The birth of the artistic imagination

Internationally acclaimed sculptor Antony Gormley reveals the deep influence of ancient art on his work

Under the volcano
Life and death in Pompeii and Herculaneum

Ice Age art
The birth of the artistic imagination

Music from Mesopotamia
What did Ashurbanipal listen to at his feasts?

Shake, rattle and roll
A shuddering history of earthquakes

Rock of ages
Solving Solutré in prehistoric France

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Cataclysms & catastrophes

Natural disasters may have been the cause of the destruction of many more ancient cities than Pompeii and Herculaneum.

The biblical story of the destruction of the decadent cities of Sodom and Gomorrah, so dramatically portrayed by the Victorian artist John Martin (see pages 16 and 17), shows Lot’s wife turned into a pillar of salt by a divine thunderbolt. She is punished for disobeying God’s order not to look back at the burning cities, while her obedient husband and daughters escape. In the background the all-consuming explosive conflagration might have been caused by an earthquake but, as the locations of those doomed cities have not yet been discovered we cannot know for sure, and John Martin’s depiction remains the product of vivid imagination. But was the destruction of another biblical city, namely Jericho, whose walls ‘came a-tumblin’ down’, caused by powerful seismic activity? It might well have been according to Andrew Robinson, who has written a feature on the history of earthquakes (see pages 16-19).

Volcanic eruption is another natural event that can cause mass destruction, and most famously so did in Pompeii and Herculaneum. These two cities are the subject of a major exhibition that opens at the British Museum on 28 March. On pages 12-15, Andrew Hadrill-Wallace compares life in bustling Pompeii with its quieter neighbour Herculaneum.

From the fiery world of volcanoes and earthquakes, on pages 30-33, we move to the much colder climes of the Ice Age to marvel at some of the earliest figurative art ever made – such as the Lion Man, carved of mammoth ivory, or horses engraved on bone. Does this represent the origin of all the paintings of those doomed cities have not yet been discovered we cannot know for sure, and John Martin’s depiction remains the product of vivid imagination. But was the destruction of another biblical city, namely Jericho, whose walls ‘came a-tumblin’ down’, caused by powerful seismic activity? It might well have been according to Andrew Robinson, who has written a feature on the history of earthquakes (see pages 16-19).

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From the fiery world of volcanoes and earthquakes, on pages 30-33, we move to the much colder climes of the Ice Age to marvel at some of the earliest figurative art ever made – such as the Lion Man, carved of mammoth ivory, or horses engraved on bone. There is also an exquisite flute, made from the wingbone of a Griffon Vulture, that is 40,000 years old. These are some of the fascinating objects currently on show in London, in another exhibition at the British Museum. While on the subject of prehistory, in our travel feature, David Miles follows in the footsteps of the late President Mitterrand, who went on an annual pilgrimage to the site of Solutré in Burgundy. There, at the foot of a striking rocky outcrop, animal bones, exquisite flint tools, and other finds were unearthed during the 19th century.

Early music used an entirely different scale to the one we use today although, according to Richard Dumbrill, the ancient tuning used for the instruments at the feasts of King Ashurbanipal would have sounded pleasant enough to the ears of Henry VIII.

The pleasures of music would have been enjoyed in Imperial Rome, especially during the peaceful period between AD 98-180, the so-called Age of Balance, when peace and prosperity ruled the Empire. There is an exhibition in Rome celebrating this era. Would that moving north to Edinburgh we find a show devoted to the Vikings containing over 500 objects on loan from Sweden’s National Historical Museum. Far from being uncivilised marauders, this exhibition shows quite a different side to these ancient Scandinavians.

Finally, you may be surprised to see we have interviewed the famous contemporary sculptor Antony Gormley. He is, of course, a brilliant, internationally acclaimed artist, but what has his work got to do with ancient art? When you see what he has to say on pages 24-29, I think you will agree that his sculpture has a timeless, universal quality. Future generations of archaeologists may fish one of his life-size male statues out of the sea rather like a latter-day Riace bronze.
An excavation campaign, carried out prior to building a private villa at the Pointe du Canonnier in the French part of St Martin, in the Lesser Antilles, enabled INRAP (French National Institute of Preventive Archaeological Research) archaeologists to complete research work initiated in 2002.

The excavation follows two diagnoses carried out in 2007 and 2011. For the first time, archaeologists now have an overall view of a pre-Columbian village of the transition period between early and late Neo-Indian, which is between AD 660 and 960. It can be related to the Mill Reef style of the Troumassoid, which represents the second phase of pre-Columbian ceramic cultural development on the northern Lesser Antilles islands. Pre-Columbian populations from coastal Venezuela started colonising the Lesser Antilles during the Meso-Indian period, around 3000 BC. The first pottery-making groups appeared in 500-400 BC, in the Neo-Indian period. They introduced plants, such as the cassava, and animals, such as the agouti, but lived mainly on fish and seafood.

The oval-shaped village extends over an area of more than a hectare. It consists of three parts: a central living area, a belt of middens where food remains and discarded objects accumulated, and a peripheral area devoted to various activities.

The 2012 excavation focused mainly on an exceptionally rich 400-square-metre midden located north of the village, with abundant material in an excellent state of conservation. Among the haul was shells, shellfish, vertebrates, ceramics and stone. The lithic material includes numerous tools (axes, pestles, millstones, polishers and anvils) used for working stone, coral and shells, as well as trigonoliths, stone triangles that are thought to be connected to divinities.

Shell items are both food remains and manufactured objects, including fragments of fishing-hooks – an unusual find, bearing in mind that these communities normally used fishing nets and traps. Ceramics present the characteristics of the area and period: griddles used for cooking cassava bread, bowls with finger-indentated rims and so on.

After assembling the pottery and lithic fragments, archaeologists will be able to get a clearer idea of everyday life in the Lesser Antilles during the period between the early and late Neo-Indian.

Nicole Benazeth

1. A shell carved into the shape of a toad has been pierced possibly so that it could have been worn as an amulet. 2. Fragments of two fishing hooks made of shell. 3. The carbonised remains of a hearth surrounded by many pottery shards and other domestic debris
Pride comes before a fall: statue of Niobe found in swimming pool

A chance discovery on the outskirts of Rome, near Ciampino airport and the Appian Way, is proof of what extraordinary archaeological finds are still being uncovered even in a country with as rich a past as Italy.

Seven large marble statues, each more than two metres high, and fragments of some beautiful floor mosaics were unearthed during an excavation begun last summer. The work on the site was privately financed in an area of possible archaeological importance prior to permission being given for the construction of a housing estate.

The site is believed to be that of a villa owned by the Roman senator Marcus Valerius Messalla Corvinus (64 BC–AD 8), a commander at the battle of Actium in 31 BC. Excavations at the villa have revealed a thermal bath area with mosaic floors and a 20-metre-long swimming pool with walls painted blue.

The pool may have been buried during an earthquake in the 2nd century AD. It was inside this area that the seven sculptures dating to the Augustan age were found. The group of statues represent the main characters from the story of Niobe, proud daughter of Tantalus and queen of Thebes, and one of the most tragic figures in mythology.

She boasted that she was superior to Leto, mother of Apollo and Artemis, because the goddess had only two children whereas she had 14. As a result of her hubris, Niobe’s sons and daughters were killed before her, shot by the vindictive arrows of Apollo and Artemis, while the grief-stricken Niobe was herself turned to stone. This moral tale has inspired Greek and Roman artists since the 5th century BC.

‘Statues of Niobe and her children were found in the past, but here we have most of the whole group,’ says Elena Calandra, Superintendent of the Archaeological Heritage of the Latium region. In the 16th century the largest group found was unearthed in a vineyard near the Lateran in Rome – it is now assembled as the famous ‘Stanza di Niobe’ in the Uffizi Gallery in Florence.

In 2005, a single statue of Niobe was discovered in the 2nd-century AD Villa dei Quintilii near the Appian Way, outside Rome.

One of the seven large marble statues, each more than two metres high, excavated at a site near Ciampino airport south of Rome.

Messalla was the patron of a group of literati, the Messalla circle, which included the poet Ovid (43 BC-AD 17/18). The poet may have seen the group of statues illustrating the dramatic fate of Niobe and her offspring in Messalla’s villa and was inspired to write about the myth in his epic poem, Metamorphoses (VI, 165-314) published in AD 8.

Alternatively, it may have been Ovid’s poem that inspired the sculptors chosen by Messalla to decorate his villa.

Alessandro Betori, the director of excavations, points out that of the seven statues found, two are of young men looking at their dying siblings, providing iconographical details missing from the other groups that have survived.

Whether the newly discovered statues are from the 1st century and whether they are copies of the same Hellenistic model that inspired these representations of pride humbled, will not be clear until they have been properly cleaned and restored.

Dalu Jones

In 2005, this single statue of Niobe was discovered in the 2nd-century AD Villa dei Quintilii, near the Appian Way, outside Rome.

A beautiful marble female head was one of the finds recently unearthed near Ciampino airport, in a villa owned by a Roman senator.
The martial arts of the Minoans

Research carried out by Dr Barry Molloy of the University of Sheffield’s Department of Archaeology (www.shef.ac.uk/archaeology) has revealed that, contrary to popular belief, the Minoans, the Bronze Age people of Crete who created the very first complex urban civilisation in Europe, were not a peace-loving nation but had strong, all-pervasive martial traditions.

‘Their world was uncovered just over a century ago, and was deemed to be a largely peaceful society,’ explained Dr Molloy. ‘In time, many took this to be a paradigm of a society that was devoid of war, where warriors and violence were shunned and played no significant role.

‘That utopian view has not survived into modern scholarship, but it remains in the background unchallenged and still crops up in modern texts and popular culture with surprising frequency.

‘Having worked on excavation and other projects in Crete for many years, it triggered my curiosity about how such a complex society, controlling resources and trading with mighty powers like Egypt, could evolve in an egalitarian or co-operative context. Can we really be that positive about human nature?’

‘As I looked for evidence of violence, warriors or war, it quickly became obvious that it could be found in a surprisingly wide range of places.’

Building on recent developments in the study of warfare in prehistoric societies, Dr Molloy’s research reveals that war was, in fact, a defining characteristic of Minoan society, and that warriorship was one of the dominant expressions of male identity.

‘The study shows that the activities of warriors included such diverse activities as public displays of bull-leaping, boxing contests, wrestling, hunting, sparring and duelling. Ideologies of war are shown to have permeated religion, art, industry, politics and trade, and the social practices surrounding martial traditions were demonstrably a structural part of how this society evolved and how they saw themselves.’

The Mycenaeans, heroes of the Trojan War, took up the Minoan way of fighting – adopting its weaponry, practices and ideologies.

‘In fact,’ says Dr Molloy, ‘it is to Crete we must look for the origin of those weapons that were to dominate Europe until the Middle Ages, namely swords, metal battleaxes, shields, spears and probably armour also.’

He found a ‘staggering amount of violence both in the symbolic grammar and material remains from prehistoric Crete. Weapons and warrior culture were evident in sanctuaries, graves, domestic units, and hoards. It was found in portable artefacts intended for use during social interactions, for example in administration, feasting, or personal adornment.

‘There were few spheres of interaction in Crete that did not have a martial component, right down to the symbols used in their written scripts,’ says Dr Molloy. His research looks at war as a social process – examining the infrastructural and psychological support mechanisms that facilitated the undertaking of war and the means through which it was embedded in social logic.

This approach, argues Dr Molloy, leads to a deeper understanding of war in the Minoan civilisation:

‘When we consider war as a normative process that had cross-references and correlates in other social practices, we can begin to see warriors and warriorhood permeating the social fabric of Cretan societies at a systematic level.

‘The social and institutional components of war made an impact on settlement patterns, landscape exploitation, technological and trade networks, religious practices, art, administration and more, so that war was indirectly a constant factor in shaping the daily lives of people in prehistoric Crete. Understanding the social aspects of war “beyond the battle” is essential if we are to understand better how elites manipulated economics, religion and violence in controlling their worlds. By identifying the material results of warrior life in all of its disparity and disorder, we gain insights into what war meant in ancient Crete.’

Watercolour of a muscular priest-king from a wall painting in the Palace of Knossos, probably by E Gilliéron the younger, circa 1920s

Clay figurines: a martial Minoan flexes his biceps for two admiring ladies

• ‘Martial Minoans? War as social process, practice and event in Bronze Age Crete’ is published in the Annual of the British School at Athens and is available at: http://www.academia.edu/1552481/Martial_Minoans_War_as_social_process_practice_and_event_in_Bronze_Age_Crete.
Walk the Nazca line

Since their discovery 85 years ago, the Nazca lines, which cross the eponymous desert in southern Peru, have captured the world’s imagination and are still an archaeological mystery.

It is their enormous size, lack of obvious purpose, and the fact many of their designs cannot be seen unless viewed from the air, that has given rise to the plethora of theories, ranging from the academically credible to some that are nearer to science fiction.

The study of the lines and the expounding of new theories has continued unabated, with Yamagata University in Japan announcing their discovery of two new figures in 2011.

The latest theory comes from the archaeo-astronomer, Professor Clive Ruggles of the Department of Archaeology and Ancient History, University of Leicester, and Dr Nicholas Saunders of the Department of Archaeology and Anthropology University of Bristol.

Professor Ruggles’ discovery of a new figure is an intriguing story in itself. In 1984, while studying the orientation of known lines, he stumbled upon a labyrinthine figure comprising one unbroken course, some 4.4 kilometres long, leading to and back from, an earthen mound; this was unique.

Any work that might have been done on this exciting new discovery had to wait, however, as a few days later a dispute with Maria Reiche (the so-called ‘lady of the lines’, a German archaeologist who has lived and worked on the lines for more than 50 years) led to the end of that expedition.

Ruggles was not to return to the area for 20 years. Then, in 2004, a trip was undertaken, one aim of which was to relocate the lost figure. This was not quite as simple as it sounds, as, 20 years earlier, the technology consisted merely of field notes, rather than GPS.

Eventually, though, the figure was found and, after extensive research, it was concluded that its irregular shape was no reason to presume that it was, like many of the lines which form stylised motifs – such as hummingbirds and spiders, meant to be viewed from above. Ruggles and Saunders reasoned that if the figure was not intended to be seen from outside the area, then perhaps it was meant for those within it, and the best way to gain an insight into its purpose and use would be to walk its course. In a five-year investigation they walked over 1,500 kilometres.

The project involved not only following the ‘new’ labyrinthine line – and many others, but also trying to discern what is contemporary and what is not.

For this, stratigraphic and taphonomic methods were employed in which layers of superimposed designs were studied, contemporary pottery designs were compared, and satellite photography was used.

Together this built up one of the most comprehensive surveys of the area ever undertaken. It concluded that the labyrinthine line dates from the mid-Nazca period, about AD 500, making Ruggles and Saunders the first men to tread this path in around 1,500 years.

It seems to have been deliberately contrived to confound and surprise those walking it by having 15 sharp turns, before terminating in a spiral passageway that leaves the walker only 60 metres from where he started. The path could equally well be walked in the opposite direction.

‘This labyrinth was meant to be walked, not seen. The element of surprise was crucial to the experience of Nazca labyrinth walking,’ concludes Professor Ruggles.

This builds on the work of fellow archaeo-astronomer Anthony Aveni, who in 2000 first suggested that some Nazca lines form labyrinths. He said this recent work is ‘novel and well-argued’.

It is, of course, possible that this path was reserved for the gods and not walked by men at all, but the more pressing question now is what is inside the mound at one end of the labyrinth and this is what Professor Ruggles hopes to find out next.

• ‘Desert labyrinth: lines, landscape and meaning at Nazca, Peru’ was published by Professor Ruggles and Dr Saunders in Antiquity (Volume 86, No 334, pp1126–1140).

Geoff Lowsley
‘I, Ashurbanipal, the great king, the mighty king, king of the universe, king of Assyria, king of the four quarters of the world; I am the son of Esarhaddon who was the king of Assyria, viceroy of Babylon, king of Sumer and Akkad; I am the grandson of Sennacherib, who was king of the universe, king of Assyria.’

This text was inscribed on a seal, an impression of which was found in the vicinity of Ashurbanipal’s palace near Mosul, in modern-day Iraq. Born around 680 BC, Ashurbanipal died around 630. He was the Asnapper, or Osnappar, of the Old Testament, known from both Biblical and historical sources – a rare occurrence – as it is always arduous to reconcile the names of monarchs in both narratives.

His martial feats are well documented. We know this from accounts written in cuneiform clay tablets that, for the most part, were kept in the king’s remarkable library of well over 30,000 texts. There were also documents, relating to his exploits, found in other distant locations stating that he also ruled over Egypt, Media, Persia, Aramea, Phoenicia, Samaria, Judah, Asia Minor, northern Arabia and Urartu.

Around 652 BC, Ashurbanipal launched a ferocious assault on Elam, although his ally, for reasons which are not quite known. It is possible that he wanted to secure all taxation income from the trading routes with Iran rather than share it with the Elamites.

This legendary campaign, known as the Battle of the River Ulai or of Til-Tuba, was depicted on coloured stone slabs that later adorned Ashurbanipal’s palace at Ninivéh, in courtyards, in corridors and in royal rooms. The bas-reliefs display blood-curdling scenes of torture with impaled Elamites, the narrative ending with King Teumann and his son beheaded. Later, the king’s head is seen hanging from a tree in a garden where Ashurbanipal and his Lady celebrate their victory, eating and drinking to the sound of the harp and of the drum. (1)

It appears that the mighty king appreciated music, and to prove it he requested the sculpting of a unique slab on which paraded captive Elamite musicians. (6) There are seven men playing vertical harps. Yet, amazingly, out of hundreds of thousands of tablets, none of them has produced a name for...
that instrument. However, the word *sammu* might be a good candidate. There is one musician playing a horizontal string instrument, perhaps a hybrid harp/drum type for which we have no name. Another plays double pipes. We cannot be sure of what was the Assyrian name for them. It could have been the *arkātu*, the *malīlu*, the *tsumatu* or the *embubu*. I would guess that it was the *embubu* that was represented, but this is only an assumption. At about the same period, the Greeks called them *aulos*.

There is also a drummer; his instrument may have been the *uppu*. Following the men are six women singing and clapping their hands, one, possibly two of them twittering to generate some kind of ululation, possibly related to the Arabian *yuyu*, a word stemming from the Akkadian *alala*, which is an exclamation of joy.

The term was also used to describe the refrain of a joyous song. The interjection might have survived in modern-day Arabic as *yalla* and possibly in Spanish as *olé*. The English verb ‘to ululate’ might also be related. Also shown are nine children walking along with the women, clapping their hands and perhaps singing responsorially.

They amount to a total of 25 musicians. This constitutes the largest musical ensemble known in the history of music in the ancient world. However, it is impossible to say if this group actually made music together, as an orchestra, or if they were represented performing their art only to imply that they were musicians who might have been in employment, in groups, or separately, and probably for different reasons.

Women and children would have been restricted to the harem, others might have been destined to public entertainment, or to official playing at the royal court, or were engaged for military parades.

The best of the men would have been appointed as temple musicians where big drums, such as the *lilissu*, a kettle-drum. We know exactly what this instrument looked like as a cuneiform text of the Seleucid period includes a drawing of it. There would also have been a giant *alu*, a huge frame-drum for which five bull hides were needed as well as a bronze frame weighing around 200 kilos. The temple would have required lyres, possibly known as Assyrian *kinnaru* and sistrums, Assyrian *manzu*. These were the only instruments allowed in a sacred place. The Royal Archives of the Palace of Mari on the Euphrates,
under the last Amorite Dynasties of kings Zimrilim and Yasmah Addu (1787-1762 BC), have revealed that musicians were also used as commodities and sent as gifts to other courts of the kingdom and beyond to appease or reward monarchs, ambassadors, functionaries, and others. Having musicians around was showing off wealth, power, authority, and this is certainly what Ashurbanipal had in mind, especially in the light of his predisposition for self-laudatory praise, mostly justified.

The Elamite harps superbly carved on this unique bas-relief were soon adopted in Assyria and their usage fast spread to Greece, later to Rome, but they also were known later in the Ottoman Empire, in Iran and even spread to China and to Japan, eventually making their way to South America. The first instance of this splendid instrument is found on an Elamite cylinder seal (3 and 4).

The Elamite harps seen on the slab of the famous Battle of Til-Tuba have very striking features. Two years ago, I entrusted some research on these magnificent instruments to one of my students, Margaux Bousquet, who is concluding her thesis at the Sorbonne University in Paris, on Elamite archaeomusicology. We worked principally on the fifth harp which is depicted (5), as it is the instrument which has the most interesting characteristics.

Firstly, the number of strings was intriguing as it implied that the infrastructure of the instrument had to be designed specifically to withstand a great amount of tension from an estimated 24 strings. The tension would have been about 80 to 100 kilogrammes. This was calculated from the type of string that would have been used at that time. We decided that it would have been sheep gut that was used. The gut was twisted fresh from the butcher’s and allowed to dry for a few hours. The sound-box of the harp would have been built like a classic wooden boat with wooden ribs. Our reconstruction followed this idea in respect of our knowledge of materials used during the first millennium.

Bone and hide glue were used, exclusively. Once the structure was dry, a cloth of cotton was glued onto the outer surface which was then painted with a mixture of egg yolk and iron oxide, an early form of tempera. Hot bitumen was poured inside the sound-box to fill in all the gaps. The usage of this very versatile material had been known from the Sumerian period in the third millennium BC. Bitumen was used as glue, as filler, and even seals and some jewellery were made from it. It has properties very similar to early 20th-century Bakelite as it gets very hard when dry.

The soundboard was made from the raw hide of a goat as it seemed to be the most appropriate size for the instrument and also for the reason that goat hide is very tough. The yoke of the harp was made from a branch of maple, a wood that was well recognised in the ancient world for its qualities of strength and its fine grain.

The yoke on the relief shows that metal pins were inserted into it for securing the tuning of the strings. Maple is one of the most appropriate woods for that purpose, as all instrument makers know. The tuning pins might have been made of bronze, but iron would have been the chosen metal for its greater resistance to torsion. The tuning part of the pin would have been flattened on an anvil to allow a tuning tool to rotate them, as is done on modern instruments. Our reconstruction proved that this would have been the ideal and the most likely method for that period.

A closer examination of the fifth harp in (6) shows two intriguing features. Firstly, there is a notch on the sound-box – about half way down and secondly, the strings have different angles from the bass to the notch and after the notch. For some time it was thought that this difference was an error by the sculptor. But, our reconstruction shows that this Elamite instrument consisted of two separate harps, one standing above the other, although hosted in the same infrastructure. The notch,
which separates the two instruments and the two varying string plans explain its construction. Our replication of the instrument has shown that each harp has its own acoustic characteristics. To our knowledge, this is the only instance of such an instrument in the world history of music. Now that the replication of the harp was completed, a very important matter needed to be addressed: How was it tuned?

A few years ago, I published an extremely interesting cuneiform tablet hosted at the University Museum of Pennsylvania, catalogued as CBS1766. It turned out to be a first-millennium text with a heptagramme providing instructions on how to tune string instruments in a manner that is still used today, that is by the method of alternation of fifths and fourths, and that the scale produced, although not in the modern equal temperament, would not sound out of tune for most of our modern ears.

It therefore seems that from the reign of Ashurbanipal up until the 16th century of the Christian Era, a period of about 2,000 years, music has not changed much. The melodies that charmed the guests at Ashurbanipal’s orgies would probably also have thrilled those at Henry VIII’s romps.

The sound of the instrument is exquisite and can compare to the best available from a modern luthier. It is therefore possible to establish that instrument making had reached the highest standards during the first millennium BC. This is one of Ashurbanipal’s lesser-known contributions but one for which he should be recognised. He contributed to a considerable exchange of ideas, materials, technical innovations, fashion, and many other originalities coming from all four corners of his vast empire. He is mentioned only once in the Bible (Ezra 4:10), in connection with the letter sent to Artaxerxes by the foreign population settled in Judah, in protest against the rebuilding of Jerusalem and of the Temple. Many scholars believe the king referred to was Ashurbanipal. ‘And the rest of the nations whom the great and noble Asnappar brought over, and set in the cities of Samaria, and the rest that are on this side of the river, and at such a time.’

The oldest surviving royal library in the world is that of Ashurbanipal. British Museum archaeologists discovered more than 30,000 cuneiform tablets and fragments at his capital, Nineveh (modern Kuyunjik). Alongside historical inscriptions, letters, administrative and legal texts, were found thousands of divinatory, magical, medical, literary, and textual texts. This treasure-house of learning has been of unparalleled importance to the modern study of the ancient Near East ever since the first fragments were excavated in the 1850s.

Among the earliest depictions of large-scale battles, the panel sculpture, Battle of Til-Tuba, by an anonymous artist, shows a chaotic and shocking scene with two opposing armies, the Assyrians and the Elamites, fighting at the River Ulai. This sculpture includes representations of the Assyrian and Elamite weapons, the chaos on the battlefield, and the power of the Assyrian army. In it, the decapitated head of the Elamite king appears several times, most likely as a sign of power. It was then shown in another relief, hung in a tree as a celebratory trophy and a gory party decoration.

For further information about the International Conference of Near Eastern Archaeomusicology visit www.iconea.org
Andrew Hadrill-Wallace compares two ghostly Roman cities, Pompeii and Herculaneum, that come alive in a new exhibition at the British Museum

Under the volcano

‘We bid farewell to the deserted city in the words of a graceful writer, who acknowledges that it is difficult to exaggerate the impression produced on the mind by the ruins of Herculaneum, or the more extensive and interesting remains of the once bright and luxurious Pompeii. “Here”, says Miss Kavanagh, “the Past is Present, and rises before us in its meanest details, and therefore in its greatest power. We cannot walk ten steps, without feeling, Is it true? Are the people of this city really dead?”’

So the writer of a Victorian guide to the sites, W H Davenport Adams, wound up his account in The Buried Cities of Campania, or Pompeii and Herculaneum, their History, their Destruction, and their Remains, published in London in 1873. The two cities were destroyed when Mount Vesuvius erupted in AD 79. To bring the past back to life was the dream of Orpheus. It is the dream too of the archaeologist, of the novelist, of the filmmaker and the exhibition organiser. The British Museum’s new show on Pompeii and Herculaneum with its emphasis on domestic life offers the visitor the dream of reaching back into a distant past and touching it in its most intimate aspect, the home. The sense of immediacy is unchanged since Davenport Adams wrote in 1873.

What has changed is that Herculaneum, at that time a neglected and difficult site, was transformed by the excavation campaigns in the mid 20th century into the site that, if anything, gives us an even more intimate and detailed window into the past than Pompeii. And for that reason, Herculaneum has been given pride of place in the new exhibition alongside Pompeii.

As Herculaneum’s greatest excavator, Amedeo Maiuri, pointed out,
there is no need to choose between these two Roman cities preserved by volcanic eruption as we need them both, and their different modes of preservation mean that they complement each other. In Pompeii you have scale; in Herculaneum, intimacy. Pompeii’s wall circuit covers 66 hectares; to walk from one end of the city to the other, from the Herculaneum gate to the amphitheatre, takes the best part of half an hour. Herculaneum as a site covers only five hectares, and though at least two-thirds of the city still remain buried, it is clear that this was always a smaller, quieter place.

The streets of Pompeii always impress the visitor with their evident signs of busy traffic: the stepping stones, the ruts cut by the iron-shod wheels of carts, essential for commercial life, the worn curb stones, all the shops that open on to the pavements, and the din of voices represented by the painted shop signs and electoral advertisements put up by householders and traders – but all this hubbub falls silent in little Herculaneum. The narrow streets that lead down towards the sea have no ruts, the walls no electoral adverts; even the stepping-stones are missing, rendered superfluous by an efficient drainage system beneath the paving. But the signs of commercial life are here too, and what there is proves more legible.

Most Pompeian shops are bare and open to the skies, the upper floors having been swept away by the eruption. In Herculaneum, the dense ash of the pyroclastic surges encased many upper storeys, so that shops are covered by the apartments above them. The ash frequently carbonised, and so preserved, woodwork and other organic materials – not only wooden beams above shop entrances, but shutters of the windows and sometimes interior fittings: the racks on which wine amphorae were stored, the partition that separates a little back storage area, the steps leading up to the dwelling quarters above, with its own latrine and hearth for cooking.

Wooden furniture survives at
in the 1930s, he also took great care of the organic materials preserved in Herculaneum: it is never quite clear whether the carbonised loaves and egg-shells that illustrate books on Pompeii were actually found there. In Herculaneum, thanks not only to carbonisation, but to the survival of the upper floors where foodstuffs were often stored to keep them dry, there have been found a profusion of foods: wheat by the sackful, lentils, chickpeas, fruit-like dates (imported from Africa) and figs (a local speciality), nuts such as walnuts and almonds, and on rare occasions softer foodstuffs like onions, and, in one case, a pressed cheese.

It is in the profusion of such details that Herculaneum, though more modest in scale than Pompeii, can convey an even greater sense of immediacy and life. But the very delicacy of the detail also increases the difficulty of preserving these remains. The little upper apartments of Herculaneum, with their flimsy wattle-and-daub construction, were never built to last, and you can see the deep grooves cut in their sides by ropes. From Herculaneum, we have the well-rope themselves, together with the wooden windlasses used for hauling up buckets from a great depth.

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What Amedeo Maiuri exposed in the 1930s, he also took great care to conserve; but to expect this all to survive in immaculate condition 80 years later is totally unrealistic, and the absence of a programme of regular, ordinary maintenance over the past two decades has much accelerated the natural tendency of things to fall apart. Hence, as we saw in an earlier issue of Minerva (March/April 2011, Vol 22, No 2), the Packard Humanities Institute has intervened in a conservation project designed to address some at least of the crisis.

But such is the extraordinary richness of this site, that even activities merely aimed at preserving what has already been excavated continue to throw up some remarkable novelties. In the course of stabilising the collapsing escarpments around the site, there emerged a marble head, caked in the soft stone formed by the ash. Because it was found by conservators, rather than scrubbing off the head clean with water, as is traditional, the covering crust was removed delicately, over the course of days. Traces of paint are sometimes visible on ancient marble busts, usually in the crevices which scrubbing has spared. On a fine female head of a type familiar for an Amazon, the entire hair was coloured reddish-brown, and most strikingly, around the eyes, was colouring for the eyebrows, eyelashes, irises and pupils. Here, if anywhere, we can see how it is the small, delicate detail that brings the past back to life. Orpheus would surely have been impressed by this Eurydice.

Nothing damages an archaeological site so much as water, and the reopening of a network of drains is one of the principal achievements of the Herculaneum Conservation Project. But in their depths, drains can preserve precious and intimate details of human life. Above all, this is true of the great sewer, or cesspit, that ran beneath the block of shops and apartments that flanked the town’s Palaestra.

Such was the pressure of the pyroclastic surges that covered the site that, even below ground, voids were completely filled with ash, and the great sewer was filled to its full extent of 80

Roman archaeology

Pompeii only as plaster casts made by the voids where the wood has rotted away. It is to Herculaneum we must turn to see the furniture itself: beds, couches, stools, chests, tables, and the delicately carved shrine-like cupboards in which images of household gods and other precious objects were kept. Pompeii has countless marble wellheads, and you can see the deep grooves cut in their sides by ropes. From Herculaneum, we have the well-ropes themselves, together with the wooden windlasses used for hauling up buckets from a great depth.

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metres and to the full height of two to three metres up to its vaulted ceiling. But that had the effect of sealing the sewage and waste at the bottom, up to a depth of half a metre.

In the process of liberating the sewer, it was possible to recover nearly 200 trays of inorganic waste, broken pottery, lamps, glass and metal objects that had been disposed of down the drain, in addition to some 774 sacks, each containing 10 litres of human waste. Just as one can say a lot about people on the basis of what they throw away in their rubbish bins, so the rubbish in an ancient Roman sewer is eloquent of life. But above all the excrement preserves an extraordinary level of detail about diet.

Thanks to the work of Mark Robinson and Erica Rowan at the Pitt Rivers Museum in Oxford, we can identify dozens of different varieties of fish and seafood, eggs and shells, fruit pips, seeds, herbs and spices, even a peppercorn, that made up the diet of the inhabitants of these modest shops and apartments.

We already knew well enough how the Roman rich feasted, from their recipe-books and descriptions of eating; it is the more valuable to be able to set against this the diet of people at a lower social level, whether or not we want to call them ‘ordinary’ Romans.

Another source of enormous importance for studying diet is the human skeleton – and, while Pompeii is famous for the vivid impression made by the casts of the dead made by pouring plaster of Paris into the voids left by the rotted corpses, at Herculaneum no voids were left, and the interest resides in the skeletons themselves.

It is the assemblage of some 400 skeletons excavated in the 1980s that affords an unparalleled sample of an ancient population, young and old, male and female, rich and poor, slave and free. Locked in their bones are traces of what they ate, while their teeth betray what water they drank when they were young.

A new campaign of study by the physical anthropologists Luciano Fattore and Professor Luca Bondioli promises to cast light on the balance of meat, fish and cereals in the diet of the whole population, and eventually to reveal how many of them were born and bred locally, and how many were immigrants from elsewhere in the Mediterranean, as is likely in a slave society. That evidence in turn will help us better to interpret the list of over 500 names of male citizens found in the civic centre of Herculaneum, in its Basilica, which points to a massive presence of slaves and ex-slaves.

As work on this site goes on, important new discoveries continue to emerge. One of the most remarkable came to light in cleaning out and draining the deepest level of the site, where in antiquity the ancient seashore came up to the town.

Here Domenico Camardo, the HCP’s lead archaeologist, discovered a tangled mass of timbers, some carbonised, some preserved uncarbonised but waterlogged. It became apparent that the timbers were swept down by the force of the eruption from the roof of the building above, the House of the Telephus Relief, one of the town’s grand show-houses. Because it is so rare for timber to survive from antiquity, though roof tiles survive in abundance, it is unparalleled to find the woodwork of the pitched roof that sustained them.

We can now reconstruct in detail the carpentry of the roof. But the room it covered was no ordinary one, as is apparent from the rich floor of coloured marbles that can be seen in place. Its patterns and colours were echoed in the wooden ceiling above, the coffers picked out in rich colours and even gold leaf.

If what Herculaneum offers is the fine detail of Roman life, it is the more important to study it with minute attention, supported by the technologies science can offer, and to make sure that what is preserved is not allowed to perish.

• Herculaneum Past and Future by Andrew Wallace-Hadrill is published by Frances Lincoln, in paperback, at £25.

• Life and Death in Pompeii and Herculaneum goes on show at the British Museum on 28 March and runs until 29 September. (Book in advance at britishmuseum.org or call 020 7323 8181). There is an accompanying book by Paul Roberts (British Museum Press, hardback at £45, paperback, £25.)
Andrew Robinson takes us on a ride through the shuddering history of earthquakes

Modern visitors to the Colosseum in Rome cannot help but notice that only part of the external wall of the oval amphitheatre remains standing. But they are usually unaware of the reason why the northern section survived while the southern collapsed. The cause was an earthquake.

In AD 1349, a millennium after the fall of ancient Rome, the city was struck by a quake that produced widespread damage, and even more serious damage in the Alban Hills some 20 kilometres to the south. A seismic study of the foundations of the Colosseum conducted in 1995, using sound waves to create images of the subsurface structure, revealed that the southern half of the Colosseum rests on alluvium – accumulated sediment filling the prehistoric bed of a tributary of the River Tiber that is now extinct. The northern, undamaged half stands on the riverbank where the ground is older and more stable.

In Classical antiquity – instead of our modern conception of moving tectonic plates – Poseidon, the Greek god of the sea, was usually considered to be responsible for earthquakes. Presumably this was a tribute to the destructive power of earthquake-induced tsunamis in the Aegean and the Mediterranean. Poseidon was said to cause earthquakes while striking his trident on the ground when he was angry.

However, some Greek philosophers proposed natural, rather...
than divine, explanations for earthquakes. Thales, for example, writing around 580 BC, believed that the earth was floating on the oceans and that the movement of the waters was responsible for earthquakes. By contrast, Anaximenes, who also lived in the sixth century BC, proposed that rocks falling in the interior of the earth struck other rocks and produced reverberations. Anaxagoras, during the 5th century BC, regarded fire as the cause of at least some earthquakes. A century or so later, Aristotle believed there was a ‘central fire’ inside caverns in the earth from which flames, smoke and heat rapidly rose and burst violently through the surface rocks, causing both volcanic eruptions and earthquakes. As the subterranean fires burned away the rocks, the underground caverns would collapse, causing earthquakes.

Aristotle even classified earthquakes into types according to whether they shook structures and people in mainly a vertical or a diagonal direction, and whether or not they were associated with escaping vapours. Much later, the Roman philosopher Seneca, inspired in part by an Italian earthquake in AD 62 or 63, proposed that the movement of air – rather than smoky vapours – trapped and compressed within the earth, was responsible for both the violent storms and the destructive rock movements.

The Chinese, who recorded earthquakes as far back as 1831 BC, were equally perplexed by their origin. But they adopted a more scientific approach than the Greeks and Romans to the measurement of seismicity. The earliest seismometer was invented in China in AD 132 by the astronomer and mathematician Chang Heng. His device consisted of eight dragon-heads facing the eight principal directions of the compass. They were mounted on the outside of an ornamented vessel said to resemble a wine jar of approximately two metres (six feet) diameter. Around the vessel’s base, directly beneath the dragon-heads, were eight squatting toads with open mouths. In the event of an earthquake, a bronze ball would drop from a dragon-head into a toad’s mouth with a resonant clang; the direction of the earthquake was probably indicated by which dragon-head dropped its ball, unless more than one ball dropped, indicating a more complex shaking.

The precise mechanism inside Chang Heng’s seismometer is unknown. It must have comprised some kind of pendulum as the primary sensing element, which was somehow connected to lever devices that caused the bronze balls to

2. A 16th-century drawing by artist Jean Cousin the Elder shows the destruction and chaos wrought by an earthquake – people flee, buildings collapse and smoke billows across the sky.
Earthquakes

They added volcanic ash or other silica-rich materials to their mortar of limestone and crushed brick. This reacted with the limestone and water and produced a calcium silicate matrix – similar to that found in modern Portland cement – that can absorb seismic energy. Nonetheless, the destructive power of earthquakes, coupled with the fires that follow them, has always been, and still remains, awesome. Pompeii, less than two decades before its destruction by Mount Vesuvius, was so badly damaged by the Italian earthquake of AD 62 or 63 that the Roman emperor Nero, after a visit, recommended the city be abandoned. Antioch, a trading and pleasure city on the shores of Asia Minor, was devastated four times by earthquakes in 115, 458, 526 and 528. Even in Britain, the vaulted roof of the celebrated medieval cathedral at Wells in Somerset was thrown down by an earthquake in 1248.

In modern times, major cities including Antigua Guatemala, Lisbon, Managua, San Francisco and Tokyo have all been ruined by earthquakes. But in each case, the city was rebuilt on the same site as before, and flourished. The only major city in the historical record to have been completely destroyed after an earthquake and *tsunami* is Port Royal in Jamaica, much of which slid under the sea in 1692.

So, how influential have earthquakes really been in human history? Certainly less influential than Charles Darwin imagined in the midst of his *Beagle* voyage after examining the ruins of Concepción in 1835, when he darkly contemplated in his journal what would happen to England in the event of a major earthquake: ‘Earthquakes alone are sufficient to destroy the prosperity of any country.’

That said, a reasonable case can be made for a long-term decline in Portugal’s power and influence as a consequence of the destruction of its capital Lisbon in 1755; and also for the massive cost of rebuilding Tokyo and Yokohama in the 1920s as a key factor in the economic stress that led to the militarisation of Japanese society and, eventually, to Japan’s entry into the Second World War.

At a much earlier period in history, it is possible, though unproven, that earthquakes played a greater role in the decline of cities and civilizations. It is quite likely that an earthquake destroyed the biblical cities of Sodom and Gomorrah, judging from the description of their fate in the book of *Genesis*; but there is no certainty, as the cities’ archaeological sites have yet to be discovered.

Earthquakes may also have been a factor in the catastrophic end of the Bronze Age civilizations in Turkey, Greece and Crete during a period of around 50 years in the late second millennium BC. These include the fall of Troy, Mycenae, Knossos, and other cities, which left behind substantial archaeological sites. There is also tantalising evidence for a seismic role in the fall of Armageddon (Megiddo) and Jericho in Israel, Petra in Jordan and Teotihuacan in Mexico.

However, opinion is divided on the importance of earthquakes in the development of civilisation. Most present-day archaeologists say that earthquakes have had little to do with historical demises. They

At Hagia Sophia in Istanbul (for the US seismologist Susan Hough, internal shifts and shimmies’, notes masonry infill, producing building quilt of wood elements and water and produced a calcium silicate matrix – similar to that found in modern Portland cement – that can absorb seismic energy. Nonetheless, the destructive power of earthquakes, coupled with the fires that follow them, has always been, and still remains, awesome. Pompeii, less than two decades before its destruction by Mount Vesuvius, was so badly damaged by the Italian earthquake of AD 62 or 63 that the Roman emperor Nero, after a visit, recommended the city be abandoned. Antioch, a trading and pleasure city on the shores of Asia Minor, was devastated four times by earthquakes in 115, 458, 526 and 528. Even in Britain, the vaulted roof of the celebrated medieval cathedral at

In Turkey, and also in Kashmir, architects and builders have long recognised creaks and cracks as an effective defence against earthquake damage, because these imperfections help to prevent a building from destructive swaying. ‘Traditional architecture in these regions incorporates a patchwork quilt of wood elements and masonry infill, producing buildings that are able to dissipate shaking energy in a million little internal shifts and shimmies’, notes the US seismologist Susan Hough. At Hagia Sophia in Istanbul (formerly Constantinople), the greatest of the Byzantine churches, the architect-engineers of the 6th century AD used a flexible cement to allow the walls of the building to ‘give’ a little during earthquakes.

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prefer to attribute the collapse of civilizations to human agency: war, invasion, social oppression, environmental abuse and so on. The conventional explanation of the Bronze Age collapse involves maritime invasion by the mysterious Sea Peoples, whose identities have long eluded scholars. ‘When a city is destroyed for no apparent reason, archaeologists are far more comfortable ascribing the destruction to the vagaries of an unknown enemy than to the whims of nature’, writes the US geophysicist Amos Nur in his fascinating study, Apocalypse: Earthquakes, Archaeology, and the Wrath of God, published in 2008.

There were notable exceptions of academics during the first half of the 20th century who were sympathetic to the idea that earthquakes could crush civilizations. These include the English archaeologist Arthur Evans, the first excavator of Knossos, the American archaeologist Carl Blegen, who excavated Troy, and the French archaeologist Claude Schaeffer, who excavated Ugarit in Syria and was the author of a controversial book on the comparative stratigraphy and chronology of western Asia published in 1948. But the majority have always been sceptical. For instance, in The End of the Bronze Age: Changes in Warfare and the Catastrophe ca. 1200 BC, published in 1993, Robert Drews took pains to quash any explanations involving earthquakes, and in Collapse: How Societies Choose to Fail or Succeed, published in 2005, Jared Diamond made no mention of earthquakes or volcanic eruptions. If earthquakes really have had so great an influence, the sceptics ask, then where is the hard evidence?

This is what Nur attempts to provide in Apocalypse. Drawing upon evidence from archaeological sites, especially in his native Israel, he demonstrates how earthquakes can be detected in the archaeological record, by analysing geological formations, faults, structural movement, human remains, the collapse of pillars and walls, and inscriptions. In Jericho, for example, he points out that excavators found grain and the skeletons of two people under its collapsed walls. Had the city simply been conquered by an enemy, without the prior collapse of its walls due to an earthquake, the valuable grain would have been seized by the invaders. In Mycenae, she notes that the immense stone blocks of the city’s outer wall are built on top of a fault scarp, created by a major earthquake.

By superimposing upon a map of the Bronze Age sites in the eastern Mediterranean that were destroyed in 1225-1175 BC a second map of the maximum intensity of seismic ground motion during AD 1900-1980, which overlaps remarkably with the first map, Nur postulates that strong seismic ground motion in ancient times, too, may have helped to destroy these Bronze Age cultures. While none of his evidence is conclusive, it is more than merely suggestive. In the ancient world, as in the modern, such earth-shattering forces of nature were surely, at least sometimes, influential in changing the course of human history.

A time of balance

An exhibition entitled *The Age of Balance*, currently on show at the Musei Capitolini in Rome, focuses on the 2nd century AD when the Roman Empire reached its greatest expansion and prosperity. The years AD 98-180 were a time of splendid achievements, relative peace, and political equilibrium never before attained between the imperial power, the senate, and the army. All this was made possible by the effective rule of four exceedingly capable emperors: Trajan (r. 98-117), Hadrian (r. 117-138), Antoninus Pius (r. 138-161) and Marcus Aurelius (r. 161-180). Each of these men had come to power not through his family connections, but through adoption by his predecessor, by virtue of his experience and qualifications in the service of the empire. For the first time too, two of them, Trajan and Hadrian, came from the ranks of the provincial elites. They were both Spaniards. During these eight decades peace reigned in the Mediterranean, and the coinage was unified, as was the law. Generally there was more equal taxation and less hardship, due to the accumulated riches acquired by conquest that, in turn, encouraged economic growth and led to widespread prosperity – all underpinned by the work of an efficient class of civil servants.

A network of almost 2,000 cities where subsistence was guaranteed by flourishing agriculture, allowed almost a quarter of the whole population of the empire to lead relatively comfortable lives. The working infrastructure – sewage systems, cisterns, roads, bridges, city walls, harbours, and impressive public buildings – was financed by local notables who vied to outdo each other with endowments to their home cities. Their philanthropic deeds were recorded, alongside those of the emperors, in sculpted reliefs and statues displayed in the forums, basilica, temples, gymnasia,
A time of balance

theatres, and public baths. A greater sense of *humanitas* prevailed: provision was made for the education of poor children, and food was distributed to the needy by public benefactors.

The numerous inscriptions from this period testify to a high level of literacy – in both Latin and Greek – certainly in the cities. Book markets thrived as well as the new idea of libraries (*bibliothecae*) that were made available inside the public baths (*thermae*). If the imperial policy before had been ‘divide and rule’ now it was ‘unite and rule’.

But this exhibition also hints at the inner contradictions and tensions of a time of rapid dynamic change that anticipated the anguish of the future when increasing political and military uncertainties could not stem the encroaching pressure on its borders. Financial and social crisis resulting from heavy military expenditure and infighting among future emperors, as well as other factors causing unrest (a plague of smallpox, devaluation, and food shortage) would ultimately lead to the fall of the empire. Emperors such as Hadrian and Marcus Aurelius were represented as all-conquering heroes, but the reality was very different. Marcus Aurelius was even obliged to sell works of art to balance funds, and his son Commodus (r. 180-192) who succeeded him ushered in a period of serious unrest and decline.

The works of art in the exhibition are beautifully displayed in the...
magnificent rooms of the Palazzo dei Conservatori, one of the two palaces flanking the square designed by Michelangelo and which together now form the Capitoline Museums.

They are grouped according to a sequence of separate themes, the first one being a presentation of the main personalities of the show: the four emperors. Their portraits fill the huge Sala degli Orazi e Curiazi decorated with 16th-century wall paintings depicting episodes of ancient Roman history.

It is quite an experience to move among the life-like portraits at this grand gathering of emperors, portrayed at various stages in their lives, their friends and lovers, their mothers, wives and daughters. These include Plotina (Trajan’s wife), Sabina (Hadrian’s wife), Faustina Major (Antoninus Pius’ wife), and her daughter Faustina Minor (wife of Marcus Aurelius), who changed her hairstyle seven times according to each pregnancy, a sure indication of dates and political influence.

The portraits of the emperors are less realistic and more iconic. Symbols of the empire’s eternity, they are seen as abstracted, emanating a deific calm and effortless superiority. Hadrian mostly looks soulful but can also take on the appearance of a fierce warrior who treads on the head of his vanquished enemy. On the other hand Marcus Aurelius, who was at war all his life, is never shown wearing armour, and his countenance is that of a philosopher-king, an autocrat by the will of the gods.

Important loans from abroad are set next to those already in the museum’s outstanding collection of antiquities. The 2nd-century masterpieces are on display among Greek, Roman and Renaissance masterpieces in a lavish setting, which evokes their original locations in various imperial palaces and villas in Italy and abroad.

This is particularly true for the section concerning the time of Hadrian when the technical virtuosity of the artists working in the emperor’s Villa Adriana at Tivoli is unequalled: marbles are polished to a silk-like sheen and carved with lace-like accuracy; mosaic compositions are made up of minute tesserae (opus vermiculatum) set in intricate floor patterns; furnishings are exquisitely chiselled. Polychromy was highly fashionable for buildings and for statues that were to be placed in bucolic settings evoking a mythical landscape peopled with superhuman beings such as the two large grey marble centaurs, allegories of the power of love, and the Dionysiac red marble drunken satyr, all found together in the 18th century in the Accademia of Villa Adriana.

Hadrian was the most philo-Hellenic of the four emperors and the artistic language that flourished thanks to his generous patronage shows a shift of taste away from the contained Classicism of Greek art, exemplified by Phidias and Policletus, to a more mannerist style permeated by Hellenistic influences brought to Rome by Asian craftsmen.

Among the outstanding items in the exhibition is a group of silver objects belonging to the Marengo Treasure, a hoard found by chance in 1928 in a field near the town of Marengo in Northern Italy. The artefacts had been flattened to facilitate transport and in readiness for melting into ingots and then buried. Among them is a tabula ansata (a votive tablet) with an inscription dedicated to the shrine of the Fortuna Melior in Pavia (Ticinum), a city 50 kilometres away, which may be the original location of this treasure. Opinions differ, however, and some archaeologists believe it may have pertained to a building devoted to the cult of the emperor. The hoard was rescued by local connoisseurs and, after restoration,
shown in the Museo di Antichità in Turin in 1936. Meantime, some of the original objects had been dispersed – some pieces were even identified in a private collection in Cairo in the 1950s. But there are still 24 left from the original group. The most impressive is the life-size silver portrait of a bearded man in armour (lorica), probably emperor Lucius Verus (r. AD 161–169) as at the time he co-ruled with Marcus Aurelius. It is likely that the silver lamina was nailed over a wooden core and that the portrait was paraded as a military emblem when the legions moved or was set in the army camps in a special shrine for worship.

The 2nd century saw a shift in funerary practices from cremation to burial. Increasingly intricately carved marble sarcophagi, with an emphasis on dramatic crowded scenes rendered in chiaroscuro, were preferred to the simpler urns. Two tombs with their goods are reconstructed here: the tomb of the Haterii, originally on the via Casilina in Rome, and that of Claudia Semne whose contents were dispersed between the Louvre and the Vatican museums and which are now reunited for this occasion.

The exhibition ends in the great domed hall built especially to protect the magnificent bronze statue of Marcus Aurelius which used to dominate the Capitoline square where there now stands a less fragile reproduction. Visitors can continue exploring the themes illustrated in the exhibition by walking down the Capitoline Hill to the large and impressive remains of the Forum of Trajan that sprawl below it.

The last and greatest of the fora, the so-called Trajan market, was built in AD 112 to celebrate the emperor’s victories in Dacia (AD 101 and 106). Standing almost 40 metres high, Trajan’s Column has survived intact in its original location. It is entirely covered with bands of sculptured reliefs spiralling upwards that document the emperor’s conquests. When made, it was an architectural novelty. It was then copied, first by Commodus for Marcus Aurelius’s column in Rome (before AD 193) to celebrate the Danubian wars, then by Theodosius the Great (r. AD 379-395) and his son Arcadius (r. AD 395-408) in Constantinople when building their own triumphal columns.

Last December a few metres away from the column, archaeologists unearthed the remains of an auditorium built for emperor Hadrian in AD 123. It contained three large halls where literary gatherings were held. Remains of the brick walls of the complex, as well as sections of the elegant marble flooring, are visible at the bottom of a pit 5.5 metres deep excavated in Piazza Venezia. A lofty arched ceiling 11 metres high once covered the main hall. The complex was discovered during works undertaken to build a new underground railway line which will cross the heart of Rome. It is envisaged that the ruins of the auditorium will be incorporated into the new train station.

Hadrian, a cultured man well versed in Platonic and Epicurean philosophy, wished to be remembered as an architect and city planner. Certainly the Pantheon, built between AD 118 and 125 for the imperial cult, is one of the highlights of any visit to Rome, as is the emperor’s mausoleum (now Castel Sant’Angelo) and the imposing ruins of the temple of Venus and Rome (begun AD 121), the largest temple ever built in the city, still standing in front of the Colosseum.

12. Mosaic, made of glass and marble tesserae set into an alabaster slab, found in 1737 at Villa Adriana in Tivoli. First half of the 2nd century AD. 89 x 25cm. Staatliche Kunstsammlung, Dresden.


‘Sculpture is memory made into fact’
A body of work

The celebrated sculptor Antony Gormley is world-famous for his metal men (many, casts of himself naked) – but what brought him to this fascination with the body and the dark inner space of consciousness that it contains? Lindsay Fulcher tries to find out

You studied archaeology, art history, and anthropology at Trinity (Cambridge) – which ancient civilisations interested you most and why?

I was really lucky to do archaeology and anthropology before going on to do art history because it gave me the opportunity to look at other cultures and how they express their hopes, fears, belief systems and the way that art is part of their lives.

As a child I was always fascinated by things that came out of the ground; the material memories of the earth. When I was seven I started my own little museum in a cave at the Roman palace in Fishbourne, and also Roman and Greek pottery, brought for me by my father from North Africa, animals skulls, fossils, shells, and coins, and other precious things that had both been given and collected.

I read Mary Renault’s The Persian Boy and The Bull from the Sea and was fascinated by the Greek and Aegean civilisations and I also read Rosemary Sutcliff’s accounts of Roman Britain and the Dark Ages. I have always been attracted to ruins, caves and buildings, dark places that harbour secrets. All of that was exacerbated by a Catholic upbringing and education.

The cultures that interested me started with the Aegean and Greek but soon went on to Egyptian. Then it was the Celts and the progress of the early Neolithic farmers up the Danube valley into north-west Europe and the flowering of the La Tène cultures – such an energy conveyed in a sinuous line that spread across Eurasia so broadly. Those early interests expanded into a fascination with Asian cultures.

I remember very vividly reading Marcel Mauss’ The Gift as my first set book at Cambridge and immediately being drawn to Micronesia, the Kula ring and gift economies that gave symbolic worth to crafted shell made even richer by their being given. I learnt then, and continue to be amazed, that most hunter-gatherer societies seem to spend more time at what we would term ‘cultural pursuits’ than we as civilised urban dwellers do. The Kai of the Kalahari seem to spend 40 per cent of their time doing their equivalent of the shopping and 60 per cent of their time pursuing dance, drama, telling stories and painting. This is a model for the integration of the imaginative and daily life.

How did your early studies influence your sculpture?

From my first studies in anthropology a love and appreciation of Oceanic carved sculpture, particularly the art of the Sepik River and Asmat people of New Guinea. To me, the spirit canoes and ancestor- poles of the Sepik are quintessential sculptures dealing with continuance, the relationship between earth and sky and the continuity of life: between ancestors and unborn. I feel that all of these things are relevant to my sculpture and express the desire for it to have a central place within the collective life of a house, village, town, city and people.

Which ancient work of art would you like to own?

That’s a very good question. I was very moved by the Grand Hypostyle of Karnak, by Elephanta, the cave on an island off the coast of Mumbai where a great three-headed Brahma is carved into the living rock, and by the shore temple in Mahabalipuram. I suppose if I had a choice of any ancient work of art I would choose the Miroku Bosatsu from the Koryu-ji Temple in Kyoto, Japan. This is a 7th-century, probably Korean, wood carving of Maitreya, the Buddha of the future. The attitude of this figure shows compassion mixed with thoughtfulness held in a silent posture that is very touching.

When did you decide to become a sculptor and why?

It was in India. I spent a couple of years in India from 1972 to 1973 and a year getting there overland. I had been drawing and painting most of the time that I was away. During my time in Cambridge I was drawing and painting, and also taking photos and making films.

But, in India, I did not carry a camera and so became good at drawing as a way of seeing where I was and could make a relatively convincing representation of people, places and things – but I felt that was not enough. I had a choice of whether I was going to pursue my Buddhist studies, take robes, become a monk and join a monastery, or do something with whatever talent I had. It seemed to me that the most exciting thing would be to make something rather than a picture of something, an object that would implicitly change the world. Sculpture seemed
more direct, more physical, more real – it was the greatest challenge for me. So I decided to leave my house in Sonada in the Himalayas below Darjeeling, come back to London and enrol at the Central School of Art to study sculpture.

*Did Eastern art have a profound effect on you?*

It certainly did! I love the 5th-century Buddha in the museum at Sarnath, the experience of seeing the Bamian Buddha and the Buddhist statues that I came across when I lived for three months in Peshawar on my way to India were important. I travelled all round the Swat valley and was shown a lot of grey schist *pitaka* sculpture as well as Bodhisattvas and I found them beautiful. Around the ancient site of Tahkt-i-Bahi a lot of the villages had small collections of Graeco-Buddhist works – it was uncanny to see these beautiful remnants of a previous culture with its great university and temples now in the hands of Muslim tribesmen. They communicated a sense of timelessness, peace and tranquillity.

When I went on to India I visited the great Buddhist sites at Bodh Gaya and Sarnath and the Hindu temples of the South. I loved the south and Tamil Nadu – the carving of the descent of the Ganges on the cliff by the sea at Mahabalipuram, the temple cities of Tiruchippali with Mount Arunachala and the Great Meenakshi temple at Madurai. Rajasthan with its Jain sites like the Dilwara temples at Mount Abu and its marble corridors lined with rows of statues.

‘The body as place will always be the focus of my work’
of Thirtankas and red-robed temple guardians sweeping the white halls with brooms made from peacocks’ tail feathers made a deep impression. I have always been affected by Chola bronze sculptures of Shiva Nataraja, or Shiva and Pala bronzes from the 6th century onwards.

Indian sculpture has a sense of pneuma, or breath. It concentrates less on narrative than on potential, using the inherent stillness of sculpture to express the possibility of something, rather than acting something out. I found that quality in all Indian art from the earliest through to the 11th century.

Do you practise meditation? My work is meditation. A meditative stillness is the necessary prerequisite to do the moulding that is the foundation of most of the work. My work is a catalyst for mindfulness: encouraging awareness of time and space as experienced through the body. I studied under SRN Goenka, a Burmese Vipassana teacher who taught me this meditation of bare attention, first of all studying Anapanā that develops awareness by following the passage of breath in and out of the body. And, after the development of adequate Samadhi or concentration, he taught us how to focus vedaṇa which is Pali for ‘feelings’ or ‘sensations’, doing all of this with the eyes lightly closed, experiencing the body as a zone or place.

Through this meditation you feel life flowing as a continuous present. The experience of meditating many hours a day for much of the two years I was in India has stayed with me and is embodied in my work. Bodily mindfulness is at the root of most of the things that I make and is the claim that the work makes on our attention, having been the result itself of an act of bare attention.

You have been described as ‘dispensing with the notion of the progression of history and the cultural superiority of the West’. Does this mean that linear time is of little interest to you?

I very much like the idea of cyclical time and I follow Roger Penrose’s interest in this as a necessary riposte to linear, progressive, Western instrumentalised time. It is good to counter a Western obsession with progression with the idea of the eternal return. I love the notion that we are in the Kali Yuga, the last, shortest and most materialist of four Yugas, that make up a Mahayuga which is, in the Hindu cosmological scheme a thousandth part of a day of Brahma or Kalpa that lasts for 432,000,000 years in a universe that regenerates every 100 Brahma years or 31,104,000,000,000,000 solar years!

These huge regenerative spans of time are a wonderful foil for our fixation on human history and technological progress where we become the victims of our own determinism.

It seems that the space occupied by the body and also its inner space are your great preoccupations. Would you expand on this?

What is this idea of an inner search? I suppose it is the recognition that there is no other place for human consciousness to go.

We have realised the limits of space travel. In experiencing the reality of the Anthropocene the dream of human life spreading to nearby celestial bodies has now faded. So, in terms of the exploration of space, ‘the sky nature of mind’ (as the Buddhists put it) is the only space now left to explore. If
that is what you mean by the exploration of inner space then this is the journey open to all of us without technology.

The body and ‘the darkness of the body’ are ever present in your work. Please explain your thoughts on these realities.

The direct connection between deep space cosmological space and the space of consciousness is my primary concern. My work is a catalyst for that reconciliation or connectivity.

When we are all so possessed by the desire for objects, the challenge is to make an object function in a way that helps us evolve from that dependency. The darkness of the body is in the end the place where we most fully exist. It is a place without objects and we spend much of our time trying to escape it. The darkness of the body is dimensionless and infinite and that is why it connects with cosmic space.

For many this is a place of fear, but I see it as the place of power. In Hindu mythology this is Mahakala, the goddess of death and sex, the origin, the internal void, that we now know, like a black hole, is a radiating void.

You have spoken of ‘elementary mortality through the recycling of matter’ this sounds a Buddhistic concept but you were schooled at Ampleforth. Do you retain any of your Catholic faith?

I think Catholicism imbues you with a love of ritual, ceremony, repetition and the experience of mortification of the flesh as a prelude to, or penance for, excess.

Maybe some of that has stayed with me but what I have rejected is the notion of an eternal soul, original sin and many of the other articles of faith that are unacceptable to a modern, sceptical, rational brain. The thing that I have to thank my five years of monastic schooling for is an understanding of the value of the contemplative life and its ability to combine physical work, meditative contemplation and study. The vision of a balanced mind, body and spirit has remained with me.

Why is memory so important to you and your work?

Memory is the filter through which present experience is registered and, while wanting to celebrate living in the present moment and thinking of sculpture as a catalyst for first-hand experience, we have to acknowledge the power that experience has to inscribe our souls with formative images, sensations and places that become words and thoughts and thoughts produce feelings as well as feelings producing thoughts. These inscriptions are cumulative and necessary. Only through
memory does life and experience become rich, and sculpture is memory made into fact.

You once spoke of trying to make ‘the voided space of the body a visible emptiness’. Does this sense of paradox perplex you?

Ambiguity is the source of irritation out of which art comes. The central paradox for me is that the body is an object but also the site of consciousness. I am trying to make the objective nature of art somehow porous, open or leaky.

I want there to be a sense in which the external form of this container, the body, is accessible or calls upon the internal condition of the viewer. These are traps that hopefully pull us into a zone of projected states of mind.

When you speak of ‘the internal territory of the body’, is this a mental construct or something much more visceral?

It is the palpable void, the union of mind and body, the subjective collective space in which we exist but, in which, spend very little time.

It is subject to affect. We enter it in a state conditioned by the external bodily context and yet it is always other. To experience it is to be independent of the world of objects, but to experience it you have a body.

Will the body always be the central pivot of your work?
The body as place will always be the focus of my work.

Can you tell us about your large work, MODEL, recently shown at the White Cube gallery in London?

People who enter into the large sculpture MODEL share an architectural analogue for the darkness of the body for the first time. Mass or enclosed space gives way to modulations of light and shadow and the ambiguities of whether something is a barrier, passageway or a threshold. It makes apprehension, memory and indeed the whole bodily sensorium into active ingredients in the making of a narrative that should be as individual as every person who enters the work. The twin poles of dread and curiosity are the tension on which the work relies but actually light, shadow and volume are its materials. This is the first time in my work that you are invited to stand within the darkness of a body and make it your own.

Antony Gormley’s current shows are: Firmament and other forms at Middelheim Museum in Antwerp (www.middelheimmuseum.be) until 5 May, and a solo show at Xavier Hufkens in Brussels (www.xavierhufkens.com) until 4 May.
Recent re-excavation and radiocarbon dating of the site indicates that this sculpture is some 40,000 calendar years old. The Lion Man is an upright human body with a lion’s head made of a segment of mammoth tusk. It demonstrates the capacity to imagine and create something that is an expression of ideas and not simply a reflection of the real world. A modern experiment, using the types of stone tools found in the cave to create an identical ivory figure, revealed that the work took over 300 hours to shape and, with the addition of the polishing and finishing evident on the original, in the region of 400 hours to complete. This time and effort was invested by a skilled craftsman who knew how best to exploit the characteristics of the ivory in shaping the legs and forming the symmetrical axis of the sculpture, which was carefully buried in the darkness at the back of the cave, away from the daylight of the living area. It is an accomplished piece that conveyed messages and meanings to its viewers. Speculating on the nature of these is intriguing but less important than recognising the arrival of a mind capable of conceiving such an imaginative work, as well as all the ambiguities and possibilities suggested.
by contemplating something that does not exist in reality. This capacity has influenced how human societies have bonded, developed and regulated themselves ever since.

Although the British Museum exhibition is arranged chronologically, the 23,000-year-old mammoth ivory sculpture of a woman from Lespugue, Haute-Garonne, France, is placed out of sequence, at the beginning, because it invites viewers to reconsider their perceptions of ancient and modern art. Picasso was fascinated by this work and kept two copies of it in his studio cabinet.

Like many 20th-century images, it is not a precisely realistic representation but an expression of ideas about a woman’s body formed by the brain and influenced by cultural experience. The image is that of a woman who has had children but the sculptor has taken the body apart and played with its volumes, distorting them within a preconceived symmetry. This response offers an inner vision of the essential aspects of maternity that viewers, whether Ice Age or modern, might interpret in their own various ways.

Before coming to more sculpted representations of women from the period between 30,000 and 20,000 years ago, visitors to the exhibition will see miniature ivory sculptures of mammoths, bison, horses, and lions from the caves of Hohle Fels and Vogelherd. These fascinating tiny representations have great presence. They are carefully scaled down in correct proportion but are not entirely realistic. The beautiful curve of the horse’s neck is exaggerated and the engraved patterns on the necks and bodies do not indicate features such as manes realistically but seem to impose a human mark on them. It is uncertain whether these pieces were carried around in bags, suspended for wear, hung on a post or tucked in among rocks.

The water-bird from Hohle Fels is shown diving. Was this the depiction of a small meal and a bag of useful feathers, or the representation of a spiritual avatar connecting the upper, middle and lower worlds of the cosmos reached by a bird that flies in the sky, moves on land and dives through water? Such questions cannot be answered, but those who made and viewed them also expressed feelings beyond words in the music of flutes made of bird bone, or ivory. On display is an example of such an instrument, again from Hohle Fels, made from the bone of a Griffon Vulture, rather than the usual swan bone, and it has five surviving finger holes. It is possible that it was played by blowing directly into the tube without using a mouthpiece and could produce a range of notes comparable to that of many modern kinds of flute. The music of these flutes would have been heard by everyone in the community and perhaps contributed to a sense of wellbeing. A sculpted ivory tablet from Geissenklösterle Cave, where several flutes have been found, shows a low relief of a human figure with raised arms, suggesting someone who is singing, dancing or worshipping.

Among the female representations in this early section are the oldest known portrait and ceramic figure from the campsite at Dolni Vestonice, near modern Brno in the Czech Republic. The use of ceramic for art about 26,000 years ago pre-dates utilitarian purposes by thousands of years and may also have engaged its audience in a form of performance art. The human and animal models occur among thousands of pellets produced by placing clay into the kiln and hearths while still wet, causing them to hiss as steam is released, then explode under pressure from vapour trapped inside. The perfectly fired models such as the head of a woolly rhinoceros indicate that these explosions were not accidents or incompetence.
but perhaps part of some occult magic-religious activity.

Like other female figures of this period, the Dolni Vestonice examples are naked. In the period of intense cold leading up to the Last Glacial Maximum 20,000 years ago, this could certainly not have been a reflection of the everyday reality, as that necessitated layers of reindeer skin and fur clothing, but rather an artistic convention. The little nudes in the exhibition reveal women in all stages of their lives, from lithe youthful figures full of sexual potential to women in various stages of pregnancy and birthing, as well as older, obese women who have done their childbearing. They appear modest rather than erotic and could be images made by women for women, rather than the products of the male gaze.

Two figures from Kostienki on the Russian Plain were deliberately smashed by stone hammers before being carefully buried. Such action against a work of art that has taken hours to make suggests that strong emotions or motives were associated with these pieces. A remarkable sculpture of a female bison sculpted in the round from mammoth-ivory suffered a similar fate.

Found at Zaraysk, southwest of Moscow, this animal is scaled down in exact proportion to the living animal and has a marvellous vivacity, as she appears to be walking with her mouth open as if calling. Some 21,000 years ago, her facial features and the texture of her coat were engraved on to the sculpted form after polishing, and the piece was also coloured with ochre. This is the first time this work has been seen outside the Russian Federation.

Among the many female figures there are some males. The largest and most remarkable of these is little known despite having been found in
1891. Associated with the burial of a man discovered during engineering works in Brno, Czech Republic, this mammoth ivory statue consists of a head with spectral face, a torso with male genitalia, as well as the left arm. These parts are now separate but holes in the bottom of the head and top of the body indicate that they fixed together by means of a peg that would have allowed the face to be turned from side to side. The arm was similarly articulated and it is possible that the figure originally had legs. These articulating parts suggest a puppet or doll perhaps used in some sort of performance art enacted in firelight to produce extraordinary shadows on the skin wall of a structure.

As the climate gradually began to warm up about 20,000 years ago, drawing, sculpture and painting became even more abundant and accomplished. Drawings on bone are especially interesting as they reveal the key concepts and techniques still applied within this art form. In the same way as an artist today selects the size, colour and texture of a paper Ice Age, artists selected from the varied textures of different pieces of bone, antler or ivory that they then trimmed and scraped clean in preparation for their drawings. The compositions then utilise the space available entirely or the subjects are situated within negative space that suggests landscape and provides perspective.

Using a stone tool – known, like the modern engraver’s metal version, as a burin because of its purposefully made nib-like working edge – a variety of lines were made to create the outlines of the body, the details of facial features as well the body contours and variation in the colour and texture of animal coats. The results are realistic and have a clearly practised aesthetic. Many of the compositions show animals on the move, and the depictions of movement are more accurate than in many more recent artworks. Some even suggest an understanding of animation in the sequencing of movement. This is suggested from depictions that could be seen as a line of animals on the move or a single animal represented in the series of postures seen in cantering or galloping.

Such interests and capabilities are also found in paintings on the walls of caves, such as Chauvet, Lascaux and Niaux in France, and Altamira in Spain. Presenting the painted art of underground caves, where great painted friezes make brilliant use of the form of the rock walls, is difficult. So often it ends up diminished, as wallpaper behind objects created in different contexts in the daylight areas of living sites. So, in this exhibition, an internal area has been constructed with an entrance that plunges visitors into darkness, before they turn a corner to see images from various caves, projected on to an uneven, rock-like surface to provide some experience of the virtual underground worlds with its images of animals and symbols that shift in the movement of flame light.

The exhibition ends with late masterpieces, such as the Swimming Reindeer, an exquisite mammoth ivory sculpture from the Rockshelter of Montastruc, Tarn-et-Garonne, France. Like many of the pieces on show it is made by a practised artist working within the aesthetic of cultural conventions now unknown to us. These works of art were created by people, like us, trying to understand their place in real, and perhaps supernatural, worlds.

Ice Age art: Arrival of the modern mind is on show at the British Museum (www.britishmuseum.org) until 26 May. The accompanying book by Jill Cook is published by British Museum Press at £30.
Many times, on journeys across France, I have sped past the brown patrimoine sign by the Autoroute du Soleil, which informs us that out there is the Roche de Solutré. This name is as familiar as Carnac or Lascaux to any student of prehistory, for Solutré is one of that confusing collection of French place-names used by archaeologists to define the intervals of deep time in the Palaeolithic, from the Acheulian to the Magdalenian – about 200,000 years, give or take a few millennia. The Solutrean is more distinctive than most Stone Age cultures because it produced remarkably fine flint tools. The prehistoric inhabitants of southern Burgundy 18,000 years ago knocked out some design classics. The site itself is also distinctive: the great white limestone cliffs of Solutré and its neighbour, Vergisson, are prominent in the landscape. Inevitably they have inspired florid French writers to describe them as: like ‘two petrified ships overlooking a sea of vineyards’ or ‘a sphinx with its claws planted in the vines’.

I don’t often follow in the footsteps of politicians but I make an exception with the late François Mitterrand – France’s 21st President (1981-1995) who, for a politician, had a rare obsession with archaeological sites and his national past. Every year, on the Monday of Pentecost, he led his family and friends on a pilgrimage – and on a photo-opportunity – up the Roche de Solutré. ‘De 1946 au coucher de sa vie’ (‘From 1946 to the twilight of his life’) according to the inscribed stone that stands below the rock. In May of last year, as we were staying in the nearby town of Mâcon, I persuaded my wife that we should replicate Mitterrand’s pilgrimage to this prehistoric shrine.

If you want a vivid reminder of climate’s role in human history, the Roche de Solutré is the place to come. For most of the time that humans lived around the rock they survived in a harsh tundra-like environment. Today, regiments of vines march around the flanks of the Roche serviced by weird, insect-like machines. Yet vine-growing is a relatively modern activity. It started only about 2,000 years ago, when Gaul became part of the first, compulsory European Union known as the Roman Empire. In fact, the name...
Solutré comes from Solustriacus, a nearby Gallo-Roman villa. Archaeologists have confirmed that viticulture flourished in Burgundy in the Roman period, appropriately, as it is one of the great names of wine-making. At Gevrey-Chambertin, for example, they discovered both vine plant remains and the regular trenches where vines grew. During the construction of the nearby TGV route the 1st century AD villa at Lournand-Collonges was revealed, complete with its wine presses and carbonised grape pips. The vineyards that we walk through grow Chardonnay grapes, which take their name from a local village.

Back in London I recently attended the launch of probably the most important work of ampelography published in the past century. Yes, you might well ask! Ampelography is the study of grapevines – and the great work is Wine Grapes: A complete guide to 1,368 wine varieties, including the origin and flavours by Jancis Robinson, Julia Harding and José Vouillamoz. The book combines wine expertise with DNA studies, which are not only helping us to understand the origin and development of humans and other animals but also grapevines. Jancis and her fellow authors tell us Chardonnay is ‘equally capable of extreme mediocrity and regal splendour’. It is the most versatile white wine grape and loves limestone soils that are not too hot. Solutré-Vergisson is ideal terroir. Since the Second World War, vineyards have expanded enormously so that the landscape that we see today is very recent.

We follow President Mitterrand’s route round the south scree slopes of the Roche through the ribbon of scrubby bocage and damp woods that separate the vines from the limestone cliff. The racket of cicadas, among stunted oak, box, wild madder and flax, are a reminder that we are precisely at the divide between the Midi and the more continental climate of central France. The path leads out of the woods onto the dry, open prairie above. Until relatively recently this land was over-grazed by goats and sheep. The small stone shelters, or cadoles, are evidence of the shepherds – often women and children – who tended these flocks. Now this is a nature reserve and carefully managed for what the...
French call ‘les pelouses calcicole’ – limestone grassland rich in orchids, helianthemums, broom and vetches.

In spring and summer the grassland resembles those medieval tapestries bejewelled with flowers and grazed by unicorns in the Hôtel de Cluny in Paris. But here are no unicorns – instead, there are unusual, stocky horses, living relics of the Palaeolithic past. These are *konik Polski*, ‘little Polish horses’, which are genetically close to the wild Tarpan. The story that many people know about Solutré is that wild horses, similar to these, were stamped across the tundra and over the cliff to provide a butcher’s yard below for hungry hunters. Like many good stories this one is not true – but more of that later.

The dip slope of the Roche is triangular, like a piece of brie, and rises to a stony point about 500 metres high. Today, it is sunny, with a cool breeze, but the previous day was rainy, so mist fills the Saône Valley, and the distant mountains of the Jura and the Alps are not quite visible. Nevertheless the summit of the Roche was obviously a brilliant vantage point for Stone Age hunters. François Mitterrand wrote in 1978, ‘From here, I watch that which goes, that which comes, that which moves, and overall that which does not move.’ This may not be the finest prose ever written, even in the original French, but Mitterrand had a point: this is a place to contemplate a working landscape and the passing of time.

At 11 o’clock the church bells of Solutré-Pouilly sound out across the slopes. We head downward to the archaeological site and the museum and, as the prairie warms up, the butterflies gather.

The rich Upper Palaeolithic deposits of Solutré were first investigated in 1866 by the archaeologists Henry Testot-Ferry and Adrien Arcelin. Local people had long exploited a thick deposit of horse bones, known as the ‘magma’, for fertiliser. Nearby the excavators found hearths, rich deposits of stone tools and traces of many other animals: wolf, mammoth, elk and reindeer. Ferry and Arcelin concluded that this was a place where generations of Stone Age hunters had butchered carcasses and prepared hides.

The rapidly eroding scree from the steep slopes complicated the stratigraphy, so in 1873 Arcelin returned to investigate further and attempt to make sense of the time sequences. He concluded that there were three major periods of occupation: the earliest level, now known as the Aurignacian (about 39,000-29,000 years ago), the middle-level ‘magma’, the ‘age of the horse – the Gravettian (29,000-18,000 years ago) and the upper level, ‘the age of the reindeer’, now known as the Solutrean, a short but distinctive period 18,000 to 17,000 years ago.

For 19th-century archaeologists ‘the remotest antiquity’ was a concept but not a calendar. Accurate dating methods lay over a century in the future. So evolutionary-minded scholars, like Edouard Lartet, developed what Brian Fagan called ‘a ladderlike succession of human cultures based on an obsessive analysis of flint tool types. Others such as Gabriel de Mortillet (who singled out Solutré as a type site), Abbé Henri Breuil and François Bordes added further rungs to the cultural ladder. However, in more recent decades scientific techniques such as radiocarbon dating, high resolution ice-cores, deep-sea cores, stable isotope analysis and pollen records have embedded these stone tools and...
large stone cairns to plunge over sheer sandstone cliffs. But wild horses do not behave like bison. The stallions are stroppy and aggressive; the herd runs in single file and turns at sharp angles. Also it is small and does not form an unstoppable mass of bodies. More recent analysis of the animal bones by Sandra L Olsen, of the Natural History Museum of Virginia and Elaine Turner from the Germanische-Romanische Museum in Mainz has revealed the remarkable history of animal-hunting at Solutré, from Neanderthals over 50,000 years ago to the horse-hunters of the Gravettian to the reindeer-hunters of the Solutrean period. For millennia herds of horses migrated out of the Saône Valley in the spring and summer in search of relatively bug-free upland pasture.

The natural routeway took them past the Roche de Solutré. There, the human hunters lay in wait. Both the humans and the animals were creatures of habit. And the drama went on for some 20,000 years except during the coldest periods when the humans retreated south. The boneyard of Solutré may contain the remains of as many as 100,000 slaughtered animals. The hunters drove the horses into a cul-de-sac, a side valley alongside the cliff, probably building stone walls and cairns or using the thorny scrub to corral the animals. The Solutreans of about 18,000 years ago were armed with bone tools, small bone carvings, and the prolific quantities of animal bones – reminders that these hunters did not just paint animals on cave walls.

After a long morning contemplating Stone Age dietary practices the hungry archaeologist needs sustenance. Fortunately, we found it in the village opposite the church. Courtille de Solutré proved to be such a superb hotel-restaurant that we returned a few weeks later to stay and eat gazpacho de melon au basilic, veal with morcelles and girolles and moelleux aux chocolat – one of those deliciously complex puddings that may take several years off your life and should never be attempted at home. Over 30,000 years the Solutreans have moved on from horse steaks.

That evening we take a walk along the green lane (once a Roman road) that runs around the north side of the Roche de Solutré and parallel to the Santiago de Compostela pilgrim route. The limestone cliffs flow in the setting sun. Far beyond the Saône Mont Blanc is visible in the clear air. A contented Frenchman has parked his camper van nearby and sits outside it drinking a beer. ‘What a fantastic view,’ I say. ‘Pas mal,’ he replies. Not bad indeed!

- Musée de Préhistoire de Solutré (www.musees-borgogne.org)
- Cro-Magnon: How the Ice Age gave birth to the first modern humans by Brian Fagan (Bloomsbury Press, £21.25).
- Wine Grapes: a complete guide to 1,368 wine varieties, including the origin and flavours by Jancis Robinson, Julia Harding and José Vouillamoz (Allen Lane, £120).

Travel
The National Museum of Scotland in Edinburgh is the only UK venue to host *Vikings!*, an outstanding exhibition of more than 500 objects from the world-renowned collections of the Stockholm’s National Historical Museum. A wealth of artefacts from recent excavations in Sweden will be displayed alongside some iconic treasures, many appearing for the first time outside Scandinavia.

Modern perceptions of the Vikings are rife with stereotypes, not least the (in)famous horned helmets that feature in almost every popular image of the Vikings. There is no evidence for any horned helmet, and the exhibition succeeds in both challenging these stereotypes in an entertaining way and explaining how they have come to be so closely associated with the people we call Vikings. Other preconceptions about Vikings have more basis in fact but the question that generally remains is: were they the stereotypical violent raiders or successful commercial entrepreneurs?

The answer, of course, is a bit of both, and *Vikings!* weaves together historical sources and up-to-date archaeological discoveries to show that there are many sides to their story.

History is always written in the present, and the exhibition takes the brave step of having a moment of self-reflection on how Viking studies were created and how contemporary themes in academic studies can reflect modern political concerns and cultural influences. Viking studies began in the 19th century for the same reason that many other European myths were examined, in response to the growing calls for a national identity within imperial powers. In this case the German invasion of Denmark in 1864 started serious research.

For Scandinavian scholars, the impact that Viking activity had on Europe between the 8th and 11th centuries provided the model of a strong, vibrant society that each of the Scandinavian countries could be proud of. The interpretation of archaeological, historical and literary evidence in terms of a common cultural heritage took on an added potency in the face of external threats to independence and became a formative part of Scandinavian identity, as well as the national identities of Sweden, Denmark, and Norway.

Even the term Viking can be controversial if it is misused. Viking is a word that we use differently now compared to how it was used in the past. Viking did not mean a people, race or nation, but rather it was a way of life.

Going ‘a-viking’ was something people left home and did – it covered the full spectrum of activities from trading to raiding. Even their fellow Scandinavians needed protection from the violent raiders. A rune stone from Bro parish, Uppland, Central Sweden, tells us that Assur was a defender (guard) against the Vikings. ‘Ginnlög, Holmger’s daughter, the sister of Sygröd and Göt, had this bridge made and raised, this stone in memory of Assur, her husband, son of Håkon jarl. He was a defender against the Vikings with Geter (?), may God help his soul.’ Those who were out ‘a-viking’ were feared, even in their own homeland.

At the same time the exotic goods that were brought back to Scandinavia from distant shores were also highly desirable to those who stayed at home. During the Viking Age, trading centres and

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**1. Silver pendant in the shape of a male head circa AD 800. Grave find, Aska, Hagebyhöga, Östergötland, Sweden.**

**2. Silver crucifix pendant, late 9th–early 10th century. Grave find, Björkö, Adelsö, Uppland, Sweden.**

**3. Iron sword, hilt and pommel, gilded bronze inlay, 10th century. Unknown find spot.**

**4. Beads of bronze, glass and gold beads, 10th century. Grave find, Stora och Lilla Ihre, Helli, Gotland, Sweden.**

**5. Bronze, gold and silver pin brooch, 10th century. Alkvie, Endre, Gotland, Sweden.**

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**Martin Goldberg**, Curator of Early Historic and Viking Collections at the National Museum of Scotland, shows us round a stunning new exhibition of Viking artefacts on loan from Sweden.
Networks were established across Europe, and the objects in the exhibition strongly reflect this international aspect of Viking activity.

The centre of Scandinavian society, however, was the family and the farm, and this is an opportunity to explore the many roles in that society beyond the wayfaring warrior. Most Viking exhibitions would focus on the raiding, trading, travelling, colonisation and settlement, but the wealth of material in the Swedish national collection allows a much more complete picture of how people lived in Viking Age Sweden – what was left behind when people went ‘a-viking’ and, of course, what they returned home to – if they were lucky enough to survive.

The results of recent excavations from across Sweden give us a rich and detailed picture of life at home and abroad, and how Scandinavian society was transformed by the range of contacts that Viking activity created.

For instance, in the exhibition section entitled More than Just Worship you can learn about how society and religion changed when Christianity was brought to Scandinavia during the Viking age. Some items are easy to interpret, such as the oldest crucifix from Sweden, excavated at the trading site of Birka. Other objects are more ambiguous and show the slow conversion to Christianity and extended interaction with older beliefs and practices that survived for a remarkably long time. People had worshipped many gods and goddesses with complex personalities and a range of different powers.

The most famous are those known from Norse mythology such as Thor and Odin. Among the treasures on display are many religious icons, small statues and amulets that can be linked to the Norse gods and valkyries who decided men’s fates. When combined with the rich literature from Norse myths and legends, the exhibition presents a unique glimpse into this mysterious part of their world.

The many unique and fascinating artefacts are displayed in boldly designed showcases and structures that complement the eight themed sections: Meet the Vikings; Family Community; Homes, Colourful and Bustling; More than just Worship; The Living and the Dead; Norse Craftsmanship; Away on Business; Over the Sea.

Some are effective in their simplicity, such as the stylised form of a longhouse for the section Homes, Colourful and Bustling. The inside of the structure contains objects that would have been used within the home, and outdoor activities are displayed alongside it.

Other specially designed elements are more striking and distinctive. One particularly example:

6. Fishtail links on silver pendant and Box brooch, 10th-early 11th century. Hoard find, Krasse, Guldrup, Gotland, Sweden.

is the ghost outline of a ship created through the clever display of suspended iron boat rivets. When archaeologists are excavating Norse boat burials, corroded iron rivets are often the only elements of the ship to survive. The other organic materials, such as wooden planks, quickly decompose in the ground, leaving rivets in position to show the shape and size of the ship. Once excavated and out of context, the rusty rivets are often considered to be uninspiring display material and might otherwise be ignored or left to languish in museum stores. The imaginative use of the rivets for this ‘ghost ship’ proves that simple ideas can be highly effective.

There is an ever-present danger in modern museums of an over-reliance on advances in modern technology in order to enhance the visitor experience through interactive displays and expensive gizmos. However, the incredible detail provided by modern archaeological excavations and the appliance of a vast array of scientific techniques to the excavated remains deserves to be communicated to the public in exciting and informative ways.

This exhibition manages to strike a fine balance between high-tech and the simple but effective use of materials that can be touched and held – including a real sword. When our precious surviving material from the past is combined with innovative exhibition design, it can provide a number of new and intriguing ways to inform our visitors. Many of us will have visited museums that have tried to recreate the experience of archaeological excavation through a giant sand-pit containing replica artefacts. While these are undoubtedly popular with young children, there are now many ways that modern technology can enhance this experience.

Among the host of interactive displays in the Vikings! Exhibition is a giant touchscreen that invites visitors to dig together as a team and virtually excavate artefacts from a burial. The real artefacts can be seen in the adjacent display case, but the virtual dig allows visitors to interact with the objects in a variety of ways. Such experience in the discovery and detailed examination of the objects is normally the exclusive province of the specialist.

Many Viking Age artefacts from Scotland come from similar graves and burials, and these are among


10. Bronze key. On the handle is a Christian motif showing the crucifixion, above a small palmette. 9th-10th century. Unknown find spot, Sweden.

11. Ithyphallic bronze figurine, generally accepted to be an representation of the god Frey, early 11th century. Rällinge, Helgårö, Södermanland, Sweden.

12. Beads of rock crystal and carnelian. The beads of this necklace originate from the Black Sea area, 10th century. Grave find, Björkö, Adelsö, Uppland.

13. Bronze gilded tortoise brooch, with iron, white metal and textiles, 10th century. Tortoise brooches were used to hold up the woollen overdress and to fasten strings of beads across the chest of the wearer. Grave find, Björkö, Adelsö, Uppland.

All pictures above © National Historical Museum of Sweden.

14. Engraved slate, circa 9th–10th centuries, from the island monastery of Inchmarnock, off the Isle of Bute. It shows a cartoon of wild-haired raiders in long coats of mail and dragging a figure tied with a rope towards a ship. The prisoner may be a monk. He is carrying a house-shaped reliquary held by a strap and attached to his belt by a chain. © National Museum of Scotland.
the most distinctive ways of tracing Scandinavian settlement. Scotland was one of the first places to suffer from Viking raids, as well as early settlement. Two burial assemblages have been selected from the collections at National Museums Scotland in order to complement the themes of the exhibition.

At first glance, one burial from Balnakeil in Sutherland contains artefacts that are the stereotype of the Viking warrior: sword, shield and spear. But analysis of the skeleton has revealed it to be an adolescent boy, a warrior in training maybe. The other grave assemblages are from the burial mound of Carn a’Bharrach, Oronsay, just off the Inner Hebridean island of Colonsay, a location that has produced a density of pagan Norse burials that belies its small size and modern remoteness.

In the Viking Age, the Inner Hebrides occupied a key position in the sea routes that connected Scandinavia with lands surrounding the Irish Sea, and the artefacts from the female burials at Carn a’Bharrach act like an index to the distant places along those routes. During the Viking Age, western and northern Scotland became part of international trading networks stretching from Asia to the Atlantic. This period saw the beginning of close political and cultural connections across the North Sea that were maintained long after it had ended. The inclusion of an adolescent boy and female grave goods help take us beyond the stereotypes of the Viking raider, but there is always an element of truth to any stereotype, as the slate graffiti from the island monastery of Inchmarnock testify. On the slate is a doodle or cartoon of wild-haired raiders, dressed in long coats of mail and dragging a figure, tied with a rope, towards a ship.

The ability to construct a comprehensive account of the Viking Age is a testament to the breadth and wealth of the collections of the Sweden’s National Historical Museum, but the addition of treasures from the collections of National Museums Scotland further enhances the scope and capability of the exhibition.

Above all, this is a rare opportunity for a UK audience to see how another European country views a formative period of its own past – and importantly it is a period where the histories of both Scandinavia and Scotland become closely intertwined. You would normally have to travel to Sweden to see such a fantastic range of material, so I hope you will come to Edinburgh to see this fascinating exhibition.

Vikings! is on show at the National Museum of Scotland in Edinburgh (www.nms.ac.uk) until 12 May.
Driving along the eroded cobbled road that runs between the modern town of Lashkargah and the ruins of ancient Bost to the south, our conversation stops abruptly when we see an impromptu police checkpoint ahead. It is the fasting month of Ramadan, and I am returning with Afghan companions from an early-morning assessment of the condition of historic monuments along the Helmand river. Aware of the prevalence of ‘freelance’ checkpoints, it is with some apprehension that we get out of the car to be frisked by men who we hope are genuine police officers. Bemused to find a stray foreigner among the local greybeards, they gave us a cursory pat down before waving us on our way north.

Even without the insecurity that now prevails across much of southwestern Afghanistan, surveying the scattered historic sites here presents a challenge. From the modern town of Lashkargah, ruins of earlier settlement and cultivation extend for more than eight kilometres along the east bank of the Helmand river, from the Ghaznavid palaces and bazaar in the north to the confluence with the Arghandab river in the south. Just upstream of where the rivers meet is the citadel of Bost, near which finds of terracotta figures, inscribed seals and coins suggest some form of occupation since
A short walk in Helmand Province

Jolyon Leslie surveys the site of the ancient citadel of Bost in south-western Afghanistan

500 BC. It has been said that the festival of Nowruz, celebrated on the spring equinox (20/21 March) in the Persian world to this day, was marked at Bost 3,000 years ago.

The availability of year-round water from the Helmand river contributed to the prosperity of Bost and other settlements along its banks, where orchards and vineyards once flourished. Being on the route of caravans travelling between Persia and India, these settlements also served as garrisons for those protecting the traders, which brought with it cultural exchange across the region then known as Sistan.

In the 7th century, Arab forces moved from the west along this route, conquering territory in the name of Islam. Bost was effectively a ‘forward operating base’ for their raids towards Qandahar and Kabul, whose rulers continued to resist their advance into the 9th century.

Rising above a landscape across which, more than a millennium later, similar bases have been set up by international forces trying to defeat an insurgency, the citadel of Bost now lies abandoned. Its towering outer walls have been eroded by centuries of desert wind, while rain has cut deep gulleys into the mound, exposing the remains of mud-brick structures. One of our tasks during this visit was to examine these gulleys and ascertain how best to slow the erosion and thereby protect the

3. The imposing outer walls on the west side of the citadel are constructed of fired and mud brick.

4. The massive earth walls that divided and encircled the city give an idea of its extent.
archaeological layers until systematic excavation is possible.

From the vantage point of the citadel, we can still clearly see the extent of what was, after AD 976, the winter capital of the Ghaznavid dynasty, encircled by massive walls that stretch off to the north and east. Inside these, ridges and depressions hint at the remains of structures that might shed light on the development of the city.

The focus of the work by French archaeologists from 1949-51 was further north, on palaces built by members of the Ghaznavid court on the banks of the Helmand river, and a huge bazaar that served the trade right across the region. Sections of intricately-carved plaster from a mosque, along with fine painted murals from one of the palaces, were transported to the National Museum in Kabul, where they are now displayed.

Given his reputation as Jahansuz, or ‘burner of the world’, it is a wonder that this material survived the destruction wrought on Lashkargah in 1150 by the Ghorid ruler ‘Ala al-Din Hosayn, soon after he had sacked the Ghaznavid capital at Ghazni. Under the rule of his successors, however, the citadel at Bost was strengthened and the city largely re-built. A monumental brick arch is one of the few standing structures of this Ghorid city to survive. Probably part of a congregational mosque, the decoration on the arch shows influences from Iran to the west and India to the east. Panels framing Quranic verses in Kufic script survive on the west elevation, where a decorative band of terracotta and stucco follows the curve of the arch. Sadly, during restoration work in the 1970s the arcaded walls that flanked the arch were replaced by incongruous buttresses. Later, a modern brick structure was inserted to support the arch, largely concealing the geometric tile relief that covers its soffit.

Along with other settlements across Sistan, Bost suffered at the hands of the Mongols in around 1221 and had barely recovered when the unrest that followed the death of Timur in 1405 resulted in yet further destruction. Being on the frontline between the territory of their arch-rivals the Persians, the citadel served as a military outpost for the Mughals until the late 18th century. The seven levels of underground brick galleries that provide access to a well in the citadel mound are thought to have been constructed during the Mughal era,
after which the site was abandoned and fell into disrepair.

Ruins of mud-brick homesteads, domed cisterns and funerary structures dot the landscape beyond the city walls, while in the desert further east lie traces of more isolated settlements, few of which have been documented. Their remote location probably means that they may escape the illegal excavations that now common across the country.

Just outside the city walls of ancient Bost, however, a new threat has emerged. As a result of the ongoing conflict in the area, groups of displaced villagers have begun to settle in clusters of rudimentary shelters scattered across the desolate landscape. Unless security improves enough to allow these families to return to their villages of origin, the settlement will become permanent and may expand over what is, in effect, a vast archaeological zone.

The consequences of such uncontrolled settlement are all too apparent on the outskirts of Lashkargah to the north, where the ruins of Ghaznavid palaces have recently seen damaging encroachments. With urban land at a premium, this process of informal settlement is not uncommon and, according to residents, is part of the lucrative system of patronage operated by local officials. Which is probably why, hard pressed to halt any further encroachment within the palace area, the provincial governor insists that ‘this is a complex issue that will take time to resolve’. In the meantime, foundations are being dug and material hacked from the ancient earth walls for the construction of new homes. If other archaeological sites in Afghanistan that face similar ‘development’ pressure are anything to go by, there will soon be little left to safeguard the palaces and bazaar at Lashkargah.

Situated in the plain that stretches from present-day Lashkargah to the ancient city of Bost, the 12th-century mausoleum of Shahzada Hussein (or Ghiyat al-Din) is, for now, spared the threat of urban sprawl. Accessed along a rutted lane leading between the mud-plastered walls of local homesteads, the mausoleum seems to have suffered remarkably little from neglect or damage over the past 30 years, when we compare it with photographs taken during the late 1970s. Standing on the edge of a vast cemetery, now criss-crossed by channels irrigating patches of maize, the mausoleum is known locally as Sarbaz (‘without a roof’) due to the wide oculus at the apex of its dome. Bands of decorative bonding on the interior of the dome, along with patterned brickwork on the octagonal structure, suggest that those who designed and constructed this unusual building were both ingenious and highly imaginative. There are fragments of inscribed tombstones from the 12th to 13th centuries set in mud-plastered walls that divide the internal space, in which stand several anonymous graves, marked by tattered green flags.

Clearly, both the mausoleum and its contents are held in high regard by villagers who, unused to visitors, soon gathered around. The aim of our visit is to assess the condition of the building and possible stabilization measures for which funding was being sought. The main cause for concern is the deflection on one of the supporting arches that, if it failed, could compromise the stability of the rest of the structure.

Having completed our survey, we sit in the deep shade of one of the vaults to explain to the assembled elders how workers would need to be found and trained, scaffolding transported and erected, and special bricks fired before any conservation work could begin. But encouraged by the prospect of investment in their built heritage, the villagers offer their support.

As we get up to leave, one elder fixes me a stare and politely suggests that I visit the site only occasionally, adding ‘after all, we don’t want our mausoleum to become a target’. Rattling our way along the road back towards Lashkargah, the challenges of protecting the heritage of this contested environment really began to sink in.

For more information on the ACHCO visit http://afghanculturalheritage.org
Dr Jerome M Eisenberg reports on three lively New York auctions

The Christie’s Antiquities sale held in New York on 5 December featured a highly important pair of large Roman bronze statue groups, each depicting a young girl pursuing a partridge (1-2), circa late 1st century BC-early 1st century AD (L. 52cm, and 51.7cm). Each one was still set on its original bronze rectangular plinth. These delightful and superbly modelled masterworks were acquired by a well-known art collector, Giovanni Züst (1887-1976) of Rancate, Switzerland, then, in 1969, by Marino Giacamo Croci (1909-2001) of Rancate, and thence by descent. In addition to the five pages in the regular catalogue, Christie’s published a special booklet of 22 pages devoted to them. Estimated at $3,000,000-$5,000,000, they were bought in at the sale, but were acquired immediately afterwards by a North American private collector for $3,442,500 (£2,138,200), making it the top-selling lot in the sale. The sale included a selection of 19 lots from the ‘distinguished private collection’ of the late Frank H Pearl (1944-2012) of Washington DC, a prominent publisher and investor.

The most important piece from this collection, the cover piece of the catalogue, was a magnificent over-lifesized (H. 90.2cm) marble bust of the Roman emperor Marcus Aurelius (9), circa AD 170-180. It was originally acquired in Rome in 1776 by Thomas Jenkins, the British antiquary, for £80. He sold it to the Hon. James Hugh Smith Barry of Belmont Hall and, later, Marbury Hall; thence by descent. It was much later sold at Christie’s London on 10 July 1987 for a mere £99 (with the writer as an underbidder); then sold at Sotheby’s New York on 14 December 1994 for $145,500. Now estimated at $250,000-$350,000, it was also won on the telephone by another American collector for $386,500. A sensitive Roman marble head of Apollo Lyceus (7), 2nd century AD (H. 30.4cm) was based upon a statue of Apollo in the Lyceum, an Athenian gymnasium. It belonged to Ercole Canessa (1868-1929), a prominent Italian dealer in Classical, Medieval, and Renaissance art with a gallery in New York. After his death it was sold at the Anderson Galleries in New York in March 1930. It was later exhibited at the de Young Museum in San Francisco from 1942 to 1967. With an estimate of $200,000-$300,000, it brought $362,500 from a European private collector.

Next was a powerful over-lifesized Roman marble head of Mercury (circa 1st century BC-1st century AD. H. 8½ inches (20.6cm). (Lot 169; $134,500)
head of a satyr (10), 1st-2nd century AD (H. 28.6cm) was a version of the head of a 5th-century BC statue of the *Resting Satyr* by Praxiteles. It sold for a mere £18,700 at Sotheby's London sale on 9 July 1992. Now, with good cataloguing and excellent photography, and estimated at $60,000-$80,000, it was actively contested and was finally knocked down for a surprising $338,500 from another American collector. The same buyer also acquired an over-lifesized Roman marble head of a Hellenistic Diadoch (a follower of Alexander the Great) (4), circa 1st century AD (H. 41.2cm) with a provenance going back to the Duke of Arenberg, Brussels, in the second half of the 18th century. It was purchased for $182,500, within the estimate of $150,000-$250,000.

A graceful Greek marble female head (6), 1st century BC-1st century AD (20.6cm) from the Frank Pearl collection, acquired from Royal-Athena Galleries in 1991, estimate $80,000-$120,000, sold for $134,500. The imposing Roman marble herm of Hermes Propylaios (3), a copy of the 5th-century BC sculpture by Alkamenes that stood at the entrance to the Athenian Acropolis, was acquired by Frank Pearl from Royal-Athena in 1989; it sold for $40,500, within the estimate of $120,000-$180,000. While a draped torso of a Roman marble *toga* of the 1st century BC-1st century AD (H. 167cm), with an estimate of $50,000-$70,000, was hammered down to $170,500 in spite of its condition.

A naturalistic Roman marble cow (11), 1st century BC-1st century AD (L. 74.9cm) from the Pearl collection, belonged to Nelson Bunker Hunt, who purchased it from the Summa Galleries in 1981 for $31,000; it then sold at Sotheby's New York on 28 November 1990 for $49,500. Now with a conservative estimate of $50,000-$80,000, it finally sold for $206,500 to a US collector.

An Attic black-figure Tyrrhenian amphora by the 'Fallow Deer Painter' (14), circa 560-550 BC (H. 36.8cm), depicts Herakles in a battle with four centaurs. From the Frank Pearl collection, it was acquired from Royal-Athena in 1990, and exhibited in Princeton University Art Museum's exhibition *The Centaur's Smile* in 2003-04. With an estimate of $80,000-$120,000, it realised $134,500 from an English dealer. Four Attic black-figure amphorae, once in the collection of Albert Gallatin (1881-1952), two Attic black-figure neck amphorae and two Attic red-figure Nolan amphorae, brought in from $74,500 to $104,500 each. The Metropolitan Museum of Art acquired 271 Greek vases, most of his collection, in 1941.

An Egyptian bronze cat of the 21st-22nd dynasty, 1070-712 BC (15) (H. 59.7cm) is thought to be the largest of its kind ever found. It was acquired by Royal-Athena Galleries in 1989 from the private collection of the late Parisian dealer Jean-Loup Desprès and sold to John W Kluge in 1990. Unsold in a previous Christie’s sale, it was estimated at only $200,000-$300,000, yet realised $482,500 from a telephone bid by an American collector. It was sold by the late Mr Kluge to benefit Columbia University.

The most important object from the 86-piece collection of Paul and Helen Zuckerman, mostly offered in groups, was a large Iranian terracotta female figure (12), early 1st millennium BC (H. 49.9cm), estimated at only $20,000-$30,000. Following a fierce round of telephone bidding it was hammered down for a surprising $230,500.
From a Germanicus bust to a Greek griffin

A superb Roman marble bust of Germanicus (1), *circa* AD 37–45 (H. 51.5cm), father of the emperor Caligula, was probably acquired by Thomas Bruce, the 7th Earl of Elgin and 11th Earl of Kincardine, *circa* 1798, and passed on by descent to the present Earl of Elgin and Kincardine. The bust depicts Germanicus in 4 BC at the time of his adoption by his uncle Tiberius, who later became emperor. The cover piece of the catalogue and a well-documented six-page presentation certainly added to its appeal as one of the finest known representations of this well-known Roman general. An estimate of $3,000,000–$5,000,000 apparently did not keep a determined anonymous telephone bidder from finally acquiring it for a stunning $8,146,500.

A well-preserved and finely patinated Greek bronze cuirass with well-defined musculature (9), *circa* 4th century BC (H. 53.3cm), had been purchased by an American collector in 1980. Estimated at just $100,000–$150,000, it was actively contested, ultimately selling for a surprising $632,500 to an American collector.

A large archaic Greek bronze griffin protome (2), late 7th century BC (H. 19.7cm), from the collection of the late art critic and editor Denys Sutton (1917–1991), was first published in *Ancient Art in American Private Collections* in 1954, but it was first recorded in Paris back in 1938. Estimated at $80,000–$120,000, it finally brought in $290,500 from the San Antonio Museum of Art bidding by phone. A polished Roman marble torso of Narcissus or Ganymede (4), dating from *circa* 1st century AD (H. 102.2cm), from a French collection, came with a conservative estimate of $3,000,000–$5,000,000 apparently did not keep a determined anonymous telephone bidder from finally acquiring it for a stunning $8,146,500.

**Christie’s Ancient Jewelry Sale**

Christie’s 14th annual Ancient Jewelry Sale was held on 6 December; these sales also include objects such as Egyptian faience amulets and other small antiquities. It featured an outstanding suite of Byzantine jewellery, including Lot 446, a gold, sapphire, emerald, garnet and pearl pendant on a gold and emerald chain (1), *circa* 6th–7th century AD (necklace closed, 54cm; pendant, 5.7cm). Estimated at $200,000–$300,000, it sold for $242,500 to an anonymous buyer. Lot 447, a companion gold, sapphire, emerald spinel and enamel strap necklace (2) of the same date (L. 35.9cm), estimated for $150,000–$200,000, brought in $182,500 from the same buyer, while a second strap necklace, or diadem, estimated at $80,000–$120,000 did not sell. Also in the jewellery sale, Lot 364 was a massive solid Scythian gold torque (3), *circa* 5th century BC (W. 38.1cm), weighing a hefty 2314.5 grams or 81.64oz! Such a huge, heavy piece was not meant to be worn but was probably a votive offering. It was acquired by the grandfather of the current owner, a Nevada collector, in 1927. Estimated at $180,000–$220,000, it realised $212,500 from a private US collector.

Together Christie’s Antiquities Sale of 223 lots and Ancient Jewelry Sale of 150 lots totalled $9,607,688, with just 75% sold by number of lots and only 67% sold by value (but not including the after-sale of $3,442,500 for the two Roman bronze genre groups). The sale of 19 lots from the Frank Pearl collection totalled $3.1 million, 195% of the low pre-sale estimate. It might be noted that nine of the top 10 lots in the sale were acquired by private collectors rather than dealers, the same as in the June 2012 sale at Christie’s.
estimate of only $40,000-$60,000, but sold for $242,500 to a US collector.

Another Roman marble polished torso, that of the Capitoline Aphrodite (3), 1st-2nd century AD (H. 87.6cm), estimate $60,000-$90,000 published in London in 1970, went for $158,500 to a Swiss dealer for his private collection. A headless Roman marble togatus (5), 2nd century AD (H. 142.2cm) bore a distinguished provenance – that of the Roman Doria-Pamphili collection, which was mainly assembled in the mid-17th century. When it was sold at Sotheby’s New York on 23 June 1989 for $27,500 it had a restored head. Now estimated at $60,000-$90,000, with the early provenance newly established, it brought in another $158,500 from an American collector bidding online.

A strigilated Roman lion sarcophagus of the 3rd century AD (11) (H. 64.8cm, W. 193cm) had been used as a fountain by the residence of Henry W Poor (1844-1915). Now estimated at $80,000-$120,000, it was acquired by a South American collector for $158,500.

Among the 15 other works of art belonging to Denys Sutton that appeared in this sale were three fine Egyptian antiquities. A delicately sculpted Egyptian green peridotite head of a man (7) from the late 18th-early 19th Dynasty, circa 1319-1292 BC (H. 10.8cm) from the Ashburnham collection, probably acquired in the 19th century by the 4th Earl of Ashburnham (1797-1878). It has been suggested that the finest examples of this very rare and attractive stone was a royal monopoly. Estimated at a very conservative $80,000-$120,000, a drawn-out battle ensued with an American collector winning it for an impressive $1,082,500, the underbidder being a New York collector.

The same successful bidder also purchased a finely carved Egyptian Old Kingdom limestone relief of Akhet-Hotep, ‘superintendent of the private apartments of the king’ (10), from his mastaba at Sakkara, late 3rd-early 4th Dynasty, circa 2599-2528 BC (H. 50.2cm; W. 36.9cm), acquired by Mr Sutton in or prior to 1971. Again, there was an estimate of $80,000-$120,000, but it sold for $206,500. Another Old Kingdom limestone relief, but of Meruka, ‘prophet of Khufu’ (6), late 5th-early 6th Dynasty, circa 2350-2250 BC (H. 35.6cm; W. 80cm) was excavated from the Mastaba of Meruka in 1901-02. First sold in Paris in 1912 from the collection of Giovanni Dattari (d. 1923), it was last auctioned at Parke-Bernet Galleries on 11-14 May 1949, when it was acquired by Mr Sutton for a surprisingly trifling $325. Now, with an estimate of $100,000-$150,000, it also brought in $206,500 from a phone bid by another US collector. A fragmentary Egyptian greywacke head of a king (8), second half of the 26th Dynasty, circa 610-525 BC (H. 16.5cm), is most probably Apries (r. 589-570 BC) and perhaps deliberately destroyed on the orders of Amasis, the usurper who defeated him and became his successor. Originally in the collection of Arthur Sachs (1880-1975), New York, it was then in Paris by 1949. Estimated at just $30,000-$50,000, it quickly leaped to a winning commission bid of $422,500 from a US private collector, with an on-line participant as underbidder. The sale of just 88 lots totalled an impressive $13,443,376, with 78.4% sold by number of lots and 94.2% by value (due to the Germanicus bust). As with the Christie’s sale, nine of the top 10 lots were acquired for private collections. (All prices include the buyer’s premium.)

Minerva March/April 2013
Professor Ian Hodder’s introduction to anthropology for archaeologists was originally published in 1982, soon after the tide started to turn away from what is now termed processual archaeology. Or, at least if the tide did not fully turn, there was certainly more credence given to archaeological practice which was more qualitative, and which sought to interpret the material record of the past the way it is, while acknowledging the subjectivity of humans in the past and those studying it now. This became known as post-processual archaeology, and one of the pioneers in the field was Ian Hodder. An anthropological approach has since become a mainstay of much archaeological practice, hence this volume has since become a mainstay of much archaeological practice, and Hodder has updated introductions to the area of post-processual archaeology, what can be learnt from comparisons with contemporary societies and social organisation. Most of the examples are drawn from Hodder’s work in Africa, but palaeolithic Europe and pre-Columbian South America are also cited. One particularly interesting case study is decoration and style; here the difficulties of interpretation are highlighted, one major hurdle being that how artists might speak about their art can be very different from what is seen. Indeed there may even be subconscious rules defining the way an artist creates a design which they would not even be able to talk about. From mud walls in Ghana to images of Johnny Rotten (the lead singer of the punk band, the Sex Pistols), the book is peppered with drawings and photographs to illustrate the points being raised. While this is useful and makes the book’s format more appealing, these 30-year-old, black and white photographs from the original publication occasionally lack the clarity and detail necessary to really assist the reader.

Other elements have also aged poorly, for instance Hodder’s references to ‘British culture today’, in particular the punk movement, and how the ideological context of the punk style drastically alters the meaning of symbols. There are also allusions to youth rioting in 1981 which might have less impact on today’s reader. That said, society has not changed so much as to render these examples useless; in fact, it may highlight just how little has changed.

The minor criticisms are exactly that. The book is concise and clear, with well-defined examples useless; in fact, it may highlight just how little has changed. The minor criticisms are exactly that. The book is concise and clear, with well-defined chapters and themes, and it does not assume too much prior knowledge and so is suitable for proto-archaeologists.

The Present Past remains one the best introductions to the area of post-processual archaeology, and Hodder has updated the bibliography with select works from the last 30 years, so those wanting to find more recent examples do have a starting-point. Geoff Lousley

The Sumerian World
Harriet Crawford (ed)
Routledge, 2013
639pp, 158 black and white figures, 15 tables, two maps
Hardback, £125

A total of 32 academics were assembled to write about the Sumerian civilisation (circa 3000–2000 BC) of Mesopotamia. The focus was not so much on the art – which has been the subject of many books – as on the archaeological region. Somewhat unexpectedly, although there are specialised chapters dealing with language and literature, these are well integrated with the essays on material culture. Also refreshing is the writing style of all of the papers that makes them accessible to the interested non-specialist.

A good example is presented in the chapters that deal with physical geography and water use. By studying the landscape and the utilisation of canals through time, we can appreciate that an older hypothesis proposing the emergence of civilisation via the command and control of canals is overly simplistic. Marshes can be used and were used for agricultural production, although today they have largely been drained.

Control of water was important but, as Tony Wilkinson suggests, the Mesopotamian farmer also had to worry about getting rid of too much water during certain times of the year. The evidence from surveys suggests that on balance the management of canals was probably more of a private matter – perhaps organised by families – than one controlled by the state. Indeed, in this case the cuneiform records may convince researchers that everything was centrally controlled but, then, more local endeavours would not have appeared on the record.

Many of the papers suggest new ways of looking at old problems. The paper by EC Stone is instructive in that it suggests that temples may have acted as loci for the development of early cities (at least for sites such as Eridu and Tepe Gawra). Local communities would have formed and consolidated to supply the needs of visitors and pilgrims to these sacred sites.

By the middle of the third millennium BC true cities began to develop. While temples became more protected by fortifications, at this time palaces located away from the temples can also be found.

Finally, the last part of the volume deals with the impact the Sumerians had on their neighbours. This is a fascinating section, and one that does not disappoint with academic double-speak. Connections with Egypt, Persia, and India are explored, as well as the Gulf (which is more accessible to Western
researchers. Robert Carter suggests that ‘Sumerians’ (however they are defined, either linguistically or ethnically) may have moved into eastern Arabia for purposes beyond trade. It is possible that copper from Oman was a desirable commodity even as soon as the Early Uruk period.

Further evidence for Sumerian contacts may also be uncovered in Anatolia, a region that is welcoming to archaeologists. It comes as no surprise that trade is a major focus of this volume, as the editor, Harriet Crawford, has a well-known interest in this aspect of Sumerian history.

Given that the Sumerians are regarded as one of the world’s first civilisations, and had a wide-ranging influence on other cultures, it is not an exaggeration to suggest that this book can be considered essential reading for anyone interested in the ancient world.

_Murray Eiland_

**Ancient Alterity in the Andes**
George F Lau
Routledge 2013
200pp, 32 colour plates, 36 black and white illustrations
Paperback, £24.95

_Ancient Alterity in the Andes_ deals with how Andean peoples understood others. This includes those from other social groups, enemies, the dead, even animals. While at first sight this appears to be a highly specialised study that draws upon psychology, it is made more reader-friendly by the liberal use of illustrations. In fact, it could have benefited from an even more lavish use of images but, sadly, academic publishing houses seem to disdain the ‘coffee-table book’ treatment as beneath them.

This aside, here, there is much of interest to anyone seeking to understand the culture of the Andes. After a somewhat extended introduction to the ancient cultures of the region, the author gives pride of place to the Recuay of the northern highlands of Peru (circa 200 BC-AD 600). The language used here is uncertain, but the people did leave behind quantities of elite pottery, typically in three colours and known for its detailed modelling of human and animal figures. Interestingly, portraying naturalistic human figures did not play a part in this culture, and it is supposed either that regalia was enough to identify individuals, or that the group was small enough so that artistic representations would be generally recognised.

However, the author does note that the mask-like features of the figures may point to an understanding of the survival of the office rather than an individual. A large amount of the ceramic legacy from Peru’s first millennium AD contains evidence of predatory relations, either warfare between humans or combat between animals.

It is no surprise that defeated captives can appear similar to animals in the way that they were subordinated. However, as Lau makes clear, Central Andean cultures seemed to place little emphasis on war divinities when compared to the cultures of Mexico. The supernatural was apparently dominated by deities representing ancestors.

The full title of this book alone might discourage readers and, admittedly, it is far from an easy read, but it ranges widely in its subject matter and contains deep insights into archaeo-astronomy, as well as into American archaeology. Simply put, it presents architectural evidence gleaned from fieldwork which demonstrates that America’s first city Cahokia (circa AD 600-1400) located in the state of Missouri, was aligned with the heavens.

But, as Timothy Pauketat of the University of Illinois openly admits, many archaeologists have discounted such evidence: ‘There remains an all-pervasive Western rationalist bias in archaeology that predisposes some researchers – even those who advocate various social-archaeological, landscape-based, or post-colonial approaches – to be suspicious of inferences about patterning that suggests cultural order and alignments realised at scales larger than the immediate and everyday’ (p5).

The author notes that the lunar cycle takes 18.6 years to complete and so, to the unsophisticated observer, it may appear that the places where the moon rises and sets are erratic. Simply put, some researchers suggest that knowing about this cycle would not be useful in predicting eclipses, and it would therefore have been ignored.

If, however, the moon was assumed to be a deity, would it be too much to suppose that detailed multi-generational observations would have been made? Besides a few calendar sticks and the Winter Counts of the Lakota, there are apparently no multi-generational recording systems known from the historic period in North America.

It is interesting to note that ethnographic observations of Plains Peoples of the 19th and 20th centuries suggest that while priests looked at stars, ordinary people may have avoided doing so because of the power that celestial bodies represented. They were ancestors or deities, and both were potentially dangerous. The same may not have held true for the posts that formed the central part of temple structures, or sacred trees, which may have been seen as having distinctive personalities.

As the author points out: ‘... astronomical observations are less about knowing as a predictive, calculating, mental process and more about knowing metaphorically with the body and through the sensuous geography of celestial and earthly experience’. (p87). In this light, a site such as Cahokia that, at first sight, appears to offer the people little in terms of natural resources, may have offered them much in cosmological terms. A near-zero horizon, the so-called ‘looking glass prairie’ to the east and, perhaps most importantly, a long history as a site of pilgrimage may have bolstered its importance as a sacred site. In short, after reading this book it would be difficult to understand archaeological evidence in a ‘rationalist’ way again. Luckily, the text is anything but irrational.

Both this book and _Ancient Alterity in the Andes_ offer interesting tranches of information and thought-provoking theories about the past. Neither are easy reading, but both are worth the effort and while perhaps not for the general reader, they would both find a home in a well-stocked academic library.

_Murray Eiland_
**UNITED KINGDOM.**

**EDINBURGH**  
* Cairo to Constantinople: Early Photographs of the Middle East  
This exhibition is a fascinating chance to see the visual record made by the Victorian photographer Francis Bedford when he accompanied the Prince of Wales (later Edward VII) on a four-month trip to the Middle East in 1862. Of interest for its cultural and political insights into the Middle East, the photographs also show many places of archaeological interest. This exhibition will move south next year and go on show at Windsor Palace.  
**The Palace of Holyrood House**  
+44 (0) 131 556 5100  
(www.royalcollection.org.uk)  
From 8 March until 22 July.

**LONDON**  
* Finding the Unicorn: Tapestries Mythical and Modern  
The Fleming Collection is host to a selection of tapestries from the West Dean Studio, and also one designed by Henry Moore, to celebrate the completion of seven new tapestries for the Royal Palace at Stirling Castle. The centre-piece is выполнен by the last of the commissioned tapestries, which took 16,647 hours to create. It is based on an original from the 16th century bought by James V.  
**The Fleming Collection**  
+44 (0) 207 042 5730  
(www.flemingcollection.co.uk)  
From 17 April until 1 June.

**BP British Art Displays: Looking at the View**  
This is a free exhibition which explores how British artists have portrayed landscapes over the last 300 years – from Classical scenes to modern, politically influenced pieces. Historical and contemporary works are exhibited alongside each other to highlight the changes in social history.  
**Tate Britain**  
+44 (0) 207 887 8888  
(www.tate.org.uk) Until 2 June.

**OXFORD**  
* Engraved Gems and the Classical Tradition  
One product of the Renaissance was a renewed interest in Ancient Greek and Roman carved gemstones. This exhibition shows a wide range of Classical and Renaissance examples along with paraphernalia including sealing wax and glass paste. This is a rare chance to have an in-depth look at a fascinating niche area.  
**Christ Church Upper Library**  
+44 (0) 1865 276 492  
(www.chch.ox.ac.uk). Until 3 May.

**WINCHESTER**  
* Charmed Life: The Solace of Objects  
Some 380 amulets from the Pitt Rivers Museum exemplify their role as embodiments of fear, superstition and magic. Collected by folklorist Edward Lovett, these amulets are made of many different materials including shells, coins, dead animals and written notes.  
**Winchester Discovery Centre**  
+44 (0) 845 603 5631 (www3.hants.gov.uk/library/wdc). Until 14 April.

**WINCHESTER**  
* The First Emperor's Legacy: China's Terracotta Warriors  
Discovered in 1974, the Terracotta Army remains undoubtedly one of the most intriguing and inspirational major archaeological finds of the last few decades. This show is a rare chance to see more than 120 objects from the great tomb complex of China's first emperor, Qin Shihuang (259–210 BC), including 10 of the actual figures. The exhibition also looks at the emperor’s reign and quest for immortality.  
**Asian Art Museum**  
+01 (0) 415 581 3500  
(www.asianart.org).  
From 22 February until 27 May 2013.

**NEW YORK, New York**  
* Last Roman and Early Byzantine Treasures from the British Museum  
To coincide with the new opening of the Jaharis Galleries, 50 luxury objects of exceptional quality, including the Lycurgus Cup (above), have been lent by the British Museum. Other items are silver vessels, carved ivory and jewellery. This collection shows the opulence of the wealthy classes and rich religious institutions during the decline of the Roman Empire, from 350 to AD 650.  
**Art Institute of Chicago**  
+1 (0) 312 443 3600  

**CHICAGO, Illinois**  
* Peru: Kingdoms of the Sun and the Moon  
This major exhibition shows 370 pre-Columbian artefacts, over 100 of which have never before been outside Peru, including paintings, sculpture, pottery, gold and silver ornaments and photographs. Over 3000 years of history are represented, with insights from recent archaeological works as well.  
**Montreal Museum of Fine Arts**  
+1 (0) 514 285 2000  

**QUEBEC**  
* The First Emperor's Legacy: China's Terracotta Warriors  
Discovered in 1974, the Terracotta Army remains undoubtedly one of the most intriguing and inspirational major archaeological finds of the last few decades. This show is a rare chance to see more than 120 objects from the great tomb complex of China's first emperor, Qin Shihuang (259–210 BC), including 10 of the actual figures. The exhibition also looks at the emperor’s reign and quest for immortality.  
**Asian Art Museum**  
+01 (0) 415 581 3500  
(www.asianart.org).  
From 22 February until 27 May 2013.

**DENMARK**  
* The Ishøj Prince  
Discovered near Copenhagen in 2007, the Ishøj Prince has been dated
to between AD 250 and 400 and seems likely to be a Danish prince. The significance of the find lies in the high-quality Roman grave goods found in the burial, which are on show here, including gold rings, gaming pieces, drinking glasses and a copper wine set. The result of scientific analysis into the cause of the prince's death is also revealed.

Ny Carlsberg Glyptotek
+45 (0) 33 41 81 41 (www.glyptotek.dk)
Until 5 May 2013.

FRANCE

VERSAILLES, Ile-de-France
Versailles and Antiquity
As the palace of the famed Sun King, Louis XIV, Versailles was once lavishly decorated with the finest works of art and antiquities. Now, for the first time since the Revolution, many of these will return to the palace, including the Diana of Versailles, the Venus of Arles and the Cincinnatus, all on loan from the Louvre. Over 200 sculptures, paintings, drawings, furniture and works of art recall the splendour and glory of this fabled royal age.

Palace of Versailles
+33 01 30 83 78 00 (www.chnateauversailles.fr)
Until 17 March.

GERMANY

BERLIN

Samarra – Centre of the World:
101 Years of Archaeological Research on the Tigris
To mark the centenary of excavations at Samarra, the Pergamon is exhibiting the art and craftsmanship of this significant Islamic city 120km north of Baghdad. On view are lustreware items, wall paintings, stucco and wood panelling that once adorned the royal palace, as well as Chinese porcelain, giving an insight into the city's importance in Near Eastern trade routes.

The Pergamon Museum
+49 (0)30 20 90 55 77. (www.smb.museum) Until 15 March.

FRANKFURT

Ancient Greece Reconsidered
So as to present a view of Classical Greece unchanged by Roman and later interpretation, this exhibition shows a collection of Greek and Roman bronzes (including the 4th- or 3rd-century BC pupilist above) and painting. Among the highlights are new finds from Porticello and Brindisi, with loans from Europe and the USA. The latest scholarly and scientific research is presented alongside the artefacts themselves.

Liebieghaus Museum
+49 (0)69 650 049 0 (www.liebieghaus.de). Until 26 May.

HESSE

Jordaens and the Antique
This exhibition aims to redress the balance that posterity has given to Flemish Baroque painting. While Rubens and van Dyck are acknowledged masters of their time, there is a case to be made for Jacob Jordaens as well. In this show Jordaens' interaction with the ancient world is explored, in particular his depiction of Aesop's 'The Satyr and the Peasant'.

Museum Hessen Kassel
+49 (0) 561 3168 0276 (www.museum-kassel.de)
From 1 March until 16 June.

GREECE

ATHENS

Princesses of the Mediterranean in the Dawn of History
This major show displays over 500 artefacts, dating from 1000 to 500BC – among them this funerary statue from Votulonia, 625 BC – to present a picture of prestigious women in the Mediterranean. Using 24 case studies of 'princesses' from Greece, Cyprus, Etruria and Italy, the exhibition focuses not only on mythical figures but on flesh-and-blood women discovered through their burial goods, jewellery, garments and luxury items.

Museum of Cycladic Art

JERUSALEM

Herod the Great: The King’s Final Journey
Father of the biblical Herod and widely thought to have been a madman, Herod the Great was none the less Israel’s greatest builder. This exhibition sheds light on the political, architectural and aesthetic elements in Herod’s rule. With new finds from the palaces at Herodium, Jericho and elsewhere, along with modern reconstructions.

The Israel Museum
+972 2 670 8811 (www.imj.org.il). Until 5 October.

JAPAN

SHIGA

Ancient Glass: Feast of Colour
Showcasing Japanese works in glass alongside loans from the British Museum, this exhibition aims to show the sheer aesthetic of glass and how it has captured people's imagination since antiquity.

Miho Museum
+81 (0) 748 82 3411 (www.mihoro.or.jp).
From 9 March until 9 June.

ITALY

FLORENCE

The Springtime of the Renaissance. Sculpture and the Arts in Florence, 1400-1460
With prestigious international loans, this show examines what was unique about the Renaissance in Florence, and how it was that so many masterpieces, particularly sculpture, were made there. The assimilation of Classical art as inspiration is also examined. The exhibition will move on to the Louvre after August.

Palazzo Strozzi
+39 (0) 55 246 9600 (www.palazzostrozzi.org). From 23 March until 18 August.

SPAIN

BARCELONA

Tutankhamun: History of a Discovery
It has been 90 years since one of the most important finds in the history of Egyptology and the tale of Tutankhamun is still captivating us. This exhibition not only retells the story of the discovery but also gives an impression of the life of the boy-king through a wide range of grave goods.

Fundació Arqueològica Clos Morro
EVENTS

UNITED KINGDOM

LONDON

Kings College London

Applied Arts Workshop

Production in Pieces: Making Mosaics from Antiquity to the Present

23 March, 10am-6pm
Ticket required.
Contact chsevents@kcl.ac.uk

Roman Art Seminar Series

11 March – Gianfranco Adornato (Scuola Normale Superiore, Pisa)

Skiagraphia: Drawing and Artistic Practice in the Ancient World

25 March – Lucy Audley-Miller (University of Oxford)

Roman Provincial Tomb Sculpture: Portraits of Cultural Change

29 April – Paul Roberts (British Museum)

Pompeii and Herculaneum Come to London (again)

All lectures start at 5:30pm.
Room G3 of the Royal Holloway London Annexe, 2 Gower Street
For further information contact: A.Claridge@rhul.ac.uk or Will.Wootton@kcl.ac.uk

UNITED STATES

BOSTON, Massachusetts

Museum of Fine Arts

Tuesday Morning Session

Tradition and Socialism: Art in North Korea

5 March, 10:30am-12pm
Remis Auditorium 161
Tickets required.

A Remarkable Story: Salvaging a 5th-Century Egyptian Church

17 March, 2pm-3pm
Alfonz Auditorium, G36

Free with admission to museum.

Myths, Folklore and Fairytales from Around the World

On Tuesdays, from 2-30 April (except 16 April) 10:30am–12pm
Remis Auditorium

On Thursdays, 4 April–2 May (except 18 April) 7pm–8:30pm

NEW YORK

The Armory Show

Now in its 15th year, the New York institution this year celebrates its centenary. This legendary show is credited with introducing European Modernism to America. As well as the participation of many leading modern art galleries, the show has an extensive programme of speakers and an accompanying films series.

Piers 92 and 94
001 (0) 212 645 6440
(www.thearmoryshow.com).
From 7 March to 10 March 2013.

THE CYRUS CYLINDER TOUR OF THE USA

The Cyrus Cylinder is one of the most significant archaeological finds related to civilisation and freedom. Often referred to as ‘the first charter of human rights’, it is inscribed in Babylonian cuneiform with a decree from the Persian king, Cyrus the Great, stating that all peoples in his empire should be allowed to worship freely and to return home if exiled. On loan from the British Museum, the Cyrus Cylinder will travel to the following venues in 2013:

WASHINGTON DC

Arthur M Sackler Gallery at the Smithsonian Institution

9 March – 28 April 2013

HOUSTON

Museum of Fine Arts

3 May – 14 June

NEW YORK

The Metropolitan Museum of Art

20 June – 4 August

SAN FRANCISCO

The Asian Art Museum

9 August – 22 September

LOS ANGELES

The J Paul Getty Museum at the Getty Villa

2 October – 2 December
(www.cyruscylinder2013.com)

Once again the annual European Fine Art Fair (TEFAF) will excite the art market and present a multitude of museum-quality objects – from Roman sculpture to the photographs of pioneer William Henry Fox Talbot – of interest to buyers and browsers alike. Over 260 of the world’s most prestigious dealers will be there including Rossi and Rossi, specialists in Classical Indian and Himalayan Art, from London. On their stand you will be able to see the magnificent 11-headed Avalokiteśvara, circa AD 1400 (shown above). Inlaid with silver, copper and semi-precious stones, this imposing bronze figure, has recently been on show in the Royal Academy of Art’s stunning Bronze exhibition (see Minerva Volume 23, Number 5). Many other leading international dealers in ancient art, including Charles Ede of London and Cahn International AG of Switzerland, will also be there, as will Royal-Athena Galleries of New York. This year the fair’s special exhibition will feature 15 drawings lent by the Van Gogh Museum – a treat not to be missed.

Maastricht Exhibition and Congress Centre
+31 411 64 50 90 (www.tefaf.com)
From 15 to 24 March 2013

Minerva March/April 2013