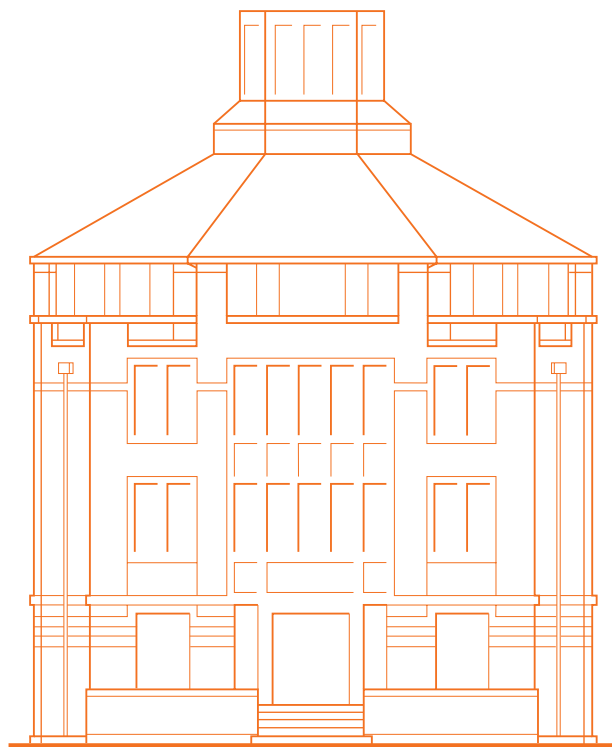




McDonald Institute for Archaeological Research

# *Annual Report 2001–2002*



*The University year 2001–2002 marked another successful period of development in the academic programme of the McDonald Institute. The Institute hosted international conferences and seminars on a variety of subjects, gave support to fieldwork projects in regions as distant and diverse as South Africa and Northern Russia, and produced two new volumes in the McDonald Institute Monograph series. The Cambridge Archaeological Journal went on-line to institutional subscribers for the first time. A substantial EU grant enabled the launch of the Temper project on the conservation and presentation of Mediterranean archaeological sites, including Çatalhöyük in Turkey. On another front, HM Government in July 2002 announced Britain's accession to the 1970 UNESCO Convention on the Prohibition of the Export of Cultural Property, which had long been one of the key objectives of the McDonald Institute's Illicit Antiquities Research Centre.*

*The year was marked by sadness, however, with news of the death Mrs Winifred McDonald, widow of the Founder of the McDonald Institute, on 28 August 2002. Mrs McDonald had been involved in the early discussions about the establishment of the McDonald Institute and, after Dr McDonald's death, unveiled the foundation stone of the Courtyard Building on 4 June 1992. From 1992 she served as one of the three Vice-Patrons of the Cambridge Foundation, and in June 1995 she was awarded an Honorary Degree by the University in recognition of her support. The success of the McDonald Institute stands as a memorial both to her and to her husband Dr D.M. McDonald, through whose interest and generosity it came into being.*

# Events

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The key public event in the Institute's year was as usual the annual McDonald Lecture. The thirteenth in the series was delivered on 21 November 2001 by Professor Anthony Snodgrass under the title 'A Paradigm Shift in Classical Archaeology?'. Professor Snodgrass, who retired as Laurence Professor of Classical Archaeology in 2001, has long been an advocate of innovation in the field of Classical archaeology, and described in his lecture how radically this field of research has changed in recent decades. He has provided the following short summary of his lecture.

## *The Thirteenth McDonald Lecture*

Nowadays, it is a commonplace for an outsider to find that a once familiar academic discipline is preoccupied with new and unexpected subject-matter, methods and problems. This is a sign that, in the terms of Thomas Kuhn's well-known work of 1962, *The Structure of Scientific Revolutions*, the established paradigm in that subject has been replaced by a new one. Kuhn's thesis primarily addressed the physical sciences, where the experience is familiar: yet on his own account, his approach was 'borrowed' from the study of such changes in the humanities, which invites us to apply it to a humanities discipline. One useful guide that he offers, to help us detect the presence of such a revolution, is that any debate about paradigms must involve the question 'Which problems is it more significant to have solved?'

This and other tests may be applied to the recent, though partial, transformation in the content and practice of one small humanities discipline, Classical archaeology. Here, an obvious example of the established paradigm exists in the work of Sir John Beazley on Athenian painted pottery, which has been extolled as a model of valid and testable investigation, and on which many contemporary and later pieces of research



*Professor Anthony Snodgrass (centre) with Professor Colin Renfrew and Dr Kate Pretty at the reception following the Thirteenth McDonald Lecture.*

have been closely modelled. Yet during the past two decades Classical archaeology has begun to reject that traditional supremacy of art-historical and typological studies of a non-contextual, non-cognitive and indeed non-explanatory kind, based on pre-defined classes of material, which Beazley's work (although on the highest possible level) exemplifies. At the same time the discipline, long stigmatized by other archaeologists for its deference to the ancient written sources, has begun to move, sometimes consciously, into precisely those fields of study on which the ancient sources throw least light: the rural sector, domestic life, certain neglected periods and regions, and the less monumental aspects of religion and burial.

To illustrate such new ventures, two recent projects were briefly considered: Joseph Carter's publication of the Pantanello cemetery near Metaponto (1998) and Hans Lohmann's study (1993) of rural settlement in a small and relatively inhospitable corner of Attica. Each presents a huge body of evidence in an entirely new way: at Metaponto, the individuals buried some two and a half millennia ago are brought to life by means of an array of tech-

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niques, notably the harnessing of biological evidence to show the family linkages of those buried in close proximity to one another; in the Attic countryside, a pattern of land-division and settlement of the same period has been reconstructed, the very existence of which was unsuspected. Recurrent features of these and other projects are the relatively large size of sample and the relative precision of dating (two of the abiding advantages of historical work in the Mediterranean lands); but also their common origin in the practice of rural surface survey, a technique which has notably flourished in the same setting. Instances can also be given of work which, however innovatory in its conclusions, is prevented from having a revolutionary impact on fellow-researchers by its dependence on traditional methodology. The lecture closed with an assessment of the impact of recent research at Cambridge on the Early Iron Age of Greece. The future alone will show whether these innovations have set in motion a true paradigm shift.

The Vote of Thanks was given by the Vice-Chancellor, Sir Alec Broers, and the lecture was followed by a reception and by the annual McDonald Dinner, held this year at Jesus College. The full text of the lecture will appear in the October 2002 issue of the *Cambridge Archaeological Journal*.

## *Seminars*

The McDonald Institute Seminar Room continued to be the venue for lectures, seminars and conferences throughout the year. These included the regular series of McDonald Institute Lunchtime Seminars, every second Wednesday in term-time, by researchers connected with or supported by the Institute, and the Thursday afternoon Garrod Research Seminars organized by the Department of Archaeology.

On 6 March 2002 Geoffrey Lewis, Chairman of the international Ethics Committee of ICOM (the International Council of Museums), outlined the work of ICOM in establishing good and well-understood ethical standards in museums around the world, and indicated how the Committee, on behalf of ICOM, has operated to promote maintenance of such standards. He outlined the changes that have been incorporated in ICOM's new code of ethics (ICOM, 2002. *Code of Ethics for Museums*. Paris: International Council of Museums) which was officially adopted by the 20th General Assembly of ICOM at Barcelona on 6 July 2001.

In November 2001, the Seminar Room was the setting for the 'Post-graduates in Cypriot Archaeology (POCA) Conference Day 2001'. Organized by Kirsi Lorentz, this was the first forum in Britain gathering together post-graduate and post-doctoral researchers with a focus on Cypriot archaeology and physical anthropology. The aim of the meeting was to promote critical discussion of work in progress. The papers presented ranged in subject from aspects of mortuary archaeology, physical anthropology and theoretical approaches to the body, to pottery analyses and discussions of ancient Cypriot transport networks and routes. Consideration was also given to the specific interaction of archaeology, ethnicity, and nationalism in Cyprus. The lively discussions that ensued, and the requests by the participants to make POCA an annual event, demonstrate the success of the first meeting in Cambridge. The next POCA Conference Day will be held at Glasgow University ([www.gla.ac.uk/archaeology/poca2002](http://www.gla.ac.uk/archaeology/poca2002)) in November 2002.

On 9 March 2002 the McDonald Institute provided the venue for a Day Workshop about the Bova Marina Archaeological Project, which has been researching the prehistory and history of the southernmost tip of

Italy for six years. Speakers included John Robb (Introduction to the project, prehistoric excavations), Kostalena Michelaki (prehistoric ceramic technology), Helen Farr (Neolithic lithics), Umberto Albarella (Neolithic fauna), Marina Ciaraldi (Neolithic palaeobotany), Doortje Van Hove (Neolithic land use and GIS), Lin Foxhall (Greek settlement), David Yoon (Roman and medieval settlement), and Paula Lazrus (historical environmental reconstruction). While the goal of the workshop was principally for specialist members of the project to exchange and discuss their results and to plan future work, it was also attended by half a dozen specialists on Italian prehistory or Classical archaeology who helped broaden and enrich the discussion.

In June 2002, Professor Anne C. Stone, from the Department of Anthropology, University of New Mexico, visited the McDonald Institute and gave a seminar entitled 'Prehistoric and present-day genetic diversity in Peru' in which she described her analysis of human remains at a pre-Columbian cemetery in Chen Chen in the Osmori Valley, Peru.

In July 2002, Professor Donald Whitcomb of the Oriental Institute of the University of Chicago gave a seminar on 'Islamic Aqaba in the light of archaeology'. Professor Whitcomb's visit reflects a growing interest in the archaeological study of the Islamic period of the Middle East, though the subject is still poorly developed in most universities.

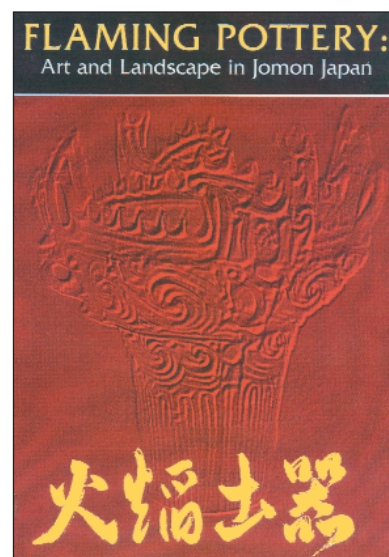
### ***McDonald Institute Lunchtime Seminars 2001–2002***

|                   |  |
|-------------------|--|
| JOHN ROBB         | <i>Southern Aspromonte landscapes: now and the Neolithic in peninsular Italy</i>                                 |
| CHANTAL CONNELLER | <i>Landscape and technology in flux: the Late Palaeolithic/Early Mesolithic of the Vale of Pickering</i>         |
| KATE SPENCE       | <i>Interpreting Egyptian pyramids</i>  |
| AMNON BEN-TOR     | <i>Excavations at Hazor: 'Head of all those kingdoms'</i>  |
| RICHARD MILES     | <i>Recent excavations at Byzantine Carthage</i>  |
| MATTHEW SPRIGGS   | <i>Cornish language and Cornish archaeology: is there a connection in the medieval and post-medieval period?</i> |
| BARRY KEMP        | <i>Zawiyet Sultan, a not very important (but nonetheless interesting) ancient town in Middle Egypt</i>           |
| MARTIN MILLETT    | <i>'Portus Romae' surveyed</i>   |
| ARLENE ROSEN      | <i>Neolithic landscapes and resources at Çatalhöyük: a view from phytoliths and geomorphology</i>                |
| GEORGIOS GAVALAS  | <i>Rescuing the past: recent archaeological work on the island of Amorgos, Greece</i>                            |
| NEIL BRODIE       | <i>Illicit antiquities: what is, and what should never be</i>  |

## Conferences

### **Jomon Pottery**

This one-day conference at the McDonald Institute on 26 October 2001 was organized by Mr Simon Kaner to mark the end of the 'Jomon in Cambridge' project and more specifically to discuss recent early dates for pottery in East Asia. The meeting was stimulated by the announcement of calibrated radiocarbon dates of 16,000 years BP for undecorated pottery sherds from the site of Odai Yamamoto I in northern Honshu (Japan). Sites with pottery thought to be over 11,000 years old were reported from the Russian Far East and the Amur River valley, from the north China plain and from the limestone region of southern China. These new discoveries have particular significance for our understanding of broader cultural processes in the Late Pleistocene and at the Pleistocene/Holocene transition, and in particular for the development of sedentism in East Asia. The conference was sponsored by the Japan Foundation and Japan 2001. The 'Jomon in Cambridge' project, which included an exhibition of Jomon pottery at the Fitzwilliam Museum, was sponsored by the Daiwa Anglo-Japanese Foundation, the Great Britain Sasakawa Foundation, the Japan Foundation, and over 17 corporate Japanese sponsors, and was organized in conjunction with Kokugakuin University, Tokyo, the Niigata Prefectural Museum of History, the Department of Archaeology, Cambridge, the Sainsbury Institute for the Study of Japanese Arts and Cultures, and the County Archaeology Office of Cambridgeshire County Council. Papers arising from the conference are to be published in the *Cambridge Archaeological Journal* and the *Journal of East Asian Archaeology*. Further information about the conference and Jomon archaeology in general can be found on the Jomon Project website [www.jomon.org.uk](http://www.jomon.org.uk).



*Poster of the Jomon Pottery conference designed by K. Szczęsna.*

### **Layers, Surfaces and Interfaces: Apotropaism and Memory as Material Practice**

This conference held at the McDonald Institute on 3 November 2001 was organized by Dr Andrew Jones and Mr Dusan Boric and sought to explore the broader significance of layers and surfaces in archaeological research. Layers and surfaces are routine components of the sites that archaeologists excavate. Layers define and enclose deposits, while surfaces describe their extent; apart from this functional definition we tend only rarely to reflect upon the significance or meaningful nature of these phenomena. It is clear, nonetheless, that in many cultural contexts layers and surfaces hold deeper significance, as façades, wrappings or masks. Stratigraphy, in turn, has provided a metaphor for time and memory in the psychoanalytic theories of Freud, in the structuralism of Lévi-Strauss and in Foucault's analysis of the order of knowledge. The aim of this conference was to enquire to what extent the practices involved in the creation of layers and surfaces related to concepts of memory and apotropaism (the protective qualities of an object), and how we might explore this archaeologically. The conference drew together leading anthropologists and archaeologists who presented a range of papers on a diversity of topics in an equally diverse range of cultural contexts. Subjects included house floors in the Neolithic of the Near East, house abandonment in the Hungarian Neolithic, the relationship between excavation, field survey and memory in the archaeology of Colt-Hoare, and weaving techniques amongst the Yekuana of Venezuela.

### ***The Social Context of Technological Change***

A workshop devoted to 'The Social Context of Technological Change: Egypt, the Aegean and the Near East, 1650–1150 BC' was held in the Seminar Room of the McDonald Institute on 4–6 September 2002. It was organized by Ms Janine Bourriau, Dr Jacke Phillips and Dr Laurence Smith. Twelve papers were given by speakers from Cambridge, Cheltenham, Leicester, Liverpool, London, Oxford, Sheffield and Tel Aviv. Topics ranged from innovation in materials and resources to technology and trade. These were discussed within the context of social and political history. Each paper had a designated respondent who led the discussion and this resulted in lively and stimulating debate. The interchanges between scholars working in different areas of the eastern Mediterranean were especially valuable. The workshop was the second to be organized on this theme, the first being held in Oxford two years ago. It has been agreed that a third, in 2004, will be organized in the University of Sheffield. It is also planned to publish the papers in the same format as those of the first workshop.



*Enigmatic life-size heel of red jasper from Amarna, Egypt. Was it part of a composite statue? If not, why was it made? (Petrie Museum, UC 150.)*

### ***New Perspectives in Phytolith Research: Climate, Environment and Archaeology***

In August 2002 the international community of phytolith specialists, represented by researchers from Europe, North and South America, Asia and Oceania, gathered at the McDonald Institute for the 4th International Meeting on Phytolith Analysis. The conference covered five topics and the breadth of the approaches that were presented demonstrates that the study of phytoliths (microscopic plant silica skeletons) is now an important part of the palaeoenvironmental and archaeological research. The session themes were:

- phytolith taxonomy, methodology and taphonomy;
- phytoliths in palaeoclimatology and palaeoecology;
- phytoliths in archaeological structures, ancient agriculture and hunter-gatherer societies;
- phytoliths in soil studies and micromorphology;
- phytoliths in plant studies.

The conference, organized by Dr Marco Madella in collaboration with Professor Martin Jones, benefited from McDonald support and a grant from the British Academy.



*Delegates at the 4th International Meeting on Phytolith Research. From left to right: Back row - D. Beresford-Jones, L. Bremont, M.K. Jones, S. Thiebault, J. Parr, R. Evett, M. Kajale, L. Scott-Cummings, D. Bowdery, S. Schiegl, M. Osterrieth, R.M. Albert, V. Thorn, C. Fredlund, U. Thanheiser, L. Vrydaghs, T. Ball, A. Sangster; Middle row - A. Bobrov, A. Gol'eva, A. Alexandre, C. Delon, L. Bergström, J. Kailova, M. Andric; Front row - D. Zurro, C. Strömberg, E. Harvey, E. Allue, F. Tescari, D. Cabanes; Standing - M. Madella.*

# People

## PUBLICATIONS

### Colin Renfrew

- 2001 Symbol before concept, Die Macht des Symbols und die frühe Gesellschaftsentwicklung, in *Revolutionen des Wissens*, eds. J. Fried & J. Süßmann. Munich: Verlag C.H. Beck, 21–39.
- 2002 Genetics and language in contemporary archaeology, in *Archaeology: the Widening Debate*, eds. B. Cunliffe, W. Davies & C. Renfrew. Oxford: The British Academy and Oxford University Press, 43–76.
- 2002 (with T. Jansen, P. Forster, M.A. Levine, H. Oelke, M. Hurles, J. Weber & K. Olek). Mitochondrial DNA and the origins of the domestic horse. *Proceedings of the National Academy of Sciences of the USA* 99, 10,905–10.
- 2002 (with M.E. Hurles, J. Nicholson, E. Bosch, B.C. Sykes & M.A. Jobling). Y-chromosomal evidence for the origins of oceanic-speaking peoples. *Genetics* 160, 289–303.

### Chris Scarre

- 2002 (with B.M. Fagan). *Ancient Civilizations*. New York (NY): Prentice Hall (revised 2nd edition).
- 2002 Coast and cosmos: the Neolithic monuments of northern Brittany, in *Monuments and Landscape in Atlantic Europe*, ed. C. Scarre. London: Routledge, 84–102.
- 2002 Contexts of monumentalism: regional diversity at the Neolithic transition in northwest France. *Oxford Journal of Archaeology* 21, 23–61.
- 2002 Epilogue: colour and materiality in prehistoric society, in *Colouring the Past*, eds. A. Jones & G. Macgregor. Oxford: Berg, 227–42.
- 2002 Jacques Cauvin and the origins of agriculture. *Antiquity* 76, 293–5.
- 2002 (ed.) *Monuments and Landscape in Atlantic Europe*. London: Routledge.
- 2002 A pattern of islands: the Neolithic monuments of northwest Brittany. *European Journal of Archaeology* 5, 24–41.

## Institute Staff

In October 2001 Professor Nicholas Postgate succeeded Professor Anthony Snodgrass as Chairman of the Managing Committee of the McDonald Institute. As Director of the Abu Salabikh and Kilise Tepe projects Professor Postgate has for several years held research space within the McDonald Institute, and also serves on the Advisory Committee of the D M McDonald Grants and Awards Fund. This is the first change of Chairman since the foundation of the McDonald Institute in 1990 and we are grateful to Professor Postgate for his careful chairmanship of the Managing Committee during the academic year.

It is with regret that we record the departure of two Institute staff members during the year. In April 2002 Mrs Lynda Ibbitt, who had been appointed in October 2000 as assistant to Mrs Deborah Parr as Chief Secretary of the McDonald Institute, came to the end of her tenure. It was decided that the volume of work did not justify renewal or extension of this post, but we would like to record our thanks to Mrs Ibbitt and our appreciation of her contribution to the Institute during her time with us.

The second departure was that of Dr Andrew Jones, who had been appointed to a three-year Research Fellowship in 1999 jointly funded by the Isaac Newton Trust of Trinity College and by the McDonald Institute. In October 2001 Dr Jones took up the post of Lecturer in the Department of Archaeology at the University of Southampton. We wish him every success in his new position.

We also welcome one new member of research staff in the coming academic year: Dr Nicole Boivin, who has been appointed to a 22-month Research Fellowship under the Isaac Newton Trust/McDonald Institute programme from 1 October 2002. Her research will focus on aspects of Indian archaeology and ethnoarchaeology, notably the ash mounds and monumental graves of Karnataka. She joins Dr Kate Spence, who enters the second year of her tenure as Research Fellow under the Isaac Newton Trust/McDonald Institute scheme in 2002–2003.

It is important to record once again our thanks to the small but effective team who manage our conference and publication programme: Miss Dora Kemp, Assistant Editor of the *Cambridge Archaeological Journal* with key responsibility also for the McDonald Institute Monograph series; Mrs Liz Farmar, respon-



sible for much of the day-to-day activity concerning McDonald Institute publications; and Dr Katie Boyle, who is the McDonald Institute conference organizer. Reports on the *Cambridge Archaeological Journal*, the McDonald Institute monograph series, and McDonald Institute conferences are included elsewhere in this report.

In addition to her work as conference organizer, Dr Boyle has also pursued further her research into hunting behaviour during the European Neolithic, and has studied faunal assemblages from island sites in southern Brittany such as Eryoh, and from Marcilly-sur-Tille in Burgundy.

Last but not least, we must record the important contribution of Mr Colin Lomas, who continues to fulfil a key role as assistant to the Deputy Director responsible for the buildings and for the McDonald Institute accounts. As in the previous year, the financial operation of the McDonald Institute has been bedevilled in 2001–2002 by the difficulties and inadequacies of the University Financial System. We remain to be convinced of the long-term advantages that will accrue from this innovation.

The Director, Professor Colin Renfrew, has worked towards the publication of excavations in the Cycladic islands, and the account of the excavations at Markiani on Amorgos (edited with L. Marangou, C. Dumas and G. Gavalas) is nearly ready to go to press.

Work has continued in the course of sabbatical leave during the Easter Term 2002 on the publication of fieldwork at the site of Dhaskaleio on the island of Keros, with the preparation of drawings and photographs of the finds now in the Archaeological Museum, Naxos. Professor Renfrew participated also in the Second International Siphnian Symposium on Siphnos in June 2002. In January 2002, he took part in the symposium 'The Emergence of Civilisation in the Aegean: Retrospect and Prospect', held at the Centre for Aegean Archaeology, University of Sheffield to mark the 30th anniversary of the publication of *The Emergence of Civilisation*.

Work on the origins of linguistic diversity has continued, with a paper delivered at the Bronze Age Colloquium at the Institute of Fine Arts, New York, in March and also at the Collège de France, Paris in September 2002. He also participated in the symposium on Genetics and Archaeology held at Oxford in June 2002.

## PUBLICATIONS

### Chris Scarre (*cont.*)

- 2002 A place of special meaning: interpreting prehistoric monuments through landscape, in *Inscribed Landscapes: Marking and Making Place*, eds. B. David & M. Wilson. Honolulu (HI): University of Hawaii Press, 154–75.
- 2002 Situating monuments: the dialogue between built form and landform in Atlantic Europe, in *Monuments and Landscape in Atlantic Europe*, ed. C. Scarre. London: Routledge, 1–14.

### Harriet Crawford

- 2001 (with R. Carter). Kuwaiti/British archaeological expedition to es-Sabiyah: report on the second season's work. *Iraq* LXIII 2001, 1–20.
- 2002 Nearer my god to thee? The relationship between man and his gods in third millennium Mesopotamia, in *Of Pots and Plans. Essays in the Archaeology and History of Syria and Mesopotamia, presented to David Oates on the Occasion of his 75th Birthday*, eds. L. al-Gaitani *et al.* London: Nabu Publications, 47–53.
- 2002 The stamp seals of Dilmun. *Minerva* 13(1), 43–5.

### Graeme Lawson

- 2001 The lyre remains from Grave 32, in *Snappe Anglo-Saxon Cemetery: excavations and surveys 1824–1992*, eds. W. Filmer-Sankey & T. Pestell. (East Anglian Archaeology Report 95.) Ipswich: Environment and Transport, Suffolk County Council.
- 2001 Musical relics, in *Fast Castle: Excavations 1971–86*, eds. K. Mitchell, K.R. Murdoch & J.R. Ward. (Edinburgh Archaeological Field Society Monograph.) Edinburgh: Edinburgh Archaeological Field Society.
- 2002 (with F. d'Errico). Microscopic, experimental and theoretical re-assessment of Upper Palaeolithic bird-bone pipes from Isturitz, France: ergonomics of design, systems of notation and the

## PUBLICATIONS

### Graeme Lawson (*cont.*)

origins of musical traditions, in *Archäologie früher Klangerzeugung und Tonordnungen. The Archaeology of Early Sound: Origin and Organization*, eds. E. Hickmann & R. Eichmann. (Proceedings of the 2nd Symposium of the International Study Group on Music Archaeology. Kloster Michaelstein, 17–23 September 2000.) Berlin: Deutsches Archäologisches Institut.

### Marsha Levine

2002 (with T. Jansen, P. Forster, M. Levine, H. Oelke, M. Hurles, C. Renfrew, J. Weber & K. Olek). Mitochondrial DNA and the origins of the domestic horse. *Proceedings of the National Academy of Sciences* 99, 10,905–10.

### John MacGinnis

2001 Review of Radner Ein neuassyrisches Archiv der Tempelgoldschmiede von Assur. *Bibliotheca Orientalis* 58.

2002 (with T. Matney, M. Roaf & H. McDonald). Archaeological excavations at Ziyaret Tepe, 2000/2001. *Anatolica* 28.

2002 The use of writing boards in the Neo-Babylonian administration at Sippar. *Iraq* 64.

### Joan Oates

2001 Writing archaeology, in *Historiography in the Cuneiform World*, eds. T. Abusch, P.A. Beaulieu, J. Huehnergard, P. Machinist, P. Steinkeller. (XLVe Rencontre Assyriologique Internationale, Harvard 1998.) CDL Press, 365–71.

2002 (ed.) (with L. al-Gaitani Werr, J. Curtis, A. McMahon, H. Martin, J. Reade). *Of Pots and Plans. Essays in the Archaeology and History of Syria and Mesopotamia, presented to David Oates on the Occasion of his 75th Birthday*. London: Nabu Publications.

2002 Tell Brak: the 4th millennium sequence and its implications, in

In the field of public archaeology, Professor Renfrew has continued as a member of the Ministerial Illicit Trade in Antiquities Panel (ITAP) under the chairmanship of Professor Norman Palmer. The Panel's recommendation of the ratification by the United Kingdom of the 1970 UNESCO Convention on The Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property has now been implemented by the United Kingdom Government. The recommendation of the introduction of a new criminal offence of importing, dealing in or possessing stolen or illegally removed cultural objects has been accepted in principle by the Government which is now awaiting a suitable legislative opportunity. Professor Renfrew chaired a session in December 2001 of the Institute of Art and Law's conference on 'Moral and Legal Imperatives for the Return of Cultural Property', and acted as Commentator on a session on archaeology and law at the Annual Conference of the Society for American Archaeology at Denver, Colorado in March 2002. He has become Chairman of the newly-formed All Party Parliamentary Group on Archaeology (APPAG).

In addition to his duties as the officer responsible for the day-to-day management of the McDonald Institute, the Deputy Director, Dr Chris Scarre, pursued his research on the archaeology of western France with especial focus on landscape and megalithic monuments. An important element of this work was the direction of a further field season at the Prissé-la-Charrière Neolithic long mound in the summer of 2002, in conjunction with French colleagues Dr Luc Laporte (Rennes) and Dr Roger



*Prissé-la-Charrière, second passage grave in its surround.*

Joussaume (Paris). A short account of the recent progress of this project, including the discovery of an intact burial chamber, is given elsewhere in this report (p. 31).

The Deputy Director also participated in a number of conferences during the year. In April 2002 he presented a paper 'Community and identity at the Neolithic transition in western France' at the conference 'Unité et diversité des processus de néolithisation sur la façade atlantique de l'Europe (7-4es millénaires avant J-C)' held at Nantes under the auspices of the Société Préhistorique Française. In May he spoke on the subject 'Contexts of origin: the megalithic monuments of northwestern France' at the 'Stones and Bones' conference held in Sligo in honour of the late Professor Michael O'Kelly. He also participated in the session 'Visual Culture and Archaeology' at the Thessaloniki meeting of the European Association of Archaeologists in September 2002, presenting a paper 'Intentionality and colour in the megalithic monuments of western Europe'.

From 15 October to 13 November 2001 Dr Scarre was 'Professeur Invité' at the Université de Rennes I, delivering lectures on Neolithic monuments of Britain and on colour in archaeology. He also organized a one-day seminar on Archaeological Theory with speakers from Cambridge, Paris and Rennes.

### Research Fellows

Kate Spence was appointed a Research Fellow of the McDonald Institute for a two-year period from 1 October 2001. The Fellowship is one of those jointly funded by the Isaac Newton Trust and the McDonald Institute. During the first year of her Research Fellowship she has been working on two projects related to Egyptian royal burials. For the first of these, an article on the missing burial places of the kings of the early Eighteenth Dynasty is approaching completion. The second project is Dr Spence's continuing research into Old Kingdom pyramids. The final publication of her analysis of pyramid orientation is approaching completion and she has begun to work on interpreting the significance of these pyramids.

### Fellows and Visiting Fellows

In addition to Research Fellows who are salaried employees, the Institute also has a category of non-stipendiary Fellowships

## PUBLICATIONS

### Joan Oates (cont.)

*Artefacts of Complexity*, ed. J.N. Postgate. London: British School of Archaeology in Iraq, 111-22.

### Joan Oates & David Oates

- 2001 (with H. McDonald). *Excavations at Tell Brak, vol. 2: Nagar in the Third Millennium BC*. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research & London: the British School of Archaeology in Iraq.
- 2001 The late third millennium in the Khabur, in *Beiträge zur Vorderasiatischen Archäologie (W. Orthmann Festschrift)*, eds. J.-W. Meyer, M. Novak & A. Pruß. Frankfurt-am-Main, 386-9.
- 2001 *Nimrud: an Assyrian City Revealed*. London: British School of Archaeology in Iraq.
- 2002 The reattribution of Middle Uruk materials at Brak, in *Leaving No Stones Unturned: Essays on the Ancient Near East and Egypt in Honor of Donald P. Hansen*, ed. E. Ehrenberg. Eisenbrauns, 145-54.

### Jacke Phillips

- 2001 Pottery - forms and fabrics, in *Hambukol Excavations 1986-1990*, eds. K.A. Grzymiski et al. (Canadian Expedition to Nubia I/SSEA Publication XVI.) Mississauga: Benben, 119-46.
- 2001 Review of B. Midant-Reynes, *The Prehistory of Egypt: From the First Egyptians to the First Pharaohs* (Oxford: Blackwells, 2000) and T.A.H. Wilkinson, *Early Dynastic Egypt* (London: Routledge, 1999). *Journal of African History* 42, 307-9.
- 2001 Stone vessel production: new beginnings and new visions in New-Palace Crete, in *The Social Context of Technological Change: Egypt and the Near East, 1650-1150 BC*, ed. A.J. Shortland. Oxford: Oxbow Books, 73-91.

### Anthony Snodgrass

- 2001 Pausanias and the chest of Kypselos, in *Pausanias: Travel and*

## PUBLICATIONS

### Anthony Snodgrass (cont.)

- Memory in Roman Greece*, eds. S.E. Alcock, J.F. Cherry, J. Elsner. Oxford: Oxford University Press, 127–41.
- 2001 Review of B. Cunliffe, *The Extraordinary Voyage of Pytheas the Greek* (London: Allen Lane, 2001). *Times Literary Supplement* 14 December, 7.
- 2001 Review of S. Sherratt, *Catalogue of Cycladic Antiquities in the Ashmolean Museum: the Captive Spirit* (Oxford University Press, 2001). *Times Literary Supplement* 28 December, 26.
- 2001 Separate tables? A story of two traditions within one discipline, in *Posthumanistische Klassische Archäologie: Historizität und Wissenschaftlichkeit von Interessen Und Methoden (Kolloquium Berlin 1999)*, eds. S. Altekamp, M.R. Hofter & M. Krumme. Munich: Hirmer Verlag, 105–12.
- 2002 Archaeology and Mediterranean agriculture, contribution to Editorial. *Antiquity* 76, 298–300.

for Cambridge-based researchers of post-doctoral status. In October 2001 the Managing Committee appointed Dr John MacGinnis to be a Fellow of the McDonald Institute for a period of two years, and Dr Marco Madella a Fellow of the McDonald Institute for a period of one year. Fellowship of the McDonald Institute was granted to Professor Anthony Snodgrass in January 2002, and in June 2002 two further Fellows were appointed: Dr Harriet Crawford and Dr Graeme Lawson, in each case for a period of three years. The Fellowship of Dr Jacke Phillips was extended for a further year. The full list of Fellows of the McDonald Institute during the academic year 2001–2002 is as follows:

Dr Janine Bourriau (to 31 May 2003)  
Dr Harriet Crawford (to 31 May 2005)  
Dr Graeme Lawson (to 31 May 2005)  
Dr Marsha Levine (to 31 May 2003)  
Dr John MacGinnis (to 30 September 2003)  
Dr Marco Madella (to 30 September 2002)  
Professor David Oates (to 30 November 2003)  
Dr Joan Oates (to 31 July 2003)  
Dr Jacke Phillips (to 31 March 2003)  
Professor Anthony Snodgrass (to 31 January 2005)

Yang Jianhua, Professor of Archaeology Department of Jilin University of China, arrived at the McDonald Institute in April 2002 to take up a four-month British Academy K.C. Wong Fellowship. Her research project is a comparative study of the formation of early states in the Yellow River region of China and in Mesopotamia, with special focus on the family and on social structures as they are suggested by house plans. Professor Yang was grateful for the opportunity to discuss with Dr Joan Oates patterns of cultural spread and to learn about many new discoveries and materials. She visited Oxford University and the British Museum and met a number of other experts who had been recommended by the British Academy. She also discussed the archaeology of the Eurasian steppe and its influence on northern China with Dr Marsha Levine.

Professor Matthew Spriggs came to the McDonald Institute in October 2001 for a year's sabbatical to work on two main projects. The first of these was the writing-up of Pacific and Southeast Asian archaeological research, and he was able to bring a co-authored monograph on research in the Aru Islands, eastern Indonesia, close to completion during this period. Interaction with colleagues at the McDonald Institute led him to plan a short monograph on the archaeology, linguistics and genetics of the human settlement of the Pacific, which he hopes to complete in 2003. The second project concerned archaeology and language in Cornwall. Professor Spriggs prepared new maps showing where Cornish was spoken at particular periods between about AD 800 and AD 1800 and then sought out possible correlations with material culture distributions. A paper on this research is currently in preparation.

# Publication Office

The *Cambridge Archaeological Journal* continues to be a major focus of the Institute's Publication Office and in May 2002 it was given a highly favourable review in the *Times Higher Education Supplement* by Nicholas Saunders, a short excerpt of which is given below:

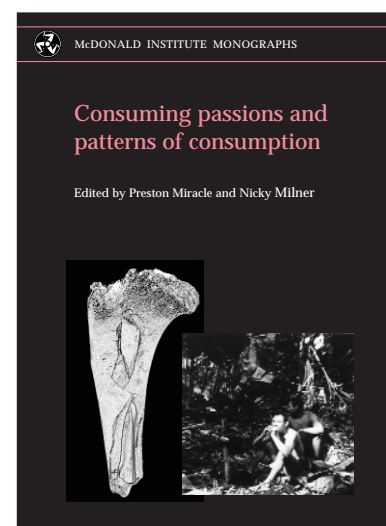
Thoughtful organisation and a clear and far-sighted view of how to deal with the increasing complexities of modern archaeology are key elements in designing a new journal. One reason why the *CAJ* succeeds is the ingenious and flexible mix of formats in each volume, which allows for a diversity of approaches to writing about the past . . . This review reflects the excellence of the *CAJ*'s content and the success of its editorial policy and strategy. Where archaeology is increasingly an anthropologised and interdisciplinary endeavour, flexibility, open-mindedness and a willingness to embrace diverse, innovative and provocative approaches is paramount. In this, the *CAJ* is an unqualified success. [A full transcript is available at <http://www.mcdonald.cam.ac.uk/Publications/caj.htm>.]

This year saw the launch of the Journal on-line and, although unquantifiable as yet, it is hoped that this move will further increase the Journal's subscription base and world-wide awareness of the Institute. Preparation of the on-line files has been undertaken by the Assistant Editor, Dora Kemp, and has proved to be an exciting new challenge. With the steadily increasing work-load of the Publications Office, the day-to-day production of the Journal would not be possible without the hard work and organizational skills of Liz Farmar.

Articles published in *CAJ* in 2001–2002 (issues 11:2 and 12:1) continue to cover a wide range of topics selected with a view to promoting the Institute's research commitment to Cognitive Archaeology. The October 2001 issue included articles on Mesolithic collective tombs in Belgium (Nicholas Cauwe), painted pottery from Abydos, Egypt (Yosef Garfinkel), form and meaning in Etruscan ritual space (Vedia Izzet) and the evolution of modern human cognition (Frederick Coolidge & Thomas Wynn). The April 2002 issue included two studies of prehistoric monuments in Britain (by Vicki Cummings *et al.* and John Barnatt & Mark Edmonds), together with other articles on the Maya Hieroglyphic Stairway at Copán (William Fash), shamanism and cognitive evolution (Michael Winkelman), Australian rock art (Sven Ouzman *et al.*), and Greek coins (John Papadopoulos), as well as a review feature on *An Archaeology of Socialism* by Victor Buchli.

Two new volumes in the McDonald Institute Monograph series were printed during the year: the substantial publication *Excavations at Tell Brak, vol. 2: Nagar in the Third Millennium BC* (by David Oates, Joan Oates & Helen McDonald); and the eagerly awaited *Consuming Passions and Patterns of Consumption* edited by Preston Miracle & Nicky Milner. The papers in this latter volume explore and develop ways of using food to write social history; they move beyond taphonomic and economic properties of 'subsistence resources' to examine the social background and cultural contexts of food preparation and consumption. The contributions break new ground in method and interpretation in case studies spanning the Palaeolithic to the Present, and from the Amazon to the Arctic.

*Excavations at Tell Brak, vol. 2*, is the second volume on the 1976–93 excavations at Tell Brak. The construction level of Naram-Sin's Palace was used as a point of chronological reference to provide the first well-dated corpus in northern Mesopotamia of archaeological material of the second half of the third millennium. The major Akkadian buildings at Tell Brak are the first well-preserved examples to be discovered at any site, and include a great ceremonial complex and a unique caravanserai that housed the donkey caravans bringing metals from Anatolia. Specialist reports in this volume provide detailed historical, geomorphological, ceramic, faunal, botanical, microstratigraphic and other data.



In addition to producing two new issues of *Culture Without Context* (see p. 15), the Publications Office has almost completed two major volumes on the Eurasian steppe (*Ancient Interactions: East and West in Eurasia* and *Prehistoric Steppe Adaptation and the Horse*), the first of which deals with the development of pastoral economies in the Eurasian steppe, the diffusion of ideas, and the movement of peoples throughout this region. Three other monographs, due to appear in late 2002/early 2003, are *Examining the Farming/Language Dispersal Hypothesis*, *Dwelling Among the Monuments* (on the Barnhouse excavations) and *Excavations at Tell Brak*, vol. 4.

The success of the Monograph series is demonstrated by the fact that stocks of several previously published volumes are now nearly sold out and some may be reprinted in the coming months.

## CURRENT PUBLICATIONS

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# Illicit Antiquities

## *Illicit Antiquities Research Centre*

This became a landmark year for the Illicit Antiquities Research Centre when, in July 2002, HM Government finally signed the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property. One of the stated aims of the IARC is to seek appropriate national and international legislation to place restraint on the trade in illicit antiquities, and its staff have worked hard to this end. Professor Colin Renfrew, as a member of the Ministerial Advisory Panel on Illicit Trade, was involved in the long process of discussion and consultation which preceded Great Britain's ratification, and publications and interventions by IARC staff have been instrumental in raising awareness of the Convention among politicians.

Meanwhile, the core work of the IARC — monitoring, reporting on and raising awareness of the illicit trade in antiquities — has continued and developed. The newsletter *Culture Without Context* is now well-established and attracts articles from well-placed academics, cultural heritage professionals, legal experts and law enforcement agents. The two issues published this year carry items on looting and smuggling of archaeological material in the USA, Egypt, Ethiopia, and Albania, in addition to the usual range of reviews and news items. The size of the international subscriber base remains stable despite the fact that *Culture Without Context* is also freely available on the Internet, where it continues to be one of the most popular sections of the McDonald website maintained by Jenny Doole. Internet statistics, requests for reciprocal subscription arrangements and back copies, and positive feedback all indicate that *Culture Without Context* is appreciated worldwide. References to the newsletter appear regularly in academic and other literature.

Staff of the IARC have continued to publish elsewhere and also work closely with journalists to raise awareness through other media. During the past year articles inspired by the work of the IARC or quoting staff have appeared — in the UK and abroad — in major newspapers, in mainstream archaeological and museums literature and also in other specialist magazines such as *Tourism*, *Holiday Which*, *FACTS* magazine (Switzerland) and *Cultural Resource Management* (USA). Staff of the IARC have also continued to provide interviews for radio and television, most

## PUBLICATIONS

### Neil Brodie

- 2001 Technological frontiers and the emergence of the Bell Beaker culture, in *Bell Beakers Today: Pottery, People, Culture and Symbols in Prehistoric Europe*, eds. F. Nicolis *et al.* Trento: Servizio Beni Culturali, 487–96.
- 2002 Britannia waives the rules? The licensing of archaeological material for export from the United Kingdom, in *Illicit Antiquities: the Theft of Culture and the Extinction of Archaeology*, eds. N. Brodie & K.W. Tubb. London: Routledge, 185–204.
- 2002 Le commerce illicite de biens culturels – Etat des lieux d'un négoce milliardaire. *Journal OFC* 5, 2–4.
- 2002 Hunting for treasure. *Archaeology* July/August, 64–7.
- 2002 Illicit antiquities, in *The Encyclopedia of Crime and Punishment*, ed. D. Levinson. London: Sage, 872–5.
- 2002 (ed.) (with K.W. Tubb). *Illicit Antiquities: the Theft of Culture and the Extinction of Archaeology*. London: Routledge.
- 2002 Introduction, in *Illicit Antiquities: the Theft of Culture and the Extinction of Archaeology*, eds. N. Brodie & K.W. Tubb. London: Routledge, 1–22.
- 2002 (with P. Addyman). Metal detecting in Britain: catastrophe or compromise?, in *Illicit Antiquities: the Theft of Culture and the Extinction of Archaeology*, eds. N. Brodie & K.W. Tubb. London: Routledge, 179–84.

### Neil Brodie, Jenny Doole & Peter Watson

- 2002 Stealing history. *Cultural Resource Management* 25(2), 7–11.

### Peter Watson

- 2002 The investigation of Frederick Schultz. *Culture Without Context* 10, 21–6.
- 2002 Raiders of the lost art and the British detective who brought them to justice. *The Times*, 15 February.

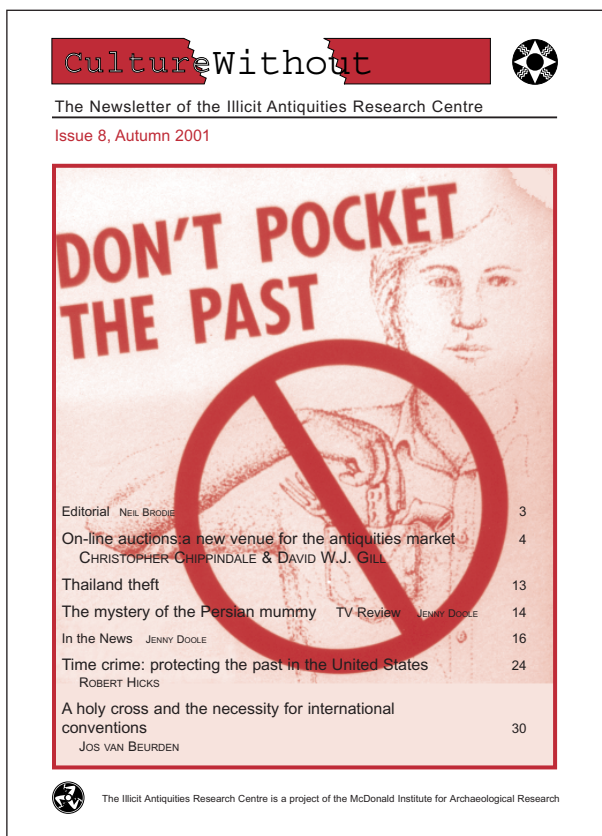
recently Professor Colin Renfrew speaking on Benin Bronzes for Radio 4 news and Dr Neil Brodie discussing the smuggling of Egyptian antiquities on BBC4 digital television and Greek issues on Greek TV channel ERT3. Peter Watson has continued to investigate the trade and write about it in the mainstream press.

IARC staff attended a number of conferences, including a meeting of the International Bar Association held in Cancun, Mexico, the 67th meeting of the Society for American Archaeology at Denver, Colorado, the International Council of Museums' working meeting on the Red List Latin America hosted by the Ministry of Culture of Colombia, and the 8th annual meeting of the European Association of Archaeologists in Thessaloniki. In September, the IARC organized and hosted at the McDonald Institute a 2-day meeting of 17 concerned individuals from European market countries, which provided a valuable opportunity for the exchange of lobbying and publicity strategies.

Demand for public and academic lectures remained high this year and staff were invited to talk at universities and museums around the country, including Leicester, London, Oxford, Durham and Lampeter. These lectures help towards the IARC's aim of raising awareness of trade in illicit antiquities, as does the fact that 'Stealing History', our portable exhibition is now oversubscribed for loan to suitable institutions well into next year. This year it has been booked by museums and heritage organizations in Hull, Derby, Durham, Cornwall, Bolsover Castle and York, with queries from USA and Europe. The display has inspired a similarly effective educational exhibition in Sweden.

Past publications by the IARC team, notably *Trade in Illicit Antiquities: the Destruction of the World's Archaeological Heritage* (2001) have sold well during the year. In the case of *Stealing History*, the report produced in 2000 for the Museums Association and ICOM UK, demand and interest have been such that it was decided to produce a second edition, concentrating more on international themes and good museum practice. A grant has been secured from the AG Leventis Foundation towards the costs of publication. Other grant news is that Neil Brodie has been awarded a Small Research Grant from the British Academy for work at the looted site of Khirbat Qazone, in Jordan.

Preparations have begun for some new departures over the coming year. From Michaelmas term 2002 staff will be teaching a module on the MPhil Archaeological Heritage and Museums course in the Department of Archaeology and welcoming two PhD students. These developments are a sign that the topic of illicit antiquities has matured significantly since the IARC was established in 1996; increasingly sophisticated arguments and approaches are required which are under active discussion so that the IARC will remain at the forefront of the subject.





# Laboratories

## *Glyn Daniel Molecular Genetics Laboratory*

The Molecular Genetics Laboratory of the McDonald Institute came into being as an integral part of the project on human population history which the Institute has developed, with a concern for the overlap areas between prehistoric archaeology, historical linguistics and molecular genetics. While some of the projects are of a technical nature (e.g. molecular clock, gene conversion in the human genome), most are focused on important topics within what may be termed World Prehistory. These involve the initial settlement of the world by modern humans, and the postglacial recolonization of northern Europe, the prehistory of Oceania and other topics of major importance upon the world prehistoric stage.

### *Horse prehistory*

The domestication of the horse is of central significance for the exploitation of the Eurasian steppe and has been claimed by some archaeologists as the key to the spread of the Indo-European language family. In collaboration with Colin Renfrew, Marsha Levine, and the research team of Klaus Olek (University of Bonn), we analyzed over 600 horse and other equid mtDNA sequences to reconstruct the evolutionary and demographic history of equids and domestic horses. The diversity of horse mtDNA suggests that several independent horse populations were recruited for domestication; some of these putative horse populations appear to have left distinct mtDNA markers in certain breeds and geographic areas today (e.g. in northern European ponies and in Iberian/North African breeds). In our first publication (Jansen *et al.* 2002) we presented a genetic and archaeological framework, which we hope will stimulate further research.

### *Oceanian prehistory*

The relatively simple settlement history and shallow time depth of the islands of the Pacific ensures their enduring appeal to students of prehistory interested in testing their methods of reconstruction. An archaeolinguistic perspective has proved highly fruitful in this region of the world, generating many hypotheses about biological origins which can be tested using genetic data. In collaboration with Mark Jobling (University of Leicester) and Bryan Sykes (University of Oxford) we have analyzed Y-chromosomal markers, to give greater resolution of paternal prehistory in the Pacific (Hurles *et al.* 2002). We have shown that there

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- 2001 Hurles, M.E. Gene conversion homogenizes the CMT1A paralogous repeats. *BMC Genomics* 2, 11.
- 2001 Torroni, A., H.-J. Bandelt, V. Macaulay, M. Richards, F. Cruciani, C. Rengo, V. Martinez-Cabrera, R. Villems, T. Kivisild, E. Metspalu, J. Parik, H.V. Tolk, K. Tambets, P. Forster, B. Karger, P. Francalacci, P. Rudan, B. Janicijevic, O. Rickards, M.L. Savontaus, K. Huoponen, V. Laitinen, S. Koivumaki, B. Sykes, E. Hickey, A. Novelletto, P. Moral, D. Sellitto, A. Coppa, N. Al-Zaheri, A.S. Santachiara-Benerecetti, O. Semino & R. Scozzari. A signal, from human mtDNA, of postglacial recolonization in Europe. *American Journal of Human Genetics* 69, 844–52.
- 2002 Cali, F., P. Forster, C. Kersting, M. Mirisola, R. D’Anna, G. De Leo & V. Romano. DXYS156: a multi-purpose short tandem repeat locus for determination of sex, paternal and maternal geographic origins and DNA fingerprinting. *International Journal of Legal Medicine* 116, 133–8.
- 2002 Forster, P., F. Cali, A. Röhl, E. Metspalu, R. D’Anna, M. Mirisola, G. De Leo, A. Flugy, A. Salerno, G. Ayala, A. Kouvatsi, R. Villems & V. Romano. Continental and subcontinental distributions of mtDNA control region types. *International Journal of Legal Medicine* 116, 99–108.
- 2002 Forster, L., P. Forster, S. Lutz-Bonengel, H. Willkomm & B. Brinkmann. Natural radioactivity and human mitochondrial DNA mutations. *Proceedings of the National Academy of Sciences of the USA* 99, 13,950–54.
- 2002 Hamel, E., T. Vennemann & P. Forster. Die Ursprache der Alteuropäer. *Spektrum der Wissenschaften* May, 32–42. [The ancestral language of the ancient Europeans. *Scientific American*, German edition, May, 32–42.]

- La lingua degli antichi europei. *Le Scienze* 407 (July), 62–71. [The language of the ancient Europeans. *Scientific American*, Italian edition, 407 (July), 62–71.]
- Le vascon, première langue d'Europe. *Pour la Science* 299. [Vasconic, the first language of Europe. *Scientific American* 299, French edition, September.]
- 2002 Hurles, M.E., J. Nicholson, E. Bosch, C. Renfrew, B.C. Sykes & M.A. Jobling. Y chromosomal evidence for the origins of oceanic-speaking peoples. *Genetics* 160, 289–303.
- 2002 Jansen, T., P. Forster, M.A. Levine, H. Oelke, M. Hurles, C. Renfrew, J. Weber & K. Olek. Mitochondrial DNA and the origins of the domestic horse. *Proceedings of the National Academy of Sciences of the USA* 99, 10,905–10.
- 2002 Y Chromosome Consortium. A nomenclature system for the tree of human Y-chromosomal binary haplogroups. *Genome Research* 12, 339–48.

is no such thing as a 'homeland' for the people of the Pacific, but rather a more complex picture of interwoven contributions of different peoples to the migrating population. In a field dominated by travelling metaphors, the data better fit the 'slow boat' than the 'express train' model.

#### *World prehistory*

Last year, we ventured a genetic scenario for global human prehistory which largely agrees with the ideas of certain colleagues in the field, notably the Oxford researchers Stephen Oppenheimer, Martin Richards and Vincent Macaulay. Now, this reading of the genetic record was documented in a re-enactment film production by Granada TV *The Real Eve*, broadcast in the UK by Channel 4 and worldwide by Discovery Channel. Some of the filming and interviews were carried out in the McDonald Institute. Our interpretation is that modern humans arose in Africa and initially spread only in Africa about 100,000 years ago, giving rise to modern San (Bushmen), west Pygmies, and possibly the Skhul/Qafzeh remains in Israel. A subsequent expansion from East Africa about 60,000 years ago led to a resettlement of Africa (with only the San and Pygmy areas remaining relatively untouched until today). A small subset of this re-expansion migrated out of Africa, eventually completely displacing archaic hominins such as Neanderthals. The out-of-Africa migrants split into two migration routes: one tropical

route along the Indian Ocean to Papua New Guinea (arriving c. 40,000 years ago) and Australia, and one northerly migration route to Europe, India, Asia, and ultimately America. The phenotypic differences seen between continents today would thus be explained not by independent migrations out of Africa, but by the early split of migration routes, and thereafter by population constriction and isolation in northern latitudes during the last glaciation.

#### *Postglacial human recolonization of Europe*

In a project led by Professor Torroni (Rome) we strengthened the link between mtDNA groups H and V (together accounting for more than 50 per cent of western European mtDNA) and a late glacial or postglacial recolonization of western and northern Europe from an Iberian glacial refuge about 10–15,000 years ago (Torroni *et al.* 2001). We drew attention to potentially Iberian place names in western and northern Europe, in a paper with Professor Vennemann who has reinterpreted the classic linguistic work of Hans Krahe (Hamel *et al.* 2002).

#### *Caribbean slavery*

Our geographic information system for human mtDNA can predict the maternal origin of a mtDNA type gained from a living individual (or from a forensic stain or an archaeological sample) whose current location may not be indicative of descent. Blind trials showed that in more than two-thirds of mtDNA sequences,

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the maternal origin can be pinpointed within 0–2000 km. We participated in a project to be broadcast by the BBC (working title: *Motherland - A Genetic Journey*), which traces the maternal origins of 230 Black Caribbeans, currently living in England, to those parts of Africa where their ancestors were captured as slaves. Remarkably, more than 95 per cent of their maternal DNA is African, whereas more than 25 per cent of their Y chromosomes are European, presumably from the slave owners. We found Amerind DNA at only 1 per cent, confirming the large-scale extinction of the indigenous population.

#### *Natural radioactivity and the DNA mutation rate*

The accuracy of the ‘molecular clock’ is of fundamental importance to the reconstruction of prehistory from modern DNA variation. We therefore investigated the effect of 10-fold elevated levels of radiation on the mtDNA mutation rate in pedigrees from south India where a natural thorium mineral is locally abundant. Unexpectedly, we found the mutation rate to be significantly increased. And intriguingly, the radiation-induced mutations affect those same DNA positions that have mutated frequently in the past 60,000 years of human evolution.

#### *Gene conversion in the human genome*

The homogenization of similar sequences at different positions on the same chromosome provides a mechanism by which some lineages may become more prone to pathogenic chromosomal rearrangements than others. Such selective biases, should they exist, might have influenced extant diversity, thus hindering our attempts to reconstruct population prehistory. We have demonstrated that one such homogenization process, termed gene conversion, occurs at relatively high rates on the human Y chromosome and on an autosome (Hurles 2001). This suggests a genome-wide phenomenon that may have implications for how selection acts on repeat-rich chromosomes such as the Y chromosome.

#### **STAFF**

##### **Postdoctoral researchers:**

Peter Forster  
Matthew Hurles  
Mim Bower

##### **PhD student:**

Lucy Forster

##### **MPhil students:**

Eleanore Conant  
Emma Maund

##### **Part II student:**

Sufyan Hussein

##### **Visiting scholar:**

Clara Mazzoli



*Radioactive black sand and non-radioactive white sand in Kerala, southern India. Thousands of traditional fishing families have lived here for generations, exposed to the highest levels of natural radiation in the world. Compared to a control population living on white sand nearby, the offspring of the irradiated families have a significantly increased mtDNA mutation rate.*

## *Charles McBurney Geoarchaeology Laboratory*

The year 2001–2002 has been an extremely busy and exciting one for the geoarchaeology research group in the Charles McBurney Laboratory. During the course of the year several new research projects were initiated, and a number of researchers moved on to further research and to teaching careers.

New projects were begun in Norway, Hungary, New Mexico and southern India. The Kaupang project, under the direction of Dr Dagfinn Skre and Lars Pilo of the University of Oslo, invited Ms Karen Milek and Dr Charles French to participate in the excavations of the early Viking trading town of Kaupang. A week in May was spent sampling two building plots for geochemical and micromorphological analyses in order to aid the interpretation of the internal use of these structures.

New involvement in the Szazhalombatta Bronze Age tell site excavations was made possible through the award of a collaborative role in a European Network Training Programme entitled 'The Emergence of Bronze Age Communities in Europe'. This research programme is under the overall coordination of Professor Kristian Kristiansen of the University of Göteborg, but involves seven archaeological institutions across Europe. From Cambridge, Dr Marie-Louise Sørensen and Dr French are part of the Szazhalmobatta excavation research team (led by Drs Magdi Vicze and Ildiko Poroszlai). The programme will enable two fully-funded PhD students from Hungary to join the Department from October 2002. One of the students will join the McBurney Laboratory to study the construction and space-use of structures in the tell; the other will work in the Pitt-Rivers Laboratory to investigate plant exploitation and food processing at the tell site.

A new collaboration has also begun with the Rocky Mountain Research Division of the United States Department of Agriculture Forest Service in Albuquerque, New Mexico. The impact of recent forest fires in the American Southwest has led Dr Richard Periman to put together a project to examine the fingerprint sequence of past fire histories found in the eroding alluvial sequences of arroyos (or wadis) in the Rio Puerco



*The Rio Puerco, New Mexico, showing the main later Holocene section on the right (c. AD 1000 at the top to 5000 BC at its base). The alluvial infilling sequence can be seen to be interrupted by a series of dark incipient soils or standstill horizons which are often associated with in situ burning evidence from lightning-strike fires.*

system (a tributary of the Rio Grande) to the north of Albuquerque. Dr French, Ms Julie Miller, Dr Periman and Dr Steve Hall (formerly of the University of Texas at Austin) began fieldwork in July 2002. Recent erosive downcutting of the valley floor of the Rio Puerco has revealed some 5000 years of Holocene erosion, including *in situ* burnt alluvial horizons every 10–20 cm and associated incipient soil growth and drainage ditch systems. These should allow lightning-strike fire sequences to be charted in some detail, together with stable versus unstable periods in this area during the last half of the Holocene. The aim is to identify the environmental coincidences that are necessary to create, sustain and control erosion in such semi-arid landscapes so as to aid the modern sustainability of these landscapes. In addition, Dr Periman will be spending time in the Charles McBurney Laboratory as part of the collaboration to begin training as a micromorphologist.

Nicole Boivin received her doctorate early in the new year and will be taking up a research fellowship in the McDonald Institute for the next two years. As part of this fellowship, Dr Boivin has begun new fieldwork in the Karnataka region of southern India which involves both extensive field and geoarchaeological survey around the Neolithic ashmounds and sample excavation of the Kudatini site. This project is undertaken in collaboration with colleagues from Deccan College, Pune (Veena Mushrif), Karnatak University (Ravi Korisetar), University College, London (Dr Dorian Fuller) and the Department of Archaeology, Cambridge (Dr Helen Lewis).

Dr Helen Lewis has been awarded a fellowship in landscape archaeology at the Department of Continuing Education at the University of Oxford from October 2002. This will enable her to concentrate on her contribution to the landscape projects currently being conducted with Dr French in the upper Allen valley of Cranborne Chase, Dorset. In 2002 the project has investigated two Neolithic long barrows on Gussage Cow Down adjacent to the Dorset cursus and fieldwalking survey has continued in the Knowlton area. Preliminary results suggest that this part of the chalk downlands of southern England remained much more open throughout the Mesolithic than had hitherto been believed, thus enabling exploitation in the Neolithic and Bronze Age periods without attendant intensive and extensive soil degradation and erosion.

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Gianna Ayala organized a session on geoarchaeological approaches to landscapes at the spring 2002 conference of the Society for American Archaeology at Denver, Colorado. Several members of the laboratory attended and the ten papers given at this session will form a special issue of the journal *Geoarchaeology* in 2004, co-edited by Dr French and Ms Ayala. This was a very valuable experience for all the laboratory members who participated, and helped to give insights into North American perspectives in geoarchaeology. A great vote of thanks goes to Gianna Ayala for making this conference session happen.



*The dig team standing on the Gussage Cow Down Neolithic long barrow 78. A two-phase mound of dumped chalk rubble is evident, each with a chalk block footing, with a thin, in situ, buried rendsina soil beneath.*

During 2001–2002, Melissa Goodman acted as Tutor in Archaeology at Madingley Hall (Board of Continuing Education), and has helped to set up a variety of environmental and landscape archaeology courses. Ms Goodman is to be applauded for these initiatives, and now that she is moving on to a teaching and research position at Berkeley, California, her input and enthusiasm will be much missed.

Several other projects by laboratory members are currently under way. Manuel Arroyo-Kalin has begun to investigate *terras pretas* or dark earths of the lower Amazon basin and Brian Pittman has embarked on the study of Byzantine farmsteads in wadi systems of the Negev in Israel. Finally, Julie Miller as the laboratory technician has been instrumental in setting up the Society of Thin Sectioners and has coordinated two workshops (one in Cambridge and one in Manchester) with Ian Chaplin of Buehler UK and George Macleod of the Department of Environmental Sciences, University of Stirling.

**STAFF:**

**Laboratory director:** Dr Charles French

**Laboratory technician:** Julie Miller

**PhD students:**

Manuel Arroyo-Kalin  
Gianna Ayala  
Melissa Goodman  
Karen Milek  
Brian Pittman  
Miranda Semple

**Post-doctoral researchers:**

Dr Nicole Boivin  
Dr Helen Lewis

**Affiliated researchers:**

Dr Laurence Smith

## Grahame Clark Zooarchaeology Laboratory

The 2001–2002 academic year has been productive for the Zooarchaeology Laboratory. Members of the lab continued with fieldwork projects in Croatia, Yugoslavia, Greece, Russia, Turkey, and Malaysia. Three cheers to former lab members Dr Eleni Kotjaboupolou and Dr Ryan Rabett for their PhDs, while congratulations are also due to Dušan Boric for his post-doctoral position at Columbia. Dr Kotjaboupolou's research included the first thorough study of the faunal remains from the Upper Palaeolithic site of Kastritsa, Greece, while Dr Rabett used novel methods of studying bone tools to shed new light on prehistoric subsistence practices in southeast Asia. The champagne is being kept on ice for Laura Pugsley and Aleks Pluskowski who recently submitted their PhD dissertations, the former on pig utility indices, the latter on medieval perceptions of the wolf. This has also been a year of transitions, with several of the lab's 'regulars' (Boric & Jenkins, Pugsley) leaving us for other pastures. On the other hand, we welcome Krish Seetah, most recently from Bournemouth, who is starting a PhD on Romano-British butchery practices.

### STAFF:

**Laboratory director:**  
Dr Preston Miracle

**Zooarchaeology and Chief technician:**  
Jessica Rippengal

### Research students:

Dušan Boric  
Bryan Hanks  
Emma Jenkins  
Lisa Marlow  
Stephanie Meece  
Masa Mlakar  
Iain Morley  
Aleks Pluskowski  
Laura Pugsley  
Krish Seetah

### Associated researchers:

Dr Katie Boyle  
Andrew Clarke  
Dr Marsha Levine  
Dr Rosmary Luff  
Dr Ryan Rabett  
Dr Carolyn Szmidt



Engraved red deer phalange from Mesolithic levels at Pupicina Cave

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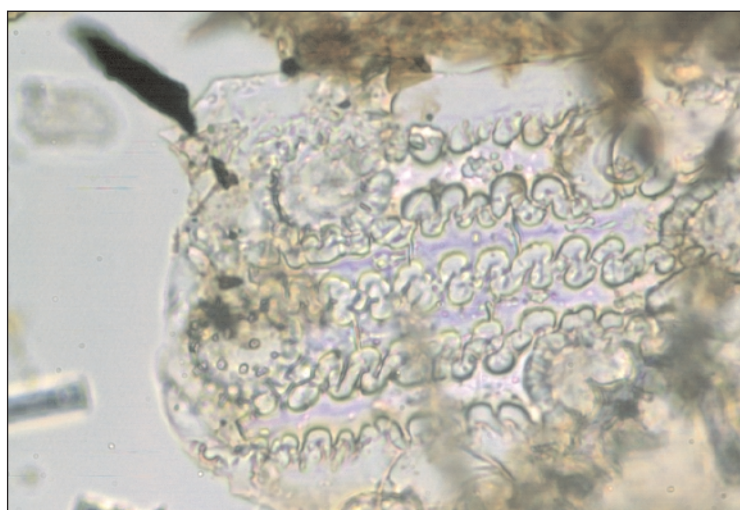
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## George Pitt-Rivers Laboratory for Archaeobotanical Research

The George Pitt-Rivers Laboratory has continued its research in 2001–2002 into the exploitation of plant resources from the Palaeolithic through to the historical period in diverse regions of the world. The year was preceded by an international conference on Language and Farming Dispersals, hosted by the McDonald Institute, in which a number of present and past lab members took part. Laboratory research on agricultural origins has now expanded to encompass two new areas. Manon Savard is examining food plants from several early Anatolian sites, and Scott Martin is conducting research into the early spread of maize agriculture in northeast America. Research on agriculture in the later prehistoric and classical periods has also been extended to include Evi Margaritis' work on urban and rural sites in Greece, complementing existing research projects on ancient Rome (Motta) and on contemporary agrarian landscapes in northern Europe (Ballantine, Clapham, Janik, Stevens, Zawadska).

Research on phytoliths (plant silica skeletons), led by Dr Marco Madella, remains a key element of the Laboratory's programme. This work has a strong foci upon arid regions and on the prehistory of water management, but is also seeking to extend archaeobotanical analysis back in time into the Palaeolithic. Dr Madella has begun a new phytolith research project in Argentina on the Pleistocene/Holocene environment and peo-



Cereal husk silica skeleton from Aror, Sindh, Pakistan.





*Excavation of a peat-filled medieval sump with discarded timbers, Broad Street, Ely. The archaeobotanical remains were examined for the Cambridge Archaeological Unit at the Pitt-Rivers Laboratory.*

pling of the pampas, alongside wood analysis of the important *Prosopis* tree, currently undertaken by David Beresford-Jones. The year ended with the 4th International Meeting on Phytolith Research held at the McDonald Institute in August 2002.

There has also been continued media interest in various aspects of the work of the George Pitt-Rivers Laboratory, which has figured in a number of radio features and in *Time Team* on TV. Professor Martin Jones was profiled in the *Times Higher Education Supplement*, the *Scotsman* and *Galileo*, and the research of two recent laboratory members (Dr Dorian Fuller and Dr Victor Paz) was discussed in *Science*.

**STAFF:**

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Ms Evi Margaritis  
Mr Scott Martin  
Ms Laura Motta  
Ms Manon Savard  
Ms Hanna Zawadzka

**Post-doctoral researchers:**  
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Dr Marco Madella  
Dr Chris Stevens

**Affiliated researcher:**  
Ms Rachel Ballantyne

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# Fieldwork Projects

The project rooms of the McDonald Institute provide working space for a number of field projects which typically spend two or more months annually in the field. Other project rooms are allocated to teams that are preparing results of excavations for publication. Among the active field projects located at the McDonald Institute are those at Amarna in Egypt, Çatalhöyük in Turkey, and Tell Brak in Syria. During the academic year 2001–2002, the McDonald Institute also provided research space for the preparation of reports on field survey in Boeotia and on excavations at Markiani and Phylakopi in the Cyclades, and Kilise Tepe in Turkey.

The Institute also provides support for field projects and certain other research initiatives through its annual allocation of grants from the D M McDonald Grants and Awards Fund. The Advisory Committee meets in February or March every year to consider applications to the fund from Cambridge-based researchers. In 2002, grants totalling £109,955 were awarded to 22 projects, ranging widely in time and space from the northern Russia to South Africa, and from the Palaeolithic to the nineteenth century AD. Accounts of several of these projects are given here; others have been described in previous Annual Reports.

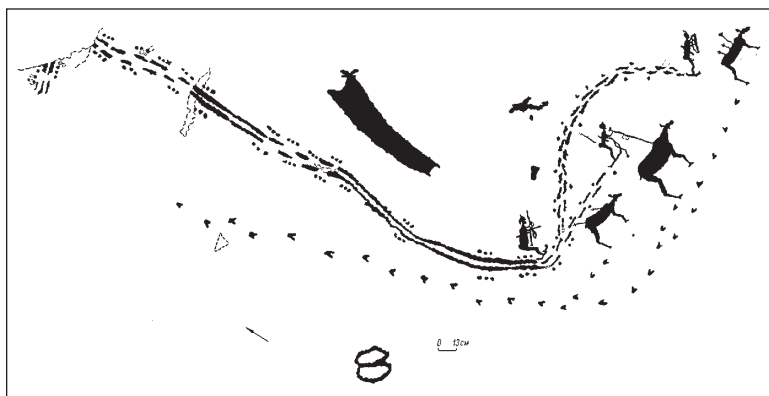


*World map showing locations of projects sponsored by the McDonald Institute.*

## North Russian rock carvings

Directed by Dr Liliana Janik the aim of the project 'Visual Perception and Cognition in the Rock Carvings of Northern Russia', in 2002 was to explore the role of the rock surface in the creation of visual images by pre-historic fisher-gatherer-hunters. The methodology involves the production of three-dimensional images of rock surfaces using digital imagery and GIS.

The Stara Zalavruga complex of rock carvings near the White Sea was selected for this study, but forms part of a wider programme of research on prehistoric rock art. The aim is to increase understanding of how archaeologists, as observers, are able to 'see' in visual depictions created over four thousand years ago. In order to achieve this, the study draws on the ideas and methods used in art history to approach the understanding of visual perception and visual cognition.



*Stara Zalavruga, Group IV (detail).*

Fieldwork in 2002 endeavoured to answer two main questions. First, were the carvings adjusted to produce pictures without distortions on an otherwise uneven rock surface? And second, was the rock surface included in the composition? What role did the rock surface play in composition?

Two visual presentations of the fragment of the Composition IV, where the skier is sliding down-slope in pursuit of the elk, help to answer these questions. The first image (see ill. above) presents a conventional understanding of the rock surface as a flat entity where the three-dimensionality and its use in the context of cognition and vision is ignored. Dr Corinne Roughley is currently in the process of generating a three-dimensional image of rock surface and the placement of the rock carving upon it by correlating photographic images (see ill. below) with the relative height of the rock face. Such an approach allows us to conclude that the prehistoric fisher-gather-hunters of northern Europe used the rock surface as an active part of the visual image: when the rock face slopes downwards the skier slides down the slope; when the surface rises he uses his skis to walk up the slope. Such an example indicates the deliberate use of the rock



*Stara Zalavruga, Group IV, showing the work in progress.*

face as a landscape and reveals cognitive aspects of visual perception in North European prehistoric art.

This research also contributes to the understanding of the prehistoric heritage of the region and is undertaken in collaboration with Russian (Dr N. Lubanova, Russian Academy of Science, Petrozavodsk Branch, Russia), Polish (Ms K. Szczesna, College of Applied Arts, Torun@Poland) and Norwegian archaeologists (Professor K. Helskog, University of Tromsø, Norway).

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## Ziyaret Tepe

The site of Ziyaret Tepe is situated on the Upper Tigris just outside the modern village of Tepe and approximately 60 km southeast of Diyarbakir. Its status as a large mound overlooking the Tigris in an area where this river formed the northern border of the Assyrian Empire marks it out as a site of outstanding strategic importance. It was one of the three border cities named Tushan, Sinabu and Tidu that are known to have been positioned along the Tigris in this area, though which of these three it was cannot yet be ascertained. The site comprises a high mound with Late Neolithic/Early Chalcolithic, Middle Assyrian and Neo-Assyrian remains, and a lower town of approximately 32 ha which dates mainly to the Middle and Neo-Assyrian periods but also has Roman and Islamic remains. Although richly deserving attention, Ziyaret's rise to prominence in recent years has come about through its threatened destruction by the lake that will be formed by the Ilusu Dam. Fortunately the construction of the dam has been delayed, but when it is finally built it is likely to result in the total immersion of the lower town of Ziyaret, and waters will lap round the high mound.

In response to this threat, an international project has been assembled under the overall direction of Dr Tim Matney of the University of Akron, Ohio, with work in the lower town directed by Dr John MacGinnis and sponsored in part by the McDonald Institute. Excavation commenced in 2000 and a third season has just been completed. During the last two years Dr MacGinnis' work has concentrated on an area in the western part of the city where a combination of local topography and magnetometry suggested the presence of a substantial structure. Excavation here revealed the remains of an impressive Neo-Assyrian building, its most striking feature a cobbled courtyard with squares of black and white stones arranged in a chessboard pattern.

To date, six rooms around the courtyard have been excavated of which the two most interesting appear to be part of a magazine complex containing *pithoi* up to 1.90 metres high. In the detritus surrounding these *pithoi* were found several cuneiform tablets, mostly relating to transactions of barley. One of them mentions the governor, while another gives us the name of a *limmu* (yearly eponym) from shortly before the fall of Nineveh in 612 BC. A further point of interest was the discovery of a number of clay tokens in a variety of shapes — square, star, sphere, cylinder among others — which may have served as accountancy aids. At the end of the excavation in 2001 it was believed that the Area G building was a high-status residence, belonging to either a senior official or a wealthy merchant; there was of course considerable overlap between these two categories. This remains a possibility, but equally the presence of magazines and records of barley debts, one of which mentions the governor, suggest that the complex may have been a tax-collecting centre for the province.



*A cobbled courtyard of a Neo-Assyrian building discovered in the western part of Ziyaret Tepe.*

## Byzantine Ecclesiastical Structure at Bir Messaouda, Carthage

The site at Bir Messaouda lies on the lower eastern slopes of the Byrsa Hill, the capitol of Roman Carthage. On the Roman street grid, it is situated to the south of the Decumanus Maximus, the main thoroughfare between the Byrsa and the ports, and in between Cardo IX and X east. The primary object of the excavation, undertaken by Richard Miles, was to study a series of substantial structures now firmly dated to the sixth and seventh centuries AD. In the course of this work, much has also been learnt about the usage of the terrain in the late Punic and imperial Roman epochs. In addition a structure, thought to date from the Vandal period (AD 435–534) has been uncovered. This large hall-like structure was substantially modified to create the Byzantine transept basilica which succeeded it.

Work done in the spring/early summer season of 2002 consisted of the excavation and recording of the northern area of the site and a bid to ascertain the relation between the Byzantine basilica and the baptistery. A further shorter season in August 2002 excavated the area directly to the east of the baptistery and attempted to find the easternmost limits of the building. Through this further excavation work it has now been possible to identify a number of different building phases from fifth to seventh centuries.

During the fifth century AD, the series of houses which had backed onto a north–south terracing wall and fronted onto Cardo X were levelled and a three-aisled basilica was built. A *terminus post quem* of AD 425 has been provided by ceramics in the levelling fill for the mosaic. There are many examples of similar mosaic motifs in Carthage which have been dated to the fifth century. It therefore seems likely that this structure was built during the Vandal epoch and the motifs on the mosaic floor and the chancels suggest that the building might have functioned as an ecclesiastical structure.

During the sixth century AD, the whole insula where the structure stood was profoundly transformed. The mosaic floor of the earlier structure was covered over and the chancels levelled. Although the new structure was also three-aisled, a new set of columns was inserted to hold up what must have been a higher roof. The building was also enlarged. In addition a five-aisled east–west orientated basilica was constructed. This was the first transepted basilica to be found in Carthage. The four large central columns might have been intended to support a dome.

The basilica seems to have fallen into disuse towards the end of the seventh century. There is evidence that there was a serious fire in the northern transept and the southern areas of the east–west aisles. Since then, the structure has been extensively robbed for building materials.



Plan of the church at Bir Messaouda.

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## *Bova Marina*

The Bova Marina Archaeological Project, directed by Dr John Robb, has been researching the prehistory and history of the southernmost tip of Calabria (southern Italy) since 1997. Based in Bova Marina on the Ionian coast, the work has included both excavation at a number of ancient sites, and field survey within an area some ten kilometres wide and extending about twelve kilometres inland into the rugged Aspromonte massif.

The 2002 field season took place between 28 June and 29 July. The 25-strong team included researchers from Cambridge, Leicester, New York, and Southampton,

with student members from these institutions plus UCL, Oxford, Michigan, and South Florida. With such a large group it was possible to address diverse goals. The field survey was resumed, filling in gaps and extending coverage up into the mountains. Among other results, this located the highest-known Greek site in this part of Calabria (on the Campi di Bova plateau at 1300 m above sea level). Test excavations also continued at the Classical Greek site at Umbro, locating three walls of a structure that is probably a substantial farmhouse but which may be a rural shrine; future excavations should clarify this. These sites, isolated, inland, and far from Greek colonial cities, cast doubt on the traditional polis-centred views of Greek settlement in southern Italy. The bulk of the work, however, involved excavation at prehistoric sites. Excavation of a Bronze Age structure at Umbro which had been exposed in 2000 and 2001 was completed. This structure turned out to be a levelled area with a cobbled pavement upon which a group of three complete pots had been deliberately deposited. It may have been either an open-air feature or have had an ephemeral superstructure.

The largest excavation took place at Penitenzeria. This is an open-air site some 200 m southwest of Umbro, the Neolithic rock shelter excavated from 1998 to 2001. It was chosen in order to compare the nature of Neolithic habitation sites with special-function rock-shelter sites such as Umbro. Test-trenching in 2001 had revealed the presence of a well-preserved Neolithic site a metre below ground, with a thin, probably disturbed Bronze Age level above it. In 2002, the team mapped the site topographically and sank several small test-trenches to find its boundaries. The main trench was in the densest part of the midden, and yielded a rich Stentinello and Diana culture pottery assemblage and varied environmental samples (see ill. above).

Post-excavation analyses are continuing, but it is worth noting that the first radiocarbon dates from Penitenzeria, on samples collected this season, place the site firmly in the later sixth millennium BC (calibrated). This places it broadly contemporary with the rock-shelter site at Umbro, making the clear differences in material culture between the two sites all the more intriguing. An unforeseen opportunity also arose to conduct joint excavations with the Soprintendenza Archeologica della Calabria at the classical village of Mazza. The largest Greek site in the area, this was also occupied in prehistoric and Roman times, with evidence of iron-working probably in the latter period. The test excavations undertaken this year are intended to serve as a foundation for more extensive collaborative work in the future.



*Decorated Stentinello-style finewares from Penitenzeria.*

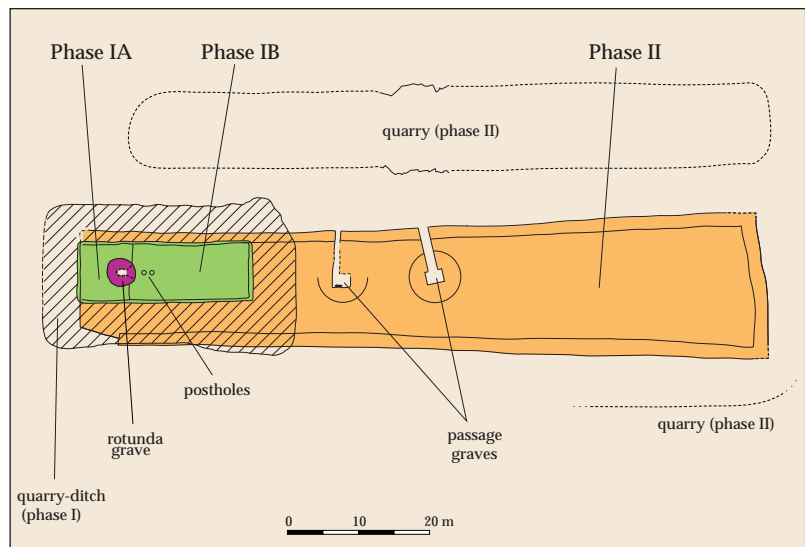
## Prissé-la-Charrière

Excavations at Prissé-la-Charrière entered their eighth season in 2002. The project, which is jointly directed by Chris Scarre of the McDonald Institute, Luc Laporte of the CNRS (Rennes) and Roger Joussaume of the CNRS (Paris) seeks to explore in detail the internal structure and development of one of the large long mounds in the area of western France south of the Loire. These are of similar dimensions to the famous long mounds of southern Brittany, but have so far been subject to less focused research attention.

The Prissé long mound (one of two in woodland south of Niort), has been revealed to be a multi-phase monument. The outer envelope which forms the visible 100-metre long mound is constructed over at least two earlier monuments, and one of those is itself the product of several stages of modification and enlargement. The earliest structures are found beneath the western end of the later monument. They consist of a continuous quadrangular rock cut ditch enclosing a rectangular first phase monument 23 metres long by 8 metres wide (Phase I). This in

itself can be broken down into multiple phases, beginning with a small polygonal megalithic chamber with in a circular dry-stone surround. This small funerary monument finds parallels throughout western France, from Caramany in the Pyrenees to Mané Ty Ec in southern Brittany, and indeed resembles the ‘rotunda’ graves at British Cotswold-Severn monuments such as Notgrove and Ty Isaf. At Prissé, this early monument was subsequently included within a square dry-stone structure (Phase IA), against which was then added a short long mound of yellow sediment with layers of turf and a stone capping (Phase IB).

All this was blocked and hidden away when the monument was extended to its full length of 100 metres (Phase II). The extension involved the infilling of the earlier quarry ditch, which was built over in this second phase. The lapse of time between these two major stages was evidently very short, since a series of AMS dates by the Oxford Laboratory all fell within a narrow range 4400–4150 BC; this included dates for burials in the western chamber, for antler from the quarry ditch floor, and for burials in the western passage grave of the second phase. The extended monument did in fact contain two passage graves, each in its own circular dry-stone surround. The westernmost of the two, heavily damaged by earlier quarrying, appeared to have been constructed as an integral feature of the extended long mound. The second passage grave, by contrast, was clearly built before the long mound was extended (see ill. p. 10). The most exciting aspect of the second passage grave is, however, confirmation obtained this year that its chamber is still basically intact: photographs of the interior show dry-stone walling largely in place, and human bone material and pottery (including a ‘vase support’ perhaps used for burning aromatics or hallucinogens) on the floor. Excavation of this chamber will be the priority for the 2003 season.



*Plan of the two phases of Prissé-la-Charrière.*

## Hunters and Herders in Istria: Pupicina Cave Project



*Flowstone formed during the Early Holocene in Pupicina Cave (609B surface P-R, 4-602).*

Summer 2002 marked the eighth and final season of the Pupicina Cave Project. The primary goal of the field season, directed by Preston Miracle, was to finish with excavations in the interior chamber or 'bat cave', in Pupicina Cave. Secondary goals were to sink exploratory test-trenches in several nearby caves, rock shelters and open-air sites. Although the 2002 team was the smallest since 1996, it still had seven team members with Cambridge-University connections. Fieldwork at Pupicina Cave was supervised by the author, assisted by Tanja Tkalc̃ec (Archaeological Institute, Zagreb) and Giulia Codacci (Archaeological Museum of Istria, Pula), while the site-testing programme was directed by Darko Kom̃ar with the assistance of Giulia Codacci (Archaeological Museum of Istria, Pula).

In the inner 'bat cave' in Pupicina excavations were continued in a 3 × 4 m trench in Mesolithic and Late Upper Palaeolithic deposits. The Mesolithic occupation was very thin and ephemeral. Bats rather than humans appear to have been the primary occupants of this part of the site during the Early Holocene; the main 'feature' was a flowstone crust (see ill. above). The underlying Late Upper Palaeolithic deposits were considerably richer in archaeology, including several hearths, abundant food waste, a fair assemblage of stone tools, and a fine elk-bone awl. After 50–100 cm of excavation, digging throughout the trench stopped on a layer of compact clay with massive limestone blocks. And so ended excavations (at least for this archaeologist!) at Pupicina Cave. Four caves and rock shelters (Ovc̃ja, Sklepova, Abri pod slapom, Abri) were tested in Molinarska draga (upper reaches of the canyon that contains Pupicina). Only the first, Ovc̃ja, contained possible Mesolithic remains, while the latter two were completely sterile. More interesting results were produced by Trdac̃ina Cave, although the oldest deposits appear to be no earlier than the Late Neolithic of c. fourth millennium BC (see ill. on right). The biggest surprise of the 2002 field season (excluding the Project Director's swan dive into the canyon) was a very promising open-air Mesolithic site at Lokve (only the second such site excavated to date in Croatia). Lack of surface visibility required shovel-testing followed by the excavation of two 1 × 1 m trenches. Although this is plough-zone archaeology, the rich lithic assemblage should provide crucial insights into Mesolithic life beyond the blinkered record of caves. Plans for 2002–2003 and the foreseeable future are to continue with the analysis and publication of the Mesolithic and Late Upper Palaeolithic remains from Pupicina Cave and other sites excavated by the Pupicina Cave Project.



*Late Neolithic rim from Trdac̃ina Cave (Pup Data 2002 Rimg0001).*