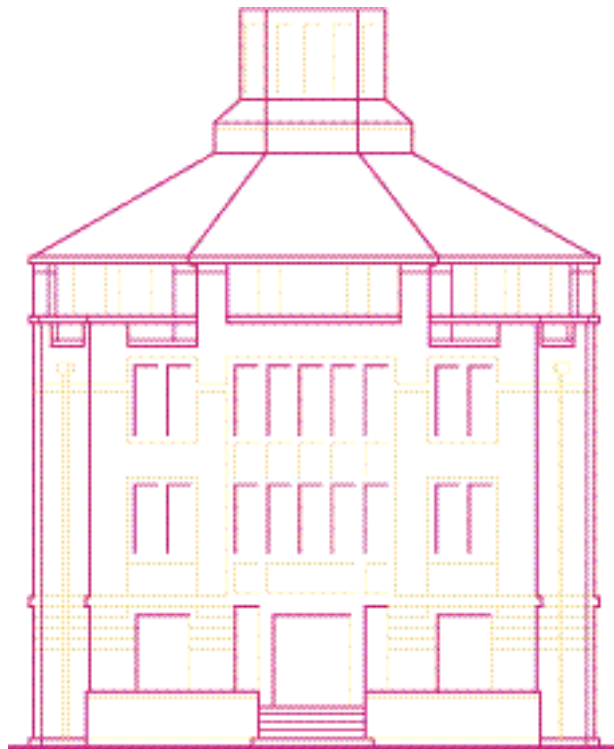
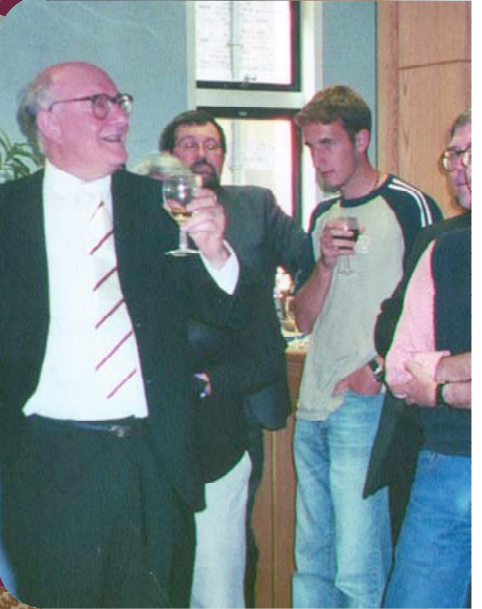




McDonald Institute for Archaeological Research

# *Annual Report 2003–2004*





# Events

## *Professor Renfrew Retires*

The end of the academic year 2003–2004 marked a turning point in the life and work of the McDonald Institute with the retirement of its first Director, Professor Lord Renfrew. I am sure that everyone at the McDonald Institute recognizes an enormous debt of gratitude to Colin Renfrew for his role in the foundation of this Institute. It was through initial approaches to Professor Renfrew by Dr McDonald in 1988 that the Institute came into being. The Institute paid tribute to Professor Renfrew's contribution as founder-director in a speech by Professor Nicholas Postgate, Chairman of the Managing Committee, at the annual McDonald Dinner in November 2003. Professor Postgate emphasized Colin Renfrew's role in setting up and developing the McDonald Institute from its earliest days:

*... Let me remind you that the Institute's embryonic phase began only 15 years ago, when Dr McDonald first approached the University. From that time on Colin gave much of his energy, time and skill to realizing the Doctor's vision, to the benefit of the University. With Colin's gentle encouragement the initial idea for an annual grant in aid of research rapidly became a proposal for an entire institute. Building began in 1992, and the Institute was completed in July 1994, less than 10 years ago, but what a difference it has made. We still give awards for archaeological research, but that is only a fraction of the Institute's work. Those of us who are lucky enough to have research space in one of the McDonald buildings cannot really imagine how one ran an archaeological fieldwork project before. You can hardly need reminding tonight of the annual lecture and its succession of distinguished speakers, but let me also mention the Cambridge Archaeological Journal, the stream of academic monographs, the conferences hosted or sponsored by the Institute, and by no means unimportant, the lunchtime seminars which contribute so much to the formation of a research community ...*

A second event was held on 2 July 2004, hosted jointly by the Department of Archaeology and the McDonald Institute, to mark Colin Renfrew's retirement. A reception in the McDonald Institute was followed by drinks in Upper Hall at Jesus College, where a set of three edited volumes was presented to Colin Renfrew, with papers spanning his wide archaeological interest written in his honour by current and former colleagues. *Material Engagements* (edited by Neil Brodie and Catherine Hills) considers the ways in which archaeologists, artists and others have approached material culture, and the broader engagement of archaeologists with politics and the antiquities trade. A second volume, *Explaining Social Change* (edited by John Cherry, Chris Scarre and Stephen Shennan) reflects the wide range of Colin Renfrew's interests and impacts on social archaeology from the Aegean to Orkney and the Pacific. A third volume, *Traces of Ancestry* (edited by Martin Jones), focuses on Colin Renfrew's most recent research interests in genetics and historical linguistics and their contribution to archaeology.



*The editors present Colin Renfrew with three Festschrifts published in honour of his retirement. From left to right: John Cherry, Martin Jones, Catherine Hills, Colin Renfrew, Stephen Shennan, Chris Scarre. On the wall behind is River Avon Mud Hand Circles by Richard Long, one of the many artworks acquired by Jesus College while Colin Renfrew was Master.*



*Martin Jones presents Colin Renfrew with **Rock Around the Clock** by Bill Haley and the **Comets** at the surprise retirement party organized jointly by the McDonald Institute and the Department of Archaeology. From left to right: Tim Darvill, Ernestine Elster, Martin Jones, Colin Renfrew, Rosemary Cramp.*

Following the presentation of the three volumes, Kristian Kristiansen (on the jazz piano) and Dora Kemp (on vocals) performed *Disney Blues* with original words about Colin Renfrew's archaeological career by Chris Evans and Tim Murray. The performance was followed by a celebratory dinner in Jesus College which was attended by many of Colin Renfrew's current and former colleagues from around the world.

It was not only by Cambridge that Colin Renfrew's lifetime contribution to archaeology was publicly recognized during the academic year. In November 2003 at a ceremony in Strasbourg he received the Latsis Prize, awarded by the European Science Foundation for his exceptional contributions to European prehistory.

The prize, worth  $\approx$ 65,000 (100,000 Swiss Francs), is awarded to an individual or group who, in the opinion of their peers, has made the greatest contribution to a particular field of research in Europe. In making the award Max Kaase, Vice-President of ESF and Chair of the 2003 Latsis Prize committee said:

*This year's Latsis prize is awarded to an outstanding scholar from archaeology. This field is not only finding more and more attention among the public at large and in the media, but is also characterized by a growing merger of approaches from traditional archaeology and modern scientific methods, thereby making archaeology a truly dynamic and fascinating topic of study for better understanding our common cultural heritage.*

Professor Renfrew applauded the recognition that the European Science Foundation was giving to the growing significance of the discipline of archaeology.

In September 2004, it was announced that Professor Renfrew had also been awarded the Balzan Prize for Prehistoric Archaeology. This was one of five fields chosen by the International Balzan Foundation for 2004. The citation attached to the award observed that:

*Colin Andrew Renfrew, Lord Renfrew of Kaimsthorn, is one of the most eminent personalities in the world of archaeology today. He is among the promoters of outstanding innovations in processual archaeology, and author of a series of brilliant works on central themes in European and world prehistory that are marked by great interpretative acumen and have had a revolutionary impact. He has had, and has — through his great intellectual depth and balanced critical vision — an almost unequalled influence in the world of Western archaeology, at the same time as displaying an extraordinary capacity in organizing studies, promoting theoretical debate and raising awareness of the ethical aspects of the profession of the archaeologist.*

The award will be formally conferred at a ceremony in Rome on 18 November 2004.

We wish Colin Renfrew every success in his future research. The new Director of the McDonald Institute, Professor Graeme Barker, is introduced on p. 12.

## *The Fifteenth McDonald Lecture*

The major public event in the Institute's diary this academic year remained as always the McDonald Lecture. Our speaker in 2003 was the eminent Turkish prehistorian Professor Mehmet Özdöğün of the Department of Archaeology and Art History, University of Istanbul. Professor Özdöğün has excavated a series of key Early Neolithic sites across Turkey from Çayönü in the southeast to Hoca Çesme in the northwest. The Fifteenth McDonald Lecture, which he delivered to a packed lecture hall on 26 November 2003, was a visually spectacular and academically stimulating account of new evidence for the spread of Neolithic communities across this vast area and on into Europe. Professor Özdöğün has provided the following summary of his lecture.

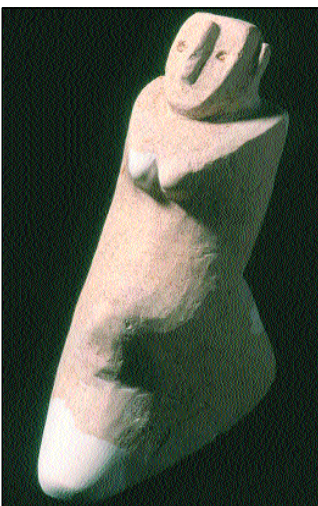


*Alison Richard, Mehmet Özdöğün and Colin Renfrew at the reception following the Fifteenth McDonald Lecture.*

### *Redefining the Neolithic cultures of Turkey and the beginning of the Neolithic way of life in Europe*

The Neolithic period, or the transition from hunting and gathering to sedentary villages with a food-producing economy, was one of the most significant turning points in culture history. Since the early years of research, the significance of this episode has been recognized not only by the culture-historians but even more so by natural scientists. Numerous theories have been proposed seeking to answer questions such as 'where', 'how', 'why', and 'when' this change took place. Yet even while these questions were still being defined (rather than answered), other issues came to the fore. One of the most controversial of these has been the impact of the Near East on the emergence of food-producing economies in other parts of the world, and in particular in Europe.

Despite the widespread interest shown in the formation and development of Neolithic cultures, it has only recently become evident that many of our basic assumptions were flawed. One such was the assumption that Neolithic societies were simple, egalitarian communities that developed under the strain of environmental stress. Recent work, mainly in previously unexplored regions of the Anatolian Plateau, has almost completely reversed this picture. It is now possible to say with confidence that these Neolithic communities were highly sophisticated and complex, presenting clear indications of a degree of social stratification that must have developed in environmentally-rich areas. Thus terms that would have been unthinkable just a decade ago within the context of the Neolithic, such as 'temple-economy', 'craft specialization' and 'advanced technology', now find their place among current research discussions. This new interpretation is well illustrated by recent evidence for the transmission of the Neolithic way of life from Anatolia to the Balkans.



*Figurine from the Neolithic site of Mezraa-Teleilat.*

The Vote of Thanks was moved by the Vice-Chancellor, Professor Alison Richard, and the lecture was followed by a reception at the McDonald Institute and by the annual McDonald Dinner which was held once again this year at Queens' College. The full text of the Lecture will be published in a forthcoming issue of the *Cambridge Archaeological Journal*.

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## Seminars

The McDonald Institute Seminar Room was once again 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. In addition the Institute was host to seminars held by the American Archaeology Group, the Bronze and Iron Age Group, as well as an Archaeobotanical seminar series organized by Liliana Janik.

### *McDonald Institute Lunchtime Seminars 2003–2004*

PETER FORSTER	<i>Where does Gaulish fit in the Celtic languages?</i>
KRISTIAN KRISTIANSEN	<i>Theorizing diffusion</i>
ROBERT DEWAR	<i>Rainfall and the geographical patterning of agriculture in the western Pacific</i>
HELEN McDONALD	<i>The situation in Iraq, summer 2003</i>
PHIL MILLS	<i>Raising the roof: long-distance transport of brick and tile in the ancient Mediterranean</i>
CHRIS SCARRE	<i>The British Cemetery at Surat and the European mercantile colonies of western India</i>
ANNA MUTHESIUS	<i>Silk at Sinai</i>
SHUICHI MATSUMURA & MIM BOWER	<i>Archaeogenetics from Cambridge</i>
NEIL BRODIE	<i>New investigations at Phylakopi</i>
ANTHONY PACE	<i>The new organization of the cultural heritage of Malta</i>

It is hard to envisage more diversity in a seminar series than that fostered by the American Archaeology Society. Alexander Herrera convened this year's series for which eight senior lecturers and students from Europe, North- and Latin America were invited to the McDonald Institute. In English, Spanish, or bilingually they each put forward results of research with fervour, be it on climatic oscillations, socio-political organization, mortuary practices or land-use change. The geographic scope ran from Yucatan, through Calima, Chachapoyas and Ancash, to the highlands of Lake Titicaca. Perhaps unsurprisingly, the open seminars drew equally open audiences, and it has become traditional for them to continue the Tuesday evening discussions well after the doors of the Seminar Room close. Speakers at this year's series were Cesar Astuhuman (UNFV, Lima/UCL), Warwick Bray (UCL), Mick Frogley (University of Sussex), Elizabeth Graham (UCL), Bebel Ibarra (UNMSM, Lima), Kenneth Nystrom (University of New Mexico), Henry Tantaleán (UA, Barcelona) and Nathaniel Van Valkenburgh (University of Cambridge).

## Conferences

### *The Households of Later European Society (13 December 2003)*

As part of the Annual meeting of the EU project 'The Emergence of European Society' a symposium on 'The Households of Later European Society' was held at the McDonald Institute, the aim of which was to

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introduce and characterize the household as a significant basic element of later prehistoric societies in Europe. The household, as a nexus of social and economic activities, plays a central role in how society maintains and reproduces itself, and within the household we find important clues about how societies are organized. This may include information about labour division, degrees of specialization, and size of the co-habiting unit. Households relate to each other as well, and there will be degrees of dependencies and collaboration between them. The symposium, therefore, also raised the question of the character of such relationships and the integration of the household into the wider social landscape (site, settlements, and activity zones) and the physical landscape (environment, economic zones). These issues were illustrated and debated through case studies and syntheses of household characteristics from the three major regions within later prehistoric Europe that the EU project is investigating: the Mediterranean, Central Europe and Scandinavia. Eleven papers were given by fifteen authors, and as the EU project provides an international network of collaboration and exchange, there were participants from England as well as from Hungary, Italy, Norway, Spain, Sweden, and the US.

*Making the Means Transparent: Research Methodologies in Heritage Studies (22–24 March 2004)*

This international British Academy-sponsored conference, of which two of its three days were held in the McDonald Institute Seminar Room, attracted eighteen contributions from around the globe on a range of issues concerning current research methodologies in Heritage Studies. It was organized by Dr John Carman and Dr Marie-Louise Stig Sørensen with the assistance of students from the Department of Archaeology, University of Cambridge. Opening statements from John Carman of Cambridge, Barbara Little of the US Parks Service, Carol McDavid of the University of Houston and Ken Aitchison of the Institute of Field Archaeologists were designed to compare in particular the situations in the UK and the USA and to set the international and comparative agenda for the conference.

Papers from Ian Baxter and Mary-Cate Garden of Glasgow Caledonian then went on to address the ways in which researchers approach questions relating to the identification and management of heritage places and objects. Hilary Soderland of Cambridge and Ulrike Sommer of Leipzig discussed their approaches to different kinds of written sources and the construction of heritage, and Morag Kersel of Cambridge outlined the problems of engaging in research related to the trade in antiquities. A full day and more was spent on issues relating to the different kinds of relations that can exist between people and heritage: papers from Atle Omland and Grete Lillehammer of Norway, Siân Jones of Manchester, Marie-Louise Stig Sørensen of Cambridge, David Harvey of Exeter and Elizabeth Crooke of Ulster explored local attitudes to heritage. Papers from Susan Keitumetse of Cambridge and Catherine Palmer of Brighton discussed tourism as an aspect of heritage, while Noreen Orr of Brighton presented her work with museum volunteers. A final plenary discussion sought to link the various ideas and approaches that had emerged over the course of the conference. Specifically-invited discussants — Professor David Uzzell of the University of Surrey, and Dr Paola Filipucci of the Department of Social Anthropology, Cambridge — proved to be valuable catalysts for debate throughout the three days. There are plans to publish the proceedings of the conference in due course.

*Cycladic Conference (25–28 March 2004)*

An important colloquium on the prehistory of the Greek Cycladic Islands, entitled ‘Οριζων: a Colloquium on the Prehistory of the Cyclades’ took place from 25–28 March 2004. The event was generously supported by the Stavros S. Niarchos Foundation, the British Academy and the McDonald Institute. The organizing committee



*Delegates at the Cycladic Conference.*

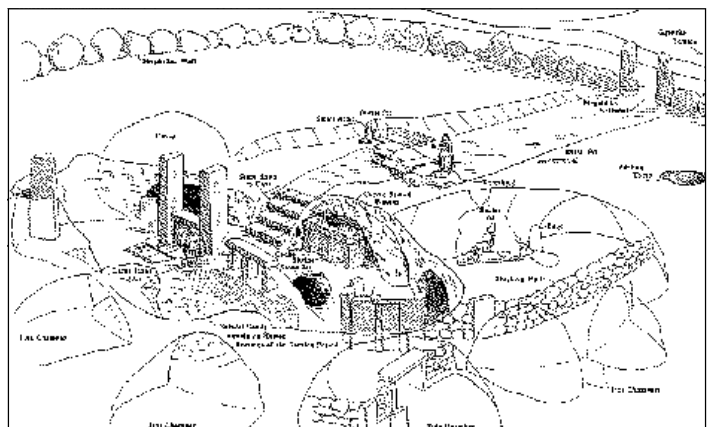
(Katie Boyle, Neil Brodie, Jenny Doole, Giorgios Gavalas and Colin Renfrew) welcomed nearly 100 delegates from Greece, the United Kingdom and the United States. Forty-nine papers and posters were presented and discussed, many reporting new information on recent archaeological research on the islands. During the course of the weekend, delegates enjoyed a reception and meal hosted by the Hellenic Foundation for Culture UK at Selwyn College in honour of Greece's Independence Day, and refreshments at Jane and Colin Renfrew's to celebrate the successful conclusion of the colloquium. Papers and posters are currently being prepared for publication as a McDonald Institute monograph.

#### *Digital Dissemination of Pottery Data (24 April 2004)*

This one-day conference was arranged as part of the English Heritage-funded project on the development of digital dissemination methods for Roman pottery (see p. 39). The aim was to show members of the archaeological profession the data-base system being developed by Phil Mills and to obtain feedback from them to support its future refinement. The speakers were Jerry Evans and Martin Millett who introduced the project, Catherine Hardman (from the Archaeology Data Service in York) who discussed the archiving issues, and Phil Mills who explained the data-base system. The conference was attended by about 35 people, mostly from the Study Group for Roman Pottery. In the afternoon, delegates were able to see the data base demonstrated and had time to try it out in the Institute's computer room. Feedback from this practical session and a discussion at the end of the afternoon provided valuable input into the project.

#### *Meeting of the Brochtorff Circle Research Team (26 May 2004)*

The McDonald Institute was instrumental in enabling the formation of the Gozo Project in 1987. Drs Caroline Malone, Simon Stoddart and David Trump from Cambridge joined with Maltese colleagues, Dr Tancred Gouder and Professor Anthony Bonnano, to initiate prehistoric research in Malta for the first time since 1963. The excavations of the Brochtorff Circle at Xaghra on Gozo were the principal initiative, revealing important new information on the burial practices and rituals of Temple Period Malta (4000–2500 BC). After seven field seasons and several more of post-excavation work, the analysis of the immense archive of data and research (for example details of over 210,000 human skeletal remains alone) is nearing completion. This seminar brought the project directors and assistant researchers together to review progress and discuss the final details of interpretation, publication and presentation. Following introductory words from Professor



*Reconstruction of the Brochtorff Circle at Xaghra by Steven Ashley.*





*Maltese directors on the site of the Brochtorff Circle at Xaghra. From left to right: Professor Anthony Bonanno and the late Dr Tancred Gouder.*

Renfrew and the Chairman of Heritage Malta, Dr Tabone, a day of presentations discussed geology, the human and animal bone, pottery, lithics, art objects, the development of the site, and described the rich material discoveries. Tony Pace discussed the background of Maltese prehistory, and final papers examined the relationship of the Brochtorff Xaghra Circle with the Hal Saflieni Hypogeum and the Bronze Age on the Maltese islands. The seminar provided the forum for finalizing ideas for the McDonald Institute monograph that will soon present the full report and interpretation of this extraordinary site.

#### ***Phylogenetic Methods and the Prehistory of Languages (9–12 July 2004)***

A number of research groups are currently striving to obtain relative and absolute dates for prehistoric language splits and convergences by applying phylogenetic methods to language data. This phylogenetic approach follows in the footsteps of the linguists Schleicher (1863) and Schmidt (1872), but is not without its critics. The field as a whole received fresh impetus with important papers published between 1997 and 2003 by research groups in Pennsylvania, New Zealand, Sheffield, and the McDonald Institute, among others. It was therefore felt that this was an ideal time to acknowledge the emerging field by hosting a conference at Cambridge, offering a platform for key researchers and their critics. The conference was organized by Colin Renfrew, James Clackson and Peter Forster and drew together 37 participants. Although several areas of contention were aired, the atmosphere was very productive and an implicit consensus seemed to be that network methods may turn out to be more suitable for reconstructing language evolution than traditional tree methods. A volume of proceedings is currently in preparation in the McDonald Institute Monograph series.



*Phylogenetics Conference participants (left to right). Back row: Geoff Nicholls, Steve Evans, Colin Renfrew, Brett Kessler, Peter Schrijver, Isidore Dyen, John Penney, Robert McMahon, Johanna Nichols, David Welch, Paul Heggarty, Natalia Slaska, Luay Nakhleh, Lutz Marten, Andrew Garrett, Nicholas Sims-Williams; On stairs: Win Scutt, Karin Haack, Clare Holden, David Bryant, April McMahon, Giselle Weiss, Russell Gray, Quentin Atkinson, Franz Manni; Front row: Chris Howe, Bill Poser, Sheila Embleton, Peter Forster, James Clackson.*

# People

## PUBLICATIONS

### Colin Renfrew

- 2003 (ed. with M. Levine & K. Boyle). *Prehistoric Steppe Adaptation and the Horse*. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research.
- 2004 Islands out of time? Towards an analytical framework, in *Voyages of Discovery: the Archaeology of Islands*, ed. S.M. Fitzpatrick. Westport (CT): Praeger, 275–94.
- 2004 (with P. Bahn). *Archaeology, Theory, Methods and Practice*. 4th edition. London: Thames & Hudson.

### Chris Scarre

- 2003 (with L. Laporte & R. Jousaume). Long mounds and megalithic origins in western France: recent excavations at Prissé-la-Charrière. *Proceedings of the Prehistoric Society* 67, 235–51.
- 2003 (with L. Soler, R. Jousaume & L. Laporte). Le tumulus néolithique C de Péré à Prissé-la-Charrière (Deux-Sèvres): le niveau funéraire de la chambre mégalithique 1 (phase II du monument), in *Les Pratiques Funéraires Néolithiques avant 3500 av. J.-C. en France et dans les Régions Limitrophes*, eds. P. Chambon & J. Leclerc. (Mémoire XXXIII.) Paris: Société Préhistorique Française, 247–58.
- 2003 Diverse inspirations: landscapes, longhouses and the Neolithic monument forms of northern France, in *Stones and Bones: Formal Disposal of the Dead in Atlantic Europe during the Mesolithic–Neolithic Interface 6000–3000 BC*, ed. G. Burenhult. Oxford: Archaeopress, 39–52.
- 2003 (with P. Arias, G. Burenhult, M.A. Fano, L. Oosterbeek, R. Schulting, A. Sheridan & A. Whittle). Megalithic chronologies, in Burenhult (ed.), 65–111.

### Janine Bourriau

- 2003 *Egyptian Pottery found in Kerma Ancien, Kerma Moyen and Kerma Classique Graves at Kerma*. Published on the Internet in the proceedings of the Conference for

## Professor David Oates

It is with deep regret that we report the death on 22 March 2004 of Professor David Oates. David Oates had been a Fellow of the McDonald Institute since December 1997 and was a leading figure in the archaeology of Mesopotamia. He excavated at Nimrud and Tell al-Rimah in Iraq in the 1950s and 1960s, then in 1976 (together with Dr Joan Oates, also a Fellow of the McDonald Institute) embarked on a long-running excavation project at the Syrian city site of Tell Brak. Two volumes of the report on their previous work at Brak have already been published by the McDonald Institute, and a third and final volume was at an advanced stage of preparation at the time of his death. He will be deeply missed.

## Director

As already described, in March 2004 Professor Renfrew was co-organizer, with Dr Neil Brodie, Ms Jenny Doole, Dr Katie Boyle and Mr Giorgios Gavalas of the symposium ‘Οριζων: Recent Work on the Prehistory of the Cyclades’ at the McDonald Institute (p. 7). In July he was co-organizer with Dr Peter Forster and Dr James Clackson of the symposium ‘Phylogenetic Methods and the Prehistory of Languages’ (p. 9). It is planned that both will be published by the Institute. During the academic year Professor Renfrew lectured at meetings at Columbia University, New York; the Berlin Museums; the Theoretical Archaeology Group at Lampeter; the University of California at Los Angeles; Stanford University; and the University of Toulouse; and participated in meetings at Les Eyzies, France, and Valletta, Malta.

In October 2003, Professor Renfrew became the 28th recipient of the University of Pennsylvania Museum’s Lucy Wharton Drexel Medal for archaeological achievement. In July 2004 he was awarded an Honorary Doctorate by the University of Liverpool and by the University of Edinburgh. His award of the distinguished Latsis and Balzan Prizes was mentioned above (see p. 4).

## Deputy Director

For the Deputy Director, Dr Chris Scarre, 2004 was the tenth and final year of involvement in the extensive excavation of the Neolithic long mound of Prissé-la-Charrière in western France.



*Joan and David Oates.*

During the course of ten seasons work the entire surface of the 100 m × 16 m structure has been carefully stripped, cleaned and planned, and much of the western (more disturbed) part of the monument has been excavated down to bedrock. A key focus of the 2004 fieldwork was the excavation of the undisturbed burial chamber discovered in 2002. This proved to be in an unstable condition, and major consolidation works were carried out in July in order to stabilize the capstone and allow excavation of the chamber itself to proceed. The stabilization work was preceded in March 2004 by a Cyrax laser scan of the interior of the chamber undertaken by Duncan Lees of Plowman Craven Associates. Planning and excavation of the chamber began in August and will be completed by a small specialist team later in the year. The final day of the August season was, however, marked by the lifting and removal of the intact pottery 'vase-support' that had been placed in one of the corners of the chambers, perhaps to burn aromatic or other substances. The work at Prissé-la-Charrière was carried out as in previous years in conjunction with French colleagues Luc Laporte (CNRS, Rennes) and Roger Joussaume (CNRS, Paris).

Dr Scarre was also involved in a series of conferences during the year. In November 2003 he delivered lectures on the excavation of Prissé-la-Charrière and the spread of farming across northern France at the Department of Archaeology, University of Göteborg. In April 2004 he participated in the session 'Faith in the past' at the Society for American Archaeology meeting in Montreal, Canada, giving a paper 'Shrines of the land and places of power: religion and the transition to farming in west-

## PUBLICATIONS

### Janine Bourriau (cont.)

- Nubian Studies in Boston, 1998.
- 2003 (with M. Serpico, L. Smith, Y. Goren, B. Stern & C. Heron). Commodities and containers: a project to study Canaanite amphorae imported into Egypt during the New Kingdom, in *The Synchronisation of Civilisations in the Eastern Mediterranean BC (II)*, ed. M. Bietak. Proceedings of the SCIEM 2000 – Euro Conference, Haindorf, 2nd–7th May 2001.
- 2003 Egyptian amphorae of the 2nd to 1st century BC from the excavations of the Deutsches Archäologisches Institut, Cairo at Buto (Tell Fara'in) 1996–1999. *Mitteilungen der Deutsches Archäologisches Institut* 59, 254–63.
- 2003 Imported amphorae at Buto in the Third Intermediate period and Late Dynastic periods from excavations of the Deutsches Archäologisches Institut, 2000–2001. *Mitteilungen der Deutsches Archäologisches Institut* 59, 224–33.
- 2003 The contribution of the Lisht North Cemetery to Middle Kingdom studies, in *Discovering Egypt from the Neva: the Egyptological Legacy of Oleg D. Berlev*, ed. S. Quirke. Berlin. Achet Verlag, 51–9.
- 2004 (ed. with J. Phillips). *Invention and Innovation: the Social Context of Technological Change 2: Egypt, the Aegean and the Near East, 1650–1150 BC*. Proceedings of a conference held at the McDonald Institute for Archaeological Research, Cambridge, 4–6 September 2002. Oxford: Oxbow.
- 2004 The beginnings of amphora production in Egypt, in *Invention and Innovation*, 81–98.
- 2004 (with L. Smith, Y. Goren, M. Hughes & M. Serpico). The provenance of amphorae found at Memphis and Amarna in the New Kingdom: results 2000–2002, in *Invention and Innovation*, 57–80.

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### Harriet Crawford

- 2003 (ed.). *The Archaeology of Bahrain: the British Contribution*. (BAR Inter. Series 1189). Oxford: BAR.
- 2003 (with R. Carter). Kuwaiti/British Archaeological Expedition to es-Sabiyah: report on the fourth season's work. *Iraq* 65, 77–90.
- 2004 Obituary: David Oates. *Antiquity* 78 (June), 497–9.
- 2004 (ed. with D.T. Potts, H. Al Naboodah & P. Hellyer). Archaeology of the United Arab Emirates. *Biblioteca Orientalis* 61(3–4), 410–13.

### Robert Dewar

- 2003 Rainfall variability and subsistence systems in Southeast Asia and the Western Pacific. *Current Anthropology* 44, 369–88.
- 2003 Relationship between human ecological pressure and the vertebrate extinctions, in *The Natural History of Madagascar*, eds. S. Goodman & J. Benstead. Chicago (IL): University of Chicago Press, 119–22.

### Graeme Lawson

- 2004 Music, intentionality and tradition: identifying purpose, and continuity of purpose, in the music-archaeological record, in *Studien zur Musikarchäologie IV*, eds. E. Hickmann, A.D. Kilmer & R. Eichmann. (Orient-Archäologie series.) Rahden, Westf.: Verlag Marie Leidorf, 61–97.

### John MacGinnis

- 2004 Temple ventures across the river. *Transeuphratène* 27, 29–35.
- 2004 Review of Da Riva, *Der Ebabbar-Tempel von Sippar in frühneubabylonischer Zeit*. *AfO* 50, 51, 276–80.

### Caroline Malone

- 2003 Megalithic cultures in Britain and their relationship to Western Europe, in *Meeting on Megalithic Culture: Comparing Prehistoric Ruins of the East and Europe*, ed. H. Kanaseki. Horen-Cho: UNESCO-Cultural Heritage Protection Office, 67–80.

ern Europe'. In May he co-organized with Karl-Göran Sjögren a workshop of specialists on European megalithic tombs that met at the University of Göteborg, and in September he attended the European Association of Archaeologists conference at Lyon, France, chairing the session 'Architectures of the living, architecture for the dead in the Neolithic of western Europe', and delivering a paper entitled 'Houses, tombs and the domestication of the dead'. He also spoke in the McDonald lunchtime seminar series about his fieldwork at Surat in India, which is to be published in a forthcoming issue of the *Antiquaries Journal*.

## Incoming Director

Following the retirement of Professor Renfrew at the end of term 2004 the Institute welcomes a new Director, Professor Graeme Barker, in the academic year 2004–2005.

Graeme Barker was brought up in London (his father was a percussion player at the Covent Garden Opera) and came to Cambridge as an undergraduate in 1965, to read Classics at St John's College. At the end of his Part I, a brief conversation with a Junior Research Fellow at St John's (though just beginning a Lectureship at Sheffield), a Dr Colin Renfrew, enthused him to change from Classics to Archaeology (the Part II of the Archaeology and Anthropology Tripos). His new Director of Studies at St John's was Professor Glyn Daniel. That summer (1967), at Colin Renfrew's suggestion, he undertook his first experience of archaeological fieldwork, excavating first on a Neolithic settlement in northern Italy for Lawrence Barfield and then at a Palaeolithic cave in Epirus, northwest Greece, for Eric Higgs, where he had the pleasure of excavating with a senior visitor to the excavation, the then Disney Professor Grahame Clark. His decision to pursue an archaeological career after graduation owes an enormous amount to the teaching of all four of these brilliant Cambridge prehistorians, three of them his predecessors as Disney Professors, though the mix of classics and prehistory in his undergraduate training has also meant an abiding interest in long timescales, inter-disciplinary approaches, and societies at different levels of complexity.

He wrote his Cambridge PhD on the transition from hunting to farming in central Italy as a Rome Scholar at the British School at Rome, between 1969 and 1972. He was a Lecturer and then Senior Lecturer in Prehistoric Archaeology at the University of

Sheffield from 1972 to 1984. He then returned to the British School at Rome as its Director from 1984 to 1988. In 1988 he was appointed Professor of Archaeology and Head of the School of Archaeological Studies (now the School of Archaeology and Ancient History) at the University of Leicester. He remained Head until 2000 (in which period the School moved from a RAE research score of 2 in 1988 to 5 in 1996 and 2000), when he was appointed the founding Graduate Dean of Leicester's Graduate School. In his last year at Leicester, before his move to Cambridge, he was Pro-Vice-Chancellor (Resources).

Throughout his university career he has taught widely across the discipline, especially aspects of the prehistory of Europe, environmental archaeology, archaeozoology, and landscape archaeology. He believes passionately in the benefits for both staff and students of an effective synergy between research and teaching. In Leicester he developed pioneering Masters and PhD programmes by Distance Learning, and the School was awarded the maximum score of 24/24 by the Quality Assurance Agency in 2001 for its learning programmes. Beyond the institutions in which he has worked, he has also been actively involved in promoting the discipline of archaeology in higher education generally. In recent years he has been Chair of the Standing Committee of University Professors and Heads of Archaeology, Chair of the QAA Benchmarking Panel for Archaeology, he was a member of the Archaeology panel for the 2001 Research Assessment Exercise, and is currently President of the Prehistoric Society. He is also a member of the Board of Management of the Arts and Humanities Research Board. He was elected a Fellow of the British Academy in 1999.

His research interests have focused principally on relations between landscape and people, in Europe and the Mediterranean (Italy especially), in arid zones (Libya, Jordan) and currently in tropical environments. (He also had a brief foray to Mozambique in the 1970s, to study the fauna from a new zimbabwe discovered there!) He is recognized for leading complex inter-disciplinary teams of archaeologists and environmental scientists in significant field studies, notably in the Biferno Valley in Italy, the Tripolitanian pre-desert in Libya, the Wadi Faynan in Jordan, and currently the Niah Cave Project in Sarawak. The publication of the Libyan project, *Farming the Desert: the UNESCO Libyan Valleys Archaeological Survey* (1996), won the James Wiseman prize of the Archaeological Institute of America.

## PUBLICATIONS

### Caroline Malone (cont.)

- 2003 The Italian Neolithic: a synthesis of research. *Journal of World Prehistory* 17(3), 235–312.
- 2003 *Neolithic Britain and Ireland*. Revised edition. Stroud: Tempus.
- 2003 (with G.F. Ayala, M. Fitzjohn & S. Stoddart). Under the volcano. *Accordia Research Papers* 9, 7–21.
- 2004. The Neolithic temples of Malta, in *Ancient Europe 8000 BC–AD 1000*, eds. P. Bogucki & P.J. Crabtree. Farmington Hills: Charles Scribner's Sons, 450–55.
- 2004 Late Neolithic Italy and southern France in Bogucki & Crabtree (eds.), 439–46.
- 2004 Stonehenge, in Bogucki & Crabtree (eds.), 61–7.
- 2004 Avebury, in Bogucki & Crabtree (eds.), 406–8.

### Anna Muthesius

- 2003 Silk in the medieval world, in *The Cambridge History of Western Textiles*, vol. 1, pt 2, sec. 6, ed. D. Jenkins. Cambridge: Cambridge University Press, 325–54.
- 2003 *Collected Studies on Silk in Byzantium*, vol. 2. London: Pindar.
- 2004 Essential processes, looms and technical aspects of the production of silk textiles, in *The Economic History of Byzantium (7–15th Centuries)*, ed. E. Laiou. (Dumbarton Oaks Studies 39.) Washington (DC): Dumbarton Oaks, 147–68.
- 2004 (ed. with M. King). *Collected Studies of Donald King*. London: Pindar.

### Joan Oates

- 2004 Ubaid Mesopotamia revisited, in *From Handaxe to Khan: Essays Presented to Peder Mortensen on the Occasion of his 70th Birthday*, eds. K. von Folsach, H. Thrane & I. Thuesen. Aarhus: Aarhus University Press, 87–104.

### Joan Oates & David Oates

- 2004 The role of exchange relations in the origins of Mesopotamian civilization, in *Explaining Social*

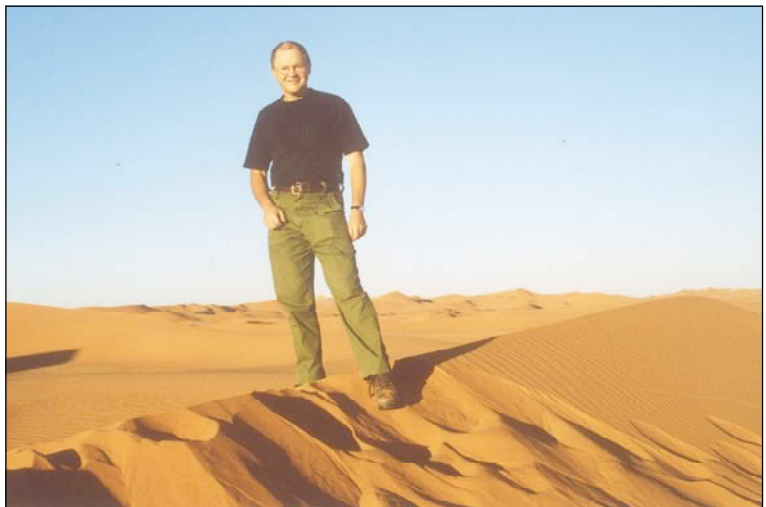
## PUBLICATIONS

### Joan Oates & David Oates (cont.)

*Change: Studies in Honour of Colin Renfrew*, eds. J. Cherry, C. Scarre & S. Shennan. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research, 177–92.

### Jacke Phillips

- 2003 An overview of the ceramics, in *Survey and Excavations between Old Dongola and Ez-Zuma (Nubia II, Southern Dongola Reach Survey I)*, ed. B.T. Zurawski. Warsaw: Research Centre for Mediterranean Archaeology of the Polish Academy of Sciences, 387–437.
- 2003 (with M. El-Tayeb). The pottery assemblage from the Hammur Abbasiya tumulus field (SDRS Hammur 2), in Zurawski (ed.), 458–63.
- 2003 (with N. Finneran, Asamerew Desie, C. Cain, M. Harlow & Tekle Hagos). The archaeological landscape of the Shire region, western Tigray, Ethiopia: a preliminary report on the 2001 field season. *Azania* 38, 139–47.
- 2003 (with N. Finneran). The prehistoric settlement of the Shire Region, Western Tigray, Ethiopia: some preliminary observations. *Nyame Akuma* 59, 26–33.
- 2003 Looking forwards by looking backwards: west of Aksum, in *Researching Africa's Past: New Contributions from British Archaeologists*, eds. P.J. Mitchell, A. Haour & J.H. Hobart. (Oxford University School of Archaeology Monograph 57.) Oxford: Oxford University Press, 69–72.
- 2003 The last pharaohs on Crete: old contexts and old readings reconsidered, in *Abstracts for the 10th International Aegean Conference EMPORIA Aegeans in Central and Eastern Mediterranean*, 93.
- 2004 Review of C. Roehrig, *Explorers and Artists in the Valley of the Kings* (New York (NY): American University in Cairo Press, 2002) and F. Serino, *The Monuments of*



*Graeme Barker in the Sahara Desert, southwest Libya.*

Graeme Barker's current project (involving some forty researchers from a dozen universities and research institutions in Australia, Malaysia, the Philippines, Singapore, and the USA, as well as the UK) is a re-investigation of the famous Niah Caves in Sarawak (Malaysian Borneo). The caves were the focus of major excavations by Tom and Barbara Harrison in the 1950s and 1960s, their most dramatic discoveries being a modern human skull dated to about 40,000 years ago by C14-dating of adjacent charcoal, and a cemetery of several hundred Neolithic graves. The project is addressing three major research questions that are central to the prehistory of Island Southeast Asia: When did modern humans first reach Borneo? What kind of landscapes did they encounter, and how did they deal with them in terms of their foraging strategies? And when, why and how was foraging eventually replaced by farming?

The latter questions have also been at the centre of a major project to be published by Oxford University Press next year, *The Agricultural Revolution in Prehistory: Why Did Foragers Become Farmers?* In addition to taking a world-scale perspective, the study integrates the findings of modern scientific research on climatic change, flora, fauna, DNA studies etc., with the arguments of social archaeology and anthropology regarding hunter-gatherer and farmer 'world views' and how the cognitive transformations from one to the other might have happened.

And he is really excited about 'coming home' to Cambridge — to the McDonald Institute, to the Department of Archaeology, and to a Professorial Fellowship at St John's College. That Junior Research Fellow he met in 1967 has a lot to answer for!

## Core Staff

The cleaning and maintenance of the McDonald Institute buildings remains a high priority and is much valued by all who work here. In the autumn of 2003 the Managing Committee took the decision that these duties would be better handled by an additional member of staff rather than continuing to rely on contract cleaners. Accordingly in April 2004 Mr Steve Fishpool was appointed Custodian of the McDonald Institute. His immediate impact on the cleanliness of the Institute can have escaped none of those who use the buildings.

The core staff of the Institute has otherwise remained as in previous years, with Mrs Deborah Parr as Chief Secretary and Secretary to the Director; Mrs Elizabeth Farmar Secretary to the Deputy Director; and Mr Colin Lomas Assistant to the Deputy Director with special responsibility for accounts and for the Institute buildings. The publication programme was ably handled by Miss Dora Kemp with assistance from Mrs Farmar and under the overall responsibility of the Deputy Director. Conference arrangements were managed by Dr Katie Boyle whose role has expanded to including the editing of some of the proceedings. Dr Boyle has also been acting as a research facilitator within the Institute, identifying potential sources of funding and disseminating information about them.

Researchers employed on individual projects are referred to in the reports which follow. The Illicit Antiquities Research Centre and the Human Population Genetics Project remain the two core Institute research projects, employing Dr Neil Brodie and Ms Jenny Doole (IARC) and Dr Peter Forster and Dr Mim Bower (Molecular Genetics). The McDonald Institute also houses research and administrative staff supported by externally funded projects: notably the Çatalhöyük team (Ms Shahina Farid and Mrs Katerina Smith), the Amarna project (Dr Pamela Rose) and the Tell Brak project (Ms Helen McDonald).

## Arrivals

Several new research personnel were appointed by the McDonald Institute during the course of the year. The first, Dr Mim Bower, joined the McDonald Institute on 1 October 2003 as a Research Associate on the Human Population Genetics Project. The three-year post, which is in succession to that of Dr Hurles

## PUBLICATIONS

### Jacke Phillips (*cont.*)

- Egypt by Ippolito Rosellini* (New York (NY): American University in Cairo Press, 2003). *ASTENE Notes and Queries* 19, 21.
- 2003 Review of E. Peters & K. Whitbread, *Amelia Peabody's Egypt* (New York (NY): William Morrow). *ASTENE Notes and Queries* 18, 9–10.
- 2003 Review of M. Zaccaria, *Photography and African Studies: a Bibliography* (Pavia: Department of Political and Social Studies in the University of Pavia, 2001). *ASTENE Notes and Queries* 18, 8–9.
- 2003 Review of D.A. Welsby, *The Medieval Kingdoms of Nubia. Pagans, Christians and Muslims along the Middle Nile* (London: British Museum Press, 2002). *Journal of African History* 44, 344–5.
- 2004 (ed. with J. Bourriau). *Invention and Innovation: the Social Context of Technological Change 2: Egypt, the Aegean, and the Near East, 1650–1150 BC*. Oxford: Oxbow.
- 2004 How to build a body without one, in J. Bourriau & J. Phillips (eds.), 200–214.

### Laurence Smith

- 2004 (ed. with J. Bourriau, Y. Goren, M. Hughes & M. Serpico). The provenance of Canaanite amphorae found at Memphis and Amarna in the New Kingdom: results 2000–2002, in *Invention and Innovation: the Social Context of Technological Change 2: Egypt, the Aegean and the Near East, 1650–1150 BC*, eds. J. Bourriau & J. Phillips. Oxford: Oxbow Books, 57–80.
- 2004 (with D.Q. Fuller). The prehistory of the Butana: new evidence from the Wadi Muqaddam, in *Nubian Studies 1998: Proceedings of the Ninth Conference of the International Society of Nubian Studies*, ed. T. Kendall. Boston (MA): Northeastern University.

### Anthony Snodgrass

- 2003 Nicholas Geoffrey Lemprière Hammond, 1907–2001. *Proceedings*

## PUBLICATIONS

### Anthony Snodgrass (cont.)

- of the *British Academy* 120, 243–59.
- 2003 Another early reader of Pausanias? *Journal of Hellenic Studies* 123, 187–9.
- 2003 Review of P. Rouet, *Approaches to the Study of Attic Vases: Beazley and Pottier* (Oxford, 2001). *Hermathena* 172, 80–82.
- 2003 Review of J.P. Small, *The Parallel World of Classical Art and Text* (Cambridge 2003). *Times Literary Supplement* 3 October, 9.
- 2004 The Parthenon Marbles as an archaeological issue, in *Material Engagements: Studies in Honour of Colin Renfrew*, eds. N. Brodie & C. Hills. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research, 115–24.
- 2004 (with A. Künzli-Snodgrass). *The Language of Images in Roman Art*, translation of T. Hölscher, *Römische Bildsprache als semantisches System* (Heidelberg, 1987). Cambridge: Cambridge University Press.

who moved to the Sanger Centre in September 2003, is funded by the McDonald Institute as one of its core research initiatives. Dr Bower is well known to the McDonald Institute, having completed her PhD (a study of DNA in cereal pollen) at the Department of Archaeology in 1998. The project acquired a second new member of research staff in December 2003 with the appointment of Dr Shuichi Matsumura as Research Associate in the Computer Modelling of Prehistoric Populations. Dr Matsumura, who took his PhD at the University of Kyoto, worked subsequently at the National University of Ireland in Dublin before joining the McDonald Institute. His two-year appointment is supported by a grant from the Alfred P. Sloan Foundation. The work of the Genetics Laboratory has focused on issues relating to prehistoric human populations, but was broadened significantly in January 2004 with the award to Professor Martin Jones (in collaboration with colleagues at UMIST, University of Sheffield and the National Institute of Agricultural Botany, Cambridge) of an NERC grant on the domestication of Europe (see p. 24). A key element of the project is the study of DNA in domesticated cereals and for this Dr Diane Lister was appointed as Research Associate at the McDonald Institute for a period of 19 months from 1 June 2004. A fuller account of the work of the Glyn Daniel Molecular Genetics Laboratory is given elsewhere in this report (see p. 22).

A further new research appointment was that of Dr Lesley McFadyen as McDonald Institute Research Fellow in Cognitive Archaeology. Dr McFadyen took up the two-year position in February 2004, and is studying the Mesolithic/Neolithic transition in southern Britain, with especial emphasis on the relationship of Neolithic monuments to earlier activity traces. An account of her research is given on page 35.

In the Annual Report for 2002–2003 we reported on the new three-year project ‘Palaeopathology and the origins and evolution of horse husbandry’, under the direction of Professor Leo Jeffcott. In January 2004 Maša Amatt (née Mlakar) was appointed technician to Dr Marsha Levine (see p. 37).

### Artist in Residence

Contributing to an on-going dialogue between art and archaeology, the performance/installation artwork *In Search of the Dustiness of Dust* was described alternately as ‘an archaeology of dust’ and as ‘real archaeology’. Installed in the McDonald Institute for Archaeological Research and the Cambridge University Museum of Archaeology and Anthropology, Zoë Tillotson worked as artist in residence for two weeks during April/May 2004. The event forms the artistic practice element of a wider doctoral research project concerning contemporary ephemeral art and perceptions of time, subsequently performed at the Horniman Museum, London and Fenton House, a National Trust property, Hampstead, London. In each instance the artist negotiated with the institution in order to obtain one full vacuum cleaner bag containing site-specific





*In Search of the Dustiness of Dust (McDonald Institute 2004).*

dust. Mimicking a scientific experiment, the artist, seated at a white plastic-covered table wearing lab coat and protective gloves, continually dissected the contents of the dust bag using a fine pair of tweezers. As the dust was separated the contents were classified and placed in individual glass petri dishes displayed on the table. Visitors to the venue and on-site staff (the audience) were invited to sit and observe, touch and smell the components and discuss the activity with the artist. The dialogic nature of the work provoked lively discussions and interesting parallels between the process-led dimensions of art and archaeology. It raised questions concerning how the past might be revisited in the present and about culturally-determined methods of classification. Throwaway remarks regarding the lack of preciousness or importance of the contents of the dust led to more serious conversations about how value is perceived and understood. As forensic evidence, the dust created an amusing narrative of life in an institution where dogs had been smuggled into work, bets placed on horses, finger nails clipped and chocolate biscuits consumed!

## *Fellows*

In addition to Research Fellows who are salaried employees, the Institute also has a category of non-stipendiary Fellowships for Cambridge-based researchers of post-doctoral status. In November 2003 the Managing Committee appointed Professor Anna Muthesius and Dr Caroline Malone to be Fellows of the McDonald Institute for a period of three years from 1 November, followed in February 2004 by Dr Kate Spence who was offered Fellowship of the McDonald Institute for a period of three years from 1 February 2004. Two existing Fellowships were extended during the course of the year: Dr John MacGinnis for a further three years from 1 November 2003; Professor Colin Renfrew, retiring Director of the McDonald Institute was also awarded a Fellowship for three years from 1 October 2004. Fellows of the Institute have been engaged on a wide range of projects during the year. These include fieldwork in the Near East (Harriet Crawford in Kuwait, John MacGinnis in eastern Turkey, David and Joan Oates in Syria), in Ethiopia (Jacke Phillips) and in Sudan (Laurence Smith). Janine Bourriau has continued her study of Egyptian ceramics, Graeme Lawson his work on early musical instruments, and Anthony Snodgrass his preparation of the Boeotia fieldwork monograph. In February Robert Dewar gave a seminar on his ongoing work on rainfall and agriculture in the western Pacific. Nathan Schlanger continues to play a key role in the EU-funded Archives of European Archaeology (AREA) project. Of our new Fellows, Caroline Malone is conducting research on British and Central Mediterranean prehistoric sites, Anna Muthesius is studying early silks from Sinai, and Kate Spence is working on architecture and symbolism in ancient Egypt.

# Illicit Antiquities

## PUBLICATIONS

### Neil Brodie

- 2003 Stolen history: looting and illicit trade. *Museum International* 219/220, 10–22.
- 2004 Export deregulation and the illicit trade in archaeological material, in *Legal Perspectives on Cultural Resources*, eds. J. Richman & M. Forsyth. Walnut Creek (CA): AltaMira, 85–99.
- 2004 (ed. with C. Hills). *Material Engagements: Studies in Honour of Colin Renfrew*. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research.
- 2004 (with C. Hills). Introduction, in *Material Engagements: Studies in Honour of Colin Renfrew*, eds. N.J. Brodie & C. Hills. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research, v–xi.

### Neil Brodie & Jenny Doole

- 2003 *Culture Without Context* Autumn 2003.
- 2004 *Culture Without Context* Spring 2003.
- 2004 The Asian art affair: US art museum collections of Asian art and archaeology, in *Material Engagements: Studies in Honour of Colin Renfrew*, eds. N.J. Brodie & C. Hills. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research, 75–100.

### Morag Kersel

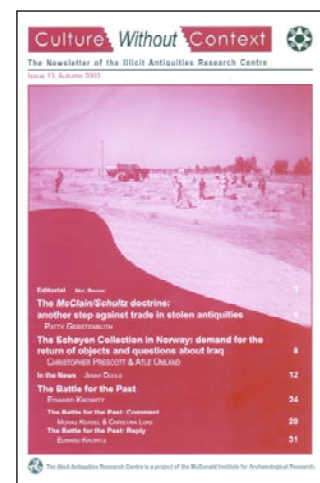
- 2004 Buying the past: managing the trade in antiquities. Fellowship report 2003–2004. *ASOR Newsletter* 54/3.
- 2004 Archaeology's well kept secret: the managed trade in antiquities, in *SOMA 2003: Symposium on Mediterranean Archaeology: Proceedings of the Seventh Annual Meeting of Postgraduate Researchers*, in eds. C. Briault, J. Green & A. Kaldelis. (British Archaeological Reports International Series). Oxford: BAR.

The year was another busy one for the Illicit Antiquities Research Centre (IARC). In January 2004, Neil Brodie was an invited panellist at the plenary session of the 105th Annual Meeting of the Archaeological Institute of America, San Francisco, USA. He was also an invited speaker at the following conferences: annual meeting of the American Bar Association, Brussels, October 2003; 'Maintaining Purpose: Creating and Preserving Art and Culture in the 21st Century', New York University, USA, June 2004; 'A Future for our Past', Istanbul Bilgi University, June 2004; and attended 'Not for Sale', the British Council, Geneva, Switzerland. He also lectured to undergraduate students at Bournemouth University. Jenny Doole delivered invited lectures at Leicester University, Department of Museum Studies, October 2003; Trinity College, Dublin, including workshop and seminar sessions, October 2003; Scotland Yard, London, Art and Antiquities Course, January 2004; Madingley Hall, Archaeology, Politics and Ethics course, June 2004; and for the US Schools Abroad in August 2004.

The travelling display *Stealing History* was exhibited at museums and institutions in Liverpool, London and Cambridge.

The IARC again offered a module in the Department of Archaeology's MPhil course on Archaeological Heritage and Museums.

As part of the IARC's broader remit to discourage looting by promoting public involvement in archaeology, in December 2003 Neil Brodie spent a week completing a comprehensive survey of the Bronze Age site of Phylakopi on the island of Melos, Greece, in advance of a conservation and presentation project to be carried out by the Greek Archaeological Service. In April 2004 he carried out, with Joseph Severn of the Museum of London Archaeological Service, a global positioning system survey of





*European Association of Archaeology's Archaeological Heritage Prize 2004 presented to the IARC in Lyon.*

the badly looted Roman and Nabataean cemetery of Qazone, in Jordan. Back to Greece in June he co-directed, with Michael Boyd of the British School at Athens, a geophysical survey at the Bronze Age site of Mycenae prospecting for Bronze Age pottery kilns. During the summer

Jenny Doole did fieldwork on the Kouphovouno excavations, Greece. She also organized and taught a weekend residential course on Minoans and Mycenaeans at Madingley Hall.

The Centre's current PhD students, Morag Kersel, Gordon Lobay and Claudia Mascino-Murphy continued to make progress towards completing their dissertations on various aspects of illicit antiquities in Palestine and Italy and were actively involved in the life of the McDonald Institute.

Neil Brodie and Jenny Doole took time out in the Spring to help organize a colloquium on the prehistory of the Greek Cycladic Islands. 'Οριζων: a Colloquium on the Prehistory of the Cyclades', as reported earlier (see p. 7), was held over the weekend of 25–28 March and attended by nearly 100 delegates from Greece, the United Kingdom and the United States.

The year ended on a high note when the IARC was awarded the European Association of Archaeologists' Archaeological Heritage Prize 2004 at the EAA tenth annual meeting in Lyon, France.

#### **European Association Statement of Award**

*The Illicit Antiquities Research Centre (IARC) at the McDonald Institute, the University of Cambridge, has been awarded the European Archaeological Heritage Prize for 2004.*

*The award recognizes the Institute's 'internationally unique' contribution to European and world heritage protection.*

*Instituted by the European Association of Archaeologists in 1999, the European Archaeological Heritage Prize is awarded annually for an 'outstanding contribution to the protection and presentation of the European archaeological heritage'.*

*The IARC was launched in 1997 in response to increasing international concerns about illicit excavations and trade in antiquities.*

*Although a small team, the IARC conducts a wide range of activities, including campaigns, such as the exhibition and publication Stealing History. It has hosted meetings where archaeologists, police, government ministers and lawyers from all over the world meet. From one of these meetings in 1999 a Cambridge Resolution was passed to encourage effective national legislation, and a new International Standing Committee on Traffic in Illicit Antiquities was founded.*

*The IARC has achieved a major change of attitude among museums and politicians, highlighted by the UK's ratification after 30 years of the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property.*

#### **PUBLICATIONS**

##### **Morag Kersel (cont.)**

2004 Playing fair, or, who is losing their marbles?, in *Marketing Heritage: Archaeology and the Consumption of the Past*, eds. Y. Rowan & U. Baram. Walnut Creek (CA): AltaMira Press.

2003 (with C. Luke). The battle for the past: comment. *Culture Without Context* Autumn 2003, 28–31.

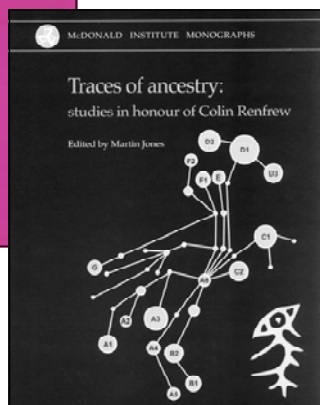
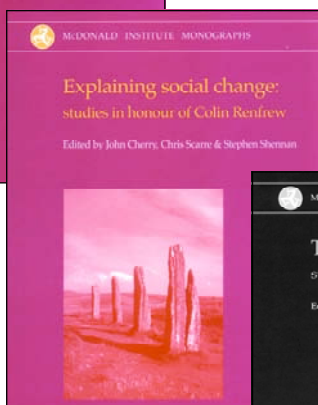
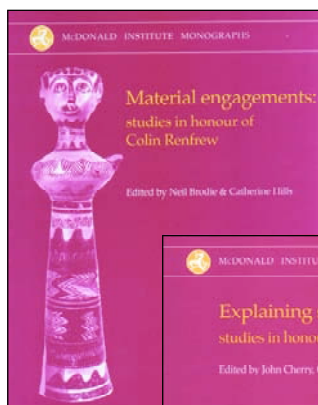
# Publications Office

The Publications Office continues to have an increasingly busy schedule. The highlight in 2004 was the production and presentation of three Festschrifts in honour of Professor Renfrew's retirement. The publications team extends its gratitude to all the editors and contributors who managed to submit their papers within the tight deadline and to keep the whole operation a secret. Thank you also to all the contributors who came to the launch party on 2 July making it a great event and a fitting tribute to the Institute's retiring Director (see p. 3 for more on the volumes and the retirement party). Mention must be made of the immense efforts of our printer, Short Run Press, who coped admirably with printing the three volumes, including one in full colour, in a very short time period to such a high standard.

Another great achievement was the publication in January 2004 the Stage 3 Project's monograph *Neanderthals and Modern Humans in the European Landscape During the Last Glaciation* edited by Professor Tjeerd van Andel. It sparked a huge media interest and was so successful that it sold out within eight months and has already been reprinted. It is the Publication Office's most rapidly-selling volume to date.

Publications nearing completion include two volumes arising out of a conference held at the McDonald Institute on the subject of materiality and contemporary art and its relevance for archaeology. The first of these, *Substance, Memory, Display: Archaeology and Art* edited by Colin Renfrew, Chris Gosden and Elizabeth DeMarrais is to be published in full colour and includes contributions from artists such as Antony Gormley and Simon Callery. It stems from the idea that 'the practices of the contemporary artist, involving fresh approaches to the uses of materials and to the notion of display, may be instructive to the archaeologist who strives to understand such practices in much earlier times'.

Two other volumes are in the final stages of production: the long-awaited Barnhouse excavation report, *Dwelling Among the Monuments* and the fourth volume of excavations at Çatalhöyük entitled *Inhabiting Çatalhöyük: Reports from the 1995–99 Seasons*.



A review of the workload of the Institute's Production Editor, Dora Kemp, was carried out and presented to the Managing Committee with a view to creating a realistic expectation of a future publication schedule and acceptance policy. It showed that to date there are 21 monographs accepted for publication, 10 of which are currently in hand. This is a massive undertaking for the Institute's small publication operation and at the current rate of production this work will extend into the year 2008.

The *Cambridge Archaeological Journal* continues to thrive and gain in reputation. Articles this year ranged in subject from shamanism and rock art to numerical notation.

The Publication Office also produced two issues of *Culture Without Context* (see p. 18) for the Illicit Antiquities Research Centre.

*Festschrifts in honour of Professor Renfrew which were presented to him at his retirement party on 2 July 2004.*

## CURRENT PUBLICATIONS

### McDonald Institute Monograph Series

- Modelling the Early Human Mind*, edited by PAUL MELLARS & KATHLEEN GIBSON  
£30/US\$50 plus p&p; ISBN 0-9519420-1-8 hardback, x+229 pp., 38 ills., 20 tables (currently out of print)
- Klithi: Palaeolithic Settlement and Quaternary Landscapes in Northwest Greece*, edited by GEOFF BAILEY  
£24.95/US\$39.98 plus p&p; ISBN 0-9519420-2-6 hardback, 2 vols.; vol. 1 - xx+316 pp., 187 ills., 121 tables; vol. 2 - xvi+380 pp., 231 ills., 64 tables
- On the Surface: Çatalhöyük 1993–95*, edited by IAN HODDER  
£40/US\$70 plus p&p; ISBN 0-9519420-3-4 hardback, xvi+366 pp., 208 ills., 63 tables
- Star Carr in Context: New Archaeological and Palaeoecological Investigations at the Early Mesolithic Site of Star Carr, North Yorkshire*, by PAUL MELLARS & PETRA DARK  
£40/US\$70 plus p&p; ISBN 0-9519420-4-2 hardback, xiv+250 pp., 147 ills., 23 tables
- Excavations at Tell Brak, vol. 1: The Mitanni and Old Babylonian Periods*, by DAVID OATES, JOAN OATES & HELEN McDONALD  
£45/US\$80 plus p&p; ISBN 0-9519420-5-0 hardback, xxii+296 pp., 239 ills., 14 tables
- Cognition and Material Culture: the Archaeology of Symbolic Storage*, edited by COLIN RENFREW & CHRIS SCARRE  
£40/US\$70 plus p&p; ISBN 0-9519420-6-9 hardback, xii+188 pp., 55 ills., 5 tables (currently out of print)
- Late Prehistoric Exploitation of the Eurasian Steppe*, by MARSHA LEVINE, YURI RASSAMAKIN, ALEXSANDR KISLENKO & NATALIYA TARTARINTSEVA  
£40/US\$70 plus p&p; ISBN 1-902937-03-1 hardback, viii+216 pp., 132 ills., 23 tables
- Towards Reflexive Method in Archaeology: the Example at Çatalhöyük*, by MEMBERS OF THE ÇATALHÖYÜK TEAMS, edited by IAN HODDER  
£25/US\$45 plus p&p; ISBN 1-902937-02-3 hardback, xvi+238 pp., 71 ills., 10 tables
- Archaeogenetics: DNA and the Population Prehistory of Europe*, edited by COLIN RENFREW & KATIE BOYLE  
£38/US\$60 plus p&p; ISBN 1-902937-08-2 hardback, xxiv+342 pp., 103 ills. (reprinted in 2002)
- Neolithic Orkney in its European Context*, edited by ANNA RITCHIE  
£45/US\$70 plus p&p; ISBN 1-902937-04-X hardback, xiv+342 pp., 193 ills., 12 tables
- Hunter-gatherer Landscape Archaeology: the Southern Hebrides Mesolithic Project 1988–98*, edited by STEVEN MITHEN  
£88/US\$150 plus p&p; ISBN 1-902937-12-0 hardback, 2 vols.; vol. 1 - xviii+345 pp., 293 ills., 177 tables; vol. 2 - xiv+305 pp., 273 ills., 65 tables
- Trade in Illicit Antiquities: the Destruction of the World's Archaeological Heritage*, edited by NEIL BRODIE, JENNY DOOLE & COLIN RENFREW  
£25/US\$45 plus p&p; ISBN 1-902937-17-1 hardback, xii+172 pp., 73 ills., 11 tables (reprinted in 2002)
- Excavations at Tell Brak, vol. 2: Nagar in the Third Millennium BC*, by DAVID OATES, JOAN OATES & HELEN McDONALD  
£95/US\$150 plus p&p; ISBN 0-9519420-9-3 hardback, xxxii+643 pp., 493 ills., 60 tables
- Consuming Passions and Patterns of Consumption*, edited by PRESTON MIRACLE & NICKY MILNER  
£20/US\$35 plus p&p; ISBN 0-9519420-8-5 hardback, vi+136 pp., 48 ills., 16 tables
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- Explaining Social Change: Studies in Honour of Colin Renfrew*, edited by JOHN CHERRY, CHRIS SCARRE & STEPHEN SHENNAN  
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- Material Engagements: Studies in Honour of Colin Renfrew*, edited by NEIL BRODIE & CATHERINE HILLS  
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- Traces of Ancestry: Studies in Honour of Colin Renfrew*, edited by MARTIN JONES  
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# Laboratories

## *Glyn Daniel Molecular Genetics Laboratory*

The year 2004 marks a significant expansion of the scope of research of the Molecular Genetics Laboratory. Its established research in human prehistory was acknowledged by an invitation to lecture at the Royal Society in May 2003, in the wake of which Peter Forster published an article 'Ice Ages and the mitochondrial DNA chronology of human dispersals: a review' in the Society's Proceedings (Forster 2004). This article summarized and contextualized the work of the laboratory between 1995 and 2003, on the initial settlement of each continent. This dated the appearance of modern *Homo sapiens* in Africa to about 150,000 years ago, dated their delayed exodus from Africa to approximately 60,000 years ago, and estimated their arrival in Australia, East Asia, Europe and America at certain times between 50,000 and 20,000 years ago. Since publication, recent archaeological fieldwork has supported the proposed genetic migration routes and chronology. One such recent discovery is that of human habitation in the northern latitudes of Asia approximately 30,000 years ago (Yana River). Another example is the redating of Lake Uchihi in Kamchatka which suggests an earlier entry into the Americas. Most importantly, the re-dating of Lake Mungo (South Australia) to 46,000–50,000 years now conforms to the post-African exodus date of 60,000 years as does the new dating of Niah Cave (Borneo) provided by Graeme Barker's team.

In addition to this work, laboratory researchers are now pioneering approaches in four emerging fields: the management of horses in the past as revealed by ancient DNA (Mim Bower), the statistical reconstruction of ancient language evolution (Peter Forster), the genetics of the spread of agriculture (Diane Lister), and population modelling to improve genetic dating and to arrive at prehistoric founder population sizes (Shuichi Matsumura).

### *Modelling prehistoric populations*

Accumulation of molecular genetic data has enabled geneticists to reveal the prehistory of human populations, but understanding of the demographic processes involved is not keeping up with the genetic data. What is urgently needed at this stage is to find efficient and appropriate ways to extract information on the past demography from molecular data. One of the most promis-

## PUBLICATIONS

### Peter Forster

- 2003 (with A. Toth). Toward a phylogenetic chronology of ancient Gaulish, Celtic, and Indo-European. *Proceedings of the National Academy of Sciences of the USA* 100, 9079–84.
- 2004 (with V. Romano, F. Calì, A. Röhl & M. Hurles). MtDNA markers for Celtic and Germanic language areas in the British Isles, in *Traces of Ancestry: Studies in Honour of Colin Renfrew*, ed. M. Jones. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research, 99–111.
- 2004 Ice Ages and the mitochondrial DNA chronology of human dispersals: a review. *Philosophical Transactions of the Royal Society of London B* 359, 255–64.
- 2004 (with B. McEvoy, M. Richards & D.G. Bradley). The *longue durée* of genetic ancestry: multiple genetic marker systems and Celtic origins on the Atlantic façade of Europe. *American Journal of Human Genetics* 75, 693–702.

## PRESENTATIONS (SELECTION)

### Peter Forster

- 2004 Colonisation of the Americas. Archaeology and Genetics: towards integrated archaeogenetics. Held in Seix, France 2004 June 2–5. European Science Foundation.
- 2004 Median-joining network analysis of Germanic languages. Phylogenetic methods and the prehistory of languages. Held in Cambridge 2004 July 9–12. McDonald Institute, University of Cambridge.

### Shuichi Matsumura

- 2004 Genetic Dating Methods: Some Simulation Results. Archaeology and Genetics: Towards Integrated Archaeogenetics. Held in Seix, France 2004 June 2–5. European Science Foundation.

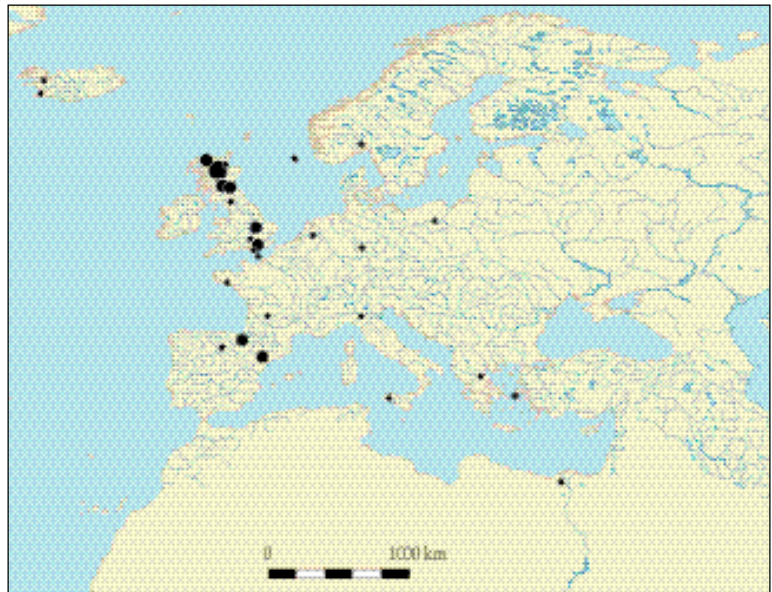
## PRESENTATIONS (SELECTION)

### Mim Bower

2004 Ancient DNA: Useful Tool, or Just Another Band-wagon Rattling By? Paper presented to the Departments of Archaeology and Palaeoecology, Queen's University Belfast.

### Mim Bower & Diane Lister

2004 (with M. Jones). The Domestication of Europe Consortium: the Cambridge Partner. Paper presented at the first meeting of Consortium advisors, University of Manchester.



*Female ancestry of the Irish. The circles locate the closest mtDNA relatives of each Irish individual in a sample of 300 Irish. Note the genetic affinities between Ireland and western Europe (especially Britain), and the lack of affinities between Ireland and the central European Hallstatt/ La Tène area.*

ing tools is computer simulation, which explicitly incorporates various demographic processes caused by, for instance, climate change, prehistoric 'migrations', or different settlement and marriage patterns in the prehistoric societies involved. Led by Dr Matsumura, the laboratory team are running a range of simulations and comparing these with genetic and archaeological evidence to assess closeness of fit. This project is funded by the Alfred P. Sloan Foundation.

One of the most serious points on which many geneticists, statisticians, and archaeologists continue to debate is dating from molecular data. It is now widely known that estimates tend to come with wide confidence limits, but the degree of the errors has rarely been precisely quantified. Computer simulations with more realistic models that include complex fluctuations of population size and subdivided populations are important in this respect. The laboratory is trying to test the validity and limits of commonly used measures in genetic dating by a wide range of simulations. Preliminary results have already been presented at the European Science Foundation workshop in June 2004 at Seix, France.

### *Evolution of languages*

The McDonald Institute, together with colleagues in Dublin and elsewhere, are currently laying genetic and linguistic groundwork to reconstruct the prehistory and early history of the British Isles. The pieces of the British puzzle which have been unearthed so far do not easily fit into any traditional picture. As early as 1995 the putative source areas for the ancestors of the English in north Germany and Jutland had been investigated genetically. This revealed a genetic marker potentially distinguishing 'Saxon'-speaking areas in northwest Germany from surrounding areas. Interestingly, this marker is largely absent in the British Isles (Forster *et al.* 2004). On the other hand, there is emerging evidence that Celtic-speaking and Germanic-speaking areas within the British Isles are genetically distinct (Forster *et al.* 2004; McEvoy *et al.* 2004), and have been so possibly for thousands of years. Finally, the recent study on the extinct and fragmentary Celtic language of Gaul (Forster & Toth 2003) may indicate a deep split between Continental Celtic and Insular Celtic.

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Fitting together these pieces of the puzzle into an interdisciplinary reconstruction of British prehistory requires further developments in the statistical analysis of language data. To this end, Colin Renfrew, Peter Forster and James Clackson hosted an international conference in July 2004 to bring together leading experts on linguistic phylogenetic reconstruction, as well as some of their critics (see p. 9). One conclusion of the conference was that network models may be more appropriate than tree models to reconstruct language evolution, opening a new range of applications for the network methods co-developed by our team over the years.

### *Spread of agriculture into Europe*

The NERC-funded consortium grant 'The Domestication of Europe' introduces another novel area of study: the archaeogenetics of the spread of cereals (emmer wheat and barley) as food crops through Europe during the Neolithic. Four groups make up the consortium: the School of Biomolecular Sciences, UMIST, the Departments of Archaeology, University of Cambridge and University of Sheffield, and the National Institute of Agricultural Botany, Cambridge.



*Alan Clapham reaping an experimental wheat crop. The Domestication of Europe project explores the spread of agriculture in Europe by genotyping modern landraces of wheat and barley, along with examination of ancient DNA in historic and archaeological specimens. The McDonald Institute team is analyzing thirteenth- to early twentieth-century specimens found in herbaria, museums and historic buildings.*

The project determines the extent to which phylogeographic analysis of modern landraces of barley and wheat, combined with examination of ancient DNA in historic and archaeological specimens, can reveal genetic information pertaining to the spread and establishment of cereal cultivation from its points of origin in Southwest Asia into and through Europe. The objective will be addressed primarily by identification of DNA polymorphisms in extant landraces of barley and tetraploid wheat. Time depth will be given to this spatial analysis by genotyping ancient DNA in historic and archaeological specimens. Our remit in Cambridge is to collect historical samples of tetraploid wheat and barley, dating from the thirteenth to early twentieth centuries, from herbaria, museums and historic buildings, including daub and smoke-blackened-thatch. Techniques suitable for the extraction of ancient DNA from these materials are being developed and a specified set of DNA markers are being explored in collaboration with Dr Chris Howe (Department of Biochemistry). The Cambridge team will continue to test methods for analyzing DNA from pollen in sediments to expand the biogeographic map into areas where archaeological sites are less common.

### *The biogeography of horse maternal lineages and the domestication and management of horses*

This exciting new project, led by Dr Mim Bower, aims to gain unprecedented world coverage of extant horse lineages so that their geographic spread may be mapped and progress made towards increasing the understanding of



where, when and how many times horses were domesticated in the past. This research builds on collaborative work with the University of Bonn with whom an analysis was published in 2002 tentatively concluding that pre-historic mares were domesticated from independent areas, not in one local event. However, the geographic spread of samples was, in general, Eurocentric and the Balkans, Eurasian steppe and Caucasus regions were under-represented. These latter areas are important when considering the domestication and further management of horse populations in the past.



*Sampling expedition in the Caucasus Mountains. In July 2004, Elizabeth Barrett, Lisa Quilter and Mim Bower sampled horse breeds in archaeologically relevant areas such as the Samegrelo District of Northwestern Georgia. (Photograph courtesy of Nicholas Armour, Nokalakevi Archaeological Expedition.)*

The project has accordingly been sampling Central Eurasia with the help of Mrs Elizabeth Barrett and Lady Elise Quilter, experts in horse breed-lines, and many other colleagues. In the year 2003–2004, sampling expeditions were carried out in Kazakhstan, Kyrgyzstan, Romania and Georgia.

Other work has focused on the biogeography and mitochondrial lineage of Iron Age and Roman horses from Earith, Cambridgeshire and past horse-breeding practices in East Anglia.

The multi-period site at Earith, excavated by the Cambridge Archaeological Unit, has yielded a large number of horse skeletons, leading to the suggestion that the site had originally been engaged in horse breeding. Out of this arose an interesting question, as to whether the Iron Age horses differed from the Roman ones, i.e. did the Romans import breeding mares, or was there genetic input from local horse lineages?

This question can be answered by comparing the mtDNA haplotypes of the individuals studied with those in previously-published horse-lineage networks. To do this, ancient DNA from these well-preserved specimens has been analyzed. The work was carried out jointly with Chris Howe in the Department of Biochemistry, where the extraction and pre-PCR laboratory is housed, and in the McDonald Institute, where the PCR and post-PCR laboratory is housed. In initial ancient DNA results, three distinct European genotypes have already been identified.

#### **STAFF**

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

Dr Mim Bower  
Dr Peter Forster  
Dr Diane Lister  
Dr Shuichi Matsumura

##### **Students:**

Petya Blumbach  
Dr Lucy Forster  
Karin Haack  
Anne Holden

Tracey Pierre  
Felix Riede  
Matthieu Vizuete-Forster

## Charles McBurney Geoarchaeology Laboratory

This has been a year to celebrate!

In the tenth year of the laboratory's existence, extra space in the Quaternary Science Research Unit of the Department of Geography has made possible the purchase of a second Brot thin-sectioning grinder via SRIF 2 (HEFCE) funding. This now allows one machine to be dedicated to research projects and the second one to research students. There has also been an expansion in those researchers using the facility, especially from Geography and the Scott Polar Research Institute.

The laboratory also congratulates two of its former graduates, Gianna Ayala and Melissa Goodman-Elgar, who have both recently been awarded lectureships in geoarchaeology — Gianna at the University of Sheffield and Melissa at Washington State University in Pullman, USA. Both continue to be involved in joint research projects with the laboratory and its director, in Sicily and the western USA, respectively.

Finally, Julie Miller was promoted to Senior Research Technician and laboratory manager. This is a well-deserved promotion given Julie's essential involvement in so many geoarchaeological projects at a variety of levels. Moreover, the continuing success of the laboratory is in large measure down to Julie's expertise and determination to better the research facility.

### Research projects

The laboratory continues to have a very busy schedule of soil analytical contracts for researchers and units both here and abroad, with sample assemblages for example from South Uist, Iceland, Norway, Yemen, Spain, India and the Phillipines. In addition, in this past year the laboratory has seen expansion of research project work in Sicily, Hungary, Montana and New Mexico, some of which is highlighted below.

### Sicily

A number of prehistoric sites currently being excavated in western Sicily are exposing domestic structures that are being investigated using micromorphological and geochemical resting techniques. Excavations under the direction of Christian Muhlenbock and Professor Kristian Kristiansen at the Iron Age

## PUBLICATIONS

### Charles French

- 2003 (with G. Ayala). Holocene landscape dynamics in a Sicilian upland river valley, in *The Alluvial Archaeology of North-west Europe and the Mediterranean*, eds. A. Howard, D. Passmore & M. Macklin. Rotterdam: Balkema, 229–35.
- 2003 Contribution to, A Middle Palaeolithic site at Lynford Quarry, Mundford, Norfolk: interim statement, by W. Boismier, *et al. Proceedings of the Prehistoric Society* 69, 315–24.
- 2003 (with J. Heathcote). Holocene landscape change in the lower Great Ouse valley, Cambridgeshire, England, in *The Alluvial Archaeology of North-west Europe and the Mediterranean*, eds. A. Howard, D. Passmore & M. Macklin. Rotterdam: Balkema, 81–92.
- 2003 (with H. Lewis, M. Allen, R. Scaife & M. Green). Archaeological and palaeoenvironmental investigations of the upper Allen valley, Cranborne Chase, Dorset. *Proceedings of the Prehistoric Society* 69, 201–34.
- 2004 Hydrological monitoring of an alluviated landscape in the lower Great Ouse valley at Over, Cambridgeshire: results of the gravel extraction phase. *Environmental Archaeology* 9(1), 1–13.
- 2004 Literature review and research priorities, in *Mitigation of Construction Impact on Archaeological Remains*, eds. M. Davis, K. Gdaniec, M. Brice & L. White. London: MOLAS for English Heritage, 30–33.
- 2004 Soil micromorphology, in *Hot Rocks in the Norfolk Fens: the Excavation of a Burnt Flint Mound at Northwold, 1994–5*, by A. Crowson. (Occasional Paper 16.) Gressenhall: East Anglian Archaeology, 26–7.
- 2004 Evaluation survey and excavation at Wandlebury Ringwork, Cambridgeshire, 1994–7.

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### Charles French (*cont.*)

*Proceedings of the Cambridge Antiquarian Society* 93, 15–66.

### Andrea Balbo

2004 (with D. Komšo & P. Miracle).  
Geoarchaeological survey of Polje Čepić and part of its hydrological basin (Istria Peninsula, Croatia): report on the first field season.  
*Histria Archaeologica* 33.

### Karen Milek

2004 Adalstræti, Reykjavik, 2001:  
Geoarchaeological Report on the Deposits within the House and the Soils Immediately Pre- and Post-dating its Occupation. Report submitted to Dr O. Vésteinsson, Fornleifastofnun Íslands, Iceland.

2004 Gulli 8/1 Tønsberg Commune, Vestfold, Norway:  
Micromorphological Analysis of Iron Age Agricultural Soils. Report 1: Assessment of Archaeological Potential based on Field Data. Report submitted to Lars Erik Gjerpe, University Museum of Cultural Heritage, University of Oslo.

### Karen Milek & Charles French

2004 Kaupang: the Geoarchaeology of the Settlement Area. Report submitted to Dr Dagfinn Skre, Department of Archaeology, History of Art, and Conservation, University of Oslo.

citadel site of Monte Polizzo, just northwest of Salemi (part of the European Union-sponsored networking project entitled 'The Emergence of Communities in Bronze Age Europe') have now exposed several rooms of structures, with walls upstanding over two metres and thin *in situ* floor deposits. Nearby and to the southwest of Salemi, at the Bronze Age site of Mokarta, excavations by Nicola Bruno for the Sicilian superintendency (Professor Sebastiano Tusa) have revealed a remarkable number of well-preserved, stone-walled, circular structures with ancillary structures and enclosure walls and intact floors and hearths (below). Here the presence of collapsed walling and roof materials on hard-packed mud floors ensures excellent preservation for the analysis of the use of space in these structures. An extensive and systematic programme of sampling has now been undertaken at this site by Dr Gianna Ayala (University of Sheffield) and forms the basis of continuing collaborative studies.

Finally, an assessment was made (with Gianna Ayala) of a Mesolithic/Neolithic cave site of Grotta dei Cavalli, just west of San Vito Lo Capo on the coast of northwestern Sicily. Here, sample excavations by Professor Tusa's team have revealed the corner of an early prehistoric structure built out of limestone slabs set on edge, with associated hearths outside and inside the structure, all associated with a microlithic industry first, followed by an obsidian blade flint industry. At least another five metres of stratigraphy lie beneath these Mesolithic/Neolithic levels, and there is cave art in the very back of the cave. This is the second of only two such cave sites to be discovered in Sicily, and is of considerable importance.

### Hungary

As part of the European Union-sponsored project 'The Emergence of Communities in Bronze Age Europe', Gabriella Kovacs has continued to sample the emerging Bronze Age structures at the large Bronze Age tell site at Százhalombatta. Here, hard-packed silty clay floors with numerous associated hearths are displaying evidence of successive 'clean' and 'dirty' phases of use. In addition, Gabriella Kovacs and the laboratory director have undertaken initial reconnaissance and an augering

*The stone-walled round house structures with intact floor surfaces and hearths at Mokarta, near Salemi, Sicily.*



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survey of the associated lower Benta valley, c. 25 km south of Budapest, for Holocene palaeoenvironmental remains. This study aims to complement Professor Tim Earle's investigations of the smaller, associated Bronze Age tell sites of the same valley.

There appears to have been a well-developed meandering river system within a wide floodplain in the lower Benta valley between the fourth/third millennium and later second millennium BC. Dr Pal Sümegi and Elvira Bodor first observed and dated this in a sequence from Lake Biatorbágy, and through palynological analysis have suggested that the floodplain margin supported a mixed deciduous woodland (c. 4900–3500 Cal BC) with a larger open steppe zone beyond on the valley slopes, with little evidence of arable cultivation. But this palynological data does not seem to square with the archaeological evidence for the development of many smaller Bronze Age tell sites in the valley. Indeed, the zones of coarser silt and fine sandy deposits, as well as the loessic soil, observed in the upper parts of our auger profiles in the valley bottom would suggest greater disturbance of this landscape after the earlier Bronze Age, enabling more eroded soil to be moved downslope and redeposited in the floodplain. It is hard to envisage this occurring without some impact of arable agriculture in this small valley system. Furthermore the absence of any



*The sphagnum bog in the Copper Creek floodplain, northwestern Montana.*



*Melissa Goodman using a Russian corer to obtain pollen cores from the sphagnum bog in Copper Creek, Montana, and Richard Periman using a tree-ring corer to age the modern tree stand on the bog.*

well-developed brown earth buried soils on the valley, except for those observed beneath the Százhalombatta tell itself, suggests at first glance that woodland was not at all well-developed on the valley slopes in pre-Bronze Age times. This could be for two reasons: either poor woodland development in the earlier-middle Holocene, or interrupted development of brown earth soil formation owing to Neolithic–Copper Age exploitation of valley slopes for arable farming and associated activities. The latter explanation would better account for the thin, single horizon, inorganic, homogeneous soils observed in the Benta valley to date, as well as for the presence of considerable quantities of redeposited loessic-like silts found in the cut-off meanders of the palaeochannel system. Evidently this suggestion does not agree with the interpretation placed on the existing pollen data, and raises a major question which will need to be addressed by future stratigraphic, palynological and micromorphological investigations in the lower Benta valley.

#### *Montana and New Mexico*

The 2004 field season was twin-pronged. First, there was a third season of geoprospection and sampling in the Rio Puerco drainage, as well as new assessment of the Gallinas Spring site in the Cibola National Forest of southwestern New Mexico near Magdalena. At the latter site, thick agricultural and colluvial soils were found associated with a massive 500 room pueblo

(investigated by Dr Jo Tainter), with forest-fire scar signals at the base of the erosion sequence. In the more extensively investigated Rio Puerco area, recent radiocarbon dates and pollen analysis have confirmed the Archaic age (1500–2500 years ago) of the occurrence of repeated flash fires in open scrub and meadow grassland, with successive periods of stabilization of the floodplain margins, the development of incipient soils, and some evident management of the floodplain through the digging of ditch systems.

Second, there was initial reconnaissance for waterlogged deposits around Missoula in western Montana or the eastern foothills of the Rocky Mountains. This has involved prospection for relict palaeochannel systems and basin mires. Appropriate deposits were soon identified in the Copper Creek/Mouse Lake/Kaiser Lake area (southwest of Phillisburg) (see photos on p. 28), as well as other areas, and they were augered and sampled for pollen assessment. Initial impressions suggest that these sphagnum basin bogs began to form after a phase of incision and the accumulation of successive inwashings of fire-derived deposits, perhaps suggestive of the first human disruptions of this foothill mountainous landscape in the mid-late Holocene.

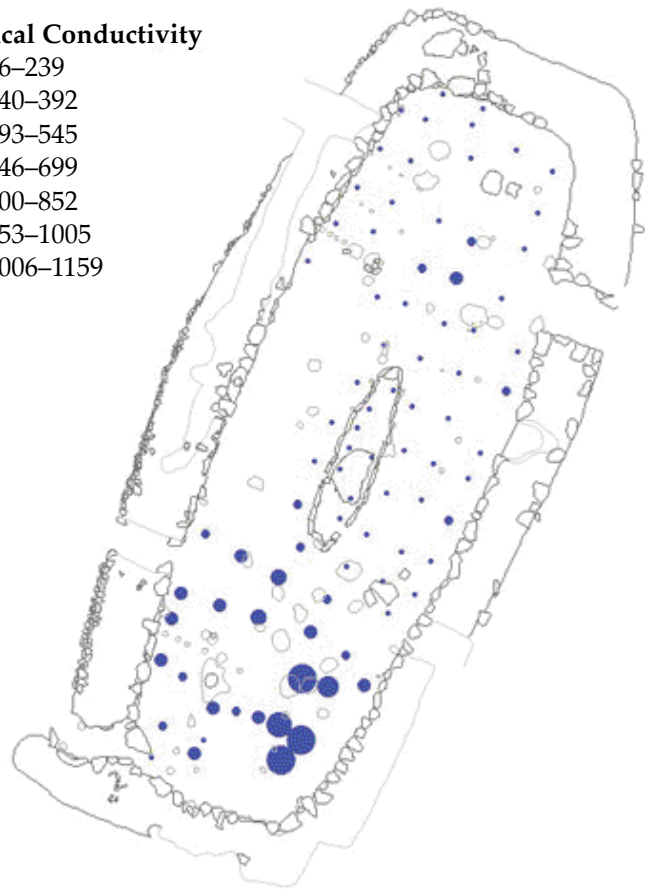
#### *Some highlights from researchers in the laboratory*

**K**aren Milek has been completing her PhD research, which uses micromorphology and bulk sediment analyses to investigate how space was used in Viking Age Scandinavian houses in the North Atlantic region. She has also continued her collaboration on a number of Viking Age projects, completing geoarchaeological reports for the sites of Adalstræti (Reykjavik, Iceland) and Kaupang (Norway, with Charles French), and publishing her geoarchaeological work at Bornish (South Uist, Outer Hebrides) and Quoygrew (Westray, Orkney). She has also recently become involved with the Iron Age to Viking Age project at Gulli, Norway, which is run by the University Museum of Cultural Heritage, University of Oslo.

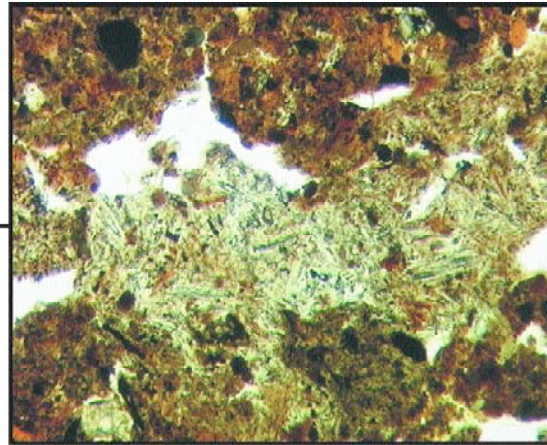
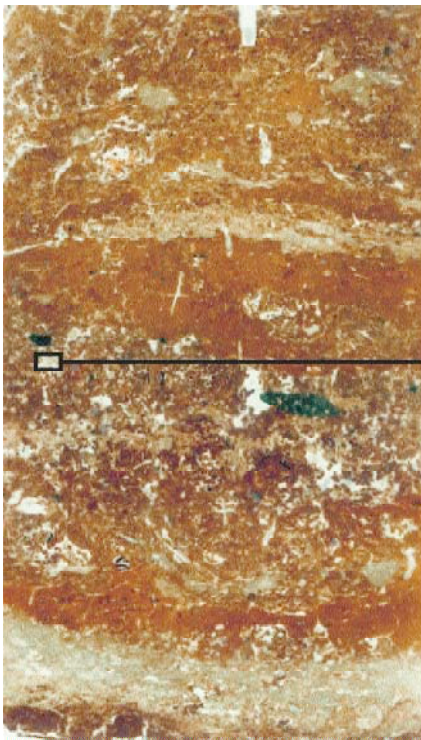
**A**ndrea Balbo started his PhD research in Istria, Croatia, in January 2004. He coordinated two geoarchaeological surveys of Polje Čepić, discovering several open-area prehistoric sites. He has also sampled soil profiles from the polje's slopes for bulk and micromorphological analyses. This summer, a 17.43 m-deep core in

#### **Electrical Conductivity**

- 86–239
- 240–392
- 393–545
- 546–699
- 700–852
- 853–1005
- 1006–1159



*Electrical conductivity ( $\mu\text{S}/\text{cm}$ ) of floor sediments in a tenth-century house at the site of Adalstræti, Reykjavik. The distribution shows a clear concentration of soluble salts in the southern corner of the house, which has been interpreted as a food-processing and storage area.*



*Thin section taken adjacent to the hearth of the Viking Age house at Adalstræti, Reykjavik. The micrograph shows that the deposit contained minute aggregates of herbivore dung composed of compacted phytoliths, the crumb-sized residues of dung cakes, that had probably been used as fuel.*

the palaeolacustrine sedimentary sequence of the polje was recovered in collaboration with the Department of Engineering, University of Rijeka. The study of palaeoenvironmental and archaeological data will lead to a new understanding of the relationship between prehistoric communities and their environment, especially regarding the use and relationships with freshwater resources.

**STAFF**

**Laboratory director:** Dr Charles French

**Senior research technician:** Julie Miller

**PhD students:**

Manuel Arroyo-Kalin	Karen Milek
Andrea Balbo	Miranda Semple
Ann-Maria Hart	Fraser Sturt
Gabriella Kovacs	Jung-Youn Woo

**MPhil student:**

Anne de Vareilles

**Affiliated researchers:**

Dr Nicole Boivin  
 Dr Helen Lewis (University of Oxford)  
 Anna Nelson (Scott Polar Research Institute)  
 Dr Laurence Smith



*The coring of Polje Čepić, Istria, Croatia.*

## Grahame Clark Zooarchaeology Laboratory

The past year (2003–2004) has been another productive one for the Zooarchaeology Laboratory. Dr Preston Miracle continued his analyses of Middle Palaeolithic to historic faunal assemblages from a number of sites in Croatia (e.g. Pupićina, Ovčja, Vela Spilja Lošinj, Novačka, Jačmica Caves, see p. 48) and India (rockshelters and cave sites in the Kurnool District, Andhra Pradesh Province). With the help of students and Pippa Payne, he has also embarked on an analysis of a site closer to Cambridge — Neolithic remains from Great Wilbraham.

Other researchers from the laboratory have examined zooarchaeological assemblages, whether in Cambridge or abroad, from many parts of the world, including Turkey (Stephanie Meece, Emma Jenkins), Russia (Krish Seetah), Malaysia (Ryan Rabett), and Britain (Krish Seetah). Congratulations to our recent PhDs for their gainful employment! — Dr Emma Jenkins (post-doc at UCL) and Dr Iain Morley (Cambridge Archaeological Unit). Maša Amatt (née Mlakar) has just submitted her PhD dissertation on Material Science perspectives on bone technology and is currently employed on a project studying the palaeopathology of horse husbandry (see p. 37).

An ongoing strength of the Clark Laboratory is teaching zooarchaeology to undergraduate students. Several excellent undergraduate dissertations and course projects were completed this past year by Rhiannon Mayon-White, Bryony Simmons, and Joanne Lennon. All of them have plans for graduate work in archaeology, and we hope to see them back in the Grahame Clark Laboratory in the future. It is also a particular pleasure to welcome new members to the laboratory in Michaelmas 2004, including Dr Phil Piper who is working with Dr Ryan Rabett on the Niah Cave faunal remains from Malaysia, Professor Tony Legge who joins us courtesy of the Leverhulme Trust, and our new research students — David Orton and Pippa Payne.

### STAFF

**Laboratory director:** Dr Preston Miracle

**Zooarchaeology and Chief technician:** Jessica Rippengal

#### Research students:

Neils Andreasen  
Maša Amatt  
Emma Jenkins  
Lisa Marlow  
Stephanie Meece  
Krish Seetah  
Jo Wilson

#### Associated researchers:

Dr Katie Boyle  
Dr Marsha Levine  
Dr Iain Morley  
Dr Ryan Rabett

#### Academic visits:

Dr Guy Bar-Oz (University of Haifa)  
Beata Kozdeba (University of Tübingen)

## PUBLICATIONS

### Preston Miracle

- 2003 (with A. Corrado & B. Hanks). The faunal remains, in *Wandlebury Ringwork, Cambridgeshire: Evaluation Survey and Excavation*, ed. C. French. (Cambridge Archaeological Unit Report 553.) Cambridge: CAU and Department of Archaeology, 41–8.
- 2004 Antelope procurement and hunting strategies at the Henderson Site, in *Life on the Periphery, Economic Change in Late Prehistoric Southeastern New Mexico*, ed. J.D. Speth. (Museum of Anthropology, Memoirs 37.) Ann Arbor (MI): University of Michigan, 148–214.

### Ryan Rabett

- 2004 (with G. Barker *et al.*). The Niah Caves Project: preliminary report on the fourth (2003) season. *Sarawak Museum Journal*.
- 2004 (with P. Piper). Bones alive! 50,000 years after the first camp-fire went cold, archaeology uncovers the story of hunting at the West Mouth, Niah Cave, Sarawak. *Sarawak Tribune*, 22nd March.

## George Pitt-Rivers Laboratory for Bioarchaeology

The George Pitt-Rivers Laboratory continues its research into the exploitation of plant resources from the Palaeolithic through to the historic periods in diverse regions of the world. Over the last academic year laboratory research on agricultural origins and spread continued in the woodland edge sites of Southeast Turkey and northern Iraq, visited and studied by Manon Savard. Research into the agriculture of later prehistoric and Classical Europe has spanned from Greece and Cyprus (Evi Margaritis), to Rome (Laura Motta), Poland (Hanna Zawadzka) and Britain (Rachel Ballantyne, Kate Roberts). Brigitta Kulcsarne-Berzsenyi is studying the Bronze Age agriculture from the Danube Valley in Hungary. The Danube corridor has long been known for its exceptional range of sites of all ages, going back to the Palaeolithic, a period for which archaeobotany remains poorly developed. This summer, Martin Jones joined with Tjeerd van Andel and Jiri Svoboda, to set in place a cross-disciplinary multinational study of the famous Moravian sites of the Gravettian period, including Dolní Vestonice. Their first aim is to use bio-data and sedimentary evidence to gain a greater understanding of site seasonality. In the longer term, they look forward to employing a range of bioarchaeological techniques to explore food-sharing around the 'conversational circle' characteristic of these Gravettian open-air sites.

In addition to this range of established Old World projects, especially in Europe (see above) and South Asia (Marco Madella), projects in the New World are growing. Scott Martin has submitted his doctoral dissertation on the spread of maize across the lower great lakes region of North America, employing ideas of 'enchainment' and exploring ways of making best research use of archaeobotanical data gathered in the context of cultural resource management (the laboratory welcomes to the group, Ellen Simmons, the local CRM archaeobotanist). Two additional projects have joined David Beresford Jones's continued study of the fast-disappearing drought tolerant *Prosopis* tree from coastal regions of Peru. Marco Madella's Argentinean research on the Santa Clara-Mar Chiquita Project is

*Manon Savard large-residue sorting at Ras et Bassit, Syria.*



## PUBLICATIONS

### Martin Jones

- 2004 (ed.) *Traces of Ancestry: Studies in Honour of Colin Renfrew*. (McDonald Institute Monographs.) Cambridge: McDonald Institute for Archaeological Research.
- 2004 Archaeology and the genetic revolution, in *A Companion to Archaeology*, ed. J. Bintliff. Oxford: Blackwell, 39–51.
- 2004 Archaeology and DNA: understanding the human past. *English Heritage Conservation Bulletin* 45, 41–3.
- 2004 Between Fertile Crescents: minor grain crops and agricultural origins, in *Traces of Ancestry*, 127–35.
- 2004 (with D. Fuller, R. Korisettar & P. Venkatasubbaiah). Early plant domestications in southern India: some preliminary archaeobotanical results. *Vegetation History and Archaeobotany* 13, 115–29

### Rachel Ballantyne

- 2004 Islands in wilderness: the changing medieval use of the East Anglian peat fens, England. *Environmental Archaeology* 9.2.

### Marco Madella

- 2003 Investigating agriculture and environment in South Asia: present and future contributions from opal phytoliths, in *Indus Ethnobiology: New Perspectives from the Field*, eds. S. Weber & W. Belcher. Lanham (MD): Lexington Books (Rowman & Littlefield Publishing Group), 199–249.
- 2004 (with A.L. Carnelli & J.-P. Theurillat). Phytolith typologies and frequencies in Sub-Alpine / Alpine plant species of the European Alps. *Review of Palaeobotany*



## PUBLICATIONS

### Marco Madella (cont.)

and *Palynology* 129, 39–65.

### Evi Margaritis

- 2003 (with E. Polaki, A. Mouratis, E. Klinaki, A. Kagiouli, A. Baxlas, T. Sirros & K. Kouriati). *Agroikes tis perioxis Filas-Irakleiou kai Leivithrwn, Makedonikou Olympou*, in *Arxaies agroikies se sigxro - nous dromous*. Athens: Greek Ministry of Culture 2003.
- 2004 *Georgikes praktikes katw apo to stereoskopio. H analisi twon fytikwn kataloipwn apo to Neolithiko Oikismo tis Stavroupolis. Ta arxaiobotanika kataloipa twon anaskafikwn peri - odwn 1999–2003*. [Plant Remains under the Stereomicroscope: the Study of the Archaeobotanical Material from the Neolithic Site of Stavroupoli. The 1999–2003 Seasons (in Greek with English abstract)].

### Manon Savard

- 2003 (with M. Nesbitt & R. Gale). Archaeobotanical evidence for early Neolithic diet and subsistence at M'lefaat (Iraq). *Paléorient* 29.1.
- 2003 (with P. Marinva). The charred archaeobotanical remains of Fontbrégoua (Var, France), in *Archaeological Institute of America 104th Annual Meeting, Abstracts, January 3rd 2003*. New Orleans (LA): AIA 6, 24–5.

investigating the human occupation of the pampas through a combined survey of the archaeology, pedology and geomorphology and uses phytoliths to explore the palaeoecology of the region. Claudia Grimaldi is examining plant remains from Dr Elizabeth Demarrais's pre-Inka sites in the Calchaqui Valley, Argentina. A new project has also started examining the cuisine of ancient Japan (Liliana Janik).

The laboratory has extended its interaction with the archaeogenetics laboratory, particularly through the success of the NERC-funded consortium project on the domestication of Europe, which brings Diane Lister and Sue Colledge, along with Mim Bower, and other colleagues from Sheffield, Manchester and the National Institute of Agricultural Botany in Cambridge, as collaborators (see p. 24). The laboratory has also embarked on a major project to study the origins of broomcorn millet. This has a puzzling archaeobotanical distribution, with very early sites in both Europe and in northern China. The laboratory has been conducting a pilot study, in collaboration with Beatrice Schlarb Ridley and Christopher Howe of the Department of Biochemistry, into genetic markers that could be used to track domestication and crop spread, and will be continuing that work with Harriet Hunt, who joins the laboratory in November.

Several laboratory members were involved in the very successful SAA session organized by Marco Madella and Manon Savard, the proceedings of which are soon to be published. During the year, the series of lunchtime talks has continued, this year given by: Eleni Asouti, David Beresford-Jones, Brigitta Berzsenyi, Mim Bower, Dorian Fuller, Martin Jones, Efraim Lev, Vasiliki Margari, and Peter Murphy.

Finally, laboratory members were among an impressive Cambridge contingent at the wedding of our own Evi Margaritis to Neils Andreasen, in Evi's ancestral home not far from Delphi. While our business was largely festive, we managed to schedule in some actualistic food-sharing experiments, and these brought us into repeated contact with the products of olive- and vine-processing whose prehistoric origins Evi has been so diligently investigating (see [www.art-photo.dk/GreekWedding/Party/16imm032.html](http://www.art-photo.dk/GreekWedding/Party/16imm032.html)).

## STAFF

**Laboratory director:** Professor Martin K. Jones

**Laboratory manager:** Dr Liliana Janik

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

**Affiliated researchers:** Alan J. Clapham, Claudia Grimaldi  
Kate Roberts, Ellen Simmons

## PhD students:

Rachel Ballantyne

David Beresford-Jones

Brigitta Kulcsarne-Berzsenyi

Evi Margaritis

Scott W.J. Martin

Laura Motta

Manon Savard

Hanna Zawadzka

# Projects

The McDonald Institute provides working space for a number of 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 2003–2004, the McDonald Institute also provided research space for the preparation of reports on field survey in Boeotia, 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 2004, grants totalling £119,898 were awarded to 19 projects, ranging widely in time and space from northern Russia to South India, and from the Palaeolithic to the Islamic period. Accounts of several of these projects are given here; others have been described in previous Annual Reports.



*Map showing locations of projects supported by the McDonald Institute for Archaeological Research.*

## Neolithic Long-Barrow Sites in Southern Britain

Lesley McFadyen began a two-year Research Fellowship at the McDonald Institute in February 2004. Her doctoral research focused on Neolithic long-barrow sites in southern Britain. In her thesis she argued that the features and material culture associated with the Mesolithic and early Neolithic at these sites had been disregarded or simply seen as the background to the subsequent construction of a Neolithic long barrow.

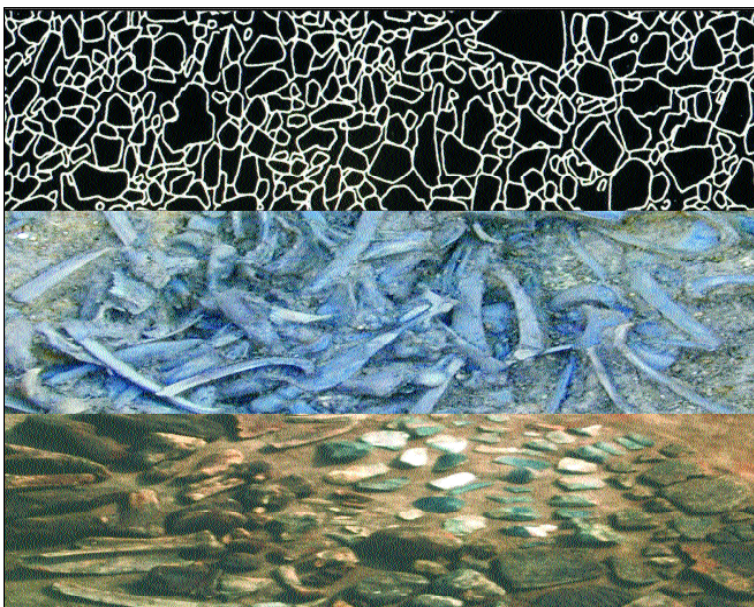
She drew attention to the histories that were excluded in such views, and challenged understandings that focused on the finished monuments.

### PUBLICATIONS

#### Lesley McFadyen

- 2004 (with Cambridge Women and Homelessness Group). *We Take Memories into our Spaces*.
- 2004 The landscapes of Fulbourn Field 126, in *Stories from the Landscape: Archaeologies of Inhabitation*, ed. A.M. Chadwick. (British Archaeological Reports International Series S1238.) Oxford: Archaeopress, 179–256.
- 2004 (with A.M. Chadwick). Architecture and buildings, in *Stories from the Landscape: Archaeologies of Inhabitation*, ed. A.M. Chadwick. (British Archaeological Reports International Series S1238.) Oxford: Archaeopress, 105.

Lesley is working on the ways in which spaces, rather than buildings, were actively being made during the late Mesolithic and early Neolithic of southern Britain, and is presently focusing on the Mesolithic of Wiltshire and Gloucestershire. The majority of this evidence takes the form of flint scatters. She argues that flint working, as a productive, corporeal activity, was a part of making space. Working flint created space for the transformation of further materials (processed wood, plants and animals), just as other activities (clearance, gathering, killing an animal, setting a hearth) created the space for flint working. She has written a synthesis of approaches to Mesolithic landscapes, incorporating this work, for a forthcoming Mesolithic textbook edited by Chantal Conneller and Graeme Warren entitled *Reconstructing the Mesolithic: Key Debates in Britain and Ireland*.



Images of different kinds of Neolithic space.

By examining the relationship between small productive activities and the broader landscape during the early Neolithic, she has extended her research beyond the focus of long-mound sites. Her aim is to break down differences that exist between data sets in order to consider how people made their worlds. The proposed outcome of this work will be a book entitled *Between Material Culture, Architecture and Landscape*.

## *Aboriginal Rock Art in Western Arnhem Land, North Australia*

Leading a team of Gwil Owen (Faculty photographer), Jamie Hampson (MPhil student), Sally Coleman (Rice University, Houston), and Ella McHenry (Charles Darwin University, Darwin), Christopher Chippindale made major steps in recording key sites in this zone of tropical northern Australia, with its magnificent and under-researched rock art.

At Anbangbang shelter (Nourlangie Rock) in Kakadu National Park, the team completed recording this, the most famous rock-art panel in Australia, and further elucidated its sequence of repeated layers accumulating through successive overpaintings. There may be as many as seven layers.



*False-colour manipulation in the digital image from faded polychrome painting at Anbangbang recovers features too worn to be visible.*

At Madjadbebe, on the Jabiluka mineral lease adjacent to the National Park, a good record of the rock art was made, which has been noticed but not recorded in detail before. Expecting perhaps up to 100 figures, some 556 were found, plus traces of others too wrecked to survive.

The team also re-visited Jabiluka sites reported from survey many years ago. By the time five known sites had been recorded, the team also had encountered more than twenty new sites. At one known site, a singular and new kind of rock-art was identified using a technique of beeswax laid over paint, which probably has not been reported from Western Arnhem Land or anywhere else before. Clearly, Jabiluka has many more sites, and more figures at the sites, than has been realized before.



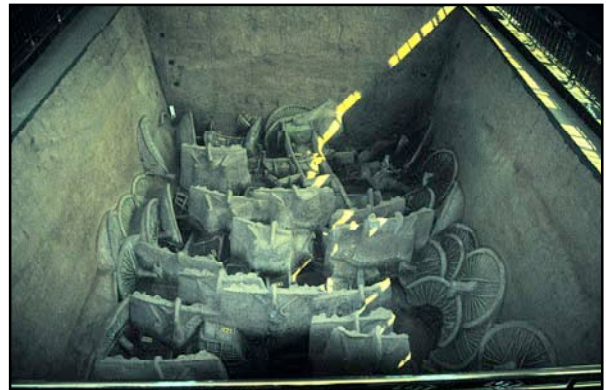
*Jamie Hampson (2003–4 Cambridge MPhil student), left, uses a Minolta laser-scanner (kindly loaned to us by the Centre for Applied Research in Educational Technologies) to make a high-resolution three-dimensional record of the eroding surface at Anbangbang.*

As always in Aboriginal Australia, the work was done with the co-operation of the traditional owners of the country. The project team thanks them for allowing the work to be done, and thanks also go to the Gundjehmi Aboriginal Corporation for their contribution to costs of the Jabiluka work.

## *Palaeopathology and the Origins and Evolution of Horse Husbandry*

This project is a collaborative, interdisciplinary project, rooted in archaeology and employing veterinary science. Its objective is to identify osteological differences between riding, traction and free-living horses, resulting from their different life ways, in order to further our understanding of the origins and evolution of horse husbandry. The core project team are Dr Marsha Levine (McDonald Institute), Professor Leo Jeffcott (formerly of the Department of Clinical Veterinary Medicine), Mrs Maša Amatt (McDonald Institute) and Ms Katherine Whitwell (FRCVS). From October 2004 Professor Graeme Barker will replace Professor Jeffcott as Principal Investigator as Professor Jeffcott has recently taken up a position at the University of Sydney.

During 2003–2004 a series of modern comparative horse skeletons were analyzed. These included free-living Exmoor ponies and Lithuanian draught horses (the latter in collaboration with Dr Linas Daugnora, Department of Anatomy and Histology, Lithuanian Veterinary Academy). The analysis of a series of first-millennium BC Chinese chariot horses from Fengxiang, Shaanxi, is planned for Autumn 2004, in collaboration with Dr Li Shuicheng (Department of Archaeology, Peking University). This project is funded by the AHRB and the Isaac Newton Trust.



*Two views of a chariot pit from the Zheng State (Xinzheng, Henan, Eastern Zhou period, first millennium BC). Forty-four horses were buried beneath the chariots in this pit. They are only visible where the site was robbed (upper right corner of top image and upper left corner of bottom image).*

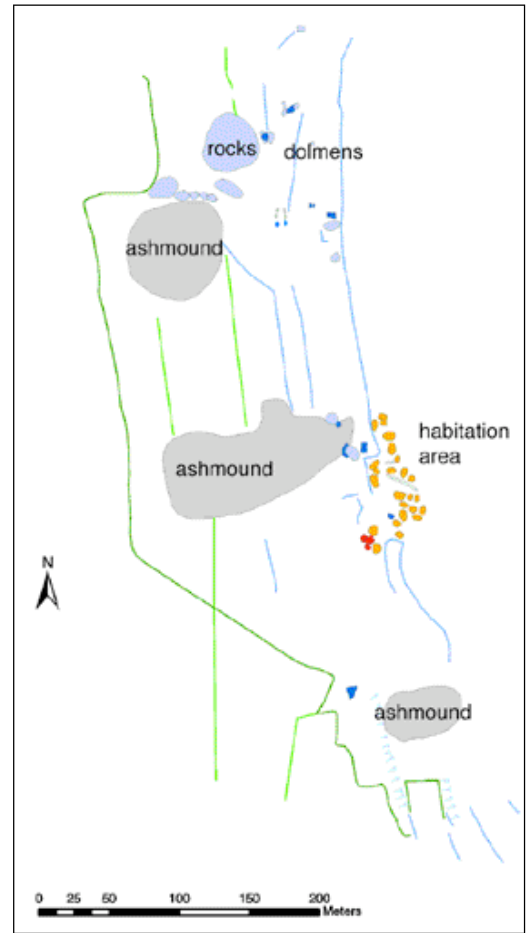
## *The Herders' Monuments: Neolithic Ashmounds of Southern India*

This project, co-directed by Marco Madella and Ravi Korisettar, with Ulla Rajala as GIS-coordinator, is concerned with the study of the ashmounds formed by the characteristic accumulation of burned dung in the pastoral settlements of the Neolithic of southern Deccan (India). These sites were recognized as of great archaeological interest already in the eighteenth century and they are now threatened by agricultural expansion and mechanization. The Herders' Monuments project aims to understand the formation processes of the ashmounds, their place in the social context of the Southern Neolithic and to provide an important opportunity to record critical information about this rich archaeological heritage. The project covers two geographical areas of the Deccan Plateau: the Anantapur District of Andhra Pradesh and the Raichur and Gulbarga Districts of Karnataka (see map p. 38). In these areas there are numerous Neolithic sites, a number of which have been surveyed during the first field season (Palavoy, Wondalli, Watgal, Tadbidi, Benakanhalli). The focus of fieldwork for the first field season was the collection of topographical data and



*The areas of the first field season of the Herders' Monuments archaeological project in South India.*

environmental samples together with gridded find collection at selected sites (Palavoy and Tadbidi). The project team is now in the process of building an ashmound data base at regional level. A preliminary map of the habitation area, the megalithic dolmens and the three ashmounds at Palavoy has been produced (see right). In Palavoy the team was faced with an unexpected 800 m trench dug for plantation purposes (below). This trench cut through the habitation and, probably, cemetery areas. Several ceramic artefacts have been collected in differing states of preservation from the trench and the team have been able to record, through extensive drawing at 1:10 scale, 109 m of the trench where this encroached on the habitation area and other archaeological structures.



*Preliminary map of the site of Palavoy (by Ulla Rajala).*

The project is funded by grants from the DM McDonald Grants and Awards Fund and the British Academy.



*View of Palavoy with the long trench that cuts the site and the northernmost ashmound (to the left of the car). It is clear from the upcast where the trench cuts through the ashmound margins (grey sediment left and right of the boulder with the person sitting next to it). (Photo: Marco Madella.)*

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## *Roman Urbanism in Italy*

This project (run by Martin Millett jointly with Professor Simon Keay of Southampton University) is using a combination of surface-survey techniques to characterize Roman urban sites in Italy. In September 2004 survey work was undertaken on three sites, Otricoli, Falerii Novi and Fregellae, while further sites in northern Campania and southern Lazio were visited for evaluation.



*Topographic survey at Otricoli.*

At Otricoli (Umbria), the detailed topographic survey of the site was completed and further geophysical survey was undertaken. Magnetometry has now been completed with the exception of one field where work was not possible because of crop cover. In addition Salvatore Piro of CNR successfully completed a georadar survey in the central area. The work since 2002 has provided a clear understanding of the topography and development of this complex site and has helped provide a proper context for the monuments excavated in the eighteenth century.

Further magnetometry was undertaken beside the Via Amerina immediately outside the North Gate of Falerii Novi (Lazio). This work was designed to complement that previously published. The cemetery areas were fully surveyed and a series of features including land allotments and mausolea were mapped. Two major rock-cut features were also identified but their characterization will require further investigation by Georadar.

In southern Lazio and northern Campania several sites were evaluated to establish their potential for extensive survey, and discussions have been initiated with archaeologists in the region and with the Soprintendenza. At Fregellae, work in conjunction with Professor Filippo Coarelli's team provided detailed information about the site's potential. Three separate blocks of magnetometry were completed to the south-west of the Archaeological Park. This revealed part of the forum, structures flanking it and what can probably be interpreted as related land divisions. The work unquestionably demonstrated that a full survey of the town would be worthwhile.

## *Roman Pottery Data Base*

In July Phil Mills successfully completed his work on the Romano-British pottery data-base project that was funded by English Heritage. During his year at the McDonald Institute he undertook two tasks. First, he designed and implemented an Access-based pottery data base that can be used for the recording of excavated pottery groups. Output from this data base provides both the graphs and illustrations needed for a published report and also the digital archive for deposition with the Archaeology Data Service in York. Second, he was trained by Dr Jerry Evans in how to catalogue and study Romano-British pottery for publication. The pottery from excavations at Hayton was used in both elements of the project and an on-line publication of this material will be available shortly. The data-base project was successfully presented to specialists working in the field (see p. 8) and also those with an interest in English medieval pottery. It is hoped that Phil may be able to continue his work in the future, developing the data-base structure for use with other types of pottery.

## *The Kurnool District, India*

A second season of fieldwork was conducted in the Kurnool District of southern India. The Kurnool District Prehistory Project is jointly directed by Dr Michael Petraglia of the Leverhulme Centre for Human Evolutionary Studies (Cambridge) and Professor Ravi Korisettar of Karnatak University (Karnataka). A number of students and scholars from UK institutions (Cambridge, Oxford, UCL, Reading) participated in the collaborative field investigations.

Fieldwork was concentrated near the village of Jwalapuram, where an artefact-rich Middle Palaeolithic site was examined. Hominid activities at Locality 20 included the procurement of the local limestone in order to produce stone tools. Testing over a wide area revealed the presence of an extensive buried palaeolandscape of Middle Palaeolithic tools.



*The 3-metre deposit at Jwalapuram Locality 9 represents India's deepest stratigraphic sequence of microlithic assemblages.*



*Dating to 74,000 years ago, Jwalapuram Locality 3 represents India's best-preserved deposits of volcanic ash and archaeological assemblages.*

One of the most spectacular aspects of the Kurnool project was the identification of volcanic ash deposits. These tephra deposits are believed to relate to the Young Toba Tuff Event of 74,000 years ago. It has been argued that this super-eruption led to climatic change and a genetic bottleneck in human evolution. Research at Jwalapuram Locality 3 was rewarded by finding artefacts above and beneath the tephra, thus providing the opportunity to determine the impact that this catastrophic event had on hominid populations.

Over forty rockshelters have been identified in the Kurnool District to date, many bearing rock art and microlithic industries. Examination of one rockshelter, Jwalapuram Locality 9, revealed a 3-metre deep sequence of microlithic industries. Given that this is one of the most deeply-stratified microlithic sites in South Asia, we believe that this may be a sign of early human activity in the region.

The Kurnool Project has resulted in discovery of some of the best-preserved Pleistocene landscapes and Palaeolithic locales in South Asia. It is expected that on-going research will help to fill in many gaps about the palaeoanthropology of this region.



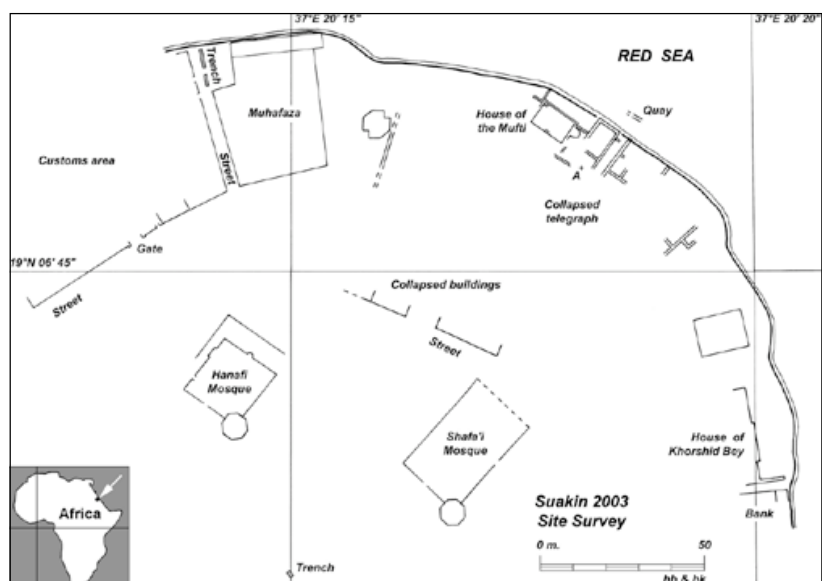
## *Suakin Project: Archaeological Study and Conservation at a Port on the Red Sea, Sudan*

This Project was initiated at the request of the Sudanese National Corporation for Antiquities and Museums (NCAM) in 2000 to prepare for Suakin to be put forward as a World Heritage Site. It is co-directed by Michael Mallinson and Laurence Smith (from Britain), and has involved personnel from NCAM, and from the Universities of Cambridge and Ulster, the British Institute in Eastern Africa, and Khartoum University.

The site of Suakin lies on the Red Sea coast of Sudan about 40 miles south of present-day Port Sudan. Suakin may have been the site of one of the Hellenistic Red Sea ports, but its major importance lies in having been the main port for the region of the Sudan from the later medieval period through to the early twentieth century. The area comprises the Town Island of Suakin itself and the neighbouring Condenser Island, together with the immediate hinterland. The Suakin Project involves the archaeological and architectural study of the sites, in which use is made of historical archive information, together with survey of current environmental developments in the area and their effects on the archaeological remains.

Seasons were undertaken in 2002 and 2003 in which clearance and excavation were carried out at two buildings: the Khorshid Effendi House and the 'Mufti House', and in Customs House Street and on Condenser Island, where cisterns were also investigated for evidence of Roman-period occupation. An initial survey of underwater archaeology was undertaken in the vicinity of the islands, which, in conjunction with land excavations, produced new evidence on the formation of the Town Island. Preliminary study of artefacts indicated that pottery could have come from Egypt, Persia, China and Europe, thus providing archaeological evidence for the historically-known trade connections of the port. Reconstruction work has been carried out at the Khorshid Effendi House during 2004 by colleagues from NCAM.

Proposals for the next season include completion of work at the Khorshid Effendi House and Mufti House, further excavation of the cistern on Condenser Island and a preliminary survey of the main sites in the centre of Town Island, where stratigraphy is the deepest, with a view to finding evidence for early medieval or Classical-period occupation. Post-excavation work will include completion of small-finds recording and conservation, dating of organic materials, and environmental studies. A GPS Survey will be done of the mainland sites around the lagoon, and the older standing houses in the El Geyf township within Kitchener's walls. This, combined with an anthropological study



*Plan of sites investigated on Town Island in the 2003 season. (Plan: H. Barnard and H. Koefoed.)*



*General view of Khorshid Effendi House with Egyptian Bank to the left and mosques behind. (Photo: M. Mallinson.)*



*Remains of walling of Khorshid Effendi House, showing decorative plasterwork (Photo: M. Mallinson.)*

of the current population, will provide information to go with the archaeological and architectural studies of Suakin for the museum being prepared in the restored Khorshid Effendi House. A conservation laboratory is being set up the El Geyf NCAM office to conserve the original joinery of Suakin with the help of BM-trained conservators. Training of a local workforce in traditional skills of plastering and traditional joinery manufacture will be undertaken to allow the museum to be finished in the same manner as the original traditional houses.

The preparation of a report for World Heritage Site registration will be undertaken, and combined with a report being prepared by specialist water engineers for the town. In addition a local development plan for the future protection of the historic port during its current modernization will be prepared with the local government for their adoption and implementation.

### *The Lismore Island Landscape Project*

Lismore is situated in the strategically located Loch Linhe, which projects into the heart of highland Scotland. The island is well placed to register changes in settlement development in response to differences in political organization between 1000 BC and AD 1000, a period of transition from the Iron Age to the early medieval period marked by a religious foundation at the hands of St Moluag. This region of Argyll has been the subject of monument surveys by the Royal Commission on the Ancient and Historical Monuments for Scotland, but there has been little sub-surface investigation to understand the chronology and function of the identified monuments.



*A close-up view from the northwest of the Tirefour monument.*

The project (directed by Caroline Malone and Simon Stoddart) has brought together a suite of techniques — aerial photography, geophysics, detailed topographical survey and excavation — to provide a better

understanding of the economic and political development of the island. In 2000, the Cambridge University Committee for Aerial Photography (now the Unit for Landscape Modelling) was commissioned to produce a 1:6000 stereoscopic coverage of the island. In the following year, David Redhouse, the Department of Archaeology Computing Officer, undertook a desk-top digital assessment of the known sites of the island. This assessment provided the basis for support by Historic Scotland and the Lismore Historical Society to undertake a more detailed field investigation. The first season in 2002 allowed surface investigation of all the known sites and a detailed topographical study of the impressive Iron Age defended monument of Tirefour, completed with a 3D recording of the monument by Fraser Sturt and Matthew Brudenell in 2004.



*The broch in context. Aerial photographs of the environs of the Tirefour monument. (Copyright: Unit for Landscape Modelling, University of Cambridge.)*

In 2004, a longer field investigation of four weeks has already demonstrated the wide chronological use of the field monuments on the island. The impressive Iron Age site of Tirefour was clearly still in use during the full medieval period (twelfth/thirteenth century AD). Excavation revealed a substantial platform or yard in front of the outworks of the monument and considerable quantities of animal bone and metalworking. Park Dun, a modest monument by comparison, appears to have had a solely medieval occupation. Further sites will be excavated in 2005, following their detailed recording by Paul Pattison of English Heritage during the 2004 season. Like many other McDonald Institute-sponsored projects, this fieldwork has allowed the participation of both undergraduate and graduate students from Cambridge and collaboration with other institutions including the University of Glasgow and the Royal Commission on the Ancient and Historical Monuments of Scotland.

### *Kilise Tepe*

With all the contributions received, work by Nicholas Postgate and David Thomas on the final publication of five seasons' digging at Kilise Tepe in southern Turkey has continued intensively during the academic year, greatly assisted by generous grants from Trinity College and the Isaac Newton Trust. These grants allowed David Thomas to work more or less full-time on the volume, editing text, assembling and scanning the illustrations and undertaking a mammoth job of internal cross-referencing. The text, which includes sections on the surface collection, the excavations, the ceramics (including petrography) and other finds, and environmental studies, are spread over two volumes which were submitted for approval in June 2004. Unless there are unforeseen hitches, they should appear under the joint imprint of the McDonald Institute and the British Institute at Ankara during 2006. In the meantime, the aim is to deposit some of the excavation archive, especially the object data base, in electronic format with the Archaeology Data Service in York. The project is also working towards making the scanned images from the archive accessible through the University of Cambridge's much needed D-Space initiative.

## The Shire Archaeological Survey Project



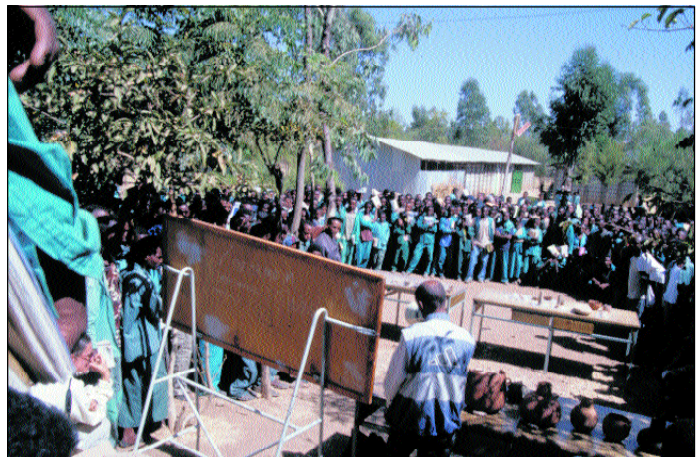
*Pre-Aksumite stela cemetery, with people marking the exposed stelae.*

The second season of the Shire Project, directed by Jacke Phillips, was conducted in December 2003 and January 2004 in the Northwestern Zone of Tigray province, northern Ethiopia, a region with virtually no history of previous research. The multi-component archaeological survey and related ethno-agricultural research aims to understand change in the region's archaeological landscape and its relationship to changes in site choice and development, by focusing on their botanical and zoological environment from the earliest times up to the present day. An additional programme of ethno-archaeo-

logical and oral history research also records and assesses their potential contribution to the understanding of archaeological sites and their landscape over time. The project also aims to ensure that public awareness of this work and of local archaeological remains will continue on after the team's departure.

The GPS-based Sites and Monuments Record, initiated in the project's first (2001) season and based on that developed in the UK, was considerably expanded. Some 95 further sites have been recorded within the permit area, ranging in date from Early Stone Age through to some relatively recent soldiers' graves. These include several Early Stone Age sites, a large number of Middle Stone Age sites, a large Late Stone Age site consisting of multiple lithic concentrations, a Neolithic/pre-Pre-Aksumite site with associated pottery, tumuli and stelae cemeteries associated with Aksumite and/or earlier pottery, five iron-working or smelting sites most likely of Aksumite and later date, multiple abandoned compounds of historic/recent date, as well as several monasteries and churches having foundations, manuscripts and 'treasures' extending back at least 600 years. Relevant manuscripts were perused by a Ge'ez speaker and the history of each institution and its landholdings was recorded as the basis for reconstructing the history of the landscape and its socio-economic system (*gult*) over the past millennium.

The major and badly 'potholed' site of Mai Adrasha was recorded using a 'total station' and three of the large holes cleared to obtain some vertical stratigraphy without excavating. It appears to have been inhabited for over a millennium from the Pre-Aksumite through Late Aksumite periods, and may initially have been a palace, on comparison with similar



*Tekle Hagos giving an illustrated lecture at the Endasellassie High School.*

structures known elsewhere. In conjunction with the antiquities authorities, the project has now properly fenced the site for protection. Several 'looters', who had been searching for natural gold rather than antiquities and had earlier turned over their non-metal finds to the local authorities, described for us the find-locations and circumstances of these artefacts. Other endangered sites are being guarded until further measures can be taken. Many sites have already been badly disturbed, mostly for the booming local construction industry, in particular stelae have been removed from their original position for terracing and tumuli levelled for their stones.



*Stepped wall exposed at Mai Adrasha, suggesting the building may have been a palace.*

Over 30 interviews with local farmers were conducted, and records and samples from multiple crop-processing sequences for different crops were collected. These were supplemented by notes, samples and photographs of the various sequences as witnessed by researchers. Some 62 samples were exported temporarily for further study and analysis, and will be deposited in the National Herbarium in Addis Ababa next season. Additionally, in collaboration with the antiquities and other authorities, the Shire Project publicized the importance of the past and of preserving and recording archaeological sites and artefacts in the region. Three display cases (their designs approved by the authorities) were constructed by a local firm for public display of material recovered by the project and authorities, as the genesis of a regional museum. Authorities and project staff also initiated a series of ongoing illustrated public lectures on the work using artefacts recovered, stressing the importance of public awareness and co-operation with the authorities and project personnel.

### *Early Islamic Provincial Urbanism in Egypt: Surveys of Tinnis and Ansina*



*Inside one of the cisterns of Tinnis.*  
Archaeology.

Although Islamic archaeology is a growing discipline, fieldwork in Egypt has lagged badly behind that taking place in other Arab countries. Egypt's distinct cultural traditions make reliance upon theories of urban development founded on evidence from other provinces problematic. In order to address this issue, Dr Alison Gascoigne directed in April 2003 a survey of the ruined city of Tinnis, located on an island in the brackish Lake Manzala on the northeastern fringes of the Nile Delta. This project was generously supported by the British Academy, the Fondation Max Van Berchem, the Baraket Trust and the Wainwright Fund for Near Eastern

Tinnis is first mentioned by John Cassian, who visited the town in the late fourth century AD and commented upon its desolate setting, and the practical problems faced by inhabitants. Medieval written sources record the storing of potable water from the annual Nile flood in cisterns for use during the following year. Despite the lack of a permanent fresh water source, Tinnis was clearly a populous settlement with a thriving textile industry from early Islamic times onwards. During the Fatimid period (969–1171), it was second only to Cairo in terms of its economic importance, but as a result of ongoing attacks by Crusader forces, the town declined, being finally evacuated and razed in 1227.



*Building (church?) at Ansina.*

Archaeological work was undertaken in April 2003 by a team of eight, and was comprised of a GPS survey of the walled town. The mounds were mapped, and features such as the enclosure wall and horseshoe towers, the shipping canals and remains of harbours, and a number of small earlier excavations were recorded. The project also included geophysical work that revealed the existence of significant structures around the edge of the south canal. An architectural survey of exposed cisterns and channels identified two phases of construction and clarified the nature of the system by which water was transported annually from the lake and stored. In addition, ceramics were sampled and analyzed, and a typology of imported porcelains created, some of which, interestingly, post-date the thirteenth-century 'abandonment' of the site.



*Satellite view of the Ansina area of the Nile Valley.*

Following the success of the season at Tinnis, and with the further support of the British Academy and Newnham College, Cambridge, Dr Gascoigne will extend this project to other Islamic settlements, with a survey of the site of Ansina in Middle Egypt planned for spring 2005. The desert-edge situation of Ansina is very different from that of Tinnis. Despite major destruction of the southern part of the site by fertilizer diggers, and recent encroachments by irrigation schemes that place the archaeology at risk, much of the town is extremely well preserved. In particular, an area of public buildings standing to considerable height provides an unparalleled opportunity to

map an intact town centre and analyze its development from the late Roman period up to Ansina's desertion around the twelfth or thirteenth century. The project ultimately aims to situate the towns of medieval Egypt within the context of wider Islamic urbanism, and to shed light on the influences, both internal and external, which resulted in regional urban similarity or divergence across the Islamic world.

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## *Visual Perception and Cognition in the Rock Carvings of Northern Russia*

In 2003–2004 the main aim of this research, led by Dr Liliana Janik, was the re-evaluation of rock carvings from the White Sea complex, Karelia, Russia. This involved re-examining the visual narratives and compositions of rock art by transforming the rock carvings from a two-dimensional static medium into the three-dimensional moving reconstructions. This is the first time that it has been possible to reconstruct the rock carvings visually using contemporary methods. Short films created in this way allow modern viewers and archaeologists unprecedented access to the artistic narrative produced by prehistoric fisher-gatherer-hunters.

Graphic simulation was used to create a 3D reconstruction of the New and Old Zalavruga compositions by transforming flat 2D images carved on the rock surfaces into multidimensional scenes that could be seen from the different vantage points or perspectives. This led to unexpected results when interpreting the relationships between images and the form of the visual narrative. These results arose from the building of multidimensional scenes through the numerical calibration of particular depictions rather than the reconstruction of the visual composition. In this way the distances and angles between particular depictions are represented in the reconstruction.

The graphic simulations include complex scenes which involve more than two images in their composition. These include scenes of marine and terrestrial hunting, battles, ritual processions, rivers and seafaring. The carvers who created these compositions relied on different techniques to emphasize elements of particular images. Such techniques can be found in Matisse paper cuttings and modern road or safety signs. The fact that the simulations are available in moving form brings a new interpretation of visual composition in the Vyg River rock art and a broader understanding of the visual narratives created by the prehistoric fisher-gatherer-hunters of northern Europe.



*Old Zalavruga: part of the 3D reconstruction of the central area of the composition.*

## *Hunters and Herders in Istria, Croatia: Study and Survey Season 2004*

The summer of 2004 saw the 10th (and last) season of fieldwork in northern Istria, Croatia, led by Dr Preston Miracle. Again the primary focus was the analysis of remains from previous campaigns, and to this end Preston (assisted by former Grahame Clark Laboratory visitor Siniša Radović) completed the analysis of four out of five Late Upper Palaeolithic horizons from Pupićina Cave. Four Cambridge University undergraduates and an MSc student from York University cut their archaeological teeth working with Darko Komšo (Archaeological Museum of Istria), Andrea Balbo (research student at Cambridge University), Paolo Pellegatti (research student at UC Berkeley), and Gordana Jambrešić (Croatian Academy of Sciences



*Jačmica Cave: end of excavation (Darko Komšo and Paolo Pellegatti).*

and Arts) in the continued surveying and testing of cave and open-air sites in the region. Novačka and Jačmica Caves yielded rich Copper Age remains and occupation features; filling a significant gap in the wider region's prehistoric sequence. Jačmica also contained a rich Mesolithic component, although human



*Jačmica Cave: chipped stone point from Copper Age levels.*

occupation did not extend into the Pleistocene and only faunal remains without human modification were recovered from the lowest layers. Jambrešić and Miculinić finished their excavations of cave-bear bones and other Pleistocene faunal remains at Pećina na Brehu. The surprise of the 2004 season came from the survey of open-air sites around the margins of former Čepić Lake led by Balbo. Over a dozen prehistoric lithic scatters were discovered, and preliminary analyses suggest ages of different scatters ranging from the Palaeolithic to the Neolithic. These results will be contextualized in the palaeoenvironmental history of the region through Balbo's ongoing geomorphological study and the analysis of a 15+-metre sediment core from the ancient lake bed. The latter work will be carried out in collaboration with Dr Josef Rubinić (University of Rijeka) and Dr Maja Andrič

(Slovenian Academy of Arts and Sciences). No further excavations by the project are planned in the region for the foreseeable future. Preston Miracle and other project members will remain busy in the region finishing up post-excavation analyses of Late Upper Palaeolithic assemblages and completing the final publication of these and other remains excavated over the last decade.



*Novačka Cave: excavating (André Almeida, Chris Stimpson, Iain Morley).*