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SOMERSET COIN HOARD

One of the largest hoards of Roman coins ever found in Britain was unearthed in a field in Somerset by metal detectorist Dave Crisp in April. Since its discovery, experts from the British Museum have been examining the find while local archaeologists have been excavating the site, where some 52,000 coins, dating from the 3rd century AD, were buried in a large jar.

The coins span 40 years, running from AD 253 to 293, and the great majority are radiates, made of debased silver or bronze. ‘The hoard is probably the equivalent of about four years’ pay for a legionary soldier.

Archaeologists believe the hoard sheds light on the economic crisis and coalition government in the 3rd century. One of the most important aspects of the hoard is that it contains a large group of coins of Carausius, who ruled Britain independently from AD 286–293. The hoard contains over 760 of his coins, making it the largest group of Carausius coins ever found. Amongst these are five rare examples of his silver denarii, the only coins of their type being struck anywhere in the Roman Empire at the time.

Roger Bland, Head of Portable Antiquities and Treasure at the British Museum, said: ‘This hoard has a huge amount to tell about the coinage and history of the period as we study over the next two years. The late 3rd century AD was a time when Britain suffered barbarian invasions, economic crises and civil wars. Roman rule was finally stabilised when the emperor Diocletian formed a coalition with the emperor Maximian, which lasted 20 years. This defeated the separatist regime which had been established in Britain by Carausius. This find presents us with an opportunity to put Carausius on the map. School children across the country have been studying Roman Britain for decades, but are never taught about Carausius – our lost British emperor.’

Before his eventual defeat, Carausius became the first emperor to strike coins in Britain to give his reign legitimacy. Five of the Carausius coins are solid silver, the first such pure coins minted anywhere in the Roman Empire in over 150 years. The coins have been washed and stabilised by a team of conservators at the British Museum, led by Pippa Pearce, and are being studied by Roger Bland and the Portable Antiquities Scheme’s Roman coins specialist, Sam Moorhead. The British Museum is actively seeking funds to clean the coins fully; this will be a year’s work for one conservator.

A selection of coins from the hoard was on display at the British Museum from 15 July until mid-August.

SOPHIE MACKENZIE

ROMAN TO ENGLISH

A collection of remarkable sculptural fragments from the ancient kingdom of Northumbria reveals contrasts and underlying continuities between the Roman and Anglo-Saxon periods. The exhibition, staged at the Henry Moore Institute in Leeds, presents a group of carved sandstone fragments, displayed within a gallery context for the first time. The Roman sculptures date from the 3rd and 4th centuries, and the Anglo-Saxon works from the late 7th and early 9th century. They illustrate the survival, revival, reuse or reworking of styles, symbols and carving techniques across the centuries. Traditionally, these objects are approached from an archaeological viewpoint, examining their style, subject matter and historical context. However, this exhibition presents the sculptures as works of art that not only speak to each other, but are also relevant in larger discourses of political, national and cultural identity.

The sculptures are all from Northumberland, the northernmost of the early Anglo-Saxon kingdoms. The Roman sculptures were found in the area around Hadrian’s Wall. The Anglo-Saxon fragments are part of an appropriation and reworking of a vision of Rome that both fit the agenda of an expanding Northumbrian church and played a significant role in the making of England and the earliest ideas of Englishness. The exact nature of the larger compositions of which they once formed a part is uncertain.

The exhibition runs until 10 October. For more information, please visit www.henry-moore.org.

SOPHIE MACKENZIE
The Ulster Museum wins the Art Fund Prize

On 30 June, it was announced at the Royal Institute of British Architects that the Ulster Museum was the winner of the Art Fund Prize. Three other British museums – The Ashmolean Museum in Oxford, the Herbert Art Gallery and Museum in Coventry, and the Blists Hill Victorian Town in Shropshire – had been short-listed for the prestigious award, which brings with it a cheque for £100,000. However, it was the Ulster Museum that scooped the prize, with Kirsty Young, the Chairwoman of the judging panel, emphasising how the museum is already ‘building a lasting legacy’, and demonstrating a commitment to ‘reaching all parts of its community which is reflected in the number and diversity of its visitors. The transformed Ulster Museum is an emblem of the confidence and cultural rejuvenation of Northern Ireland.

Since it reopened in October 2009, following a closure of three years during which the museum underwent a redevelopment costing £17 million, the Ulster Museum has also gained other plaudits. In May it won the award for the Best Permanent Exhibition in a United Kingdom museum. However, there have been complaints that, following the reopening, the museum is now closed on Mondays, in line with the other museums and galleries which constitute the National Museum of Northern Ireland (NMNI).

Nelson McCausland, Culture Minister for Northern Ireland, also recently generated controversy when he wrote a letter to the trustees of NMNI suggesting that greater prominence be given to exhibits focused on the Ulster-Scots community in Northern Ireland, and the history of the Orange Order. Mr McCausland’s letter also advocated that alternative views to that of evolution should be put forward in museum displays. Ironically, the Art Fund Prize was awarded to the museum 150 years to the day after Thomas Huxley’s famous defense of Charles Darwin’s theory of Natural Selection from attacks by Samuel Wilberforce, Lord Bishop of Oxford. It is bewildering that, so long after such a seminal moment in Western scientific thought, it is still considered necessary to debate the relative merits of creationism and evolution.

James Beresford

The Hittites return to Liverpool

From 1931 through until 1941, Liverpool Museum was unique amongst British provincial museums in having a gallery dedicated to the newly discovered Hittite civilisation of Turkey. Liverpool archaeologist John Garstang (1876–1956) was a central figure in the discovery of this ancient culture, and wrote a number of important books popularising the study of Hittitology in Britain. The original Liverpool Museum gallery featured cabinets of artefacts from Garstang’s work in Turkey and elsewhere, and its walls were adorned with full-sized casts of Hittite sculptures.

The Hittite Gallery was destroyed by enemy action during the air raids of May 1941. While all the sculptural casts were destroyed in the bombing, many of the other artefacts from the exhibition – including pottery, seals and seal impressions, a stone bronze-casting mould, jewellery and a number of figurines – had been removed to storage. These Hittite objects have remained in storage ever since and have never been on public display since the early years of World War II.

In addition to the surviving artefacts is John Garstang’s archive of 23,000 glass negatives and slides, housed at the University of Liverpool. Garstang was a pioneer of archaeological fieldwork techniques and an early advocate of photography as a means of recording archaeological excavations. His collection, which covered a lifetime’s work in the Near East and Egypt, includes about 400 glass negatives and 700 glass lantern slides – many of which include images of historic, archaeological and ethnographic interest – taken during his work and travels in Turkey. In order to fully recreate the lost gallery, and to produce a spectacular new visitor experience, full-sized reproduction casts of Hittite sculptures are being loaned to the University of Liverpool from the collections of the British Museum. With the aid of grants from the Arts and Humanities Research Council (AHRC) and the Heritage Lottery Fund, these artefacts and slides have been prepared for public view in the exhibition and via a web site.

In addition to the Hittite artefacts on display, the new exhibition will also examine the life and works of Garstang, and the city’s historic connections with the archaeology and people of Turkey. The venue of the exhibition, the Victoria Gallery and Museum at the University of Liverpool, designed by Alfred Waterhouse in 1892, is particularly fitting since Garstang himself worked in the building. It was recently restored and opened as a public museum and art gallery in 2008, coinciding with Liverpool’s year as European Capital of Culture. The opening of the new exhibition in early 2011 will mark the centenary of the start of Garstang’s excavations in Turkey and will be a fitting tribute to celebrate his life, his archaeological achievements, and his life-long commitment to the people and culture of Turkey.

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(See the January/February 2011 issue of Minerva for a feature article on the exhibition. Readers can also follow the progress of the project at www.liv.ac.uk/sace/hittite)
Surveying the Hyskos city of Avaris

Austrian archaeologists working at Tell el-Dab’a, in the eastern Nile delta, have recently released images derived from magnetometer and resistivity surveys of what they believe are the southern districts of the ancient city of Avaris, the largest and most important of the cities established by the Hyskos (‘Desert Princes’). Their arrival initiated the Second Intermediate Period in c. 1780 BC and which lasted about a century until the establishment of the 18th dynasty of pharaohs and the beginning of the New Kingdom period of ancient Egyptian history. So far about 2.6 square kilometres have been surveyed and the images have provided outlines of the city’s street plan, as well as houses including large buildings that are probably palaces and temples. The Austrian researchers also identified a port inside the city, while Dr Irene Forstner-Müller, head of the Austrian Archaeological Institute in Egypt, said that the geophysical survey had ‘identified one of the Nile River tributaries that passed through the city, as well as two islands’. It was ready access to the Nile and the sea routes beyond, that provided the Hyskos with connections to other civilisations of the eastern Mediterranean.

Earlier Austrian excavations in the area have famously discovered a temple complex containing Minoan artefacts and decorated with frescoes similar to those painted at the centre of the Leon Levy and Shelby White establishment of the 18th dynasty. However, the site was resettled some 250 years later by pharaohs of the 19th dynasty, and became capital of Egypt during the reign of Ramses II (c. 1279-1213 BC) when the city was modestly renamed Pi-Ramesses Aa-nakhtu (House of Ramses, Great in Victory). At its height Pi-Ramesses is believed to have covered more than 18 square kilometres and been home to more than 300,000 people. However, by the middle of the 11th century BC, the silt-up of the branch of the Nile on which it was situated forced the abandonment of the city and most of the obelisks, statues and other masonry structures were relocated to the new city of Tanis, 100km to the north-west.

James Beresford

Bringing light to the end of the tunnel

Since November 2007, Egyptian archaeologists have been excavating and conserving a 174m-long tunnel cut through the bedrock of KV17, the tomb of Seti I (c. 1314–1304 BC) in the Valley of the Kings. Although the tunnel was originally explored in 1960, the recent excavations revealed that the passage continued for a further 26.6m than had been previously explored. The recent excavations also discovered shabtis, pottery fragments, and a small model boat made of faience. The Egyptian archaeologists also uncovered a false door with hieratic text: ‘Move the door jamb up and make the passage wider.’ It is thought these were instructions left by the architect of the tomb for the workmen who were carving the tunnel. While the purpose of the tunnel is unknown, Dr Zahi Hawass, of the Supreme Council of Antiquities, has theorised that it may have originally been intended to lead to a secret burial chamber. However, with the death of Seti I near the end of the 14th century BC, work on the new tunnel was brought to a halt and the pharaoh’s body was laid in the chamber that had already been completed.

James Beresford

Met acquires Three Graces

An ancient Roman group statue depicting the Three Graces was acquired by New York’s Metropolitan Museum of Art in July. The marble sculpture is a 2nd-century AD Roman copy of a Greek work from the 2nd century BC. Discovered in Rome in 1892, the statue has been on loan to the Museum from a private collector since 1992, and has been on view in the centre of the Leon Levy and Shelby White Sculpture Court since it opened in 2007.

The museum’s Director, Thomas P. Campbell, commented: ‘The charming dance-like pose of the Three Graces, who stand in alternating front and back view, with their hands on each other’s shoulders, is one of the most famous and enduring compositions known from antiquity. It was first developed in the 2nd century BC, continued in popularity in the Renaissance, and has been influential during every subsequent period of Western European art. Thanks to the generous support of several Trustees and other good friends of the institution, we are delighted to announce the addition of this superb, extremely well preserved, and beautifully carved work to the Met’s encyclopedic collection.’

The Three Graces are Aglaia (Beauty), Euphrosyne (Mirth), and Thalia (Abundance). In mythology, they play an attendant role; their closest connection is with Aphrodite, whom they serve as handmaids. For ancient authors, the triad also served as an allegory for the cycle of giving, accepting, and returning favours, which were described by the ancient Roman philosopher Seneca as the ‘chief bond of human society’. After its discovery in Rome in 1892 near the ancient Forum of Nerva and Vespasian’s Temple of Peace, this sculpture entered the collection of Joachim Ferroni and has since attracted much scholarly attention. The Three Graces traditionally are shown as nudes with water jars covered by drapery at their feet, a representation that ultimately derives from the famous classical statue of Aphrodite by Praxiteles at Knidos.

Sophie Mackenzie

Minerva September/October 2010
The last day of Pompeii

New research carried out at Pompeii suggests that most of the victims of the eruption of AD 79 did not die as a result of inhalation of hot ash, as has generally been thought. Instead they were killed through exposure to high temperatures of at least 250°C.

When Mount Vesuvius first erupted, fast-moving clouds of super-heated ash, rock and gas sped down its southern flanks. Known to scientists as Pyroclastic Density Currents (PDCs), these clouds of debris can achieve speeds of 700km/h, and temperatures of over 1000°C. These pyroclastic clouds, surging over Pompeii and other districts of Campania in AD 79, were described by Pliny the Younger in a letter written to the historian Cornelius Tacitus as ‘a dreadful black cloud, torn by gushing flames and tongues of fire like lightning that was greatly magnified’.

Previous research has demonstrated that there were six separate pyroclastic clouds sent out by Vesuvius during the eruption of AD 79. The first three flows did not reach the 10km to Pompeii. The population who died at this stage of the eruption did so as a result of roofs collapsing under the steady build up of material blasted upwards from the volcano which steadily rained down on the city. It was the fourth pyroclastic cloud that covered Pompeii and it was this that caused the greatest loss of life. However, new research published in the mid June online journal PLoS ONE entitled ‘Lethal Thermal Impact at Periphery of Pyroclastic Surges: Evidences at Pompeii’, indicates that although the fourth PDC barely covered the city, petering out just beyond the southern walls, and while there was only enough ash left within the cloud to leave a deposit 3cm thick in Pompeii, the temperatures were sufficiently high to kill anyone who still remained in the city.

It was the postures of 93 well preserved plaster casts that pointed the researchers to the cause of death, suggesting an instantaneous death followed by sudden muscle contraction (cadaveric spasm) due to the heat-shock induced by the PDC, as also testified by hyperflexion of hands and feet toes. Cadaveric spasm is a rare phenomenon only found in corpses that have suffered instant violent death leading to the instantaneous stiffening of the muscles. ‘The predominance of this rare feature in Pompeii victims points to an instantaneous death due to heat exposure.’

The pale yellow or natural bone colour of the skeletal remains recovered from Pompeii, and preservation of DNA within the bones, also suggests that they were not subject to temperatures higher than 300°C (572°F). This differs greatly from remains found at Herculaneum, located 3km closer to Vesuvius than Pompeii. Here no imprints of bodies were found in the ash deposits, and all the remains were purely skeletal. The colours of the bones were darker than those examined at Pompeii, and all DNA had been destroyed by temperatures of 500°C (932°F) or higher.

‘Therefore heat was enough for sudden and complete vaporization of soft tissues of the victims at Herculaneum… where the flesh was suddenly replaced by the ash, but was insufficient at Pompeii. This accounts for the nearly perfect preservation of the entire body imprint (plaster casts) in the ash as a consequence of the delayed disappearance of flesh of these bodies.’

The final two pyroclastic clouds sent out by Vesuvius reached even further than that which killed all who remained in Pompeii and Herculaneum. Victims have therefore been found in outlying villas more than 15km from the volcano. The ability for pyroclastic clouds to retain lethal levels of heat so far from the source, once ash levels had declined, has implications for the evacuation plans of the modern city of Naples and other settlements clustered near active volcanoes.

James Beresford

Release of the Red List for Central America

At the beginning of June, the International Council of Museums (ICOM) set out the Red List of Endangered Cultural Objects of Central America and Mexico. The document, which was released at the National Museum of Anthropology in Mexico City, is designed to combat looting and destruction of archaeological sites, and reduce the illegal trade in cultural artefacts. Like the Red Lists produced for other areas of the world, it is intended to help museums, art traders, collectors and law enforcement officials identify artefacts that are threatened with illegal export from the countries of Mexico, Guatemala, Belize, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. The Red List describes several categories of objects that are under threat. From the Prehispanic era, these include various types of ceramics, metalwork, stone and bone artefacts, weapons and tools. From the Colonial and Republican periods paintings, sculpture, relics, altarpieces, and gold and silver objects – many illegally removed from churches – are most at risk. Manuscripts, maps, plans and prints are also among the objects that require careful safeguarding. In order to assist authorities and the public in identifying the types of artefacts most under threat, pictures with brief descriptions of the various cultural treasures are included in the document.

James Beresford
Moves to restrict the importation of Italian coins to the United States

On 6 May 2010, the US State Department’s Cultural Property Advisory Committee (CPAC) met to hear public comments regarding amendments to be made to the Memorandum of Understanding (MoU), signed by the US and Italy in 2001 and extended in 2006. The MoU concerns ‘the Imposition of Import Restrictions on Categories of Archaeological Material Representing the Pre-Classical, Classical and Imperial Roman Periods of Italy’. The discussion focused on the benefits of the current MoU, and Italy’s compliance with its obligations to provide long-term loans to American museums.

It remains unclear whether Italy had formally requested an amendment to the MoU in order to widen the import restrictions to include coins. Nevertheless, the topic dominated the debate, with several speakers talking against inclusion. CPAC heard from 20 speakers, including a representative of the Italian Ministry of Culture. Of these, nine opposed various aspects of the MoU or its extension to include coins.

The main concern raised by chairman Katherine Reid regarding an extension to ancient coins would be the difficulty in enforcing the restrictions, especially considering the wide circulation of coins across the ancient world. It was therefore suggested as a compromise that import restrictions be placed on South Italian, Sicilian, Punic, Etruscan and early Roman Republican coins, while Roman Imperatorial and Imperial coins remain excluded from the MoU. However, the International Association of Professional Numismatists, together with the Professional Numismatic Guild, has submitted a study to prove that, long before the establishment of the Principate, coins minted in Italy were in wide circulation and that the principle is flawed.

At present no final decision has been made. The renewal of the MoU is due early in 2011. Massimiliano Tursi

Return of a Greek youth

Elsewhere in this issue of Minerva (see pp. 16-19) is a description and interpretation of a highly interesting bronze figurine of the god Hermes, recently acquired by the Manchester Museum through the good offices of James Ede, of Charles Ede Ltd, from the collection built up by the late Nicholas Embiricos in Lausanne. However, this was by no means the only bronze shown to the Museum by Ede, for Embiricos had excellent taste, and a liking for Archaic pieces. Among other items was a beautiful little bronze kouros of the early 6th century BC (H. 11cm): while Embiricos undoubtedly acquired him in good faith, further investigation showed that he had been looted from the museum on the island of Samos during World War II, or perhaps during the Greek Civil War that followed. He is listed in all three editions of Kouroi, the standard handbook on these statues by the American scholar Prof G.M.A. Richter, first published in 1942. To make the identification secure, the bronze figurine even shares the same blemish on the tip of his nose as in the illustration in that book; he is not an aftercasting, for the dimensions match exactly those given by Richter. After confirming that the bronze had not been deaccessioned legally, James Ede was able to return him to his proper keepers in the Greek Archaeological Service at a ceremony in the lecture hall of the Ministry of Culture in Athens on 16 June 2005.

The event was widely reported in the Greek and British press, but such occasions have become a regular feature of archaeological life in Greece. The National Archaeological Museum in Athens has regular displays of objects that have been returned to Greece, and during 2008 there was a special exhibition in the new Acropolis Museum in Athens of objects that had been exported illegally (usually after being looted from their findspots) and were now coming home. The inspired title of the show was ‘Nostoi’, a reference to the stories describing the returns of the Greek heroes from Troy. The exhibition was jointly curated with their opposite numbers in Italy for many of the objects had come from there, and it had already had a showing on that side of the Adriatic.

For myself there was an additional happy final twist to the story of the kouros. Last year I was leading a tour around the Aegean, which included a visit to Samos. Normally foreigners are forbidden by Greek law from lecturing or guiding on sites or in museums without a licensed local guide to accompany them. However, when I produced a newspaper cutting relating to the return of the kouros, we were immediately led upstairs to the display of bronzes: there was the little figurine, with a large label alongside announcing the fact that he had been returned by a British antiquities dealer. It was splendid to see him back in his proper home – and of course the ever-hospitable Greeks allowed me to tell his story to my tour group.

Professor John Prag
University of Manchester
One of the main problems facing museums today is lack of display space, which means that large parts of many collections are locked away in storage. However, this is not without its problems – merely keeping an item behind a glass casing is not enough to stop it from becoming eroded. Hence most artefacts will often end up in long-term storage, either deep within the bowels of the museum, in secure warehouses, or occasionally in the dry environment of a salt mine.

In addition to the difficulties of museum display, archaeologists also face the problem of how to bring recent finds from excavations to public attention, or to share them with colleagues working on the other side of the world. Traditionally we have tended to use newspaper articles, museum displays and television programmes, and more recently the web. However, I believe that the archaeological community is ready for a change that will benefit us all.

There is a vast amount of heritage information already circulating in cyberspace that is ready to be taken and manipulated into a holistic vision. What better way to do it than with the use of three dimensional design (3D)? While 3D graphics are not a new concept, there has been a renewed interest in the potential of the technology over recent years, as the film industry has clearly demonstrated. Today we have the ability to use the technology that created blockbuster movies like *Avatar* to create exceptionally detailed images and replicas of artefacts and generate greater awareness of them, and to educate communities about archaeological finds and sites.

Ancient artefacts such as Roman coins or prehistoric stone tools are usually displayed in museums within glass cabinets. At best, two-dimensional representations of them can be accessed or downloaded from the internet. However, 3D visualisation would allow us to see these objects in a completely different way, while 3D printing – which creates a 3D facsimile of an artefact by building up layer after layer of paper – could allow the viewer to physically pick up the coin or knife, hold it between their fingers and feel it. Such a technology would help bring archaeology to life (Figs 1a, 1b).

There are many computer software and hardware products available for archaeological researchers and heritage professionals designed to help them explore these possibilities. In terms of hardware, scanners range from triangulation-based devices for close work on small objects like coins, pottery or statues (Figs 3a, 3b, 5a, 5b); through terrestrial time or flight laser scanners suitable for surveys of the facades and interiors of buildings (Fig 2); to airborne laser scanners, which allow the mapping of entire landscapes (see *Minerva*, July/August 2010, p. 7) (Figs 4a, 4b). Clearly, the skills needed here include not just mastery of 3D.
Computer-Aided Design (CAD) or Geographic Information Systems (GIS) programmes, but also a familiarity with the 3D laser scanning machines themselves, as well as the other data gathering devices that could be used to supply ancillary information such as the Electronic Distance Measurer (EDM) and digital cameras.

All this may sound confusing or even intimidating. However, organisations such as English Heritage publish guidance papers, which can be downloaded from their website. One such paper, entitled '3D Laser Scanning for Heritage: Advice and guidance to users on laser scanning in archaeology and architecture', is a fairly friendly guide that provides a step-by-step tour through the 3D world from data gathering to interpretation. There are 17 case studies covering a variety of laser scanning projects, and a useful list of contacts at the end of the guide. English Heritage also has a legacy website, www.heritage3D.org, where heritage professionals involved in 3D laser scanning can exchange views, advertise conferences and training days, and review further case studies.

All this technology offers the potential to provide archaeologists and the general public with a better understanding of the past. Scans of medieval castles or ancient Near Eastern cities into a 3D visualisation software programme would allow people to fly over the city in cyberspace or manipulate buildings, dissecting their structural components to see how, when and why they were built. This technology therefore has the potential to recreate past landscapes and allow the user to walk through them and get a unique feel for a lost environment.

The use of 3D software, combined with 3D printing, can be used to create mobile displays and provide the opportunity to share details with society in a way that has previously been impossible. Community centres, libraries, museums and schools should be able to use this new information, by downloading it or through dedicated computer terminals acting as portals into a newly recreated past.

School courses can be supplemented through 3D technology training packs, which would generate excitement and interest among students, and give the past more relevance. The technology could also be used in industry to raise awareness of the cultural value of heritage and archaeology. By actively acquiring, understanding and using cutting-edge visualisation skills and recording objects and sites, archaeologists can bring their findings to the wider community and make the past more accessible and understandable to our colleagues and the public.

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Prehistoric art

Faces in the stones

Kate Prendergast takes a new look at the great henge monument of Avebury and examines theories that Neolithic artists carved cleverly hidden figures into some of the stones.

The World Heritage landscape of Avebury in Wiltshire, home to a rich collection of Neolithic monuments, is a delight to visit. Set in a natural basin surrounded by hills, near the source of the River Kennet, the monuments follow the lie of the land and provide surprises at every turn. They include chambered tombs, a large stone circle (Fig 2), two stone avenues and the enigmatic mound known as Silbury Hill. The sites were described by 17th-century antiquarian William Stukeley as ‘16 square miles of sacred ground’.

Monument building began in this landscape around 3800 BC and continued for more than 2000 years. The stone circles and avenues at Avebury date to the middle of this period, c. 2900–2400 BC. The architecture seems primarily designed to facilitate and orchestrate crowd-gathering and large-scale ritual activities. The Kennet and Beckhampton stone avenues begin at the periphery of this landscape and lead people into the central stone circle with its bank, ditch, and further inner stone circles. Stukeley also described and sketched a monolith known as the Obelisk, which was located within the henge monument but was toppled and destroyed in the early 18th century. An altar-like setting of stones known as ‘the Cove’ still partly survives.

Avebury has much in common with its more famous neighbour Stonehenge. They are of similar date and both are constructed using huge sarsen stones taken from the Marlborough Downs. But whereas the design of Stonehenge channels people into a tightly defined and controlled ritual space, the circles and related settings at Avebury were constructed on a much larger scale. The Avebury henge also appears more open, and almost seems to invite meandering journeys, encouraging a sense of discovery that is rewarded by unhurried sojourn.

Avebury’s massive sarsen megaliths, the heaviest weighing over 60 tonnes, are among the most magnificent in the world. Originally up to 600 stones stood in this landscape, but now only around 80 remain, with the rest either buried or destroyed. The hardness of the sandstone sarsens varies greatly, yet all the stones display the effects of the natural processes that created them. The stones retain their mysterious and evocative natural shapes, and have an imposing presence in the landscape. Some observers argue there may be far more to the shape of the stones than the effects of nature. Many stones at Avebury have been modified by human hands to enhance natural effects and to create a landscape that in a very real sense is inhabited by ‘beings’ captured in the stones themselves.

It has long been recognised that many Neolithic megaliths of northern Europe have been worked, dressed and, in some cases, elaborately carved. The rock art at monuments to the south, west and north of Britain, such as Gavrinis in Brittany or Knowth in Ireland, has been extensively documented and interpreted. However, little work has been done to establish the existence of a Neolithic rock art tradition in southern England.

In the early 20th century, Herbert Stone was one of the first archaeologists to analyse the megalithic sarsens of southern England for evidence of possible stone-working. He argued that those of Stonehenge had been mauled, hammered, pounded and ground into shape, pointing out that woodworking traditions are clearly echoed in the lintel joints. Bronze Age rock art, depicting daggers and axes, is also clearly present on some of the sarsens of Stonehenge; as recently as 1999 one fine example of fluent, deep carving was discovered on the broad edge of one of the stones.

In 1936, Alexander Keiller, a wealthy businessman and enthusiastic archaeologist, purchased large tracts of land in the area where he carried out a number of high profile excavations. Digging of the Avebury henge by Keiller, together with archaeologist Stuart Piggott, began in 1937. The site was cleared of undergrowth, sarsens that had been buried were uncovered and replaced in their original stone-holes, and holes marking the sites of lost stones were denoted with concrete pylons. Keiller and Piggott also argued that the stones at Avebury had been worked and dressed:

“...the stones... have hitherto been erroneously referred to as "rough unhewn blocks of sarsen". Actually these megaliths have been... very carefully dressed, although not, it should be noted, to the flat surface obtained at Stonehenge. Moreover there can be no question but that the stones were dressed deliberately to conform to certain required shapes, and to this end were in the first place selected as near

![Fig 1. Stone 206 with a profile of a carved face.](image1)

![Fig 2. The large sarsen stones which form the Avebury henge monument.](image2)
to the required form as possible, with a resultant economy in the labour of the final dressing’ (Antiquity, 1936, p. 420).

Following Keiller, Isobel Smith argued that the lozenge or diamond, and long or ‘phallic’ shaped stones located in the Kennet Avenue were symbolic representations of males and females. While Keiller’s astute assertion that many stones at Avebury were carefully selected and also worked by Neolithic artists was accepted by many archaeologists, others assert that the Avebury sarsens show no sign of human carving and were left entirely in their natural state, although it is acknowledged by all that the stones had been carefully selected for their shapes.

It took the observational skills of Terence Meaden, former Professor of Physics at Dalhousie University in Canada, though a native of Wiltshire, to extend Keiller and Piggott’s work when he noticed that many of the Avebury stones appeared to have been worked to represent human heads (Figs 5, 6). Meaden published the photographic evidence for the art in The Secrets of the Avebury Stones (Souvenir Press, 1999). Since then, social scientist and artist Di Pattison has undertaken a comprehensive assessment of the evidence for stone-working at Avebury: The Avebury Stones: Selected, Shaped, Carved (British Archaeological Reports, 2011). With her technical expertise, Pattison has meticulously documented the extent and complexity of such stone-working, and her findings leave no doubt that it was designed to produce subtle yet still powerful artistic effects.

The tools Neolithic sculptors were most likely to have chosen included very hard quartzite nodules, employed as hammerstones, pounders and mauls for primary dressing and shaping. Finer work would have been achieved by chiselling with hard stone tools, sometimes carefully positioning fire to soften and discolour the skin of the stone to ease the carving.

One of the most extraordinary stones to show evidence for carving is Stone 206 (Figs 1, 3). It weighs about 22 tonnes and stands about 3.5 metres (11.5 feet) high in the northermost of the two inner stone circles. It fortunately survived intact and has never fallen, while most of its neighbours have been removed or badly broken. Viewed from the south-west, this stone has a finely-executed carved profile of a head. The mouth and chin are particularly well shaped: the chin rounded, the thin, precisely formed upper lip meeting the cheek as it swells out. The large curved horn has been created with clearly upturned V-cuts to give the impression of twists going back over the crown of the head.

Careful examination reveals a series of lozenge and ‘V’-shaped indentations and linear grooves (Fig 3). These are sculptors’ tool-marks and can be most readily identified by looking at the shapes of shadows and the formations of the living lichen, as lichen tends to grow on the old original stone surface and not on the newer surface cut by tools. ‘V’-cuts have been used to try and define the surface of the cheek and nose. In good sunlight, at least eight short chisel-marks are clearly visible at the tip of the nose. In fact, there is a network of smaller such marks forming groups under the nose. Natural features, like hollows and protuberances, were accentuated to define the desired form, a general characteristic of the Avebury sculptural style.

The hair and beardless chin of this imposing character appears to suggest a female character, while the horn evokes both masculine and animal elements. It looks east-south-east, the direction of sunrise in early November and early February – the time of year that heralds the beginning of winter and the start of spring, and so is a key period in the agricultural year. They are also moments of ritual significance and during the Iron Age the Celtic festivals of Samhain and Imbolc were held on these dates, in which death and rebirth were honoured and celebrated. Is it possible that this stone has been carved to represent a guardian of fertility? Clearly of great importance to the community that created it, many archetypal roles – herald, protector, kar and warrior – all appear to be blended into a single character.

Another extraordinary example of a stone that may have been carved to depict an archetypal figure is stone 13B in the Kennet Avenue (Figs 4, 5, 6, 7). This is only revealed when the...
observer walks sun-wise round the stone, with the effects best experienced very early on a sunny morning in June or July. The first image the observer encounters is of a three-quarter back view of the head and neck of a young adult woman facing left and looking down (Fig 4). She has a small, sharply pointed nose, a hollow eye darkened by shadow, a full round left cheek and a high evenly curving forehead with a high-piled hairstyle.

Stepping round the stone, the image begins to change. (Fig 5) The woman still appears to be looking downwards at the ground, but now her lips have become visible, the chin has become more angular, the nose longer, and the neck thicker. She has grown a little older.

Passing on just one more small step and a new image emerges out of the old. It is still the same woman, but she has aged even more. The head is now erect, the chin is firmer and a lower thinner mouth replaces the full youthful lips. The nose begins to look broken and bent. She is a mature woman. We see increasingly clear evidence of tool marks and signs of burning, including maul marks which are now clearly visible on the side of the chin and neck.

One more step round, and viewed almost full frontal, the southern edge of the stone reveals a much older woman (Fig 7). Below the nose, faint chisel grooves and upturned ‘V’ and ‘W’ formations can be detected and the full extent of the mauling becomes clear. She is beginning to change from a lifelike person into a caricature of a misshapen hag. In a few short steps, following the sun, a vision of a woman who ages half a lifetime is revealed. Could this stone represent one of the most enduring archetypes of the ancient religions of the British Isles: the goddess in her three aspects of maiden, mother and crone?

In one last display, as the viewer takes one more step round the stone, the crone is completely transformed (Fig 6). The young, downward-gazing woman has returned to view, this time in right profile. She has the same neck, the same sharp nose, the same gaze, and the hint of a smile. It is almost as if she has been following the viewer (rather than the other way round) and now makes eye contact for the first time. Her return completes the cycle – youth is followed by age and maturity, while rebirth and regeneration lie on the other side of decay and death.

Di Pattison argues that, of the 80 stones still standing, the majority have been worked to a greater or lesser extent, many with comparable complexity in form and effect to stones 206 and 13B. Generic features of this art include a consistent interest in figurative and symbolic art, ambiguity, archetypal and super-human forms, and shape-shifting. All this is achieved by the interaction of the moving observer, and partly by the creative use of the changing sunlight. These features are intrinsically related to astronomical knowledge and alignment, and concepts of fertility and sexuality, death and regeneration.

It can therefore be argued that at Avebury there is a unique corpus of Neolithic rock art – one that reveals the true extent of the artistic accomplishments of our ancestors. Such art is masterful yet subtle; imposing yet in deep sympathy with its setting. The characters have moods that frequently change according to changes in sunlight or the position of the viewer. Artfully planned and exquisitely placed, the figures dwell within the stones and help to define a megalithic temple that appears designed to foster the intrinsic human connection with the forces of nature.

While Avebury has been subject to systematic destruction and continuous habitation since the Middle Ages, its original grandeur has not been eradicated. Writing in the early 20th century, the anthropologist Walter Evans-Wentz recorded the persistent prevalence of the ‘fairy faith’ in rural Brittany, Ireland and Scotland – beliefs that clearly had roots in very old world-views.

One common belief was that certain stones are alive and that beings dwell in them. At certain times of the year, such stones can literally walk, and unfortunate humans can get taken to the ‘Otherworld’ if they do not respect their power. It is now possible to see how many stones at Avebury could once have been considered animate. Through their stone-working ability, the Neolithic artists created a magical landscape in the living qualities that their stone-working artistry invokes – and the magic endures so we too can discover and enjoy it today.

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Heraldry for the dead

The Neolithic revolution marked the transition from hunting and gathering to agricultural societies. These farming communities would develop methods of food storage and irrigation, leading to the establishment of permanent villages and towns. This in turn led to the development of new social networks, reflected in an increasingly complex material culture.

It is the Near East that is usually credited as being the first region to undergo this transformation to farming in about 10,000 BC. Cultivated plants such as einkorn wheat, millet and spelt were grown, while dogs, sheep and goats were kept and, rather later, cattle and pigs were also domesticated. According to the conventional interpretation, human population levels rose as farming and animal husbandry became more prevalent. Emigrants spread the ideas and technologies, as well as the animals and plants, associated with this new form of subsistence, triggering Neolithic revolutions in other areas. There was, however, considerable regional variation.

In Japan, which appears to have undergone an ‘independent’ agricultural revolution, pottery was produced by non-farming communities. On the other hand, some of the farming communities in the Near East never adopted pottery. In Britain the earliest Neolithic people may not have used domesticated plants, and there is debate as to whether these first British farmers lived in permanent communities. Ancient Europe appears to have entered the Neolithic at different times according to proximity to the Near East. In the south-east of the continent, the first agrarian societies appear about 7000 BC, probably established by migrants coming from Anatolia. Central Europe began to transform in c. 5500 BC and it is asserted by many scholars that this was also caused by migrants who brought new ideas with them, rather than by the exchange of ideas.

The earliest Neolithic artwork recovered from Europe is that created by the Vinča culture, which developed in the northern Balkans and lower Danube region in the 6th–3rd millennium BC. Although there are numerous theories as to how Vinča designs should be interpreted, most scholars believe they are pictograms or ideograms rather than an early writing system.

The Neolithic is usually studied in terms of large-scale movements of peoples and ideas from one place to another. However, with some Neolithic communities leaving complex assemblages of material culture, it is possible to conduct research that is focused on a particular region. In the case of Neolithic Iberia this has recently been done by Prof Katina Lillios, from the University of Iowa, who has examined engraved plaques dating to the Late Neolithic (3500–2000 BC). These plaques come from secure contexts, having been recovered from graves in south-west Iberia. As long ago as the 19th century, there was speculation that the geometric designs engraved on them represented an early writing system. More recently, in keeping with the social climate of the age, they have been interpreted as mother goddess figurines. Yet, as is the case with so many theories, there has been little evidence to support this contention.

During the Late Neolithic (c. 6500–4000), bodies were commonly deposited in collective burials in caves, rock cut tombs, corbel-vaulted tombs, and passage graves. Cranial and long bones were sometimes arranged in these mortuary structures and leave little doubt that living populations continued to have a close relationship with the dead. Communal structures, constructed specifically to commemorate the dead, certainly helped link a community to the surrounding region, legitimating their right to farm the land, something that would have been less of an issue for a nomadic hunter-gathering community that was constantly moving from place to place.

It is no stretch of the imagination to suggest that there was some form of ancestor worship linked with these sacred structures, although it
is unknown if Neolithic communities followed what we would today regard as a religion. In Early Bronze Age Iberia (2000-1500 BC) individual graves begin to appear in the archaeological record, while the use of grave monuments and specialist craft goods declined. The Bronze Age also marked the end of the use of stone plaques. A case could be made that, rather than being just decorative, the plaques and the symbols they preserve may have played a distinctive role in Neolithic society.

The palm-sized engraved stone plaques were usually made of slate and schist, and used geometric shapes to broadly represent the human form. In some cases it appears that the designs could represent clothing. A number of different types are known, ranging from ‘owl’ forms (which may represent a human dressed as an owl) through to simple shapes with geometric designs. Of the hundreds of plaques that Prof Lillios has examined, none exhibited any wear marks, suggesting that they were produced exclusively for use with burials. The question of the symbols used on the plaques is an intriguing one, as they could have featured in more general everyday use. However, even if wooden plaques bearing similar designs had been commonly made in the Neolithic, it is unlikely they would survive to the present. The stone plaques generally resemble stone axes, and possibly served as visual metaphors for agricultural people, representing, for example, the power of humans wielding such tools to transform a forest into productive agricultural land. Alternatively, the plaques could also signify social status.

On another level, the symbols on the plaques may record genealogical information. There may be visual systems of identifying individuals that are hereditary. The symbols on these plaques may convey the identity of the owner, but the symbols certainly fall short of being a language. In her book, *Heraldry for the Dead*, Prof Lillios has therefore stated: ‘Specifically, the number of design registers on the Classic plaques may have recorded the number of generations that separated the deceased from a founding ancestor. Thus, a person buried with a four-registered triangle plaque was four generations removed from an important founding ancestor of the clan’ (p. 174). This hypothesis is supported by ethnographic parallels such as the lukasa memory boards of the Luba people of the Democratic Republic of Congo, or the wooden whakapapa staffs used by Maori from New Zealand, and similar staffs used to record lineages by other peoples. Representations of humans, as well as notches and knobs, could be used to record ancestry, community organisation, or numbers of enemies killed. While Prof Lillios was not the first to suggest this hypothesis, she has marshalled together a vast amount of evidence to support the theory that the symbols used on the plaques are non-random. As is the case with so many other works of scholarship directed towards the Neolithic period, there will be controversy about the meaning of the symbols. Clearly, however, the study of early farming communities in a more focused ‘narrow’ sense can be revealing, particularly as broad ranging considerations of migrations across regions has received the lion’s share of scholarly attention in recent decades.

This article is based on the research of Prof Katina T. Lillios, published in *Heraldry for the Dead: Memory, Identity and the Engraved Stone Plaques of Neolithic Iberia*, University of Texas Press, Austin, 2008. 218pp. Hardback $60.00. Prof Katina Lillios has an extensive online database of stone plaques that can be viewed at: http://research2.its.uiowa.edu/iberian/index.php
Arcadian enigma

John Prag examines a Greek bronze figurine in the Manchester Museum and explores the possibility that it is a unique depiction of Hermes Tragophoros – Hermes the Goat-Carrier.

In 2001, the Manchester Museum received a substantial bequest from Professor Robert Cook, who had begun his teaching career at Manchester University in the 1930s before going on to Cambridge to become Laurence Professor of Classical Archaeology. It was not his first gift to the museum – he and his brother John, also a Classical archaeologist, had given several Greek vases in the past. The money was to be spent on Greek antiquities within seven years of his death in 2000.

With careful husbanding of grants and great help from James Ede, of Charles Ede Antiquities, I used the first tranche of Cook’s bequest to purchase a Corinthian helmet from the Charterhouse School collection, which was then being sold at Sotheby’s. Four years later, not only was Robert Cook’s deadline beginning to loom, but so was my own retirement from the Manchester Museum. Again with Ede’s help, we purchased a small bronze figurine of Hermes, god of shepherds and flocks, messengers and heralds, and also of thieves (Figs 1, 2). Ede had acquired it from the widow of the Greek ship-owner Nicholas Embiricos, who had probably bought it in the 1950s or 1960s, though it may have been acquired by his father, a collector of antiquities since the 1920s. The figure stands with the right leg advanced and both arms outstretched from the elbows, holding a small goat on his left forearm. He perhaps held a shallow offering-dish (patera) in the right hand, but only part of the fixing pin and a patera-like impression in the palm of the hand remain. He wears plain boots and a chiton which fits tightly over his buttocks, and a round travelling hat with a rolled brim. One long lock of hair falls over each shoulder, and two locks fall neatly down his nape and between the shoulders. Generally the back is less well finished than the front. There are hammered pins with which he was fastened to a base (the present base is modern) and the goat is also fixed by a pin that runs through his chest and shows as a slight...
bump on his back. He stands 9.6cm high, and measures 4.2cm from the tip of the goat's muzzle to his right elbow. Aside from surface damage, noted below, and two tiny casting flaws, he is intact apart from the left foot, which is bent upwards slightly and has a split across it, probably caused by stress against the pin.

There is much of interest about this little figure. Its condition is generally sound, with a very good green-blue patina, sometimes dark blue on the back. Such good patina often sounds a warning for the professionally suspicious curator, since it is easy to manufacture; there is also some restoration around the pin fixing the goat to the figure, made good with resin, and some minor damage to the patina from filing on the back. Our doubts about the patina and corrosion products were resolved by scientific examination, kindly carried out at the Department of Scientific Research at the British Museum by Dr Susan La Niece through the offices of Dr Dyfi Williams, then Keeper of Greek and Roman Antiquities at the Museum. The fixing pins also raised some questions: pins to fasten a figurine to its base are common, but those to hold the attachments are unusual because most composite figurines are cast as a single unit. Dr La Niece noted that both figures had been cast separately as complete pieces in leaded bronze of a similar composition, and then attached by a copper rivet or pin, while microscopic examination of the surface and corrosion products showed that goat and god had been together since antiquity. The patina is well bonded to the metal, so there is no reason to doubt its authenticity, although under a microscope one can see the marks of filing all over its surface. There is some minor restoration, but no more than the kind of ‘making good’ that one would expect from a dealer in the 19th or early 20th centuries.

There are many parallels for such figures, and many production centres in Greece during the Archaic period, but by the 5th century BC most had been absorbed by the larger cities such as Argos, Corinth and Sikyon. However, the workshops of Arcadia in the rugged and remote hills of the central Peloponnese maintained their vitality and their independence, both of the other centres and to a large extent of one another, with an individual style that began in the 7th century BC and was fully developed by the 6th. The figure's stocky build, with its thick neck and muscular chest, the rather crude rendering of the facial features, such as the boot-button eyes and gash-like mouth, and the 'pilos' travelling hat and boots, are all typical of south-western Arcadian work of the later 6th or perhaps early 5th century BC, falling into what Winifred Lamb in her seminal study of these statuettes in the Annual of the British School at Athens for 1925/6 described as the 'Main Arcadian style'.

Unusually, this figure leads with the right leg rather than the left. Also unusual is the animal in our little man's arms, which perhaps raises the question of his own identity. 'The bronzes themselves, peasants carrying their sheep and calves, dressed in high hats and embroidered cloaks, gods and goddesses in the likeness of Arcadian shepherds and Arcadian girls – these not only interest but also delight us in their naive charm and their fitness to the Arcadian uplands from which they come,' wrote Winifred Lamb. Sheep, calves and roosters are common, and there are even depictions of the occasional fox, but I have not so far found a single figure carrying a goat. However, I have little doubt that this is a goat, partly because of the way in which the shagginess of its coat is distributed around the neck and hind legs, but above all because of the little tail that turns up from the creature's rump, and because of the way in which the horns grow straight and centrally from the forehead, unlike those of a sheep, which are more widely set and normally grow outwards in a much stronger curve (Figs 3, 4). The horns of our figure are broken short, but when seen from the front their shape clearly matches those of a goat rather than a sheep. Goats often have beards, and...
Greek sculpture

in Greek art this is one of their distinguishing features, but neither in the Greek countryside nor in art are they universal.

We do not know the provenance of the Manchester figure, and there were many sanctuaries scattered through the mountains of Arcadia sacred to a great variety of deities. One of the most important was the area of Mount Lykaion, where there were sanctuaries to both Zeus and Pan, but there was also a temple of Pan Nomios at Berekla on the southern slopes, and another at Melpeia, a little further south again. Berekla in particular has been suggested as the most likely source for the majority of bronzes from the area, along with sites such as Bassae and Lykosoura. Dr Mary Voyatzis of the Pennsylvania University Museum Mount Lykaion Excavation and Survey Project tells me that although the Greek archaeologist Konstantinos Kourouniotis found numerous bronze figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work suggests as the most likely source for the majority of bronzes from the area, along with sites such as Bassae and Lykosoura. Dr Mary Voyatzis of the Pennsylvania University Museum Mount Lykaion Excavation and Survey Project tells me that although the Greek archaeologist Konstantinos Kourouniotis found numerous bronze figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only figurines in his excavations early last century near the temenos of the Lykaion sanctuary, some of which clearly depict Hermes, further work here by the Penn project found only.

While the bronze figure has no wings about his clothing, winged footwear is not de rigueur for Hermes, and it has been suggested that wings are generally lacking in contexts where the emphasis is not on Hermes' speed but on his role as guide, messenger or protector, which would certainly apply to our figure. Even if wingless, our figure's boots are elegantly made, and he wears a short chiton, suitable for rapid movement, while his hairstyle is distinctly more elegant than is the case for most Arcadian bronzes.

If this is Hermes (and even if not), then why the goat? Hermes Kriophoros – Hermes the Sheep-carrier – is a common theme, both in major sculpture and in Klein Kunst ('minor' arts and crafts): the Lexicon Iconographicum Mythologiae Classicae lists 38 examples along with another 14 duplicates (including the bronze from Andritsaina, Fig 5) and mentions a few more non-Hermetic examples. By contrast, goats are rarely depicted in the iconography of Hermes they generally only appear on vases where Hermes is sacrificing or in scenes of comedy or parody (Fig 7). The impression given by the Archaic terracotta figurines (another area where gods, mortals and animals are portrayed) is much the same: virtually all Archaic kriophoroi carry rams or goats.

Nevertheless, sheep and goats often appear interchangeable in Greek and Roman art and literature. This situation is reflected in the Classical inheritance of the Medieval and Renaissance worlds, where among the attributes of Hermes and his Roman equivalent Mercury is a creature that is sometimes a sheep, but slightly more often a goat, sometimes with a sinister, almost dragon-like appearance. A 17th-century bronze Mercury from the workshop of Massimiliano Soldani in Chatsworth has a goatskin draped over the tree-stump that provides support for the standing figure of the god (Fig 8). The creature may serve as a steed for the god, but I have not found a kriophoros or tragophoros; that role is reserved for depictions of Christ (Fig 9).

However, this does not really explain the rarity of goat-carriers – human or divine – in ancient art. There is a curious little bronze in the British Museum showing Apollo holding a set of goat's horns (Fig 11), and in Greek art satyrs are often associated with goats, but in the Classical and Hellenistic terracottas it is Eros who is sometimes found carrying a goat or kid, never Hermes. A Christian parable has the sheep being separated from the goats, where the former inherit the Kingdom of Heaven while the latter are damned to eternal punishment (Matthew 25:31-46), but there does not appear to be any particularly negative attitude to goats in Greek and Latin literature. Indeed, as Juliet Clutton-Brock has noted in A Natural History of Domesticated Mammals (Cambridge University Press, 1987), there is little reason why goats should be regarded unfavourably: 'Goats can provide the peasant farmer and nomadic pastoralist with all their physical needs, clothing, meat and milk as well as bone and sinew for artefacts, tallow for lighting, and dung for fuel and manure. Goats will complement a flock of sheep, which are perhaps usually easier to herd, by browsing on thorny scrubland whilst sheep prefer the grass.' In the modern Mediterranean goats are also used as bellwethers to lead flocks of sheep. On the other hand, goats are destructive in their omnivorous approach to...
vegetation (they are held to be one of the causes of the desertification of the Sahara and parts of the Near and Middle East), while many people have commented on the wildness and malevolence that appear to shine from a goat’s yellow eyes and horizontal irises.

One reason suggested to me for the preponderance of sheep-carriers is that sheep relax when they are lifted up and carried, while goats are more capricious and likely to struggle. By one of those amazing strokes of serendipity, Dr Voyatzis put me in touch with Tom Fenn of Arizona University, a member of the Lykaion project. He grew up on a farm, and wrote to me that: ‘The immature and female goats were generally okay to handle by carrying in this fashion; not so easy for the mature male goats. They always squirmed a bit initially, but when they realized you weren’t going to harm them they calmed down. We also had many sheep on my farm and what is said about them is true. In general, sheep are very stupid and when you grab them and hold them so they can’t move their legs they give up completely. The goats are a little less cooperative (I think they are smarter than sheep, too), but again if handled properly, they too will acquiesce and can be carried relatively easily.’ Fenn was able to put his knowledge of caprid behaviour to good use after a storm on Mt Lykaion, when he rescued a young kid that had become entangled in the brush and abandoned by its flock. ‘It was cold and wet and when I held it in my arms it immediately calmed down and got quiet. That was when we took the photograph (Fig 10). There are many sanctuaries to Pan in the region and so we thought it appropriate to document the moment. I carried that goat back to the village, probably another 1.5 miles [2.4km] from that point, and it was calm in my arms the whole time.’

Perhaps the ancient Greeks’ attitude is summed up in another Hermes story, told in the Homeric Hymn to Pan and suggested by Ede in his catalogue entry for the bronze figure. While tending the flocks of Dryops on Mount Kyllene, Hermes made love to Dryops’ daughter: ‘He accomplished the fruitful coupling; and she bore Hermes a dear son in the house, at once a prodigy to behold, goat-footed, two-horned, merry laughter.’

The poem goes on to describe how the girl ran away in terror at the frightful, bearded face of her offspring, but Hermes took him up and laid him on his hand in great delight and then took him to Olympus ‘wrapping the child closely in the skins of mountain hare, and sat down beside Zeus and the other gods and displayed his son. All the immortals were delighted, especially Bacchic Dionysus; and they took to calling him Pan, because he delighted them all.’ Maybe the little figure is not just Hermes god of farmers, but also god of fertility and proud father of Pan, the other deity whose home was in Arcadia. It gives me not a little satisfaction to know that the last acquisition I made in 36 years’ service at the Manchester Museum is of a figure of the god of thieves, and so surely also of archaeologists and curators. And I know Robert Cook would have felt the same.

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Alexander the immortal

A new exhibition at Amsterdam’s Hermitage Museum looks at the enduring legacy of Macedonia’s most famous son.

Alexander III of Macedonia (r. 336–323 BC) (Fig 1) owes his epithet ‘the Great’ to the vast swathe of territory that he conquered, stretching from Greece in the west to lands beyond the River Indus in the east. This conquest of much of the known world was achieved in little more than 11 years, following Alexander’s accession to the throne of Macedonia in 336 BC, aged 20.

The exhibition features treasures from the Russian State Hermitage collection, and has been adapted from an exhibition held in St Petersburg in 2008. It endeavours to provide a picture of Alexander the man, and the great cultural and artistic changes that followed in the wake of his conquest of the Persian Empire.

The exhibition begins with the myth of Alexander and his heroic deeds as depicted in paintings, tapestries and decorative arts from the 17th to the 19th centuries (Fig 3). The exhibition then moves on to what is titled ‘Alexander’s Reality’, focusing on his native land of Macedonia, his teachers, his heroes and his ideals. To the Greeks, Macedonians were still violent barbarians living on the edge of the civilised world. Nevertheless, under the rule of Philip II (359–336 BC), the large northerly kingdom had exploded into military and political importance, subduing the city-states to the south, and imposing control over lands lying west of the Hellespont and south of the Danube. Macedonians were also proving the equals of their Greek neighbours intellectually, and in 343 BC Philip arranged for his son to be tutored by Aristotle (384–322 BC). The opportunity for Aristotle was too great to refuse, not only because Alexander was described as a quick pupil who was eager to learn, but also because Philip had destroyed his native town, Stageira in Chalcidice, not long before; once Aristotle agreed to teach Alexander and his boyhood companions, the Macedonian king promised to rebuild the town and free the citizens from slavery or exile.

The majority of the exhibition is devoted to the anabasis of Alexander, the great campaign against the might of the Achaemenid Empire and the journey to the East. The military campaign had been planned by his father just before his assassination by Pausanias, one of his bodyguards, at the theatre in Aegae. Under Alexander the invasion of Persia would develop into an unparalleled campaign of conquest lasting more than a decade. Treasures produced in the far-flung regions of the vast empire of the Persian King Darius III are on display in the Amsterdam Hermitage, from Egypt in the west, Sogdiana and Bactria in the north, to India in the east. Visitors can follow the route of his celebrated journey (Fig 6) on interactive maps and computers.

According to Alexander’s biographer Plutarch, the young Macedonian king ‘constantly laid Homer’s Iliad... with his dagger under his pillow, declaring that he esteemed it a perfect portable treasure of all military virtue and knowledge. Once across the Hellespont, it was therefore Troy that became the first goal of Alexander. On reaching the site of the ancient city, steeped in Homeric myth, where the hero Achilles had won undying fame before meeting his long prophesied early death, Alexander made
sacrifices at his hero’s shrine. At the same time Alexander’s friend and lover, Hephaestion, honoured Patroclus, who had shared a similarly close bond with Achilles (Fig 4).

The first encounter with the Persians took place on the River Granicus in north-west Anatolia. According to Alexander’s biographer Arrian (c. AD 85–160), the Macedonian cavalry was crucial to the victory, smashing into the centre of the Persian line. As was usual throughout his battles, the Macedonian king was in the thick of the fighting when: ‘Rhoesaces rode up to Alexander and hit him on the head with his scimitar, breaking off a piece of his helmet… Alexander struck him to the ground, hitting him in the chest through the breastplate with his lance. At the same moment, and coming at Alexander from behind, Spithridates had already raised aloft his sword against the Macedonian king, when Cleitus, son of Dropidas, anticipated his blow, cutting off the Persian nobleman’s arm, scimitar and all’ (Anabasis, 1.15) (Figs 5, 7).

The first battle fought against the Persian army personally directed by King Darius took place late the following year in south-west Asia Minor on the River Issus. Despite raising a vast army, which, according to ancient sources numbered as many as 600,000 men (the actual number was probably closer to 100,000), the result for the Persians was similar to that of the previous spring. The elite Companion cavalry of the Macedonians cutting into the heart of the Achaemenid forces, forcing the Great King to flee the field, leaving his bodyguard to be butchered and army routed (Fig 8). Following the
battle, the Macedonians discovered the wife, mother and daughters of Darius in the king's tent, and Alexander treated them with courtesy and respect (Fig 10). Darius himself would raise another vast army and at Gaugamela in October 331 BC once again contested the fate of his empire. As in the previous battles, Alexander's integrated use of cavalry and heavy infantry armed with long sarrissa spears would prove decisive. Trapped between this anvil and hammer Darius again fled the field, to be killed early the following year by Bessus, his kinsman and the satrap of Bactria. His death brought an end to the Achaemenid dynasty.

At Gaugamela the Macedonians had their first experience of fighting war elephants, and as Alexander led his army further eastwards into the lands of the Indian kings, they would confront large numbers of these formidable creatures in battle. After hard fighting through the lands of what are today Afghanistan and Pakistan, in 326 BC the Macedonian army crossed the River Indus before moving south-east to the River Hydaspes. Here Alexander fought his last great battle against the Indian ruler Porus, whose army contained as many as 100 war elephants (Fig 2). With the horses refusing to engage the elephants, the Macedonian infantry took the brunt of the fighting and, although they were ultimately victorious, the number of dead and wounded was high. Despite his own personal ambition to reach the Ganges and follow it to the great encircling ocean that Greek philosophers believed was just beyond, the Hydaspes was to prove the eastern limit of Alexander's conquests. Plutarch writes of how 'this last combat with Porus took off the edge of the Macedonians' courage, and stayed their further progress into India'.

According to the famous legend, anyone able to loosen the bindings would go on to rule Asia. When Alexander found himself unable to untie the knot he solved the problem by slicing through it with a blow of his sword. A beautiful intaglio depicting Methe, goddess of drunkenness, from the Aulus workshop in Egypt of the 1st century BC, provides a link to both the spread of Greek culture across the Near East in the wake of Alexander's campaigns, and the heavy drinking that was a feature throughout the Macedonian king's life (Fig 13). It was in 328 BC, while in a drunken rage, that Alexander murdered Cleitus the Black, the cavalry commander who had saved his life six years earlier at the Battle of the River Granicus.

Plutarch describes the scene: 'Alexander seized a spear from one of his guards, met Cleitus as he was drawing aside the curtain before the door, and ran him through. No sooner had Cleitus fallen with a roar and a groan than the king's anger departed from him. And when he was come to

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**Fig 9.** Drawing in pen and pencil on green-blue paper by an unknown Dutch artist showing Alexander cutting the Gordian knot, c. 1600. 34.8 x 26.7 cm.

**Fig 10.** Tapestry of Alexander and Darius' family. Flanders, Brussels, Jan Frans van den Hecke workshop, 1661-95. 451 x 690 cm.

**Fig 11.** Alexander the Great and Roxana by Pietro Antonio Rotari (1707–1762). Oil on canvas, 1756.

**Fig 12.** Apelles painting Campaspe, by Sebastiano Ricci (1659–1734). Pliny the Elder tells the story of the Greek artist Apelles, who was stunned by Campaspe's beauty and fell in love with her. Alexander was so delighted with the painting that he gave Campaspe to Apelles. Oil on canvas, c. 1705.

**Fig 13.** Chalcedony intaglio depicting Methe, goddess of drunkenness. Aulus workshop, Egypt, 1st century BC. 2.2 x 1.7 cm.
of 327 BC he had married Roxana, a Bactrian princess, described by some as the most beautiful girl in the whole of Asia (Fig 11). Roxana was pregnant with her first child at the time of Alexander’s death, and bore him a posthumous son, Alexander IV. However, despite coming under the protection of Olympias, Roxana and her son were assassinated some 13 years after Alexander’s own death. There is a tradition that Alexander had previously lived with Campaspe, from the Thessalian city of Larissa, and had a child with the noblewomen. However, while inspiring Renaissance and modern painters (Fig 12), the relationship goes unmentioned in the principal literary works that deal with Alexander’s life.

The final section of the exhibition focuses on Alexander’s legacy. Despite his empire’s rapid decline, Alexander’s influence on the world endured. He left Greek and Macedonian settlers scattered in the numerous cities he had founded across his vast empire. Here they came into contact with local populations, spreading Greek customs while assimilating some of the local traditions to produce a unique cultural synthesis. The third part of the exhibition follows the spread of this new Hellenistic culture, with terracotta figurines depicting men and women, gods and satyrs, as well as stone fragments of architecture; all of which testify to the artistic wealth that characterised territories conquered by Alexander, and which endured for centuries.

The jewel in Alexander’s empire was the wealthy land of Egypt. Although spending less than a year in Egypt during his campaigns, he had been greeted as a liberator from Persian rule and, following his famous visit to the Oracle at Siwa, was proclaimed son of Amun. Whether or not he believed in his divine parentage, his worship as a living god by Egyptians and other peoples in the Persian Empire, as well as the adoption of other oriental traits, would cause disquiet among many in the Macedonian army. Before leaving Egypt Alexander also founded a city bearing his name on the Mediterranean coast, on the western edge of the Delta. Alexandria would quickly grow into one of the largest and most influential cities in the ancient world. In addition to its economic and cultural importance, the city became the capital of the Ptolemaic rulers of Egypt (Fig 16), the dynasty that ruled the country for nearly three centuries until Cleopatra VII took her own life in 30 BC, and her young son, Ptolemy XV Caesarion, was executed later that year on the orders of Octavian (Fig 17).

The feats of Alexander extended well beyond antiquity, with various versions of the Alexander Romance popular across Europe and the Middle East throughout the medieval period. The story of Dhul-Qarnayn from the Qur'an and other holy works from Islam, has also been equated with Alexander. Meaning ‘the man with two horns’ the name certainly reflects depictions of Alexander as he appears on gold staters minted during his reign. Generally known as Iskander in the countries of the east, Alexander would also play a prominent role in Persian literature (Fig 15), and appears in finely executed miniatures dating from the early modern period.

Down the centuries, Alexander has remained a source of inspiration for writers and artists. His personal courage, and unparalleled military victories, often against overwhelming opposition, captured Hellenistic and Roman imaginations. Byzantine monarchs liked to see themselves as the direct descendants of the Macedonian king, and throughout the Middle Ages his legend was suffused with Christian piety, while artwork based on his life remained popular during the Italian Renaissance.

The exhibition ‘The Immortal Alexander the Great’ will be on view from 18 September 2010 until 18 March 2011 in the Hermitage, Amsterdam. All images (except Fig 6) courtesy of The State Hermitage Museum, St Petersburg.
Contemporary architecture is the product of innumerable cultural and historical influences. The Roman world has primarily affected current design in two ways: through its contribution to the world's architectural knowledge, and as a direct influence in terms of style and design. The earliest known writing on the subject of the built environment in the Western world is De architectura, written by the Roman engineer and architect Vitruvius in the mid to late 1st century BC. Over ten volumes, the book merges principles of engineering, urban planning, landscape and architecture. According to Vitruvius, a good building should satisfy the three principles of firmitatis, utilitatis, venustatis – strength, convenience, beauty. Architecture should be sufficiently robust to remain in good condition; it should be practical for those using it; it should delight people with the beauty of its design. Although written more than 2000 years ago, the Vitruvian formula is still used by modern architects, who design new buildings based on construction knowledge, the relationship between form and function, and decoration.

Firmitatis – the province of the builder
Architecture evolved from a variety of competing demands made on buildings – those of shelter, security and worship – and the materials, skills and technologies available. Throughout history until the 20th century, there have been two fundamental ways of building: either placing one block upon another to create a structure, or erecting a frame and covering it with a skin (Figs 2, 3). Almost everywhere in the world, people have built by assembling blocks, whether of dried mud, fired bricks or stones. Some societies have built by making a skeleton of wood or rushes in bundles and covering it with animal skins, cloth, or mud and straw. Later, this would be replaced with iron or steel frames and slab facades.

Before the Romans, building designs in the West used post and lintel-framed construction, in which a horizontal member is supported by two vertical load-bearing posts (Fig 1). This limited architectural progress and the size and height of building that could be constructed, because the system could not bridge large spans, nor roof over large spaces without forests of supporting posts and columns. Roman engineers, however, required buildings of sufficient size and volume to accommodate the needs of its growing population as well as to impress and impose on citizens and visitors the political strength of their society.

Roman concrete, opus caementicium, began to be used near the beginning of the 2nd century BC. Walls could now be erected by pouring a mixture of lime mortar, volcanic sand, small stones and water into moulds. Concrete allowed walls to be constructed to any thickness, with the mixture placed in wooden frames and left to bond with a facing of brick or stone. When dry, the wooden shuttering was removed, leaving the concrete in place. This economical building method allowed for rapid construction by a fairly unskilled workforce. Due to its exceptional strength, concrete could span phenomenal distances without reinforcement. Pouring concrete into moulds also made it possible to fashion shapes that were impossible to achieve through masonry construction, most notably vaulted and domed enclosures.

Edwina Bland looks at the enduring influence of Roman architectural principles

Fig 1. Marble Corinthian columns of the Temple of Trajan at Pergamum. Since the 1970s, German archaeologists have been reconstructing the temple, which was completed during the reign of Hadrian (AD 117–138).

Photo: AlAskan DiDe.
These developments enabled the erection of larger and more elaborate structures than anything previously designed and built, and Roman architects were able for the first time to start enveloping and sculpting intricate voids within temples, baths, amphitheatres, mausolea and early churches (Fig 5). The most celebrated of these is the Pantheon in Rome, first constructed by Marcus Agrippa (c. 63–12 BC) and rebuilt during the reigns of Trajan (AD 98–117) and Hadrian (AD 117–138). The entrance leads into the great circular room. The interior volume is a cylinder above which rises the hemispherical dome. Despite its antiquity, the Pantheon still has the world's largest unreinforced concrete dome, testament to the Romans' mastery of this versatile building material. The only natural light enters through an unglazed oculus at the centre of the dome, and striking patterns of light illuminate the walls and floors as the sun makes its daily passage overhead (Fig 4). Architects continue to draw inspiration from the Romans and use concrete to create complex shapes, such as Zaha Hadid's Phaeno Science Centre, which uses self-compacting reinforced concrete to achieve asymmetrical forms (Fig 6).

Arches were commonly employed in the building of bridges and aqueducts across the rapidly expanding empire (Fig 9). The techniques required to survey and construct aqueducts are outlined in the eighth book of De Architectura, while the treatise of Vitruvius was also consulted by Sextus Frontinus (c. AD 40–103), who was appointed curator aquarum by the emperor Nerva in AD 95, and tasked with maintaining and improving the water supply of Rome. His official report has survived in De aqueductus. By the end of the 1st century AD, Rome was supplied by nine large aqueducts, which provided the city with approximately 85 million gallons (386 million litres) of water a day. Rome's water supply would influence cities built more than 1700 years later in Britain, France, and many other modern states. Likewise, Rome's transport system has had an enduring influence on the fabric of the European landscape. Its intricate network of roads, intended to allow the rapid movement of troops throughout the empire, also benefited from the addition of arched bridges over rivers and gorges, and was enhanced by large and elaborate triumphal archways (Fig 7).

Utilitatis – the province of the client
Utilitatis, or usefulness, is expressed through the brief set down by the owner of the property. Roman buildings were steeped in cultural and spiritual meaning, and this conjoining of practicality with the divine helped give
Ancient architecture

ancient architecture rise to their form. Roman villas provide an excellent example of the harmony of utility and beauty. Set in a rural landscape, villas married the practicalities of comfortable living with an agrarian location which allowed those wealthy enough to afford the cost and upkeep of a villa the opportunity to enjoy spiritual withdrawal from the bustle of the city. Roman architects studied the terrain and climate and responded by designing villas that took full advantage of the setting, whether by providing shelter from the prevailing winds, or positioning windows to control the penetration of sunshine and so regulate light and warmth within the structure. The Roman architect therefore responded to terrain in very similar ways to the designers of today.

According to Pliny the Elder (AD 23–79), there were several types of villa, although modern scholars usually divide them into two categories: the villa urbana, which was occupied by the owner and his family and often sumptuously decorated with frescoed walls and elaborate mosaic floors; and the villa rustica, a working estate where the farm hands and slaves lived and worked, and where oil, wine, grain and other produce was stored. Pliny the Younger (c. AD 60–110), one of the wealthy class of Romans, described his villa on the shores of the Tyrrhenian Sea as a practical design that also allowed sophisticated living, with a personal gymnasium, steam rooms, sauna, wine-store, granary and under-floor heating to rival a modern millionaire's residence.

‘… the beauty of the villa, the advantages of its situation, and the extensive view of the sea-coast… No winds can be heard there except those which bring the rain clouds. It opens into a hall, unpretentious but not without dignity, and then there are two colonnades, rounded like the letter D, which enclose a small but pleasant courtyard. This makes a splendid retreat in bad weather, being protected by windows and still more by the overhanging roof. [The dining room] runs out towards the shore, and whenever the sea is driven inland by the south-west wind it is lightly washed by the spray of the spent breakers. Next comes a bedroom on the other side of a passage which has a floor raised and fitted with pipes to receive hot steam and circulate it at a regulated temperature’ (Letter 23, To Gallus).

His seaside retreat was set in terraced gardens, and looked out on to natural surroundings through colonnades, which replaced solid enclosing walls. Inner courtyards had covered walkways so they could be used throughout the year. The experience of the house unfolded as the visitor journeyed through, with intertwined interior and exterior architectural features such as courtyards and colonnades. Possibly the best example of how a villa urbana of the Roman aristocratic elite probably looked is the Getty Museum in Pacific Palisades, California (Fig 8). Opened in 1974, the inspiration for the building came primarily from the Villa dei Papyri, which was constructed at Herculaneum in about 60 BC, probably by Lucius Calpurnius Piso Cesonino, Consul in 58 BC, and father-in-law to Julius Caesar.

Colonnades were perceived as sophisticated features providing an architectural link to Classical Greece. The peripatoi (colonnades) gave their name to the Peripatetics, the followers of Aristotle whose deliberations took place in the covered walkways of the...
Lyceum gymnasium. The Stoic school of philosophy, established by Zeno of Citium (c. 335–260 BC), would later become popular among the Roman elite, deriving its name from the Stoa Poikile on the northern side of the Athenian Agora, where Zeno often carried out his teaching (Fig 10).

Vitruvius wrote of architecture as an imitation of nature, and one of the hallmarks of 21st-century architecture is an integration of materials with their natural surroundings. Interior and exterior spaces are today designed to incorporate their environment and make the design an extension of the natural landscape. This has been taken a step further in recent years with a desire for architecture to be sustainable and reduce greenhouse gas emissions.

*Venustatis – the province of the architect*

Of Vitruvius’ three conditions, *Venustatis* has changed most over time as fashions have continually fluctuated. Aesthetically pleasing architecture should result when a structure is appropriately planned and sturdily built, but styles change and the perception of beauty has evolved over the centuries.

Vitruvius identified a strict set of components that went into the creation of beautiful architecture. These have been listed by Rabun Taylor in *Roman Builders* (Cambridge University Press, 2003, p. 13) as order, design, shapeliness, symmetry, correctness and allocation. Vitruvius regarded the classical orders as modelled on the human body: the sturdy Doric order represented a young man; the more delicate Ionic a young woman, while the Corinthian capital joined the two together (Fig 11). There is perhaps less metaphor present in contemporary architecture, as aesthetic preference has changed and moved beyond Vitruvian principles, but the modern architect still seeks to create beauty through methodical design. Depending on the choice of plan type, the exterior of a modern building might be picturesque (irregular) or formal (regular). A picturesque building is asymmetrical, dynamic, colourful and visually energetic (Fig 13); a formal building is symmetrical, ordered and quiet (Fig 12).

Diversity in contemporary design is generated by differing climates (from icy tundra to scorchingly hot deserts), cultures (from the technologically advanced secularism of the West, to traditional rural communities), and economics (from the wealthy post-industrial societies, to developing countries still primarily based on agrarian systems). There are, however, some common themes. Buildings have always reflected the society that required them, the technology available to build them, and the prevailing artistic theory that gave them shape. The ability of Roman architects to understand both the science and the physics required to build strong and reliable structures, and to apply this knowledge to the development of their craft, remains a statement of their innovation and genius, and their aesthetic legacy offers much to inspire and instruct the modern designer.

**Fig 10.** The reconstructed Stoa of Attalos in the Athenian Agora. It was in structures like this that Classical and Hellenistic philosophers like Aristotle carried out their teaching.

**Fig 11.** Completed in AD 80, the Colosseum features the three classical orders with Doric columns decorating the lowest level of arches, Ionic columns on the second level, while Corinthian columns were on the third.

**Fig 12.** Bankside 123. Opened in 2008, the architects Allies & Morrison created a very formal structure on the South Bank of the Thames in central London.

**Fig 13.** The Hotel Marqués de Riscal, in Elciego, northern Spain, was opened in 2006. With its chaotic collision of sweeping forms the architect, Frank O. Gehry (who also designed the iconic Guggenheim Museum in Bilbao), has created an exuberant building that stands out from its surroundings.
Despite the efforts of numerous scholars for more than a century, the trade and cultural contacts between the Roman world and the Indian subcontinent remain vague in the minds of many contemporary archaeologists and are rarely included in university courses on Roman history and art. However, these contacts are among the most significant examples of globalisation and cultural cross-fertilisation during antiquity. Thousands of Roman traders, and their Egyptian and Arabian representatives, came to India, occasionally accompanied by artisans and craftsmen from Mediterranean lands. Many of these merchants and craftsmen even settled in India, adjusting themselves to the Indian climate and lifestyle (Fig 2).

As early as the 3rd century BC, foreign traders came to the west (Malabar or Kerala) coast of India. From here, they travelled on to the market towns and ports on the east (Coromandel) coast (Fig 3). Thus, trade during antiquity was largely confined to southernmost India: the modern states of Kerala and Tamil Nadu and the Union Territory of Pondicherry, a region called Tamilakam because the language spoken here was Tamil.

The trade across the Arabian Sea between India and the Roman province of Egypt reached its zenith during the reign of the Julio-Claudian emperors (27 BC–AD 68). However, towards the end of the 1st century AD, there was a slow but steady decline in the maritime contacts. During subsequent centuries, especially after the creation of the Tetrarchy by Diocletian in AD 293, which divided the Roman Empire into East and West, the trade declined still further until it came to an end around the 7th century AD.

The Romans came to India in search of luxury commodities such as ivory, sandalwood, silk, cotton and spices, and exotic animals like peacock. Indian gemstones, mainly beryl, together with Indian spices, especially pepper and cardamom, were in great demand in the Roman markets. In return, India imported coral, wine and olive oil, as well as metals such as gold, silver and copper. The metals that came from Rome were mostly in the form of
coins, medals and jewellery, and, over time, Indians began to produce coins, jewellery and other objects with clear stylistic similarities to Roman imports.

Ancient literary works, both Graeco-Roman and Tamil, contain copious references to the Rome–India links. The Tamil works referring to the Roman trade are the epic poems composed from around the 2nd century BC to the 2nd century AD. These poems refer to foreign traders – Greek, Roman and West Asian – as Yavanas, a term that is extensively used in both Sanskrit literature and on ancient Indian stone inscriptions. The Periplus of the Erythraean Sea, most likely written in the middle of the 1st century AD by a merchant from Egypt; and the Geography by Claudius Ptolemy (c. AD 89–170), a Greek-speaking Roman citizen who lived in Alexandria. These Graeco-Roman works are generally more useful to modern scholars researching ancient contacts between India and the Mediterranean world than the Tamil poems: they provide more detailed descriptions of the trading networks and the trade goods and are also easier to date.

Archaeologists have identified scores of Roman trade centres spread throughout most of south India. These sites have revealed Roman material remains including coins, ceramics, beads, and glass vessels. Among all these sites, Arikamedu occupies pride of place. Located on the southern Coromandel coast, 4km south of the town of Pondicherry, it lies on the right bank of the river Ariyankuppam, at a point where the river swings eastwards just before it joins the Bay of Bengal (Fig 1). The site has been identified with that of Podouke cited in the Periplus, and Podouke emporion, mentioned by Ptolemy. The Romans probably chose this site as one of their major trading stations on account of its strategic location, which allowed ready access to the sea as well as trade links along the river system.

because we know from other sources that gold and wine were among the chief commodities exported from the Mediterranean region to India.

The principal Graeco-Roman works dealing with the maritime trade conducted across the western Indian Ocean include Pliny the Elder’s (AD 23–79) Natural History, the anonymously authored Periplus of the Erythraean Sea, most likely written in the middle of the 1st century AD by a merchant from Egypt; and the Geography by Claudius Ptolemy (c. AD 89–170), a Greek-speaking Roman citizen who lived in Alexandria. These Graeco-Roman works are generally more useful to modern scholars researching ancient contacts between India and the Mediterranean world than the Tamil poems: they provide more detailed descriptions of the trading networks and the trade goods and are also easier to date.

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Archaeological studies and excavation

The earliest known reference to the archaeological importance of Arikamedu is found in the travel accounts of French astronomer Guillaume Le Gentil. He visited the site between 1768 and 1771, soon after the Anglo-French Third Carnatic War (1757–63), which ended with the Treaty of Paris, establishing French rule in Pondicherry. Le Gentil noted that digs at the site revealed a wall 3m in height, built with bricks 30cm long and seven to eight ‘thumbs’ large, and plastered with mud mortar. He also recorded the presence of terracotta ring wells constructed from a series of earthenware vessels, placed one above the other. However, Le Gentil drew no conclusions about the site, apart from determining that the ruins that were the remnants of an old town or village.

After Le Gentil, we have scarcely any records about the archaeological importance of Arikamedu until 1937, when the French scholar Jouveaudubreuil chanced to see a motley collection of gems and beads – including an intaglio gem bearing the head of Augustus – which had been picked up from the site by a group of local school-children. These finds made him exclaim excitedly that the site was a ‘ville romaine’. Shortly afterwards, he sent a collection of glass and semi-precious stone beads, potsherds and terracotta figures from Arikamedu to the Government Museum at Madras, along with a special request to the Superintendent of the Museum to ‘do something for the site’. Accordingly, the Madras Museum undertook trial excavations at Arikamedu, and these revealed the foundations of several buildings, as well as Mediterranean amphorae and beads. The digs proved that Arikamedu was ‘one of the most ancient sites in Southern India’. Although these were the first systematic archaeological excavations at Arikamedu, the Madras Museum’s digs have been all but forgotten by most archaeologists.

Between 1941 and 1944, Arikamedu was excavated by French archaeologists under the direction of Brother L. Faucheux and R. Surleau. Meanwhile, the Madras Museum passed on information of its finds in Arikamedu to Mortimer Wheeler, who had been appointed Director-General of the Archaeological Survey of India (ASI) in 1944. Initially, Wheeler did not show much interest in the site. However, in July 1944, while on a visit to the Madras Museum, he chanced to see an amphora fragment.
in a cupboard there. During a visit to Pondicherry later that same year, he noticed several fragments of Roman Arretine ware among the objects excavated from Arikamedu and exhibited in Pondicherry Town Library. Since this red slipped-ware originated from the Roman city of Arretium (modern Arezzo in Tuscany), and was known to have been produced during the 1st centuries BC and AD, Wheeler was convinced that the same date range could also be assigned to the ancient Indian antiquities found in association with this pottery. He therefore felt that Arikamedu, if excavated carefully, could provide the much-needed firm datum-line for pre-medieval south Indian archaeology.

With the permission of the French government, Wheeler excavated Arikamedu in 1945. The excavation divided the site into two: the Northern Sector and Southern Sector. The Northern Sector was an amplification of an area cleared by the earlier French excavators in or after 1941 and revealed a large brick structure, over 150 feet long, identified as a warehouse. The Southern Sector had a higher elevation, with the mound rising to a height of over 6m above the river. Two tanks that may have been used as dyeing vats were discovered here. The digs also revealed a substantial amount of pottery and beads, both imported and of local manufacture (Figs 4, 5, 6, 7). The excavated structures and antiquities collectively proved that Arikamedu was an urban industrial centre where different types of pottery, beads, ivory artefacts and textiles were produced during the first two centuries AD.

Close on the heels of Wheeler’s excavation, another French scholar, Jean-Marie Casal, excavated Arikamedu between 1947 and 1950. His excavations revealed that the site extended at least 420m north–south along the river and some 200m east–west in the Northern Sector and 100m or more in the Southern Sector. Many of the artefacts unearthed during Casal’s digs are comparable to those earlier unearthed by Wheeler at the same site.

After a long gap of nearly 40 years, Arikamedu was again excavated between 1989 and 1992 by a team of American and Indian archaeologists led by Vimala Begley from the University of Pennsylvania. The basic objectives of this archaeological investigation were to attempt to gain a clearer understanding of the nature of maritime commerce at the site, and also learn more about how the town functioned and what sustained its economy. The excavation adopted the latest sophisticated methods of digging and documentation – methods hitherto unknown to Indian archaeology. Simultaneously, the excavators attempted a reexamination and reassessment of the finds from the earlier excavations at Arikamedu – primarily those conducted under Wheeler and Casal. The research focused on how the site related to the Graeco-Roman Mediterranean rather than southern India.

The importance of Arikamedu
Unlike many other Roman trade centres, including those on India’s Malabar coast, Arikamedu has been relatively well documented. Again, unlike several other Roman trade sites like Vasavasamudram (Tamil Nadu), which are still under private ownership, Arikamedu was declared a protected site as early as the 1940s. Since 2003, the site has been under the ownership of the ASI, the highest government agency for archaeological operations in India. Covering more than 14 hectares (34 acres), Arikamedu is one of the largest Roman trade centres in South Asia, more than twice the size of many other Graeco-Roman sites, including Vasavasamudram, are not half this size. Furthermore, Arikamedu has not suffered from the modern encroachments or construction (Figs 1, 8) that affect other Roman trade centres such as Karur and Karaikadu (both in Tamil Nadu), which have been heavily built upon and are no longer available for large-scale archaeological investigations or for tourist development.

Arikamedu enjoys the distinction of being the first site in India to provide archaeological evidence for the importation of a variety of Roman objects, rather than just coins. Wheeler’s excavation of Arikamedu in the 1940s inspired the discovery and investigation of many other Roman trade sites throughout India, and most of these have been dated on the basis of the chronology of Arikamedu. The methods and principles of stratigraphy-based excavation, employed at Arikamedu by Wheeler, were also adopted by Indian archaeologists and remain in use to this day.

Among all the Roman trade sites in
India, Arikamedu has yielded the largest number of Mediterranean amphorae. Wheeler’s excavation revealed 116 fragments, from approximately the same number of vessels. Excavations and explorations at the site, before and after Wheeler, have revealed many more fragments (Fig 6). The containers came to India filled with a wide variety of edible items, including olive oil, fish sauces, apples and especially wine.

Arikamedu is also the first site to have yielded pottery bearing inscriptions in the Tamil language and Tamil Brahmi script, dating to the period from the 2nd century BC to the 3rd century AD. It is also the first site in India where pottery bearing inscriptions in the old Sinhalese language and Brahmi script has been found. The ancient port is therefore the only site in India that has yielded pottery with inscriptions in at least four different languages – Prakrit, Tamil, Old Sinhalese and Latin.

Unlike many other early historical sites in India, Arikamedu was not abandoned with the decline of the Rome-India trade, and it continued to flourish until relatively recent times. In the Middle Ages the port was used for trade with Persia and China, with pottery from both the Far East and Middle East discovered at the site. A medieval Chinese text even contains a description of the port. Around 1773, a group of Jesuit missionaries from Siam (Thailand) settled at Arikamedu and built a seminary, locally called the ‘Mission House’, now in ruins (Figs 9, 10). Interestingly, the missionaries reused some of the Roman period bricks dating from the 1st century AD, in their building work (Fig 11).

The artefacts unearthed at the site are presently dispersed in various museums and private collections in Asia and Europe. In India, the major collections are held in the museums in Pondicherry and Madras, while in Europe, the British Museum and the Musée Guimet, Paris, hold material recovered from the site.

Future plans
Although of immense archaeological importance, Arikamedu does not presently attract many students, scholars or tourists. The site and its potential for tourist development were, until recently, never publicised or marketed. However, the Indian and the Italian governments have jointly decided to develop the site as an archaeological park with an education centre and a museum (Fig 12). Meanwhile, the Indian National Trust for Art and Cultural Heritage (INTACH), India’s largest voluntary organisation for promoting art and culture, periodically conducts an educational tour, mainly aimed at school and college students, to the major Roman trade sites in south India, including Arikamedu.

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Jiayuguan is a remote and dusty city located on the edge of the Gobi Desert in the west of China’s Gansu Province (Fig 3). An industrial centre producing chemical fertiliser, cement, coke and iron from raw materials mined in the nearby mountains, the city is a melting-pot of people from a wide range of ethnic groups including Han, Hui, Tibetan, Dongxiang, Yugu, Baoan, Hazake, Tu, Sala, Manchu and Mongolian. It has grown to its present size (200,000 inhabitants) in just over four decades and the impression one gets on first entering the city is of a soulless and unprepossessing arrangement of modern buildings lining wide, perpendicular streets. It is a city with little intrinsic interest, yet, following the end of the Cultural Revolution, it became one of the first in which foreigners were allowed to travel freely by the Chinese Government. The city of Jiayuguan owes its place in history not to its present, charmless functionality, but to its proximity to a magnificent and strategically important Ming Dynasty fort (from which it derives its name), and a number of other important sites in the prefecture. The significance of the fort lies in its position at the mouth of the Hexi Corridor, the 1000km-long mountain pass that links the heart of China with Central Asia. Sandwiched between the Mazhong (Horse’s Mane) Mountains to the north and the Qilian Mountain range to the south, the Hexi Corridor begins near Dunhuang in the far west of Gansu province and stretches south-eastward via the Jia Yu Pass (Jiayuguan) to the provincial capital, Lanzhou. The corridor forms a natural highway between otherwise impassable mountains. The 10km-wide bottleneck at Jiayuguan has therefore been a major gateway between cultures throughout

Ray Dunning pays a visit to Jiayuguan, ‘First and greatest pass under heaven’
history. When trade along the fabled Silk Road was in its heyday, Jiayuguan was an unavoidable stop-over and foreign merchants, their camel caravans laden with tribute gifts and goods waited here, sometimes for months at a time, for permission to proceed eastwards into China.

In legend, at least, the Chinese regarded the pass as the last frontier of civilisation as early as the 5th century BC when Lao Tzu, the fabled author of the classic *Tao Te Ching*, is said to have passed through. At the age of 160, and disillusioned with moral decay in the kingdom, he rode out into the unsettled western regions on his black buffalo to live in voluntary exile as a hermit.

Legends aside, the settlement at Jiayuguan dates back at least 2000 years, to its beginnings as an oasis encampment in the narrowest part of the mountain corridor. As early as the Han Dynasty (202 BC–AD 220) records speak of a pass in this place, through which emperor Han Wudi’s envoys travelled, opening up the route to traders and pilgrims, and later to envoys from the West. During the Song period (AD 960–1276) a checkpoint was said to have been established at the pass in an attempt to prevent smuggling.

The imposing and heavily restored fort, which today lies 6km southwest of Jiayuguan city, dates from the 14th century. In 1372, the Ming dynasty General Feng Sheng defeated the last of the Mongol armies of the Yuan dynasty, which had ruled China since 1279. Recognising the strategic importance of the pass, he built the fort to guard the entrance to the Hexi Corridor and ensure that the Mongols remained beyond the Great Wall. Centuries before, the wall had been extended by the Han along the whole length of the Corridor and, as we know from the explorations of Sir Aurel Stein (1862–1943) in the early 20th century, as far as the shores of Lop Nor in eastern Xinjiang. Since then, however, the need to maintain the Wall in western China had diminished. The capitals of the ruling dynasties lay far to the east and the greatest threat to them came mainly from the north. As a result, by the 14th century the Wall was little more than a crumbling earthwork. As well as building the fort, General Feng therefore set about rebuilding and reinforcing the Great Wall, more or less retracing the original Han dynasty line (Fig 1). However, unlike the Wall built more than a thousand years earlier, the structure constructed by Feng stretched little further west than Jiayuguan, which was regarded at the time as the western limit of the Chinese Empire.

The fort is an immense structure. The mud-brick walls are an imposing 10.7m high, rising menacingly out of the desert. The complex consists of inner and outer walls (Fig 2); the latter, which delineate a perimeter of 733m, once enclosed barracks, storehouses and a freshwater spring. Today there is little to be seen besides a temple to the God of War (Fig 4) and a theatre (Fig 6). The inner courtyard is empty apart from avenues of trees and the accommodation area, which nests in one corner. At all four corners of the ramparts there are blockhouses, archers’ turrets and watchtowers, and the whole was surrounded by a defensive ditch. Looking south from the
Chinese heritage

parapets, the view is dominated by the majestic Qilian Mountains, whose peaks remain snow-capped even in the piercing heat of summer. The feeling of timelessness and isolation as one scans the surrounding grey and yellow desert is spoiled, however, when looking in the opposite direction back towards the industrial haze that hangs over the city of Jiayuguan.

Rising above the inner wall at the eastern end of the fort is the Guanghua Men (Gate of Enlightenment), which overlooks an outer courtyard and guards a 20m vaulted tunnel through the wall. Built in 1506, it is reached by a steep ramp up the inner face of the wall. At the opposite, western end, the Rouyuan Men (Gate of Conciliation) leads to the outer gate, the Gate of Sighs (Fig 7). Besides courageous monks and merchants using the Silk Road, this gate was used only by those who were disgraced and exiled. Venturing into the desert from here was thought to be so hazardous that departing travellers adopted the custom of throwing a stone at the fortress wall to see if it would rebound. If it did then they would return safely; if not, they would never see China again; if it echoed against the wall, the excursion would be prosperous.

Over the eastern and western gates are 17m-high pagoda-like towers adorned with flying eaves, which local tradition holds were built from the top down (Fig 5). Apparently a similar technique was used to that employed by the Egyptians, in which earth or sand was piled up to the required height and then removed, step by step, as first the roof and then the lower parts of the edifice were constructed. Stories such as this abound about the building of the fort. According to one legend, the official in charge questioned the architect’s estimate of the number of bricks required, so a single brick was added to the total to humour him. When the work was finished there was one brick left over, and the architect placed it loose over one of the gates. This was interpreted as insubordination and, to escape punishment, the architect claimed that the brick was there to stabilise the structure. If it was removed, he said, the fort would collapse. The brick remains to this day (Fig 8).

Another story concerns the stone blocks used for paving. Each is about 2m long, 50cm wide and 30cm thick, and they had to be transported from the quarry in the Black Mountain 10km north-west of the pass. They were too heavy to carry down the mountain fast enough to meet the schedule, so a sloping road was constructed and in the winter it was splashed with water to create a slippery, icy surface. Yet another tale is about the mud bricks used to build the walls of the fort. They were baked 60km west of the pass and transported by ox-cart to the site. Once there, they were carried to their final positions. As the walls grew higher the process took longer, exhausting the men and delaying the schedule. A solution was provided by a young goatherd who volunteered his numerous, sure-footed animals to carry the bricks up on their backs.

Anecdote gives way to material evidence in the Great Wall Museum, which forms part of the fort complex. Opened in October 1989, the original museum in downtown Jiayuguan was the first to exhibit the history and culture of the Great Wall comprehensively and systematically. While the museum attracted favourable comment from scholars and tourists alike, it was felt that the building was not well situated, so in 1998, the Jiayuguan City Council decided to move it closer to the fort at the foot of the pass. The new museum was completed in April 2003. It is a sizable building with a ground area of 4253 square metres and, in order to limit the impact on the ancient landscape, the designers hid much of it underground.

The new museum has four sections covering the history of the Great Wall: the Spring and Autumn Period and the Warring Period (722–221 BC); the Qin and Han Dynasties (221 BC–AD 220); the Sui, Tang, Liao and Jin Dynasties (AD 581–1234); and the Ming Dynasty (AD 1368–1644). It takes the visitor on a journey through more than 2000 years of history and across 5000km, illustrating the results of 50 years of archaeological research. The displays include tableaux, maps, charts, scale models and diagrams showing the different routes of the Wall and the various methods used in its construction along different stretches (Fig 9). Displays also make use of interpretive texts, graphics, photos and a wealth of objects from the Wall itself (Fig 11). As one might expect of a modern museum, there are lecture, study and conference facilities and multimedia resources including a film and TV hall.

Jiayuguan’s other museum is at...
Xincheng, about 20km north-east of the city. Described as the largest underground museum in the world, it is in fact a burial site, and may contain as many as 1600 tombs. These were built between the 3rd and 5th centuries AD, and most contain the remains of three or four generations of families who lived under the Wei (AD 220–265) and Western Jin (AD 265–316) dynasties. It is a significant archeological find, not only in terms of scale but also for the light it casts on domestic and social life in western China and central Asia during this period.

By 1979, 18 tombs had been excavated. More have been examined since then, but only graves 6 and 7 are currently accessible to the public. Artefacts from the tombs are on show in the Great Wall Museum in Jiayuguan (Fig 10) and, in 1999, tomb 5 was removed completely and its contents, including 600 or more hand-painted bricks, put on display in the Gansu Provincial Museum in Lanzhou.

The burial complex covers 30 square kilometres, and tombs are identified by relatively small mounds on the desert surface. The chambers are 10m below ground level and are entered through doors decorated with delicate designs representing strange animals, clouds, water, fire and deities. Once inside, it is possible to stand up and move around comfortably but, because of the relatively limited space, parties are restricted to 12 by the authorities.

Tombs are typically divided into three spaces – two vaulted anterooms and an arched rear burial area. These are connected by corridors lined with tiles painted with flower patterns. In the chambers, the walls are usually covered with three to five layers of hand-painted bricks (Fig 12), but as many as ten layers have been discovered. Each brick bears a picture depicting an everyday scene in feudal ancient China. Occasionally a picture is spread over more than one brick.

The themes on these mini-murals, covering subjects as diverse as the use of mulberry trees, livestock farming, hunting, pastoral cultivation, camping, banquets, music, chess, travel, wagons and silk costume, provide a unique ethnographic record of ancient China, showing people hunting, riding and dancing. Images of animals, both domestic and wild, include horses, sheep, oxen, dogs, camels, deer, tigers, snakes and fish.

The spectacular Xuanbi Changcheng or ‘Hanging Wall’ is located 6km north-west of the pass (Fig 14). It is a restored section of the 16th century Great Wall, and connects the fort with the nearby Black Mountains. The wall was built using local gravels and yellow earth piled and tamped in layers. Originally, this stretch of wall was about 1.5km long but, due to natural disasters and human destruction, only 750m remains, with 230m climbing onto the north slope of Hei Shan Mountain. The gradient here is 45 degrees and the wall appears to be clinging precariously to the steep face of the mountain. There are three towers along this stretch, one at each end and one in the middle. The renovation was carried out in 1987. Approximately 6km south of the city, the First Beacon Tower is perched on an eroded cliff 82m above the Tao Lai River. Regarded by some as the world’s first frustum, or cut-off pyramid (Fig 13), the structure marks the beginning (or the end) of the Ming wall in the west of China. It was built under the supervision of Li Han in 1539 and stands some 7m tall, with a flat top and a base measuring 14.5 square metres. To preserve the precious relic, the city government has built a 30m-long viewing platform, from which there is a tremendous view of the river gorge and the vast Gobi Desert beyond, a view that has changed little since the tower was built.

Since he retired as Vice-Principal of Kingston College in 2007, Dr Ray Dunning has been pursuing his interests in art, architecture and archaeology while travelling.
Lord Elgin ordered the burning of part of the Summer Palace.
It was given to the flames on the 18th and 19th of October.
The clouds of smoke, driven by the wind, hung like a vast pall over Peking. From an artistic point of view it was an act of vandalism: from that of sound policy it was statesmanlike’ (Stanley Lane-Poole, Sir Harry Parkes in China, 1901, p. 250).

It is 150 years since Britain and France were engaged in the conflict against Qing China that has become known as the Second Opium War. Scarcely remembered by the populations of the two European countries, the war still has great significance for the Chinese, who regard it as symbolic of their national humiliation at the hands of imperialistic Western powers. The defining moment of the Anglo-French campaign was the day British forces torched the Summer Palace, Yuanmingyuan, ‘The Gardens of Perfect Brightness’, one of the most beautiful architectural complexes ever created (Fig 2).

Constructed in the early 18th century, the Summer Palace was a vast collection of buildings, set within landscaped parkland 8km north-west of Beijing (Fig 3). As the Rev R.J.L. McGee, Chaplain to the British Army during the 1860 campaign, would recall: ‘if you can, you must imagine a vast labyrinth of picturesque rocks and noble timber, lakes and streams, summer-houses roofed with porcelain of the imperial yellow, theatres and their store-houses… temples more numerous still… filled with works of Chinese art of great age, beauty, and value.’ (How We Got to Pekin, 1862, p. 211) (Figs 1, 3, 4).

The numerous buildings of the palace contained countless artworks from much earlier periods of Chinese history, including some of China’s oldest and most precious manuscripts, housed in The Wenyuan Hall (Hall of Literary Profundity). As French writer Victor Hugo would remark: ‘With all its treasures, Notre Dame in Paris is no match for Yuan-ming-yuan, that enormous and magnificent museum in the East.’ The burning by British troops swept away virtually all this vast and remarkable collection of palaces, while the looting that preceded the firestorm led to the destruction of many treasures, or their removal to Europe. Such was the loss to Chinese culture that the torching of the Summer Palace can be likened to the demolition of the House of Wisdom in Baghdad by the Mongols in 1258, the burning of the library of Alexandria by Julius Caesar in 48 BC, or Qin Shi Huang’s destruction of the classic works produced by the Hundred Schools of Thought in 221 BC.

For the Chinese people, the burning of the Summer Palace was an act of willful destruction, driven primarily by capitalist desire to cow the Chinese and open up of the country to Western commerce; a trade centered on opium, which ‘turned a British deficit with China into a substantial surplus… providing massive profits for London companies and substantial revenues for the state’ (John Newsinger, p. 125).

The man leading the British diplomatic pressure on China in 1860 would tend to agree with this judgement. James Bruce (1811–1863) was the 8th Earl of Elgin (Fig 6), whose father had become infamous at the start of the century by removing a large portion of the marbles from the Parthenon in Athens. In his letters and diaries, Elgin would write with bitterness that, ‘in our relations with these Chinese we have acted scandalously’, and would describe his dealings with Chinese officials as ‘fighting, bullying and getting the poor commissioners to concede one point after another’.

The burning of Yuanmingyuan continues to act as a nationalistic rallying call for the population of modern China. The ruling Communist Party is eager to promote the need for strength and unity and so avoid the weakness of the past, when the country was at the mercy of foreign invaders. Chinese history textbooks, films and television...
There was not a room I saw in which arrived: ‘Such a scene of devastation…’ write a day after the French army looting that took place. As Elgin would should be no doubting the scale of the history of Western aggression against China. The Olympics in 2008, a ‘Never Forget National Humiliation Wall’ outlined the destruction of the Summer Palace that about 1.5 million items looted from the Summer Palace are today spread around almost 50 countries. While such a figure is highly speculative, diaries and journals written by British and French soldiers emphasise the quantity and quality of the cultural treasures removed from the palace. For example, General Hope Grant (1808–1875), in command of the British Army in China during 1860, and the brother-in-law of Lord Elgin, noted that during the British auction held to sell off the pillaged objects, he acquired ‘several beautiful jade-stones, and also a necklace of the finest green jade, with rubies… I also bought a fine carving of lapis lazuli’ (Incidents in the China War of 1860, p. 194). The young Charles Gordon, who famously met his fate in Khartoum 25 years later, purchased a throne he donated to the Royal Engineers, which, until the 1980s at least, was to be found in the officers’ mess at Chatham in Kent. Perhaps the most unusual prize brought back to Britain from the Summer Palace was a Pekingese dog, presented to Queen Victoria, with the highly appropriate name of ‘Looty’.

Although there is no legal obligation for foreign museums and collectors to return artefacts pillaged from the Summer Palace, in recent years China has begun trying to reclaim some of these lost treasures. This campaign made international news in February 2009, when the bronze heads of a rabbit and a rat were put up for auction at Christie’s in Paris (Fig 8). The bronzes had originally been part of the Haiyantang, an ornamental water clock fountain decorated with the 12 animals of the Chinese zodiac, designed in the 18th century by the Italian Jesuit Giuseppe Castiglione (Figs 2, 5). After legal action by the Chinese government to stop the sale was overruled by the French courts, bidding on the bronzes was sabotaged by the Chinese businessman Cai Minghao, who acquired them for €15,745,000 then refused payment, claiming he had acted to stop the artworks going to a foreign bidder. Attempts to recover all 12 bronzes have certainly struck an emotional chord with the Chinese population. When the Poly Art Museum acquired three of the other figures from the fountain in 2000, the Chairman of the Poly Group, Shan Yihe, claimed: ‘Rescue of the three bronze animal heads, formerly of the Summer Palace, particularly aroused the patriotic passions of Chinese sons and daughters.’ The actor Jackie Chan is also currently shooting Shi Er Sheng Xiao (The 12 Chinese Zodiac Animals), an action film telling the fictional story of a heroic attempt to reunite the bronzes in China.

China has also begun sending out delegations to museums, libraries and private collections in the West to document any artefacts that might have been removed from the Summer Palace. During the 18-day trip to North America in November and December 2009, the Chinese team scrutinised collections, and intends to move on to European and then Asian museums during this year. Chinese delegates also attended the Conference on International Cooperation for the Protection and Repatriation of Cultural Heritage held in Cairo in early April this year (See Minerva, July/August, pp. 8–11), where they set out demands for the two bronzes from the Summer Palace, auctioned at Christie’s.

In propagandising the issue of the burning and destruction of the Summer Palace, the Chinese government does, however, have to face some uncomfortable questions. While imperialistic commercial gain was undoubtedly the driving force for the Anglo-French invasion of China in 1860, the primary motives behind the British decision to destroy the Emperor’s residence are intimately bound up with human rights and the ill treatment of prisoners.
On 18 September, an Anglo-French party conducting negotiations under a flag of truce was captured by Chinese soldiers. The group of 39 men was led by Harry Parkes, advisor and interpreter on Elgin's staff. He was accompanied by Henry Loch, Elgin's Private Secretary, Thomas Bowlby, a journalist with *The Times*, and a small escort of British, French and Indian soldiers. Separated from the rest of the party, Parkes, Loch, and one of the Indian soldiers were thrown into prison ‘loaded with chains… connected to a ring in the roof so tightly, that they could not sit down…’ In this state they were kept badly fed for nine days… The poor sowar [Indian cavalryman] was kept chained in a separate dark dungeon. For three days no one came near him, and he had nothing to eat’ (Hope Grant, *Incidents in the China War of 1860*, p. 132-33).

The other members of the party were beaten and had their hands and feet bound tightly with ropes, which then had water poured on them to further increase the tension of the cords. Their suffering was noted in detail by one of the Indian troopers who survived imprisonment. He described how, after being taken to the Summer Palace, ‘Lieut. Anderson became delirious, and remained so, with a few lucid intervals, until his death, which occurred on the ninth day of his imprisonment. Before his death his nails and fingers burst from the tightness of the cords, and mortification set in, and the bones of his wrist were exposed, and whilst he was alive, worms generated in his wounds and ate into, and crawled over his body. They [the Chinese] left the body there three days, and then took it away.’ (Henry Loch, *Personal Narrative of Occurrences During Lord Elgin’s Second Embassy to China in 1860*, p. 82).

Two other Indian cavalrymen, Bughe I Sing and Khan Sing, provided similar testimony of the ill treatment suffered by the rest of the captives. Of *The Times* special correspondent, they noted: ‘Mr Bowlby died… of maggots forming in his wrists… His body remained there for nearly three days, and the next day it was tied to a cross-beam and thrown over the wall to be eaten by dogs and pigs… The next day the Frenchman died… Two days after this Jawalla Sing died; his hands burst from his rope wounds, maggots got into them, and he died.’ (Henry Loch, *Personal Narrative*, p. 83). The list of Indian, British and French captives who died in a similar manner continues in testimony taken from the survivors, and it makes grim reading even 150 years after the event.

Other captives were given a quicker death. Captain Brabazon of the Royal Artillery, together with Abbé du Luc, were beheaded soon after being captured. The Chinese claimed both men had died of natural causes, but a grave containing fragments of a British artillery officer’s trousers and pieces of French ecclesiastical dress was later discovered, with both skeletons lacking skulls.

Chinese authorities denied any ill treatment of the prisoners, but the survivors’ ulcerated hands and wrists were plainly visible. The bodies of the dead, returned on 16 October, were almost unidentifiable, as quicklime had been added to the coffins to remove evidence of the torture. Rev. McGee would write: ‘They were indeed wretched remains, not to be recognized, but by some part of their dress. Poor De Norman’s leather coat, which we knew so well, remained, and Bowlby’s socks were marked with his name.’ (How We Got to Pekin, 1862, p. 254).

Accounts of the fate of the prisoners obviously led to deep anger within the allied army and public outcry in Britain and France. Sidney Herbert, the British Secretary of State for War and a close confidant of Florence Nightingale, wrote to General Hope Grant on Christmas Day, 1860, noting how the ‘fate of the poor prisoners has created a most powerful impression here’.

On 17 October, while the funeral of the dead British captives took place in the Russian cemetery to the northeast of Beijing, a proclamation printed...
in Chinese was circulated, setting out the British response to the deaths and treatment of the prisoners: ‘That no individual, however exalted, could escape from the responsibility and punishment which must always follow the commission of acts of falsehood and deceit; that Yuen-ming-yuen would be burnt on the 18th, as a punishment inflicted on the Emperor for the violation of his word, and the act of treachery to a flag of truce; that as the people were not concerned in these acts no harm would befall them, but the Imperial Government alone would be held responsible.’ (Henry Loch, Personal Narrative, p. 85).

As promised, British retribution for the deaths and torture of the prisoners began the day after the funerals. The French were shocked by the decision to burn the palace, and refused to join the British as they set to work methodically setting fire to the numerous buildings. The holocaust which followed was movingly described by Robert Swinhoe, a translator with the British army: ‘Ere long a dense column of smoke rising to the sky indicated that the work had commenced, and as the day waned the column increased in magnitude’, an inscription in Chinese stating, ‘This is the reward for perfidy and cruelty.’

By ordering the destruction of the palace, Elgin was undoubtedly thinking of his own political future, knowing that the British public would expect revenge for the brutal treatment and deaths of the prisoners. As the earl would confide to his brother-in-law during the campaign: ‘What would The Times say of me if I did not avenge its correspondent?’ Prime Minister Palmerston certainly agreed with Elgin’s decision to burn the Summer Palace and considered it ‘absolutely necessary to stamp by some such permanent record our indignation at the treachery and brutality of these Tartars, for Chinese they are not.’

However, the majority of British officers serving in the 1860 campaign, as well as most of Palmerston’s Cabinet colleagues, were later to mourn the burning of the Summer Palace. Elgin himself must also have been sorely aware that by reducing Yuanmingyuan to ashes he would be regarded as following in the culturally destructive footsteps of his father. A year after the end of the war, Victor Hugo would write of the burning and looting of the place that, ‘Mixed up in all this was the name of Elgin, which inevitably calls to mind the Parthenon. What was done to the Parthenon was done to the Summer Palace, more thoroughly and better, so that nothing of it should be left.’

It is this view that the current Chinese government is keen to promote in the quest to recover looted artefacts. While China’s moral arguments for the return of looted treasures are powerful, and many in the West feel sympathy for the country’s demands, it should not be forgotten why the Summer Palace was destroyed. According to Amnesty International and Human Rights Watch, Chinese authorities still routinely carry out harassment, physical abuse and punitive detention: ‘In China, serious human rights violations continue to be committed. This includes torture, execution (in which China is world leader), excessive use of force in policing labour and rural unrest, repression of dissent and the free exchange of information and forced repatriation of asylum seekers without recourse to a refugee determination procedure. Foreign governments continue to fail in challenging China’s disastrous human rights record.’ (Amnesty International, UK).

Following the sabotage of the Christie’s auction last year, the seller of the two zodiac bronzes, Pierre Bergé, suggested that he would be happy to return the artefacts to China free of charge, but only on condition the country improved its human rights record and allowed democracy and civil liberties in Tibet – a proposal greeted with hostility by the Chinese. However, Western governments, museums and collectors currently in possession of artefacts removed from the Summer Palace in 1860 may do well to follow Mr Bergé’s lead. The forging of an intimate bond between the repatriation of objects taken from the Summer Palace and improvements in China’s human rights record may generate some soul-searching within the country and could influence the Communist government more than the occasional rebukes from international leaders. The return of cultural treasures taken from Yuanmingyuan, in return for improved human rights, would certainly serve as a more fitting legacy for the British, French and Indian prisoners tortured and killed in autumn 1860 than does the burning of the Summer Palace, with which their deaths have been inextricably connected for the last 150 years. n

Fig 9. The weed-choked ruins of the European-style palaces designed by Giuseppe Castiglione in the early 18th century.
Afghan archaeology

The recent discovery of vast mineral deposits in Afghanistan, estimated at nearly $1 trillion in value, offers hope to one of the world’s poorest nations. According to an American geological survey, huge reserves of gold, copper, iron ore and lithium (a vital component in mobile phone and computer batteries) lie beneath the country’s gnarled mountains and wind-swept deserts. If these natural resources can be accessed, and are managed astutely, the economy and standard of living in Afghanistan could be transformed in a manner similar to that of Saudi Arabia in the decades since its oil boom. Although daunting security and logistical challenges face those planning to exploit Afghanistan’s mineral reserves (Fig 1), the drive to access the country’s resources is already impacting upon the country’s extensive archaeological remains. As we go to press, Afghan and French archaeologists are frantically excavating extraordinary Buddhist sites at Mes Aynak, before a Chinese company resumes the extraction of copper ore from the area – a mining operation that first began two millennia ago.

Unrestricted and illegal urban expansion poses another major threat to the archaeological and architectural fabric of cities such as Herat, where over 80 construction projects lacking official permits were begun in the Old City during the first half of 2009 alone. Numerous road-widening schemes have also bisected archaeological sites such as Chashma-i Shafa in the north of the country (probably the site of pre-Alexandrian Bactra or its sacred complex) and endanger other monuments such as the 12th-century Ghurid mausolea at Chisht-i Sharif, Herat Province, western Afghanistan (Fig 2).

The fact that these projects contravene existing Afghan legislation intended to protect cultural heritage has done little to halt their progress. Elsewhere, the prospect of ill-considered restoration projects following Ghazni’s selection as the 2013 Centre for Islamic Culture is problematic. Heritage experts fear that the 11th–12th-century Ghaznavid capital’s historical monuments will become little more than sanitised trophies in a theme park. With the authorities often seemingly incapable of stopping these projects – and at times even actively sanctioning some – the international community has a crucial role to play in advocating for, and facilitating, the protection of Afghanistan’s cultural heritage.

A glimpse of what is at stake was displayed in the exhibition of artefacts from the National Museum of Kabul, which has been touring museums in Europe and North America since 2006 and will going on display in the British Museum in March 2011 (Figs 3, 4). However, the opulence and exquisite craftsmanship of the treasures merely scratches the surface of Afghanistan’s cultural heritage. In 2009, British Customs officials returned 3.5 tonnes of looted artefacts, which had been seized in recent years, while Denmark has returned a further 4000 objects. Unfortunately, we will never be able to recover vital archaeological information about these artefacts, nor any other cultural treasures that were destroyed when they were removed from the ground.

Although little proper archaeological fieldwork has been possible in Afghanistan since Warwick Ball published his gazetteer of nearly 1300 archaeological sites in 1982, recent
analysis of satellite images indicates that thousands of sites remain undiscovered. Research by the Archaeological Sites of Afghanistan in Google Earth (ASAGE) project has focused on ten study areas, within which more than 650 probable archaeological sites have been identified (Fig 5). Given that the study areas amount to 0.4 percent of Afghanistan’s territory, the total number of undiscovered and undocumented sites may extend into the tens or hundreds of thousands. Few antiquities services around the world could cope with the task of recording and protecting such a rich archaeological legacy, let alone one as understaffed and under-resourced as the National Afghan Institute of Archaeology (NAIA). Compounding NAIA’s difficulties is the fact that many of the sites are located in remote areas, where lawlessness, local poverty, and a lack of education and awareness make them vulnerable to plundering.

The scourge of looting and the illicit trade in antiquities, which has depleted many archaeological sites in Afghanistan over the past couple of decades, is not new: in the 1930s, the discovery of the Bagram Treasure prompted looting across the country (see Minerva, January/February, 2010, pp. 46–49). More recently, in 2005 the Minaret of Jam Archaeological Project (MJAP) recorded over 120 robber holes in a 50m wide strip of the steep valley slope opposite the magnificent minaret (Fig 6). The robbers have destroyed an estimated 1300 cubic metres of archaeological remains in this small area of the site, which is thought to have been the summer capital of the 12th-century Ghurid dynasty. Detailed study of a high-resolution satellite image suggests that Jam is pockmarked with over 1100 robber holes, although many more are either too small to show up on the satellite photograph, or are obscured by spoil from other holes. Other sites in Afghanistan, such as the Graeco-Bactrian city of Aï Khanum and the Buddhist religious and pilgrimage centre of Hadda, have suffered almost complete obliteration as a result of recent conflicts and industrial-scale looting.

Faced with such a depressing catalogue of potential threats, destruction and looting, are there any grounds for optimism over the future of Afghanistan’s past? Perhaps surprisingly, the answer is a tentative ‘yes’. Despite the significant challenges, the Délégation Archéologique Française en Afghanistan (DAFA), together with scholars and experts in heritage management from NGOs and in collaboration with their Afghan colleagues, continues to fight to protect, conserve and study numerous important archaeological sites.

In recent years, DAFA, which began its work in Afghanistan in 1922, has uncovered a 3rd-century AD jeweller’s quarter at Tepe Zargaran (near Balkh); discovered the largest Achaemenid site yet found in Afghanistan (about three kilometres square, and dating to...
500–600 BC); and undertaken restoration work at the 9th-century Masjid-i Noh Gumbad (Fig 9). A regional museum in Mazar-i Sharif, being established in collaboration with the National Museum, is also due to open later this year.

The work of the Aga Khan Trust for Culture (AKTC) primarily focuses on architectural preservation and restoration, rather than archaeological fieldwork, through the training and employment of local craftsmen and architects. The citadel in Herat (Fig 8), the 18th-century mausoleum of Timur Shah in Kabul, bath-houses, cisterns, and numerous mosques, have all benefited from AKTC projects. Through its work, the AKTC aims to create functional buildings and spaces that can be re-incorporated into the social fabric of the country. The AKTC has also been instrumental in advocating for the protection and preservation of Herat’s architectural heritage; earlier this year, Herat’s Old City was added to the World Monuments Fund’s 2010 World Monuments Watch List.

In a similar vein, the Turquoise Mountain Foundation (TMF) aims to revive Afghanistan’s traditional crafts, by establishing the Institute for Afghan Arts and Architecture, whose workshops focus on calligraphy, ceramics, jewellery and woodworking. Its efforts to regenerate Murad Khane, an historic area of Kabul’s Old City, have won admiration around the world. More importantly, the project has enabled the district’s inhabitants to remain in their traditional houses, with access to modern amenities such as electricity, sewers and running water.

It would be misleading to suggest that all of this important work is being led by Westerners. Afghan architects and archaeologists such as Zafar Paiman (working for the past seven years at the extensive Sasanian-Kushan monastery complex of Tepe Narenj) and Prof Zemaryalai Tarzi (synonymous with Afghanistan's cultural heritage) have continually worked on the giant carved Buddhas at Bamiyan, which were destroyed by the Taliban in 2001) are merely the most recent in a long-standing tradition of home-grown scholars. The dedicated staff of the National Museum of Kabul, who risked their lives during the civil war to safeguard the museum’s collections, continue to work hard to restore the museum to its former glory.

Fig 8. Herat Citadel, Qal’a-ye Ishkiyar al-Din. The two walled brick enclosures that comprise the citadel were built during the Timurid period (AD 1369–1506). However, the site was defended during earlier periods and it has been linked by some scholars as the location of a fort built by Alexander the Great.

Key to the success of these efforts to protect Afghanistan’s heritage is capacity building. NAIA and other Afghan organisations require significant investments of personnel, funding, training and equipment. In a small step in this direction, the MJAP held a series of seminars on archaeological survey techniques, funded by the British Embassy, at Kabul University in 2007. A grant from La Trobe University, Australia, has since enabled the publication of a bilingual booklet based on the seminars, copies of which have been donated to our Afghan colleagues. In 2007, the MJAP also provided conservation training in the National Museum of Kabul (Fig 7); documented stolen Timurid tombstones seized by the Afghan authorities; and held a medical clinic for museum employees and their families, who are unable to afford such basic treatment.

As archaeologists have found in Iraq, the best way of ensuring sites are protected is by engaging with the local community. Surveys and excavations demonstrate to local people that archaeological remains are a unique national treasure, a source of pride and employment, and not necessarily an inhibitor to development. Where we have been able to do this, archaeologists have found that most Afghans want to protect and preserve their cultural heritage.

Modern technology provides us with the means to share information with the Afghan authorities, the International Security Assistance Force (ISAF) and NGOs, to ensure that sites are monitored and risks to vulnerable archaeological remains identified before it is too late. Impact assessments and cultural heritage management plans should be part of all projects aimed at rebuilding Afghanistan’s infrastructure and exploiting its mineral wealth. The cost of these measures is negligible compared to the riches that are waiting to be tapped. It remains to be seen, however, whether Afghan or foreign archaeologists will have the opportunity to be an integral part of rebuilding the country and channelling some of the revenues gained from the mineral resources into projects to conserve the heritage of Afghanistan.
Plotting the past

Lindsey Davis, creator of the loveable Roman gamsandal Falco, talks to Georgina Read about modern writing, her plans for the future, and her obsession with historical fact.

Born in Birmingham, Lindsey read English Language and Literature at Lady Margaret Hall, Oxford, before going on to a career in the civil service. So what set her on the track to becoming a writer of Flavian thrillers? 'I have always read historical novels, and I don’t think there is any point writing them unless you make them as accurate as you can. I write as if for an audience who don’t particularly know about a period in history, while at the same time giving snippets for people who do know the period well. Otherwise I might as well write science fiction or fantasy, which don’t appeal to me at all.'

Historical accuracy is one of the qualities underpinning Falco: The Official Companion, which also includes nuggets of information about Lindsey herself. 'There was scope for a bit of autobiography, and I answered the most topical questions that come up so often. I couldn't make it a whole encyclopedia of Roman life, obviously, as there are plenty of books by experts on the subject, but I did my best!'

In the introduction to The Silver Pigs, Lindsey admits to a few historical inaccuracies. Her readers’ reaction to coming across a perceived error can be passionate to say the least, she reveals. 'People sometimes get very exercised, angry, even frightening when they think you have made mistakes. Sometimes readers write very annoyed letters, even if they are wrong and I've put in the latest research. It seems to me that people care too much, given that it is fiction. I want the books to be accurate, but if I spent three times as long writing them then there wouldn't be as many for people to read!'

'There was the cheese grater incident in Venus and Copper (1991), which wasn't really my mistake. I'd seen a display in one of the galleries at the British Museum showing domestic utensils from the first century AD, which included a cheese grater (Fig 2). I therefore included it in a bag of possessions rescued when Falco's building falls down. However, the British Museum reassessed the age of the grater and I subsequently saw it labelled as originally coming from an Etruscan tomb of the 5th century BC. I therefore changed part of my novel and had Falco saying, "Well, my father gave it to me, knowing him he probably robbed an Etruscan tomb.”'

Lindsey has a keen interest in archaeology, and unlike many other novelists who write about the ancient world, she uses material culture as the starting point for her writing. 'I don't go to the Latin texts first. I only tend to read them when they're relevant. Instead I start with archaeology. But I am never going to get on my hands and knees – I'm too old for that,' she laughs. 'I've never really liked the practical side of it; I'm not a messy sort of person. I have good relationships with the British School at Rome and helpful people working at places like Fishbourne Roman Palace help me keep up with things in that sector.'

By using archaeology and the material culture of the Roman world as her inspiration, rather than just the literary sources, Lindsey believes she is able to present a broader point of view in her novels. 'Most Latin texts were written by men, and were intended for a very narrow section of the elite. While Falco constantly has dealings with Rome's aristocracy in my novels, this is a useful way for me to highlight the contrast between his ideas and theirs. I'm trying to write about the whole swathe of society at the height of the Roman Empire; that interests me more than just dealing with the upper classes. 'I believe that Rome was much better and more equal for women than textbooks have

Since the publication of The Silver Pigs in 1989, Lindsey Davis's historical whodunits, featuring the informs, amateur detective and erstwhile Procurator of the Sacred Geese, Marcus Didius Falco, have been a runaway success. They have also been praised by academics for their historical accuracy and close attention to the details of what life was like in Rome and the provinces during the reign of the Flavian emperors in the late 1st century AD (Fig 5). A further 20 novels have followed Falco’s perilous investigations, as well as his tempestuous relationship with senator’s daughter Helena. Falco: The Official Companion was also published in June.

Fig 1. Lindsey Davis.

Fig 2. Etruscan cheese grater, 5th century BC. A mislabeling by the British Museum forced Lindsey to create a backstory to justify the presence of the grater in Rome 400 years later. L. 16.2cm. Photo: Courtesy of the British Museum.

Fig 3. The paved streets of Pompeii provide a wonderful insight into the urban landscape of a Roman city during the period in which Lindsey’s Falco novels are set. Photo: S.J.Pinkney.
always said, certainly among the lower and middle classes. I always remember that modern Italian women – who are certainly no pushover – are the descendants of the women of ancient Rome, so it’s not difficult for me to believe that they could be fairly outspoken!

It is a challenge for any historical novelist to imagine the thought processes of people from ancient civilisations. The picture Lindsey paints of Rome in the late 1st century AD is one filled with people driven by the same desires and motivations as today’s men and women, and she does indeed view Roman society as being very much like ours.

‘I was a civil servant so I like writing about Roman bureaucracy. We don’t actually know that much about how it worked, but I imagine it operated rather like ours. I like politics, I am interested in capitalism, the sense of how some people have power because they have huge amounts of money. That is going to be relevant when you are writing about crimes – whether ancient or modern – where money is a motive.

‘There is a lot of me in Falco, as he is speaking in the first person, it is difficult not to write it as if he were myself. I also see myself in Helena. I think Falco is becoming increasingly conscious of what it is to be a Roman as he becomes a family man over the series.

‘I start from the point of view that human nature doesn’t change, but at the same time I wanted to show the way in which the Roman world is similar to ours, as well as the ways in which it differs. I do cover issues like slavery and gladiators, which are obviously very uncomfortable topics for us, but which were part of life in first century Rome, so I try to portray them as things my characters accept.

‘When I was writing a book about gladiators, I saw a documentary completely unrelated to the ancient world, about young boxers in the East End of London, and I saw a strong link there in that it was a way a poor young man could make his fortune, and become famous. While most gladiators would die in the amphitheatre, for somebody who had nothing, it was an occupation that held out the kind of hope that being a good boxer might offer today.’ (Fig 6.)

Did Lindsey know from the beginning that the idea of detective novels set in Imperial Rome would prove to be so popular? ‘I had no qualms about the readership, but my publishers were anxious because apart from books like Robert Graves’ I, Claudius, which had been written in the 1930s, there was virtually no popular fiction set in the Roman period. The idea of a modern novel about a Roman detective was terrifying to publishers, we had great trouble selling the idea. My agent eventually found an editor who wasn’t fazed by the idea of crossing the genres of historical fiction and detective stories, and he has edited every book I have ever done.’

Lindsey acknowledges that historical fiction is often dismissed by critics. ‘I’d like my books to be seen as good novels, not just genre novels. If you are a historical novelist that is where you lose out, because you are judged by different standards – quite wrongly so, as they have to be really good page-turners, and you have to get the history right, or people write you angry letters! I have created all sorts of plot lines in the Falco series – I have deliberately not made any of them the same. I think what has made the series so successful is that readers never quite know what they’re going to get; I always try to spring a few surprises on them. I’ve featured police procedural in the ancient world; I’ve done Agatha Christie-style stories that start with a body in the library and end with all the suspects gathered in the same library; I’ve focused on adventures set in the wild woods, and it all seems to work.’

Famously, Lindsey wrote The Silver Pigs (1989) without having ever visited Rome. In fact, she still has not visited all the ancient sites she describes so vividly. ‘And I defy anybody to tell which ones I have actually been to and which ones I’ve read about in books! I have to be very careful when writing about Rome, as so many buildings and monuments were actually built later than the late first century, the period I deal with. One aspect of ancient Rome that I did misjudge was the scale of the place. In The Silver Pigs in particular, Falco is very mobile in the city and although he is tough, he could not have physically achieved all that I had him doing in a day, so I had to do some re-writing to make the story possible.

‘Falco hasn’t really done Gaul yet; he has only passed through. He has made some disparaging comments about Marseilles (ancient Massalia) but I’m not going to set a story in the province until I want to take an easy holiday in France! Falco has also not yet been to the outer reaches of Hungary, and while Alexandria (2009) mainly took place in the Egyptian city, and Two for the Lions (1998) was partly set in Tripolitania in what is today Libya (Fig 7), I’ve not set any of the other novels elsewhere

Fig 4. The Forum in Rome. It is in the shadow of the Temple of Saturn, of which eight columns still survive, that Falco first made his appearance in The Silver Pigs (1989). Photo: Oliver Mallich.
in Roman North Africa, which gives me the excuse to visit countries like Tunisia to do some research. There are, however, some places that I don't personally like, such as Sicily, which I find very sinister, so Falco may never get to go there. 

Aside from Rome itself, my favourite site in ancient Italy is Ostia Antica, the great harbour city at the mouth of the Tiber (Fig 8). The city was also the setting for Scandal Takes a Holiday, published in 2003. Of the towns on the Bay of Naples that were buried during the eruption of Vesuvius, I prefer Herculaneum over Pompeii (Fig 3). The villas at the nearby town of Oplontis are also wonderful to visit (Fig 9). Closer to home, my favourite British site is probably Fishbourne. In fact, I remember Prof Barry Cunliffe coming to my school to give a talk on the Roman palace at Fishbourne while he was excavating the site (see Minerva July/August, 2010, pp. 46-48). I can recall that I couldn't believe such a place had once stood in Britain.

Many key events in antiquity have obviously had an enduring impact that still resonates in the politics of today, requiring delicate handling by a writer of fiction. The Roman reconquest of Judaea following the Great Jewish Revolt in AD 66 was crucial in the rise of the Flavian dynasty, all three emperors of which feature prominently in several of Lindsey's novels (Fig 5). Falco's brother was also killed fighting in Judaea while serving under Vespasian's son Titus. Poseidon's Gold (1993) also features Jewish prisoners of the wars being used as slave labour during the building of the Colosseum. 'The Romans didn't just go and start fighting one other, or go for oil as we have done in Iraq. They created a society that offered benefits and luxuries, and many people wanted to be part of the Roman world. I think the Romans were more successful at this than the West is today. For almost 400 years, the inhabitants of Britain rather seem to have liked being part of the Roman Empire; or at least they accepted it. I don't think that's likely to happen in Iraq or Afghanistan. I don't set out to point out moral failings of contemporary society, but events do influence me while I'm writing the Falco novels. I clearly remember working on the The Iron Hand of Mars (1992) – much of which is set in Germany – just as the Berlin Wall came down.'

Does Lindsey have any plans to build on Falco’s popularity with another series? 'It's certainly a possibility. I haven't made up my mind about what I'm going to do next. I could write more novels about Falco and the Roman world during the rule of the Flavian emperors. However, I could do something entirely new. It was only a few years ago that I wrote Rebels and Traitors, a novel set at the time of the English Civil War. And that was a wonderful experience as it allowed me to carry out research into a period for which there is so much more material available than that which exists for the Roman world. I was like a child in a toyshop! It was very refreshing to change subject and period. I also feel the Falco novels that I wrote at the same time were also better books because I felt invigorated.'

Lindsey Davis's most recent Falco novel, Nemesis, was published in June (Century Press, 2010, 304pp, hardback, £18.99).
Bonhams reports a strong performance from its spring antiquities sale, held on 28 April in London. A total of 318 lots were sold on the day, achieving £1,639,308. Siobhan Quin of Bonhams antiquities department told Minerva: ‘Overall prices were strong, particularly in the Egyptian market. Relief fragments and scarabs sold exceptionally well. Provenance remains a priority for our buyers, and several lots were particularly interesting in this regard.’

The market for vases also remains strong, and a private collection of exquisite pieces, lots 178–184, sold for a total of £460,800. The highest price of £210,000 was paid for lot 184, an Attic stamnos in Six Technique from the workshop of the Antimenes Painter, c. 510 BC (Fig 7). The vase depicts a muscular Theseus pursuing the Minotaur (H. 24.5cm).

Many Egyptian antiquities achieved well in excess of their estimates. Lot 10, a limestone relief fragment showing a husband and wife seated on lion-footed chairs (H. 22.5cm), dating from the early 18th dynasty, c. 1567–1400 BC (Fig 6), had an estimated price of £2000–3000, but achieved £12,000. An Egyptian cartonnage mummy mask from the Ptolemaic Period (305–30 BC), decorated with polychrome and gilding over gypsum, achieved almost double its estimate to sell for £10,800 (Fig 4).

Several of the Classical pieces were notable not only for their quality, but for their fascinating provenance. A Roman herm marble bust of Dionysus (H. 15.2cm), dating to c. 1st century AD (Fig 1), was acquired by the seller’s father and step-mother in 1966 as a wedding gift from the film director Franco Zeffirelli, with whom they have worked on the film ‘The Taming of the Shrew’. The piece fetched £28,800, more than tripling its estimate of £7000–9000.

A marble Roman marble head of Menander, c. 1st century AD (H. 26.7cm, Fig 3), sold for £72,000. The sculpture is a copy of a Greek bronze herm by Kekisodotos and Timarchos, the sons of Praxiteles. Dating from the same period, a large Roman breccia cinerary urn (H. 43.2cm, Fig 2), sold for £60,000. This unusual piece has a body of conical form, tapering to a flattened circular base. The upright neck is carved with a band of six bucraania (bulls’ skulls), laden with garlands and swags, interspersed with sacrificial implements of a patera, a knife and an axe.

Ancient jewellery remains a sound investment, and many pieces are also both exquisite and wearable. A pair of Byzantine gold earrings, c. 6th–9th century AD, sold for £1440 (Fig 5). Their lunette form features an openwork design of stylised foliage flanking a cruciform medallion, and each has a green glass bead pendant.
Christie’s spring antiquities sale, held on 29 April 2010 in South Kensington, achieved a total of £3,030,750 – the highest grossing antiquities sale in London since 2004. This result demonstrates the buoyancy of the antiquities market worldwide. Bidders participating in the sale hailed from 22 countries, and buyers were 30 percent UK, 36 percent Europe, 23 percent Americas and 11 percent Middle East and Asia.

Georgiana Aitken, head of antiquities at Christie’s South Kensington, commented: ‘We are delighted with this strong result, which reflects voracious demand for well provenanced and high quality antiquities. Roman marbles and Classical pottery saw particularly impressive prices across the board. Private collections were highly contested with highlights including Egyptian bronzes from the Elias-Vaes Collection, and Minoan and Mycenean pottery from a 19th century private European collection. Online bidding was particularly active, with almost a quarter of all lots either sold to or directly underbid online.’

The top price was paid for a Roman marble statue of a young satyr with a panther (Fig 8), c. late 1st – mid 2nd century AD, which fetched £577,250. The figure stands on his right leg, supported by a tree trunk, his left leg relaxed and crossed over the right, heel lifted. His expression is mischievous, his lips drawn into a smile. Bud-like horns are visible at his hairline, and he wears a goat-skin, the hooves knotted over his left shoulder. The panther seated at his feet has a stocky body and its face, framed by a tufty mane, gazes up at the satyr. The statue stands 118cm high. It was formerly in the collection of the author Roger Peyrefitte in Paris, and was acquired before 1970.

The second-highest price was achieved by another Roman marble statue, a torso of Aphrodite (Fig 9), c. 1st century AD, purchased for £223,250. The goddess stands with her weight on her left leg, and wears a diaphanous cloak. The figure appears to have been closely influenced by the semi-draped ‘Arles’ Aphrodite of the 4th century BC sculptor Praxiteles, which was produced a few years before his fully nude Aphrodite of Knidos (see Minerva, May/June, 2010, pp. 12–15). H. 77.5cm.

A record price was achieved for a South Italian red-figure fish plate (Fig 10). Attributed to the Painter of Boston, c. 330 BC, it soared above the estimate of £4,500-5,000 to realise £75,650. The plate depicts three fish – a striped perch, a torpedo and a cuttlefish – swimming around a central garum recess. Its down-turned rim has a reverse wave band with details added in white. Diam. 20.3cm.

Bronze shabtis are exceptionally rare in the New Kingdom. Contrary to the more typical shabtis intended for use in a burial context, bronze examples served as votive offerings, presumably to Osiris, and were placed in temples. The Christie’s sale featured one fine example dating to the 18th dynasty (Fig 11), wearing a striped tripartite wig and broad beaded collar, holding a pick, with seedbag slung over the right shoulder, with frontal vertical column of hieroglyphs, H. 16.6cm, fetched £56,450. n
In recent years there has been an emergence of new collectors with a keen interest in Graeco-Roman militaria. This was demonstrated emphatically at Christie's New York antiquities sale on 10 June, when an exquisite Greek bronze helmet of Cretan type (Fig 1), c. 650–620 BC (H. 43.1cm), decorated with representational and non-representational engravings, was sold to a European collector for a staggering $842,500 (including the buyer's premium), nearly $300,000 above its ceiling estimate price. This new trend is perhaps not surprising in light of the fact that antiquities have, to a large extent, been relatively undervalued.

In the biannual Hermann Historica sale of militaria held in Munich on 12 April, the prices realised were more conservative but nonetheless provided an index of the buoyant interest in this extraordinary material. Rightly, provenance has become a major consideration, both for private buyers and those representing museums. The bulk of the military assemblages offered at this auction were from the estate of the late Axel Guttmann (d. 2001), most published towards the end of his lifetime. From a group of Illyrian bronze helmets of the 6th–5th century BC, three were estimated at €10,000, €4000 and €4500 and went on to realise prices of €16,500, €10,500 and €17,000 respectively (Figs 4, 3, 2). Another group of bronze helmets – on this occasion of the Chalcidian Greek variety (Figs 7, 8), 5th–4th century BC (H. 21cm), the second example offered with a back plate (41cm) and pair of greaves (H. 26.8cm), outstripped their estimates of €4000 and €12,500 with hammer prices of €9000 and €17,000.

One of the most enigmatic varieties of ancient helmet in public and private collections is the variant of the Corinthian helmet that originated in geographical Greece but spread territorially with the colonisation of low Italy. A particularly striking example with three plume holders, wavy brow decoration, contoured eyebrows, small eye cutouts, and an elegant leaf-shaped nose guard (Fig 5), 5th century BC (H. 27cm), rocketed above its estimate at €3500 and was won for €22,000.

From a historical perspective some of the most interesting artefacts offered in this auction were the exceptionally well preserved sets of Greek muscle armour and long greaves, contoured to the bodies of individual warriors. It is astonishing to think that people fought and died clad in this armour in one of the most fascinating periods in history. Two sets of

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Mark Merrony reports on the Hermann Historica sale of 12 April

Fig 1. Greek bronze helmet of Cretan type, c. 650–620 BC (H. 43.1cm). Sold at Christie’s for $842,500.

Fig 2. Illyrian helmet. Bronze, 5th century BC, H. 21cm. Sold for €16,000. Lot 52.


Fig 5. Apulian-Corinthian helmet. Bronze, 5th century BC, H. 27cm (with crest fork). Sold for €22,000. Lot 367.


Fig 8. Greek armour with a Chalcidian helmet. Bronze, 4th century BC, H. 41cm (back plate), 26.8cm (greaves), 31cm (helmet, including spiral socket). Sold for €17,000. Lot 351.
4th-century BC armour were sold, the first (Fig 14), comprised a back and breast-plate (37.5cm) with long greaves (42cm); the second (Fig 9), a back and breastplate (48.5, 52cm), estimated at a conservative €5,000 and €3,500, were hammered down for €23,000 and €17,000. A later set of Samnite geometric breast- and back-plates, greaves and a Pilos helmet (Fig 11), 4th–3rd century BC (28.5, 42.5, 24.5cm), realised a hammer price of €25,000 – €10,000 above its estimate. An individual Pilos helmet offered (Fig 6), 4th/3rd century BC (H. 23cm), with an estimate of €4500, realised a solid €12,500.

The current vigorous climate of the market was borne out by the sale of a bronze helmet of the Montefortino/Canosa type (Fig 12), 4th/3rd century BC (H. 18.3cm). Not the most attractive example, owing to its crude condition and restoration, it nevertheless reached a hammer price of €13,000 – €6000 above its estimate.

Without doubt the star attractions in this sale were two particularly fine Chalcidian helmets of the Ibero-Celtic variety (Fig 10), 5th century BC. Each helmet features a riveted reinforcing band along the perimeter, mask-shaped, reinforced eye cutouts, a curved band of decoration above the brow, a tall riveted crest holder, and curved cheek pieces. Estimated at €10,000 each, these beautiful examples provoked a fierce bidding war that culminated in their being hammered down to a Russian collector for €77,000 each.

Won for a slightly more conservative figure, and at the opposite end of the chronological spectrum, was a rare Late Roman iron helmet (Fig 13), 4th/5th century AD (H. 27.5cm). This was hotly contested and soared above its €12,500 estimate, eventually won by a German collector for €62,000.

As fascinating as these market statistics are, given the present economic difficulties in the international sphere, the sheer diversity of the material offered is at least of equal interest. The varying morphology – from the earliest Illyrian helmets to the Italo-Corinthian style, Chalcidian, Pilos, and Late Roman – demonstrates not only cross-cultural influences, but also how forms changed in response to tactical considerations over a span of more than ten centuries.

Many dates in the history of the Roman Empire can be considered momentous, including its apparent foundation in 753 BC, the assassination of Julius Caesar in 44 BC, the ascension of Augustus as first emperor in 27 BC, and the disastrous Battle of Adrianople in AD 378 – but none was symbolically more catastrophic than the sack of Rome in AD 410, the focal date of this engaging book.

There are several factors that make this an especially good read. Primarily, it paints an interesting background picture of historical developments prior to 410, such as the administrative reforms of Diocletian, the maturing of Christianity into the religion of State, and the emerging barbarian menace of the Huns, Goths, and Vandals. The physical and cultural landscape of the Eternal City in the early 5th century, a period often clouded by obscurity, is presented in an especially informative manner. This has been largely achieved by scouring a comprehensive range of historical texts, including Ammianus Marcellinus, Juvenal, Claudian and others, to present a rounded picture from vernacular buildings and squallor, to monumental buildings and villa and palace opulence.

Perhaps the greatest strength of this book is the carefully orchestrated way in which the authors use primary sources. In turn, detailed historical portrayals of the leading players are another merit – the authors include Marcella, founder of the first convent in Church history; the successful campaigns of general Stilicho against the Goths; the pretensions of emperor Honorius; the ill-fated expedition of King Alaric to Africa; and Heraclian, commander of Africa, whose ruthless hand cut off Rome's essential grain supply.

As one might expect given the topic of this publication, an especially good account is given of the sack of Rome on 24 August 410 and its aftermath. It is extraordinary to learn that, despite the time and money lavished by Honorius on strengthening the fortifications of Rome shortly before this event, someone simply let the Goths in. Two different accounts of the siege are presented through the lens of the historian Procopius. The first, inspired by the Trojan Horse, suggests that 300 Goth troops entered the city disguised as slaves and opened the gates; the second account blames Proba, a

sets out in the Preface, the intention of his latest work is to present 'the country's development from a specific perspective, centered on archaeology and the man-made material world… the aim is to emphasize a specific perspective often overlooked in general histories based on the written word'. To a large extent, this approach is inevitable in a land in which literate clergymen arrived relatively late, and did not have a secure foothold until the mid 10th century. Scholars have therefore been forced to rely heavily on material culture when analysing earlier periods of Danish history. Based on evidence recovered from archaeology, Randsborg has divided the history of Denmark into 15 major phases, starting with the Late Palaeolithic hunters of the 13th millennium, who visited Denmark in search of mammoth and other prey (noting that there are archaeological traces of Neanderthal presence about 100,000 years ago), running through to the globalised society in which the people of Denmark are now playing a part.

Fortunately, Denmark has a rich archaeological heritage. There are impressive megalithic monuments constructed by the Neolithic communities over the course of a thousand years following the introduction of farming in Denmark about 4000 BC. Large rune stones from the Viking Age also cover the country, the most famous of which stands on the site of the 10th century royal palace of Jelling in Jylland, and which declares Harald 'Bluetooth' Gormsson to have conquered all of Denmark and Norway, and also 'made the Danes Christian'. Furthermore, the environment of Denmark is also conducive to conserving artefacts from the country's prehistoric past. As Ransborg notes, 'The Danish bogs and other wet environments, including the cores of Bronze Age mounds, have been benign to the preservation of organic materials, including human bodies, clothing, wagons and boats' (p. 53). Complete sets of wooden clothing therefore survive in Early Bronze Age oak coffin graves, Ransborg describing how 'the men wear a coat or loincloth and a large mantle; on their head they have either a soft pixie-cap or a thick helmet-like hat… The women all wear a sort of “T-shirt” with sleeves to below the elbows… On their head they may have a bonnet, on their feet leather shoes' (p. 23). The remarkable preservation of Danish artefacts continues into later periods, and deposits of military equipment dating to AD 250–700 provide not only weapons and other items of war, but remains of some of the world's oldest trousers. The bog-bodies of Tollund Man (c. 400 BC) and Grauballe Man (c. 300 BC) also preserve the physical appearance of Iron Age people. The bogs of Denmark have also preserved precious metal treasures, including the famous Gundestrup silver cauldron probably dating to the 1st century BC.

Covering such a vast swathe of time over little more than 150 pages necessarily leads to many topics being provided with only a cursory mention. This is partly addressed by Part III of the book, which is given over to specific case studies. These look in detail at aspects of Danish history and archaeology, such as Bronze Age cosmology, and artefacts such as the model of a sun chariot dating to the 14th century BC, found in Trundholm Bog on Sjælland, which tells us of sun worship at this time (p. 121). There is also a short section describing the 4th century BC canoe and weapon deposit found at Hjortspring on the island of Als. This sea-going craft was capable of carrying more than 20 paddlers and
rich matriarch of the Anicii family, who was disillusioned by the starving masses and ordered her servants to open the gates.

If the reader was in any doubt about the status of Rome in this period, this book places it in lucid perspective. Although the city was no longer the focus of imperial power in the Western Empire – this had of course been devoted to a series of temporary capitals including Trier, Milan, Ravenna, and Sirmium – Rome symbolically and politically remained the Capital of the World.

This is a highly recommended and accessible book, well produced with soft fold-in covers and good colour images. There also three very good maps (pp. 179, 180–1): a plan of Rome at the time of 410, and geographical movements of barbarians in Europe up to 395 and from 395–415. A preliminary section gives a brief ‘who’s who’ (pp. 8–9) and the key figures are summarised in more detail towards the end of the publication (pp. 153–62). Finally, a concise and useful account is given of the primary historical texts and their authors (pp. 163–8).

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other crew, while replicas of the canoe indicate it could have covered 100–150km a day. Spears, shields and swords found in the deposit suggest the lightly constructed craft was used by raiding parties, cruising the sea-lanes that connected the numerous islands of Denmark (p. 124–26). These studies carry on into the modern period, with descriptions of Denmark’s struggles against the British in the first two decades of the 1800s; war with Prussia over Slesvig-Holstein in 1940; and the Vinland Map are all treated at length. While the scientific studies dating the linen cloth of the Shroud of Turin conclusively date it to the 14th century, there is a considerable amount of controversy as to how the image was formed. Even supernatural causes are discussed, such as the resurrected body emitting intense pulses of light, ion discharge, or X-rays transferring the image of the body to the cloth and in the process also affecting the Carbon 14 in the linen to test for an age of only 650 years rather than 2000 years (see Minerva, July/August, 2010, pp. 42–44). Also included are the Hacilar ceramics, the Metropolitan Museum’s Etruscan warriors, the Getty Kouros, the Boston Throne (but not including the reviewer’s extensive study in Minerva on this and the Ludovisi Throne; the Ludovisi is not even mentioned), the Risley lamp, and the notorious ‘Precolumbian’ crystal skulls. There is a separate and fascinating chapter – 25 pages – on Charles Dawson and his Piltdown Man. It also includes a study of Dawson’s little-known Beauport Park iron figurine.

The book abounds in charts and results of scientific analyses. For example, 14 pages are devoted to some of the principal synthetic pigments and the dates, where known, of their discovery, commercial production, and first use. There is an enormous 50-page bibliography – nearly 2000 books and articles – even including several references to articles published in Minerva such as the reviewer’s ‘The Aesthetics of the Forger’. There is a well organised and very detailed 34-page index. This publication will prove to be indispensable to conservators, curators, art historians, collectors, dealers, scientists in the many fields covered, and, of course, those involved in the investigation of art forgeries.

Hopefully it will be issued in a paperback version so that it will be more affordable in the future, especially to students.

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