THE SACKLER GALLERY OF LATER MESOPOTAMIA AT THE BRITISH MUSEUM

SUTTON HOO: THE BURIAL GROUND OF PAGAN KINGSHIP

A SHIPS' GRAVEYARD OFF THE ISRAELI COAST

‘THE BIRTH OF DEMOCRACY' OPENS IN WASHINGTON

CONSERVATION OF ANTIQUITIES IN THE FITZWILLIAM MUSEUM

RECONSTRUCTION OF A ROMANO-BRITISH SCULPTURE

Detail of a Babylonian king on a boundary stone from Babylon, c. 1090 BC, on display at the new Sackler Gallery of Later Mesopotamia at The British Museum.
Roman limestone life-size head of a woman with massive tiered coiffure. Late 1st Century A.D.
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Alexandria Symposium
Conference report from the J. Paul Getty Museum
Stavros Aspropoulos

Mesopotamia at the British Museum
The new Raymond and Beverly Sackler Gallery of Later Mesopotamia
Julian Reade

2 News
36 Book Reviews
45 Numismatic News
46 Calendar

NEXT ISSUE
• The Dead Sea Scrolls Controversy
• The Royal Tombs of Sipan, Peru
• Art in the Age of Homer

MINERVA
Restoration and conservation work begins on the Brindisi bronzes

Italian conservators in the laboratories of the Tuscany Archaeological Soprintendenze have begun conservation work on the two major bronze statues found on the seabed off Brindisi last summer. Each piece has its own room and a full size pool where it can be kept in clean, filtered water under closely controlled temperatures.

The first phase of the restoration and conservation is to remove the heavy encrustation elements from both the statues. This cleansing is being carried out using ultrasonic hammers, supplemented by careful removal by hand, the baths in which the bronzes are immersed serving to cushion the vibrations since the metal structure of the statues is in different states. The large figure, the so-called 'togatus', has particularly bad problems due to its original poor casting, and subsequent corrosion which has made large holes in the metal which is particularly thin. The second piece, the 'bus', is better preserved since the metal is of finer quality.

The restoration programme is being carried out using the most advanced techniques with appropriate detailed documentation of every stage in the process. The corrosive products removed from the statues are themselves stored in special boxes for the study of the corrosive process itself. This is producing interesting results in relation to the statues' position on the seabed. Bronze areas that were exposed to the salt water are deeply oxidised and green in colour. Those areas only lightly covered by sand are slightly oxidised and brown, whilst those areas that were deeply buried in the sand have anaerobic corrosion and are now a dark grey, revealing sulphides.

The restoration programme will take at least another year to finish, the aim being first to clean the statues and then provide them with a protective coating, possibly using a special type of plastic glass that can be laid in a bath. In Rome, at the Central Institute for Restoration, specialists are working on the first phase of restoration of three of the seven bronze heads found at Brindisi and are following the techniques being used in the Florence laboratory.

Jug Contains World's Earliest Known Chemical Evidence of Beer

In May last year, Toronto's Royal Ontario Museum (ROM) announced the discovery of a jug containing the earliest chemical evidence of wine, dating to approximately 3500 BC. Now, a second jug from the very same archaeological site has proved to contain the world's earliest chemical evidence of beer. Both ROM vessels were excavated by Dr Guyler Young of the Museum's West Asian Department during a 1973 dig at Godin Tepe in western Iran.

This new scientific information dates the making and drinking of beer in ancient Godin Tepe—modern Iran—to between 3500 and 3100 BC. Prior to this discovery, seal impressions dating to approximately 3500 BC provided only theoretical evidence of beer drinking in the area. These schematic representations depict human figures drinking with long bent straws out of a common pot, likely part of a beer drinking ceremony according to historians.

Virginia Badler, a graduate student at the University of Toronto, discovered the residue along the jar crevices while performing research work on the jug sherds. Badler had a hunch that the ancient Sumerian symbol for beer, a crude pot with interior markings, related to the incisions in the ROM's Godin Tepe jug. With the ROM's support, she took the sherds of earthenware to the laboratories of the Museum Applied Science Center for Archaeology (MASCA) at The University Museum of Archaeology and Anthropology, University of Pennsylvania where chemical spot tests could be performed. In Pennsylvania, organic chemist Dr Rudolph Michel and archaeological chemist Dr Patrick McGovern performed the tests and proved Badler's theory correct.

News from the Israel Museum, Jerusalem

The main focus of the curatorial staff at the Israel Museum during 1992 was the expansion and renovation of the Samuel Bronfman Biblical and Archaeological Museum. Michael Dayagi-Mendels and the author were appointed to lead the project. Following the symposium on 'The Role of an Archaeological Museum in its Homeland', held during the last international council, members of the archaeological community in the country were approached for their advice on the renovation project. The many responses and the comments proved to be both interesting and useful, and helped us look into additional venues.

Last December a group of leading artists and intellectuals was assembled to discuss the renovation and the problems faced by the museum. This diverse group responded enthusiastically to our questions, supported us in our overall concept and presented various ideas concerning the new display.

Through these contributions, together with our curatorial concept, we were able to conclude and submit the conceptual programme for the new galleries. We are now engaged in preparing the architectural and design programmes while our curators complete their final detailed programmes for each section, period, and subject. Work on the galleries is planned to start at the beginning of 1994.

Although the completion of the conceptual programme for the renovation of the galleries was the main goal for 1992, there were quite a lot of other activities. Three exhibitions were on display: the year began with the Beth Shean exhibition, displaying a large group of Roman sculptures excavated at the site. The exhibition, mounted by courtesy of Jacqueline Maus, the Beninson family, and Swiss Friends of the Israel Museum, remained on display until October, drawing large crowds to the Weizmann Exhibition Pavilion. In May the exhibition 'Gods and Mortals' opened, highlighting objects donated from the Norbert Schimmel Estate, a welcome addition to the Neighbouring Cultures collection. The annual 'News in Antiquities' exhibition, courtesy of the Montgomery Securities Fund and an anonymous donor from Zurich, was devoted last year to underwater excavations along the coast of Israel, exhibiting artefacts retrieved from ancient shipwrecks, including one from the Dead Sea.

In order to keep up with new discoveries, a number of special exhibits
in the permanent galleries were also displayed: 5,000-year-old ostrich eggs found in the Negev, which served as containers for liquids, were exhibited by courtesy of the Gelman family in the Wolfson Foundation Chalcolithic gallery; silver jewellery excavated in Jerusalem, reflecting fashions at the end of the Judean Monarchy, were added to the Rachel Skolkin Jerusalem corner; and a magnificent Achaemenid ivory vessel, decorated with griffins' heads, on loan from Mr Elghanayan, was displayed in the Neighbouring Cultures gallery.

A unique discovery which drew worldwide attention is the ossuary of Calaphas the High Priest, who served in Jerusalem in the years AD 18-36. His full name – Joseph bar Calapha – is incised twice on this elaborately decorated ossuary. Calaphas is mainly known for his role in the interrogation and trial of Jesus, as it is told in the New Testament. This addition greatly enhances the ossuary display.

Three new mosaic floors were also added to the exhibition. The first, excavated in the synagogue at Gaza, features King David as Orpheus playing the lyre before a crowd of animals. David’s head, which was unfortunately damaged after the excavation, was reconstructed in the museum laboratories with the assistance of computer reconstruction techniques.

The ‘Mona Lisa of Galilee’ mosaic, exhibited in the Dr Norman P. Schenker Pavilion, has returned to its original place in Sepphoris, and has been replaced by the mosaic floor of the ‘House of Leontis’ from Beth Shean. Originally the floor of a Jewish public building, it portrays the mythological scene of Odysseus and the sirens, and a Nilotic scene, both of the sixth century AD.

The third mosaic added to the galleries was excavated last year in the Samaritan synagogue of Khirbet Samara. Dating from the fourth century AD, it depicts the ark of the synagogue in the most lively and colourful depiction known to date (above). The mosaic floor is an addition to the Samaritan section donated by Isaac Cesa in honour of his wife Elza. The opening commenced with the dramatic pronouncement of the Priestly Benediction by the Samaritan high priest.

A unique figurine of a fertility goddess (above right), about to give birth to twins that can be seen in her womb, represents a special addition to the Cannaanite galleries, where we also exhibited some new violin-shaped figurines found in the Chalcolithic temple of Gilat in the Negev. Both exhibits were made possible by courtesy of Paul Johnson.

**Disputed Statue back in Texas**

In late February the San Antonio Museum of Art in Texas welcomed the return of a Roman statue that had been sequestered by U.S. Customs. The statue, a two-metre tall marble representing a female of the Flavian period, was seized by Customs in 1991 and lay in a warehouse during the legal proceedings that attempted to ascertain if, as had been maintained, the statue was exported illegally from Turkey. Turkey eventually withdrew its claim, and on 10 February the court determined that the true and lawful co-owners of the statue are the Munich dealer and Zurich restorer who had lent the work to the Texas museum for possible sale.

Although many of the documents have not been made available for public inspection, materials in the public domain suggest that the initial confiscation of the antiquity was a case of seize first, ask questions later.

The evidence on which basis Special Customs Agent Joseph Wolf of Laredo seized the statue on 2 January 1991, derived from two sources. The first was an Informer within the San Antonio Museum who confirmed to an Istanbul journalist that there was indeed a large marble statue of a lady.
in the museum fitting the general description of a statue said to have been smuggled from Turkey. The second source was a pair of letters written by Professor Bayburtluoglu and Professor Ouzunel, both of Istanbul University. They maintained, after examining photos of the statue, that the work was of ancient Anatolian manufacture and that it was made of marble from the Dokmeclioi quarry. The customs seizure was also supported by anonymous reports of the statue having been smuggled out and a statement by the Turkish Consul General in New York, Vokan Bozkir, that the statue was removed from Turkey, 'on or about 28 April 1988'.

In retrospect the case for the seizure and the claim by Turkey appears weak in a number of areas. First, Consul General Bozkir’s allegation that the statue left Turkey on 28 April 1988 is inconsistent with Special Agent Wolf’s finding that it entered Los Angeles on 1 March 1988, two months earlier. Second, the identification of the statue as Anatolian and the marble as being from a specific Turkish quarry has been opened to serious question.

The torso of the Flavian lady is an example of the 'smaller Herculaneum lady', a canonical type that was copied widely in the first and second centuries AD. According to Margarete Bieber, who discusses this statue type in her Ancient Copies, Contributions to the History of Greek and Roman Art and in her Sculpture of the Hellenistic Age, this common statue type was produced throughout the Mediterranean. Several American scholars of classical art who were consulted about the statue have stated that it could indeed have been made in any one of a number of locations in the ancient world.

The identification of the marble as Dokmeclioi from a photograph has been characterized as an even bolder leap of faith by experts in ancient marble sculpture, who are often at a loss to pinpoint the origin of marble studied even at close range.

The identity of the lady represented in the statue is problematic. Carlos Picón, who was the Curator of Ancient Art at the San Antonio Museum of Art from 1986-1990, suggests that she is a matron and comments further, that 'she is not a lovable sculpture artistically'. Cornelius Vermeule of the Museum of Fine Arts, Boston, has advanced the possibility that she is Domitia, wife of the Roman emperor Domitian.

The statue of the Flavian lady is on view in the Gilbert Denman Classical Sculpture Gallery at the San Antonio Museum, where she is on indefinite loan.

**Letter to the Editor**

I was very interested to read the excellent article by Roger Bland on the Hoxne coins in the last issue of *Minerva*. The very late date certainly presents problems but I was sad to see that the old romantic fiction about 'The Roman withdrawal' was repeated. There is no evidence for this; in any case, who could have been withdrawn except a mobile field army, and there was no such unit in Britain. The frontier troops had been integrated into Britain by marriage and the families living in the forts, as excavation has shown, and stayed put all over the frontiers.

Dr Graham Webster, OBE, Roman Research Trust, Frensham Manor, Wiltshire.

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**The Asmosia Conference and More on De-dolomitization**

Dr Norman Herz of the University of Georgia has kindly sent us a report on the Third International Conference of the Association for the Study of Marble and Other Stones used in Antiquity (ASMSOA), which was held on 17-23 May at the National Centre for Scientific Research of Greece in Agia Paraskevi, a suburb of Athens. Ninety-eight people attended, representing fifteen countries, and forty-nine papers were presented.

The opening session featured two papers: 'Archaeology, Archaeometry and ASMSOA' by Dr Herz and 'The Ancient Quarries of Pentelikon' by M. Korres. Eighteen papers were then presented on marble characterization and provenance (techniques and applications); five papers on the authenticity of surface layers on marble; eight papers on the provenance of other stones; nine papers on surveying, quarrying and exploration, including Roman quarries and classical sculpture; eight papers on sculpture and usage; and six additional papers including four on the characterization of limestone pieces, French medieval monuments, Iberian white marbles and two on cathodoluminescence.

After the formal meetings a four-day field trip was held to the Cycladic islands of Paros and Naxos and their marble quarries, mines and museums. The proceedings of this conference will be published by the Archetype Press of London. The next conference will be held in the autumn of 1995. For information on membership of ASMSOA contact Dr Herz, ASMSOA, Center for Archaeological Sciences and Geology Department, University of Georgia, Athens, Georgia 30602, USA.

We are including below an abstract of a paper presented by Dr Herz and David S. Heller, as it throws further light on the problem of the surface of the Getty kouros (see *Minerva*, September 1990, p. 30; July/August 1992, p. 6). The kouros was purchased after a scientific report by Dr Stanley Margolis maintained that the de-dolomitization of the Thasian marble surface could only have been caused by centuries of burial. In this process, the magnesium occurring in a dolomitic marble (a marble rich in dolomite, a calcium magnesium carbonate) is leached out, leaving a surface crust of calcite (calcium carbonate) and small amounts of other minerals. This exchange reaction is brought about under mild acidic conditions, presumably by ground water. Dr Margolis claimed that it could not be produced artificially. About two years ago Dr Miriam Kastner of the Scripps Oceanographic Institute in La Jolla, California, came to the conclusion that this process could be created in a laboratory. Now Dr Herz has proved that the same type of de-dolomitization
appearing on the Getty kouroi can be duplicated in a short period of time. The Getty kouroi is the only kouroi known to have been made of Thasian marble. However, Dr Herz does point out that this does in itself not prove that the it is a forgery. ’The kouroi could be authentic but an over zealous dealer could have faked the surface to give it an air of authenticity.’

Jerome M. Eisenberg, Ph.D.

‘Weathering of Dolomitic Marble and the Role of Oxalates’ – Abstract of a paper by Norman Herz and David S. Heller, Center for Archaeological Sciences and Geology Department, University of Georgia, Athens, Georgia, USA.

Weathered surfaces of dolomitic marbles from Thasos, Greece were compared to those from Lee, Massachusetts, USA. The former had been exposed for more than 1500 years, the latter for more or less 50 years. In addition, cubes of dolomitic and calcite marble were submerged in a solution containing potato mould for four months to observe if any reactions took place with the oxalic acid produced by these organisms. The Thasian marble used in this study was similar to that comprising the Getty Kouroi.

Weathering generally depletes the heavy oxygen isotope, 16O, in the surface of marble compared to the fresh interior. This was seen in the crust compared to the interior of the Thasian marbles, but no differences were seen in the Lee marbles. No significant elemental changes in Fe, Mn, Si, Al, K, or Sr could be measured in either marble comparing the crust to the interior. The most significant deterioration of the quarry marble surface was seen where encrustations of lichens were or had been present.

SEM and x-ray diffraction study of the field samples and those immersed in the potato mould solution showed similar corrosive effects produced by the organically generated oxalic acid. The organisms chelate Mg from the dolomite and a Ca-oxalate by-product, whewellite. If any calcite had been produced by weathering of dolomite, ‘dedolomitization’, it was a minor phenomenon compared to the organically produced whewellite. In the experiment, calcite marble was etched by the oxalic acid solution, but no new crystal phases were produced.

These results suggest that many natural weathering phenomena do not always produce reliable criteria to distinguish ancient from modern surfaces on Greek and Roman marble artefacts. Thus a calcium oxalate surface can be produced on dolomitic marble by the action of lichens and anaerobic bacteria working over relatively long periods, or by organic reactions driven by the action of moulds over shorter periods.

Aerial view of the Basilica Church of Lot with entrance to Lot’s Cave to the left

Lot’s Sanctuary in Jordan – an update

Since the discovery of Lot’s Sanctuary at Deir ‘Ain ‘Abata in Jordan (see Minerva, July/August 1992, pp. 6-9), a number of factors have confirmed its identification on the famous mosaic floor map at Madaba, Jordan.

A fourth season of archaeological excavation was conducted during the autumn/winter of 1992 which has produced more valuable information about this important Biblical site. Work concentrated on uncovering the entire Byzantine monastic complex dedicated to Lot. Excavations of the basilica church and reservoir were completed. The refectory of the monastery was also identified. It comprised several rooms with benches and ovens, and below the floor of the dining area lay a burial chamber containing over a dozen monk’s skeletons.

Just north of the monastery 20 Middle Bronze Age II A (2000-1750 BC) cairn tombs were discovered. These are the first of this period in the southern Dead Sea valley. One cairn tomb, J.XI, was dismantled and excavated. It contained two individuals along with eleven pots and many beads of shell and stone.

The most exciting discovery of the season was made at the end of the north aisle of the basilica church in the cave found in 1991. The cave was completely excavated in 1992, revealing a room belonging to the Byzantine-to-Abassid period (c. sixth-eighth centuries AD). The entrance had a plain mosaic paving, followed by a series of steps leading into a lower area with white marble floor slabs. This was apparently presented to ancient pilgrims as the place where Lot and his daughters actually lived after the destruction of Sodom. In a test trench two metres below the Byzantine-Abassid floor, an even more surprising find was made: a much earlier floor level with a jug, a small dipper and several crushed drinking cups. These vessels belong to the Early Bronze Age I period (c. 3300 BC) which some scholars associate as the time of the Biblical destruction of Sodom and Gomorrah.

At the beginning of 1993 a restoration project was begun which will fully develop the Sanctuary of Lot for future tourism.

Konstantinos D. Politis

Lot’s Cave: Early Bronze Age I level with pots

MINERVA 5
THE SHIPS' GRAVEYARD OFF ISRAEL'S COAST

Nine ancient ships which were wrecked off the coast of Israel have provided maritime archaeologists with a unique collection of evidence.

Sean A. Kingsley and Kurt Raveh

In maritime terminology the inhospitable western border of modern Israel remains, as in antiquity, a veritable 'no man's coast'. With a contour shaped like a smooth, concave arc, the daunting linear shoreline is poorly endowed with shelter along the greater proportion of its length, a condition which plagued generations of ancient mariners who sought a stable platform for trade in this part of the Eastern Mediterranean. As a result of the numerous remains of nautical tragedies detected beneath the sea, marine archaeologists often refer to the coast of Israel as a vast ships' graveyard, estimating that wrecks of vessels which foundered in the open sea during storms are buried at intervals of 100 metres, perhaps even less, along the length of the shore.

Toward the foot of the southern termination of the Carmel Mountains, 24 kilometres south of Haifa, the inhospitable landscape abruptly changes. The prevailing wide, open sandy shoreline is replaced by a less hostile area distinguished by small bays and barren rock platforms. A conspicuous characteristic of this geographical transition point is a 950-metre-long chain of five offshore islets which collectively form a natural breakwater creating a well-protected anchorage. The city of Dor, founded on a promontory overlooking the islets at least as early as the first half of the second millennium BC, was acknowledged by ancient mariners as a reliable point of relief, a rare beacon of hope in a sea of trouble.

While journeying across Palestine in 1880 W.M. Thomson, a visitor to the region, encountered little inspiration at the contemporary settlement of Tan-tura which had emerged amongst the ruins of Dor, only a sad and sickly hamlet of wretched huts, on a bare seashore, with a marshy flat between it and the eastern hills. Before lapsing into a provincial backwater, however, historical sources emphasize that this modest natural anchorage had retained a position as one of the region's most important maritime facilities, continuously exploited from the thirteenth century BC onward.

Around 1075 BC, Wenamon, an Egyptian priest from the Temple of Karnak at Thebes (Luxor), sought shelter at Dor en route to procure cedar timbers at Byblos. The priest's memoirs of the journey describe the former city as inhabited by the Sikuli Sea People and refer to the existence of a harbour and a fleet of at least eleven ships. According to the fifth-century AD geographer Stephen of Byzantium, paraphrasing an earlier source, subsequent Phoenician settlement included a formal harbour facility and was brought about by the local abundance of a certain shell fish, murex, the raw material for the creation of a luxurious purple dye.

Once Sebastos, the state-of-the-art port complex at Caesarea equal in size to the legendary Piraeus,
began to operate almost within sight of Dor in 10 BC, sources indicate that decay began to set in. Accordingly, Josephus Flavius regarded the city in the first century AD as a poor choice for a dependable harbour because the sand blown onto the shore by the winds impeded the entry of ships and forced merchants to anchor offshore, unprotected against the elements. Although coins minted in AD 111/112 enigmatically describe Dor as ‘ruler of the seas’, St Jerome’s translation of Eusebius’ Onomastikon establishes that by AD 390 the ancient city was a spent force, and no long inhabited.

Unlike the settlements whose 16 metres of complex multi-layered stratigraphy spread over 40 acres and which have been subject to exploration ever since John Garstang of the British School of Archaeology in Jerusalem sampled the site in 1924, questions concerning the maritime dimension have only recently received archaeological attention. An evaluation of the three bays, initiated by the Israel Department of Antiquities in 1976, produced such promising results over a number of years that a reputation as one of Israel’s oldest and most promising underwater sites was acknowledged.

By definition, a haven which is either artificially constructed or draws its security from the natural features of a coast is synonymous with safety. For this reason, lacking any clear historical documentation, dating a harbour relying on artefact association is notoriously difficult; with perhaps the exception of deliberate jettison or cargo spill, little maritime-related gear tended to be deposited within an active harbour. In any case, any accidental spillage within a controlled environment would be rapidly salvaged. More essentially, the ever-churning sands and submerged sediments of the Eastern Mediterranean usually prohibited any stratigraphic sequence to accumulate.
Since rarely is a sample of the objects of trade once handled in a harbour available, evaluations of the structural design and chronology of breakwaters, quays, moles and other architectural components developed as the principal concern of harbour archaeology. Similar installations at Dor, including the city’s Hellenistic dry-docks, Roman harbour, anti-silt channels, and a twelfth-century BC quay have been investigated by the Center for Maritime Studies at Haifa in past years and demonstrate that the natural advantages of this coast were widely exploited throughout antiquity.

For reasons not entirely understood the harbour floor and seabed at Dor are far from sterile. Surveys have recovered the largest collection of ancient stone anchors (a class of artefact often dubbed the potsherds of marine archaeology) from any single Mediterranean location. Shattered amphorae litter exposed sections of seabed and the range of objects varying from millstones, swords, cannons, lead ingots, iron anchors to shipwrecks has proved surprisingly profuse. This large body of artefacts deposited offshore and the question of maritime contamination evoked has emerged as the principal concern of the Dor Maritime Archaeology Project, an Anglo-Israeli mission directed by the authors.

The apparent severity of maritime contamination at Dor is in part a consequence of the regional disturbance of nature’s equilibrium through coastal sand quarrying and a programme of offshore marina and breakwater construction which reduced the thickness of the sand mantle covering the seabed all along the coast of Israel following the foundation of the State in 1948. Like many sections of the seabed within the shallow waters of Israel, archaeological horizons once deeply buried are intermittently exposed during winter storms at Dor.

Influenced by the natural seasonal cycle, the majority of fieldwork conducted underwater during the last 15 years tended to concentrate on the months between November and March, the most tumultuous climatic period of the year and time of maximum artefact exposure. Unusually severe summer storms, however, between June and October 1991 reduced the height of the submerged sand in the breaker zone south of Dor to the lowest recorded level. At the very entrance to the ancient anchorage, delineated by the string of five rocky islets, remains of nine shipwrecks emerged in less than three metres of water within a 70x40 metre expanse of seabed, presenting an exceptional opportunity to examine one of the most intriguing parts of the haven.

Unable to predict just how long the ships’ graveyards would remain accessible, two excellently preserved post-medieval hulls which frequently protrude from the sand were omitted from the survey programme in favour of previously unrecorded wrecks. Five Byzantine formations of the sixth-seventh centuries AD (site nos. DW1 and DW4-DW7) were characterised by spreads of ballast stones less than 25 metres long within which amphora fragments, hearth tiles from galleys, and durable personal belongings of the sailors were intermixed. The majority of the amphorae and other pottery containers stored aboard the ships seem to have been either salvaged or swept onto the shore by the sea at the time of the tragedy. The meagre pottery record surviving consisted of bag-shaped Palestinian amphorae and suggests that the ships were local merchant vessels of modest proportions, almost certainly capable of operating internationally. Large quantities of roughly-hewn ballast stones indicated that three of the Byzantine ships were in a transitional stage of trade, without a cargo. Rectangular stone ashlar building blocks comprised the cargo of two others.

The fine condition of metallic objects and sections of hull planking, in contrast to the low rate of pottery preservation, was due to both the overburden of sand which reduced oxidation and general deterioration and the heavy ballast stones which functioned as a sealing layer. A wooden rigging block retrieved from DW6 had remained in perfect condition by becoming trapped in a sand-filled shallow hollow between ballast. Similarly, a section of wood exposed on one of the five Byzantine sites (DW4) owed its preservation to the tons of overlying boulders and sand which cushioned, rather than crushed, the ship’s planking.
Unlike typical Roman ship construction, which emphasised the importance of attaching parts of outer hull planking together with wooden mortise-and-tenon connections placed usually no less than ten centimetres apart, distances between the wooden joints on any one cyprus plank from site number DW4 extended as far as 37 centimetres, a feature comparable to fourth-century AD contexts at Yassi Ada, Turkey and the Dramont F wreck off the south coast of France. The absence of wooden pegs locking each tenon within its respective mortise, however, is a feature more reminiscent of seventh-century shipbuilding. Carbon-14 tests on the wood carried out at the Weizmann Institute of Science in Israel confirmed that the ship had been active sometime between the mid-sixth and the first quarter of the seventh century AD. Indeed, at least four of the five Byzantine wrecks examined in 1991 foundered within this same time-frame, curiously a period when St Jerome reported Dor was no longer an urban settlement.

Three of the sites produced evidence that meals and wine were served on board the vessels from pure copper containers. Two wine flasks of the seventh century AD were broad based and composed of several pieces of metal sheeting dove-tailed together and soldered at tooth-shaped seams. This characteristic, a typical trait of Byzantine metallurgy, was also employed on a cauldron from DW7 (Fig 5) and a pot lid (from DW1). Both the iron handles of the copper flasks and some carpenter’s tools, picks and hammers, from two of the sites, an essential requirement of any sea-going ship in antiquity, had developed a layer of enrustation: a reaction to the immersion of iron in a saline environment. A fine white marble mortar with a false spout and three lugs incised with a linear decoration (Fig 6) was another domestic utensil recovered from the galley of DW1.

According to inscriptions incised on two steel-yards, the captain responsible for navigating DW7 into trouble during the early seventh century AD was a certain ‘Pates of Rhion’. The symbol of the cross occurs on both sides of the inscriptions mentioning this character and one beseeches Jesus Christ the Saviour, ironically, to ensure protection from harm during sea voyages. Both steel-yards are amongst the finest preserved from the Byzantine world. The larger example, 97.3 centimetres from tip to end and retrieved complete with suspension chains, seems to have been an antique at the time of its loss: an assortment of inscriptions on three sides of the collar at one end imply the object had three successive owners. During its lifetime one of the device’s two hooks, used to suspend the bar while objects were weighed, became ineffective and was changed for a slightly different version. Whether two lead plugs covering one of the statements of ownership were attached to conceal and negate the previous owners proprietary or to readjust the official balance of the steel-yard, remains unclear. Similar to the larger steel-yard, the graduating weight scale of the smaller piece (42.8 centimetres in length) (Fig 7) was indicated by a series of Greek letters.

Though the quantity of material concentrated on each wreck was sufficiently coherent to allow the date of the vessels to be deduced, none of the sites were entirely free from later intrusive contamination. Encrusted rope and wooden hull components from a vessel less than 200 years old had settled upon the ballast of DWS, a fifth Byzantine wreck which was encountered at a depth of less than two metres. Nineteenth-century roof-tiles from Marseille and a light scattering of amphora fragments, Cypriote or Rhodian imports of the sixth to fourth centuries BC, also appeared amongst the 5x5 metre section of exposed ballast. The close proximity to the shoreline had caused debris from deeper parts of the bay to be washed into this natural catchment zone and, as the depth of the sand around DWS continued to diminish as the late summer storms persisted an intact, but partially crushed war helmet (Figs 8 and 9) originating from a late fifth-century BC wreck in slightly deeper waters was found on the perimeter of this site.

Vastly different to helmets crafted a century earlier which afforded extensive protection and almost entirely enclosed the head, epitomised by the Corinthian piece which accompanied the Etruscan ship wrecked at Giglio, Italy, to its resting place (Minerva, January 1990, pp. 3-6), the type of helmet
from Dor exemplifies a changing preference for greater mobility and freedom. With the exception of a narrow, everted brim and an extension at the back to protect the nape, the bronze, ovoid Greek helmet (29.4 cm high, 23.5 cm wide, and 1.5 mm thick) was a simple utilitarian creation, devoid of decoration.

Several Athenian tombstones of the late fifth century BC depict hoplite warriors wearing this form of basic defensive head-gear. The discovery of a pair of cheek-pieces alongside and within the helmet from Dor, originally attached to the sides on hinges riveted into the bronze, is an interesting addition to the number of existing examples. Both cheek-protectors appear somewhat theatrical, decorated with facial features including thickened lips, an elegant downward-sweeping moustache, and an over-exaggerated cheek bone.

The clash of styles between the plain helmet and sculpture-like side accessories is, according to Professor A. Snodgrass from the Museum of Classical Archaeology at Cambridge University, apparently an unparalleled hybrid combination. Examples of the plain helmet, known in antiquity as a pilos, are documented on the Greek mainland at Olympia and Dodona and appear on ancient reliefs of the late fifth century BC. The side-pieces, in stark contrast, typify the ‘Thracian’ helmet form favoured several decades earlier in the mid-fifth century BC. Whether these antiquated cheek-pieces were later joined to the helmet for defensive or purely decorative purposes, their condition seems to have been pristine prior to their loss in the sea. A shallow dent on the upper part of the main helmet implies this piece had seen active combat prior to its deposition in the entrance to Dor harbour.
Collectively, the group of nine shipwrecks and four others examined in the same vicinity in recent years constitutes the most extensive graveyard of wrecks so far documented along the coast of Israel. Their presence in one of the only available natural havens along this shoreline, however, was both unpredicted and paradoxical. The ever-shifting submerged sand-banks at Dor are clearly the immediate cause of the losses. As Josephus implied in the first century AD, even a sea captain highly familiar with the region could be easy prey for the constantly moving sands. Seeking the calm waters behind the chain of islets during a storm, a ship approaching at high speed with the wind behind it would find navigation in high seas almost impossible. In these circumstances both the shore and the islets would have been seen not in terms of shelter but as a serious threat.

Yet the lack of alternative safe havens in the area continued to attract a high level of shipping, even in the Byzantine era when historical sources testify that the city was deserted. Completed underwater surveys in fact suggest maritime activity peaked in this period which was one of economic prosperity and demographic increase throughout Palestine. Quantities of iron anchors, amphorae and, of course, entire shipwrecks litter the seabed and reflect the intensity of this shipping. To what extent their presence was conditioned by a need to seek shelter rather than conduct trade transactions remains obscure. A cosmopolitan assemblage of Egyptian storage jars and North African fine wares uncovered in a Christian basilica and rest-house established close to the shore at Dor from the mid-fourth to mid-seventh century AD indicates the partial range of the city’s Byzantine trade network. Throughout this period the site’s magnetism as a gateway to the Holy Land was enhanced by a fragment of rock from Golgotha, the site of the Crucifixion, displayed as a relic in the basilica.

Yet, whether a pilgrim, merchant, or ship’s captain, the dangers of this ‘no man’s coast’ remained a universal dilemma throughout antiquity and into the post-medieval era. Storms of equivalent ferocity to those which disclosed the multi-period concentration of merchant vessels at Dor in the summer months of 1991 would have devastated any form of maritime traffic caught unawares along the coast of modern Israel, irrespective of the fact that generations of experience recognised summer as the internationally open season for seafaring. In retrospect, the merchant vessels lining the ships’ graveyard at Dor graphically confirm that the risk and act of wreckage, lamented by mariners throughout the ages, was imply an inevitable by-product of the clamour for the fruits of commerce.

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A Sculptural Base from Chichester Discussed

Many fragments of fine sculpture exist from Roman Britain but few have been subjected to a proper evaluation and conjectured reconstruction. Here Anthony J. Beeson assesses an important but hitherto largely neglected sculptured and inscribed base from Chichester, one of the most important cities of Roman Britain.

Excavations on the site of the Post Office in West Street, Chichester, Sussex, in 1934 destructively discovered the large sculptured sandstone block that is the subject of this article. It was found in a midden of uncertain date in the area of the city that had been the civic centre of Noviomagus Regnensium. Whether it had originally stood nearby or had been transported to its final site during the construction of the adjacent cathedral cannot be known, but the fact that a fragment from an adjoining block was found in the same pit rather hints at the former. The stone is best known for its enigmatic carved face depicting two embracing nymphs. It is therefore all the more remarkable that so little effort has been expended in studying the imagery of the other faces of this impressive fragment of Romano-British art, which is now kept in Chichester’s Guildhall Museum in Priory Park.

When perfect the block would have had sides over 1.05m long by over 0.42m in height and most likely formed part of a pedestal. Figural subjects were carved in relief on three sides and an inscription covered the fourth. The proportions of the sculpted human figures indicate that originally four similarly sized stones, above and below the existing one, would have been needed to accommodate them, the top and bottom blocks, no doubt, being in part, plinth and coping stones. Fig 3 provides an ‘unfolded’ representation of all four panels, a-d, and conjectural reconstructions.

Side ‘a’ contains a competently carved dedicatory inscription to ‘Jupiter, Best and Greatest, in honour of the Divine House’, followed by the remains of a letter which might have been an ‘S’. This is a formula more common on the Continent than in Britannia, although the famous Cogidubi-nus inscription from the Temple of Neptune and Minerva in Chichester also refers to the ‘Divine House’. Collingwood originally dated our inscription to the late second or early third century, but Martin Henig has recently proposed a late first century date.

Side ‘b’ of the monument, to the right of the inscription, contains the broken relief of a figure holding an upturned spear or staff of office in its right hand, not vertically as is most common, but at an angle, so that the spearhead must have rested in front or behind the feet. Only the left half of the stone had escaped destruction, but a well modelled arm and hand remains with traces of a garment about the upper arm. Behind the arm is a truncated
oval of imbrication, generally considered to be a wreath or garland. It does not appear below the arm, so it is likely that a himation or cloak originally hung down here as is shown on the interpretative drawing. Only the area of the block retaining its original surface has been included in this reconstruction (Fig 4).

At the time of discovery a large piece of stone was fitted to this side of the block, but its position is suspect and it has been omitted. Several lines on it, if not natural, might be part of the helmet neck guard. If so then the head would face to the right as in Fig 3, and not as in Fig 4. A broken fragment from a woman's robe, a double chiton, in the same scale as the remaining figures on the block was also found in the midden, and it was postulated that a Minerva once graced side 'c' which was even more badly damaged. However, as will be seen, it is with the figure in side 'b' that it should be placed. It must have come from a stone below the surviving one, unless one imagines the original form of the monument to have had upper registers of figures in similar scale above the existing panels in the style of the Jupiter pillar from Paris, the Pillier des Nautes (Fig 7b). It is noticeable, however, that the fragment does fit in very well with the spear-bearing figure (Fig 2). The broken piece preserves the groin to left knee of a woman wearing a double chiton, worn traditionally, although not of course exclusively, by figures of Minerva or Victory. One should, however, consider the possibility that the imbrication behind the arm of this figure may well be feathers and not leaves, and that the 'wreath', which has no central hole, is actually a somewhat naïve rendition of a wing. If this is so then one must imagine this face to have borne some winged female divinity.

Apart from Victory herself, who is not commonly portrayed with a spear, other winged female personifications do exist in Roman art and winged Tyche-like divinities resembling Minerva, although rare, are known. There is, for example, the Minerva-inspired Brigantia in Britain, whose mural crowned helmet, although recently refuted by Roger Ling as a misinterpretation of that of Athene

Parthenos, does bear a definite tower and wall circuit with strongly marked crenellations, and in Italy the Porta Romana at Ostia was graced by two massively winged Minerva Victories. The winged Minerva-Tyche appears to originate in North Africa with the most notable example being the great sculpture from the Temple of Apollo at Bulla Regia and now in the Bardo Museum (Fig 8). This winged goddess wears a great mural crown on her helmet, an aegis-bearing chiton, and holds a cornucopia in her left hand. Her broken right arm is in the position for once having held a spear. She dates from the second century AD, approximately the time of the Brigantia relief and the original dating by Collingwood of the Chichester stone.

The Chichester Cogidubnus inscription indicates that Minerva was certainly held in esteem in Noviomagus from the earliest times. Is it possible that the City Tyche was adapted from her image, and that is what is portrayed on this face of the pedestal? It is possible that imported African ideas are here at work and that the 'Domus Divinae' of the inscription refers to the Severan house. However, whether or not the imbrication was a garland or wings the effect visually on the design of the panel would have been quite similar, as may be seen in the alternative reconstructions of Figs 3b and 4.

Perhaps the most serious omission in the lack of study of the imagery of this block concerns side 'c'.

MINERVA 13
This is particularly badly damaged, but enough of the upper right hand side of the face remains to show that a large leafed, vigorously carved tree spread up that side and along the top of the panel. Neither White nor Collingwood mentioned anything about this panel beyond its badly damaged state and the remains of foliage, and nor did Cunliffe and Fulford 47 years later in the *Corpus Signorum*. Equally, none of these authors felt that it was worth illustrating, so it is published here for the first time (Figs 3c, 5). As has been mentioned above, it was postulated that the chiton fragment had belonged to the lost figure of side 'c'. What is astonishing is that, notwithstanding what these published accounts state, there are perfectly clear indications as to what sort of figure once filled the panel. In fact there remains the neck, shoulder and part of the upper left arm of a nude figure with the folds of the chlamys resting on its shoulder. The chlamys on the shoulder is generally worn (though not exclusively) by nude male gods or heroes. The presence of the tree and the scale of the figure indicates that there, as in panel 'b', the figure must have stood alone unless accompanied by a small animal, and that the fragment of heavily draped female in chiton must belong to that panel and not this.

The existing parts of this male figure can be elucidated by comparison with the similar but better preserved fragment of Mercury, excavated in Cirencester in 1974/5 and unfortunately confined to the storeroom ever since. This outstandingly beautiful and deeply carved relief may once have honoured the West Gate of the city, and includes not only a chlamys-bearing shoulder, but also half the god's head and winged pateros (helmet). The carving of the Chichester figure looks weak and mechanical in comparison to this Cirencester example, but the latter does serve as a good guide to understanding what is left of the former. There is, of course, no attribute on the Chichester figure to enable one to identify him. The chlamys on the shoulder is a standard item in art and is worn by gods and mortal heroes alike. The arm is held away from the body, presumably to accommodate the chlamys which one would expect to be wrapped about the lower arm. If Mercury was intended then one might have expected the caduceus to have sat in the crook of his arm, but here its head would have overlapped with the large leaf that seems to spring from the tree behind. There is not enough room on the panel for his right arm to have done anything beyond hanging down or crossing his body.

The final side, 'd', holds the best preserved figures on the stone and gives a clear indication of the quality of what has been destroyed elsewhere. Here two divinities stand embracing with an air of insouciant elegance. One faces the viewer whilst the other presents her back, and both rest their right hands on the other's left shoulder. They turn their heads away, looking out of the panel on both sides. The right hand figure has a dreamy expression whilst the left looks stern and displeased. Their hair is in rows of long ringlets pulled back and gathered in a bun and similar to the court styles of the Severan period or the earlier Faustina II, wife of Marcus Aurelius. It is obvious that iconographically they are adapted from representations of the Three Graces, and the lower limbs can be
restored with these in mind. If the sculptor had slavishly followed the iconography of the Graces then one might expect their hands to have held chaplets or flowers. A fleshy leaved bush spreads behind them. Stylistically this is similar to the tree in ‘c’ but here the carving is extremely shallow and, like the imbrication in ‘b’, must have relied on the gesso and paint which would have originally covered the stone in order to make an impact. These leaves are remarkably Art Nouveau in spirit with their curving forms, and an attempt has been made to give them more dimension by showing their undersides, an interesting feature, no doubt once enhanced by the application of darker and lighter shades of paint to represent light and shade (Figs 3d, 6). These ‘nymphs’ still defy identification. It seems very unlikely that they are really two of the three Graces, but perhaps more likely that they represent minor local divinities. This is the only panel to have two figures and, as a result, the women are fractionally smaller in scale than on the other faces. The possibility exists that this and the other two panels should be read as one subject in the manner of a frieze. Some scene with Minerva as Patroness of Heroes would not be out of place, and indeed had the chlamys in ‘c’ not been of material but a lionskin one might have considered Hercules and Minerva in the Garden of the Hesperides! Alternatively a scene from the Judgement of Paris, before the giving of the apple, might be a possibility.

In conclusion, therefore, the base can be seen to have comprised an inscription and reliefs of four probably divine beings, one male and three female, of whom one may have been winged. All are carved in an attractively competent if somewhat spiritless manner. Probably dating from the late second or early third centuries, the pedestal when complete may have supported a statue or something far more elaborate such as a multi-storied Jupiter pillar or a Jupiter column. The shafts of the latter are commonly engraved with imbrication and like the leaves on panel ‘d’ would have had no visual impact unless painted. One should imagine them painted with each imbricated leaf particoloured with a symbolic light and shade pattern as still exists on the stucco columns of the villa at Oplontis, the whole monument shimmering with colour (Fig 5).

Whatever the function of the base originally, it is certain that when new and freshly painted, it must have been a thoroughly decorative monument and a source of pride to the city of Noviomagus. For us it is a fortunate, but sadly rare, survival from the mass of carved stonework that must have adorned the Roman city.

Anthony J. Beeson is Honorary Archivist, Roman Research Trust.

Fig 7 (below). Three examples of the type of monument that the stone may have come from: a) a statue pedestal; b) a Jupiter pillar; c) a Jupiter column.

Fig 8 (left). Winged Minerva from Bulla Regia now in the Bardo Museum, Tunis.
Exhibition Review

THE BIRTH OF DEMOCRACY

To commemorate 2,500 years of democracy, a loan exhibition in Washington D.C. of nearly 200 antiquities explores the institution of democracy in ancient Athens.

Jerry Theodorou

A large number of the objects in 'The Birth of Democracy' were found in the Athenian Agora, the site of many of the public buildings of Athens. There are also important vases and statuettes, along with minor objects borrowed from several significant museum collections. Among the highlights is a Roman gold ring with a carnelian stone engraved with the head of Demosthenes from the Getty Museum, in the section of the exhibition that develops the theme of speakers in the Athenian law courts. Demosthenes was a formidable speaker, notorious for his speeches against Philip II of Macedon.

There are twenty-six display cases in 'The Birth of Democracy', each of which explores an institution that bears on the workings of Athenian democracy or sets the context for life in democratic Athens. The cases are situated near the chief attractions that draw visitors to the National Archives in the Washington mall – the Declaration of Independence, the Constitution, and the Bill of Rights. The proximity of the ancient Athenian artefacts relating to democracy to the seminal early American documents is appropriate because the Athenian system was among the sources of inspiration for the American system of government. Indeed James Madison and Alexander Hamilton, authors of the Federalist Papers, referred to Athens frequently in their writings, although with a mind to avoiding the dangers of untrammelled democracy, which they feared would result in the mob depriving the propertyed class of its wealth.

'The Birth of Democracy' and its accompanying catalogue present an honest, full picture of Athenian democracy. The role of women, slaves and resident aliens, all of whom were excluded from participation in most of the city-state's political institutions, is explored in depth. While it has become fashionable in some quarters to belittle the importance of Athenian democracy by pointing to the status of women and slaves, it should be remembered that women were not allowed to vote in Switzerland until the 1970s and in France until the 1940s. In Josiah Ober's excellent overview of Athenian democracy, Mass and Elite in Democratic Athens, we read, 'the radical nature of the Athenian democracy is clear when measured against the standards of the age in which it developed... For the first time in the recorded history of a complex society, [all] native freeborn males, irrespective of their ability, family connections, or wealth, were political equals, with equal rights to debate and determine state policy'.

The radical innovations to which Ober refers were the reforms of Kleisthenes. In 508 BC, after the assassination of the Athenian tyrant Hipparchos, the noble family of the Alkmaionidae overthrew Hipplas, Hipparchos' brother. The innovation for which Kleisthenes, a member of the Alkmaionidae, is justly famous, were the strictures placed on the landed aristocracy in Athens by creating ten new tribes, into one of which all Athenian citizens were assigned. These reforms took place exactly 2,500 years ago, and the timing of the exhibition is intended to commemorate this event, as was the exhibition 'The Greek Miracle' (Minerva, November/December 1992, pp. 23-27).
‘The Birth of Democracy’ starts with cases devoted to Athens before the Kleisthenic reforms. Gold jewellery from the grave of a rich woman and scenes of spirited symposia illustrate the life of the Athenian aristocracy. The pre-Kleisthenic Athenian tyranny and the overthrow of Hippia and Hipparchos are evoked with inscriptions and military implements. The new political organisation of Athens established by the Kleisthenic reforms is illustrated by objects in several cases dealing with the political institutions of Athens: the assembly, the senate, and the law courts. All Athenian citizens had the right to attend the full popular assembly which met at the Pnyx. The assembly convened every ten days and was empowered to ratify decrees. The senate consisted of 500 citizens, 50 from each of the ten tribes. The tenure of senators in Athens was one year. In addition to actual artefacts relating to these institutions, such as jurors’ tickets and ostraka, there are photographs and models of the official buildings in Athens given over to political and judicial life in the exhibition.

The fourth century stele (Fig 1) of Democracy crowning Demos, the people of Athens, contains an important inscription that relates to the institution of Athenian democracy. It forbids cooperation with those planning anti-democratic coups, and it exonerates the murderer of a tyrant. Two stelai with this inscription were set up in public spaces in Athens, one outside the assembly and one outside the senate.

The water clock, or klepsydra (see upper left of Fig 2) was used to restrict the length of speeches in Athenian law courts. The vessel was filled with water at the start of a speech, and the water escaped through a hole during the oration. When the water stopped flowing, the speaker’s time had run out. The vessels illustrated to the right were tableware used by Athenian senators, who ate at the expense of the public purse. The crockery was marked ‘public use’ so that senators would not steal it.

The military institutions of Athens, including the army and navy, served to protect Athens’ democracy. These are represented in ‘The Birth of Democracy’ with vase paintings of battle scenes and models of triremes. The economic life of the city, which was supervised by democratically elected officials, is explored through displays of Athenian coins, weights and measure (see lower left of Fig 2 for a set of Athenian weights).

One of the critics of Athenian democracy was the philosopher Sokrates, who was tried for corrupting the youth of Athens, and sentenced to death, and the exhibition includes numerous artefacts relating to his life. He would frequent a cobbler’s establishment near the Agora run by the shoemaker Simon, where he would discourse. He is said to have taken notes of the dialogues, but they are not now in existence. However, excavations in the Agora have turned up eyelets and hobnails used in shoemaking and a fragment of a drinking cup inscribed with the name Simon, which is thought to have belonged to the cobbler.

The everyday lives of women and slaves, who were not citizens, are illustrated chiefly through vase paintings, and include some of the most attractive antiquities in the exhibition. There are vases from the Ashmolean Museum, the Metropolitan Museum of Art, the Princeton University Art Museum and the National Archaeological Museum, Athens.

The final cases in the exhibition develop the relationship between democracy in ancient Athens and in the American political system. It may be argued that the founding fathers drew more from the Roman republic than from ancient Athens to fashion their fledging democracy. Direct democracy was thought to be dangerous as it allows the emergence of demagogues and makes possible the redistribution of wealth by an actively engaged majority of poor citizens. Athenian democracy, like democracies elsewhere, was characterised by the rule of the elite.

The catalogue which accompanies ‘The Birth of Democracy’ follows the thematic presentation of the objects in the exhibition, and in so doing serves as a useful tool for understanding the workings and cultural context of Athenian democracy. It also contains several topical articles, including an excellent overview of private life in Athens by Alan Shapiro. The exhibition was organised by the American School of Classical Studies in Athens.
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NEW TREATMENTS FOR OLD?

Conservation problems in the Fitzwilliam Museum

Some of the most damaging conditions which today's museum conservators have to deal with are the legacy of the good intentions of their predecessors. Julie Dawson explains how some of the ancient objects in the Fitzwilliam Museum, Cambridge, have been rescued from the bizarre conservation treatments of the past.

In the examination and conservation of a freshly excavated artefact, only its ancient and burial history needs to be considered. But many of the archaeological objects in a collection such as the Fitzwilliam Museum's also have a recent history, in some cases a recent history in excess of 200 years. Much of their original archaeological evidence has already been lost; recovery of what remains is therefore a central part of the work, but account must also be taken of earlier attempts at conservation.

The history of repair is, of course, as old as the history of man-made objects, but it is only since the awakening of interest in antiquity in the Renaissance that conservation and restoration as we understand them today have evolved. Demand grew rapidly with the surge of interest in Classical antiquity in the eighteenth century, when many of the great collections were formed, and continued through the spate of major excavations in the late

nineteenth century in Europe, Egypt and the Near East.

The Fitzwilliam Museum began to collect Greek and Roman, Egyptian and Western Asiatic antiquities in the first half of the nineteenth century. Much of the material, especially that acquired in the late nineteenth and early twentieth centuries, came straight from excavations. Some objects were cleaned and conserved on site and many were repaired and restored in the Museum when they were, over the years, required for exhibition. Pieces which have been acquired by purchase or through the generosity of private collectors often have a more chequered conservation history. Objects recovered from burials have long ago been divorced from their original function. Often they have lost their form and structure and these were recreated by the conservator according to contemporary interpretations of the past. All manner of bizarre treatments were practised to produce a complete object acceptable to the aesthetic taste of the collector and the financial aspirations of the dealer.

The collection of Colonel Leake which was purchased in 1864 had suffered considerably at the hands of restorers. E.A. Gardner, compiling a catalogue of the Museum's Greek vases in 1897, noted that all had been almost completely over-painted. This, he observed, was 'not required to hide considerable gaps in the design, but merely served to conceal unimportant fractures or to please an inexplicable taste. Unfortunately the restorer was not content with laying on a coat of paint, which could be removed, but also followed the most reprehensible custom of scraping out a groove along all the lines of fracture, deep enough to hold a filling of new material; these grooves are everywhere only too conspicuous, and have, in many cases, carried away portions of the design'. Gardner arranged to have the vases cleaned at the British Museum (Fig 1).

Bronzes too have been subject to some heavy-handed restorations. The corrosion processes undergone by copper alloy objects in the ground do not
the causes of deterioration of excavated objects. In the early years of this century research into the preservation of archaeological material began to gain momentum. The increasingly rapid development of new technologies and materials (especially the introduction of synthetic resins from the beginning of the century), many of which were adopted and adapted for use in conservation, broadened the range of treatments available. Unfortunately some of these treatments and materials have proved to be unstable in the long-term and have been found to hasten the deterioration of objects.

Over the years, emphasis in the conservation of excavated material has gradually shifted away from the requirement either to produce a 'complete' object or to try to find the 'original' artefact somewhere within its deteriorated self. The need to examine and record condition, to determine specific effects of burial and excavation, to reveal and preserve remaining evidence of original structure and technology has become the focus of treatment. Today conservators strive hard to maintain the integrity of the object. Intervention must therefore always be minimal, the processes used should be reversible so far as possible, and any restorations must be easily distinguishable from original parts. Materials to be used in intimate contact with ancient objects are rigorously tested for their suitability and long-term stability, and all examination and treatment must be fully documented. Also it is recognised that the preservation of a benign environment should be the greater part of the conservatorship of objects.

So how is the contemporary conservator to approach the legacy of former treatments?

This is difficult territory where the conservator and curator together must move warily. Repairs and restorations are part of the history of the object: inevitably they reflect the aesthetic tastes of their age and may contribute to an understanding of the context within which the pieces were originally collected. Many were well executed and have stood the test of time.

Restorations on ancient objects can also be important in their own right. The Roman statuette restored as Apollo by the artist John Flaxman in 1793 illustrates the expectation that antiquities would be restored to present a complete object in near perfect condition (Fig 2). A lucrative living could be made from this type of work, and the inventive restoration of pieces of ancient sculpture by notable artists sometimes holds as much interest today as their original components.

In the Fitzwilliam old repairs are usually only removed if they are in some way contributing to the active deterioration of the object, or if they confuse or obscure significant parts of the decoration or structure. Simply being old and worn are not necessarily grounds for eviction. On the other hand, there is rarely reason to accord too much respect to a botched job simply because it happens to be a hundred years old. The rhyton from Phylakopi, for example, came to the Museum in 1902. The sherds

always oblige in producing good 'antique' surfaces. A uniform black surface had been produced on most of Colonel Leake's bronzes by acid stripping and chemical re-patination. Another common practice, on both metal and ceramic objects, was the adaptation of pieces from one ancient object to fill gaps on another. The whole was then over-painted to give an impression of completeness.

Whatever materials came to hand were put to use in the repair of ancient artefacts. Sealing wax, pitch, wooden sticks, scraps of fabric, newspaper and pages from an Italian calendar of church services have all been found holding together and patching up objects in the Museum's collection.

Conservation, in the hands of artists and craftsmen, responded mainly to changes in taste and, until the last quarter of the nineteenth century, little scientific understanding was brought to bear on
were stuck together with shellac (a natural resin), which had been smeared rather liberally over the surface. The lip and part of the handle had been restored with plaster, subsequently broken and the plaster restorations then stuck back together again (Fig 3). The old repairs and restorations have now been removed and the rhyton cleaned and reassembled. Two plaster gap-fills have been made to support weak areas, but the small stub of handle that remains does not offer sufficient evidence on which to build a restoration of the back (Fig 4).

Sometimes, even though a former treatment is causing some stress, the object may be so frail that it would be impossible to re-conservate without causing further damage. In such cases the only solution is to give as much external support as possible and try to provide a benign, stable environment to limit further deterioration. A full photographic and written record is made of all repairs and samples are kept for examination and comparison. There is very little early documentation of conservation so it is important to build up a library of samples.

The two Egyptian objects described below both required re-conservation in recent years because of the deleterious effects of old treatments. As ever, it was a chastening experience to explore the good intentions of one’s predecessors in this field, but salutary also to remember that without them many of the fragile objects in the collection would not exist today.

The fragment of a female statuette (Fig 5) was bought in Egypt and brought to this country about fifty years ago. The back and interior have been damaged by insects to such an extent that only a hollow shell remains. The wood is therefore very thin and frail, and it is cracked and brittle. Probably quite soon after excavation, the cavity at the back was filled with a coarse plaster mixed with newspaper. This very solid fill gave the object a most peculiar ‘top-heavy’ appearance.

By the time the statuette came to the Museum in 1988 the wood had begun to cleave away from the plaster. Some new cracks had also opened up in the wood as it had responded to changes in relative humidity but then restricted from movement by the unyielding plaster. The aim of the conservation treatment was to remove the plaster fill, support cracks and losses in the object, and make an unobtrusive new mount which would support the fragment fully without imposing strain.

The plaster was dampened a little at a time and
removed mechanically with a scalpel. The cracks were supported with strips of a medium weight Japanese tissue attached with an acrylic resin and then lightly coloured to tone in with the wood (Fig 6). Small pieces of the wig, which were found embedded in the plaster, were attached by the same method. Stripped of the heavy fill, the statuette has regained much of its delicate beauty (Fig 7). Pegs support the fragment at its strongest points and hold it securely, but without pressure, against a perspex mount on which it can be safely moved and examined.

The ivory kohl pot (Fig 8) is noted in the Fitzwilliam’s records as having been treated on site in 1923 by the archaeologist William Flinders Petrie. For an archaeologist of this period, he had unusually strong views about the conservation of excavated objects and developed a range of treatments of his own.

The ivory was apparently found in a very deteriorated condition and Petrie poured hot paraffin wax over it in an attempt to consolidate the structure and limit warping and lamination. The wax shrinks considerably as it solidifies, so a certain amount of strain was imposed on the delicate structure of the ivory by this treatment. In addition, the large wax molecules cannot penetrate very far into the ivory. This means that it was, in effect, only sticking the fragments together, not imparting strength throughout the structure. The wax is very stable, but it attracts dirt and dust which gradually darken the surface. As the ivory was not cleaned before treatment, a great deal of sand and dirt was trapped within the wax. Two other ivories from the same site, which were treated in this manner, are still in good condition but this frail piece, simply lying undisturbed in the Museum for years, had fallen into many pieces. Its shape and form were held by the bed of cotton wool in the old storage box and by the surface covering of wax, but it could not be moved without damage and collapse of the laminated structure (Figs 8 and 9).

To stabilise the piece and allow it to be handled and displayed safely, the wax had to be soaked out and replaced by a consolidant which could impart more integral strength. To prevent complete disintegration of the object during treatment, the various pieces were bound with a facing layer of tissue stuck down with a resin which would not be affected by any of the solvents used in the conservation process. The new consolidant was successfully introduced and the elements of the kohl pot reassembled. It is still very fragile, but can now be handled and displayed (Figs 10 and 11). It is not possible to reverse the warping of the structure and the ivory will continue to respond to changes in relative humidity, so it must be kept in a very stable environment. The case of this small kohl pot shows that sometimes ‘minimum intervention’ necessarily means complete and radical re-treatment.

In the past too many objects have been damaged by inappropriate treatments and materials, and too much information has been lost by the over-cleaning of surfaces or confused by over-restoration. Conservation has come a long way in the last century and especially in the last thirty to forty years. Today we have few excuses to make such mistakes. However, it is a sad fact that many ancient objects are even now damaged by ignorant or unscrupulous practitioners. As technologies and materials increase in sophistication it becomes ever more important that conservation is carried out to the highest ethical standards and that archaeologists, art historians, curators, dealers and collectors work together with trained conservators to preserve the integrity of ancient objects.
The Embiricos Greek Vase Sale at Christie's

Jerome M. Eisenberg, Ph.D.

An outstanding collection of twenty-nine Attic vases (and one Boeotian bichrome amphora) belonging to Nicholas Embiricos of Lausanne and London was sold in London at Christie's on 28 April 1993. It was the first significant vase sale since the superb fifteen-piece collection of Nelson Bunker Hunt was sold at Sotheby's in New York in June 1990, which included a fragmentary Attic red-figure calyx krater signed by Euphronios that sold for $1,760,000 (See Minerva, April 1990, pp. 18-21; September 1990, pp. 33.) Preceding that was the Munzen und Medaillen sale in Basle in November 1986 of the forty-two piece collection of the late Dr Ferruccio Bolla of Lugano, which featured a select group of thirteen Attic, South Italian, and Etruscan stamnos. One of the most important private collections of its time, the group of ninety-nine Castile Ashby vases, formed mainly in the 1820s by the 2nd Marquess of Northampton, was sold by Christie's in July 1980.

In spite of the unusually low presale estimates and the timing of the sale (major antiquity sales in London are held in July and December), the Embiricos group realized £1,460,905 ($2,293,620), nearly twice the estimates, with all of the lots sold. This was no doubt due in part to the provenance of the collection, nearly half of the vases having been published by Sir John Beazley in his Attic Black-figure Vase-painters (1956), Attic Red-figure Vase-painters (2nd edition, 1963) and Paralipomena: additions to Attic Red-figure Vase-Painters (2nd edition, 1971). The following prices represent the hammer price plus a premium of 15% on the first £30,000 and 10% on the excess above that amount.

An Attic black-figure neck-amphora attributed to the Affecter Painter (Fig 1), £30-520 BC, 17½" (not including the lid, which was of a slightly later date), estimated at £60,000-£90,000, sold for £89,500 ($140,515) to a private collector. A black-figure psykter (wine-cooler) attributed to the Acheilos Painter (Fig 2), £20-310 BC, 11½", depicting a symposion, was estimated at an unusually low £15,000-£25,000, but nevertheless brought £58,700 from a telephone bidder in spite of some restorations and an ancient repair of bronze rivets. This is a rare vase type; of some fifty psyktres known only sixteen are black-figure and without handles.

A fine bi-lingual (combination of black and red-figure) eye cup attributed to either Epiktetos or Psiax (Figs 3 and 8), £20-310 BC, diameter 12½", with a running figure of Hermes in the tondo, estimated at £60,000-£90,000, sold to a telephone bidder, said to be a New York collector, for £128,000. A flying Nike playing a kithara is depicted on an elegant red-figure amphora attributed to the Berlin Painter (Fig 4), c. 490-480 BC, 13½". Estimated at just £40,000-£60,000 due to the restoration of part of the upper neck and rim, it sold for £69,700.

A choice red-figure lekythos with the goddess Hera and a roaring lion at her feet (Fig 5), attributed to the Brygos Painter, c. 480 BC, 13½", with an estimate of £50,000-£70,000, sold for £133,500, apparently to a major New York collector. A second but larger (15¾") red-figure lekythos with a lovely depiction of a flying Nike holding a hydria and a tripod (Fig 6), attributed to the same painter, c. 480-470 BC, was estimated at just £40,000-£60,000 because of the several areas of restoration. It brought £122,500 from a telephone bidder, said to have been a private Greek collector. An attractive red-figure lekythos (Fig 7) 'in the manner of the late Berlin Painter' or more probably by Hermakes, with a striding Poseidon, holding his trident and a dolphin, and a sphinx on the shoulder of the vase, c. 470 BC, 15½", estimated at £30,000-£40,000, was purchased by the same buyer for £49,900.

The cover illustration was a detail of a handsome red-figure pelike
attributed to the Pan Painter (Fig 8), c. 480-470 BC, 10¾"diam, with a bearded kithara player ascending a two-tiered platform. Virtually intact, it was inexplicably estimated for just £50,000-£80,000. It realized a more realistic £144,500 on a telephone bid, apparently from an American collector. A second red-figure pelike attributed to the Pan Painter, c. 470 BC, with a young huntsman and two other figures, while much larger (15½"h), was not as fine a work and had 'reworked areas' in addition to a large area of restoration. Estimated for £25,000-£35,000 it nevertheless brought £62,000.

Eos, the goddess of the dawn, pursuing the young Tithonos, a popular theme in Attic vase painting, is depicted on a red-figure hydria (Fig 11), c. 470-460 BC, 13¼"h, once in the collection of the 2nd Marquess of Sligo (1788-1845). The Marquess went to prison in 1812 for illegally transporting Greek antiquities on an English man-of-war. The vase, estimated at £30,000-£40,000, sold for £60,900, apparently to the same person as the larger Brygos Painter lekythos.

The star of the sale was a charming red-figure hydria attributed to either the Niobid Painter or the Painter of the Berlin Hydria (Fig 10, detail), c. 450 BC, 11¾"h. It illustrates a music recital with a central figure of a seated female playing a barbiton, flanked by two women, one holding an open scroll, the other holding a lyre. Since the setting is in a temple, represented by a door and column, the representations might be that of Muses. The extremely low estimate of £40,000-£50,000 certainly did not affect at least two bidders. The collector who purchased the Pan Painter pelike won the vase for £172,000 after a prolonged duel. A charming departure scene is shown on a red-figure stamnos attributed to a later Mannerist (Fig 9), c. 450-440 BC, 13½"h. It probably depicts Amphiaraoes, the great hero of Argos, leaving his wife, Eriphyle, and his son, Alkmeone, to join the expedition against Thebes. He had already predicted his demise in battle and asked his son to avenge him. The young naked son is shown clinging to him, perhaps imploring him not to leave. Another interpretation could be that it represents Hector, Andromache and Astyanax. This vase, from the Spadaro collection in Sicily, was published by Benndorf in 1867 and was last seen in the nineteenth century until it reappeared in the Embiricos collection. Estimated at £30,000-£40,000, it sold for £54,300.

It is interesting to note that except for the neck-amphora by the Affecter Painter, all of the top ten vases went to just four or so private telephone bidders. It appears that none were acquired by museums. Not one of the four prominent European dealers attending the sale succeeded in obtaining any of these pieces. Royal-Athena Galleries bid actively on about twenty of the lots.

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Fig 3. Attic bilingual eye cup attributed to Epiktetos, c. 520-510 BC.

Fig 4. Attic red-figure amphora attributed to the Berlin Painter, c. 490-480 BC.

Fig 5. Attic red-figure lekythos attributed to the Brygos Painter, c. 480-470 BC.

Fig 6. Attic red-figure lekythos attributed to the Brygos Painter, c. 480-470 BC.

Fig 7. Attic red-figure lekythos attributed to Hermokles, c. 470 BC.
and acquired only two. Obviously the recession has affected the dealers, but not the serious collectors, who were able to take advantage of this opportunity. It appears that Mr Embiricos might not have sold his entire vase collection, for at least one of them, the black-figure neck-amphora by the Amasis Painter, published by D. von Bothmer in The Amasis Painter and His World, did not appear in this sale.

Fig 8 (above left). Detail of the figure of Hermes in the tondo of the Attic bilingual eye cup attributed to Epiktetos.

Fig 9 (above). Attic red-figure stamnos attributed to a later Mannierist, c. 450-440 BC.

Fig 10 (left). Detail of Attic red-figure hydria attributed to the Niobid Painter, c. 450 BC.

Fig 11 (below). Attic red-figure hydria, c. 470-460 BC.
HOW much did Rome pay the soldiers serving in the legions and the auxilia, who expanded and defended her empire? The answer is of great importance not only to the history of the Roman army but also to the political, social, and economic history of the Roman empire in general. Many learned articles have been devoted to this matter and steady progress has been made. Yet problems and questions remained and not all the results were accepted without criticism, as the evidence is scanty and often not readily intelligible.

The few remaining pay records on papyrus reveal that Roman soldiers received their annual pay in three instalments (stipendia), due on the first of January, May, and September respectively. The basic pay of a soldier serving in a legion is the only reliably known figure, as it is mentioned by the ancient writers Tacitus and Suetonius. These sources reveal that during the greater part of the first century AD, a legionary earned 300 sesterces per pay-day, i.e. 900 sesterces per year. After a pay-rise by the emperor Domitian in AD 84 throughout the second century AD the soldiers in the legions received 1200 sesterces yearly (which equals 300 denarii or roughly 4.7 kilograms of silver). Later pay-rises are also attested, though some without the factor by which the soldiers' pay was raised and others in sources known to be occasionally inaccurate.

Unfortunately, the ancient writers give us no notion of what the pay of other ranks in the legions may have been, nor of the pay of the soldiers serving in the second and equally large branch of the frontier army, the auxilia. Some further information on pay grades can be obtained from a small number of Roman military pay records on papyrus that have survived the centuries in the Egyptian desert. These documents were drawn up by the Roman units' administrators and are therefore solid evidence of the pay, the sums deducted for food and equipment, as well as the money that was finally handed out to the soldiers or credited to their savings accounts. Unfortunately, one faces serious difficulties when trying to understand the data given by the sources, as none of the pay records mentions the ranks of the soldiers concerned, and only two reveal their units. Of the latter two, one just reports the delivery of bulk sums to cover the salaries of an unspecified number of recipients and the other shows seemingly inexplicable figures. Furthermore, none of the sums in the pay records equals the pay of the legions as known from ancient writers, and there does not seem to be any simple ratio between the various documented sums.

It is commonly agreed that the soldiers in the auxilia, originally recruited from the conquered peoples and, at least during the early empire, not by Roman citizens, should have earned less than the citizen soldiers in the legions. Yet, whereas the legions were largely uniform in conditions of service and pay (out of the 5400 soldiers serving in a legion only 120 horsemen received a different, slightly better, basic pay), the auxiliary forces consisted of three different types of units: cavalry regiments (alae), infantry regiments (cohors) and part-mounted regiments (cohors equitatae). Mainly from a speech the emperor Hadrian gave to the troops at Lambaesis in North Africa, we also know that the horsemen in the alae drew a higher basic pay than those in the part-mounted cohors. The soldiers in both the legions and the auxiliary cohors received slightly less than the horsemen. We are therefore looking for the following different pay rates: the basic pay of the legionsaries in the infantry cohors as well as the basic pay rates of the horsemen in the legions, in the cavalry regiments and in the part-mounted regiments.

Several different pay models describing the ratio of the basic pay...
of legionaries and in the auxilia have been proposed. The most popular ones amongst modern scholars may be described as the 1:3 and 5:6 pay models. The 1:3 thesis, which implies that a legionary earned three times as much as a footsoldier in the auxiliary cohortes, seemed to have some support with the ancient writers and showed an obvious difference in pay between the auxilia and the legions. It was therefore widely accepted. This pay model, however, could not explain the figures on the papyri and also entailed severe pay-cuts in the careers of some soldiers who were promoted from the legions to the auxilia.

The 5:6 pay model, on the other hand, which describes the ratio between the auxiliary and the legions pay as no more than 5:6, could explain most of the ancient pay records by assuming an unspecified 1% deduction off the soldiers’ pay before it was accredited. It also made it possible to understand promotions from the legions to the auxiliary forces without having to assume pay-cuts. Still, it was open to criticism as it was based on the assumption that certain pay records belonged to auxiliaries and others to legionaries, though none of the records actually say so.

A new document, discovered while working on the over 600 writing-tablets from the legionary fortress of Vindonissa, Switzerland, has probably provided the missing link in the chain of evidence. The text, a pay receipt of a horseman in a part-mounted auxiliary regiment, reveals a new sum and thus allows the reconstruction of the Roman army’s pay scales through the first centuries AD. The text runs as follows:

Asinio Ce[il]ere, Non[i]o co[n]s[ulis], XI ka[iendas]

‘22 July of the year in which Asinius Celer and Nonius [Quintilianus] were consuls [AD 38]. I, the above mentioned Clua, horseman of the Raeti in the squadron of Albius Pudens, have received 50 denarii, and at next pay 75 denarii.’

The text is a receipt for money paid to the Raetian horseman Clua, who served in the part-mounted auxiliary cohorts VII Raetorum equitata, which was stationed at Vindonissa between c. AD 30 and c. AD 50. The receipt was written, it appears, in his own rather wobbly hand. Preceding and now missing pages may have contained an official text by the unit’s treasurer (signifer) or his bookkeeper (librarius), as well as perhaps the names and seals of witnesses. The complete document was presumably kept with the treasurer’s records. It provides us, for the first time, with a safe and unambiguous figure for the pay of an auxiliary soldier of known rank.

According to this receipt, Clua received 50 denarii for an unspecified purpose on 22 July AD 38 and, in addition, his whole next pay of 75 denarii (=300 sesterces) in advance. Horsemen in the auxiliary cohorts, therefore, earned the same salary as the legionaries. As they received only slightly less than the horsemen, it is now evident that the ratio between the soldiers’ pay in the cohorts and in the legions was indeed 5:6. Further calculations and the understanding of the ancient pay records on papyri in the light of the 5:6 pay model enable one to explain otherwise uncertain documents and figures, and thus to reconstruct the pay scale of the Roman army down to the fourth century AD, although some of the pay rates are still in want of documentary evidence.

The reconstructed pay scales now appear much simpler than was usually assumed, with the Roman frontier army knowing only three different basic levels of pay, applied throughout the first three centuries AD: before AD 84, the year of Domitian’s pay-rise, a soldier in a cohort was paid 250 sesterces each pay day, legionaries and the horsemen in the auxiliary part-mounted regiments were paid 300 sesterces, whilst the horsemen in both the legions and the alae received 350 sesterces. With the army becoming an increasingly important and finally a decisive factor when appointing new emperors (or eliminating an old one), the soldiers’ pay was doubled in AD 197 by Septimius Severus, increased by 50% in AD 212 by Caracalla and finally doubled again in AD 235 by the emperor Maximinus.

The suggested pay scales help in understanding promotions and transfers in the Roman army, and in appreciating the social standing of generals, officers, soldiers, and veterans. It also sheds light on the empire’s budget and thereby on the political and economic history of the Roman empire.
SUTTON HOO
The Graveyard of Anglo-Saxon Pagan Kingship

Last year saw the end of the most recent, ten-year campaign of excavation at Sutton Hoo in East Anglia, the richest burial ever found on English soil. Here, Martin Carver, Director of the Sutton Hoo Research Trust, looks at the history of the site in the light of the latest dramatic findings.

Sutton Hoo is one of the most famous, glamorous and curious archaeological sites in Europe. It has all the essential ingredients for popular consumption – gold, warrior kings, ships and human sacrifice. Every archaeologist who has worked there agrees that the site is a high-status burial ground of the seventh century AD, when the earliest Christian kingdoms were forming in the old Roman province of Britannia. Some will also tell you that these are none other than the buried kings of the East Angles, an early kingdom known to the Venerable Bede. Sutton Hoo is thus not only England’s first royal burial ground but the only one where the burials are pagan, and the most recent work suggests that, in every sense, Sutton Hoo was the graveyard not only of pagan kings, but of pagan kingship.

LITTLE EGYPT
Sutton Hoo counts among its adherents not only archaeologists, historians and experts on Anglo-Saxon literature, but folklorists, Royalty, Treasure Hunters and members of the Dark Age Society. People come from every continent to visit the site and are often astonished to see the modest group of grassy mounds in the lee of a small wood. ‘This’, says the guide, ‘is Sutton Hoo – England’s first royal burial ground, also called Hoo Hills or Little Egypt; it’s one of the rare places of which the locals say, with accuracy: “there’s gold in them there hills”. The story of Sutton Hoo’s exploration and exploitation is 6000 years long and the archaeology itself has become part of it.

PREHISTORIC PRELUDE
Our tale begins about 4000 BC, when the banks of the River Deben were clad in thick oak forest. These were cleared by agricultural pioneers of the neolithic period back to about a mile from the river, thus establishing a general pattern of settlement that was to endure until the Middle Ages. In about 2000 BC, a new ideology swept much of SE England, one which involved burial under hemispherical burial mounds. The dead were accompanied by pottery drinking vessels – the Beakers which give their name to the Beaker Period. No Beaker period mound has yet been found at Sutton Hoo, but the site was littered with flint debris and the remains of numerous fine Beakers. Some were associated with a round
house, some with a circle of ritual pits, and some with a series of long banks and ditches each enclosing parcels of land of about one acre. Thus the Beaker-users introduced something that was to become a permanent feature of the Suffolk landscape: the division of the land into private property. This was the peak of prehistoric Sutton Hoo. A scatter of Iron Age pottery, a rectilinear earthwork, a few plough marks in the relict soils, a Roman brooch — these things speak of intermittent and agricultural use for the next 2000 years. Sutton Hoo’s day of glory was not to arrive until the Roman administration had come and gone, and the land was settled under new management, that of the Angles — immigrants from North Germany, Denmark and Norway who were set to give England her name and something of her character.

ROYAL CEMETERY
When the decision was taken, by an unknown Anglian authority, to found a cemetery up on the Sutton Hoo promontory, it was likely to have been agricultural land still carrying the traces of the prehistoric property boundaries. This is suggested by the odd coincidence that three of the Anglo-Saxons’ burial mounds — and they are probably among the first to be built — were placed on the corners of the old Iron Age earthwork. Sutton Hoo was a burial ground of burial mounds — earth barrows. In all the archaeological work of the twentieth century no convincing traces have been discovered at Sutton Hoo of the standard type of Anglo-Saxon burial: cremation in decorative pots, or inhumation in ‘flat graves’ (without mounds) with spear and shield.

These abound in the 300 or so cemeteries so far discovered in East Anglia and date from the fifth-seventh centuries, that period of pre-Christian movement and change, when the stage-set of the landscape was being re-arranged. In the seventh century, the curfew goes up and historians and archaeologists see the arrival of small Christian kingdoms, such as Kent and Northumbria. At Sutton Hoo, too, the curfew goes up in the seventh century, but on a pagan, not a Christian, burial ground.

ANATOMY OF A KINGDOM
Eighteen burial mounds are known, eleven of which have been excavated. Of these, seven contained cremations, two contained ships, and one covered a horse burial. All but two had been previously excavated and pillaged. The corrosive nature of the sandy subsoil removes most of the organic material, including wood (which could be used for radiocarbon dating). This combination of disturbance and corrosion makes the relative dating of the mounds very difficult; and analysis of the finds and stratification to find the best order of construction — from which the full story can be more accurately told, is amongst the foremost targets of analytical work in progress at the University of York and the British Museum.

The interim version is as follows: the first mound
is Mound 5, the cremation of a man who had his skull cloven, probably with a sword. He was buried with a number of objects, burnt on the pyre and scattered by pillagers, but including (at least) a set of playing pieces, a silver-mounted cup, a pair of shears, and a knife in its sheath. This mound, on the highest point of the Sutton Hoo promontory, became the focus for a new and drastic ritual: human sacrifice. Around the mound were found 16 graves containing individuals, whose bodies had been reduced by the acid sand to dark brown sandy-clay forms, containing a little residual bone. From these three-dimensional shapes in the ground the form of the body could be mapped, and from that the unmistakable traces of abuse and trauma came to light. Some were buried face-down, some had been decapitated, some had broken necks. Those who left sufficient traces were identified as young and male.

SAVAGE INVESTMENT
This was not the only group of sacrificial burials. On the eastern periphery of the cemetery another 23 graves lay adjacent to each other. Here too the variation in burial posture was extraordinary and suggested ritual trauma: individuals buried face-down, kneeling, crouching, decapitated, necks broken. Some lay ankle-over-ankle, or wrist over wrist, indicating that they had been bound. One of the most curious introduced the notion of ritual of another kind: a young man was buried within a crude plough or ard, the body arranged in a running, or more probably a ploughing, position. This savage investment was confined to these two groups. The Anglo-Saxons were not known to have routinely practised human sacrifice, but it survived here and there as a horrific rumour in the writings of Christian missionaries about the discredited practices of the old Germanic north. This is the first time that archaeological evidence has been claimed and it naturally remains controversial among the Anglo-Saxons’ descendant community— the inhabitants of modern England.

A FAMILY AFFAIR
Mound 5 was followed by at least five more cremations: Mounds 6, 7, 3, 4 and 18. In most cases the cremated bone and charred grave goods seem to have been gathered up, wrapped in cloth and placed in a bronze bowl. The fragments found give us a glimpse of the riches placed in these deposits, whether burnt or not. A sword-pyramid in Mound 6, a reticella bead from Mound 7, a throwing axe from Mound 3 and a playing piece from Mound 4.

The cremation burials run in a line north-south in the centre of the cemetery, and according to current interpretations represent the cemetery’s founders and their immediate successors. On either side of the line other rich burials were found, and these were not cremations. Mound 14, to the east, had been a chamber-grave, consisting of thick vertical planks. This burial had been pillaged— but by a stroke of good fortune the tomb-robbers had been interrupted by a thunderstorm, which turned the bottom of the chamber into a layer of sandy mush. When the robbers abandoned their enterprise, over
Excavation Report

Gilt bronze terminal in the shape of a bird's head. Copyright The British Museum.

100 fragments of precious finds had been captured in the mush, whence the archaeologists retrieved them. Now undergoing conservation in the British Museum, the first results suggest that Mound 14 was the grave of a woman. A little nearer to Mound 5 was a row of three graves. The most northerly contained a miniature spearhead and must have been the grave of a young child. It had been covered with the smallest of mounds, perhaps two metres across.

On the western side was the latest, and only the second intact mound burial to be discovered: Mound 17. A young man lay in a wooden coffin, accompanied by a sword, purse and buckle. Outside the coffin lay a bucket, a cauldron, a pot and a bronze drinking bowl. At the head-end of the coffin was a mass of metal fittings and leather straps – the superbly decorated bridle of a horse; and in a pit adjacent and under the same mound lay the skeleton of the horse itself. These burials suggest a division among those buried in the cemetery – between the cremations under large mounds on the higher ground and the inhumations, which are certainly wealthy but more orthodox and under small mounds. This is the kind of division which might be allowed to reinforce the idea of dynastic kings and their wider family.

THE SHIP BURIALS

The sequence closes with the most extravagant burials of all, the two ship burials. Mound 2, to the north, covered a chamber-grave constructed of thick vertical planks. Although robbed, the archaeologists were able to say that it had contained the body of a man, originally accompanied by a sword, shield, five knives, a blue glass jar, a bucket, a cauldron and drinking horns. A ship, a clinker-built vessel some 20 metres long, had been placed over the top of the chamber grave, the keel amidships being supported by a horizontal beam. The mound was then built over the ship.

Mound 1, still the jewel in Sutton Hoo's crown, was probably the last mound to be built. Beneath it lay a 90ft long clinker-built ship in a trench below the old ground surface. The burial chamber was inside the ship, a sturdy wooden hut constructed amidships like a cabin. Within the hut lay the body of a man, accompanied by that heap of gorgeous objects whose miraculous survival has made the name of Sutton Hoo famous all over the world.

The Sutton Hoo cemetery had prestige in its own day too. Many people would have witnessed the rituals and absorbed their symbolism. Each of the burials was, for a non-literate people, a dramatic enactment, an emphatic political statement, a piece of rhetoric broadcast in a theatre of death. These burials with their strong pagan and Scandinavian message proclaim the independence of a newly-cre-ated Kingdom of East Anglia, the independence of a people who saw themselves as pagan, maritime, enterprising and autonomous. They had no wish to be swallowed by the creeping centralisation of the Christian Frankish confederation. Then, as now, the English of East Anglia were torn between the economic advantage and the loss of liberty implied by joining mainland Europe. Sutton Hoo was their first statement of defiance but not, of course, their last.

THE AFTERMATH: AGRICULTURE AND ARCHAEOLOGY

When the burial mounds were first constructed they stood up to four metres high. Visitors to the site in 1993 can see Mound 2 reconstructed to this height. It can be seen from Melton railway station, across the river, and it towers above the poor remnants of its neighbours. This shows more convincingly than
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words what happened to this imposing cemetery which had been a landmark for centuries; it was rubbed almost flat by the plough. Nineteenth-century soil-hunger here, as in Denmark, seems to have been the cause.

With the ploughs came the archaeologists. We can read of the earliest known expedition in The Ipswich Journal for 1860. A Mr Barritt opened one of the Mounds at Sutton Hoo, removing from it ‘two bushels of iron screw bolts which were taken away to the local blacksmith to be made into horseshoes’. It seems likely that Mr Barritt had opened Mound 2, and that it was his workmen who had scattered the iron ship rivets found there. ‘It is hoped’, The Ipswich Journal continued, ‘when leave is granted to open the others some more important antiquities may be discovered’. Permission must have been obtained. Large east-west trenches of the kind encountered in Mound 2 have been found cut through Mounds 5, 6, 7, 3 and 4 and were probably cut through many of the unexcavated mounds too. Mound 17 was spared, and even more fortunately, Mound 1. Later excavations can be seen from the trenches of the nineteenth-century workmen, their barrow runs and the steps leading down to the chamber cut for the easy descent of their gentleman-antiquary employers. But no reports and no traces of their numerous finds have so far been discovered. It is for this reason that later archaeologists call the earlier ones ‘robbers’.

In 1938, the burial ground was opened by Mrs Pretty, a Justice of the Peace whose curiosity led her to open some of the mounds with the assistance of the Ipswich Museum and a contract excavator, Basil Brown. Mounds 2, 3, and 4 were trenched and declared in every case to have been Anglo-Saxon. Basil Brown also recognised the ship rivets and surmised that Mound 2 was a ship burial.

The next year he returned as Mrs Pretty’s archaeologist and, together with her gardener and gamekeeper, entered history by cutting a trench through Mound 1 to reveal the richest burial yet found on English soil. The excavation was continued by Charles Phillips, Stuart Piggott, Peggy Guido, and W.F. Grimes, and was visited by many other famous archaeologists awaiting call-up in that uneasy summer of 1939.

By September, when war began, the burial cham-

ber had been emptied, the site recorded and the excavation filled with bracken. A jury had found the treasure to be the property of the landowner, and Mrs Pretty in a perspicacious and enlightened gesture had given the contents of the so-called million pound grave to the British Museum, at the same time retaining the rights of excavation in her own family.

War came and with it soldiers and tanks which trained on the mounds, and drag lines which cut anti-glider ditches across the heathland surrounding the mounds. After the war, the British Museum unpacked the treasure from its wartime storage and a period of intensive study began, under the direction of Rupert Bruce-Mitford. A British Museum team returned to the site in 1965-71, completed the excavation of Mound 1 and investigated Mound 5. In 1975 the first, and in 1983 the last, of three great volumes appeared: the comprehensive publication of the Sutton Hoo ship burial which could now be shared by the world.

In the same year, 1983, the most recent campaign began. Designed to find a social, economic and ideological context for the ship burial, and write a new page one for English History, it combined excavation, remote mapping, survey in East Anglia and comparative studies in collaboration with the early medieval scholars of East Anglia’s North Sea neighbours – Norway, Sweden, Denmark, North Germany, France. By 1992 the Deben Valley had been surveyed, in collaboration with Suffolk Archaeological Unit, a hector of the cemetery, containing eight burial mounds, had been excavated, including the Mound 2 ship-burial and the horse burial under Mound 17 discovered at the very end of the field campaign. Annual reports have been issued as the Bulletin of the Sutton Hoo Research Committee. A full interim report has been published in The Age of Sutton Hoo (Boydell and Brewer, 1992). The site has been consolidated, fenced and made ready for visitors, and the definitive excavation report is in preparation at the University of York.

Martin Carver is Professor of Archaeology at the University of York and Director of the Sutton Hoo Research Trust.

The Age of Sutton Hoo edited by Martin Carver is reviewed on page 36.
Alexandria Symposium

at

the J. Paul Getty Museum

Stavros Aspropoulos

A
n
international symposium
with approximately 20
invited speakers was held
at
the J. Paul Getty Museum in
Malibu, California, in late April
under
the title 'Alexandria and Alexandrian-
ism'. The topics ranged from
an
overview of ancient Alexandria's
history and culture, presented in
the key
note address by Peter Green of the
University of Texas, Austin, to
Alexandria's position in the Byzan-
tine-Islamic world by Princeton Uni-
versity's Abraham Uдович using the
information contained primarily in
the Cairene Geniza Archive from the
Synagogue of Ben Ezra. The concluding
presentation by the Honourable
Mohamed Ghoneim, Egypt's Under
Secretary of State for Foreign Cultural
Relations, on Alexandria from 1807-
1922, was an extraordinary tour de
force weaving a varied tapestry of this
exceptional city from the warp
treads of the poet Cavafy, the musi-
cian Said Darwish, and the artist
Mohamed Nagi and weft threads of
the political activists Mustafa Ramal
and Said Zaghli.

It is, however, the intention of
this report to concentrate on those
papers which dealt primarily with the
art and architecture of Alexandria
during the Ptolemaic and Roman
periods.

Günther Grimm, Chair of the
Egyptian Section of the University of
Trier, discussed the town planning
of the city of Alexandria subsequent
to its foundation and concluded that
the Ptolemies were rather ad hoc in
this regard, allowing the city to
develop on its own in a rather hap-
hazard, unplanned way. In many
respects, this assessment of that
development conforms to the
accepted picture of the Ptolemies' admin-
nistration of their realm which
was also, apparently, self-driven
and independent of any long term plan-
ning.

His lecture set the stage for two
others, the first by Judith McKen
zie, of St Hugh's College, Oxford, who
convincingly demonstrated that
baroque architecture, as it is applied
to Bernini's St Peter's in Rome or to
Borromini's San Carlo alle Quattro
Fontane in the same city, was first
developed in Alexandria. Her careful
analysis of architectural members
from that city as well as of those
newly discovered at Marina el
Alamein to the west, reveal close
affinities with the architectural style
developed later at Petra and reflected
in Second Style Pompeian wall paint-
ing.

John Onians, from the University
of East Anglia, Norwich, attempted
to demonstrate that certain features of
Roman Imperial architecture bore
closer affinities with pharaonic
Egyptian than it did with either clas-
sical or Hellenistic architectural
forms. He contrasted the use of curv-
linear forms in the former with the
more rectilinear shapes favoured by
the latter. He concluded with the
observation that the design of the
Pantheon in Rome, with its seg-
mented granite pediments and
unfluted columns of the same mate-
rial, was a conscious imitation of
pharaonic forms.

Trier University's Wiktor Das-
zewski, long noted for his pioneering
work on mosaics from Ptolemaic and
Roman Egypt, cited evidence as
tones and hues of the famous mosaic
in the Graeco-Roman Museum signed
by Sophilos (Fig 1) and found at Tell
Timal (Thmuis), which he had earlier
identified as an image of Queen
Berenike II, to suggest the appearance
of the actual colours once applied to
marble sculptures from Hellenistic
Alexandria.

He used that discussion as a
springboard for launching into a pre-
sentation of the salient characteristics
of some 63 mosaics with documented
findspots in Alexandria or its imme-
diate environs. Of that number an
amazing 16 have been found in Kom
el-Dikka, a site presently occupying
some 16 acres.

As a result of these statistics, it
appears that floor mosaics may have
been more frequently encountered in
Romano-Egyptian contexts than
scholars have been willing to admit
to date. More significant was the
observation that the Kom el-Dikka
mosaics eschew figural decoration
altogether, suggesting either a city-
wide trend or a conscious choice.

Klaus Parlasca, professor emeritus
from the University of Erlangen,
discussed the Getty Sarcophagus (Fig 2),
a remarkable painted wood rectangu-
lar object, the four preserved sides of
which are lavishly painted. The sar-
cophagus, the small dimensions of
which (3.56m x 0.50m) indicate it
was destined for a child or a youth,
was provided with a lid which slid
back and forth allowing the relatives
to view the deceased within. There
are known parallels from excavated
contexts for this particular design fea-
ture.

MINERVA 34
The principle scene consists of a depiction of the deceased boy as a banqueter reclining on a kline offering a libation. The accompanying inscription identifies him as Ammonios, whom Parlasca provocatively suggests was a Christian because of the complete absence of all elements of pharaonic funerary imagery on the sarcophagus.

Michael Pfrommer, a former student of Parlasca's, surveyed Alexandrian metalwork, both plate and jewellery. The early work is characterized by a strong Achaeorean influence, as one would expect, which is gradually modified by Macedonian taste. In the later period, the Phalerae developed their own idiom, as seen, for example, in the motif of the double serpent on bracelets, which is apparently not corroborated in any non-Alexandrian Hellenistic contexts.

Robert Bianchi, formerly of the Brooklyn Museum but now with the Metropolitan Museum of Art in New York City, discussed the social intercourse between native Egyptians and immigrant Greeks which created the environment in which the transfer of ideas might take place. He cogently suggested that the Greeks were the borrowers, often taking from the pharaonic tradition certain religious concepts and clothing them in Classical forms. The image of the god Serapis (Fig 3) is a case in point. Without the assistance of the accompanying literary tradition, one would be hard pressed, he argued, to assign any pharaonic meaning whatsoever to this purely Hellenistic image.

R.R.R. Smith, of New York University's Institute of Fine Arts, concentrated on the images of the Ptolemies in both pharaonic and Alexandrian versions. After surveying the monuments, he concluded that in certain instances, beginning only in the second century BC, pharaonic and Hellenistic versions of the same monarch tend to share certain physiognomic characteristics. This phenomenon would then suggest that each version might be a variation of a common model, developed in the capital.

Bernard V. Bothmer, also of the Institute of Fine Arts, then presented, with his by now hallmark collection of extraordinary slides, an overview of the development of private images during the Ptolemaic Period. He reaffirmed his previous position that the development of these images might be considered to be portraits and argued in favour of Hellenistic influences on these pharaonic images in hard stone.

Stanford University's Andrew Stewart addressed the vexing issue of the existence of a specifically Alexandrian art from the Classical perspective. After a succinct and very useful presentation of the historiography of Alexandrian art, he demonstrated how difficult it is, in reality, to reach consensus on this issue, but grudgingly admitted that there was in fact little evidence to suggest that there ever was a definable 'Alexandrian style' which might be universally applied to all of the arts created in the city.

The concluding lecture was by Arielle Kozloff of the Cleveland Museum of Art. She addressed the issue of Egyptianism in Alexandrian art. Concentrating primarily on the minor arts in de luxe materials, such as the Taza Farnese, she detected a particular attention to detail which imbued these works of art with an unsurpassed quality. This quality, she maintained, was the hallmark of Alexandrian art at its best and she attributed this continuing tradition of superb artistic craftsmanship to the legacy of such from pharaonic Egypt.
The Age of Sutton Hoo: The Seventh Century in North-Western Europe


This is the most expensive, but also the best of the three volumes produced from conferences held in 1989 to cel- ebrate the 50th anniversary of the discovery of the famous Sutton Hoo ship burial. The other two (Voyage to the Other World: the Legacy of Sutton Hoo, eds. C.B. Kendall and J.S. Wells, University of Minnesota Press 1992 and Sutton Hoo: Fifty Years After, eds. R. Farrall and C. Neuman de Vegvar, Miami University, 1992) have their points of interest, notably Alan M. Stahl’s two papers on the ship burial’s coins. These conclude that they form a random collection and that all 37 might have been minted before AD 613. Mound 1 might still represent Raedwald’s burial, but the supposed match between his date of death and the coins in the purse of c. 624 has collapsed and we cannot even claim with certainty that Sutton Hoo is a burial ground of the Wuffingas dynasty.

The emphasis of the present volume, edited at York by Martin Carver,Director of the current Sutton Hoo Investigation, shifts from the barrow cemetery itself, seeking to place Sutton Hoo in a wider context. True, it ends with Carver’s most recent interpretation of his now-completed excavation, including a second unrobbed grave mound. The boy buried next to his horse under mound 17 is an exciting find, but the conserved horse harness, sword and shield fittings now point to a substantially later date than Carver suggests here. He sees it as a founder burial at the beginning of a four-phase development, when this reviewer would argue that it belongs in the first half of the seventh century with the other inhumations in large mounds, all located around the cemetery periphery (mounds 1 and 2 containing ships and mound 14 a female in a grave chamber). These seem to be secondary to a core group of mounds containing cremations in bronze bowls and the ‘founder’ burial should be mound 5 with executed human sacrifices buried unburnt in and around its ring ditch. That still leaves a further group of ‘ritual’ burials, centred around a tree root impression, a short distance to the east. The suggestion is that the cemetery was associated with a pagan shrine and a ‘hanging’ tree. Appropriately, Carver’s contribution is immediately preceded by a paper on the evidence for human sacrifice in pagan Germanic Europe by Hilda Ellis Davidson.

Part I consists of six papers which place Sutton Hoo in its regional East Anglian setting. An excellent introduction to Early Anglo-Saxon East Anglia by Chris Scull is followed by John Newman’s discussion of the results of his intensive fieldwalking programme in the Sutton Hoo region, which has revolutionised our understanding of settlement distribution and density here for both the Early Anglo-Saxon and the preceding Roman periods. The important nearby cemetery at Snape has not been neglected and William Filmer-Sankey discusses the interim results from his excavations there, which produced a ship burial in the nineteenth century and now dug-out canoe burials demonstrating the reconstruction of specifically Scandinavian burial practices. The dating of Old English place-names in Suffolk is considered next by Margaret Gelling. The evidence of the Beowulf poem and other sources for the Wuffingas is discussed by Sam Newton and Henry Lynn reviews the terminol- ogy for nobles and kings in our written sources.

Part II moves on to consider evidence from elsewhere in England. Helen Geake summarises archaeological evidence for Anglo-Saxon burial practices in the seventh and eighth centuries, Julian Richards discusses symbolism in Anglo-Saxon material culture and Heinrich Harke examines the symbolism of weapon burial, while Barbara Raw considers the symbolic royal burial at Beowulf and Jane Stevenson the evidence for Christianity south of the Humber in the sixth to seventh centuries. A fascinating study by Jane Roberts provides lists of words used in Old English literature to describe those features and objects we can recover as archaeologists. It concludes a section dominated by a major re-evaluation of the Ashwell barrow in Oxfordshire. Tania Dickinson and George Speake have meticulously investigated the 1923 and 1924 excavation records and finds in the Ashmolean Museum and further advance is now only possible through re-excavation of this princely cremation.

Papers by Leslie Alcock and Sally Foster examine archaeological evidence from northern Britain including Pictland in the 7th century, which also contains extensive discussion of contemporary Frankish and Scandinavian funerary evidence. Scandinavian links with eastern England are con- sidered by John Hines, while Bjorn Myhre reassesses the ‘royal’ burial mounds at Borre near Oslo in Norway. Patrick Pépin makes a case for the survival of the remains of the first Christian ruler of the Merovingian Franks, Clovis, under a modern Paris street, while Edward James provides a general survey of Frankish royal burials and Guy Halsall discusses the interpretation of seventh-century Frankish funerary practices in the region of Metz.

Ian Wood’s paper on Merovingian claims to lordship over southern England provides the historical context for considering Frankish influence at Sutton Hoo, but it is Lotte Hedegaard who successfully links its Frankish and Scandinavian elements. She argues for the existence of a powerful kingdom in Denmark dominating Scandinavia in much the same way that Francia dominates western Europe in this period. Princely burial with ostentatious power symbols was a feature of the less secure peripheries to these kingdoms, but was superfluous in their stable centres. Helmets and ring-swords have been recovered from graves along the Rhine in the eastern Frankish kingdom and in Norway and Sweden for Scandinavia. Eastern England was also part of this insecure world, being peripheral to both Francia and Den- mark, so Sutton Hoo’s Scandinavian helmet and shield may reflect their owner’s relationships with archaeologically-invisible Danes rather than with the distant warlords of Swedish Uppland.

This welcome addition to the literature on Sutton Hoo is rather let down by various signs of haste and carelessness in both editing and proof-reading, which are particularly obvious when the reader refers to the Harvard Style references to the unified bibliography.

Martin Welch, Institute of Archaeology, University College London.

Roman Art: Romulus to Constantine


This survey provides a lucidly written and copiously illustrated introduction to Roman art. The style will keep the attention of the reader as it moves briskly through the material organised in chapters, chronologi-
Book Reviews

English Heritage Book of Castles

To date some twelve titles have been published in this series, and although one or two have met with a mixed reception, the overall consensus has been that the series is a welcome addition to the bookshelves. Some of the titles are based on the work on individual sites, for example the prehistoric site at Avebury and the medieval village of Wharram Percy, whilst others have taken subjects such as Roman towns and church archaeology. Although there have been several important books on castles in recent years, this series would not have been complete without a study of castles, and Tom McNeill has written an account which brings a fresh approach to the subject.

The reader realises that this is a castle book with a difference upon discovering that defences are not discussed until the fifth of six chapters. Although keeps, gates, mural towers and arrowslits are features which one tends to associate with castles, there is so much more to these buildings than their fortifications, as Professor Pounds has also shown us in his recent book, The Medieval Castle. McNeill makes clear in the preface that the castles upon which he has based this study are manorial castles with upstanding remains, and why he has done this. With no doubt, a set word length, the book is the better for this. Another welcome feature is that although the examples discussed are predominantly those built by the Normans/English in Wales and England, the castles of both Scotland and Ireland feature as well.

The first chapter examines the class of men who built castles, and the roles of their families and households within the lordships and castles, and closes with an examination of just who actually lived within the walls. McNeill then proceeds to castle building, examining the choice of site, cost and the men actually responsible for the construction. The lengthy third chapter is devoted to the 'Inner Household', an analysis of the internal plan of the castle, and how it was affected by the needs of the lord and his immediate household throughout the middle ages. The greater care taken in the planning of the domestic arrangements is a feature of the later thirteenth century onwards, although the provision for more private accommodation, away from communal life, can be seen in late Norman buildings. However, these changes can often be seen first in the buildings of the upper echelons of society, as they often have survived better, and one cannot be too certain how far down the social scale these changes permeated. Certainly, the proliferation of chambers is an obvious feature of some of the castles of the late thirteenth century and beyond, but even here one must be careful. McNeill devotes a paragraph and a plan to the improvements the Earl of Norfolk made to the lower bailey of Cheswold Castle in the late thirteenth century, with two halls seemingly provided. It comes as a surprise here that the author is seemingly unaware of Jeremy Knight's official Cadw guidebook to Cheswold, for in this the so-called lower hall is identified as the kitchen, and documents support this.

The 'Outer Core' is the title of the fourth chapter, and here McNeill examines what may be termed as the support services of the castle, the kitchens, butteries and pantries and their relationship to the great hall, as well as the food that would have been cooked and served. One tends to forget that even the most austere fortress in the land provided for rest and recreation through gardens and parks — Edward I's queen had a garden at Conwy — and recent fieldwork at Bodiam has shown that the castle did not stand in isolation.

Little needs to be said of the fifth chapter other than that it is a capable summary of the main developments of the defences themselves. The final chapter is given over to the studies, along with the defensive and the domestic aspects of castles. The book closes with a gazetteer of sites, most of which are open freely to the public, suggestions for further reading, and a short glossary.

McNeill mentions that 'The domestic side of castles has not been so much discussed'. Herein lies the value of this book, in that matters domestic and other themes are explored more fully than in many other books on castles, and the volume is to be recommended to all students of the castle. Certainly those new to the field ought to read as the first two books this one and Allen Brown's English Castles. There are numerous illustrations, including some of Terry Ball's excellent reconstructions, best seen in colour if they are here, but I would have preferred a better view of Harlech than the positively ancient one used in the book, as well as a more recent aerial view of Castle Acre. The map of the 115 sites

F. Williamson Price
Book Reviews

mentioned in the text is a great help, but as a Salopian I must point out that the Hopton in Shropshire which has the castle lies in the south-west of the country, not the north. Castles is a valuable addition to the English Heritage/Batsford series, and Tom McNeill is to be congratulated.

John R. Kenyon, National Museum of Wales

An Ancient Egyptian Selection

The First Hundred Years: Egyptology at University College 1892-1992, by Rosalind M. Janssens. University College London, London, 1992. 105 pp., frontis, 28 illus. and 6 maps. Paperback, £8. The Edwards Chair of Egyptology in University College owes its foundation, essentially, to the fact that a Victorian lady novelist was intolerant of the rain in Italy in the winter of 1873/74, upsetting her holiday. Incredible, but true. Amelia Edwards took the ship to Egypt to escape the rain, was captivated by the country and its monuments, wrote a bestseller travel book, A Thousand Miles up the Nile (1877) and went on to found the Egypt Exploration Fund (now Society) in 1882 and, by the terms of her will, on her death in April 1892, founded the Edwards Chair of Egyptology – it sounds almost like something out of one of her novels. She was indefatigable in her pursuit of her love of Egypt, the preservation of its monuments and the excavation and recording of its sites by experienced excavators.

That Chair was the first of its kind in Britain – foreign Chairs in Egyptology had all concentrated on philology but here archaeology was to be paramount. Miss Edwards even drew up the terms of her foundation so tightly as to make quite sure that her friend and protege, W.M.F. (later Sir Flinders) Petrie would be the first holder – no one over 40 was to be considered, nor anyone holding office at the British Museum (this to exclude Wallis Budge). The present holder, Geoffrey T. Martin, is only the sixth since Petrie.

The early days of Egyptology reflected through Amelia Edwards' foundation and the growth of the Petrie Collection (now公布) is a fascinating one well told by Rosalind Janssens in this volume specially written for the centenary. Having had access to the Petrie Collection and UCL archives, Mrs Janssens, who is Assistant Curator of the Petrie Museum at UCL, is in an unrivalled position to chronicle the saga, the vicissitudes (especially during the Second World War) of a collection of Egyptian antiquities that has incredible riches: artistic, archaeological, and historical, and is, by virtue of its origins, second to none. The emphasis is on the earlier years and 'Petrie's pups' (his assistants and students whose names read like an Egyptological roll of honour) rather than the more recent because, as she rightly notes, 'an assessment of its achievements [of more recent times] and the personalities involved must await a later, more detached biography'. Here, however, is an account at a modest price that will be welcomed by everyone in the least bit interested in Egyptology.

The British Museum Book of Ancient Egypt, edited by Stephen Quirke and Jeffrey Spencer. British Museum Press, London, 1992. 240 pp., 80 col., 80 b/w, 10 line illus. Paperback, £14.95. This new presentation effectively takes over from the long beloved brown bound series of Guides to the various Egyptian Rooms that first appeared at the end of the last century. They were transformed into An Introductory Guide to the Egyptian Collections (1964, redesigned 1971), subsequently An Introduction to Ancient Egypt (1979). Now, in large format with integrated colour illustration, here is an old friend in splendid new dress. The formula is basically the same, taking eight chapters to survey historical aspects, individual areas and topics and to make Ancient Egypt and her neighbours. The British Museum Egyptian collection is so rich in almost every sphere that every chapter is most adequately illustrated with relevant objects from the collection. The old favourites and major 'document' pieces are all featured but there are many other items that appear for the first time. Especially noteworthy is the new photography of objects that brings them alive instead of the boring, old fashioned direct views, well presented groups also bring objects to the fore. Of added interest is the greater use made of photos of appropriate sites in Egypt, in colour and black and white.

The text is a collaborative effort by the Keeper and staff of the Department (with a small contribution by three outside specialists), and the chapter on religion (pp. 56-88) is solely from the pen of Dr Stephen Quirke. It goes without saying that this is an authoritative work on ancient Egypt, and also highly readable, that will be widely welcomed. At such a reasonable price it is excellent value as well.

Egypt: the Living Past, by T.G.H. James and with photography by Graham Harrison. British Museum Press in association with the Egyptian State Information Service, London, 1992. 208 pp., 115 colour plates. Hardback, £25. This is the ideal gift for anyone with an interest in Egypt, past or present. Harry James, formerly Keeper of Egyptian Antiquities in the British Museum, weaves an informative account of ancient disease, diet, wounds, etc, around Graham Harrison's superb photos, linking the past with the present, putting each into context and projecting the timelessness of Egypt in the monuments, the vividness of its present life in busy street scenes and the Biblical picture calm of the countryside.

Egyptian Medicine, by Carole Reeves. Shire Publications, Princes Risborough, 1992. 72 pp., 63 illus. Paperback, £3.95. Modern medicine now has diagnostic techniques available not remotely dreamt of earlier this century, such as xero-radiography, computer tomography, electron and light microscopy, serology and endoscopy, all of which have, in secondary use, been of great assistance in examining Egyptian mummies. The resulting information on ancient disease, diet, wounds, etc, is enormous - new diagnoses can be made and old ones often corrected. Carole Reeves examines all aspects of ancient Egyptian medicine, the medical profession, medical papyri, drugs and deformities as well as diseases that are prevalent. There is an incredible amount of information packed into this small book, most essential for this aspect of ancient Egypt, there is a detailed four-page glossary of medical terms. This concise volume is probably the most valuable contribution yet published in the excellent Shire Egyptology series, containing a wealth of information succinctly presented and not otherwise easily available.

Ancient Egyptian Religion, by Stephen Quirke. British Museum Press, London, 1992. 192 pp., 103 illus. Paperback, £12.95. Herodotus, the Greek historian and traveller, writing in the mid-fifth century BC in his Histories, said, 'There are not a great many wild animals in Egypt, in spite of the fact that it borders on Libya. Such as there are - both wild and tame - are without exception held to be sacred. To explain the reason for this, I should have to enter into a discussion of religious principles which is a subject I particularly
wish to avoid'. (Book II, 65). To both ancient Greeks and Romans, despite the multiplicity of their own religious pantheons, Egyptian religion with its many animal-headed gods and goddesses, was alien to their ideas and concepts of godhead. And so it remained throughout later ages and in other religions that came afterwards, especially the Egyptian Christian Copts and Muslims who delighted in attacking the pagan images on the temple walls. All in all, ancient Egyptian religion had a 'bad press'. But, as Lucian wrote in the second century AD, when debating the various forms of the Egyptian gods, 'the greater part of them has a mystic significance, and it is not right to laugh at them, just because you are not one of the initiated'.

Many books claiming to be about Egyptian religion at best merely recount some of the great myths, at worst they attribute all sorts of totally unacceptable mystical significance and inane interpretations to it. Dr Quirke's book is a very balanced approach to the subject, pointing out at the outset that we must not consider the subject 'through the sphere that we ourselves label religion', because obviously different ages, let alone religions, colour one's views.

The book has an Introduction - Knowing Egyptian Beliefs - and is then ordered in five chapters: Power in Heaven; Power on Earth; Preserving the Universe; Surviving Life; Surviving Death, followed by an Epilogue on Egyptian deities abroad. Many do not realise that, despite the Roman anti view, the 'oriental' gods (as they were called) of Egypt spread widely throughout the empire, even to Britain, for example, with a temple to Isis in London and one to her consort, Serapis, in York. Within these headings, Dr Quirke discusses the Egyptian approach to religion, incorporating the relevant myths that are so strong a feature of the beliefs, and adding many very cogent and perceptive comments.

This book is not a beginner's guide to the subject of ancient Egyptian religion; it does presuppose a certain level of background knowledge on the part of the reader. With this in mind, the reader will be in a position to appreciate even more fully what a splendid book this is. It is the best book on the subject to appear in English for many years - Herodotus would have found it of inestimable value in his discussions with the Egyptian priests in the fifth century BC.

Peter A. Clayton.

Border Wares; Post-Medieval Pottery in London, 1500-1700, 1.


This is the first serious study to appear on the post-medieval earthenwares of the Surrey-Hampshire border region (hence the term 'Border Ware'). Until now archaeologists and ceramic researchers have only had recourse to a small and largely obscure set of individual excavation reports in order to find comparative material. This informative and well-produced monograph puts the pre-industrial pottery of south-east England on the archaeological map for the first time.

The subject of Jacqueline Pearce's study is the lead-glazed earthenware made during the sixteenth and seventeenth centuries at a number of centres situated along the Surrey-Hampshire border. The known kilns produced a wide range of domestic ceramics, principally those with white-firing bodies but also some redwares. They used common clay sources and were linked by shared manufacturing techniques and forms. London was a major consumer of pottery made in the region, and the City is now best placed archaeologically to provide an overview of ceramic consumer patterns for the post-medieval period. The volume assimilates, for the first time, the recently published collections of the Museum of London and the latest archaeologically excavated finds from the City, the latter providing the chronological framework by which this large body of material can be dated securely.

The approach is a familiar one and compares well to the previously published volumes on medieval pottery in London, namely London Ware (Pearce and Jenner, 1985) and Surrey Whitteware (Pearce and Vince, 1988). Again, the nucleus of this volume contains a comprehensive type-series, illustrating the variety of forms found in London. The information is summarised also as a series of typological charts, each representing a half-century of Border Ware production (what is striking, and somewhat disconcerting to the pottery specialist, is the longevity of the basic forms, virtually unchanging, over 200 years). It also includes detailed descriptions of ceramic bodies and introduces the important questions of technology and function. Border Wares is the first in a series of monographs from HMSO on the post-medieval pottery of London. Close on its heels are two impending studies of local delifware and red earthenware.

Although ground-breaking in so many ways, a number of questions remain to be asked both about the approach and format of this book. The first involves the title itself, Border Wares. Who, outside a small coterie of post-medieval archaeologists in the London area, will recognise this short-hand code-word masquerading as a generic term? Surely a more descriptive, geographically specific, subtitle is called for here? Heaven knows what Continental researchers will make of it when they leaf through their book catalogues: 'Border Ware'? What border?

A second question concerns the use of so many virtually identical pottery drawings, especially when one is dealing with the remains of pre-industrial production. Of course every porringer, bowl or chamber pot is going to differ slightly in diameter, depth or rim shape. Although often impressive, the pages of near replica pots are a little unnecessary, and could have been avoided by the systematic selection of the most representative types, supplemented by profile drawings of the sub-types. On a different tack, it is disappointing to note the absence of any chemical analysis of the wares which collectively make up this ceramic type. The thin-sections discussed briefly on page 130 are inconclusive, and it is hoped that, preferably by neutron activation, will help to construct a clearer compositional fingerprint for all the wares concerned.

Finally, it is legitimate to query the price of the book itself, or, rather, HMSO's pricing. It is significant that HMSO's previous volume of finds from London excavations, Textiles and Clothing (reviewed in these pages March/April 1993, p. 37), also published in 1992, retails at the same cost but contains 223 pages and includes 183 figures and 17 colour plates. Border Wares vital statistics are 137, 66 and 11 respectively. The discrepancy suggests an unconsidered marketing policy, and one which will seriously affect future sales of this book. This is a pity, because, for all my petty quibbles, this is an excellent work of scholarship, and will present the authors of the forthcoming volumes in this series with a very hard act to follow.

Dr David R.M. Gaimster, Department of Medieval and Later Antiquities, The British Museum.
Mesopotamia was one of the original homes of agriculture and urban society, producing three of the great civilizations of the ancient world, Sumerian, Assyrian and Babylonian. The name means the Land Between The Rivers, namely the rivers Tigris and Euphrates, and the region corresponds now mainly to modern Iraq, extending also into eastern Syria and southeastern Turkey.

The British Museum has one of the world’s finest collections of material from Mesopotamia. The Assyrian sculptures of the ninth-seventh centuries BC, with their huge human-headed winged bulls and narrative wall-panels, are easily accessible downstairs in the Museum and are seen by many visitors, but for a long time the remainder of the collection, including the treasures from the Royal Tombs of Ur, about 2500 BC, was disappointingly displayed.

In July 1991, thanks to the generosity of Raymond and Beverly Sackler, a fine new Gallery of Early Mesopotamia, in the upstairs Room 56, was opened by HRH The Princess Margaret. This carried the story of Mesopotamia from about 6000 to 1500 BC, and the display has attracted much favourable comment. Now, in the neighbouring Room 55, the same sponsors have been responsible for funding the Gallery of Later Mesopotamia, covering the period 1500-500 BC, when many of the previous developments in Mesopotamian culture reached their fruition.

The new gallery is arranged in roughly chronological order, with antiquities from Babylon and other parts of south Mesopotamia along one side, and those from Assyria opposite. Highlights include the Babylonian boundary stones, some of the earliest examples of glass, faience and glazed pottery, carved monuments recording the restoration of temples, cuneiform tablets from the royal library of Nineveh, and jewellery from Ur of the Chaldees.

Large pieces of stone were difficult to find in Babylonia, and the boundary stones commemorate very special occasions (Fig 10), when the king
made a substantial land-grant to one of his supporters (often with important tax-exemptions attached) or adjudicated on ownership. Beautifully carved, they may originally have been set up publicly in the estates to which they refer, but most of them were eventually stored in temples. Sometimes they show the king in person, but virtually all include an array of divine symbols, of which the sun, the moon and the planet Venus are the most prominent. Some symbols seem to refer to early versions of our constellations, possibly carved on these stones as witnesses of what had been decreed. They recall the great importance of astrology in Mesopotamia, where accurate records of astronomical observations were kept over many centuries (Fig 4).

The arts of glazing and of making glass were probably Mesopotamian or Syrian inventions. Glazed beads with their bright colours originally acted as cheap substitutes for scarce imported stones like lapis lazuli and carnelian, in much the same way as plastic jewellery substitutes for precious stones today. Faience vessels were in use before 2000 BC, and by about 1500 BC there was a flourishing production of small glass bottles and cups. These were not yet made by blowing, a skill only developed in the Levant in the middle of the first century BC, but they employ a range of techniques including the use of mosaic glass, where the sides of a vessel consist of any number of multicoloured glass rods fused together. The display includes examples of this and other techniques, and there are also handsome bottles of glazed pottery which were probably used for perfume.

The temples of Mesopotamia, frequently founded before 2500 BC, were repeatedly restored and reconstructed over the next two thousand years, and kings took elaborate pains to ensure that their contributions to this process were adequately recorded. A Babylonian king about 860 BC had a stone tablet made showing the appearance of a shrine he had constructed for the sun-god, and this was preserved in a box in the foundations of the temple when the building itself was in ruins (Fig 3). Three stelae show Assyrian kings carrying baskets of clay on their heads, to commemorate work on the Temple of Nabu, god of writing, about 660 BC (Fig 9). The original chryselephantine statues of the gods themselves, incorporating stones and glass beside gold and ivory, have seldom survived the centuries, but individual inlays from such statues offer a glimpse of their lost opulence and dignity.

Three cases are devoted to material from the period, about 850-612 BC, when the Late Assyrian empire dominated the Middle East, extending at one stage from western Iran to Egypt. Most of the items come from the palaces and temples of Nineveh and Nimrud, first excavated by Sir Henry Layard in the 1840s (Fig 8). Besides some outstanding small sculptures, among them the scene of The Dying Lion recently donated to the Museum (Fig 7) (see Minerva, May/June 1992, p.2), there are items of silver, bronze, ivory and other materials. An agate bowl is inscribed with the name of King Esarhaddon (680-669 BC). A small piece of rock-
crystal, cut in an oval shape with convex faces, has sometimes been interpreted as the world’s first optical lens or reading glass.

The British Museum holds an outstanding collection of clay tablets inscribed in the wedge-shaped cuneiform script, representing the great literary heritage of Mesopotamia. One case in the new gallery is devoted to the Royal Library of the Assyrian king Ashurbanipal, who reigned for about forty years from 668 BC and claims to have had the ability, apparently unusual among kings of the time, to read and write himself (Fig 9). The most famous of all is the Flood Tablet, drawn from the Late Assyrian version of the much more ancient Epic of Gilgamesh, which records the life of a legendary Sumerian king. It records a great flood which devastated the land, and describes how one man, Utnapishtim, was warned by one of the gods, and built himself an ark. Parallels with the story of Noah are obvious, and many of the other items on display throughout the room have Biblical connections.

Perhaps the best-known of all the Mesopotamian kings mentioned in the Bible is Nebuchadnezzar (604-562 BC), king of Babylon, whose capital city is said at one time to have included two Wonders of the World: its walls, which were wide enough for two chariots to pass each other on top, in due course lost their status as a Wonder, but the Hanging Gardens are still renowned. In the display are glazed bricks from another exceptional Nebuchadnezzar building, the Ishtar Gate and its procession way, which was lined with multi-coloured dragons and bulls. A bronze threshold, decorated like a carpet with rosettes, which was originally placed in Nebuchadnezzar’s own reconstruction of the temple of the god of writing, was still being used when a Seleucid Greek king, one of the successors of Alexander the Great, restored the same building about 258 BC.

A collection of gold and silver jewellery comes from the temple of the moon-god at Ur, and is another of the discoveries of Sir Leonard Woolley, best known for his excavation of the older Royal Cemetery in the 1920s: It includes a pair of silver scales, apparently for weighing, which are still displayed corroded together with a number of animal-headed silver bracelets, just as they were found in the place where they were hidden about 500 BC. Among the necklaces of stone beads in this hoard was one which must have been recovered from a tomb in antiquity, for the lapis lazuli beads have gold caps of a kind fashionable before 2000 BC.

Supernatural forces were deeply respected in Mesopotamia, and the universe was peopled by innumerable mysterious forces, good and bad (Fig
1. While some experts looked for the future in the night sky, others saw it in the movements of birds, the entrails of sacrificed animals, and almost any unusual phenomena. Consequently a whole range of magic rituals and amulets were developed in order to ensure the satisfactory outcome of any enterprise. Pregnancy and childbirth were times of particular concern, when the female demon Lamashu was waiting to snatch at life. Fortunately her deadly enemy, the hideous Pazuzu, was available to drive her off, and many magnificent heads of this monster, in stone and bronze, dominate the rich display of amulets.

On an equally practical level, throughout the gallery, there are the seals used to sign legal documents. These are nearly all cylinder seals, which were impressed into the wet clay of tablets and rolled across their surface. Many of these miniature carvings are masterpieces, displayed here beside impressions made by the seals themselves and with enlarged photographs for the detail (Fig 2). It was only about 700-600 BC, when cuneiform writing was being superseded by the alphabet, with documents on scrolls of parchment or papyrus which could be sealed by small balls of clay, that stamp seals came into general use.

The last exhibit in the gallery is the stela of Nabonidus, a monument collected by Claudius James Rich who was British Resident in Baghdad in the 1810s and whose researches at Nineveh and Babylon mark the real beginning of interest in Mesopotamian history and archaeology. This Nabonidus was the last native king of Babylon, father of the Belshazzar of Belshazzar's Feast, ousted in 539 BC by Cyrus, founder of the Persian Empire. Nabonidus seems to have brought the disaster on himself by an absence of several years in Arabia and by his devotion to the moon-god rather than to Marduk, principal god of Babylon. On his stone stela, however, carved with fluent dignity, he appears as the assured embodiment of three thousand years of civilization.

The Raymond and Beverly Sackler Gallery of Later Mesopotamia meets a long standing requirement that this section of the British Museum collection, covering one of the world's most influential civilizations, antecedent to the Persians and the Greeks, should be properly available to public view. The Museum is increasingly dependent on private sponsorship for major new displays, and it is a pleasure to acknowledge the Sacklers' far-sighted generosity.

Fig 10. Babylonian king on a boundary stone from Babylon, c. 1090 BC, presented by Sir Arnold Kembell.

Dr Julian Reade is Curator in the Department of Western Asiatic Antiquities in The British Museum.
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The Ancient Coin Market

Auction Prices Remain Steady

Eric J. McFadden

Results at the late Spring sales were generally as expected, with prices neither high nor low. The market is calm, with collectors buying steadily and carefully, but without any significant influx of new blood.

The Leu Numismatics sale, held in Zurich in May, reflected this steady market, with occasional excitement when exceptional pieces attracted special attention. Two exquisite electrotype staters from Kyziko brought strong bidding. One stater featuring a subtly modeled goat head, c. 480 BC, sold for SF52,000 against an estimate of SF45,000, and another rare type, depicting a lion biting a sword while bending the metal with its powerful paws, c. 420 BC, fetched SF50,000 against an estimate of SF32,000.

The Leu sale included an important collection of Parthian coins, and very strong prices reflected the growing number of collectors in this popular area. In many cases, prices were more than double the estimates. Two rare silver drachms of Arsaces I, the founder of the Parthian dynasty, c. 238-211 BC, each estimated at SF3,000, sold for SF8,200 and SF10,000. A common but exceptionally nice silver drachm of Mithradates II, 123-88 BC, a coin which is routinely available in extremely fine condition for about £150, sold for the breathtaking price of SF2,900 against an estimate of SF750. The Malter sale in Los Angeles, held just after the Leu sale, likewise achieved stellar prices for fine Parthian coins. An important new book just published by Fred B. Shore, entitled Parthian Coins & History, will no doubt serve to increase the popularity of this series, which is attractive even to the very modest collector for the reasonable prices of all but the rarest issues. However, judging from the Leu and Malter sale results, Mr. Shore’s price guide which was issued along with his book may soon be out of date.

The strength of the Leu sale was in the Roman coins, which included the Julio-Claudian collection of American Bob Levy. One of the most evocative of early Imperial issues, a silver denarius of Octavian struck in 28 BC to commemorate the defeat of Antony and Cleopatra (Octavian/Crocodile), sold reasonably at SF9,500 against an estimate of SF12,000. A gold aureus of Augustus (Augustus/Bull), of exquisite style, fetched SF125,000 against an estimate of SF50,000. A bronze as of Claudius, remarkably detailed and perhaps the finest known, brought SF9,250 against an estimate of SF3,000.

The grand finale of the Spring season was the second annual Spring New York International Numismatic Convention. Although still not as large as the traditional Winter New York International, the Spring fair is now established as an annual event and will certainly continue to grow in importance. The mood toward the market was somewhat restrained at this year’s fair by the news that the two ancient coin investment funds managed by Numismatic Fine Arts through the brokerage firm Merrill Lynch, Athena Fund I and Athena Fund II, will be liquidated on schedule later this year. The majority of the individual coins will be sold by Sotheby’s Zurich in October, and the large groups of coins will be auctioned in December by Numismatic Fine Arts in conjunction with the New York International. The two funds combined spent about $30 million on coins, so these sales will release a large quantity of material onto the market. This is likely to cause a drop in price for any coins which are held in quantity by the NFA funds.

The several sales held in conjunction with the Spring New York International nevertheless attracted steady buying. Classical Numismatic Group’s auction included the Greek gold collection of brothers Robert and George Stevenson, the most comprehensive collection of Greek gold coins on the market in several decades. Despite the mildly pessimistic mood at the fair, 100% of the Stevenson collection sold. A gold drachm of the Sikeliotes, c. 214-213 BC, one of just two known (Kore/Biga), equaled its estimate at $15,000. A gold stater of Athens, c. 297-296 BC, an emergency issue struck with gold stripped from Pheidias’ famous chryselephantine statue of Athena which stood in the Parthenon (Athena/Owl), went to an American museum for a reasonable $18,000 against an estimate of $25,000. A rare Egyptian gold stater of Pharaoh Nektanebo II, 359-340 BC, the only ancient gold issue to depict a hieroglyph (Horse/Hieroglyph for ‘good gold’), fetched $16,000 against an estimate of $12,500.

Christie’s sale the following day featured the McClendon collection of Greek and Roman coins. Although the collection was assembled as an investment, like the Hunt collection which was auctioned by Sotheby’s in 1990 and 1991, the quality was high and competition keen. Like CNG’s Stevenson collection, 100% of the McClendon coins sold. Although the Greek section was good, the real strength was in Roman gold. A gold aureus of Aelia, AD 136-138 (Aelia/Concordia), brought $27,000 against an estimate of $10,000-$15,000. A rare gold aureus of Commodus, AD 177-192, with the reverse depicting Commodus on horseback brandishing a javelin at a lioness, sold for $12,000 against an estimate of $5,000-$7,000. A beautifully toned gold aureus of Diocletian, AD 284-305, with a head of the emperor’s predecessor Jupiter on the reverse, fetched $35,000 against an estimate of $12,000-$18,000. Several late Roman gold medallions sold above low estimate at the $20,000-$25,000 level, and a handsome gold medallion of 3 solidi issued by Magnentius, AD 350-353, brought $36,000 against an estimate of $30,000-$50,000. The sale set a record for a Christie’s New York ancient coin auction, with a total hammer price of just over $1 million.

With the spring season at a close, the market will be quiet during the summer lull, with the exception of the American Numismatic Association convention, to be held this year in Baltimore in late July. The fair, which is held in a different city each year, should attract a good attendance this year, since Baltimore is accessible both to the large concentration of collectors on America’s east coast and to Europeans who sometimes combine this fair with a summer holiday.
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A CYLINDRICAL WORLD. A permanent exhibition telling the story of the people in East Yorkshire and including material from the Victorian era on display at the new Maritime Museum at Wettswall. HULL MUSEUM AND ART GALLERY (0482) 222737.

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NEWARK, New Jersey

STEPPING INTO ANCIENT EGYPT: THE HOUSE OF THE ARTIST PASSED. An exhibition of ancient Egyptian art, including objects from the Upper Paleolithic through the Roman period, including Egyptian art, jewelry, and instruments. THE HISTORICAL SOCIETY OF AMERICA (215) 926-2234.

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