit from Frederick Cresswell, who had originally negotiated the sale of the Treasure to the British Museum (Fig 1). Cresswell was, of course, in a position to know the truth of the matter. Moreover, this fascinating ‘x marks the spot’ associates the Treasure with
Fig 3. Comparisons for the Aigina Treasure include this small gold necklace with openwork pendant falcons, which probably comes from a Hittite royal grave in western Anatolia.

Fig 4. Three gold finger rings, two inlaid with lapis lazuli. Top: a ring of thin sheet gold with hatched decoration; left: a ring in the shape of a Herakles knot and right: a ring in the shape of a double axe or shield.

Fig 5. The ‘Master of Animals’ pendant.

Fig 6. Gold pectoral with twin profile heads and pendant discs.

Fig 7. Pair of gold ornaments, probably earrings. This is the pair with finer details on the dogs, owls and monkeys and carved cylindrical carnelian beads on the dog leads.

Fig 8. Left to right: lion’s head ornament with pendant ducks and seed-shaped beads; ornament with pendant owls and two half owls probably originally joined. (This owl does not belong to any of the four earrings, though it is similar in type.)

Fig 9. Lower: the gold and green jasper bead necklace; middle: the carnelian and amethyst bead necklace; upper: the alternating carnelian, lapis lazuli, and gold necklace; top centre: the single rock crystal bead.
the probable area of the Middle Helladic (c. 1950-1575 BC) cemetery that served Kolonna, the Bronze Age site that today lies buried beneath the town of Aigina in the north-west of the island. While some doubt must necessarily remain, it nevertheless appears highly likely that this area, close to the excavated part of the Kolonna site, was indeed the location of the original discovery of the Treasure.

The archaeology of Aigina

The importance of Aigina in the Middle Bronze Age (c. 1950-1575 BC) has emerged with increasing clarity as archaeological exploration has proceeded both on the island itself and around the rest of the eastern Mediterranean. The site of Kolonna can be recognised as a major centre: a strongly fortified settlement of significant size and complexity, with a wide sphere of contacts (demonstrated by the extensive distribution of Aiginean pottery abroad and by the receipt of imports to the site). The settlement may well have continued to flourish in the Late Bronze Age (c. 1575-1200 BC), though evidence for this period is scanty due to later building activity. It is clear, though, that in the broader picture the shift of power towards the Argolid sites in the north-east Peloponnese, particularly Mycenae, led to a significant reduction in the importance of Kolonna in the Late Bronze Age.

Florens Felten, who excavated Kolonna town IX (c. 1850-1700 BC), has underlined the importance of the settlement during the later Middle Bronze Age. Here a monumental structure was created, which appears to have been home to the leading elites of the settlement. It is to this period, too, that the rich warrior ‘shaft grave’ burial belongs. The suggestion proposed by Stefan Hiller is that Kolonna can be described as a ‘peer polity’ of the Cretan palatial sites, and that the shaft grave was subsequently emulated by the creators of those at Mycenae.

Kolonna undoubtedly had a history of wealthy inhabitants, a fact demonstrated by the remarkable discovery of an earlier ‘Aigina Treasure’, in an EHIII context (c. 2400-2000 BC), which, like its more famous successor, included gold jewellery and carnelian beads (Fig 2). Middle Bronze Age Kolonna therefore provides a plausible background for the deposition of rich jewellery in graves. Given the Minoan influence apparent in the Aigina Treasure, contact with the Crete of the First Palaces (c. 1950-1700 BC) is particularly strongly indicated. Minoan pottery imported to Aigina, as well as vessels that were produced locally, have been classed by Hiller as ‘Minoanizing Aiginean’, and have long been recognised by scholars. The locally manufactured pottery, with its ‘Kamares-like’ technique, led Hiller to remark: ‘The conclusion seems reasonable that a workshop existed on Aigina which was run by resident Minoan potters’. Can the same be suggested for a jewellery workshop, perhaps also including Minoan craftsmen, which might have produced the pieces now grouped together in the Aigina Treasure?

Technical findings

Perhaps the most significant finding of the technical analysis of the Treasure is that associations between some of the major pieces allow them to be assigned with some confidence to a single workshop. These include the four elaborate ornaments with confronted dogs that are usually described as earrings (Fig 7), along with the Master of Animals pendant that is perhaps the most famous individual item in the collection (Fig 5), and the ornament with a
finely wrought lion’s head (Figs 8, 12). The chain with suspended birds that was originally part of a more elaborate piece can also be included in this core group, as can the two owl halves and the necklace of amethyst and carnelian beads. The other necklaces can also probably be associated with this workshop (Figs 9, 11).

It is more difficult to link the impressive pectoral ornament with profile heads directly to the group on technical grounds, because this piece is more solid and arguably rather better made, though it does of course have pendant discs in common with the Master of Animals pendant (Fig 6). The elaborate finger rings similarly cannot be closely linked to the main group in terms of manufacture (Figs 4, 10). This is largely because, like the gold cup, they are such different types of object. Nevertheless, they have the use of lapis lazuli in common with other elements in the Treasure.

The technical report requires detailed reading, but the broad conclusion concerning the major pieces of the Treasure divides them into three categories: some can demonstrably be seen to derive from a single workshop; other objects in the assemblage provide strong indications that they were probably created in the same location; while the remainder of the artefacts were possibly produced in a single workshop, though this cannot be proven. It thus seems likely that a workshop on Aigina produced most, if not all, of the items in the Treasure. Minoan craftsmen may have been involved, and there is every probability that some of the graves in the Middle Helladic cemetery belonged to wealthy members of a Minoan community. There is, though, no need to posit an exclusively Minoan clientele for jewellery in Minoan or Minoanising style. We know that the elite of Mycenaean appreciated Cretan craftsmanship and took fine examples with them to the grave. The same could well have been true of the Kolonna elite.

Parallels for the Aigina Treasure

The search for parallels for the Aigina Treasure items in other gold-working traditions is well represented in The Aigina Treasure, and remains a valuable approach that helps interpret the Treasure and also provides scholars with a clearer idea of its date. The suggestion that the Treasure came from a Middle Helladic tomb (or tombs) would place the artefacts at the very beginning of the date-span suggested by Higgins, or indeed somewhat earlier. The parallels from Crete itself, particularly those from the Chrysolakkos cemetery in Malia, on the north coast of Crete, discussed in papers by Laffineur and Fitton, would allow some of the major pieces, including all the many items with pendant birds, to belong to a period contemporary with the First Palaces in Crete and therefore before 1700 BC. The Egyptian evidence, discussed by several scholars in this volume (Schiestl, Fitton, Markowitz, and Lacovara), strengthens the suggestion that the Treasure might date from this period.

A consideration of the foreign influences that can arguably be witnessed in some of the artefacts of the Aigina Treasure cannot ignore the cultures of the Levant and Anatolia, which are rich in their own traditions of gold-working (Fig 3), and the papers written by Joan Aruz and Dominique Collon draw constructive comparisons with the arts of the eastern Mediterranean and beyond. They remind us to take account of the objects, ideas, and influences being exchanged across considerable distances from the beginning of the Middle Bronze Age and possibly even earlier. Two large Middle Helladic pottery jars from Aigina and now in the museum there even have depictions of long-boats, giving us a glimpse of the craft that transported their cargoes to distant communities.

Nonetheless, we should end by putting Aigina back in centre stage. It was itself an important cultural and economic hub with connections to Minoan Crete and Mycenaean Greece, as well as to regions much further afield. And this small, yet evidently prosperous island witnessed some of its wealthy and powerful inhabitants going to the grave bedecked in the elaborate jewellery that, we hope, now seems less enigmatic than it has done for the last century and more.

J. Lesley Fitton is Keeper of the Department of Greece and Rome in the British Museum.

Some time between 1550 and 1630 BC, a rumbling from deep below the island of Thera (modern Santorini) heralded an event that would leave an indelible imprint on the Bronze Age cultures of the period, with the eruption long suspected of causing social upheaval and decline in the Minoan world and beyond. The Theran eruption also left behind a physical signature which has only recently been discovered during underwater archaeological investigations off the coast of Caesarea in Israel, 1000km to the south-east (Fig 4).

The power of the Theran eruption was on an almost unimaginable scale. Scientists have estimated that the volcano had a Volcanic Explosivity Index (VEI) of 7.1, which would have sent about 30km$^3$ of debris into the atmosphere, possibly the largest volcanic event in human history. The eruption of the volcano altered the landscape of the island of Thera, blowing the island asunder and creating the dramatic cliff-lined lagoon which attracts thousands of tourists to modern Santorini (Figs 5, 6). The eruption also spewed ash and pumice into the atmosphere, darkening the skies for months, and possibly lowering the earth’s temperature by 1 to 2 degrees Celsius, enough to damage crop production for several seasons, threatening food supplies and increasing the possibility of famine and disease.

A secondary effect of the volcano – though by no means secondary as a cause of damage – were the tsunamis resulting from the explosion. The coastal cities of Palaikastros, Gouves, and Aminossos on nearby Crete bear evidence of the wave’s impact, as do cities such as Didyma (modern Didim) and Telmessos (modern Fethiye) on the eastern coast of the Aegean. It has, however, been cause for debate.

Dr Beverly Goodman-Tchernov outlines her recent underwater research which confirms that a tsunami generated during the Bronze Age volcanic eruption of Thera swept across the eastern Mediterranean before crashing into the coast of Israel.
memories of those who survived the
have indelibly imprinted itself on the
and inundation. The event must also
history into pre- and post-eruption
eastern Mediterranean, separating
shared marker in time for the Bronze
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doubt, this must have represented a
low-lying coastal regions. Without a
water by Moses may have been the
result of a tsunami’s ‘drawback’ when
the sea dramatically recedes, exposing
the seabed for several minutes before
the wave crashes onto the shore. Rather
than taking place in the Red
Sea, the actual location for the event
claimed to be the Reed Sea in the
Nile Delta (see Minerva September/
October, 2008, pp.23-26). This latest
evidence does not prove either theory,
but certainly supports the idea that
whether the tsunami spread into the
eastern basin of the Mediterranean to
impact against the shores of the Levant.
Although the scientists who have gen-
erated models of the eruption and its
subsequent tsunami have claimed the
wave would have moved beyond the
Aegean and surged into the Levantine
basin of the eastern Mediterranean,
until recently physical evidence was
unconvincing. Small amounts of vol-
canic ejectile material found in the
Nile were taken as evidence, but this
was later disproved; likewise pumice
deposits found in Israel was regraded
as an indication of a tsunami, although
no dating or sourcing confirmed its
connection. In short, it was unclear
whether the tsunami resulting from the
Theran eruption was confined to the
Aegean, or whether it spread out
into the wider Mediterranean.

Recently, the Interuniversity Insti-
tute for Marine Sciences in Eilat
published results from an offshore
underwater sediment-coring study
and underwater archaeological excava-
tions in Israel. The report in Geology
describes tsunami-derived horizons
from excavation trenches and sedi-
ment cores that are contemporaneous
with the Santorini eruption. This is
the first definitive physical evidence
demonstrating a tsunami reaching the
shores of the eastern Mediterranean at
the time of the Theran eruption.

While the damage caused by the
event would have varied from site
to site, the entire region must have
been affected in multiple ways: if not
by the fast-moving pyroclastic cloud
of super-heated gas sent out by the
volcano itself, then by the ash, the
darkness and the crop failure, while
the tsunami would have inundated
low-lying coastal regions. Without a
doubt, this must have represented a
shared marker in time for the Bronze
Age societies which lived around the
eastern Mediterranean, separating
history into pre- and post-eruption
and inundation. The event must also
have indelibly imprinted itself on the
memories of those who survived the
disaster, entering the folklore and
imagination of its witnesses and their
descendants.

Some have suggested that the
Santorini event was the inspiration
behind the tale of Atlantis, while it has
been speculated that the catastrophic
effects which followed in the wake
of the eruption on Thera led to the
ten plagues which racked Egypt as
described in the book of Exodus. It has
even been suggested that the parting
of water by Moses may have been the
result of a tsunami’s ‘drawback’ when
the sea dramatically recedes, exposing
the seabed for several minutes before
the wave crashes onto the shore. Rather
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Nile Delta (see Minerva September/
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evidence does not prove either theory,
but certainly supports the idea that
people may have witnessed the disap-
pearance of entire coastal settlements
under the waves, and the withdrawal
and sudden return of the sea drowning
all who ventured out across the
suddenly exposed seafloor prior to
the tsunami wave’s arrival.

The ancient harbour of Caesarea
Maritima rests submerged off the
coast of Israel along a beautiful strip
of dunes, with the Carmel moun-
tain ridge behind (Fig 1). Over the
past few decades, more or less since
SCUBA was first used in archaeol-
ogy, Caesarea’s harbour has been the
focus of submarine investigation, and
many underwater archaeologists have
begun their careers here. Much of the
research has concentrated on under-
standing the construction of the har-
bour that famously involved the use of
hydraulic cement construction which
was a revolutionary engineering pro-
cess when it was used at the site dur-
ing the early Roman period. However,
academic inquiry has also focused
on the issue of the ancient harbour’s
destruction and abandonment, with
competing theories highlighting such
possibilities as earthquakes, liquefac-
tion of sands, general deterioration,
deliberate stone robbing, and tsunami.

The underwater researchers dug
 trenches and sank tubes into the sea-
bed which brought up sediment cores
of the sea floor (Figs 2, 3, 7). These
cores were then carefully analysed
for geologic debris. The cores from
the seabed off Caesarea allowed
researchers to identify at least four
tsunami events which had struck the
coastline of Israel. While the report
of one of these events is still await-
ing publication, the dates which have
recently been assigned to the other
two layers tie in closely with docu-
mented accouts of tsunami waves
sweeping onto the Levantine sea-
board. A layer dating back 1500 years
corresponds with records of a tsu-
nami event of AD 531, which broke
upon Caesarea. A deeper layer dating

![Fig 3. Researchers sinking a tube into the seafloor off Caesarea to extract samples of sediment. Photo courtesy of Eran Brokovich.](image1)

![Fig 4. Map showing the locations of the island of Thera (modern Santorini) and Caesarea on the coast of Israel and the estimated time-speed at which the tsunami travelled across the eastern Mediterranean. Inset shows locations where sediment samples were extracted. Diagram courtesy of the Geological Society of America.](image2)

![Fig 5. Satellite image of Santorini (ancient Thera). What used to be a roughly circular-shaped island was torn apart by the eruption. It is estimated more than 60km² of rock and magma was ejected from the volcano during the eruption, creating the lagoon – which is almost 400m deep and measures 12km at its widest point - in what used to be the centre of the island. Photo courtesy of NASA – Earth Observatory Team.](image3)
Bronze Age cataclysm

back almost 2000 years also correlates well with a historical event of AD 115. In both of these sedimentary layers, the researchers found archaeological materials which had been carried out from the city of Caesarea. However, an earlier, deeper layer, which was in places 40cm thick, showed signs of the passing of a tsunami from long before the construction of the Roman port city, and therefore contained none of the archaeological material from later tsunami events. However, radiocarbon dates of organic material found in the layer provided dates of 3630-3410 years ago, a period which links it to the Bronze Age eruption of Thera. The research from the waters off Caesarea therefore provides the most comprehensive evidence yet found indicating that a tsunami created by the massive eruption of Thera spread outside the confines of the Aegean and reached as far as the coast of Israel.

Estimates of the size and power of the tsunami generated by the Thera eruption suggest that when the wave crashed against the shores of nearby Crete it was as high as 26m, and inland inundation was as far as 200m. In the eastern Mediterranean, estimates of the size of the wave are still being debated, though from the study off Caesarea the deposit closely resembles later tsunami deposits that have estimated wave heights of at least 5m sweeping inland between 50m to 500m, depending on the coastal topography.

The discovery of the tsunami layers off Caesarea resulted from underwater research requiring a great deal of planning, technology, training, invention, and creativity. The team responsible comprised archaeologists, geologists and volunteer students from McMaster University, Hebrew University, University of Haifa, and the Interuniversity Institute for Marine Sciences in Eilat. Working underwater presents numerous challenges unfamiliar to those accustomed to terrestrial projects. Among the greatest of these is the sea itself – its varying conditions dictate whether or not work can proceed.

The work undertaken by the divers on the project has also proved uniquely challenging. The skills required by a working diver and the conditions they face are very different from recreational diving. Their workplace resembles an underwater construction site, with heavy weighted bases, hoses, dredges, lines, anchor chains, pneumatic hammers, hand tools, and metal pipes all being employed (Fig 3). The divers rely on highly sophisticated breathing equipment (both open circuit and rebreather systems) borrowed from military technology, which extends their possible ‘bottom time’ and reduces the number of divers needed. In the interests of safety, the masks also incorporate audio communication systems and video. Working underwater also demands extensive planning. Equipment and logistics are prepared months in advance and the diving plan set in place weeks before work begins. The scientists on the team follow the advice of the ship’s captain and the Dive Safety Officer, who decide whether conditions are right for a dive to go ahead. These and other improvements over the last three campaigns have made the fieldwork in the waters off Caesarea far more streamlined, safe and efficient.

The research that has been taking place off Caesarea also emphasises how the marriage between underwater technologies, science, and archaeology can serve to expand our understanding of the past. Much work still needs to be carried out, both at sea and on land, to confirm the link between the Bronze Age tsunami which struck the coast of Israel and the eruption of Thera. However, the recent results from the underwater research off Caesarea appear to tie in remarkably well with the volcanic explosion which tore apart the Aegean island. Future archaeological investigations from around the eastern Mediterranean will hopefully also indicate whether the Bronze Age tsunami impacted upon settlement patterns to such a degree that those who survived the deluge abandoned coastal areas. Alternatively, the disaster may have been followed by a renaissance of rebuilding and renewal. The underwater research from Caesarea therefore provides a reminder of the wealth of information still awaiting discovery in the sea.

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In the two-and-a-half centuries since it was founded, the British Museum has become the final repository for some of the finest collections in England. The museum has also sponsored innumerable archaeological excavations which, in previous ages, saw artefacts steadily swell its various collections. Although more recently, legislation set in place around the world has generally vested ownership of antiquities with the nations where the artefacts were unearthed, the museum continues to purchase and receive donations of items from old collections. The result is that a careful visitor could take several days just to examine the sections dealing with ancient Greek and Roman culture.

Faced with the vast and daunting collections, many first-time visitors tend to focus their attention on a select handful of the pieces on display, often making a bee-line for the famous Parthenon marbles; the other galleries do not attract the same level of attention or intensity of observation. A recent book, Masterpieces of Classical Art, by Dyfri Williams, Research Keeper of Greek and Roman Antiquities at the British Museum, seeks to shine the spotlight on some of the finest masterpieces of the Graeco-Roman world. While many famous pieces – including Lord Elgin’s hotly disputed acquisitions – are obviously included, the book also highlights a great variety of less widely known artworks that demonstrate the creativity of the cultures of the ancient Mediterranean, stretching from the Neolithic through to the end of the Roman Empire. This short review will pick out a handful of the beautiful objects featured in this book, especially some of the smaller, less widely known artworks – particularly those that do not conform to popular expectations – yet are arguably more important to the Western artistic tradition than many of the better known masterpieces in the British Museum. It is for this reason that this review will not touch upon ceramics, which tend to receive the lion’s share of academic attention.

A new book highlights some of the treasures of Greek and Roman art housed in the British Museum.

By Murray Eiland
One of the most interesting statues in the collection, if not the most immediately artistic, is a rather schematic figure of a woman (Fig 1). Dating to c. 4500-3200 BC, it was discovered on the island of Karpathos in the south-east Aegean. In an age before metal tools, the effort required to produce such a sculpture was considerable. The nose, breasts, and genitalia are prominent, and the eyebrows have been lightly incised, suggesting that facial details were painted on. Yet the features which mark out an individual were less important than the form of this early figure. While it may be too much to suggest the figure is a deity, it almost certainly served a spiritual function.

But material culture demonstrates no uniformity of belief. The so-called ‘Leventis Lady’ is from Cyprus and dates to about 3000 BC (Fig 6). It is of a very distinctive shape with some scholars suggesting that the figure is in a birthing position. If this was the case, the woman would have been seated and the arms stretched out by helpers. On the other hand, the earliest figurines of this type appear to derive from phallic amulets, in which case there has been a development from ‘male’ figurines to female ones. Examples of these dual figurines have been recovered from both male and female burials, where they appear to be worn around the neck.

The earliest surviving bronzes tend to be small. Metal sculpture is relatively rare in the archaeological record because the casting of large and complex shapes was difficult, and metal items were also readily recycled. A cast figurine of a horse, dating to the late 8th century BC, is an excellent example of early metalwork (Fig 4). It is small but shows a mature style. During this Geometric period – the age of Homer – depictions of warriors abounded. On the battlefield and off, a horse served as a status symbol. Such small bronze objects are now interpreted as offerings either left in sanctuaries or tombs. Yet their function and associations can be far from clear. Under the stand of the horse is a design of two figures, presented back to back, each holding a staff (Fig 5). They could represent conjoined twins, as is witnessed in vase paintings from the same period. Dyfri Williams notes that the twins are usually associated with the sons of Molione and her mortal husband Aktor. They could also be sons of Poseidon. Stylistically it is assumed the horse was made in a workshop in Lakonia and, given the popularity of the cult of the Dioskouroi in Sparta, the figures may therefore represent Kastor and Polydeukes, the twin sons of Zeus and Leda.

The importance of a work of art is not always a direct reflection of the skill of the artist’s technique, as
is demonstrated by a small figurine from the late 8th century BC wearing a conical helmet and collar and seated on a low stool. He is holding a short sword pointed towards his abdomen, apparently in the moment before suicide (Fig 3). While there is no absolute certainty, this small figure is probably Ajax, the great Homeric hero who, having lost a competition with Odysseus for the right to claim the armour of Achilles, was driven mad with rage, finally falling on the sword that had been presented to him by the Trojan hero Hector. The figurine is thought to be the earliest bronze representation of a mythological event. It is a powerful representation, despite the fact that it is rendered almost like a stick figure. It was probably designed and shaped by its creator to be appreciated more as a symbol and reminder of the hero and his deeds, than a work of fine art.

From the earliest periods Greek art derived inspiration from surrounding cultures and there was certainly a great deal of cultural exchange throughout the eastern Mediterranean. This is clearly illustrated by two gold pectoral ornaments found alongside a scarab of the Pharaoh Psammetichos I (r. 666-612 BC), in a tomb at Kamiros on the island of Rhodes (Fig 8). The smaller pectoral is made up of plaques with female heads facing forwards, while the larger is made of plaques with a winged goddess flanked by animals. The deity is likely to be Artemis, one of whose attributes was mistress of the animal world. She is often associated with the goddess of Ephesus, although similar ‘queens of animals’ were prevalent throughout the Near East. Plaque pectorals were common in Rhodes in the 7th century BC, though the idea for them may have originated in Cyprus or Syria.

An important source of inspiration for early Greek sculpture was Egypt. By the end of the 7th century, Greek traders and mercenary soldiers were frequent visitors, returning with the tradition of large-scale sculpture in marble rather than limestone. Figures of nude youths, known as kouroi, are well known in early Greek art and are essentially combinations of Greek and Egyptian motifs (Fig 7). Both traditions depict their subjects frontally, with arms at the side, but Greek artisans fashioned figures with the weight distributed evenly across both legs, while their Egyptian counterparts portrayed such standing figures with the weight on the rear leg. Perhaps the most startling departure from Egyptian art is that the figure is nude rather than clothed with a kilt-like garment. All of these kouroi are impersonal and represent an ideal.

However, Greek sculpture also came to celebrate individuals. In the British Museum is what has been credited as the earliest portrait from the Greek world (Fig 10). The seated figure, slightly over life-size, is now missing its head, but an inscription on the right leg of the throne reads: ‘I am Chares, son of Kleisios, archon of Teishiosa’ and ‘gift to Apollo’. The statue was originally created to adorn the enclosure of Apollo at Didyma. However, the marble sculpture was moved in antiquity to a spot beside the Sacred Way, an 18km long route that ran between the port of Panormos and Miletos, where it would have been the focus of song and veneration at least once a
hunt; a rearing dog is directly before the warrior, while boar's heads appear further along the twisted wires of the brooch. Similar examples have been recovered from Andalucía in southern Spain, and although it is likely that such exquisite pieces were fashioned in the region, the technique employed by the goldsmith strongly indicates that he was trained or influenced by Hellenistic Greek traditions.

Sardinia is well known for bronzes of a distinctive style and the British Museum has an excellent example dating to c. 800 BC. Simple in style, the piece depicts an archer poised on the point of loosing an arrow (Fig 13). His lower left forearm is covered by a guard, and on his back he has a quiver full of arrows, to the left of which is a small conical object usually interpreted as a container for oil necessary to grease the bow or waterproof the string.

Amber is a fossil resin that was used to make seal-stones, because it can take a high polish. Although often not used for sculpture, this chalcedony carving of a young woman (Fig 12) is one of the finest surviving Italic ambers and, based on stylistic similarities with bronze work, the piece is likely to have been made in southern Italy, probably Campania, about 500-480 BC.

Chalcedony is a relatively hard stone that comes in a variety of colours and can take a high polish. Although often used to make seal-stones, because it is relatively difficult to carve it is not often used for sculpture. This chalcedony carving of a young woman (Fig 12) is almost certainly Drusilla (AD 16-38), the second daughter of Germanicus and Agrippina. It is likely that after her death this bust was presented to a member of the Imperial court. She was close to her brother, the emperor Caligula (AD 37-41), who named her as his heir when he was ill in AD 37. However, when she, rather than her brother, died the follow-

The Teishiosa referred to in the inscription was a fortified settlement in the south-east area of Milesian territory. It is likely that the statue was made to commemorate Chares after he died, although from what remains of the statue there is no indication that the artist strove to represent a particular likeness of the individual, relying on the inscription for identification. While the inspiration for such a commemorative monument may have come from Egypt or the Near East, already the figure is of an identifiable Archaic Greek style.

The Greek world came into contact with a number of different peoples. Much gold jewellery was made by nomads and other ‘barbarians’ as an important element of display and social status. The reasons for this are not hard to imagine: in a society where property is a less stable form of wealth, coining is often a less generally accepted measure, gold jewellery takes on a special significance. The so-called Braganza Gold Brooch is an excellent example (Fig 9). The main figure is a warrior equipped in typical Celtic fashion of the 3rd century BC. However, the composition appears to represent a

Fig 9. A warrior equipped in typical Celtic fashion. Fig 10. Marble statue of Chares, Governor of Teishiosa, c. 560 BC. From Sacred Way near Didyma, Ionia (modern Turkey). H. 1.49m.

Fig 11. Amber pendant, Campanian, probably made in Capua, 500-480 BC. Formerly in the Pourtalès-Gorgier collection. H. 17.3cm.


Fig 13. Sardinian bronze archer, c. 800 BC. H. 17.4cm.
Mosaic pavements are perhaps the best preserved and most numerous of all artistic media from the Roman world – their fate literally sealed under the collapsed buildings of a crumbled Empire. Whether figurative or non-figurative; whether they adorn a bath-house, villa, palace, church, or synagogue, their aesthetic appeal is such that they long remain in the minds of viewers. But mosaics represent much more than pretty pictures or ‘art for art’s sake’, and the pictorial and textual information they contain is a rich vein of information that can be decoded with careful scrutiny. Mosaics have therefore aroused a number of different interpretations, ranging from analyses of form and style, artistic meanings, how its art relates to the viewer, to social and economic considerations. It is interesting to summarise these different approaches and attempt to bind them together, thus avoiding the tendency to compartmentalise the study of mosaics.

Stylistic approaches of mosaic studies typically fall into one of two main categories. First, the historical development of style and its technique; second, the transmission of style within regions and between regions. Three mosaic floors serve to illustrate

Mark Merrony discusses the interpretation of floor mosaics found in the Roman Empire.

Fig 1. The Alexander Mosaic, depicting the victory of Alexander the Great (far left) over the Persian King Darius, from the House of the Faun, Pompeii, presently displayed in the Naples National Archaeological Museum, c. 100 BC. Photo by Mark Merrony.

Fig 2. The Mona Lisa of the Galilee, the Roman Villa at Sepphoris, Israel, 3rd century AD. Photo courtesy of Zeev Weiss.

Fig 3. Mosaic from the Hippolytus Hall showing the myth of Hippolytus and Phaedra, Madaba, Jordan, 6th century AD. Photo courtesy of Studium Biblicum Franciscanum, Jerusalem.
the changes in technique and style of the first approach. The Alexander Mosaic in the Naples Museum (c. 100 BC), rightly regarded as a triumph of Hellenistic mosaic floor art (Fig 1), imitated painting in a technique that used tiny ‘breadcrumb’ cubes (tesserae) to produce a realistic effect of movement and three-dimensionality in the technique of opus vermiculatum (meaning ‘worm-like work’). In northern Israel, a floor depicting the ‘Mona Lisa of the Galilee’ exhibits a markedly more coarse and spheroidal opus tes- salatum technique (‘tessellated work’) (Fig 2). At the other end of the scale is the crude floor mosaic in the Hippolytus Hall of Madaba in Jordan (6th century AD) (Fig 3). Here the mosaicist used slightly larger cubes to produce a more schematic effect. In fact, 1000 years of Graeco-Roman mosaic art history can be summarised by saying that it began with three-dimensional realism and ended with two-dimensional abstractness.

The second approach looks at similarities in the style of mosaic floors at different sites in an attempt to identify individual schools, and workshops. This method was famously applied to late Roman mosaics in Britain by D. J. Smith (1969, 1984). Based on specific design traits, he plausibly suggested that a series of individual workshops (officinace) provided rural villa owners with floor mosaics chosen in different urban centres across England. A related method charts the transmission of designs further afield. For instance, R. J. A. Wilson (1982) and others have demonstrated that a number of mosaics in the grandiose villa of Piazza Armerina on Sicily were laid by mosaicists from the area of ancient Carthage (modern Tunisia), based on similarities with villa floor mosaics in that region (Fig 6).

The exegetic approach is based on interpreting the seemingly infinite variety of figurative decoration present in Roman mosaics, analysing exactly what the subject matter – mythologi- cal, arable, pastoral, hunting – means. Often, figurative decoration is regarded as symbolic. For instance, according to M. Gawlikowski, the mythological scenes of combat on a floor he discovered in 2005 in Palmyra, Syria, dating from the 3rd century AD, may in fact symbolise the triumph of the Roman client king Odainat over the Persians in AD 259 (Fig 4). In a similar vein, A. Carandini, A. Ricci, and M. de Vos (1982) have suggested that the scene of the giants vanquished by Hercules on a floor from Piazza Armerina (4th century AD) may in fact allude to the Triumph of Constantine the Great over Licinius at the Battle of Chrysopolis (modern Turkey) in AD 324 (Fig 5). However, this, assumes that the patron of the villa belonged to the house of Constantine, and his identity is still not clear.

It is clear that patrons of Roman villas often commissioned themes in mosaic floor art to express their wealth and status to important guests (often local officials) and are also symbolic in this manner. North African floors are especially informative in this sense. Perhaps the best example is the Magerius mosaic from Smirat (3rd century AD) near Sousse (modern Tunisia) (Fig 7). The extraordinary graphical and textual information on this floor indicate that a local magistrate, the namesake of the floor, employed the famous Telegenii to stage a public spectacle in a local amphitheatre (perhaps el-Djem) between four hunters (besti-/arii/venationes) and four leopards.

Symbolic approaches also extend to the religious sphere of Roman mosaics. These are especially numerous in churches of the Levant and depict a similar range of themes to pagan villas. Some of the best are on Mount Nebo in Jordan (Fig 13), and there is a particularly good example at Qabr Hiram in the Lebanon (Fig 9). The presence of pagan scenes in Christian churches may at first appear puzzling, but can be explained by the fact that pagan artistic form continued uninterrupted throughout the Late Roman period. Ecclesiastics sought to appropriate pagan scenes to symbolise the triumph of Good over Evil and thus make them compatible with Christian doctrine. This was skillfully done: in many churches individual scenes are placed into medallions formed by vines – a motif mentioned on numerous occasions in the Old and New Testaments – to purge the subject matter of its pagan connotations.

A fascinating alternative to stylistic and symbolic methods is the ‘interactive’ approach – how mosaic floor art relates to the movement of the viewer. J. R. Clarke (1979) defined three basic aspects of this: the fixed point in which a floor may be viewed from one angle, like a painting (Fig 8); a series of viewing points where the beholder moves past a series of floor panels (Fig 11);
and the direct influence of movement, in which a spectator is ‘steered’ through a building by an overall programme of figurative decoration. This last aspect is demonstrated most eloquently in the Baths of Neptune in Ostia near Rome (2nd century AD), where mythological marine scenes were configured to usher bathers through the individual rooms of the bathing complex (Fig 14).

Finally, Roman floor mosaics may be viewed from a socio-economic perspective – an interpretation followed by the writer for the past decade. This has several aspects. The first of these is to view mosaic floors as an index of economic conditions. One of the ways this can be done is to take a particular region and count the number of mosaic floors that can be dated by inscriptions, coins, pottery, and style. For example, in the area that approximates to the Lebanon and Northern Israel in the Late Roman period, the number of floors laid reached a peak in the first half of the 6th century AD, suggesting an economic boom at this time. This is in fact borne out by comparing mosaics with other archaeological material, such as pottery exports, or dated building inscriptions. It is fascinating to draw parallels between this phenomenon and the ‘boom and bust’ economies of the modern world.

Other indications of financial considerations include the thickness of layers of bedding underneath a floor mosaic (Fig 12). Along with various grades of stone and other material, a considerable amount of lime was used. This would have involved the slaking of lime, combustion of timber, transportation, substantial human resources – all of which would have

Fig 8. Mosaic depicting the bust of Christ from the Hinton St Mary Roman villa, United Kingdom, 4th century AD. Courtesy of the Trustees of the British Museum.

Fig 9. Mosaic from the nave of the Church of St Christopher showing arable, hunting, and pastoral scenes, Qabr Hiram, Lebanon, 6th century AD. Photo by Mark Merrony.

Fig 10. Mosaic from the nave of the Church of the Deacon Thomas depicting arable, hunting, and pastoral scenes, Khirbat al-Mukhayyat, Jordan, 6th century AD. Photo courtesy of Studium Biblicum Franciscanum, Jerusalem.
incurred a considerable financial cost. In fact, the cost of the materials and craftsmanship involved in making up the mosaic itself would have been a substantial proportion of the total outlay. Floor mosaics should therefore be examined in their three dimensions in much the same way as archaeologists look at stratigraphy: the layers of mosaic bedding are hidden but no less informative.

As for the social side of this approach, it is interesting to analyse the relative complexity of figurative and non-figurative decoration on floor mosaics and assess whether this related to the relative importance of individuals. Interestingly, in many Roman villas the quality of floor mosaics, as measured by technical and artistic quality, varies according to the importance of individual rooms. This is especially the case in dining rooms (triclinia) and bedrooms that would have accommodated the master and mistress of the house (dominus and domina) and important guests. This approach proves more complicated in chapels, cathedrals, and churches what. Ecclesiastics (bishops, priests, deacons, *economoi*) are most usually mentioned, as are wealthy landowners who were often religious or civic officials. Interestingly, inscriptions tend to give the impression that the money donated towards the construction of churches was provided by the officials named. Careful scrutiny suggests that this money was in fact levied in tax through the local community and that the ecclesiastics named played a major role in this.

By drawing together the different methods of studying floor mosaics – stylistic, interpretation, interactive, socio-economic – mosaics become more accessible to both specialists and non-specialists. Integrating these aspects is in fact relatively simple. If interpretation of figurative decoration informs us of patrons’ status, habits, and pastimes, then we can cross-reference their financial means from a socio-economic point of view by assessing the quality of floors in question. Likewise, if we are concerned with studying ‘workshops’, ‘schools’, and itinerant craftsmen by stylistic affinities in floor mosaics, then assessing the quality of the floor can provide a ‘reality check’ on the relative skill of the groups of craftsmen concerned.

Roman mosaics are often described as carpets, since in many cases their multicoloured and elaborate patterns are reminiscent of both carpets and textiles. Mosaics could perhaps resemble textiles in an interpretative way, since the key to understanding them is to regard them as a tapestry with multiple strands of meaning which have to be woven together in order to fully understand them.
In praise of Patras

Lina Christopoulou celebrates an outstanding museum in a little-known location

Greece is a land blessed with a wealth of archaeological treasures. However, the majority of visitors to the country seldom journey beyond the sprawling metropolis of Athens, or the numerous holiday islands that rise out of Greece’s azure waters. Few holidaymakers, even those driven to explore the rich and varied history of the country, venture to Patras, on the northern coast of the Peloponnese. With a population of over 200,000, the city is the third largest in Greece, but it is an intimate community that retains a relaxed and rural identity. It therefore comes as a surprise, not least to its own citizens, to find that Patras now hosts the second largest archaeological museum in Greece.

Shortly after the museum’s opening in July of last year, it was threatened with closure (see Minerva, November/December 2009, p.6), but its future is now secure. The Archaeological Museum of Patras is an unexpected sight on the motorway connecting the city to Athens. Its titanium-domed, ultra-modern architecture nods to the Guggenheim in Bilbao, while the pool of water that laps about the base of the structure provides a fitting symbolic reminder of the city’s close relationship with the sea (Fig 2).

Patras was only formally founded in 450 BC with the unification of the three settlements of Aroe, Anthea, and Mesatis. However, the city and its hinterland have provided archaeologists with a rich material legacy that stretches from before the Bronze Age Mycenaean civilisation, through the Classical, Hellenistic, and Roman periods.

There are 1,300 exhibits on display in the museum, from a store of 50,000. Dating to the first half of the 11th century BC, a comically beautiful askos depicts a creature with the body of a duck and the head of a horse (Fig 1). The three legs that support the rounded body may owe more to the practicalities of balance than to the fantastical imagination of its creator. Found in the village of Clauss, the askos was probably used for the pouring of libations, or possibly as a baby’s feeding bottle. Animal representations feature prominently among Mycenaean pottery. Slip decoration on a two-handled krater presents a hunting scene featuring unidentifiable wild carnivorous beasts (Fig 3). A kalathos, used for the transportation and preservation of foodstuffs, also features a pastoral scene: on one side a domesticated animal nurses its young, while on the other, the Mycenaean artist has depicted birds (Fig 4).

As is the current vogue in museum...
exhibitions, the emphasis at Patras has been placed on communicating an understanding of daily life through the thematic grouping of artefacts dating from prehistory to the end of ancient times. Thus, the activities of fishing and hunting are well represented in the museum, with a collection of bronze spearheads from the Mycenaean period, as well as fragments of horn from deer and wild goats, and the tusks taken from boars. Traps and nets were also used in hunting, as were javelins, bows, and slings. Horses and dogs accompanied their masters in the hunt, and the use of horses in particular provided a powerful demonstration of the wealth and social status of the hunter throughout antiquity. Hunting, however, was not solely, or indeed primarily, about acquiring meat for nourishment, but was an important social activity for men developing physical skills that were transferable to the battlefield. Hunting also remained popular in death and a sarcophagus from the Roman period featuring a lion hunt is on display in the necropolis gallery of the museum.

Artefacts related to fishing throughout the course of Graeco-Roman history also feature in the museum – typically lead fishing weights, fish hooks, and needles for the repair of nets. Surprisingly for a seafaring nation, the consumption of fish and seafood during prehistoric times is thought to have been uncommon and studies of human bones of the Mycenaean period correlates the consumption of fish to social status. This trend persisted throughout the Hellenistic period, where fish and seafood were considered a delicacy for the rich.

In the Roman period, sea-themed mosaics set into the floors of large villa complexes testify to the ongoing predilection of the social elite for the fruits of the sea (Fig 5).

The accomplished skill of ancient Greek goldsmiths also means jewellery features prominently in the Patras Museum. Some of the most impressive examples date from the Hellenistic period and feature the animal motifs so beloved of the ancients. A pair of exquisitely detailed gold earrings decorated with doves dates to the late 2nd – early 1st century BC (Fig 6). A gold necklace, in which the clasp is formed from two lion heads, mounted on finely carved collars, also dates from about the same time (Fig 11).

The craftsmanship of ancient jewelers was, however, not restricted to animal themes. A tiny exhibit features a gold ring fashioned during the Roman period and decorated with a phallus. Although the ancients did not shy away from illustrating erotic themes,
their use in art was not always purely sexual. The phallus was used in ancient times as a symbol of fertility, and also to ward off evil spirits and avert the evil eye. Accordingly, its depiction on jewellery was more likely to be of a protective nature. Nonetheless, explicit erotic scenes were often featured on ancient pottery, such as a clay lamp imported from Italy in the 1st century BC which is illustrated with a couple engaged in love-making (Fig 9). The frequent portrayal of erotic scenes on lamps usually resulted from the tendency of artists to decorate objects with themes related to their use: as such the lamp would probably have been intended to light a bedroom or perhaps a brothel. Representations of Eros and Psyche, which were a popular motif during the Roman period, may also have been intended as decoration in similar settings, and the Patras Museum features a wonderful terracotta statuette of the mythical couple engaged in a passionate embrace (Fig 10).

The Patras Museum contains a collection of Roman glass which is remarkable not just for the large number of complex vessels, but also for their variety in size and shape. Most were recovered from the two great cemeteries, dating to the 1st and 2nd centuries AD, when the city was at its zenith. Some glassware dating to the late Roman imperial period has also been recovered in Patras, including an amphora of free-blown glass with a greenish transparent hue (Fig 7). The use of moulds for the manufacture of glass objects preceded the use of glass-blowing, and had been used by prehistoric societies of the Near East and Egypt. It was still the dominant form of glass production during Hellenistic times. However, with the advent of glass blowing, and the combination of the two techniques in the second half of the 1st century AD, glass objects could be produced on a far larger scale, allowing glass products to reach a wider proportion of the population.

In this first gallery of the exhibition is displayed the magnificent collection of 14 Roman mosaic floors (Figs 5, 8), which cover over 300 square metres. The museum has arranged some of these vertically, on special supports designed to protect them from the frequent earthquakes of the region. A particularly impressive view is afforded by a raised indoor walkway from which visitors can view the mosaics from above (Fig 13). As well as providing a panoramic view of these large exhibits, the walkway allows a synoptic view of the whole exhibition, enabling today's time-pressed visitor to take in the whole museum quickly and easily.

The second gallery of the museum takes on a different tone. This focuses on the Hellenistic finds from the necropolis of ancient Patras, and accordingly the space is darker and more enclosed than the light and airy atrium of the first gallery. The exhibits here are striking and at times almost surrealistic. The gallery opens with four bare exposed skulls, laid on sand, each crowned with a magnificent wreath of intricate and finely crafted imitation flowers or petals. These are the wreaths that were buried with the body as symbols of the victory of the dead in the battle of life. The craftsmanship that went into the production of the wreaths, which are made of gold, gilded bronze, silver, or wood, is inferior by the standards of the time, comprising mass-produced foliage, thin plate, and in some cases cheap clay in the place of gold. However, the proximity of these artworks to the dead provides the objects with an added poignancy. The wreath that crowned the head of a young girl, made from clay that was gilded or painted to resemble myrtle fruits and flowers, lacks the technical skill of which Hellenistic artists were capable, but speaks of the bonds of familial love that laid the wreath upon her brow in the moments before she was lowered into the ground (Fig 12).

In order to give an understanding of the burial customs of ancient times, the museum has reconstructed several tomb styles. Both rock-cut and built Mycenaean chamber tombs are presented, as well as a burial pithos, a Roman cist grave, a larger Roman funerary monument, and a tile-covered grave with two skeletons and four sarcophagi. A terracotta burial larnax from the 13th century BC has been found intact at Patras, an extremely rare find in mainland Greece. Decorated with fish and an octopus in the
Minoan style, on the rim is a series of small holes that would have been used with lead fastenings to hold a cloth or leather cover in place (Fig 14).

A large display of cinerary urns, each quite different in style and colour, primarily date from the Roman period, although cremation was considered the norm from the Homeric epics onwards. Cremation in general was an expensive custom, requiring the preparation of deep trenches, then the assembling of the pyre on which the deceased was placed, often in a coffin. After cremation the remains were either buried in situ or collected and stored in urns or, more rarely, in cists. These rectangular marble containers were decorated with reliefs symbolising death or the afterlife. Such containers would have been imported from Italy in the 1st century AD and probably housed the remains of Roman veterans who kept the burial customs of their homeland.

A third gallery in the museum, focusing on public life in ancient Greece, is set to open at the time of going to press. In addition to these three permanent displays, there is a gallery for temporary exhibitions, and a virtual museum is also planned. In the previous issue of Minerva, we reported on the threat of temporary closure resulting from complications ensuing from Greece’s recent elections. It is with personal pleasure that we can report that the Friends of the Museum have reached agreement with the authorities and have been able to support the temporary funding needs of the museum through donations from local businesses. The Museum therefore remains open, testament to the cultural and spiritual vibrancy of Patras, ancient and modern.

All images, except Fig 14, courtesy of The Archaeological Museum of Patras.

The Archaeological Museum of Patras is open 8:00–3pm daily, except Monday. www.patrasmuseum.gr
Jordan: Crossroads of Cultures’ is an exhibition hosted in Rome’s Quirinal Palace, the seat of the President of the Italian Republic, and marks the first state visit to Italy of King Abdullah II and Queen Rania Al-Abdullah of Jordan. The exhibition also highlights the work carried out in Jordan by Italian archaeologists since 1927. Featuring 60 masterpieces from the museums of Amman and Petra, some of which have never been on loan, the artefacts have been carefully chosen to illustrate the most important periods in the history of Jordan, a country that, throughout history, has been a crossroads of peoples and cultures, linking the Near East with the Nile Valley and the Mediterranean. The time span covered by the exhibition is considerable: it runs from the 8th millennium BC, and encompasses the Bronze Age cultures, Persian, Greek, Roman and Byzantine domination over the region, through to arrival of Islam and the Arabs followed by Ottoman rule.

The oldest piece in the exhibition is a statue that dates to c. 7500 BC. The curiously shaped figure, which appears to depict a male, is composed of a reed skeleton covered by plaster. The eyes are painted with bitumen, which probably derived from the Dead Sea, while the legs are covered with red-orange painted stripes (Fig 2). Recovered from the Neolithic site of Ayn Ghazal, close to modern Amman, the figurine was found along with 32 other statues in a pit that appears to have been dug specifically for their deposition.

The Ammonites are mentioned in biblical texts as settling the lands to the east of the Jordan River, and their kings seem to have ruled the region – though often as clients to the Assyrians or Persians – from the 10th through to the 6th century BC. A statue recovered from the citadel of Amman probably represents one of the Ammonite kings of the 8th century BC (Fig 3). Its main features – a full beard, almond-shaped eyes, and a conical headdress – are repeated on a fine limestone head of the same period that was also unearthed in Amman (Fig 4). The headdress resembles those worn by the Egyptian god Osiris and indicates that the Nile Valley exerted a strong cultural influence on the Ammonite kings, although the beard carved onto the statue is of a Western Asiatic type.

Also from the rich and complex site at the citadel of Amman comes a double-faced limestone female head that may well represent the goddess Astarte (Fig 5). Probably carved in the 7th century BC, the head is stylistically very similar to Syrian-Phoenician carved ivories of the same period. It was found alongside three others, all with mortice holes on the top and

Dalu Jones reviews two exhibitions featuring archaeological masterpieces from Jordan’s past, and Italian involvement in the archaeology of the country.
bottom, suggesting that the four heads were set on a pivot in the windows of an Ammonite temple to allow the devotees outside to see one face while the priests inside could see the other.

An idol carved from yellowish sandstone is typical of the Nabataean period (Fig 6). Bearing the Nabataean inscription ‘Goddess of Hayyan, son of Nybat’, it was found at Petra whose ruins are still one of the wonders of the modern Hashemite kingdom, although buses packed with tourists now break the isolation and the silent grandeur of the hidden valley with its banded red sandstone walls into which the Nabataeans carved their capital that John Burgon (1813-1888) memorably described as a ‘rose-red city half as old as time’ (Fig 1). Also from Petra, though dating to the 2nd-3rd century AD, during Roman control of the city, comes a large marble krater with handles in the shape of leaping panthers.
Jordanian archaeology

(Fig 7). This rare and beautiful vessel was originally intended for the mixing of wine and water but was discovered in a Byzantine church where it appears to have been used by the clergy for ritual cleansing. Although the krater was probably made in Anatolia, it was seems to have been acquired by a wealthy inhabitant of Petra, who donated it to the church.

To illustrate the flourishing of Islamic art in Jordan – which began with the first great Muslim empire, that of the Umayyads (AD 661-750), the caliphs of which ruled from their capital in Damascus in nearby Syria – are ceramics of various dates, as well as an extraordinary bronze and iron brazier. There is also an interesting limestone capital with a relief inscription typical of the composite style which marks the passage from Late Antiquity to Early Islam (Fig 8). The capital comes from cistern at the site of al-Muwaqqar, to the south-east of the Jordanian capital, Amman, where the Umayyad caliph Yazid II (r. 720-724 AD) built his palace. The capital topped one of the 18 columns which supported the roof of the cistern at the palace. While three sides of the capital are decorated with acanthus leaves, the remaining side contains an Arabic inscription: ‘In the name of the most merciful Allah. Yazid, the servant of Allah and Commander of the Faithful, has ordered the building of this cistern. May Allah favour him and grant him long life and happiness, and bestow upon him great blessing and bounty in this world and that which follows. The cistern has been built under the guidance of Abdallah, son of Sulaym.’ Also visible, carved into the capital just above the ninth line of the inscription, are the three words ‘Khamsat Ashara dhira’ (15 cubits). The capital, like the rest of the column upon which it originally sat, therefore also functioned as a water gauge, allowing inhabitants of the palace to judge how much water remained in the cistern.

In addition to the palace at al-Muwaqqar, Jordan is home to a number of spectacular desert retreats built and inhabited by the Umayyad caliphs during the 8th century. Lying to the east of Amman is the bath-house of Qusayr Amra. Although small, this is of great interest because the interior walls of the complex are decorated with figurative wall paintings, and thus provides evidence that, despite popular belief, little more than a century following the death of the Prophet Mohammed (d. 632), Islamic art permitted figurative painting and sculpture in non-religious contexts. Located nearby is the wonderfully preserved desert castle of Qasr Kharaana, where graffiti in one of the first floor rooms can be dated to about AD 710. Though it has only one entrance and narrow slitted windows in its exterior walls, the layout of the courtyards and stucco decorated rooms indicate that Qasr Kharaana does not appear to have been designed to fulfil a military role. Despite being commonly referred to as a castle, the structure may originally have been a caravanserai. Lying to the south of Amman is Qasr al-Mshatta (the ‘Winter Palace’), construction of which appears to have started during the short rule of Al-Walid II (r. 743-744). With 25 towers contributing to the protection of the outer wall, the palace was well defended, while inside were residential apartments for the caliph and a throne room. Now a World Heritage Site, the magnificently carved southern façade was given to Kaiser Wilhelm as a gift from the Ottoman sultan Abd al-Hamid just before...
World War I and is currently on display at the Pergamon Museum in Berlin.

The krater and the anthropomorphic idol on display at the exhibition were also among the highlights of an exhibition staged at the Limonaia di Palazzo Pitti in Florence which closed just a few days before the opening of the current exhibition in Rome (Figs 6, 7). ‘Da Petra a Shawbak: Archeologia di una frontiera’ (From Petra to Shawbak: Archaeology of a frontier) was an exhibition which outlined the results of many seasons of excavation, artefacts of which are in southern Jordan. In addition to objects accumulated from many seasons of excavation, artefacts on loan from museums in Florence were also on display. Among them was an outstanding 11th century Fatimid lustre ware ‘bacino’ (basin) decorated with the figure of a seated drinker surrounded by arabesque spirals. Bacinis, which were acquired or looted from the Levant, are often to be found affixed to the internal walls of Romanesque churches in Italy. Whether the example in the exhibition was used simply for its decorative qualities, or provided some form of apotropaic purpose, is unclear. However, the basin provides evidence of the exchange of goods that occurred throughout the Middle Ages between the European Crusaders and merchants, the Muslim dynasties in the Middle East, as well as the Christian and Jewish indigenous populations.

The University of Florence and the Jordanian Department of Antiquities, as well as a number of other international research institutions, have worked for the last 15 years on medieval Petra and on the Crusader and Ayyubid settlements in Jordan, though the focus of the efforts has been on the medieval castle of Shawbak (Fig 9). Originally built by Baldwin I of Jerusalem (1100-1118) and given the name Krak de Montreal, the castle was captured by Saladin, the famous sultan of Egypt and Syria, following a siege that lasted for almost two years. Among the important public buildings excavated at the site by the archaeological team from Florence is the Ayyubid palace, and the large textile workshop which is the most extensive from the entire medieval Mediterranean region and which date to the 13th and 14th century, the period of Mamluk control over the site.

Italian archaeologists have also explored the valley containing the ancient city of Petra, capital of the Nabatean kingdom from the 4th century BC through to the 2nd century AD (Figs 1, 10). Through control of the immensely lucrative incense route, the dominance of Petra stretched from southern Syria to the deserts of Sinai and northern Arabia. Emperor Trajan annexed the kingdom in AD 106 and made it the capital of the province of Roman Arabia and Petra remained one of the major cities of the Near East throughout the Roman and Byzantine periods. The krater featured in the exhibition (Fig 7) was found during excavations in the city amongst the remains of a church, one of three which were built into the northern slope of the city.

Petra was almost deserted after the Persian invasions of AD 628 and the collapse of the limes arabisus on the Byzantine frontier. The valley was settled again only during the crusader period when Baldwin I of Jerusalem (1100-1118) erected castles there. However, the battle of Hattin, fought on 4 July, 1187, in which Saladin won a crushing victory over Guy of Lusignan, King of Jerusalem, brought an end to the Crusaders presence in the Jordan Valley and shifted control of the region to the Ayyubid dynasty (AD 1171-1341).

The catalogues from the exhibitions in Florence and Rome describe the work undertaken by Italian archaeologists in Jordan, giving pride of place to the Franciscan Archaeological Institute and of course to the research of the late Father Michele Piccirillo, an outstanding scholar whose generosity and breadth of vision will be difficult to replace. He was the discoverer of Umm al-Rasas, now a World Heritage site, and the leader of the team of Franciscan brothers working in and around Mount Nebo (Tell el-Mashhad). Michele Piccirillo also established the Institute for Mosaic Art and Restoration in Jordan with the support of the Italian Government (See Minerva, January/February 2009 pp.40-45). Teams of Italian archaeologists continue to work with their colleagues from Jordan’s Department of Antiquities on many diverse sites across Jordan. Italian specialists are also engaged in training Jordanians in methods and techniques of archaeological research and conservation.


The art of war

James Beresford examines the Anglo-Saxon society that gave rise to the Staffordshire Hoard

In July 2009, one of the largest and richest hoards ever found in Britain was unearthed by the metal detectorist Terry Herbert, working a field near Tamworth, the royal seat of the Anglo-Saxon kings of Mercia (Fig 1). Consisting of more than 1500 items, of which more than 650 were made from gold and 500 of silver, the hoard is the richest find of Anglo-Saxon artefacts ever to be dis-
covered and, with about 5kg of gold and 2.5kg of silver, it dwarfs the 1.66kg of gold recovered from the famous Sutton Hoo ship burial (Fig 2). The composition of the hoard is also highly unusual in that the vast majority of the pieces come from weapons and other equipment of war that had been crafted with such skill from high quality materials that they had undoubtedly belonged to warriors drawn from the highest rank of Anglo-Saxon society. Many of the artefacts recovered were fittings for long knives called seaxes, or for swords, the most highly prized weapons wielded in Anglo-Saxon England. In all 84 pommel caps, 71 lower hand guards (collars) (Fig 3), and a variety of other pieces associated with swords, the scabbards in which they were sheathed, or the belts from which they hung, were found (Figs 4, 5). Additionally, there are pieces that have been tentatively identified as having been torn from helmets, one of which is a stylised horse-head terminal (Figs 6, 13). However, despite the quality and craftsmanship of the weapons, they had been stripped down and often twisted and broken before being deposited into the ground.

The importance of the find was emphasised by Helen Geake, the National Finds Advisor for the Portable Antiquities Scheme: 'It is the only hoard of its type ever found on English soil; until now we didn’t know that this kind of behaviour existed within Anglo-Saxon culture. … The Staffordshire hoard will change perceptions as much as Sutton Hoo. It will take years to fully understand the implication of this find.' There is no indication that the artefacts were ever part of a burial, with no sign of a grave or burial mound, or the remains of ashes from a cremation. Although the field in which the hoard was found has been described as bad land that is often waterlogged, there is nothing to suggest the site was ever a pool or even a marsh into which the objects were deposited as votive offerings. Indeed, the condition of the artefacts suggest that, until very recently, they had been held in a chest or some other form of container before being brought to the surface following deep ploughing of the field in 2008 (Fig 7).

The field has now been thoroughly surveyed and partially excavated without producing any other archaeology, although Roger Bland, head of Portable Antiquities and Treasure at the British Museum, has noted, 'It is quite likely that other finds from the same period might be in the vicinity.' On present evidence, it would, however, appear that the objects had been buried in the ground on the orders of an aristocrat, very possibly a king, who was seeking to hide the precious objects during troubled times. For one reason or another, the owner was never able to return to retrieve the objects.

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Fig 1. Metal detectorist Terry Herbert with just a few of the precious artefacts he found in a Staffordshire field last summer.

Fig 2. A collection of just a few of the gold pieces that comprise the hoard. Despite the coating of Staffordshire dirt that still clings to the artefacts, the precious goldwork and quality of the craftsmanship can clearly be seen.

Fig 3. A variety of artefacts including a lower hand guard, a seax, and a pommel cap.

Fig 4. An artefact covered in Staffordshire soil.

Fig 5. Another artefact showing the quality of the craftsmanship.

Fig 6. A stylised horse-head terminal.

Fig 7. The field in which the hoard was found.
The quantity and quality of the gold artefacts has naturally captured the imagination of the public, and has inspired a great deal of newspaper column space over recent months. The hoard has also provided a fascinating insight into the highest ranks of society in early medieval England at a point when the country was beginning to emerge back into the light of history after three centuries of illiterate darkness following the withdrawal of the legions from the Roman province in AD 410. The artefacts recovered from the Staffordshire field therefore put us within touching distance of the kings and aristocratic warriors who listened as the sagas of mythical heroes like Beowulf were sung in mead halls. The objects in the Staffordshire hoard were born of this warlike society of early medieval England and connect us to it in a way that no other archaeological find – not even the royal treasures recovered from Sutton Hoo – has ever done before.

In the same way that it has been notoriously difficult to assign a date to the composition of the epic poem Beowulf, dating the deposition of the hoard is also problematic. The intricately interlaced stylistic animal decoration on some of the objects, such as the gold and garnet sword hilt fittings (Figs 4, 7), the gold collar from a seax (Fig 3), the cheek-piece from a helmet (Fig 6), or a gold plate featuring two eagles separated by a fish (Fig 8), indicate that such pieces were fashioned no earlier than the later 6th century AD. However, determining a more exact date for the deposition of the hoard is still a matter of great debate since it is probable that many of the objects had been created long before they were finally buried.

Even more of a concern than why or when the objects were deposited is the question of how a hoard consisting of such fabulously rich objects was accumulated in the first place. In Anglo-Saxon society there was an intimate connection between success on the field of battle, the accumulation of royal treasure, and the size and loyalty of a king’s retinue. Much of the treasure was likely to have been won on the battlefield, stripped from slain enemies and taken by the king as trophies of war. Mercian kings would have then redistributed the precious pieces and well made weapons in an effort to maintain the allegiance of their followers, and inspire other warriors to serve them. So it is that in Beowulf a good king is described as ‘a guardian of treasure’ or ‘a giver of rings’. The hoard might therefore represent part of the royal treasury of the Mercian kings that was used to garner support and loyalty.

Such a theory does, however, present problems. If the Staffordshire hoard was part of the royal treasury upon which a Mercian king could draw to reward his followers, then it would have made more sense for such military equipment to have been left intact rather than broken from the hilts of swords and knives, or stripped off scabbards and helmets. A well-made weapon – especially a sword – which had been wielded by a king or warrior of high renown was held in far higher esteem than the mere sum of its parts. This is clearly seen in the will of an Anglo-Saxon prince who died in the early 11th century and bequeathed ‘a sword which had once belonged to king Offa’, indicating that the weapon had been a heirloom for more than two centuries and was still considered one of the prince’s most prized possessions. The Beowulf poem also emphasises the manner in which the history and prior ownership of some swords
greatly enhanced the reputation of their current bearer. ‘And another item lent by Unferth at that moment of need was … a hilted weapon, a rare and ancient sword named Hrunting. The iron blade with its ill-boding patterns had been tempered in blood. It had never failed the hand of anyone who hefted it in battle, anyone who fought and faced the worst in the gap of danger. This was not the first time it had been called upon to perform heroic tasks.’ (1451-1464. Translated by Seamus Heaney, 2000.)

While swords could be disassembled – the blade reset into a new hilt and capped with a different pommel – such actions would result in much of the value of the weapon being lost. Instead, it is perhaps more likely that the collars, pommels, and other sword fittings and military equipment found in the Staffordshire hoard were trophies taken in war. The stripping down of a sword to its essential parts was possibly intended as a symbolic stripping of the power and authority that had been wielded by their defeated owner.

It has been noted by Dr Kevin Leahy of the Portable Antiquities Scheme that: ‘The discovery of the Hoard in Staffordshire should cause no surprise. It is the heartland of the Anglo-Saxon kingdom of Mercia which was militarily aggressive and expansionist during the seventh century under kings Penda, Wulfhere and Aethelred. The material could have been collected by any of these during their wars with Northumbria and East Anglia or by someone whose name is lost to history. Here we are seeing history confirmed before our eyes.’

Centered on the English Midlands, with Saxon tribes to the south, Angles to the east and north, and the Welsh to the west, the name of ‘Mercia’, which translates as ‘boundary folk’, was well deserved. Although it was a relatively minor player in the power struggles waged between the ruling houses of the other kingdoms during the 6th and 7th centuries, Mercia’s geographical position was key to the rapid growth in its power from the mid 7th century onwards. Mercia controlled the coastlines that faced eastwards onto the North Sea and Scandinavia, westwards onto the Irish Sea and the Bristol Channel, while control over the upper Thames Valley also provided access to the river and shipping routes to the Continent. The Mercian kings were therefore well placed to harness the wealth and resources that could be derived from maritime trade. Although facing threats from rivals on all sides, the frequent military campaigns mounted by the Mercians also presented opportunities for the king and his nobles to gain booty and glory.

The Staffordshire hoard is a reflection of this almost constant need for Mercian kings to wage war against their neighbours in an effort to secure and expand the frontiers of the kingdom and procure treasure with which to reward their followers. The precious military gear that makes up the bulk of the artefacts in the Staffordshire hoard was therefore probably taken from enemies defeated by the Mercians during their aggressive expansion in the 7th and 8th centuries.

Penda (reigned c. 626-655) was the first of these powerful Mercian kings, and was described by Bede as ‘a most warlike man born of the royal race of the Mercians’. He had already defeated the East Anglians, killing their king Egric and former king Sigebert when, in 641/2, he defeated Oswald of Northumbria, the most powerful of the Anglo-Saxon kings of the time. Penda would set Mercia on course to become the dominant kingdom in England, and although he would be killed in battle by Oswald’s brother, Oswiu, his sons Wulfhere (r. 657-674) and Aethelred (r. 674/5-704) further increased Mercian power. By the time of the powerful and long-ruling 8th century kings Aethelbald (r. 716-757) and Offa (r. 757-796), Mercia had become the strongest of the Anglo-Saxon king-
The Staffordshire hoard is a reflection of this almost constant need for Mercian kings to wage war against their neighbours.

A strip of gold bearing a biblical inscription that was found in the hoard may also suggest that the treasure was buried after the Mercian kings had abandoned paganism (Fig 10). The Latin text, taken from Numbers 10:35, reads ‘Rise up, O Lord, and may thine enemies be scattered, and those who hate thee be driven from thy face’. While Michelle Brown, Professor of Medieval Manuscript Studies at the University of London, believes the style of the lettering dates the piece to the 7th or early 8th century, Professor Okasha, of the University of Cork, believes the gold strip dates to the 8th or even the 9th centuries. However, the sword pyramids found in the hoard indicate an earlier pagan tradition (Figs 11, 12). These sword fittings, which were used to fasten high quality swords into their scabbards, were a short-lived fashion associated with pre-Christian burials of the 7th century.

The vast number of artefacts which comprise the Staffordshire hoard still require a great deal of careful cleaning and conservation before in-depth study and analysis can take place. It is, however, certain that the find will force a dramatic reinterpretation of many aspects of Anglo-Saxon society at the very moment when the English people were emerging from the Dark Ages into a new dawn of literacy and religious conversion. The very scale of the discovery and the elite nature of the objects that have come to light has, however, not only been of fascination to academics, but has also stimulated the interest of the general public to an extent not seen in Britain for many years. When a tiny fraction of the hoard was placed on display in Birmingham Museum and Art Gallery in September, more than 42,000 visitors came to see the pieces, most of which were still partly coated with the dirt of the field from which they were excavated. The artefacts have continued to attract large crowds since they were moved to the British Museum. It is now hoped that the money generated from such visits will go some way to raising the £3.285 million which the hoard has been valued at following the Treasure Valuation Committee recommendation in late November. If the money is acquired, then Birmingham Museum and Art Gallery, together with the Potteries Museum and Art Gallery in Stoke-on-Trent, will be able to place the artefacts on permanent display.

All illustrations courtesy of Birmingham Museum and Art Gallery.

A book outlining some of the artefacts found in the hoard has recently been published and is available from Birmingham Museum and Art Gallery shop, The Potteries Museum and Art Gallery, Stoke-on-Trent, and online at www.staffordshirehoard.org.uk with £1 from each sale going towards the appeal to raise the funds for purchase the hoard and its display in the two Midland museums.

Staffordshire Hoard
Kevin Leach and Roger Bland
(British Museum Press, 2009, 48pp. Paperback, £4.00)
The exhibition, 'Afghanistan: Hidden Treasures from the National Museum, Kabul' continues on its travels and seems likely to do so for the foreseeable future. It first opened in Paris at the Musée des Arts Asiatiques Guimet on 6 December, 2006 (see Minerva, March/April 2007, pp.9-12). The European tour included the Museo di Antichità in Turin and the Nieuwe Kerk in Amsterdam, and this was followed by four venues in the United States (The National Gallery of Art, Washington; The Asian Art Museum of San Francisco; The Museum of Fine Arts, Houston; and The Metropolitan Museum of Art), ending on 20 September 2009. The exhibition has prompted enormous public interest wherever it has been held and has provided an opportunity for renewed scholarly debate. The general public may well find the remarkable story of the survival of these treasures more fascinating than the artefacts themselves, but the exhibition also succeeds in highlighting the cultural, commercial, diplomatic, and artistic importance of Afghanistan. For centuries, if not millennia, the country was at the centre of kingdoms and empires, providing links between China in the east, India in the south, and the Mediterranean in the west – not to mention the steppes to the north.

For those whose deeper interest has been stimulated by the exhibition, this has been an ideal opportunity to study the pieces at close quarters and to marvel at their variety and craftsmanship. Yet the wall texts, the exhibition catalogue, and indeed the presentations and lectures accompanying the show also left one with the impression that there remain more questions than answers about the nature and date of the material. This is particularly the case with regard to the so-called Begram treasure. This vast assortment of material was found by French archaeologists in 1937 and 1939 in two adjacent rooms that had been sealed up and left undisturbed since antiquity (Fig 3). Whatever else has been said about them, it has never been disputed that the two chambers served the same function and belong to the same period. But the questions of to whom and to what date they belong remain hotly debated within academic circles.

The American exhibition catalogue, produced by National Geographic, states that ‘virtually all of the hoard can be safely assigned to the 1st century AD’ and argues that it should be regarded as ‘part of a commercial stock’. These ideas had been floated at least as early as 1966, when part of the Begram hoard was last seen in New York. However, they were not those given by the French scholars who first studied the material. They believed the chambers were storerooms in a royal palace of the Kushan city known from Chinese literary sources as Kapisi. Some of the finds, notably the glass, were also provided with a date that would have seen the palace and
its treasury abandoned either during internal struggles over the succession following the death of the most famous Kushan king, Kanishka, in the early to mid-2nd century AD, or during the final collapse of the Kushan empire to the renascent power of Iran under the Sassanian Persians in the mid-3rd century AD. In either case, it was argued the trail and painted glass vessels would fit better in a dating of the treasure to between the late 2nd and the mid-3rd century AD. It should be noted that some Indian scholars also support a relatively late date for most of the ivories. However, Chinese experts maintain that the fragments of lacquerware fit best in the Han dynasty of the 1st century AD. It is probably now impossible to be certain, but the question of the date of the Begram treasure will long remain highly important for art historians since it is crucial to our understanding and interpretation of cross-cultural influences in central Asia.

As regards the Western material, it is at least clear that there are strong links with Egypt and, more specifically, with Alexandria. One of the most spectacular, if now most fragile, pieces is the glass vessel carved in relief with the depiction of the Pharos of Alexandria. In addition to the ostrich egg and the pieces of coral, the porphyry (Fig 5) and alabaster vessels also originate from Egypt. Porphyry was a stone only found in the eastern desert of Upper Egypt and the quarries of the region were only opened up to exploitation in the late Ptolemaic or early Roman period. The alabaster phiale with the ram’s head finial to its handle securely places the piece in the Roman period, and the accompanying oenochoe and amphora have parallels with Roman metalwork. Among the bronze statuettes recovered from Begram, attention is most frequently drawn to the Egyptian figures of Serapis-Heraclès and Harpocrates but, whereas one of the horsemen can be readily equated with a Hellenistic type (recalling that of Alexander himself), the other horseman, who wears only a pair of trunks and sports a moustache, is usually identified as a ‘barbarian’ (Fig 2). Is he a Gaul, as the object label suggests? Or is he, perhaps, a Dacian? The latter would certainly be a more topical subject, given the date of the 1st century AD that is currently ascribed to the hoard.

So it would seem that a good case can be made for some of the hoard having originated in Roman Egypt, probably arriving from there via the Red Sea and ports along the north-west coast of India. The Periplous of the Erythraean Sea provides a suitable context for this maritime trade. Indeed, as scholars have been quick to point out, this manual for seafaring merchants, written in the mid-1st century AD, refers to the export from Egypt of both raw glass and glass vessels to these very ports. Another route is also identifiable in the archaeological record, since cast ribbed glass bowls similar to the ones in the Begram hoard have been found at sites, notably Bahrain and Ed-Dur, in the Persian Gulf. Indeed, the glass has often been seen as the most secure way of dating the hoard because it includes vessels that are easily recognisable and have well-dated parallels in the Roman Empire. Some 180 pieces of glass were found in the two rooms, although there are only 18 examples in the travelling exhibition, and sadly the Pharos beaker was too fragile to be included. Recent scholarship has divided the glass into two distinct groups, one of Roman manufacture and dated to AD 50-125, and a second of non-Roman glass, presumed to be of the same date.

It is worth taking a closer look at these two groups. The first includes the cast ribbed bowls of monochrome and mosaic glass, a type of early Roman glass tableware that is known across the Roman world, from southern Britain to Egypt and beyond. Also belonging to a well-documented type of early Roman blown glass is the tall, facet-cut goblet in colourless glass (Fig 6). Again, similar vessels have been found in dated contexts, mainly of the 1st century AD, at many far-flung sites, including the Roman fort at Cardean in Scotland that was abandoned by c.
Minerva
January/February 2010

screen showing a three-dimensional digital reconstruction by the National Geographic Society, would not usually be stocked by even the richest of merchants. Moreover, if the two chambers were indeed a merchant’s storerooms, would one expect them to be decorated with wall paintings? The main argument, it seems, that has been put forward in favour of the theory relates to the wonderful plaster medallions (Fig 13). There are seven on display in the exhibition, although the rooms contained some 50 examples. Their subjects range from mythological to genre scenes, and from portraits to idealised busts, while their styles vary widely, making precise dating difficult. They have been regarded as merchants’ samples and, since they have no intrinsic value, it has been argued that they have no place in a royal treasure. It is indeed likely that they are models, even copies, of the emblemata found on large silver plates from the 4th century BC onwards. Several have been pierced with holes so that they could be hung up for display, suggesting that they were in themselves admired. So, can we be positive that the plaster medallions were not as highly regarded as any of the other material in the Begram hoard?

AD 90. The three painted or enamelled glass goblets in the exhibition (Fig 1), while having disparate subjects, find close parallels amongst Roman glass. The Metropolitan Museum of Art’s own collection includes one such piece – a fragmentary beaker with scenes of gladiators and animals (Fig 4). The painted glass, however, is less securely dated and has often been attributed to the 2nd to early 3rd century AD. Finally, there are the two jugs, one plain but of elegant form in deep purple glass (Fig 7), wrongly described as ‘blue-black’ in the exhibition catalogue, and the other covered in gilded decoration with a Dionysiac scene. Parallels for both are hard to find but the quality of these pieces speaks unmistakably of Roman craftsmanship. Usually included with the ‘Roman’ group are the two one-handled beakers with facet-cut decoration (Fig 10), but I will return to these shortly.

The ‘non-Roman’ glass in the Begram hoard comprises the blown and trailed vessels (Figs 8, 11) – some 26 beakers and jars (three of which are in the exhibition), 22 fish-shaped flasks (three are displayed), and five boat-shaped vessels (none included in the show). These have caused serious problems for ancient glass experts because their shapes do not appear in the standard corpus of Roman glass. In addition, the heavy openwork trailing only finds distant parallels in late Roman glass such as the so-called Disch Cantharus, found at Cologne in 1864 and now in The Corning Museum of Glass. Likewise, the fish-shaped flasks are generally not regarded as closely related to a group of trailed fish flasks that was produced in Roman Syria in the 3rd–4th century AD. Finally, a late date for these trailed pieces does not fit the supposed early date for the concealment of the hoard and, of course, a compressed chronology for all of the finds would suit the theory promoted in the exhibition that the Begram hoard is not a royal cache accumulated over time but a merchant’s stock of goods.

This theory, however, should finally be laid to rest. The quality of the material in the hoard is such that it can only be associated with a palace treasury. The gilt rock crystal kantharos (Fig 9) and the porphyry vessels (Fig 5) alone speak of royal patronage. These were not items that would or, indeed, could have been commissioned by a merchant. Similarly, the large ivory throne, whose display was usefully accompanied in the exhibition by a video screen showing a three-dimensional digital reconstruction by the National Geographic Society, would not usually be stocked by even the richest of merchants. Moreover, if the two chambers were indeed a merchant’s storerooms, would one expect them to be decorated with wall paintings? The main argument, it seems, that has been put forward in favour of the theory relates to the wonderful plaster medallions (Fig 13). There are seven on display in the exhibition, although the rooms contained some 50 examples. Their subjects range from mythological to genre scenes, and from portraits to idealised busts, while their styles vary widely, making precise dating difficult. They have been regarded as merchants’ samples and, since they have no intrinsic value, it has been argued that they have no place in a royal treasure. It is indeed likely that they are models, even copies, of the emblemata found on large silver plates from the 4th century BC onwards. Several have been pierced with holes so that they could be hung up for display, suggesting that they were in themselves admired. So, can we be positive that the plaster medallions were not as highly regarded as any of the other material in the Begram hoard?
Some coins were found in one of the rooms, but little can be learnt about these from the exhibition catalogue beside the fact that one was a bronze issue of the Kushan ruler Kanishka. It is striking, then, that the hoard contains no gold or silver objects. Why not? Surely the answer is that precious metal can be readily convertible into cash in a way that rock crystal, glass, ivory, and plaster cannot. The store-rooms had been deliberately sealed, suggesting that the owner had to abandon his treasures temporarily, but with the expectation that he would return later to reclaim them. As he did so, it would have been only natural for him to take the most valuable, most convertible, and thus most useful objects with him, namely his hoard of gold and silver.

So, if we now return to the excavator’s original hypothesis that the Bagram hoard represents a royal treasure, it is possible to see the objects as belonging not just to diverse regions but also to different periods, with some representing heirlooms handed down from ruler to ruler. In this case it would no longer be necessary to force all of the glassware into a restricted timeframe of only some 50 years. There are, I believe, compelling reasons for extending the dating of the glass. Firstly, the two facet-cut one-handled beakers do not belong to the family of early Roman facet-cut glass for the simple reason that their handles are not applied in the Roman way (Fig 10). Like the ‘non-Roman’ trailed jars, their handles have been applied at the top and trailed downwards before being tooled off. On almost all Roman glass vessels handles are applied the other way round; they are dropped on to the vessel body and drawn up to the neck (Fig 7). This fact makes it very unlikely that these vessels were produced by a Roman glass-worker. It is interesting to note that the closest parallel is a ‘ewer’ in The Corning Museum of Glass which, when first acquired in 1965/6, was described as ‘Parthian or possibly early Sassanian, 3rd or 4th century AD’ (Fig 12). Such items, inspired no doubt by Roman facet-cut glass, may well have acted as catalysts for the Sassanian glass industry, which continued to produce facet-cut glass bowls and cups well into the 5th and 6th centuries AD. The fish-shaped flasks (Fig 8) can thus likewise be seen as distant cousins of Roman fish bottles, and one should accept as valid the comparison of the boat-shaped vessels with a Roman boat-shaped glass askos from Martigny in Switzerland found with a sestertius of Marcus Aurelius dated AD 173/4. The long-lasting appeal of Roman glass in far-off Afghanistan provides a much more intriguing and compelling setting for the Bagram hoard than current scholarship suggests.

The Hidden Treasures exhibition now proceeds to Canada and venues in Europe. It is to be hoped that these remarkable treasures will one day return to New York to excite, stimulate, and inspire once again. They have certainly done so in the summer of 2009, as well as allowing us the opportunity to learn about and marvel at their miraculous survival through 25 tumultuous, war-torn years.

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All illustrations, except Figs 4 & 12, courtesy of the National Museum of Afghanistan, Kabul. With thanks to Dr. Fredrik Hiebert, National Geographic Society.
Mapping Jordan through the ages

Claudine Dauphin traces 2000 years of attempts by cartographers to represent the lands of Transjordan

From the map of Palestine which decorated the mosaic pavement of the Byzantine Church of St George (AD 560-565) in Madaba (Fig 5), to the 1732 map of the Latin Patriarchate of Jerusalem by the French cartographer and royal geographer Jean Baptiste Bourguignon d’Anville, cartographic interest in the lands of the Levant predominantly focused on Biblical Israel and the Christian Holy Land. However, John Bartlett’s Mapping Jordan Through Two Millennia attempts to trace the history of cartography in the lands east of the River Jordan and the Wadi Araba.

Until the explorations of the German Ulrich Seetzen in 1805–06, maps of Transjordan were more ‘mindscapes’ reflecting their makers’ cultural background, than attempts to reproduce geographical reality. The earliest map featuring Transjordan was in fact an itinerary. The Tabula Peutingeriana was a medieval manuscript based on the 1st century BC map displayed in the Porticus Vipsaniae in Rome (Fig 1). The map depicted a route across Transjordan starting from Tiberias on the western side of the Sea of Galilee and crossing eastwards to Bostra before running south via Philadelphia (Amman) through Petra to Haila on the Gulf of Aqaba. Here it was met by a road running from Oboda south across the Negev. The main towns and other stations on the roads were depicted with the distances between them in Roman miles. This list was supplemented by the Notitia Dignitatum, a document which outlined the administrative organisation of the Roman Empire, of which the section referring to the Orient was composed soon after AD 395 and which enumerated the military units in Third Palestine, a region which included the western coast of the Arabian Peninsula, the Sinai and the Negev.

The Onomastikon, written in Greek c. 330 by Bishop Eusebius of Caesarea, focused on distances on the Roman road network calculated (frequently erroneously) from four main towns, including Hesbous in Transjordan. This preoccupation with inter-city distances would carry over into two of the eight maps which accompanied a study of Biblical geography by the Dutch scholar Adrian Reland (1676–1718), and Jean Baptiste Bourguignon d’Anville’s map of 1732 on which he connected cities by lines bearing a distance in Roman miles. From the 9th century, maps reflected Biblical narrative themes, such as the Israelites’ wanderings through the Wilderness. This winding curve through the Mountains of Edom set a precedent for 16th century cartographers such as Tilemann Stolz (Latinised to Stella) (Fig 3).

The first extant ‘modern’ map of Palestine and Transjordan was part of the map of the world produced in 1154 by the Arab geographer al-Idrisi (c. 1099-1164) at the Sicilian court of the Norman King Roger II in Palermo (Fig 4). This colourful work of ‘Naïve’ Art was matched in quirkiness by the map of the Holy Land illustrating the itineraries of William Wey, Fellow of Eton College, who undertook pilgrimages through the region in 1458 and 1462 (Fig 2). Having limited personal knowledge of Transjordan, Wey, like other medieval and early Modern cartographers, borrowed extensively from previous maps, so cartographic representations of the region were grossly inaccurate. As Bartlett commented on the depiction of Transjordan by the Genoese cartographer Petrus Vesconte: ‘A Crusader using this map would have become very confused.’

The gap between fantasy and reality...
started to close with the inclusion of Arabic place-names on the map drawn by Seetzen which accompanied the second volume of the 1737-38 travels of Richard Pococke, future Anglo-Irish Bishop of Meath. The Swiss explorer Johann Ludwig Burckhardt, in addition to his famous rediscovery of the Nabataean city of Petra, explored large tracts of land lying to either side of the Jordan River. Heinrich Kiepert’s map of Palestine included 300 contemporary place-names which he drew from compass points and other topographical details that the Americans Edward Robinson and Eli Smith had published in their *Biblical Researches* of 1841. From the midde of the 19th century the pace of exploration and mapping of Transjordan accelerated. Charles Warren’s reconnaissance of the Jordan Valley in 1867 was followed by the expeditions of men like Edward Palmer in 1869-70, and Henry Baker Tristram in 1872 (Fig 6).

For Bartlett, there is little doubt that ‘political and military concerns lay behind all surveys of Transjordan in the late nineteenth and early twentieth centuries.’ For example, the 1881 survey of Eastern Palestine, was staffed by British Army officers, while the map of *The Negeb or Desert South of Beersheba* printed for the Palestine Exploration Fund (PEF) by the War Office was considered so important it remained classified until the end of World War I. As the Ottoman Empire slowly crumbled, the race for data useful to military intelligence gained momentum and the British and the Americans were not alone in their quest to create accurate maps of the region. Alois Musil, an Imperial Austrian army officer, worked with professional surveyors and draughtsmen from the Army to produce the first accurate map of Transjordan, which included the newly built Hedjaz railway line and telegraph stations, as well as the locations of more than 100 archaeological sites.

From 1919 the newly created Royal Air Force began providing aerial photographs which would play a major role in mapping the new British mandate of Palestine. Throughout the 1930s, the British War Office published sets of maps of Transjordan in several scales which marked roads, railways, district boundaries, and police posts.

Following World War II, a new set of maps was compiled by photogrammetry from aerial photographs by the United States Agency for International Development to Jordan. Over recent decades the use of satellite imagery has replaced aerial photography, and topographical information – including the locations of over 8,600 archaeological sites – is stored digitally.

Despite the geopolitical sensitivities faced by any writer dealing with this region, Bartlett has produced a work of remarkable, yet readable scholarship. As Fellow of Trinity College, Dublin, and former Editor of the Palestine Exploration Quarterly, he is uniquely placed to write this book and *Mapping Jordan Through Two Millennia* imparts on the reader the sensation of having been given the key to a learned gentleman’s cartographic cabinet.

**For Further Reading**


**Fig 3.** A derivative of Stella’s 1552 map, published in G. Hornius’ *Accuratissima Orbis Delineatio* of 1677. Image courtesy of The Board of Trinity College, Dublin.

**Fig 4.** A section from al-Idrisi’s map of the world, AD 1154. The Dead Sea appears upper centre, and the Red Sea at the top. Image courtesy of Brockhaus/Aquarium, Stuttgart.

**Fig 5.** The Madaba Mosaic Map, set into the floor of the Byzantine church at Madaba in Jordan. The mosaic dates to the 6th century AD, making it the oldest extant original depiction featuring lands of Transjordan. Photo courtesy of Mark Merrony.

**Fig 6.** H. B. Tristram, ‘Map of Moab’, *The Land of Moab*, J. Murray, London, 1873.
The Life of Meresamun.
A Temple Singer in Ancient Egypt
Edited by Emily Teeter & Janet H. Johnson
Oriental Institute of Chicago,
University of Chicago, 2009
135pp, illus in colour and b/w throughout
Paperback, £28

Mummies are always the centre of attraction in any exhibition on Ancient Egypt, but here the editors, based on an exhibition in the Oriental Institute, February to December 2009, have brought Meresamun to life. Her beautifully decorated coffin, acquired by Chicago in 1920, carries her name and titles in an inscription down the front, and the style of the coffin indicates that she lived c. 800 BC. From these basic details the editors have drawn a rich picture of the life that Meresamun lived in Thebes where she served as a singer in the great temple of the chief of gods, Amun.

First, the Egypt of the Third Intermediate Period (1069-525 BC) is described. By bringing together in the exhibition objects of daily life to illustrate Egypt during her lifetime we are led inside the temple to the role and function of temple singers, the ritual music and objects, oracles and animal cults. Then follows Meresamun’s life outside the temple: home furnishing, household cults, fertility and birth rituals, and the social, economic, and legal rights of women and their employment. Ultimately, Meresamun’s mummy gives us her own secrets via the CT scanning and radiological report and illustrations of her mummy’s examination. Meresamun was probably in her late 20s or early 30s when she went to meet Osiris, the god of the dead. The mummy showed numerous fractures of the spine, collar bone and ribs, probably post-mortem but still difficult to explain. Thousands of images were taken using high resolution scanning channels of a level of detail not previously used on a mummy. The results, in colour in the book, are quite astounding.

Thousands of images were taken using high resolution scanning channels of a level of detail not previously used on a mummy.

Together, the editors have achieved the dearest wish expressed in their prayers by all ancient Egyptians: ‘Speak my name that I may live’. Meresamun lives again.
Peter A. Clayton, FSA

Sites of Antiquity.
From Egypt to the Fall of Rome
Charles Freeman
Blue Guides, 2009
248pp, 220 colour & b/w illus
Hardback, £25

I have long been a fan of the Blue Guides: detailed and scholarly in their unique way, yet accessible, well written with excellent plans and line drawings, a must for the culture vulture, and excellent on archaeology. With this in mind the writer eagerly awaited the arrival of the latest BG publication, with a selection of 50 sites that its subtitle claims ‘explain the Classical world.’ True to form, it does this admirably, and these sites are carefully selected from the ancient Egyptian, Greek, Hellenistic, Roman, and Early Christian worlds.

One of the most pleasing aspects of this book is its well-conceived structure. Each chapter begins with a concise historical overview before moving on to each site in turn. These are conveyed in an interesting way through a sensible balance of maps, plans, coloured drawings, images, time-lines, and photos – many quite dramatic – combined with excellent focus panels on individual topics. The chapter on the Pyramids of Giza (pp.18-24) is a typical example, featuring an excellent plan of the mortuary complex, elevation of the Great Pyramid, an excellent frontal shot of the Sphinx (with the central of the three pyramids as a backdrop), tomb photograph, and good focus panels on the Sphinx, the Pyramid Texts, and death, burial, and the afterlife. Sites are also spiced up by quotations taken from ancient and more recent history, while paintings also enhance the pages of the book. In the case of ancient Egypt, these include quotes by Herodotus (5th century BC) and David Millard (1855); and paintings of Abu Simbel by Giovanni Belzoni (1817) and the so-called Kiosk of Trajan on the island of Philae by David Roberts (1846-50).

Specific parts of this book are especially thought-provoking. There is a particularly good section on Olympia (pp.70-73) with an excellent plan of its buildings containing good captions explaining the particular function of each, including among others, the earliest athletic stadium, the gymnasium, Bouleuterion. An especially topical quote by the philosopher Epictetus complains that ‘There are enough irksome and troublesome things in life; aren’t things just as bad at the Olympic festival?’ This despondent point of view, written in the 2nd century AD, could easily have been penned by a British journalist in anticipation of the 2012 Olympics. The plan of the Athenian Agora (p.88) is also carefully explained in terms of its evolution and is well labeled and explained in the complementary text as such, beginning with the Panathenaic way in the 5th century BC and ending with the Roman forum constructed over the course of the 1st century BC.

The balance, format, and quality of the first two chapters set the trend for the later sections on the Hellenistic, Roman, and Byzantine periods, and it would be fruitless to repeat many more examples rather than to draw attention to the explanation of Roman arches, vaults, and domes (p.161); the pictorial and textual insight into Petra (pp.163-7), Pompeii (pp.172-9), Hadrian’s Villa and Wall (p.180-3; pp.184-7), and Ravenna (pp.218-221). Just a few examples from a book that could take pride of place on the bookshelf of the travelling archaeological enthusiast, student, or specialist.

Dr Mark Merrony
As the level of anxieties over the future and supremacy of the West today continue to grow, so have the numbers of books churned out by ancient and early medieval historians about the collapse of the Roman Empire, the rise of the barbarian successors and their conversion to Christianity. These studies offer detailed insights into early medieval society, culture and religion and there is a healthy debate over the extent that Europe inherited or reinvented Rome during the period from c. AD 400 to AD 1000. Yet does the popularity of these texts suggest that their appeal is rooted in more than an interest in the foundations of Europe? Do these books also offer hope at a time of perceived millennial crisis, offering the modern West the apparition of light at the end of a very long tunnel? If military might fails, economic crises loom and terrorism proliferates further, might the ‘hearts and minds’ of barbarians still be won and redeemed by faith and civilised living?

Archaeologists and historians have long fought against the hackneyed cliche of popular perception that regards the period from c. AD 400 – 1000 as a ‘dark age’. Yet archaeologists themselves have been slow in attempting to write pan-European syntheses themselves. Notable attempts in the past focusing on the barbarian successors of Northern Europe have been small books, like those by Richard Hodges and Klaus Randsborg. In recent years, few have taken up this challenge, with archaeology instead being embedded within broad narratives by historians. However, as a well-known specialist in the European Iron Age and the interactions between Rome and its barbarian neighbours, Peter S. Wells takes up the challenge, producing a compact but incredibly far-ranging introduction to early medieval Europe drawing primarily upon archaeological evidence.

Wells manages to pack in a vast array of sites and evidence, many revealed by recent excavations. In geographical terms, we move from Ireland to the Danube, stopping off en route in places like 5th century Tournai to witness the burial of the Frankish warlord Childeric. Wells takes us north to the early ‘central places’ of Scandinavia including Gudme and Helgö. On the Continent, we explore the 6th century settlement of Brebières near Douai and the Roman city of Regensburg. He inevitably ends up at Charlemagne’s palace at Aachen where the story ends with the Carolingian Renaissance. Wells also introduces the reader to the striking work of early medieval artisans through examples as varied as the Sutton Hoo helmet and the Ardagh Chalice. All the main themes are covered, from the fate of Roman towns, changes in rural settlement and economy, art, industry, trade and exchange and Christian conversion.

Drawing this evidence together, Wells’ thesis is simple and clear: we need to write an archaeological history of these centuries that abandons the prejudices of the 18th and 19th century historians and their view that the period was one of cultural regression. Instead, the barbarians are viewed as inheritors and adaptors of Roman culture. For anyone who pours through the pages of Minerva and other archaeology magazines and wonders at the glories of ancient ‘lost’ civilisations, this book will introduce you to a long misunderstood period of European history.

However, Wells’ thesis has some serious problems and struggles in attempting to create a single all-encompassing narrative for the entire early medieval West. For example, Chapter 5 (‘What Happened to the Roman Cities?’) uses Rome, Regensburg, Mainz and Cologne as case studies to claim continuity, not only in urban living but also in the functions and size of towns throughout the 1st millennium AD. Chapter 6 takes this line of argument to implausible extremes in relation to the evidence from London, a thriving Roman city into the early 4th century. By the early 7th century London was an episcopal, royal and trading centre for the Anglo-Saxon kingdom of Kent. Wells tries to fill the 5th/6th century gap and erroneously claims that ‘London continued to flourish, even during times of major political and economic change, to the present day’. Certainly London has produced 5th and 6th century settlement evidence, but there is no evidence to support Wells’ claims of a continuation of Roman-style urban life.

Another area of debate upon which Wells asserts an extreme view concerns the Anglo-Saxon migrations. He states that ‘there is little solid archaeological evidence for any migrations on a scale corresponding to the assertions of Gildas, Bede, and their successors’. This is certainly true in so far that these writers never discuss the scale of Germanic migration, providing only hints at the destruction and disruption caused by Germanic raiders and invaders. Yet Wells conflates this with an unqualified reading of two popular texts by the early medieval archaeologists Sam Lucy and Catherine Hills and an even-more popular summation of an anti-mass-migrationist thesis for a television programme by prehistorian Francis Pryor. The result is neither nuanced nor an accurate representation of modern scholarly debate on this complex topic. Regarding both the fate of Roman London and his interpretation of Anglo-Saxon migration, Wells is over-emphasising continuity. Rather than ‘reconsidering’ the Dark Ages, Wells is imposing a narrative in order to support his overarching ‘continuity’ thesis.

To conclude, Wells has attempted a brave project to cover such a big topic in such a small book. He succeeds in producing an affordable, well-written and informative introduction to early medieval archaeology. Wells is justified to use this context to challenge the persistent negative view of the early Middle Ages as a period of backwardness and ignorance. It is hoped that readers will use Wells’ text as a starting point to begin a deeper exploration of early medieval societies. But it is important to emphasise that Wells does not ‘reconsider’ the ‘Dark Ages’ as his title suggests, he is offering us the oldest version of the ‘Constantine to Charlemagne’ history, albeit using archaeological evidence to tell it. I therefore return to my opening speculations and suggest that Wells’ choice of thesis may reflect our concerns about the future of Western ‘civilisation’ as much as it says anything about the diverse communities and kingdoms of the early Middle Ages!

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