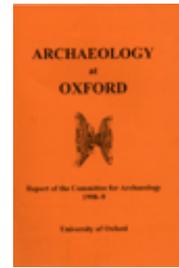


# Report of the Committee for Archaeology 1998-9



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## Report of the Committee for Archaeology

1998-9

University of Oxford

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#### **CHAIRMAN'S REPORT FOR THE YEAR 1998-9**

It is with deep regret that we record the premature death in office of Dr John Lloyd, University Lecturer in Roman Archaeology, during the course of the year. He was a dedicated teacher, a fine research scholar and an expert field archaeologist, who both inspired his students by example and challenged them in discussion to give of their best. We shall indeed miss him. We are deeply grateful to Mrs Vicki Lloyd for generously donating her husband's personal library in his memory to the Ashmolean and Institute of Archaeology Libraries. These books will be particularly appreciated by the students.

The future direction of Archaeology in Oxford was unclear at the end of last year, following the University's Review of Archaeology. Its recommendations coincided with a transformation of the governance of the University as a whole. By the end of the academic year, after often intense debate, formal and informal, the Committee for Archaeology voted strongly in favour of the creation of a School of Archaeology, within the Life and Environmental Sciences Division, as the most viable option for the placing of Archaeology within the new top-tier of University governance. Archaeology, as an increasingly interdisciplinary subject, had no obvious single home in the proposed divisional structure, as the University required, so any solution would have been a compromise. The prime purpose of this School will be to sustain and develop the existing substantive links that Archaeology has with Anthropology (notably the joint degree) and certain science subjects, whilst at the same time nurturing its more traditional relationships with the Humanities. Every attempt will be made in the new system to accommodate and embrace within the constitutional arrangements those colleagues whose archaeology is intimately related to Classical Studies, to Ancient, Medieval and Modern History and to Oriental Studies. Indeed, it is hoped that proposals for a new joint degree, in Archaeology and Classics, will be approved by the University during the course of next year.

Oxford Archaeology at its best and most original has always been a broad church in which necessary, but inevitably artificial, administrative and constitutional boundaries have never been allowed to interfere with communication and co-operation across academic frontiers. Multidisciplinary archaeological research and teaching, embracing both the Humanities and the Social, Physical, Chemical and Biological Sciences have always found ways of flourishing and we have every intention of keeping it that way.

ROGER MOOREY

**THE UNIVERSITY'S ARCHAEOLOGICAL UNITS**

## ***Under the Committee for Archaeology***

### **Institute of Archaeology**

36 Beaumont Street, Oxford, OX1 2PG (01865) 278240; Fax (01865) 278254

- Professor B.W. Cunliffe, Professor of European Archaeology
- Professor R.R.R. Smith, Lincoln Professor of Classical Archaeology and Art
- Professor E.M. Steinby, Professor of the Archaeology of the Roman Empire, Director of the Institute
- Dr J. Bennet, Sinclair & Rachel Hood Lecturer in Aegean Prehistory
- Dr J.J. Coulton, Reader in Classical Archaeology
- Dr H. Hamerow, Lecturer in Medieval Archaeology
- Dr D.C. Kurtz, Lecturer in Classical Archaeology
- Dr J. Lloyd, Lecturer in Roman Archaeology
- Dr G. Lock, Lecturer in Archaeology
- Dr M. Mango, Lecturer in Byzantine Archaeology

#### Research Assistants

- Mr R. Osgood
- Dr N. Pollard

#### Research Associates

- Dr P. Armstrong
- Dr M. Ballance
- Dr J. Bardill
- Ms A. Claridge
- Dr D. Griffiths
- Ms D. Harlan
- Dr M. Henig
- Dr J. Mackenzie
- Dr D. Miles
- Dr J. Munby
- Mr K.S. Painter
- Dr G. Seidmann
- Dr S. Sherratt
- Dr N. Spencer
- Dr J. Toms

#### Research Staff

- Ms E. Cameron (Conservation)
- Dr P. de Jersey (Celtic Coin Index)
- Ms V. Fell (Conservation)
- Dr P.M. Kenrick (Corpus of Arretine pottery stamps)

Dr Lloyd was on sick leave from November and died in May. Colleagues and students alike have felt deeply the loss of this fine scholar, teacher and friend.

Dr A. Wilson and Dr M. Henig took over Dr Lloyd's teaching in Hilary and Trinity Terms.

Ms A. Claridge was appointed to a one-year Junior Lectureship for the academic year 1999-2000.

Dr G. Lock was Acting Director during Professor Steinby's sabbatical in Hilary Term. Ms E. Cameron was awarded a D.Phil. and her post upgraded.

From February on the Institute shares an Archaeology IT officer with the RLAHA. Mr Michael Stevens was appointed to this newly-created post. The Professorial Secretary, Mrs P. Romano, left the Institute in May and was replaced by Mrs J. East in late June. Mrs D. Musto was employed as part-time cleaner.

Predictably, the Sackler Library building site produced a considerable amount of noise and dust, in spite of the surveyors' attempts to minimize the disturbance to neighbouring buildings. The project required that part of the wing protruding towards the new library be demolished and the offices concerned evacuated.

The facades of the Institute building were covered in scaffolding for several months of cleaning and painting, which restored the architecture to its original splendour.

The donation of Dr Lloyd's books, by Mrs V. Lloyd, enriched both the Ashmolean and the Institute library. Thanks to Mr Osgood's efforts, the library is now on-line.

## **The Beazley Archive**

Ashmolean Museum, Cast Gallery (01865) 278083

- Archivist - Dr Donna Kurtz (Wolfson College)

The photographic collection of the 'paper archive' has been used by more than thirty visiting foreign scholars during the year. New photographs have been acquired from a variety of sources. The library has benefited from gifts and purchases. The 'electronic archive' continues to develop and diversify. The database of Athenian pottery now has more than 65,000 records and more than 17,000 watermarked images available on the web ([www.beazley.ox.ac.uk](http://www.beazley.ox.ac.uk)). Access is on-line self-registration. The database is part of a range of programs on Greek Pottery. In line with the Archive's general policy of making resources available to scholars and a wide public the interface is being redesigned for ease of use. Other programs take the form of illustrated essays on a range of topics. One has 1500 drawings made by Sir John Beazley with an introduction to the history of the subject and a bibliography. Another, based on the Ashmolean Museum's collection, will have high resolution colour images; several hundred have already been made. The Archive is working with the Museum to develop compatible formats for exchange of data, and with the Department of Engineering Science to develop 3D models of vases and other types of objects.

The Beazley Archive's web-based programs about the University's collection of plaster casts from the antique now has an Introduction to the Study of Greek Sculpture. The interface of the cast catalogue is also being redesigned to link seamlessly with other types of data being compiled about the sculpture. A third part of the web site has programs about Impressions of Engraved Gems. The Archive has catalogued the impressions in Oxford and designed programs around them in to two categories - classical and neoclassical. Like the casts, the impressions will also have programs on History of Collections.

Images on the web site are protected with watermarking technology from Datamark (UK) and IBM (USA). There are more than 4000 colour images and a video-movie, in addition to the 17,000 black and white images in the pottery database. Transfers of digital images are being negotiated with several major museums and web sites with similar academic interests. The 'paper archive' and the electronic programs are directed by the Beazley Archivist. Dr Thomas Mannack is responsible for Pottery programs, Florence Maskell and Ian Hiley for Cast and Gem web pages, working with senior academics. Greg Parker is responsible for technical support. The Beazley Archive wishes to thank Dr Jonathan Moffett (Ashmolean Museum), OUCS, the Department of Engineering Science, and the University Telecommunication Manager for additional advice, also Dr Claudia Wagner and a number of student volunteers for voluntary work on the projects during the year. The Beazley Archive is advising *Lexicon Iconographicum Mythologiae Classicae* and *Corpus Vasorum Antiquorum* on computerization and digital imaging. It has provided web pages for *Corpus Vasorum Antiquorum* for the British Academy.

### **Research Laboratory for Archaeology and the History of Art**

6 Keble Road, Oxford, OX1 3QJ (01865) 283033; Fax (01865) 273932

- Professor M.S. Tite, Director, Edward Hall Professor of Archaeological Science
- Professor R.E.M. Hedges, Deputy Director, Lecturer in Archaeological Science

#### Research Assistants

- Dr A. Allsop
- Dr R. Bailey
- Mr C. Doherty
- Dr G. Hodgins
- Ms D. Jenkins
- Mr K. Neal
- Dr T. O'Connell
- Dr P. Pettitt
- Dr C. Ramsey
- Dr E. Rhodes
- Dr M. Richards
- Mr C. Salter
- Dr A. Shortland

The Research Laboratory has continued to undertake research in radiocarbon dating, luminescence dating, biomolecular archaeology, and ceramic and vitreous materials studies. It has also initiated new M.St. and M.Sc. degrees in Archaeological Science. The main highlight of the past year was the successful application for a grant of some £2.5M, funded by HEFCE, to replace the ageing accelerator that is used for radiocarbon measurements.

Work has continued on projects on pottery and iron associated with early rice agriculture in Sarawak, Saban and Brunei; on the development of pottery glazing technology in the ancient Near East and Egypt; and on technological innovation and trade in glass and related vitreous materials in Egypt and the Near East in mid-second millennium BC.

The output of the Radiocarbon Accelerator Unit during the past year was some 1700

dates. Notable dating projects included the direct dating of late Neanderthal fossils from Central Europe and the Neanderthal/modern 'hybrid' from Portugal, initial dates for early sites in South America relevant to the colonization of the Americas, and dates relevant to the origins of agriculture in Africa.

The luminescence dating group is now again fully operational with projects to date Palaeolithic sites from Gibraltar and Sri Lanka, prehistoric pottery from Tobago and Borneo, and dune systems from the southern USA, Ivory Coast and Mongolia having been successfully completed.

Palaeodietary studies have included the investigation of past diets in Britain during the Upper Palaeolithic and Mesolithic periods, at Catalhoyuk during the Neolithic, and in the eastern Mediterranean during the Bronze Age. Isotopic data relating to the diets for modern populations have been obtained from Sweden, Vietnam and West Africa.

### **Isotrace Laboratory (RLAHA)**

Nuclear Physics Building, Keble Road, Oxford, OX1 3RH (01865) 273444, 273489; Fax: (01865) 273418

- Professor N.H. Gale, Director
- Dr Z.A. Stos-Gale, University Research Lecturer and Honorary Research Fellow in the Department of Ancient History and Archaeology, University of Birmingham
- Dr R. Clayton, Leverhulme Research Assistant

Research Technician:

- N. Boulton

Ph.D. Student (University of Birmingham):

- Maria Kayafa

Research Sponsors:

Institute of Aegean Prehistory (INSTAP, New York), Leventis Foundation (Nicosia) and the Leverhulme Trust

*Research projects in 1998-9*

### **Bronze Age metal sources and trade**

The main topic of research in the Isotrace Laboratory in the years 1998-9 was a continuation of the project concerned with the sources of raw materials for production of metals and pigments in the ancient Mediterranean and the patterns of their exploitation and trade. The isotopic characterization of copper, lead and silver sources has been extended to research on the isotopic characteristics of tin minerals and artefacts. A thorough program of lead isotope and chemical analyses of all copper and tin ingots (over 500) from the 13th century BC Uluburun shipwreck is underway. This project is supported by INSTAP and the Leverhulme Trust.

The geochemical study of ores and ingots was carried out in parallel with lead isotope

analyses of Bronze Age copper, silver and lead artefacts from settlements in the Aegean and Eastern Mediterranean. The patterns of metal sources used in different parts of this region at various periods of the Bronze Age were investigated. A thorough assessment of the composition and origin of metal artefacts from the Bronze Age strata in Manika on Euboea, Nichoria, Lerna and Tsoungiza (Peloponessos) was finalized. A monograph including over 600 lead isotope and elemental analyses of artefacts from Minoan Crete is being prepared.

### **New isotopic characterization of materials**

A preliminary study of variations of tin and copper isotopes in copper and bronze has been carried out. Natural variations of copper isotopes have been confirmed and it is hoped that they might provide another important scientific tool for archaeometallurgy. The results of measurements of tin isotopes are not as yet conclusive and need to continue.

### **Lead isotope and elemental analyses of pre-coinage silver hoards**

A project initiated by Professors Balmuth and Gitin investigating sources of silver from pre-coinage silver hoards ('Hacksilber') is being continued with financial support from INSTAP. A number of samples from silver hoards from Ekron, Tel Miqne and other Mediterranean sites have been analysed for their lead isotope composition to identify the origin of this metal.

### **Analyses of lead from the Viking sites in Sweden and Norway**

A number of lead artefacts from the Viking sites of Birka (Sweden) and Laupang (Norway) have been analysed for their lead isotope composition. These projects, carried out in collaboration with Swedish and Norwegian archaeologists, provide additional information about the 11th century trading routes and lead/silver exploitation in Europe.

### **Analyses of lead pigment from wall paintings**

In collaboration with the Courtauld Institute we have analysed several samples of lead based pigments from the medieval wall paintings in the Westminster Abbey. The samples analysed show that lead from the mines in Derbyshire was predominantly used for the production of these pigments.

The Isotrace Laboratory also undertakes lead isotope service work. During 1998/9 service work was provided *inter alia* for the Smithsonian Institution, the University of Oslo, the Birka Excavation Fund, the Italian Ministry of Culture and a number of individual archaeologists and art historians.

### ***Under other departments***

#### **Environmental Archaeology Unit (University Museum)**

Parks Road, Oxford, OX1 3PW (01865) 272983; Fax (01865) 272970

- Dr M.A. Robinson, Director (HBMC), University Research Lecturer
- Mrs G.V. Campbell (HBMC)
- Ms R. Pelling

A second environmental archaeology review of archaeoentomological research has been completed for English Heritage, in this instance for the Midlands. A review has also been completed of archaeobotanical work on Bronze Age and Iron Age sites in southern England. Laboratory analysis and writing-up continues on the Yarnton-Cassington project. A preliminary report has been written on the basic crop record for the Fezzan during the late Islamic period.

The contract from the Oxford Archaeological Unit for their developer-funded excavations has come to an end although work for them continues on a smaller scale. Commercial work has instead been undertaken for other archaeological units. Large-scale analysis has been completed for the Bedfordshire County Archaeological Service of charred plant remains from a Neolithic to Roman site at Biddenham Loop, showing the region to have been agriculturally backward during the Iron Age. Work has also been done for the Canterbury Archaeological Trust and interesting evidence of medieval brewing was found from a site at Dover.

No fieldwork took place at Pompeii this year but another season of sampling was undertaken in Libya as part of the Fezzan project. The Unit was also involved in the lifting of 'Seahenge' off the Norfolk coast and the sampling of an extremely well preserved Roman corn-drier that was excavated as part of the Danebury Environs project.

Eight Archaeology and Anthropology undergraduates were employed for a total of 26 weeks as vacation workers.

### **English Heritage Regional Adviser for Archaeological Science** (University Museum of Natural History)

Parks Road, Oxford, OX1 3PW (01865) 272996; Fax (01865) 272970

- Dr Jacqueline Mulville (HBMC), Senior Research Fellow

Oxford University has been chosen to host the English Heritage Regional Adviser for the East Midlands. This is one of nine posts nationally; there is one covering each of the English Heritage regions. The East Midlands region comprises the counties of Northamptonshire, Leicestershire, Lincolnshire, Nottinghamshire and Derbyshire.

The Regional Adviser provides advice to local authority archaeological officers, archaeological contracting units and English Heritage regional offices on issues relating to archaeological science, especially in planning consent cases. Nationally the Regional Advisers are working to produce guideline documents for good practice in archaeological science.

In addition to these duties, Dr Mulville is involved in a number of ongoing research projects. For English Heritage, work continues into the archaeozoology of Iron Age and Romano-British settlements at the gravel extraction site of Yarnton. A tenth season of fieldwork in the Western Isles was undertaken in collaboration with Historic Scotland and Dr H. Smith (Bournemouth), Mr N. Sharples (Cardiff) and Dr M. Parker Pearson (Sheffield). Research into the archaeozoology of these settlements has also continued.

### **Materials Science-Based Archaeology Group** (Department of Materials)

Begbroke Science and Business Park, Sandy Lane, Yarnton, Oxford, OX5 1PF  
(01865) 283721/283722; Fax (01865) 841943

- Dr J.P. Northover (Senior Research Fellow)
- C.J. Salter (Research Fellow)
- Dr B.J. Gilmour (Academic Visitor)

The principal locus of archaeometallurgical research has moved to the Department of Materials' new facility at Begbroke Science and Business Park. This has given the group a major upgrade in the quality and area of offices and laboratories for sample preparation. Also located at this site is the Department of Materials' new electron microprobe (joint with the Department of Earth Sciences). In central Oxford use continues to be made of the Cameca SEMPROBE in the Research Laboratory for Archaeology, and archaeological research with the scanning proton microprobe also progresses. A further development at Begbroke is the institution of Industrial Technology Centres by partner companies of the Department. One such is formed by Materials Characterisation Services from AEAT at Harwell which is offering considerable synergy with the group's own work and access to a wider range of instruments.

The research is concerned with all aspects of the metallurgical process, from smelting to metal finishing and from the first use of alloys in the fifth/fourth millennia BC to the Industrial Revolution and beyond. The themes of the research are both archaeological and metallurgical. In archaeology the research is driven by the needs of archaeology with post-excavation and museum-based projects used to explore the place of metals in ancient economies and societies, how they were made, used, traded, and recycled, and how their properties were understood. Issues relating to the deposition and survival of metals in the archaeological record are a growing concern as is research aimed at reconstructing the original appearance of objects in terms of surface finish.

The programme of analysis of Scottish Late Bronze Age metalwork is now at interim publication stage and will develop as an interdisciplinary project on the contents and contexts of Scottish Late Bronze Age hoards and the state of the metalwork when it was deposited. A similar approach to hoard analysis has been taken with EH-funded projects on Late Bronze Age deposits in Norfolk and Oxfordshire; the former included the first comprehensive use of radiography in the characterization of a Bronze Age hoard. New opportunities include an invitation to take part in the study of bronzes from the excavations in advance of the reconstruction of Beirut.

Using the robust typology for iron slag developed in the group the throughput of post-excavation assessments has been maintained and now extended to Ireland. This is despite the work involved in the move of the laboratory and by Chris Salter in commissioning the new microprobe. The successful programme of iron smelting with the Snowdonia National Park has been maintained. Other iron and steel related projects include work on architectural iron from late medieval and post-medieval structures, and on Islamic iron and steel. A new development is research on industrial iron and steel based on 19th century railway rails (currently a Part II project).

A D.Phil project on the development of non- and minimally destructive analysis of archaeological copper and gold/silver alloys using the scanning proton microprobe in conjunction with laser ablation has reached the stage of supplying reliable quantitative analysis of both patinas and the underlying metal. This work has been linked with that of

a conservation student on a placement at the Ashmolean Museum and is providing an analytical assessment of different cleaning and treatment processes on the preservation of archaeological and metallurgical data.

### Scanning Proton Microprobe Unit

Parks Road, Oxford, OX1 3PH (01865) 273367; Fax (01865) 273418

- Dr G.W. Grime (Senior Research Fellow)

The Scanning Proton Microprobe is a unique micro-analysis facility with the capability of trace element mapping at high sensitivity and a spatial resolution of 1?m (in vacuo) or 50 ?m (in air) together with non-destructive characterization of thin surface layers or micro-destructive (laser ablation) characterization of thick corrosion layers. The facility has a wide range of applications, but in archaeometry, one of the major advantages is the ability to analyse non-destructively whole objects or large fragments without sampling. The following list summarizes recent activities of the Unit in the field of art and archaeology. The SPM Unit is associated with the European Commission COST Action G1 (Ion Beam Analysis in Art and Archaeology) which was set up to promote collaboration between EU laboratories working in this field. In November 1998 the Unit hosted a two-day workshop on 'Ion Beam Analysis of Archaeological Metals' in Oxford.

Biogenic materials. Hair from ancient bodies. Hair from bodies as diverse as the Otztal ice mummy, Napoleon Bonaparte and Florence Nightingale have been studied in a programme to investigate whether lifetime heavy metal exposure can be detected in hair at long periods after death. Arsenic found in the hair of the ice mummy could possibly be related to copper smelting activities.

Archaeometallurgy. The SPM Unit works closely with the Archaeometallurgy group of the Department of Materials (see previous entry) and one graduate student works jointly in both groups. Activities include the development of techniques for characterization of thick corrosion layers and patinas, characterization of plating layers or patinas on small samples and whole object, investigation of diffusion profiles, etc.

Gemstones. The external beam facility is ideal for the non-destructive analysis of mounted or fragile gemstones. This can provide information not only on the types of stones, but may also provide (through the trace elements) some classification of the sources of gemstones. As an example, an intaglio of Alexander the Great from the Ashmolean Museum has been analysed and found to be a zoned tourmaline of unusual composition.

Usewear Analysis. The chemical composition of usewear films on flint tools can be measured directly *in situ*. In collaboration with scientists from the Institute Josef Stefan, Ljubljana (work funded by COST action G1) it was demonstrated that the type of material worked by a tool (various types of wood, meat, bone, etc.) can be distinguished on the basis of the Ca:P ratio.

Paintings. The SPM can be used to map the distribution of major and trace elements in cross sections of painting. In a recent study, paint layers from the wall paintings in the Chapter House in Westminster Abbey were analysed to study the long- term effects of earlier conservation treatment involving barium compounds. (With the Courtauld Institute of Art).

## The Donald Baden-Powell Quaternary Research Centre (Pitt Rivers Museum)

60 Banbury Road, Oxford, OX2 6PN (01865) 274722

- Professor D.A. Roe (Professor of Palaeolithic Archaeology)

The Centre has continued to operate successfully, under the difficult practical circumstances referred to in last year's Annual Report, which have not altered. The two long-running major research projects associated with the Centre also both continued successfully throughout the year: the 'ARC Oxford Mammoths Project', directed by Dr K. Scott and Mrs C. Buckingham, and work on the Prehistoric Archaeology of the Balearic Islands, directed by Dr W.H. Waldren. As regards the first of these, this year saw (in August 1999) the final end of excavation at the site of the important Middle Pleistocene interglacial channel at Stanton Harcourt, which has been directed for many years by Dr Katharine Scott and Mrs Christine Buckingham. Right to the end, faunal and floral remains of great significance continued to be found, though in the final stages the yield of stone artefacts was rather disappointing. The emphasis of this project will now shift to the laboratory study of the finds under Dr Scott's general direction, and the preparation of a definitive publication.

Amongst the Centre's Research Students, John Mitchell and Marcos Llobera successfully completed their doctorates. Dr Jordi Hernandez Gasch, from Barcelona University, was again with us as a long-term visitor for much of the year, and many overseas scholars made shorter visits. The latter included Dr Lia Karimali-Sarris, from the Institute of Mediterranean Studies in Crete, who came to work for a few weeks in our microwear laboratory.

Dr Sarah Milliken, a former Research Student at the Centre, became a Research Associate this year, having returned to Oxford after some years working in Italy. Amongst her many valued contributions to the Centre's life, she organized during Hilary Term a series of 8 tea-time seminars given by visiting speakers (listed elsewhere in this report), with the support of a grant from the Committee for Archaeology. This series proved very popular and was well attended: we shall try to repeat it in future years if possible. The Centre also hosted two special lectures on topics of Palaeolithic interest by distinguished visiting speakers, Professor Nicolas Rolland of the University of Victoria, Canada, and Professor Olga Soffer of the University of Illinois at Urbana.

The Friends of the Pitt Rivers Museum's generous and much valued assistance in the Centre's Library has continued throughout the year, in the capable hands of Mrs Joy Crammer and Mrs Jane Christie-Miller, to whom we are again extremely grateful for all their hard work. It being an ill wind that blows nobody at all any good, the library at No. 60 Banbury Road has also actually benefited from the temporary closure for re-roofing of the main Pitt Rivers Museum, since the NADFAS volunteer team had to suspend its long-term work on book restoration in the main Balfour Library there, and we were allowed to have the benefit of their skills instead. We wait with interest to see whether another not too unkindly disposed wind will now blow the new roof off, so that we can keep them, although one can well see that such an event would be very regrettable in other ways. Since 1998-9 has been rather a year of review committees, perhaps the day will come when we can look to actual University policy, rather than hypothetical meteorological circumstances, to supply those of our needs that might cost money.

Anyhow, meanwhile, our library is looking neater and better organized than it has ever done before, and with the Palaeolithic period a popular subject amongst the Archaeology & Anthropology undergraduates, it has had plenty of use.

### **Department of Antiquities (Ashmolean Museum)**

Beaumont Street, Oxford, OX1 2PH (01865) 278020/278023

- Dr P.R.S. Moorey, Keeper (Near East and Cyprus)
- Dr M.J. Vickers, Senior Assistant Keeper (Cretan, Etruscan, Roman and Byzantine) and Reader in Classical Archaeology
- Dr A.G. Sherratt, Senior Assistant Keeper (European Prehistory) and Reader in European Prehistory
- Dr A. MacGregor, Senior Assistant Keeper (Dark Ages, Medieval and Early Modern)
- Dr H. Whitehouse, Assistant Keeper (Egyptology)
- Ms A. Roberts, Collections Manager (half-time); Museum Database Officer (half-time)
- Mr M. Norman, Chief Conservator of the Museum

Work has continued on completing the refurbished displays in the Beazley Gallery (Greece) and on fully labelling the displayed reserves of ancient Greek and Italian pottery and terracottas in the new von Bothmer Gallery. A new display of 'The Art of Byzantium' has been completed as part of a total redecoration of the Museum's back staircase and landing, illustrating for the first time the full range of this little known aspect of the collections. Work has begun on detailed computerized documentation of the displays in the Sackler Gallery of Egyptian Antiquities (formerly the Egyptian Dynastic Gallery) prior to the renewal of all the displays over an eighteen month period from July 2000 funded by the Dr Mortimer and Theresa Sackler Foundation. Work continues on the Arthur Evans Archives, funded by the Getty Foundation, under the supervision of Dr Susan Sherratt. A special exhibition will be mounted in 2000 to mark the centenary of the opening of excavations at Knossos in 1900.

A small exhibition, entitled 'Nathaniel Marchant: an eighteenth century gem-engraver's Grand Tour souvenirs' was mounted in the Mallett Gallery by kind permission of the Keeper of Western Art. It was curated by Gertrud Seidmann, Michael Vickers and Sarah Scheepers.

### **Heberden Coin Room (Ashmolean Museum)**

Beaumont Street, Oxford, OX1 2PH (01865) 278058

- Mr N.J. Mayhew, Keeper from 1.10.99 (Medieval and Modern coins, and Medals) and Reader in Numismatics
- Dr C.J. Howgego, Senior Assistant Keeper (Roman)
- Dr W.L. Treadwell, Assistant Keeper (part-time) (Islamic)
- Mr H.S. Kim, Assistant Keeper (Greek)
- Dr C.E. King, Research Assistant (Roman and Celtic)
- Dr P. Nightingale, Research Assistant (ESRC grant)
- Mr S. Alburn, Sackler Fellow (Islamic)
- Mr V. Heuchert, AHRB/Funding Councils' Institutional Fellow (Roman provincial

coinage project)

The Coin Room, which is one of the leading international centres of research in numismatics and monetary history, houses a systematic collection of about a third of a million coins, medals, and tokens. The staff are involved in teaching at both undergraduate and graduate levels.

### **Cast Gallery (Ashmolean Museum)**

Beaumont Street, Oxford, OX1 2PH (01865) 278079

- Professor R.R.R. Smith (Curator)

Work continued on the Aphrodisias Fisherman Project - the plaster reconstruction of the fine statue of an old fisherman of the Roman period from Aphrodisias (SW Turkey) combining casts taken from the original fragments, which are divided between Turkey and Berlin. The reconstruction is near completion.

New acquisitions included casts of the head of an early archaic kouros from Samos now in Istanbul and an unusual portrait head of the emperor Augustus from a private collection in Oxford.

An exhibition titled 'Art and Casts' was held in the Cast Gallery during summer 1999, showing some of the artwork of contemporary painters and sculptors who have worked in the Gallery regularly over the last four years.

The new Researcher in Ancient Greek and Roman sculpture, Dr Julia Lenaghan, began work on a new catalogue and database of the cast collection, as well as working on a separate digitized archive of photographs of Greek and Roman sculpture on the art market.

### ***General activities***

#### **Seminars, Lectures and Conferences**

Sponsored by the Committee or by members of staff, in addition to the normal lecture programme.

*German for Archaeologists* (Miss G. Seidmann)

- One week's intensive courses

*Hillfort Study Group* (G. Lock, Chairman of HFSG)

- Day Conference

*Ancient Architecture Discussion Group* (J.J. Coulton)

- A. Avram (Bucarest)  
Excavation of the Sacral Area in Histria
- T. Brown  
The Emperor Maximian's Mausoleum at Milan: improvisation or Imperial policy?

- M. Byrne  
The city gate at Pisidian Antioch
- R. Coates-Stephens  
The Aurelian walls of Rome
- A. Cooley  
Statues in the theatre at Herculaneum
- O. Karagiorgou  
Demetrias the Most Excellent and Thebes the Most Illustrious: the Thessalian port-cities in Late Antiquity
- M. Mango  
Baths in Late Antique Syria
- S. Patronos  
Architecture and polis identity: the case of Priene
- A. Pulte  
Sculpture in the fora of Augustus and Trajan at Rome
- C. Ratté (University of New York)  
The architecture and design of the North Agora at Aphrodisias (Turkey)
- T. Robinson  
Ariassos and Sia (Pisidia) in Late Antiquity
- M. Stamatopoulou  
Elaborate Thessalian Tomb Types
- M. Taslialan (Yalvaç, Turkey)  
Excavations at Pisidian Antioch
- A. Wilson  
The foggara of N. Africa and Syria
- M. Wilson Jones  
The origins and meaning of the Doric order
- M. Yeroulanou  
The style of Italian treasuries in Greece

*Classical Archaeology Seminar: 'East and west - recent work'* (M. Henig, J. Lloyd and R.R.R. Smith)

- Jean Bagnall-Smith  
Votive images from Romano-British temples
- Jo Berry (Reading)  
Home is where the hearth is
- Debbie Day  
Art and industry in Roman Dorset
- Janet DeLaine (Reading)  
New light on Imperial Ostia
- Adrian Marsden  
Imperial magnanimity: the changing role of *donativa* in the third century AD
- Christopher Ratté (New York)  
The urban development of Aphrodisias and late Hellenistic city planning
- Eberhard Sauer  
Roman spas: new evidence from Augustan Gaul

Geoff Summers (Ankara)

Kerkenes Dag, Median Pteria: a mountain-top city in Anatolia

*Donald Baden-Powell Quaternary Research Centre Seminars ( D. Roe and S. Milliken)*

- Dimitri De Loecker (University of London)  
'A veil of stones': on the interpretation of early Middle Palaeolithic scatters and patches at Maastricht-Belvédère (Netherlands)
- Nena Galanidou (University of Cambridge)  
How space was used in the Palaeolithic and Mesolithic: in search of a new approach
- Mark Leney (University of Oxford)  
Just the bear bones? Variation and adaptation in Pleistocene *Ursus*
- Preston Miracle (University of Cambridge)  
Seasonality and subsistence across the Pleistocene-Holocene transition in Istria, Croatia
- Melissa Reed (University of Reading)  
Computer modelling of mammoth extinction in North America
- Ian Watts (University of London)  
Skin changing: ritual performance in the Middle Stone Age
- Francis Wenban-Smith (University of Southampton)  
Recent Palaeolithic research at the Community School site, Swanscombe
- Mark White (University of Cambridge)  
Island Britain: an archaeological perspective from the Middle Pleistocene

*Graduate Archaeology at Oxford*

- J. Bennet  
An Archaeology of Ancestors? A Cautionary Tale from Messenia
- S. Bourget and J. Henderson  
Survey and Sacrifice: A Moche Temple Site in the Viru Valley, Peru (organized jointly with the GIS Discussion Group)
- D. Day  
The evolution of the archaeological landscape in Purbeck, Dorset
- C. Finn  
The Muse from the Bog: Seamus Heaney's Archaeology
- C. Gosden  
The origins of agriculture in Turkmenistan
- M. Henig  
Roman gemstones
- P. Henry  
Early medieval textiles: a pattern of weft or a social weave
- J. Hernandez-Gasch  
Dead on the beach: a funerary cultural area on Mallorca during the Iron Age
- T. Kiely  
Living with the dead in the Cypriot Bronze Age
- F. Menotti  
Inca stone masonry development in the Andes
- M. Milwright  
Karak Castle: archaeological and historical perspectives on an Islamic site in southern Jordan
- Professor M. Nunez (University of Oulu, Finland)  
Effects of isostatic uplift on Environment and Settlement in North Ostrobotnia in the

Late Stone Age (organized jointly with the GIS Discussion Group)

- R. Osgood  
The Grateley Aisled Hall Excavation
- J. Scott-Jackson  
Lost sites - new insights into Palaeolithic Britain
- S. Semple  
Dead or alive? How late Anglo-Saxon perceptions of ancient monuments may reveal evidence of the nature of early Anglo-Saxon paganism
- Z. Stos-Gale  
The Mediterranean Metals Trade: Oxide Ingots and Bronze Age Shipwrecks
- J. Whitley  
A Greek phenomenology of landscape: some thoughts on the Praisos survey
- R. Wilkins  
Practical Demonstration of the Photographic Dept. Facilities, Institute of Archaeology

### *Greek Archaeology Group*

- R. Arnott (University of Birmingham)  
Surgeons and Surgery in the Aegean Bronze Age
- J. Bennet  
Documentary Archaeology in Messenia
- C. Broodbank (UCL)  
The Kythera Project: new perspectives on the cultural dynamics of an Aegean island
- B. Cavanagh (University of Nottingham)  
Public Space in Mycenaean Architecture
- N. Coldstream (UCL)  
The early Greek town of Knossos
- J. Coulton  
Olives at Altitude in Antiquity
- S. Jansson  
Changing Patterns: Settlement, Burial & Socio-political Organisation in Late Bronze Age Crete
- T. Kiely  
Urban Myths in Late Bronze Age & Early Iron Age Cyprus
- R. Moorey  
Sumerian Terracotta Figurines: Images of the People for the People?
- C. Morgan (King's College London)  
Wealthy Corinth?
- K. Nowicki (Birmingham)  
Sites of defence and refuge in Crete
- Professor R. Osborne  
The Making of 'Greece in the Making'
- M. Popham  
Chance in archaeology: 'Goodies' from excavations
- E. Robson  
The Archaeology of Old Babylonian Schools
- N. Schreiber  
The Distribution of Black-on-Red Pottery in the Levant
- S. Sherratt

## Archaeological Replicas

- A. Shortland  
Trade & Tribute in the first Glass: Egypt, Mesopotamia, & the Aegean
- Professor R.R.R. Smith  
Recent Work at Aphrodisias in Caria
- J. Toms  
The Art of Dating: a Native Italian Perspective on Pendant-Semicircle & Chevron Skyphoi
- H. van Wees (University College London)  
The Missing Phalanx: the Iconography of Early Greek Warfare (joint meeting with the Ancient History Work in Progress Seminar)
- R. Veness (St. Hilda's)  
Amazons and Persians in Athenian fifth-century art
- M. Vickers  
Greeks and Cholchians: the joint Oxford-Batumi excavations at Pich Vnari 1998
- J. Whitley (Cardiff)  
Explaining the absence of evidence: the case of sixth-century Crete

## *Institute of Archaeology Lunchtime Lectures*

- J. Bennet  
All you ever wanted to know about Linear B ...
- I. Bignamini  
The British conquest of the marbles of ancient Rome
- J. Coulton  
A Highland City in South-West Turkey
- C. Day  
Hong Kong pre Malibu Barbie (TM) landscape
- D. Day  
The Iron Age Landscape of Dorset: General Trends & Interesting Sights
- P. de Jersey  
Pinning a tale on the donkey: more excavations at Lihou Priory, Guernsey
- P. de Jersey  
Meeting the Ancestors: Digging with the TV on Lihou Island
- C. Finn  
Seamus Heaney and the bog poems
- C. Finn  
Art and Archaeology
- M. Henig  
Romans and Britons
- M. Henig  
New Gemstones from Roman Britain
- G. Lock  
Recent excavations on the Ridgeway
- M. Mango  
Excavations at Anderin in Syria
- N. Pollard  
(Urban) space (and) the final frontier
- E. Sauer  
Iron Age tribal boundary and Roman fort in Oxfordshire
- G. Seidmann

## A Gift from Gabriele d'Annunzio and other Engravings on Precious Stones

### *Medieval Archaeology Seminars*

- C. Behr  
Material evidence for the Kentish Kingdom
- H. Gittos  
Liturgy and Archaeology
- C. Haith  
The Franks in Kent: Just a Day-trip to Boulogne?
- B. Kjolbye-Biddle  
The Old Minster, Winchester
- S. Marzinzik  
Anglo-Saxon Belt sets?
- J. Munby  
The Oldest Castle in France? Excavations at Mayenne
- S. Semple  
Boundaries and Anglo-Saxon Churches
- K. Ulmschneider  
Minsters, Markets and Metal-detectors: Settlement and economy in Middle Saxon Lincolnshire

### *Seminar in Ancient Numismatics* (C.J. Howgego and H.S. Kim)

This year's Oxford Seminar in Ancient Numismatics consisted of a one-day meeting on 'Celtic Coinage in Gaul and Britain', held at Rewley House and organized by John Sills and Dr Philip de Jersey.

### *Seminar in Classical Archaeology & Literature: 'Narrative Strategies in the Art and Literature of Greek and Roman Antiquity'* (R.R.R. Smith and O. Taplin)

- Professor Klaus Fittschen (German Archaeological Institute, Athens)  
The Wallpaintings of the 'Hall of Aphrodite' from the Roman Villa at Boscoreale: New Interpretations and Older Views
- Professor Luca Giuliani (Institut für Klassische Archäologie, Munich)  
Sleeping Furies: Allegory, Narration, and the Impact of Texts in Apulian Vase Painting
- Dr Mary Louise Hart (Department of Antiquities, J. Paul Getty Museum, Los Angeles)  
Painting the Iliupersis
- Dr Ian Jenkins (Department of Greek and Roman Antiquities, British Museum)  
The Parthenon Frieze: 'A Poem in Stone'
- Dr François Lissarrague (Centre Louis Gernet, Paris)  
Narration and Ritual
- Professor Cyril Mango  
Representing Christian Theology
- Professor Andrew Stewart (Department of Art History, University of California, Berkeley)  
Narration in the Telephos Frieze of the Great Altar at Pergamon
- Professor Dietrich von Bothmer (Metropolitan Museum of Art, New York)  
Ut pictura poesis: Philoctetes and Ajax

## Publishing Activities

### *Journals*

- *Anglo-Saxon Studies* (Institute)
- *Archaeometry* (Research Laboratory)
- *Archaeological Computing Newsletter* (G. Lock, Institute)
- *Oxford Journal of Archaeology* (Institute for Blackwells)
- *Journal of the History of Collections* (Ashmolean Museum)

### *Monographs Oxford University Committee for Archaeology Monographs*

- 47 *The Guadajoz Project. Andaluc'a in the First Millennium BC. Volume 1: Torreparedones and its Hinterland*  
Barry Cunliffe and Mar'a Cruz Fernández Castro

## REPORTS FROM PERMANENT ACADEMIC STAFF

### *Prehistory*

**C. Gosden**, Pitt Rivers Museum, 64 Banbury Road, OX2 6PN.

He lectured in undergraduate and M.St. courses on The Nature of Archaeological Enquiry, Regional Studies in Material Culture, People Environment and Culture. He is also co-ordinating the cataloguing of archaeological holdings in the Pitt Rivers Museum from Europe, concentrating on the Cypriot material. He has been working on a book on material culture from Papua New Guinea, in addition to writing up fieldwork in Turkmenistan and the Berkshire Downs. He started an ESRC-funded project on material culture and colonialism in Papua New Guinea and visited collections of material from Papua New Guinea in the various museums in Germany. He was external examiner at the Institute of Archaeology in London. He sat on the editorial boards of *World Archaeology*, *Archaeology in Oceania* and the Cambridge University Press World Archaeology series. He was a member of the Council of the Prehistoric Society.

Current research interests are:

Archaeology and material culture, the archaeology of landscape, archaeology and colonialism, the links between archaeology, history and anthropology in the Pacific.

Specific research projects include:

- The Archaeology of West New Britain, Papua New Guinea
- The origins of agriculture in Turkmenistan
- Hillforts of the Ridgeway Project
- Colonialism and material culture in Papua New Guinea

**Derek Roe** continued as University Lecturer in Prehistoric Archaeology (with the title of Professor of Palaeolithic Archaeology) and as Hon. Director of the Donald Baden-Powell Quaternary Research Centre, which is a part of the Pitt Rivers Museum. Throughout this year he acted as Director of Graduate Studies for the Committee for Archaeology, replacing at very short notice Professor Robert Hedges, who was on sabbatical leave. He gave his usual full programme of lectures and classes for graduates and

undergraduates, and a number of special lectures on British Palaeolithic topics for visiting groups of students, and for two Oxford Summer Schools. During the year he made overseas visits to the Republic of Georgia (Tbilisi and Dmanisi), to give a paper at an international conference and visit sites; to South Korea, to deliver an invited lecture at Kyung Hee University on the occasion of the Second Remembrance of Professor Hwang, and study local archaeological material; and to Israel, at the invitation of Professor Ofer Bar-Yosef, to visit Hayonim Cave and other sites during excavation. He began a two-year major research project concerning Lower Palaeolithic handaxes from southern Africa to north-west Europe, as co-principal investigator with Professor Clive Gamble of Southampton University. He continued to serve on the Editorial or Advisory Boards of three international archaeological journals, the Archaeology Advisory Committee of the National Museums & Galleries of Wales, and the Scientific Advisory Panel of the Irene Levi-Sala CARE Archaeological Foundation.

Current research interests are:

The earliest human settlement of Europe and of the Near East; the Lower and Middle Palaeolithic of Britain; the archaeology of certain Early Stone Age sites in sub-Saharan Africa; factors affecting the morphology and the function of specific types of Lower Palaeolithic stone implements in different areas of the Old World; the Palaeolithic settlement and Pleistocene environments of the Upper Thames Valley; obtaining useful archaeological information from prehistoric stone tools.

Specific research projects include:

- Selected Lower and Middle Palaeolithic sites in S.E. Spain (participation in a continuing project with Professor M. Walker of Murcia University and others)
- Lower Palaeolithic technology, raw material and population ecology (co-principal investigator, with Professor C. Gamble of Southampton University, in a two-year AHRB-funded major research project involving sites in Africa, Europe and the Near East)
- Oxfordshire Palaeolithic artefacts (ongoing work, but currently with special reference to the material recovered during the excavation of the Stanton Harcourt Channel by Dr K. Scott and Mrs C. Buckingham)
- Kalambo Falls, Zambia: detailed practical assistance to Professor J.D. Clark of the University of California at Berkeley with the final stages of production of Vol. III of the *Kalambo Falls* Monograph series; this includes substantial written contributions to the volume and overall responsibility for the proof-reading

**P.J. Mitchell** University Lecturer in African prehistory and Curator of African archaeology, Pitt Rivers Museum

He lectured for the undergraduate degree in Archaeology & Anthropology and co-ordinated the Honour Moderations courses *Introduction to World Archaeology* and *Evolution, Environment and Culture*, as well as serving as an examiner for the M.St. in World Archaeology and organizer of the annual Archaeology & Anthropology Open Day. He also served for one term as Chairman of the Sub-Faculty of Archaeology and as Secretary of the Management Committee of the School of Anthropology and Museum Ethnography and Tutor for Admissions at St. Hugh's College. A term's leave in Hilary 1999 allowed a start to be made for a book-length overview of southern African archaeology commissioned by Cambridge University Press. In addition, he continued to

write up fieldwork from previous seasons' excavations and field survey in Lesotho, the post-excavation side of which was assisted by a grant from the Arts and Humanities Research Board. He served on the Governing Council of the British Institute in Eastern Africa and the Editorial Board of *World Archaeology* and in June acted as external examiner for a Ph.D. examination at the University of Cambridge. A paper reporting on the 1998 field season at Likoeeng was read at the Environmental Archaeology Conference in Newcastle in September 1998.

Current research interests are:

The relations between cultural and environmental change among hunter-gatherer societies, the evolution of the cultural systems of southern African hunter-gatherers, the study of prehistoric exchange networks and the history of southern African archaeological collections in Britain.

Specific projects include:

- Hunter-gatherer landscapes of the Lesotho highlands
- The southern African archaeological collections of the Pitt Rivers Museum

**John Bennet** Sinclair & Rachel Hood Lecturer in Aegean Prehistory

In his first year as Hood lecturer, John Bennet has lectured in the undergraduate course in Archaeology and Anthropology (Late Bronze Age in the Aegean; Introduction to World Archaeology; Urbanisation & Change in Complex Societies) and for the faculty of Literae Humaniores (Homeric Archaeology; Writing & Administration in the Aegean Bronze Age). In addition to supervising two new Oxford research students, he supervised a student in Cambridge and examined doctoral theses at the Universities of Uppsala and Wisconsin.

He gave invited lectures at the Universities of Cambridge (twice) and Leuven and, in Oxford, to the Oxford University Archaeology Society, the Greek Archaeology Group and the Graduate Archaeology Organisation. In May 1999, he delivered the anniversary lecture to the London Mycenaean Seminar on the topic 'The Meaning of 'Mycenaean': Speculations on Ethnicity in the Aegean Late Bronze Age' and, in July, presented a paper at an international conference on the Mycenaean Palatial System held in Cambridge University.

Current research interests are:

Aegean scripts, especially integration of textual and archaeological data; landscape archaeology in the Aegean; identity in the prehistoric Aegean; the archaeology of Crete.

Specific projects include:

- Pylos Regional Archaeological Project: continuing publication of prehistoric material
- Preparation for publication of an eighteenth-century Ottoman *defter* (with F. Zarinebaf-Shahr and J.L Davis)

*European*

## **Barry Cunliffe** Professor of European Archaeology

Three fieldwork-based projects were carried out this year. In July work continued on the promontory fort of Le Yaudet (Côtes-d'Armor), Brittany concentrating on the excavation of the Roman Land gate. In August and early September the Roman villa at Grateley South, Andover, was further examined as part of the *Danebury Environs Roman Project*. In late September and early October two salt-production sites on Herm and Guernsey were sampled, contributing to an ongoing study of exchange systems along the Atlantic sea-ways.

During a period of sabbatical leave in MT98 and HT99 the text of a book on the Atlantic sea-ways was prepared for Oxford University Press and the reports on the *Danebury Environs (Iron Age) Project* (1989-96) were finalized and sent to press.

Visits have been made to archaeological sites in France and Portugal. A lecture was given at an international conference held at Guimarães in March. Four lectures were given at a conference on the Celts held at the Smithsonian in Washington, and a seminar was given for the Discovery Programme in Dublin.

Professional activities outside the University include membership of the Ancient Monuments Advisory Committee of English Heritage and Chairmanship of the Archaeology Section of the British Academy.

Current research interests are:

Social and economic change in the first millennium BC in Europe. The present emphasis is on Atlantic trading systems, cultural interactions and state formation in southern Iberia and social hierarchies in central southern Britain.

Specific research projects include:

- The Danebury Environs Roman Project
- The Le Yaudet Project, Brittany
- Atlantic trade

**A.G. Sherratt** Reader in European Prehistory and Senior Assistant Keeper in the Ashmolean Museum

Dr Sherratt spent the academic year 1998-9 on Special Leave granted by the General Board and made possible by the generosity of Professor W.H. McNeill in donating half of his Erasmus Prize to the furtherance of Dr Sherratt's work, to be spent at his discretion. This provided two part-time appointments to cover his teaching and curatorial duties. It allowed him to explore recent applications of evolutionary theory to the origins of culture, and to write the early chapters of his book concerned with the development of human behaviour in the Pliocene and Pleistocene. (He also spoke at a Master's Seminar at Balliol on the subject, and published two articles on specific aspects of it in the *Cambridge Archaeological Journal*.) He pursued the implications of this approach by mapping networks of contact in the Near East over the period which saw the appearance of farming and urban life in the early Holocene, and summarized the evidence in a paper on the role of inter-regional contacts in the genesis of organizational complexity. (Parts of this were presented at an international meeting in Manchester on Mesopotamian urbanization, and in lectures in the University of Copenhagen.) He also

gave the opening address to the Fifth Annual Meeting of the Association of European Archaeologists.

During the year he was given leave to supplicate for the degree of Sc.D. by the University of Cambridge.

Current research interests are:

Early farming and the transition to urbanism; the intellectual history of archaeology; cultural transmission and long-distance exchange routes; shamanism and psychotropic substances; global change.

**Helena Hamerow** University Lecturer in Medieval Archaeology

Lectured in early medieval archaeology for the University and gave invited lectures at the University of Southampton, in northern Germany and to the Medieval Diet Group, in Oxford. Continued as Editor of *The Archaeological Journal* and as a member of the Oxford Archaeological Unit's Academic Committee and Council, and to act as Chairman of the Sub-Faculty of Archaeology.

Current research interests are:

Early medieval settlements in north-west Europe, 400-900, in particular crop and animal husbandry, buildings, pottery, craft production, and territorial formation.

Specific research projects include:

- Anglo-Saxon settlement at Sutton Courtenay, Oxon
- Early medieval timber buildings at the mid- to late Saxon settlement of Flixborough, Lincs.

**Arthur MacGregor** Senior Assistant Keeper in the Department of Antiquities, Ashmolean Museum

Preparing a major Museum publication which transcribes (and translates where appropriate) all the manuscript catalogues of the Ashmolean's collections from 1683 to 1886. Author and editor of several books on aspects of archaeology and history of museums. Publications within the past year include 'The afterlife of Childeric's ring', in M. Henig and M. Plantzos (eds.), *Classicism to neo-Classicism* (BAR International Ser. 793) (Oxford 1999), 150-62; 'Strategies for improving English horses in the sixteenth and seventeenth centuries', *Anthropozoologica* no. 29 (1999), 65-74; with A. Mainman and N. Rogers, 'Bone, antler, ivory and horn from Anglo-Scandinavian and medieval York', in P.V. Addyman (ed.), *The Archaeology of York* vol. 17 (York 1999), 1869-2072. Co-editor, *Journal of the History of Collections*; Chairman, Finds Research Group 700-1700; Director, Society of Antiquaries.

*Classical and Byzantine*

**E.M. Steinby** Professor of the Archaeology of the Roman Empire

Volume IV of the *Lexicon Topographicum Urbis Romae* was published and Volume V prepared for print. Research on the Via Triumphalis necropolis in Rome continues. The

Finnish, partly Oxford-based team working on Roman building activity has revised papers for publication.

Current research interests are:

The topography of ancient Rome; the necropolis of the Via Triumphalis in Rome; politics and ideology in the building history of Republican Rome; the excavations at Lacus Iuturnae, Rome; Roman brickstamps and building industry.

**R.R.R. Smith** Lincoln Professor of Classical Archaeology and Art

Professor Smith lectured for the University on Greek sculpture, Greek and Roman wallpainting, and Greek and Roman art. He was convenor of the working party (its members were Jim Coulton, Peter Derow, John Lloyd, and Nicholas Purcell) that worked out the details of the new undergraduate joint honours school in Classical Archaeology and Ancient History. He gave a graduate class on 'The Emperor in Roman Art' and organized (with Professor Oliver Taplin) a seminar for graduates and faculty on 'Narrative Strategies in Greek and Roman Art and Literature'. He gave seminar papers to the Oxford Ancient History Seminar and the Oxford Philological Society; papers at conferences in Ankara and Birmingham; and invited lectures in Dublin (two) and Reading. He gave excavation fundraising lectures in London, New York, and Paris, and in the summer he co-directed (with Professor Christopher Ratté) a ninth season of archaeological research and excavation at Aphrodisias in Caria (SW Turkey).

Current research interests are:

Greek and Roman portrait sculpture, the art and archaeology of Asia Minor in the Hellenistic and Roman periods.

Specific projects include:

- Aphrodisias Excavations

**J.J. Coulton** Reader in Classical Archaeology

Dr Coulton continued to serve as Secretary to the Harmsworth Trust at Merton College (responsible for Junior Research Fellowship and Graduate Scholarship competitions), and as a member of the Publications Committee and monographs editor for the British Institute of Archaeology at Ankara. He served as an examiner for Greats, for Ancient and Modern History, and for the M.St. and M.Phil. in Classical Archaeology. In September he co-directed excavations at Phylla, Euboea, in collaboration with the Chalkis Ephoria, and made substantial progress on the publication of the project, in collaboration with Dr E. Sakellari of Athens, and Dr I.R. Metzger of Chur. He continued work on the final publication of the Balboura Survey project, particularly (with Ms P. Armstrong) on finalization of the crucial pottery catalogue.

Current research interests are:

- Greek and Greco-Roman architecture
- Archaeology and history of Lycia
- Greek fortification

Specific projects include:

- The Balboura Survey
- The Phylla Fort Project

**D.C. Kurtz** University Reader in Archaeology and Beazley Archivist

Lectured, tutored undergraduates, supervised graduate students, and chaired graduate examinations for the Faculty of Literae Humaniores. Her work on casts from the antique, with a catalogue of more than 800 pieces prepared by Florence Maskell, has been completed and will be published next year in a new series of monographs on the History of Collections. She also completed several short articles, took part in a symposium and gave a public lecture at The J. Paul Getty Museum.

**M. Mango** Lecturer in Byzantine Archaeology and Art

Dr Mango taught for the M.Phil. and M.St. degrees for the Committee for Archaeology and the Committee for Byzantine Studies. She convened one termly seminar and co-convened another; she also co-convened a one-term seminar on Jerusalem, to which she contributed a paper. She also gave papers to the Byzantine Studies and Byzantine Archaeology and Art Seminars and to the Ancient Architectural Discussion Group. She was invited to give papers at a symposium on Constantinople held at Bogazici University, Istanbul, at a colloquium held by the Syrian Department of Antiquities at Hama, Syria, at a symposium on Late Antique Urbanism held at Trinity College, Oxford, at a one-day conference on Economy and Exchange in Late Antiquity at Somerville College and at a conference on Monasticism at Rewley House. She also gave a talk at Dumbarton Oaks in Washington, D.C. She acted as an Assessor for the M.Phil. qualifying examination in Classical Archaeology at Oxford. She served as Secretary of the Sub-Faculty of Archaeology, of the Committee for Byzantine Studies and of the Oxford Amorium Advisory Committee (for the British Institute of Archaeology at Ankara). She also continued as a member of the Development and Executive Committees of the national Society for the Promotion of Byzantine Studies, London and as of the Board of Directors of the American Associates of the Saint Catherine Foundation, Inc. in New York. She again covered UK publications on Byzantine archaeology and art for *Byzantinische Zeitschrift*. She was awarded the Frensd Medal for Early Christian Archaeology by the Society of Antiquaries.

Current research interests are:

Urbanism in the eastern provinces of the Empire, Byzantine trade, late antique secular architecture and 'pagan' art.

Specific projects include:

- The Androna (Andarin) Excavations in Syria
- The Laskarina Bouras Archive Project
- The Sevso Treasure Documentation Project

**Michael Vickers** Reader in Classical Archaeology, Senior Assistant Keeper, Ashmolean Museum

Curated the Ashmolean's Greek and Roman collections, and served as Convenor of the

Classics Sub-Group of the Sub-Faculty of Archaeology. Was invited to give the 16th Winckelmannsfeier Vortrag in Trier and the inaugural lecture of the Friends of Art History at UCLA. Lectured at the Archäologisches Seminar at the University of Hamburg and the Abingdon European Society. Directed (together with Professor A. Kakhidze) the second season's work of the Oxford-Batumi Pichvnari Expedition: the excavation of a Greco-Colchian settlement on the Black Sea coast of Georgia. Hosted visiting scholars from Georgia under the British Academy Visiting Fellowship and Joint Activities schemes.

Current research interests include:

Ancient material values and metrology. Euesperides, Pichvnari excavations.

*Egyptian and Near Eastern*

**P.R.S. Moorey** Keeper of the Department of Antiquities, Ashmolean Museum

He has continued to teach, lecture and supervise for the Committee for Archaeology, of which he is currently chairman, and to supervise for the Faculty of Oriental Studies.

Current research interests are:

Catalogue of the Ancient Near Eastern terracottas in the Ashmolean Museum and preparation of the Schweich Lectures (British Academy) in 2001 on related topics; trade, transport and technology in the ancient Near East.

**Helen Whitehouse** Assistant Keeper in the Department of Antiquities, Ashmolean Museum

She taught and supervised for the Faculty of Oriental Studies, and was on sabbatical leave from the Museum from 1 January until 30 June 1999, during which time she made study trips to Florence and Berlin and completed her catalogue of the seventeenth-century drawings of Roman mosaics and wallpaintings in the Paper Museum of Cassiano dal Pozzo, scheduled for publication in 2000.

Current research interests are:

Protodynastic Egypt; publication of Roman wallpaintings at Kellis (Dakhleh Oasis); the post-pharaonic reception of Egyptian antiquities.

*Numismatics*

**N.J. Mayhew** Keeper and Reader in Numismatics, Heberden Coin Room, Ashmolean Museum

Mr N.J. Mayhew served as Acting Keeper on the retirement of Professor Metcalf for the year beginning 1 October 1998 and was appointed Keeper on 1 October 1999. He lectured at the joint-Scandinavian Monetary History Symposium in Oslo, and at the Institute of History of the University of Oslo in November 1998. In Oxford he has assumed the teaching responsibilities of Professor Metcalf for Byzantine and Anglo-Saxon numismatics, as well as his own commitments in the later medieval period. In March he spoke at the Annual Conference of the Economic History Society meeting in

Oxford, and in June launched a new exhibition \_Sterling and the euro\_ in the newly redecorated Coin Room Lobby.

Current research interests are:

The coinage of Henry II; credit; economic history.

**C.J. Howgego** Senior Assistant Keeper, Heberden Coin Room, Ashmolean Museum; University Lecturer in Roman Numismatics

Dr C.J. Howgego became a Senior Assistant Keeper and was elected to a supernumerary Fellowship by Wolfson College, and to a Corresponding Membership by the American Numismatic Society. He was awarded the Wormser medal by the New York Numismatic Club. He was on sabbatical until January, and spent the summer of 1998 as Visiting Scholar at the American Numismatic Society. He continues to direct the Roman Provincial Coinage in the Antonine Period project. He gave ten university lectures, supervised three D.Phil. students, and taught three students for the M.Stud. in Greek and Roman History. He lectured at the American Numismatic Society, the New York Numismatic Club, Uppsala University, and the Royal Coin Cabinet in Stockholm.

Current research interests are:

Roman provincial coinage, and Coinage and Cultural History.

**W.L. Treadwell** Assistant Keeper (part-time), Heberden Coin Room, Ashmolean Museum

Dr W.L. Treadwell gave 16 lectures on Islamic numismatics and history. He continues to work with Mr Album on the Sylloge of Islamic coins in the Ashmolean. He was also granted one term's study leave (Trinity 1999) to enable him to complete a corpus of Buyid coins.

Current research interests are:

Early Islamic coinage of Syria: coinage of Iraq and Iran during the Buyid period, the Islamic mint of Merv.

**H.S. Kim** Assistant Keeper, Heberden Coin Room; University Lecturer in Greek Numismatics

Mr H.S. Kim gave sixteen university lectures on Greek coinage, supervised and tutored an M.Phil. student in Classical Archaeology, and served as an examiner for the Classical Archaeology M.St. exams. During the course of the year he made study visits to examine coins in collections in Vienna, Cambridge and Switzerland, and he continued his enthusiastic involvement as the Senior Member of the Young Friends of the Ashmolean. In May he began a nine month sabbatical to complete work on his doctoral thesis.

Current research interests are:

The development and spread of early Greek coinage; metallurgy applications to numismatics.

**C.E. King** Research Assistant, Heberden Coin Room, Ashmolean Museum

Dr C.E. King lectured on Roman coin portraiture of Augustus to classicists and archaeologists at the University of Exeter, supervised one D.Phil. student, and gave tutorials on Roman and Byzantine coinage in all three terms. She catalogued several hundred coin finds from Ariconium for the County Archaeologists of Worcester and wrote a report assessing their significance in the context of the site as a whole.

Current research interests are:

Roman numismatics from 3rd-5th centuries AD with specific programmes on revision of *Roman Imperial Coinage* Vol. V, pt. (AD 253-268); catalogue of Roman quinarii; catalogue and analysis of a 3rd century AD antoninianus hoard (Dorchester, Dorset, c.10,000 coins), and a late Roman hoard from N. Africa (with A. Cepas); catalogue of the coins of Valerian and Gallienus and family in the Gnecci Collection in the Museo Nazionale, Rome.

**V. Heuchert** Research Fellow, Heberden Coin Room, Ashmolean Museum

Dr V. Heuchert is employed in the Heberden Coin Room through an AHRB Institutional Research Fellowship. Together with Dr Howgego he is working on the fourth volume of the Roman Provincial Coinage (RPC) series. RPC IV will be a type corpus of around 380 cities from the East of the Roman Empire, which issued coins during the Antonine period (AD 138-192).

He presented papers to the British Epigraphy Society, the Royal Numismatic Society, the Oxford University Numismatic Society, to staff at the British Museum, and to an Oxford Symposium on Ancient Numismatics. He also gave tutorials on Roman Provincial Coinage to a D.Phil. student.

#### *Archaeological Science*

**N.H. Gale** Director of the Isotrace Laboratory, Professor of Archaeological Science

Major project: Sources and trade of copper, lead, silver and tin in the Aegean Bronze Age. Investigation of the variation of natural isotopic anomalies of copper and tin. Ancient exploitation of raw materials in Afghanistan, Turkmenistan (tin, lapis lazuli) and the Balkans (copper). Sources of copper metal used in Troy and possible connections with the regions north of the Black Sea. Isotopic analyses of copper and tin ingots from the Cape Gelidonya and Uluburun Bronze Age shipwrecks, including lead, copper and tin isotopes. Work on sites in Israel, Rhodes and the three ongoing excavations on the Aegean coast of Turkey of Panaztepe, Liman Tepe and Baklatepe, near Izmir.

Archaeometallurgical fieldwork in 1998: ancient copper slag heaps and minor copper mines on Cyprus. Collection of samples of stratified metal artefacts from sites in Rhodes and from the three Aegean sites in Turkey. Survey of metal ore deposits in the Izmir region, Turkey, with collection of representative ore samples and of stratified slag samples from Panaztepe, Liman Tepe and Baklatepe.

*Conferences and lectures:*

1. Invited lecture on all aspects of isotope geochemistry applied to archaeology, at the Conférence internationale sur les isotopes Stables et les Effets isotopiques, Carry le Rouet, 20-25 juin 1999.

2. Invited lecture on prehistoric Aegean archaeometallurgy at the Conference Die Anfänge der Metallurgie in der Alten Welt, Freiberg, East Germany.

**G.R. Lock** University Lecturer in Archaeology

His time is divided equally between the Institute of Archaeology and directing the archaeology programme in the Department for Continuing Education. He teaches on the full-time undergraduate degree course, supervises research students and gives general courses on using computers in archaeology. Current research interests include approaches to landscape archaeology and how the use of GIS technology can fit with current landscape theory. Fieldwork based on the Hillforts of the Ridgeway project in Oxfordshire (a training excavation directed with Dr C. Gosden) and Monte Pallano in Abruzzo, central Italy (with Dr J. Lloyd), provide the practical basis for the GIS research. Other work this year has included post-excavation on material from Uffington Castle, King's Low and Queen's Low. Dr Lock attended the World Archaeological Conference in Capetown, South Africa where he organized a session on The Theory and Practice of Archaeological Computing which is to be published.

Dr Lock edits the *Archaeological Computing Newsletter*, is Chairman of the Hillfort Study Group, sits on the Council for British Archaeology Education Committee, the management Committee of *Internet Archaeology* and the Management Committee of the Archaeology Data Service. Within the University he is Chairman of the Committee for Archaeology IT sub-committee.

**J.P. Northover** Senior Research Fellow, Department of Materials

Dr Northover is a Senior Research Fellow responsible for the Materials Science-Based Archaeology Group in the Department of Materials and for cooperation with the Scanning Proton Microprobe Group on archaeological applications of the SPM. He also manages the specimen preparation laboratory at the Department of Materials new facility at Begbroke Science and Business Park.

His principal activities are post-excavation and museum-based studies of non-ferrous and precious metals with collaborators in a number of countries. Current research interests arising out of this are developing approaches to discovering the original appearance of metal artifacts, and an investigation of activities associated with the deposition of metal objects such as 'killing', cremation, etc. Research is also being extended to industrial archaeological topics.

Dr Northover supervises D.Phil. and Part II students in the Department of Materials, D.Phil. and undergraduate dissertations in archaeology, and Ph.D. students in a small number of other universities.

During the year Dr Northover presented papers at the annual meetings of the Society for American Archaeology (Chicago) and the European Association of Archaeologists (Göteborg), the 1999 conference on Non-Destructive Testing in Art and the Cultural Heritage (Rome), and at a conference on Ageing and Life Extension of Materials (Oxford).

## **Zofia Stos-Gale** University Research Lecturer

Compilation of lead isotope and elemental data on Bronze Age Mediterranean metal artefacts leading to the assessment of patterns of metal production centres and distribution maps. Isotope and elemental research into the earliest development of metal, glass and glaze technology, and related patterns of trade and the exploitation of mineral sources. Sources and trade in silver in the pre-coinage Near East. Identification of sources of lead used in the medieval period in northern Europe.

### *Project collaborators 1998-9:*

- Professor George Bass, INA Texas
- Dr Cemal Pulak, INA Texas
- Dr George Maliotis, Hellenic Mining Company Ltd, Cyprus
- Dr Sophocles Hadjisavvas, Director, Department of Antiquities, Cyprus
- Dr Lina Kassianidou, University of Cyprus
- Dr Eleni Magou, National Archaeological Museum, Athens
- Dr Adhiamantos Sampson, Ephor of Antiquities, Athens
- Professor Christos Doumas, University of Athens
- Dr Unn Plahter, University of Oslo
- Professor Miriam Balmuth, Tufts University
- Professor Sy Gitin, W.F. Albright Institute of Archaeological Research, Jerusalem
- Dr Michal Artzy, University of Haifa
- Professor E. Galili, Marine Archaeology Branch, Israel Antiquities Authority, Atlit
- Dr Sharon Cather, Courtauld Institute, London
- Professor Evabeth, Astrup, University of Oslo

### *Conferences and lectures:*

1. 4th Annual Meeting of the European Association of Archaeologists, Gothenburg, September 1998.

2. A series of 8 lectures on the history of technology of glass, metal and ceramics in November 1998, University of Oslo, Department of Conservation.

**M.S. Tite** Edward Hall Professor of Archaeological Science, Director of Research Laboratory for Archaeology and the History of Art

Lectured for the undergraduate degree course in archaeology and anthropology, including a new course on Trade and Exchange for the Advanced Topics in Archaeological Science option. Examiner for the Finals Honours School. Research projects in ceramics and early vitreous materials studies and in luminescence dating with two D.Phil. research students being supervised in these areas. Organized a session on Technological Choice in Ceramic Production at the World Archaeological Congress in Cape Town (WAC4) and edited papers from this session for publication in *Archaeometry*. Also participated (with the presentation of papers) in the following conferences and meetings: Ceramic Ecology Workshop at American Anthropological Association Annual Meeting (Philadelphia), Archaeometry as Anthropology: Material Culture and Technology Workshop (Carbondale, Illinois), Mineralogy of Ceramics, Ancient and Modern (Applied Mineralogy Group, London), Luminescence and ESR

Dating Conference (Rome), Embedded Technologies Workshop (Lampeter).

**R.E.M. Hedges** Professor of Archaeology, Director of the Radiocarbon Accelerator Unit

Professor Hedges was on Sabbatical Leave for the Academic Year 1998-1999, working at the Museum of New Zealand, and the Radiocarbon Laboratory of the Institute of Geological and Nuclear Sciences, Wellington, New Zealand, and subsequently at the Department of Earth and Marine Sciences, University of California at Santa Cruz. Apart from lecturing and writing up research projects for publication, he worked on methods and model building for application to palaeodietary research in humans and animals using stable isotopes.

### *Conservation*

**E.A. Cameron** Conservator, Institute of Archaeology

In addition to the usual work of the conservation laboratory, ran an annual short course *Conservation for Field Archaeologists* for students of the OUDCE's Diploma in Applied Archaeology, two seminars on *Metals Technology* for the OUDCE's Diploma in Applied Archaeology and tutored one diploma dissertation. Currently researching Anglo-Saxon leather-craft. Presented a paper at the Canadian Conservation Institute and was an invited speaker at a specialized meeting at the British Museum. Editor of the newsletter of the Archaeological Leather Group.

**M. Norman** Head of Conservation, Ashmolean Museum

Continuing work in the Ashmolean includes the conservation of material for refurbished displays and involvement in the reorganization of reserves as part of on-going preventive conservation and collections management initiatives in the Department of Antiquities. Research interests include the effects of pollutants on museum collections and he has continued a campaign of environmental pollution monitoring, in collaboration with the School of Geography, to assess the impact of the Oxford Transport Strategy on the Museum's collections.

He has been appointed Head of Conservation for the Ashmolean Museum and continues to be a member of the Committee for Museums and Scientific Collections. He has also lectured on 'Conservation and Technology' for the Ashmolean Education Service as part of the University's PGCE course.

## **RESEARCH PROJECTS IN PROGRESS**

### ***Summary Accounts of Projects***

#### **A. Scientific investigations**

*Charred plant remains from the Danebury Environs Project*

Mrs G.V. Campbell

Work has now begun, in relation to the next stage of excavations, studying the Roman agricultural system of the region.

Sponsor: English Heritage

*Plant and invertebrate remains from the Projet Archéologique de Nacqueville, Normandie*

Dr M.A. Robinson

Analysis of waterlogged samples from the inter-tidal Iron Age site is now well under way.

Sponsor: La Ville de Cherbourg

*Macroscopic plant and invertebrate remains from the University of Reading/British School at Rome excavations in Pompeii*

Dr M.A. Robinson

Sample processing is now complete for the Roman samples from the House of *Amarantus*. It is intended to identify the remains and prepare the full publication report next year.

Sponsor: Humanities Research Council

*Yarnton-Cassington Project*

Dr M.A. Robinson

The first stage of the Yarnton-Cassington Project has been completed, with the writing-up of the Saxon and medieval volume of the excavation report. Analysis continues of the remains from earlier periods and much excitement was generated by the discovery of two small fragments of charred barley bread dated to 3620-3350 BC - 'the stalest bread from Britain'.

Dr J. Mulville

The results of the archaeozoological studies for the Neolithic and Bronze Age floodplain site and the Saxon settlement are now complete and nearing publication. Analysis and reporting on the large Iron Age and Romano-British assemblage is in progress. These will be published with the archaeology as a series of period-based volumes.

Sponsor: English Heritage

*Charred and desiccated plant remains from the Fezzan Project*

Ms R.E. Pelling

The Fezzan Project, based in the Wadi el-Agial, southern Libya, aims to investigate long-term human exploitation of the desert environment over the last 10,000 years. Central to the project are excavations at the site of Old Germa, a mud brick tell site in the centre of the wadi, c.700 km south of Tripoli and 170 km west of Sebha, the modern capital of Fezzan. The site has long been identified as Garama, the capital of the Garamantians. The provisional analysis of charred and desiccated plant remains from the first three seasons of excavation is providing evidence of the diet of the later, Islamic

occupants of the site including evidence of New World crops such as chillies and sweet corn, as well as African crops, notably sorghum, and the classic Mediterranean cereal and fruit crops including grape and fig.

Sponsor: Humanities Research Council

### *The Long Isle Project*

Dr J. Mulville

### *Dun Vulan, South Uist, Western Isles*

An account of our excavations 'Between Land and Sea: Excavations at Dun Vulan, South Uist' was published this year, whilst the ongoing debate on the role of Brochs in Iron Age Atlantic Scotland continued with our paper in *Antiquity*, 'Excavations at Dun Vulan: a correction'.

### *Pabbay, Minulay and Sanday, Western Isles*

Work on the faunal assemblages from the tiny southernmost islands of the Western Isles archipelago is nearing completion and will be published as part of Volume 4 of the Sheffield Environmental and Archaeological Research Campaign in the Hebrides Series.

### *Bornish, South Uist, Western Isles*

An interim report on the faunal material recovered to date from the Iron Age and Norse settlement was produced. The fish remains were the subject of a masters dissertation which revealed a previously unrecorded emphasis on herring fishing. A summary of the evidence for fish use has been submitted to *Antiquity* as a joint paper with C. Ingrem (Southampton) and N. Sharples (Cardiff).

### *The role of Cetacea in Prehistoric and Historic Atlantic Scotland*

A paper examining the cetacean material from the Western Isles has been prepared and submitted to the *International Journal of Osteoarchaeology*.

### *Dairying in the Western Isles*

Collaborative work, with researchers at the University of Newcastle (O. Craig and M. Collins), continues into the identification of milking in the archaeological record. Analysis of faunal assemblages from sites in the Western Isles strongly suggests the use of cattle in milk production. This project used the biomolecular identification of milk to substantiate this evidence. Through a novel technique utilizing antibodies, casein was detected bound into the wall of pottery vessels. This is the first direct evidence for milk and further collaborative work will be undertaken with O. Craig as part of a NERC-funded post-doctoral research grant.

Sponsors: Historic Scotland, University of Bournemouth, University of Cardiff, University of Sheffield, University of Southampton, Natural Environment Research Council

### *Materials analysis - ceramics and vitreous materials*

Professor M.S. Tite, C. Doherty, A. Shortland, C. Salter, S. Paynter, G. Hatton

Technological and provenance studies of ancient ceramics, vitreous materials and pigments have continued using, as appropriate, a combination of analytical scanning electron microscopy, thin section optical petrology, Fourier transform infrared spectroscopy and inductively-coupled plasma spectrometry. With the transfer of much of the Department of Materials electron microscopy facilities to their new site at Yarnton, Chris Salter is no longer directly involved in support of the Cameca SEM in the Research Laboratory.

The major project, undertaken by Chris Doherty in collaboration with the University of Leicester, to investigate early rice agriculture as indicated by rice temper in pottery from Sarawak, Sabah and Brunei has been extended to include provenance studies of the 11th-14th century AD Tanjong Kubor trade ware from Sarawak (Malaysia) and Brunei; and the re-evaluation of the evidence for large scale iron production at Santubong, Sarawak in the 12th-14th century. Other petrographic projects have included the characterization of local and traded Islamic wares from Raqqa, Syria; and the definition of local pottery fabrics in the Oxfordshire landscape, with the proposed model being tested on beakers from Yarnton.

Sarah Paynter has progressed her D.Phil. research project on studying the development of glazing technology for pottery in the ancient Near East and Egypt. Alkaline glazes, the first pottery glazes produced in antiquity, have been replicated in the laboratory. The investigation of later lead-alkali and lead glazes, and their relationship to tin oxide opacifiers, is also nearing completion. Dilatometry measurements have been undertaken at Barcelona University and measurements of the optical properties of the glazes produced are about to commence in conjunction with Barcelona University.

Dr Andrew Shortland has conducted technological and provenance studies on a range of vitreous materials from Egypt and the Near East. The main concentration of the work has been on technological innovations of the mid-second millennium BC, especially the first regular production of glass, the discovery of new colorants and the introduction of vitreous faience. Work continues to centre on Egypt and draws together evidence from compositional, microstructural and isotopic analysis as well as conventional archaeological and textual sources. Using a combination of these techniques, the first regular use of glass and its subsequent trade is being investigated and the place of glass in the social and economic life of the mid-second millennium world assessed. In addition, he has completed a preliminary investigation of Ptolemaic faience and related vitreous materials from Memphis and has supervised further laboratory replications of Egyptian blue frit that have been undertaken by a Bradford University sandwich-course student, Gareth Hatton.

#### *Dating - Radiocarbon Accelerator Unit*

Dr C.B. Ramsey, Professor R.E.M. Hedges (on sabbatical), Dr P.B. Pettitt, Dr G. Hodgins

The dating of the Unit continued successfully throughout this year with 1712 dates measured (933 pre-treated at the Unit and 779 measured for other laboratories). The main highlight of this year was the successful application for a grant to replace the ageing accelerator that is used for the radiocarbon measurements. This major project

(circa £2.5M), funded by HEFCE, will take the next three years to complete and will ensure that the Unit can continue to improve the precision and accuracy of the technique with up-to-date equipment. In anticipation of the expansion and development of the laboratory the operating procedures and analytical methods were all reviewed and re-documented. The routine dating operations have now been scrutinized by the British Standards Institution and the Unit recommended for ISO-9002 accreditation.

During this year, the Unit continued to work in periods from the late Middle Palaeolithic to the medieval period. Funding was through contracts, grants and awards from institutions as diverse as NERC, English Heritage, Historic Scotland, The Wenner Grenn Foundation for Anthropological Research, The Prehistoric Society and the Louis Leakey Foundation. For the first time it has undertaken the direct dating of fossil remains of late Neanderthals from Central European sites which has advanced knowledge of Neanderthal extinction, as well as the well-publicized Neanderthal/modern 'Hybrid' from Lagar Velho, Portugal. A project dating supposedly early sites in South America was initiated and preliminary results obtained which address the wider issue of the colonization of the Americas by anatomically modern humans. The project is continuing. Issues of Pleistocene extinctions and colonizations are being addressed, including the extinction of Pleistocene hyaenas in the UK, and the colonization of postglacial UK by herpetofauna. A project centred on unstratified material from Butzsee lake, near Berlin has established a framework chronology for the Late Upper Palaeolithic and early Mesolithic of the region. A collaborative dating venture as part of the Oxygen Isotope Stage 3 project centred at Cambridge was begun, addressing issues of faunal dispersal and extinction in this broad period.

A major dating project of relevance to African agricultural origins was undertaken at Aksum, and the identification of Late Pleistocene domesticated rye was confirmed by a final dating set. A number of Neolithic and Bronze Age samples have been dated through English Heritage and Historic Scotland funded research projects. Later prehistoric projects have been undertaken from the UK (Eton rowing lake) to eastern Europe (Iron Gates Mesolithic, Hungarian Neolithic). A project examining the origins of agriculture on the Hungarian plain was initiated. Organic remains from the plaster lining of Hezekiah's tunnel, Jerusalem were dated to authenticate this historical construction, and samples have been dated to address specific questions at the Roman sites of Silchester and Pompeii, and a second group of stratigraphically important burials from Anglo-Saxon Bampton were completed.

### *Dating - Luminescence*

Dr E. Rhodes, Dr R. Bailey, Professor M.S.Tite, Dr A. Allsop, Mr G. Adamiec, Ms A. Gautier, Ms J. Singarayer

The luminescence dating group is now again fully operational. A number of dating projects from both archaeological and palaeoenvironmental contexts, including Palaeolithic sites from Gibraltar and Sri Lanka, prehistoric pottery from Tobago and Borneo, and dune systems from the southern USA, Ivory Coast and Mongolia, have been successfully completed. The laboratory facilities have been enhanced by the upgrading one Risø automated luminescence reader, and by the purchase of a portable multichannel NaI gamma spectrometer. In addition, an order has been placed for a further Risø automated luminescence reader with a laser attachment for the measurement of individual single grains. Dr Rhodes obtained funding from the Royal

Society (jointly with Dr R. Hodgkins, RHUL) for a project studying the potential of luminescence as a provenancing tool, and from the Australian Research Council (jointly with Dr D. Gore, Macquarie University, Australia and Prof. E. Colhoun, Newcastle University, Australia) to study the timing of deglaciation in the E. Antarctic.

D.Phil. projects to investigate the luminescence properties of quartz (G. Adamiec) and to date archaeometallurgical slags (A. Gautier) are nearing completion. Joy Singarayer has started a D.Phil. project on long range OSL dating of sediments. Jiafu Zhang (University of Hong Kong) and Nikos Zakarias (Demokritos Laboratory, Athens) each spent three months working in the Laboratory. The luminescence group took a very active role in the 9<sup>th</sup> International Conference on Luminescence and ESR Dating in Rome in September.

#### *Dating - Uranium-series dating of bone*

Professor R.E.M. Hedges (on sabbatical), Mr A. Pike

Reliable dates have now been obtained on bone by U-series disequilibrium methods by applying a previously published model of U uptake by diffusive adsorption. This enables bones with unsuitable uptake characteristics to be rejected before analysis, and enables the predicted apparent age variation profile through the bone, as measured by TIMS, to be checked against the actual profile as measured by TIMS. A major research grant application has been made to NERC to be able to apply the method to important sites in the time range beyond radiocarbon dating.

#### *Palaeodiet*

Professor R.E.M. Hedges (on sabbatical), Dr T. O'Connell, Dr M. Richards, Miss J. Birchall

This is the second year of the three-year NERC grant awarded to REMH, in which Dr Mike Richards is investigating and interpreting stable isotopic compositions of human and faunal remains from Neolithic Britain, and that work continues to progress. New projects now underway include exploring ancient diets in Britain (the Upper Palaeolithic and Mesolithic periods), Turkey (Neolithic Catalhoyuk) and the Aegean Bronze Age. The latter project has culminated in a contribution to the exhibit "Minoans and Mycenaeans: flavours of their times" at the National Museum of Greece, Athens.

Dr Tamsin O'Connell continued her work on the isotopic composition of modern tissues. Field work was undertaken in Sweden and Vietnam to collect hair samples from modern humans with 'distinctive diets'. In collaboration with Professor Andrew Prentice at the London School of Hygiene and Tropical Medicine, a larger project was undertaken in rural West Africa to assess the effect of age and physiology on body tissue isotopic values.

Several students from Bradford University and UMIST worked on undergraduate or masters projects during 1999, covering such diverse subjects as analysis of human skeletons from the Anglo-Saxon cemetery of Berinsfield, analysis of Jordanian Neolithic human remains, comparisons of different methods of preparing collagen for isotopic analysis and radiocarbon dating, and assessing environmental effects on faunal isotopic values in Britain.

### *Non-ferrous and precious metallurgy in the European Iron Age*

Dr J.P. Northover, P. Nagy (Abteilung Ur- und Frühgeschichte, Universität Zürich, Switzerland), P. Ramsel, C. Zingerle (Institut für Ur- und Frühgeschichte, Universität Wien, Austria)

The study of copper-based and precious metal alloys from excavations and hoards of the pre-Roman Iron Age is leading for the first time to an understanding of how these metals were made and traded in a period when iron had become the dominant utilitarian metal. Material is now available to illustrate how production on individual sites was organized and what techniques were used together. Attention is also focused on cemeteries to look for associations between gender and status of individuals and the technical quality of artefacts buried with them.

### *Application of microprobe and metallographic techniques to numismatic problems*

Dr J.P. Northover, N. Mayhew, Dr C.E. King, Dr L. Treadwell, E. Besly (National Museums and Galleries of Wales)

The Cameca SEMPROBE is used to study the copper-, silver- and gold-based alloys used for a variety of coinages. Current projects involve Roman base-silver coinages of the later third century AD, the silver and base-metal coinages of medieval England, the coinage of the pre-Roman Iron Age, Indo-Greek and Islamic coinages. Very large databases of analyses have been and are being assembled in all these areas and attention is now directed to new methods for interrogating these.

### *Early metallurgy in the Upper Euphrates Basin*

Dr J.P. Northover, Dr K. Prag (University of Manchester), Dr G. Philip (University of Durham)

Microanalysis and metallography have been used to characterize the metalwork from a number of major excavations in the Upper Euphrates basin. The sites straddle political and economic boundaries of the third millennium BC during the period in which bronze became the main utilitarian metal. The results have given us a new understanding of the way in which bronze became part of the metal economy and have also focused our attention on the great importance of recycling in these early cities.

### *Effects of cremation on copper alloys*

Dr J.P. Northover

The effects of high temperatures on copper alloys in oxidizing, neutral and reducing atmospheres is being studied by optical metallography and by experimental replication. The results are used to determine the placement of grave goods in cremation pyres to assist in interpreting the burial rites.

### *Investigation of the relationship between slag inclusion compositions and welding practice*

C.J. Salter, Dr B.J. Gilmour

A study of the changes in slag inclusion and metal compositions that occur during the forge welding of iron. In particular those changes seen in phosphoritic/non-phosphoritic composite iron artefacts.

### *Iron and steel for rails in the 19<sup>th</sup> century*

F. Horbury, Dr J.P. Northover

The progression from cast iron through wrought iron to steel for railway rails reflects very closely the technological development of iron and steel-making on an industrial scale in the 19<sup>th</sup> century. Company records mean that rails can be accurately dated and provenanced so that their metallurgical analysis can provide an excellent guide to the effectiveness of the processes and the quality of the products. This pilot project, in association with the National Railway Museum, York, is designed to demonstrate this as a basis for further research.

### *Architectural ironwork*

Dr B.J. Gilmour, D. Miles

Dendrochronological dating of medieval and post-medieval timber structures allows very accurate dating for samples of architectural ironwork taken from those structures to build up a picture of the impact of developments in technology on the composition and quality of iron. Buildings sampled include Salisbury and Peterborough Cathedrals and the Bodleian Library.

### *Bronze in the Scottish Late Bronze Age*

Dr J.P. Northover, T.G. Cowie (National Museums of Scotland)

Arising out of a project on the St Andrews, Fife, hoard a comprehensive technical and archaeological survey of the metalwork of the Scottish Late Bronze Age is in progress.

Sponsors: National Museums of Scotland, Society of Antiquaries of Scotland

### *Application of the scanning proton microprobe to the analysis of Egyptian bronze*

Dr J.P. Northover, Dr G.W. Grime, M.H. Abraham

The requirements of museum collections have stimulated this project in non-destructive and minimally destructive analysis of ancient bronze. The aim is to use a laser to mill sub-millimetre diameter windows in the patina on selected bronzes and then use the SPM to analyse the metal as it is exposed, with the X-ray mapping facility employed to make basic metallographic observations. An experimental programme will develop the best mode of operation and assess the quality of the analyses in comparison with sample-based analysis.

### *Study of the products of the experimental reproduction of the process ironworking at Bryn Y Castell and Crawellt Sites, Gwynedd*

C.J. Salter, P. Crew (Snowdonia National Park Study Centre, Maentwrog, Gwynedd)

A series of iron smelting and smithing experiments have been carried out to reproduce the metal and other iron-working debris from these important Iron Age sites. Presently, this material is being studied in an attempt to understand fully the chemistry, microstructure and mechanical properties of the different types of iron and steel produced.

*Application of combined EDX, WDX and image-analysis techniques to the study of archaeological materials*

C.J. Salter, Professor M.S. Tite

The capabilities of the SU30 semi-microprobe analyser in the Research Laboratory for Archaeology and History of Art will be developed and used to study a wide range of archaeological material. Currently, the proved ability of the machine to produce a large number of high quality chemical and topological images, together with the use of multi-media publication is being explored as a means of making the scientific data obtained in scientific studies of archaeological artefacts accessible to a more general audience.

*Anglo-Saxon Ferrous Technology*

C.J. Salter, B.J.J. Gilmour, G. Hey (Oxford Archaeological Unit), K. Penn (Norfolk Archaeological Unit), T. Malim (Cambridgeshire Archaeology)

A systematic survey of the ferrous artefacts from a number of East Anglian and Midland sites is being carried out to determine range and distribution of various Anglo-Saxon blacksmithing skills and technologies.

*Thermoluminescence dating of archaeo-metallurgical slags*

A. Gautier, C.J. Salter, D. Stoneham (Oxford Authentication)

The problems associated with the thermoluminescent dating of slags will be explored, with the aim to improve the technique so that it will become sufficiently accurate to be a useful archaeological tool for those cases, often associated with ancient metallurgy, where there are distinct problems associated with other scientific dating methods.

*Technology of Anglo-Saxon ferrous blades*

V. Fell, Dr D. Starley (English Heritage)

The blade constructions of knives and spearheads from several cemeteries and occupation sites in southern Britain have been investigated from X-radiographs, or by optical metallography when condition permits.

Sponsor: English Heritage

*Early ferrous bars and billets*

V. Fell

A study of Iron Age billets and early Roman bars from several sites in southern Britain to investigate by metallography the quality of metal in the early stages of manufacture.

## *Oxford Byzantine Ceramics Project*

P. Armstrong

The Oxford Byzantine Ceramics Project aims to identify by chemical analysis an individual 'fingerprint' of each of a number of pottery production centres in the Eastern Mediterranean. To date 18 sites have been studied. During this year sherds were collected from three sites in Greece: Argos, Oreoi, Euboea, and Corinth. Preparatory visits to Trikkala, Thessaly, and to Mikro Pisto, Thrace, were made to collect information for applications to include material from these kilns in the analysis project.

Sponsors: Hulme University Fund (Oxford), Greek Secretariat of Research and Technology, British Council

## **B. Excavations**

### *Danebury Environs Roman Programme*

Professor B. Cunliffe, R. Osgood, Julie Hamilton

A five-year programme to study Roman rural settlement in the Danebury region of western Hampshire began in 1997. The work involves field survey, documentary research and excavation. Its principal focus is on the question of continuity and land holding from the Late Iron Age to the Roman period and on the development of rural economy. In the summer of 1999 the second season of an excavation was undertaken at the Roman villa at Grateley South.

Sponsors: Hampshire County Council through the Danebury Trust, Society of Antiquaries of London, Roman Society, Haverfield Bequest, Roman Research Trust, Royal Archaeological Institute, John Lewis Partnership

### *Le Yaudet (Atlantic trade in the first millennium BC)*

Professor B. Cunliffe, R. Osgood, Dr P. de Jersey, Dr P. Galliou (Centre de Recherche Bretonne et Celtique, University of Brest)

The promontory of Le Yaudet on the north coast of Brittany, near Lannion, has been chosen as the site of a long-term excavation designed primarily to examine the Iron Age and Roman culture of northern Brittany and its wider maritime context. The ninth season of excavations took place in July concentrating on the excavation of the Roman Land gate.

Sponsors: British Academy, Direction des Antiquités de Bretagne, Département des Côtes-d'Armor

### *Guernsey and its maritime contacts*

Professor B. Cunliffe, P. de Jersey, R. Osgood

A programme of exploratory excavations was begun on the island of Guernsey as part of a research programme into Atlantic maritime exchange systems. Two sites were examined: a Late Iron Age-early Roman salt-production site on Herm and a Roman salt-

works at Fort Grey, Guernsey.

Sponsor: States of Guernsey

### *Aphrodisias Excavations*

Professor R.R.R. Smith, Professor C. Ratté (New York)

The current research project at Aphrodisias in Caria (SW Turkey) began in 1991 and aims (1) to record, document, and publish the earlier excavations carried out between 1961 and 1990, and (2) at the same time to pursue archaeological investigation of the city's urban plan, street system, and infrastructure. In the campaign of 1999 (July-August), excavations were carried out in the North Agora and the Stadium - to explore the late antique conversion of the east end of the building into an amphitheatre. Detailed state-plan drawing and limited excavation were also pursued in the Sebasteion, the Temple of Aphrodite, and the grand late Roman residential complex nicknamed the 'Bishop's Palace'. Individual research projects continued the study and writing up of various categories of material from the site.

Sponsors: New York University (Institute of Fine Arts and the Faculty of Arts and Sciences), the Friends of Aphrodisias in Istanbul, Izmir, London, New York and Paris, other private donors

### *The Phylla Fort Project*

Dr J.J. Coulton, Mr M.R. Popham, Dr E. Sakellarakis (formerly of Chalkis Ephoria), Dr I. Metzger (Chur Museum, Switzerland)

This co-operative project between the Chalkis Ephoria and the British School at Athens concerns an ancient fort in central Euboea (inland from Lefkandi). Brief excavations in 1996 and 1999 have established a major occupation phase in the years around 500 BC, and strengthened the hypothesis of a garrison linked in some way with the Athenian cleruchy at Chalkis (506-490 BC). The buildings are unparalleled for this period in Greece, and provide rare information about garrison life. Material of the eighth century BC may be related to the traditions of an early 'Lelantine War' between Chalkis and Eretria. The pottery has been studied by Dr Ingrid Metzger (Chur Museum), and bone and shell by Dr Sheilagh Wall-Crowther. Dr Anaya Sarpaki (University of Crete) is undertaking study of the botanical material. The report on the 1996 season is complete in draft, and the 1999 material will be added into it in 1999-2000.

Sponsors: Chalkis Ephoria (Greece), British School of Archaeology at Athens, Seven Pillars of Wisdom Trust

### *Oxford-Batumi Pichvnari Expedition*

M. Vickers, in collaboration with Professor A. Kakhidze (University of Batumi)

In July, the second season of the Oxford-Batumi Pichvnari Expedition (the first ever joint British-Georgian archaeological enterprise) took place. We investigated the Greek and Colchian cemeteries at Pichvnari on the Black Sea coast of Georgia. Students from Oxford, Amsterdam, Batumi and Tbilisi Universities participated. Eight graves were excavated in the earlier classical Greek cemetery, and 15 in the Colchian cemetery.

More Roman-period (third-fourth century AD) burials were found in the southern part of the area of the earlier classical Greek cemetery. Soundings were made in the area of the settlement, and Hellenistic levels reached.

Sponsors: Department of Antiquities (Ashmolean Museum), Batumi Archaeological Museum, Craven Committee (Oxford), Jesus College (Oxford), British Institute of Archaeology at Ankara, private benefactors

### *The Hillforts of the Ridgeway Project*

Dr G. Lock, Dr C. Gosden

Excavations were carried out on an enclosure at Alfred's Castle, as part of a long-term project to investigate the evolution of the prehistoric landscape on the Berkshire Downs. These revealed a large Roman building (either a villa or a temple) and underlying earlier features dating to either the late Bronze or early Iron Age. Excavations were also carried out on various ditch features in the surrounding landscape. The site is an exciting one, providing evidence of the Roman use of the landscape which fits into a broader pattern of villa estates and acted as a transformation of earlier patterns of use. First year undergraduate Archaeology and Anthropology students gained training in excavation techniques for two weeks, as part of their course. For the second two weeks the excavation was part of a Continuing Education Summer School.

Sponsors: Oxford University, Roman Research Trust, British Academy

### *Androna (Andarin) Excavations, Syria*

Directors: Professor C. Strube (Heidelberg), Dr M. Mango (Oxford), Dr A. Zaquq (Hama); Oxford team (1999): Dr M. Mango, R. Anderson, T. Bell, A. Claridge, M. Decker, C. Hall, D. Hopkins, Dr R. Hoyland, Professor C. Mango, T. Papacostas, Dr N. Pollard, Dr A. Wilson

A new international project carrying out survey and excavation of a large non-urban desert settlement recorded as a Late Roman *mansio* on a Palmyra-Antioch trade route, and with extensive Early Byzantine remains (including 12 churches and 50 known Greek inscriptions), started in 1997 with a topographical survey. The five-year programme of fieldwork continued with excavations started in 1998 in the centre of the site and investigation of the water supply. Heidelberg is working on the barracks and Oxford on the public bath, both built by the same local individual in and around AD 558. The Oxford team has uncovered much of the bath house and found remains of its water supply system and of its original marble, mosaic and painted decoration. Dr A. Wilson and M. Decker who are working on water and agriculture at and around the site, studied two large water reservoirs and the qanat systems supplying them.

Sponsors: Oxford team: **1998** Research and Equipment Committee (Oxford), Craven Fund (Oxford), Modern History Faculty (Oxford), St. John's College (Oxford); **1999** Dumbarton Oaks, Center for Byzantine Studies, Washington, D.C.; Council for British Research in the Levant; Craven Fund (Oxford).

### *Post-excavation analysis of finds from Likoeeng, Lesotho*

Dr P.J. Mitchell

Sponsor: The Arts and Humanities Research Board

*The Madra Çay Delta Archaeological Project (Northwestern Turkey)*

Dr Nigel Spencer, Dr Kyriacos Lambrianides (University College London), in collaboration with Professor Ilhan Kayan (Ege University Izmir), Mr Ben Cookson (Bilkent University, Ankara, Dutch Institute of History and Archaeology, Istanbul)

The four-year collaborative venture is conducting inter-disciplinary geomorphological, archaeological and anthropological research into the coastal district of north western Turkey opposite the east coast of the north east Aegean island of Lesbos. This region has rarely been the object of detailed research, and modern political geography has led to studies of the region being carried out in almost total isolation from the north eastern Aegean islands even though the two spheres are an important part of the same study area and were linked intimately from prehistory to the present century. The current inter-disciplinary project in the area therefore tackles an important (but hitherto neglected) aspect of the region's archaeology, namely the diachronic relationship of the coast of Anatolia to the island of Lesbos opposite from the Neolithic period through the Bronze and Iron Ages to the Medieval and Early Modern era. In 1995 detailed geomorphological studies were conducted which clarified the past sea-level changes during the Holocene, focusing especially upon the relationship of sea-level change to the Early Bronze Age settlement in the region. In 1996 intensive archaeological surface survey was added to more geomorphological research, with the former being conducted at sites in the delta the occupation of which ranged from Early Bronze Age to Late Byzantine and Ottoman. The 1997 season, just completed, also saw the introduction of archaeological excavation in addition to geomorphological sondages in two prehistoric tells. Survey work was conducted at other sites in the delta and detailed architectural studies were carried out in Ayvalik and Altinova of the standing architecture of the Ottoman period. In 1998 a first study season was conducted on the Early Bronze Age and Late Byzantine/Ottoman period material. A second study season was carried out at Balikesir Museum and at the project's depot at Altinova in 1999 together with publication preparation work by Mr Ben Cookson at Bilkent University in Ankara. In the coming year the preparation for the project's first volume will be completed with further historical archive work in Istanbul and Ankara together with an intensive collaboration session with Professor Dr Ilhan Kayan and Dr Mahmut Drahor in Izmir to finalize the manuscript of the palaeoenvironmental sections to the report.

Sponsors: Wainwright Fund (Oxford), Craven Committee (Oxford), Meyerstein Fund (Oxford), British Academy, British Institute of Archaeology (London/Ankara), Leverhulme Trust (London), Institute for Aegean Prehistory (New York)

*Cladh Hallen, South Uist*

Dr J. Mulville

This project undertakes excavation, field and geophysical survey on the Isle of South Uist. Excavations continued at the Late Bronze Age settlement at Cladh Hallen, revealing a 'terrace' of three roundhouses, running north-south. A potential fourth roundhouse was indicated by ground penetrating radar. The interim excavation report has been completed, *The Late Bronze Age and Early Iron Age Community at Cladh Hallen, South Uist. Excavations in 1999* (Marshall, P., Mulville, J., Parker Pearson, M.,

Smith, H. and Ingham, C.) (Unpublished report, University of Sheffield). These excavations will be published as part of the Sheffield Environmental and Archaeological Research Campaign in the Hebrides Series. An application for funding to continue excavation in 2000 and for post-excavation analysis has been made to Historic Scotland.

Sponsors: Historic Scotland, University of Bournemouth, University of Sheffield, University of Southampton

### **C. Fieldwork**

#### *The Sangro Valley Project, Italy*

Dr G. Lock, Dr E. Bispham, Dr N. Christie (University of Leicester), Dr S. Krane (Oberlin College, USA)

In collaboration with the Soprintendenza Archeologica dell'Abruzzo, the project is investigating settlement and economy in a region of south-central Italy concentrating on the later prehistoric to medieval periods. This year the focus was on excavation at Monte Pallano, a Samnite hillfort.

Sponsors: British School at Rome, Craven Fund (Oxford University), Leicester University, Oberlin College

#### *The Balboura Survey, Turkey*

Dr J.J. Coulton, Ms P. Armstrong, Ms A. MacDonald; Dr D.H. French (Waterford), Professor M. Kiel (University of Utrecht), Professor J.M. Wagstaff (University of Southampton)

The project, concerned with the settlement history of a highland city and territory in SW Turkey, is in the final phases of publication. The pottery classification and catalogue have been completely revised, and that part of the report is near completion, except for the pre-hellenistic material which has been held back by ill health. Other catalogues are complete, and most of the maps, plans and diagrams are drawn. Most of the 'report' chapters, and five out of eight synthetic chapters, are in advanced draft. The pottery report, on which other important chapters depend, is now in its final form. Some contributions are outstanding from other contributors, and revision, editing and final preparation of some illustrations is required.

Sponsors: British Academy, British Institute of Archaeology at Ankara

### **D. Publication programmes**

#### *Later Stone Age archaeology of the Phuthiatsana Basin, Lesotho*

Dr P.J. Mitchell

A paper synthesizing cultural and environmental change in the late Pleistocene and Holocene of this region was accepted for publication in *African Archaeological Review*. A co-authored paper reporting on the results of factor analysis of charcoal assemblages from Tloutle rock-shelter was accepted for publication in *Southern African Field*

*Archaeology.*

*Excavations and field-survey in the Lesotho Highlands*

Dr P.J. Mitchell

Two interim reports on the 1998 excavation season at Likoeeng appeared in the course of the past year.

*The Pichvnari (Georgia) Excavations*

M.J. Vickers, A. Kakhidze

Accounts of the 1998 season at Pichvnari are published in: M. Vickers, 'Pichvnari Diary', *The Ashmolean* 36 (1999) 3-5; idem, 'Pichvnari, Georgia, 1998', *Anatolian Archaeology* 1998, 15; A. Kakhidze and M. Vickers, 'The British-Georgian excavation at Pichvnari 1998: the 'Greek' and 'Colchian' cemeteries', *Anatolian Studies* (in press). For the 1999 season, see A. Kakhidze and M. Vickers, 'Pichvnari, Georgia, 1999', *Anatolian Archaeology* 1999 (in press).

Sponsors: British Academy, British Institute of Archaeology at Ankara

*The Euesperides (Libya) Excavations*

M.J. Vickers, D.W.J. Gill

The material from the Ashmolean Museum's unpublished 1952-1954 excavation at Euesperides, Cyrenaica is being prepared for publication. The Society for Libyan Studies has included a monograph in its publication programme.

Sponsors: British Academy, Society of Antiquaries of London, Society for Libyan Studies

*Roman gold*

M.J. Vickers, M. Yu. Treister

The publication of extant Roman period gold vessels.

Sponsor: Society of Antiquaries of London

*Lexicon Topographicum Urbis Romae*

Professor E.M. Steinby, editor; dott. E. Papi, bibliography and assistant editor; Dr N. Pollard, assistant editor; dott. ssa M.R. Russo, illustrations

Volumes I-IV have been published (vol. IV 1999); vol. V, comprising entries T-Z, 'Addenda and corrigenda' edited by N. Pollard and vol. VI, comprising 'Indices' by M. Buonocore, will be published early in 2000.

Sponsor: Regione Lazio, Rome

*La necropoli della Via Triumphalis, Roma*

Professor E.M. Steinby, dott. ssa C. Coletti, Dr M. Carre, dott. ssa M.T. Cipriano

Publication of excavations made in 1956-8 by F. Magi, and a revision of the edition of the inscriptions published in 1973 by a team directed by V. Väänänen. To be published in the year 2000 in the series *Memorie della Pontificia Accademia di Archeologia*.

*Lacus Iuturnae in the Forum Romanum, Rome*

Project director: Professor E.M. Steinby

Excavations were undertaken in 1982-5 in collaboration with the Soprintendenza Archaeologica di Roma. In 1988 the first volume, on ancient sources and material from earlier excavations was published; preliminary reports on the excavations have been published in periodicals and *Sammelschriften*. For the final excavation report, A. Claridge compiled a list of findings per strata. N. Pollard has taken over the editing of the reports on findings.

Sponsors: Suomen Kulttuurirahasto (Foundation for Finnish Culture), Suomen Akatemia (The Finnish Academy)

*Politics and Ideology in the Building History of Ancient Rome*

The project, directed by E.M. Steinby, generates from the courses in Roman topography held in 1993-4 for Finnish university students in classics, history and archaeology. Now graduates, ten of the students who took part in the courses are developing their themes into articles to be published in a *Sammelschrift*.

Sponsor: Suomen Akatemia (The Finnish Academy)

*Corpus Inscriptionum Latinarum XV.1, new edition*

Professor E.M. Steinby

The project to publish a completely revised edition of the brick stamps from Rome and neighbourhood has been preceded by editions of the stamps in Ostia and many minor collections, and by new indexes of the old *CIL XV.1*, with addenda. Material is being collected and comments prepared.

*King's Low and Queen's Low excavations*

Dr G. Lock, Dr R. Spicer (Staffordshire University)

The study and final publication of the six years of excavations at this pair of round barrows.

Sponsors: Stoke-on-Trent Museum Archaeological Society, the City Museum, Hanley, Stoke-on-Trent

*The Hillforts of the Ridgeway Project*

Dr G. Lock, Dr C. Gosden

Publication of the work at White Horse Hill, Uffington is nearing completion in

association with the Oxford Archaeological Unit.

Sponsor: English Heritage

*Vicus Augustanus (Castelporziano) Italy*

A. Claridge

Publication of a fourteen-year programme of survey and excavations at a small Roman town of the 1st-5th centuries AD.

Sponsors: British Academy, Craven Committee (Oxford), Society for the Promotion of Roman Studies

*Meols Project*

Dr D.W. Griffiths, Dr R.P. Philpott (National Museums & Galleries on Merseyside)

Full publication of site history, and museum collections of material, from multi-period coastal trading site in NW England.

Sponsors: British Academy, National Museums & Galleries on Merseyside (Liverpool Museum)

*Early Christianity*

K.S. Painter

(1) The publication of the early Christian silver treasure from Water Newton, to appear in *Journal of the British Archaeological Association* vol. 152.

Sponsor: Roman Research Trust

(2) The publication of a fifth-century gold ingot, to appear in Peter Megaw (ed.), *The Early Christian Church at Kourion, Cyprus*, British School at Athens.

*Roman silver*

K.S. Painter

The publication of the silver treasure from the House of the Menander at Pompeii, to appear as part of Roger Ling's *The Insula of the Menander at Pompeii* vol. 2, OUP.

Sponsor: British Academy

## **E. Corpora, Archives and Computing Systems**

*Roman Sculpture from the North-West Midlands (counties of Cheshire, Shropshire and Staffordshire)*

Dr M. Henig with T. Blagg (architectural ornament)

The text of Dr Henig's sections of this fascicule of the *Corpus Signorum Imperii Romani*

was completed, although a small amount of renumbering will be necessary when Dr Blagg's contribution is received. Virtually all photographs of sculptures in Chester and Staffordshire have been received and those from Wroxeter and Shrewsbury are on order.

Provided Dr Blagg delivers his section with illustrations in the autumn as anticipated, the fascicule will be sent to a reader and completed next year.

Sponsor: British Academy

*The 'Paper Museum' of Cassiano dal Pozzo*

A. Claridge (Series Editor and contributor), Dr H. Whitehouse, Dr D. Bailey (British Museum), Dr I. Campbell (Heriot-Watt), W. Stenhouse (UCL) and others

A catalogue raisonné of an important seventeenth-century Roman collection of drawings of antiquities and architecture now housed mainly in the Royal Library at Windsor, the Greek and Roman Department of the British Museum, and the Sir John Soane Museum, London. Publication is planned in ten parts. Vol. A. I. *Ancient mosaics and wallpaintings*, by Helen Whitehouse, went to press in May 1999; A. VII. *Roman Inscriptions*, by William Stenhouse, was accepted by the editorial board; A. IX. *Roman topography and architecture* (in 3 vols.), by Ian Campbell, approached final draft.

Sponsors: Olivetti, Getty Grant Program, British Academy, Banca Nazionale del Lavoro

*British Museum Southern African Stone Age collections/Southern African rock art collections of the Pitt Rivers Museum*

Dr P.J. Mitchell

A comprehensive catalogue of the British Museum's southern African Stone Age collections appeared as an Occasional Paper of the British Museum. This also includes summary information on the southern African Stone Age holdings of other UK museums. The southern African rock art collections of the Pitt Rivers Museum were comprehensively documented and researched with the support of the Swan Fund and a start made on researching Stone Age archaeological collections in the Museum from South Africa's Eastern Cape Province.

*Colonialism and material culture in Papua New Guinea*

Dr C. Gosden

The project is aimed at understanding the social change brought about by colonialism in West New Britain Province of Papua New Guinea over the past century. We have looked at museum collections in Berlin, Dresden, Hamburg, Leipzig and Stuttgart, plus archival information in the German State Archives. Writing up of the project will take place during 2000.

Sponsors: Economic and Social Research Council, British Academy

*Celtic Coin Index*

Dr Philip de Jersey

Maintenance and updating of the Celtic Coin Index continued while future means of funding were sought. The next stage of the project - making data and images of some 30,000 Celtic coins available on the WWW - will be funded by English Heritage.

*Corpus Vasorum Arretinorum, 2nd Edition*

Dr P.M. Kenrick

Preparation of a new computerized catalogue of makers' marks on Italian terra sigillata pottery of the C1 BC-C2 AD. This year was spent on analysing the data now contained in the catalogue with regard to what it can tell us of the identities, dates and places of work of the 2,600 potters who are now listed. The project was originally due for completion at the end of September 1999, but it became clear during the year that another four months would be necessary in order to achieve the aim of having camera-ready copy of the book and a working version of the CD-ROM ready for publication. Fortunately, the funds within the project have been sufficient to cover this extension.

Sponsors: Ceramica Stiftung (Basel), Dr A.M. McCann and Mr R. Taggart (New York)

*Medieval Credit in England*

Dr P. Nightingale

Dr Pamela Nightingale's Leverhulme research post came to an end in September 1998. Within the five year term of the research grant she has completed a computerized database of over 30,000 certificates of debt from the period 1285 to 1500. This material will be the basis of a major monograph which she will prepare over the next few years. Her work was generously supported by the University's Career Support scheme from October 1998 to June 1999 when she received a new five year grant from the Economic and Social Research Council which will enable her to complete this important project. This summer she has given seminar papers to the medieval economic history group at All Souls, and to the Centre for Metropolitan History at the University of London's Institute for Historical Research.

Sponsor: Economic and Social Research Council

*Roman Provincial Coinage in the Antonine Period*

Dr C.J. Howgego (Project Director), Dr V. Heuchert

The seven-year research project on Roman provincial coinage based in the Heberden Coin Room commenced in March. Information on an estimated 150,000 coins will be stored on a database, together with digital images of each type. There are plans to make the results available as a CD-ROM and on-line, as well as through conventional publication. The project will be a collaboration between the institutional fellow, Dr V. Heuchert, who undertook a pilot study for his doctorate, and the project director Dr C.J. Howgego. The fellowship runs for four years and will be funded for a further three years by the University through the General Board's Research and Equipment Committee.

Sponsors: British Academy (Humanities Research Board), Funding Councils, Research

and Equipment Committee (University of Oxford).

### *Laskarina Bouras Archive Project*

Dr M. Mango, M. Parani

The project will compile an inventory of research materials on Byzantine metalwork left unpublished by the late Laskarina Bouras, Athens, and will finalize publication(s) relating in particular to lighting devices.

Sponsor: The A.G. Leventis Foundation, Paris

### *Sevso Treasure Documentation Project*

Dr M. Mango, M. Parani

The project will catalogue the photographic and other visual documentation of the Sevso silver treasure in order to make this material available to interested scholars.

Sponsor: Land & Partners, London

### *Lower Palaeolithic technology, raw material and population ecology*

D.A. Roe, with C. Gamble (Southampton University)

This new two-year project is concerned with studying how the availability and quality of raw material affected Lower Palaeolithic stone tool production and the nature of the resulting artefact assemblages in various parts of the world, using sites along a rough transect from southernmost Africa to north-west Europe. The evidence gathered will also be used to cast light on the size of early human home ranges and how people moved within them, and on whether artefact abundance within sites and regions offers a reliable guide to Palaeolithic population sizes. Dr G. Marshall (Southampton University) is employed as the project's postdoctoral researcher. The first year has been spent on work on the literature; on establishing a working typology and methods of assessing raw material quality; on setting up computer-based methods of study; and on the gathering of actual analytical data from some of the selected artefact assemblages, beginning with Britain and South Africa. In the second year, data will be collected in East Africa, Europe and Israel, the analyses will be completed and the results will be written up.

Sponsor: AHRB (British Academy)

### **Research Sponsors**

#### *Arts and Humanities Research Board*

- Post-excavation analysis of finds from Likoeeng, Lesotho (Pitt Rivers)
- Lower Palaeolithic technology, raw material and population ecology (Pitt Rivers)

#### *Australian Research Council*

- Dating - Luminescence (Research Laboratory)

### *Banca Nazionale del Lavoro*

- The 'Paper Museum' of Cassiano dal Pozzo (Institute)

### *Batumi Archaeological Museum*

- Oxford-Batumi Pichvnari Expedition (Ashmolean)

### *Bournemouth University*

- The Long Isle Project (University Museum of Natural History)
- Cladh Hallen, South Uist (University Museum of Natural History)

### *British Academy*

- Le Yaudet (Atlantic trade in the first millennium BC) (Institute)
- The Hillforts of the Ridgeway Project (Institute)
- The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)
- The Balboura Survey, Turkey (Institute)
- The Pichvnari (Georgia) Excavations (Ashmolean)
- The Euesperides (Libya) Excavations (Ashmolean)
- Vicus Augustanus (Castelporziano) Italy (Institute)
- Meols Project (Institute)
- Roman silver (Institute)
- Roman Sculpture from the North-West Midlands (counties of Cheshire, Shropshire and Staffordshire) (Institute)
- The 'Paper Museum' of Cassiano dal Pozzo (Institute)
- Colonialism and material culture in Papua New Guinea (Pitt Rivers)
- Roman Provincial Coinage in the Antonine Period (Ashmolean)

### *British Council*

- Oxford Byzantine Ceramics Project (Institute)

### *British Institute of Archaeology at Ankara*

- Oxford-Batumi Pichvnari Expedition (Ashmolean)
- The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

– The Balboura Survey, Turkey (Institute)

*British School of Archaeology at Athens*

– The Phylla Fort Project (Institute)

*British School at Rome*

–Sangro Valley Project (Italy) (Institute) *Cardiff University*

– The Long Isle Project (University Museum of Natural History)

*Ceramica Stiftung (Basel)*

–*Corpus Vasorum Arretinorum, 2nd Edition* (Institute)

*Chalkis Ephoria (Greece)*

– The Phylla Fort Project (Institute)

*Cherbourg (local authority)*

– Plant and invertebrate remains from the Projet Archéologique de Nacqueville, Normandie (University Museum of Natural History)

*City Museum, Hanley, Stoke-on-Trent*

–King's Low and Queen's Low excavations (Institute)

*Council for British Research in the Levant*

– Androna (Andarin) Excavations, Syria (Institute)

*Craven Committee (Oxford)*

– Oxford-Batumi Pichvnari Expedition (Ashmolean)

– Androna (Andarin) Excavations, Syria (Institute)

– Vicus Augustanus (Castelporziano) Italy (Institute)

– The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

– Sangro Valley Project (Italy) (Institute)

*Department of Antiquities (Ashmolean Museum)*

– Oxford-Batumi Pichvnari Expedition (Ashmolean)

*Département des Côtes-d'Armor*

– Le Yaudet (Atlantic trade in the first millennium BC) (Institute)

*Direction des Antiquités de Bretagne*

– Le Yaudet (Atlantic trade in the first millennium BC) (Institute)

*Dumbarton Oaks, Center for Byzantine Studies, Washington, D.C.*

– Androna (Andarin) Excavations, Syria (Institute)

*Economic and Social Research Council*

– Colonialism and material culture in Papua New Guinea (Pitt Rivers)

– Medieval Credit in England (Ashmolean)

*English Heritage*

– Charred plant remains from the Danebury Environs Project (University Museum of Natural History)

– Yarnton-Cassington Project (University Museum of Natural History)

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

– Technology of Anglo-Saxon ferrous blades (Institute)

– The Hillforts of the Ridgeway Project (Institute)

*Friends of Aphrodisias in Istanbul, Izmir, London, New York and Paris*

– Aphrodisias Excavations (Ashmolean/Institute)

*Funding Councils*

– Roman Provincial Coinage in the Antonine Period (Ashmolean)

*Getty Grant Program*

– The 'Paper Museum' of Cassiano dal Pozzo (Institute)

*Greek Secretariat of Research and Technology*

– Oxford Byzantine Ceramics Project (Institute)

*Hampshire County Council*

– Danebury Environs Roman Programme (Institute)

*Haverfield Bequest*

– Danebury Environs Roman Programme (Institute)

*Higher Education Funding Council for England*

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

*Historic Scotland*

– The Long Isle Project (University Museum of Natural History)

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

– Cladh Hallen, South Uist (University Museum of Natural History)

*Hulme University Fund (Oxford)*

– Oxford Byzantine Ceramics Project (Institute)

*Humanities Research Council*

– Macroscopic plant and invertebrate remains from the University of Reading/British School at Rome excavations in Pompeii (University Museum of Natural History)

– Charred and desiccated plant remains from the Fezzan Project (University Museum of Natural History)

*Institute for Aegean Prehistory (New York)*

– The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

*Jesus College (Oxford)*

– Oxford-Batumi Pichvnari Expedition (Ashmolean)

*Land & Partners, London*

– Sevso Treasure Documentation Project (Institute)

*Louis Leakey Foundation*

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

*Leicester University*

– Sangro Valley Project (Italy) (Institute)

*The A.G. Leventis Foundation, Paris*

– Laskarina Bouras Archive Project (Institute)

*Leverhulme Trust*

– The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

*John Lewis Partnership*

– Danebury Environs Roman Programme (Institute)

*Dr A.M. McCann and Mr R. Taggart (New York)*

– *Corpus Vasorum Arretinorum*, 2nd Edition (Institute)

*Meyerstein Fund*

– The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

*Modern History Faculty (Oxford)*

– Androna (Andarin) Excavations, Syria (Institute)

*National Museums & Galleries on Merseyside (Liverpool Museum)*

– Meols Project (Institute)

*National Museums of Scotland*

– Bronze in the Scottish Late Bronze Age (Department of Materials)

*Natural Environment Research Council*

– The Long Isle Project (University Museum of Natural History)

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

– Palaeodiet (Research Laboratory)

*New York University (Institute of Fine Arts and the Faculty of Arts and Sciences)*

– Aphrodisias Excavations (Ashmolean/Institute)

*Oberlin College (USA)*

– Sangro Valley Project, Italy (Institute)

*Olivetti*

– The 'Paper Museum' of Cassiano dal Pozzo (Institute)

*Oxford University*

– The Hillforts of the Ridgeway Project (Institute)

*Prehistoric Society*

– Dating - Radiocarbon Accelerator Unit (Research Laboratory)

*Regione Lazio, Italy*

– Lexicon Topographicum Urbis Romae (Institute)

*Research and Equipment Committee (Oxford)*

- Androna (Andarin) Excavations, Syria (Institute)
- Roman Provincial Coinage in the Antonine Period (Ashmolean)

*Roman Research Trust*

- Danebury Environs Roman Programme (Institute)
- The Hillforts of the Ridgeway Project (Institute)
- Early Christianity (Institute)

*Royal Archaeological Institute*

- Danebury Environs Roman Programme (Institute)

*Royal Society*

- Dating - Luminescence (Research Laboratory)

*St. John's College (Oxford)*

- Androna (Andarin) Excavations, Syria (Institute)

*Seven Pillars of Wisdom Trust*

- The Phylla Fort Project (Institute)

*Sheffield University*

- The Long Isle Project (University Museum of Natural History)
- Cladh Hallen, South Uist (University Museum of Natural History)

*Society of Antiquaries of London*

- Danebury Environs Roman Programme (Institute)
- The Euesperides (Libya) Excavations (Ashmolean)
- Roman gold (Ashmolean)

*Society of Antiquaries of Scotland*

- Bronze in the Scottish Late Bronze Age (Department of Materials)

*Society for Libyan Studies*

- The Euesperides (Libya) Excavations (Ashmolean)

*Society for the Promotion of Roman Studies*

- Danebury Environs Roman Programme (Institute)

– Vicus Augustanus (Castelporziano) Italy (Institute)

#### *Southampton University*

– The Long Isle Project (University Museum of Natural History)

– Cladh Hallen, South Uist (University Museum of Natural History)

#### *States of Guernsey*

– Guernsey and its maritime contacts (Institute)

#### *Stoke-on-Trent Museum Archaeological Society*

– King's Low and Queen's Low excavations (Institute)

#### *Suomen Akatemia (The Finnish Academy)*

– Lacus Iuturnae in the Forum Romanum, Rome (Institute)

– Politics and Ideology in the Building History of Ancient Rome (Institute)

#### *Suomen Kulttuurirahasto (Foundation for Finnish Culture)*

– Lacus Iuturnae in the Forum Romanum, Rome (Institute)

#### *Swan Fund*

– Southern African rock art collections of the Pitt Rivers Museum (Pitt Rivers)

#### *Wainwright Fund*

– The Madra Çay Delta Archaeological Project (Northwestern Turkey) (Institute)

#### *Wenner-Gren Foundation for Anthropological Research*

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#### RESEARCH STUDENTS STUDYING ARCHAEOLOGY IN 1998-9

(at Trinity Term 1999)

*M.Litt./D.Phil candidates*

Armpis, A. Eleni (St Peter's) D.Phil

The organisation of the sanctuaries of Asklepios  
Coulton, J.J. 1992

Armstrong, Naja (Magdalen) D.Phil

Roman Temples in Roman Architecture of the Republic through the Late Antique  
Period  
Steinby, E.M.S. 1997

Baboula, Evanthia (Lincoln) D.Phil

Neo-and Post-Palatial burial practices involving metal objects : a study of the  
microstructure, spatial arrangement and social dimensions of metalwork in Cretan  
graves  
Sherratt, E.S./Northover, J.P. 1995

Bagnall-Smith, Mrs Jean M.B. (St Cross) D.Phil

Study of votive material from temple sites in Roman Britain  
Henig, M. 1994

Bangert, Susanne (Wolfson) D.Phil

Byzantine reliquaries  
Mango, M. 1997

Baumbach, Jens (St Hugh's) D.Phil

Votives at the Heraion in Samos >BR>Coulton, J.J. 1997

Bell, Tyler W. (Queen's) D.Phil

The Anglo-Saxon re-use and reinterpretation of Roman sites and structures  
Blair, W.J. 1995

Birchall, Jennifer (Wadham) PRS

Study of ancient diet using isotopic and molecular techniques  
Hedges, R.E.M./O'Connell, T.C. 1998

Braghin, Cecilia (St Peter's) D.Phil

Early Chinese Bead Production  
Rawson, J.M. 1996

Brown, Ian W. (Keble) PRS

Distribution and Function of Iron Age Hillforts in the Welsh Marches  
Cunliffe, B.W. 1996

Brown, Terence J. (Queen's) D.Phil

A comparative study of three imperial capitals: Trier, Milan and Ravenna  
Ward-Perkins, B.R. 1995

Chandler, Helen C. (University) PRS

DNA recovery from the remains at Pompeii  
Sykes, B. 1998

Constantacopoulou, Christy (New College) PRS

Island Attica : 'Island' ideology and Athens in the fifth century  
Hornblower, S/Purcell, N. 1998

Coolidge, Jennifer W. (University) D.Phil

Ceramics Analysis at Jeitun, Turkmenistan  
Gosden, C.H. 1996

Cooper, Eric (St John's) D.Phil

Anatolian Settlements c.700-900  
Mango, M. 1998

Daly, Patrick T (St Cross) PRS

Landscape Archaeology/GIS in Archaeology  
Lock, G.R./Gosden, C.H. 1997

Day, Christopher A. (Keble) D.Phil

Predicting Archeo-Colluvium on the Berkshire Downs  
Boardman, J./Lock, G.R. 1995

Day, Deborah L. (St. Cross) D.Phil

From the Durotriges to Dorset  
Henig, M. 1996

Decker, Michael (St. John's) D.Phil

Late Roman and Early Byzantine Agricultural Production and Trade  
Mango, M. 1997

Evans, Thomas L. (Linacre) D.Phil

Development of ethnicity in the Iron Age as reflected in 'Marnian' Culture  
Cunliffe, B.W. 1995

Evers, Alexander (Brasenose) D.Phil

Church, cities and people. The Plebs Christiana in the cities of Roman Africa: from  
Cyprian to Augustine

- Cameron, A.M. 1998
- Freese, Kevin (Christ Church) D.Phil  
The Roman Empire and 'Ethiopia'  
Bowman, A.K. 1998
- Fulle, Gunnar (Brasenose) D.Phil  
The Organization of Mass Production of Clay Artefacts in the Roman Empire  
Steinby, E.M.S. 1997
- Gautier, Annaig (Linacre) D.Phil  
Luminescence dating of archaeometallurgical slags  
Tite, M./Rhodes, E. 1996
- Gazdac, Christian (Merton) PRS  
Roman Numismatics  
Howgego, C.J. 1998
- Gittos, Helen B. (Queen's) D.Phil  
The Sacred Landscapes of Anglo-Saxon England  
Blair, W.J. 1995
- Gray, Angela S (St Hilda's) PRS  
Production of saffron in ancient Thera  
Nixon, L 1998
- Gunby, Juliet (St John's) D.Phil  
La Tene influences on late La Tene and early Roman populations of northern and eastern Europe  
Cunliffe, B.W. 1998
- Haarer, Peter (Balliol) D.Phil  
Iron Spits in the Greek World 950 to 500 BC  
Osborne, R. 1992
- Haour, Anne (St Cross) PRS  
Ethnoarchaeology of the Hausa traders of West Africa  
Mitchell, P.J. 1998
- Henderson, Jon C. (Christ Church) D.Phil  
The Atlantic Façade in the First Millennium BC  
Cunliffe, B.W. 1995

Henry, Philippa A. (Wolfson) D.Phil

The changing scale and mode of textile introduction in Late Saxon England  
Hamerow, H.F. 1994

Hodgins, Gregory W.L. (St Cross) D.Phil

Developing methods for identifying medieval paints and glues in fine art  
Hedges, R.E.M. 1994

Holder, Christine J. (St Peter's) PRS

Social change during periods of crisis in the Aegean Bronze Age  
Bennet, J. 1998

Hsueh-man Shen (St Hugh's) D.Phil

Buddhist Relic deposits : 7th-early 11th century  
Rawson, J.M./Vainker, S.J. 1998

Jansson, Sara (St Cross) D.Phil

Crete in the Late Minoan IIIB Period: internal organization and external relations  
Sherratt, E.S./Evely, R.D.G. 1994

Jaworski, Szymon (Somerville) D.Phil

The Neo-Assyrian Glyptic before the Sargonids  
Moorey, P.R.S. 1994

Kakoulli, Ioanna (Linacre) D.Phil

Late Classical and Hellenistic Monumental Paintings: techniques, materials and analysis.  
Tite, M./Smith, R.R.R. 1995

Karagiorgou, Olga (Christ Church) D.Phil

The Archaeology of the Late Antique and Dark Age Thessaly  
Mango, M. 1995

Kiely, Tom (Wolfson) D.Phil

The Relationship between Cemeteries and Settlements in the Late Cypriot Bronze Age and Early Iron Age (1600-950 BC)  
Sherratt, S. 1993

Kim, Henry S. (Lincoln) D.Phil

The Impact of Early Silver Coinage on the Social and Economic Development of the City-State  
Howgego, C.J. 1992

King, John M. (St Cross) PRS

Anglo-Saxon Burials and Demographics  
Hamerow, H.F. 1995

Kingsley, Sean A. (Somerville) D.Phil

Maritime Trade in Late Roman and Byzantine Palestine  
Purcell, N./Lloyd J A 1996

Kinoshita, Hiromi N (Somerville) PRS

Iranian influence on Chinese art of the Silk Road  
Rawson, J.M. 1998

Laemmel, Sabine A. (Lincoln) D.Phil

A study of the ceramic material from Tell Farah LB and EIA cemeteries  
Sherratt, E.S. 1998

Landuyt, Frederique A.F. (Wolfson) D.Phil

Architecture in the Hellenisation of public SW Asia Minor  
Coulton, J.J./Smith R.R.R. 1996

Lee, Hyeong W. (St Cross) D.Phil

A Study of Lower Palaeolithic Stone Artefacts from selected sites in the Upper and Middle Thames Valley, with particular reference to the R.J. MacRae Collection  
Roe, D.A. 1995

Lehtonen, Ulla (Brasenose) PRS

Religions of the City of Rome  
Price, S.R.F. 1998

Llobera, Marcos (Linacre) D.Phil

Landscapes of experiences in stone : notes on a humanistic GIS approach to ancient landscapes  
Lock, G.R./Gosden C. 1993

Lovell, Martha (Christ Church) D.Phil

Civic and Cultural Identity in Roman Alexandria  
Bowman, A.K 1998

MacDonald, Alison (Merton) D.Phil

The Analysis of Roman Pottery from Surface Survey  
Lloyd , J. 1990

Marsden, Adrian B. (Lady Margaret Hall) D.Phil

Roman Imperial Portraiture on Coins, Medallions and the Minor Arts, 259-282 AD  
Henig M.E. 1996

Marzinzik, Sonja (St Hugh's) D.Phil

Anglo-Saxon Belt Sets  
Hamerow, H F 1997

Menotti, Francesco (St Cross) D.Phil

Middle Bronze Age Lakeside Dwellings in the North Alpine Region  
Sherratt A.G. 1996

Menzio, Oliva (Merton) D.Phil

The Romanization of Abruzzo  
N. Purcell/Lloyd, J.A. 1996

Merrony, Mark W. (Somerville) D.Phil

The archaeology and iconography of secular and religious pavements in late antique  
Arabia and Palestine  
Raby, J.A.J. 1998

Milson, David W. (Merton) D.Phil

The Impact of Christian Art and Architecture on Synagogues in Byzantine Palestine  
Mango M. 1995

Milwright, Marcus (St. Cross) D.Phil

Trade and Patronage in Middle Islamic Jordan : the ceramics of Karak Castle  
Johns, J. 1997

Mitchell, Alexandre (Wolfson) D.Phil

Vase-painting in Greek Archaic and Classical Archaeology  
Kurtz, D 1998

Nakou, Georgia (Merton) D.Phil

Social change in the Aegean at the end of the third millennium BC  
Sherratt A.G. 1995

Ohinata, Fumiko (Magdalen) D.Phil

Neolithic Archaeology  
Mitchell, P 1997

Opper, Thorsten (Merton) D.Phil

Herodes Atticus and the Greek Renaissance of the Second century AD

- Smith, R.R.R. 1994
- Palmer, J. Benjamin, O. (Exeter) D.Phil  
The Hintulands of A-S Wias  
Hamerow H.F. 1996
- Papacostas, Tassos (Exeter) D.Phil  
Medieval Byzantine Rural Churches in Cyprus  
Mango, M. 1995
- Parani, Maria (Exeter) D.Phil  
Reconstructing the reality of images: Byzantine religious iconography (11th-15 centuries AD)  
Mango, M. 1993
- Patronos, Sotiris (Merton) D.Phil  
Concepts of monumentality in ancient Greek architecture  
Coulton J.J. 1997
- Paynter, Sarah C (Linacre) D.Phil  
The Technology of Ancient Near Eastern Glazes  
Tite, M.S. 1997
- Pike, Alistair W.G. (St Hugh's) D.Phil  
Uranium-series dating of archaeological bone by thermal ionization mass-spectrometry  
Rhodes, E. 1996
- Plaitakis, Iris A. (Lincoln) D.Phil  
Early Development of Classical Archaeology as a Discipline in Greece  
Kurtz D.C.C. 1996
- Poulter, Angela (Brasenose) PRS  
Tarentum from c.600-400 BC  
Purcell, N. 1998
- Pretzler, Maria (Merton) D.Phil  
A commentary on Pausanias Book VIII  
Osborne, R.G. 1998
- Pulte, Alexander P. (Merton) D.Phil  
Roman Empire, Art and Architecture  
Steinby, E.M.S. 1996

Robinson, Thurstan (Queen's) D.Phil

Settlement in Greeco-Roman Pisidia: A Study of Sia, Ariassos and their territories  
Coulton J.J. 1996

Sauer, Eberhard W. (Keble) D.Phil

The Numismatic Evidence for the Veneration of Springs in the European West of the Roman Empire  
Henig, M.E./Cunliffe, B.W./King, C.E. 1995

Schreiber, Nicola C. (New College) D.Phil

Cypro-Phoenician Pottery of the Iron Age Levant  
Moorey, P.R.S. 1996

Schulten, T. Caroline (Merton) D.Phil

Origin and transformation of the later Chinese mirror tradition  
Rawson, J.M. 1995

Semple, Sarah (Queen's) D.Phil

Anglo-Saxon Attitudes to the Past : A Landscape Perspective  
Blair, J 1997

Shepherd, Mark (St. John's) D.Phil

The amphora-finds of Pompeii: origins, distribution and epigraphy  
Purcell, N. 1998

Shortland, Andrew J. (Christ Church) D.Phil

Early vitreous materials at Amarna  
Tite, M.S./Moorey, P.R.S. 1995

Singarayer, Joy (Linacre) P.R.S.

Luminescence dating  
Rhodes, E/Bailey, R.M. 1998

Stamatopoulou, Maria (Somerville) D.Phil

Burial Customs of Thessaly in the Classical and Hellenistic Periods  
Kurtz, D.C. 1994

Stewardson, Margaret E. (LMH) PRS

The definition and use of space in Attic vase-painting of the Archaic and Classical periods  
Kurtz, D.C. 1998

Stewart, Neil (Wadham) D.Phil

The technology and organisation of mining in Roman Britain  
Cunliffe, B.W. 1997

Tomas, Helena (Linacre) P.R.S.

Aegean scripts  
Nixon, L/Morpurgo-Davies, A. 1998

Tschan, Andre P. (St Cross) D.Phil

Object Oriented GIS in Archaeology  
Lock G.R. 1996

Tzannes, Maria-Christina (Lincoln) D.Phil

Iconography of Early South-Italian Vase Painting  
Boardman J. 1992

Vardaki, Evangelia (St Antony's) D.Phil

Landscape and History in Psiloritis Region, Central Crete  
Gosden C. 1996

Wengrow, David (St. Hugh's) PRS

Egypt and the Near East  
Moorey P.R.S 1997

Wiegel, Hildegard G.H. (Wolfson) D.Phil

The influence of 'Greek' vases on Neo-Classical European ceramics in England,  
France, Italy and Germany between 1760 and 1830  
Kurtz D.C. 1995

Williamson, George (Corpus Christi) D.Phil

Culture and Identity in Lycia  
Coulton, J.J./Bowie M.E.L. 1997

Winton, Victoria S. (St Cross) PRS

The lower Palaeolithic of Southern Britain  
Roe, D. 1998

Yeroulanou, Marina (Lincoln) D.Phil

The Architecture of Greek Treasuries :stylistic developments and the role of  
dedicating states and workshops  
Coulton J.J./Conley J.J . 1997

*M.Phil. candidates*

Bartlett, Jaime (Wolfson)

European  
Cunliffe, B.W. 1998

Beresford, James (Keble)

European  
Lloyd, J. 1998

Bournias, Leonidas (Merton)

Classical  
Coulton, J.J. 1997

Dimopoulos, Johanna (Exeter)

Classical  
Mango, M. 1998

Roberts, Lisa (Wolfson)

Classical  
Smith, R.R.R. 1998

Rose, Fiona A. (New)

Classical  
Smith, R.R.R. 1998

Sachedina, Amal (Wolfson)

Oriental  
Johns, J. 1998

Vanna, Velissaria (Wolfson)

Kurtz, D. 1998

*M.St. candidates*

Antun, Thallein (St Cross)

Oriental  
Johns, J 1998

Blackman, Patrick (Queen's)

World  
Gosden, C.H. 1998

Katsaki, Pagona (St Anne's)

Classical  
Smith, R.R.R. 1998

Koochekzadeh, Mina (Wolfson)

Oriental  
Johns, J. 1998

Landau, Amy S. (Wolfson)

Oriental  
Raby, J.A./Gurney, J. 1998

Majeed, Tehnyat (St Hugh's)

Oriental  
Raby, J.A. 1998

Stone, Tobias (Queen's)

Classical  
Steinby, E.M. 1996