



Annual Review 2007

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WELCOME TO THE BABAO ANNUAL REVIEW 2006

Welcome to the latest edition of the BABAO Annual Review. This year has been a busy one for BABAO members, as evidenced by the large number of varied contributions to the Review.

My BABAO highlight for 2006 was the 1st BABAO pub quiz – although I'm still kicking myself over the medieval weapons question! I think a good night was had by all. Andrew's excellent review of the Birmingham conference is on page 36. It will be good to see you all in Reading in September for another fun-filled weekend (oh yes, and it will be good to hear the many exciting papers too).

I hope that this review is as interesting and informative as previous editions – happy reading!

Jo

ASSOCIATION NEWS

Report from the Chair

by Holger Schutkowski

Our Association had a very good and successful year, both academically and by sharpening its corporate role. The annual conference in Birmingham, superbly organised by Megan Brickley and Martin Smith, was well attended and received. The scientific programme attracted high-calibre speakers and demonstrated, as in previous years, that we continue to expand our disciplinary footprint. The fact that we are able to stage academically rewarding conferences year after year testifies to the vitality and vibrancy of scientific inquiry in our Association. This is a great achievement in itself.

On a number of occasions, BABAO was invited to take part in consultation exercises about policies affecting the treatment of human remains but, perhaps more importantly, has also taken steps towards developing a more proactive role in flagging and promoting best practice. Following the introduction of new regulations and guidelines, institutions are now beginning to align their policies and are requesting comments on draft documents, as in the case of a Code of Practice for public display of human remains proposed by the Human Tissue Authority. BABAO endorsed the suggested Code but pointed out that where museums, galleries and university departments acquire human remains in good faith that they do not fall under the licensing regulations, i.e. are older than 100 years of age, the onus must not be on these institutions to establish the age of the acquired finds.

The Manchester Museum asked for comments on a draft Policy on Human Remains, a document that BABAO generally welcomed. By indicating where we perceived some variance with existing guidance documents, e.g. those published by the DCMS or English Heritage/Church of England, and by suggesting alternative procedures, we hope that we were able to contribute to a constructive dialogue that will eventually help establish the best possible management of the human remains resource in museums and galleries of the UK.

BABAO is watching with considerable concern recent attempts by organisations claiming to represent Pagan faith, such as Honouring the Ancient Dead, to offer consultancy and guidance to museums over issues of curation and reburial of non-Christian human remains. The underlying premise of cultural and spiritual continuity proposed by such organisations, and the implicit justification to speak, as it were, on behalf of prehistoric individuals, is flawed and scientifically untenable. Moreover, it goes against the recommendations made in established policy guidelines e.g. by the DCMS. Therefore, BABAO is actively

opposing these attempts. For example, we questioned, together with English Heritage and others, the purpose of an obviously biased conference held to promulgate the reburial agenda for British remains ('Reburial of ancient British remains: Philosophy and Practice' at the Manchester Museum). BABAO also expressed concerns over statements made by museum representatives with regard to repatriation of overseas remains. In a letter to the *Museums Journal* we pointed out that remarks praising repatriation as the gold standard are clearly at variance with the existing agreed framework for handling claims for repatriation of human remains, which was, among others, endorsed by the Museums Association. BABAO has an important part to play in these discussions and we will continue to advocate our case in order to protect human remains from unjustified de-accessioning.

The Association has widened the support for research activities by its members. The Small Grant scheme has been enhanced and members working in units are now eligible to apply as well. This year's awards went to Lisa Cashmore (University of Southampton) and Rowan McLaughlin (Queen's University, Belfast) for their projects on 'Hand morphology, hand preference and laterality' and 'Dental microwear investigation of Mesolithic diet in the Muge Valley', respectively. Both uptake and quality of applications have increased and we would like to encourage responses to the next call. BABAO also started to explore possibilities with Wiley to make the *International Journal of Osteoarchaeology* our 'home journal'. Following lively discussions at the last AGM we discarded the option of compulsory subscription linked to membership in the Association and we are now looking into appropriate and favourable terms and conditions for a voluntary subscription scheme.

As ever, BABAO's Executive Committee was a great pleasure to work with and I would like to extend my thanks to all members for the fruitful and productive co-operation. Jacqui McKinley, who for many years watched

successfully over BABAO's prospering finances, retired from her post as Finance Officer, and we are delighted that Rebecca Gowland agreed to take on this important role.

With all good wishes for a successful year,
Holger Schutkowski

Report from the Membership Secretary

by Tina Jakob

Contrary to previous years BABAO membership numbers have slightly fallen and to date we have 202 active members (242 last year). This is due to the fact that 85 members have chosen not to renew their membership in 2006. However, student numbers have again increased and now more than one-third (n=72) of our members are students, while 9 of you are either retired or currently unemployed. Our members come from a wide range of occupations and a more detailed breakdown of our diverse background can be obtained from the table below (members can be in more than one category).

MEMBERSHIP CATEGORIES (%)	
Students	73 (36.1)
Academics	35 (17.3)
Osteologist/bone specialists	29 (14.4)
Work in Unit	19 (9.4)
Anthropologists/archaeologists	12 (5.9)
Researchers	9 (4.5)
Medical	8 (4.0)
Retired	6 (3.0)
Forensic specialists	5 (2.5)
Work in Museums	4 (2.0)
Unemployed	3 (1.5)
No occupation supplied	7 (3.5)
Other occupations	12 (5.9)

In the category of Other Occupations diverse professions such as administrator, amateur

archaeologist, medical artist, publisher, funeral director and embalmer are included.

This broad range of occupations and affiliations in the association's membership provides us with a dynamic and interesting membership.

We recruited 66 new members during 2006 (55 in 2005) and so far have had 8 new members joining us this year. Overseas subscriptions stand unchanged at 27, representing 13% of the membership. Our overseas members come from Canada (2), Europe (20) including the Republic of Ireland, Greece, Sweden, Finland, Italy, Germany and Poland. We also have two US members, two from New Zealand and one Australian member.

More than one-third of you (n=70) have chosen to pay their subscription fee by standing order; this is a clear rise from previous years and I can only encourage more people to do fill in their SO forms. Regrettably, at the moment it is not feasible to introduce payments by credit cards, as this would raise membership fees to cover the costs.

If anyone has any questions regarding BABAO membership then please contact me at the address inside the front cover of the review, or via email at betina.jakob@dur.ac.uk

BABAO Managing Committee

by Sonia Zakrzewski

Call for Nominations of a Student Member

In addition to the usual call for nomination for members to serve on the committee, a proposal has been received that a position for a student member be added to the managing committee. Subject to approval of the addition of a student member to the managing

committee at the AGM, nominations are sought for one student to serve as a member of the BABAO committee. The initial term of office will be for three years (subject to student status).

Call for Nominations

By the next AGM in September 2007, the following posts will be available:

Publicity Secretary (currently Martin Smith); Representative from a Unit (currently Melissa Melikian); Representative from a Museum (currently Natasha Powers); and Non-executive Member (currently Andrew Chamberlain)

The initial term of office will be for three years. All nominations (including that for the student member) must be proposed and seconded and contain a person statement of maximum 100 words by the Nominee. Nominees, proposers and seconders must be BABAO members, Please send nominations to the General Secretary (email: srz@soton.ac.uk) by Friday 20th July. A list of nominations will be sent out to members with the Agenda for the Annual Meeting.

PEOPLE

Andrew Chamberlain has been promoted to Professor of Biological Anthropology.

Rebecca Gowland joined the Department of Archaeology, University of Durham in October 2006 as Lecturer in Bioarchaeology.

Amy Gray Jones has left MoLAS to start an AHRC funded PhD: "Disarticulation as mortuary practice in the Mesolithic of North-West Europe". She is based in the Department of Archaeology at the University of Manchester. Her new email address is: Amy.Gray-Jones@postgrad.manchester.ac.uk

Sarah Groves has been appointed as post-doctoral research on the AHRC funded project

The Bamburgh Bowl-Hole Anglian Cemetery: A contextual study at the Department of Archaeology, University of Durham

Chris Knüsel has been Elected Fellow of the Society of Antiquaries of London, November 2006 and appointed to Review Committee of *Bulletins et Mémoires de la Société d'Anthropologie de Paris*.

Gill Scott has recently the post of Curatorial Assistant for Egyptology at the Hancock Museum, Newcastle-Upon-Tyne to commence full-time doctoral research in the Department of Archaeology, University of York.

Tim Thompson is, as of Feb 07, a Senior Lecturer in the Centre for Forensic Investigation, University of Teesside.

Museum of London Centre for Human Bioarchaeology

by Bill White

Senior Curator of Human Remains

In the previous three issues of the *BABAO Annual Review* I have had the pleasure of reporting progress on a single major project: the Wellcome Osteological Research Database ('WORD') hosted at the Museum of London. However, soon after this issue of the *Annual Review* appears this work will be complete and we can all look forward to the contents of the database becoming generally available online. Since 2003 a total 4,700 skeletons from large archaeological sites dating from 1st-19th centuries have been recorded onto the database (excluding the c.5,000 individuals from the St Mary Spital site, although data on these will be rolled out at a rather later date).

General access to the database will be through a webpage that is a microsite attached to Museum of London webpage. Entry to the 'WORD' section of the website will provide summary information by Historical Period and Archaeological site/Cemetery. These in turn will provide access to the Osteological summaries which will provide summary data as to site history, sample size, quality, composition, other salient features and metadata (including sizes of downloadable files). However, most researchers are likely to want to proceed beyond this point and complete an online Application Form, after which they will be issued with passwords in order to obtain data downloads. A Query Library will be available for rapid access to information but researchers may also wish to interrogate the data further by building their own customised enquiries using MSQuery. We shall be pleased to share our data openly in this way but we also expect that the database will find other uses in directing scholars to skeletal samples of the required characteristics for their further research, in terms of period, size, preservation, composition, etc.

NEWS AND PROJECT UPDATES

Update on the Spitalfields Project

by Rebecca Redfern

Museum of London Specialist Services

The Spitalfields Project is in its final phases after three years of work; over six thousand skeletons were recorded and we are currently writing up the results of the analysis. The monograph will take a bioarchaeological approach to the discussion of the osteological data, which has been grouped thematically covering topics such as violence in urban areas, and impairment. We are very much looking forward to sharing our findings at this year's BABAO conference, and in conjunction with the WORD project will be making data available via the Museum of London website. We would also like to thank Amy for all her work on the project and wish her well in her doctoral studies.

The Wellcome Osteological Research Database is a relational database, organised in an hierarchical fashion, allowing the processing and comparisons of very large datasets. Ancillary data on the burials will be available *via* links to the Museum of London Archaeology Service's Oracle database, providing information on the archaeological excavation, stratigraphy of the site, cemetery phasing, coffin types, associated finds, etc. Fortunately, the database is of a size and complexity that is analogous to the National Museum of Natural History's osteological database in the Repatriation Osteology Laboratory (ROL), albeit compiled for different (post-NAGPRA) reasons. Steve Ousley of the Smithsonian Institution was hopeful that the ROL anthropological database would go online before the end of 2006 but it now appears likely that these two huge databases will be launched simultaneously in 2007, without either institution being able to benefit from the other's early, post-launch, snagging and de-bugging experiences! Watch this space.

The Museum of London is grateful to all who have been involved in progressing the 'WORD' project. Thanks are due first to the Wellcome Trust for granting the award to set up the database (Project Grant GR070479AIA), to Brian Connell who had the original concept and who designed the data capture system in a user- and machine-friendly fashion, to Dr Pete Rauxloh and his IT team for delivering the online database and to Vanessa Bunton and Gustav Milne for providing archaeological support. Finally, I should like to express my personal thanks and appreciation to our team of research osteologists and curators who have worked indefatigably on this long-term project, recording thousands of skeletons onto the database. They are, of course, Jelena Bekvalac, Lynne Cowal, Tania Kausmally, Richard Mikulski and Gaynor Western. The vast enterprise we embarked upon is now being brought to fruition only because of their hard work, diligence, professionalism, enthusiasm

and cheerfulness throughout. I hope that they find their future ventures equally rewarding.

Post-medieval burial practices between c. AD1500 – 1900

*by Annia Cherryson and Sarah Tarlow
Department of Archaeology and Ancient
History, University of Leicester*

A survey of the evidence for post-medieval burial practices in Britain and Ireland between c.AD1500 and 1900 is currently being undertaken at the University of Leicester. Areas of research have included the use of funerary furniture and fittings, burial location and the treatment of the body. The latter has included an examination of the evidence for dissection, embalming and the partition of the body. Results of the survey will be made available in the form of an online database and a synthesis to be published in 2008.

This work is part of the Leverhulme Research Project – Changing beliefs of the Human Body (<http://www.arch.cam.ac.uk/lrp/intro.html>).

The data from the post-medieval burial survey will form part of the evidence used to consider changing beliefs about the body and the afterlife in a period that saw major religious changes and the rise of scientific method, in a book to be published in 2008-9.

Poulton Research Project

by Steve Crane

At the Poulton Research Project (<http://www.poultonproject.org>), continuing work on the medieval chapel site has included the excavation of 51 skeletons in the 2005 season and 25 in 2006. This brings the total of articulated skeletons excavated to approximately 250 since the project started in 1995. The Project team is currently undertaking basic analysis on the most

recently excavated material, with the aim of producing an updated report in 2007.

More detailed analysis is being performed as part of a collaboration between the Project and Jessica Pearson of the University of Liverpool School of Archaeology, Classics and Egyptology. Ninety-nine skeletons and a considerable quantity of disarticulated bones have been loaned to Liverpool, as a resource for research projects and teaching.

As part of the Project's educational remit, we have continued to provide training in skeletal excavation and basic analysis techniques to local volunteers, undergraduate students from several universities, and CSIs (Crime Scene Investigators) from various police forces.

Hunterian Museum at the Royal College of Surgeons

*by Jane Hughes
Audience Development Officer*

As visitor numbers continue to rise and public interest in the museum shows no sign of abating, the use of the collections for teaching, research and independent study remains a priority for the Hunterian Museum.

The museum collections are open for teaching and research at all levels. The MacRae Gallery is a flexible space that provides easy access to the collections for practical teaching, group and individual project work. There is a range of equipment available to support hands-on use of the collections and taught sessions. This includes stereo- and light microscopes, callipers and magnifiers, anatomical models and a data projector and screen.

The museum's database can be searched online at <http://surgicat.rcseng.ac.uk>. This will enable students and tutors to research and plan their visit to the museum in advance. Each specimen has an individual record that contains information such as the physiological or pathological structure of a specimen, case

histories, taxonomic data, information about the donor as well as links to historical records and archives. The database uses internationally recognised thesauri and is easy to search using MeSH terminology and taxonomic names.

The museum is currently undertaking work to improve the presentation and interpretation of the collections in the Wellcome Museum of Anatomy and Pathology. Three volunteers are working with museum and conservation unit staff to provide clearer labelling and more detailed information about skeletal and soft-tissue specimens. The museum is looking for help with the identification and interpretation of these collections, and would appreciate the input of BABAO members with this project. For more information contact the volunteer project co-ordinator Chris Shomaker cshomaker@rcseng.ac.uk or contact Martyn Cooke, Head of Conservation mcooke@rcseng.ac.uk

The Hunterian Museum is open to all, Tuesday to Saturday, 10am to 5pm and admission is free. The Wellcome Museum of Anatomy and Pathology is open Monday to Friday 10am to 5pm, and some Saturdays (check the museum website for more information www.rcseng.ac.uk/musuems). For further information please call 020 7869 6560 or email museums@rcseng.ac.uk.

Human osteological collections at Oxford University

by Malgosia Nowak-Kemp¹ and Nicholas Márquez-Grant²

¹Oxford University Museum of Natural History. ²Heritage Burial Services, Oxford Archaeology

Information is provided here on the human osteological collections at Oxford University. These collections will shortly be available to

the scientific community for *bona fide* research purposes.

The idea of collecting human remains was gradually gaining strength at the end of the 18th and the beginning of the 19th centuries, in parallel with the growing desire to compare and classify the various races of man. In Oxford, one of the University's colleges, Christ Church, had its own Anatomical Museum and by the middle of the 19th century, had assembled a substantial collection of human anatomical specimens. In 1860 the entire content of the Christ Church Anatomical Museum, including the human osteological specimens, was transferred to the newly built University Museum. Here, the collection was soon enlarged by Professor Rolleston and his colleagues, by numerous purchases such as that of the Van der Kolk pathological collection, and by donations from collectors from every corner of the then British Empire. One of the biggest donations was made in 1884 when the University received a gift of Major-General Pitt Rivers' collection, which included over 60 human skulls from many parts of the world. The Pitt River's gift was the cause of a major redistribution of holdings between all the museums of Oxford University. Specimens, including human remains, were classified into three main groups and moved to one of the following institutions: the ethnographic ones were placed in the newly established Pitt Rivers Museum, those of a zoological or comparative anatomical nature in the University Museum, and the archaeological ones in the Ashmolean Museum.

At the University Museum, the human remains were used in undergraduate teaching by two of its then constituent departments: the Human Anatomy Department, and the Comparative Anatomy Department (predecessor of the Zoology Department). In 1886 the former moved out of the Museum to its own building, taking most of the human remains with it. A similar situation happened at the beginning of the 20th century when the Pathology Department, upon its opening in 1901,

claimed the specimens from the pathological collection.

The holdings of the Human Anatomy Department were substantially enlarged in 1931 when the Army Medical Department presented the University with its own big collection of human skulls, the so-called Williamson Collection.

The onset of the Second World War marked a major shift away from the comparative study of human skulls and postcranial material towards other areas of research into human anatomy. Under Prof. Le Gros Clark, this change was reflected in the slow abandonment of teaching physical anthropology by the Human Anatomy Department, and culminated in the transfer of most of the collection to the British Museum (Natural History) in 1946. A further transfer from the Human Anatomy took place in 1962, when most of the remaining specimens of around 130 skulls and some postcranial bones were passed on to the newly established Institute of Biological Anthropology. The most recent transfer, in 2002, brought this latter material back to its original home – the University Museum, by now known as the University Museum of Natural History, where it joined the human skulls and post cranial bones in the Museum's Zoological Collections.

Work on the curation and conservation of all the human material has occupied the last three years and is still ongoing. After consulting the specialists from the Henry Wellcome Ancient Biomolecules Centre of Oxford University, a protocol of cleaning methods was devised and implemented to avoid cross-contamination with modern human or other DNA. Throughout the cleaning process a UV light was used to check for any signs of existing labelling. All the material is protected by conservation foam, with skulls or parts of skulls (mandibles, maxillae, individual skull bones, teeth, etc.) placed in acid-free archival quality storage boxes. All conservation material was purchased thanks to a £10,000

grant from the Preservation of Industrial and Scientific Material (PRISM) Grant Fund.

Since the specimens in the past had been classified according to the different systems adopted by different departments, some specimens have multiple identifiers, mostly in the form of numbers attached to the specimens. Although every specimen has now been given its own Zoological Collections accession number, the former classification and arrangements have been preserved, thus allowing instant recognition of their history in the University

To summarise, the present human osteological holdings in the University Museum of Natural History consist of the remnants of five osteological collections:

1. *That based on the vertebrate osteological catalogues of Christ Church Anatomical Museum.* This was the oldest system of classification, first used in Christ Church by Dr Acland, the fifth Dr. Lee's Reader in Anatomy, and based on the Hunterian arrangement in the Museum of The Royal College of Surgeons in London. The specimens from this collection were originally classified into 11 groups including Arian and Indo European; Caucasian; Egyptian and Ethiopian; Chinese and Indo Chinese; Malay and Polynesian; and American.
2. *That of the Catalogue of Crania.* The University Museum system, the Catalogue of Crania, accommodated the Christ Church original collection and the new specimens collected by Prof. Rolleston and others in the second half of the nineteenth century. The Catalogue included British skulls from the Neolithic, Bronze Age, Iron Age, Roman, Anglo-Saxon, Medieval and Post-Medieval periods. It also included skulls from other European countries, Africa, Asia, Polynesia, America, Australia and Melanesia.
3. *That of the Human Anatomy Department* system, where every specimen was placed in one of the nine geographical regions, represented by letters, with E for Europe, AS for Asia, AF for Africa and so on. Each region

was further divided into countries, indicated by the first set of numbers, and if the remains represented different historical eras, a further set of numbers was introduced. Catalogue of Crania numbers were kept as denominators. With regard to Europe, for instance, originally the collection included skulls from Britain dating from Prehistory to Medieval times, as well as specimens from various regions in Europe including France, Portugal, Spain and Lapland. This system was introduced sometime in the early 20th century in the Human Anatomy Department and was used for specimens transferred from the University Museum and also for the specimens received from the Army Medical Department – the Williamson Collection.

4. *That based on successive pathological catalogues* – first introduced by Jacob Schroeder Van der Kolk, then continued by the Department of Pathology. The Van der Kolk's pathology collection was purchased by the University in 1864 in Holland and contained skulls, post-cranial bones and non-osteological specimens. Most of the specimens were probably of Dutch or German origin but no details as to their provenance are available. After the transfer of the specimens from the University Museum to the Department of Pathology in 1901, the original Van der Kolk's collection, together with new pathological specimens was given the Accession Catalogue numbers of the new department.
5. *The rest of the specimens in the collection are lacking any of the above identifications and include some from archaeological excavations.*

The total number of human remains in the Oxford University Museum of Natural History stands at 1090 and this represents dried and spirit preserved specimens, casts of skulls, and osteological holdings. The osteological collection numbers around 650 lots and comprises articulated skeletons, various articulated parts of skeletons, individual bones, parts of bones and teeth. There are about 450 skull specimens, of which 90 are associated crania and mandibles and 135 are

crania, without the lower jaws. The remainder are various other cranial bones, including a number of individual basicrania, mandibles, calottes, temporal and frontal bones, and ear bone preparations. The collection of crania with definite geographical provenance stands at 234, with the biggest number, 138, coming from Europe. The pathological collection consists of 75 skulls and around 106 other osteological specimens, either individual bones or parts of skeleton.

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Report on the 'Roots' (Wurzlen der Menschheit) Exhibition, Regional Museum, Bonn, Germany

by Nicholas Márquez-Grant¹ and Susan Keates²

¹Heritage Burial Services, Oxford Archaeology, Oxford. ²Previously at the Institute of Biological Anthropology, Oxford University, Oxford

An exceptional collection of original hominid specimens was on exhibit at the Regional Museum (Rheinisches LandesMuseum) in Bonn from 8 July to 19 November 2006.

This unique exhibition, "Roots" (Wurzeln der Menschheit), was organised to celebrate the 150th anniversary of the Neandertal discovery in the Neandertal valley, about 1.5 hours drive to the north of Bonn. The organisers assembled original hominid skeletal remains from Africa and Eurasia.

The vast majority of hominid skeletal and cultural remains on exhibit were from Europe (34), six were from Africa and four from Island Southeast Asia. The spectacular specimens represented *Australopithecus afarensis*, *Australopithecus boisei*, *Homo rudolfensis*, *Homo erectus*, 'Homo

heidelbergensis', *Homo neanderthalensis*, other archaic *Homo sapiens* and modern *Homo sapiens*.

The sole representative from East Asia was a *Gigantopithecus* hominoid tooth from China. The African specimens were the 'Homo rudolfensis' and *Paranthropus boisei* mandibles from Malawi, the Eyasi 1 archaic *Homo sapiens* calotte from Tanzania, and a modern human skeleton from Ifri n'Amman, Morocco. There was also a cast of 'Lucy'. The easternmost and oldest hominid from Europe was one of the *Homo erectus* Dmanisi (D2282) skulls dated to c. 1.8 million years. The remains from Island Southeast Asia were those from Modjokerto (eastern Java), Sangiran 2 and 4 (central Java), and a cast of *Homo floresiensis*.

The oldest specimen on exhibit was an upper jaw fragment dating back to 3.7-3.5 million years ago from an *Australopithecus afarensis* skeleton. It was possible to appreciate the preservation of the specimens, the dimensions and the physical characteristics of these, to which to compare to the other genera and species.

Representatives of mostly European Neandertals with two specimens from the Near East (Amud site) were shown as well as European archaic *H. sapiens* and European and Near Eastern modern *H. sapiens*. Some of these important *Neandertal* finds included the 130,000 year-old Krapina C bones from Croatia, the famous 60,000 year-old hyoid bone from the Kebara site in Israel, the popular 50,000 year old La Chapelle-aux-Saints skeleton from France and Neandertal 1 from Germany dated to around 42,000 years ago. The almost complete child skeleton from Lagar Velho (Portugal) was one of the highlights of the exhibition, a modern human that is thought to have some Neandertal features. The exhibition was a unique opportunity to compare Neandertal and modern human morphologies. The Qafzeh IX skull (one of 21 individuals from the Qafzeh cave site in Israel), an early modern human

from Israel, looked more archaic than is apparent from the two-dimensional published illustrations. What was also apparent was the degree of morphological variation of early modern humans, including Mladec (Czech Republic) and the recently discovered Pester cu Oase cranium from Romania.

Apart from these specimens, skeletons of other primates were also on exhibit. The remains of 'Piltdown Man' were also on view. In addition, some important artefacts included the chronological range of the human past, ranging from 2.4-1.5 million year Oldowan artifacts, a 600,000-300,000 hand-axe to Palaeolithic art work including a lion man made of ivory dating to 33,000-29,500 years ago found in southern Germany and anthropological collections of more recent material culture.

A booklet and a book accompanying the exhibition with a catalogue of the exhibits (illustrated with mostly colour photographs) are available, although only in German. The 360 page book ('Roots/ Wurzeln der Menschheit'), also contains 24 papers, 295 colour and black-and-white illustrations, and a glossary.

A similar exhibition, 'Ancestors – four million years of humanity', was launched back in 1984 at the American Museum of Natural History in New York, with 53 original fossils on loan from different institutions and ranging from australopithecines to modern humans (see Tattersall and Delson 1984; Delson 1985).

This museum in Bonn had in addition interesting artefacts of the region, for instance a Prehistoric tomb with many imported grave-goods, a room dedicated to Roman finds, and more recent works of art. The exhibition 'Roots' was well set-up with an excellent presentation, including appropriate information on the specimens, computer simulations and a great educational centre for children with the theme of hunter-gatherers.

The exhibition at Bonn was an exceptional and fascinating one and a unique chance to see all of these specimens together.

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DEPARTMENTAL REPORTS

Institute of Archaeology & Antiquity University of Birmingham

by Megan Brickley & Martin Smith

Current Research

Work on the Leverhulme funded project investigating the taphonomy of British Neolithic human bone has gone well over the last year, and a number of papers have now been published. Research published in *Journal of Archaeological Science*, on detecting lithic projectile injuries in human bone was featured in the Science Snapshot section of *USA Today*, and the German scientific online magazine *Spektrumdirekt*. The first of the dates obtained with the Leverhulme funding have also just been published, appearing last month in *The Oxford Journal of Archaeology*. A couple more papers arising from the NERC funded vitamin D project made it into print, and work continues with Simon Mays on preparing the final findings arising from this research for

publication. Work undertaken by Megan Brickley with Roxana Ferllini on an edited book with the title *Forensic Anthropology: Case Studies From Europe* has been completed. The book will be published this month by Charles C Thomas, Springfield, IL.

Ph.D. Research

Rebecca Redfern was formally awarded her Ph.D. in the December degree congregation, and Jenna Morgan started her PhD research into the use of metabolic bone diseases in biocultural interpretations.

Conferences

The 8th annual BABAO conference was held at the university of Birmingham from 15th – 17th September, with sessions running from Friday afternoon to Sunday lunchtime. The first session at this year's conference was 'Written in Bone: The Use of History and Anthropology for Investigating Medicine, Disease and Biology in Past Societies' and was sponsored by the Wellcome Trust, which allowed Ann Herring and Piers Mitchell to be invited to give the opening papers. In addition to a packed 'Open Session', there were also sessions on 'Movement, Migration and Mobility: Bioarchaeological Perspectives' and 'Physical Aggression: Anthropological Contributions to the Investigation of Violence and Conflict, from Past Societies to the Present Day'. Delegates from six countries attended this year's conference, and contributions came from researchers working across the range of anthropological disciplines. There were a total of 26 podium presentations and 22 posters. A wine reception was held for delegates on the Friday evening and on Saturday following the conference dinner a Pub Quiz with a bony theme took place in the bar of the conference venue. Thanks to the efforts of Martin Smith, the Cadbury factory was persuaded to donate some of their products for consumption at the coffee breaks.

University of Birmingham Medical School Centre for the History of Medicine

by Robert Arnott

The Centre for the History of Medicine, an HEFCE funded Department located within in the Medical School of the University of Birmingham, offers a stimulating and supportive environment to undergraduate and postgraduate students, members of staff and visiting scholars. It also offers a unique opportunity for researchers and students alike to study the history of medicine through interaction between medical and disease historians, medical students and some of the country's top biomedical scientists and clinicians.

The Centre's *Disease and Medicine in the Ancient World Research Group* places a strong emphasis on the integration of the evidence for palaeodisease and medical practice, through the archaeological, bioarchaeological (both applied osteological and palaeobotanical) as well as the textual sources. The current work of the Research Group can be summarised to include the following specific areas: (a) Disease, Health and Medicine in the Prehistoric Aegean and Anatolia in the Middle and Late Bronze Ages, 2000-1100 BC; (b) Early Medicines and Pharmacology; (c) Palaeodisease (especially malaria); (d) Disablement in Ancient Society (in collaboration with the University of Salzburg, Austria); and (e) Early Occupational Health and Medicine.

The Centre is directly involved in a series of archaeological fieldwork projects, which include: (a) The interdisciplinary study of the health, diet and medicine of the population of Western Crete at the end of the first millennium BC, through the examination of the human skeletal remains and associated artefacts from the 232 graves excavated in the Late Minoan IIIA-B cemetery at Armenoi (in

collaboration with Dr Darlene Weston of the Department of Human Evolution, Max Plank Institute for Evolutionary Anthropology, Leipzig); (b) The study of early pharmacology in Eastern Crete; and (c) Disease and medicine in the Hittite World, 1400-1100 BC, based on both archaeological and textual sources.

The Research Group organizes a monthly seminar, where a research student or a visiting scholar gives a paper of topic interest and also specific research training sessions concerning for example, uses of texts, developments in bioarchaeology and historical epidemiology.

The Centre is also currently developing a taught MPhil in Disease and Medicine in the Ancient World, which will admit its first students in the academic year 2008-2009. Modules will include: (a) Sources and resources in ancient disease and medicine (with Medical Text Seminars); (b) Disease and epidemics in ancient history; (c) Healing and medicine in the Greek and Roman world, 2000 BC–600 AD; (d) Medicine in the Ancient Near East, 2000-500 BC; (e) The Archaeology of Medicine; (f) Bioarchaeology for historians of ancient disease and medicine.

Postgraduate research students within the Research Group include:

Charlotte Ambrose: The changing nature of the medical practitioner in the Graeco-Roman world: from Hippocrates to Galen

Dr Andrée Bagley: Cultural variation and exchange of medical knowledge in the practice of surgery in the Eastern Mediterranean from the Hellenistic to the Roman periods

Holly Bujok: The antiquity and pathogenesis of cancer

Julia Hyland: The toxicity of body adornment in the ancient world

Stephen Fewtrehill: Medical treatment of the aged in the Graeco-Roman World

Antonia Morgan-Forster (also the Group's Research Assistant): Disease and environmental change in the Prehistoric Aegean, 2000-1100 BC.

Biological Anthropology Research Centre, Archaeological Sciences, University of Bradford

by Christopher Knüsel

The BARC has seen a good year in 2006. Two major books were published this past year: Holger Schutkowski's *Human Ecology: Biocultural Adaptations in Human Communities*, published by Springer, Munich, and the jointly edited *Social Archaeology of Funerary Remains* by Rebecca Gowland and Christopher Knüsel. The appearances of both were duly celebrated with publication launches in the Archaeological Sciences Research Seminar Series, each followed by a reception. Chris became a Fellow of the Society of Antiquaries of London in November 2006 and was appointed to Editorial Committee of the *Bulletins et Mémoires de la Société d'Anthropologie de Paris*. Holger is now Associate Editor of *Environmental Archaeology – The Journal of Human Palaeoecology*. Chris served as external examiner for four Ph.D. theses in 2006 from the Universities of Bordeaux, Durham, Glasgow, and Winchester, as well as acted as a 'Rapporteur' for the HDR (*Habilitation à Diriger les Recherches*) of Dr. Dominique Castex at the Laboratoire d'Anthropologie des Populations du Passé, University of Bordeaux I. He and a group of archaeological scientists from Bradford, including Janet Montgomery, Carl Heron, Joanne Hawkins and Adrian Evans, with Niels Lynnerup of the Laboratory of Biological Anthropology, University of Copenhagen, complemented by Bronze Age archaeologists Stuart Needham (British Museum) and Alison Sheridan (National Museums of Scotland) contributed to a one-day symposium on

Gristhorpe Man, organised by post-doctoral researcher Nigel Melton on the occasion of the annual British Association for the Advancement of Science Festival on September 8th in Norwich. This oak tree-trunk coffin burial has been on display in Scarborough's Rotunda Museum for over 150 years, since its discovery and first publication in 1834.

Anthea Boylston, in conjunction with Keith Manchester, Don Ortner, Francis Yarrell (née Lee), Rebecca Storm, Alan Ogden, Mary Lewis, Margaret Judd, Judi Sture and John Magilton put the finishing touches to the long-gestating publication of the Chichester *leprosarium*/almshouse. No longer shall we read that there are few cases of leprosy in Britain (even if a somewhat dubious distinction perhaps). This volume should appear in the coming year. Anthea, Alan Ogden, and Darlene Weston also finished analysis of the 1,200-strong Hereford Cathedral medieval population, and the report and further publications will appear in the coming year. Also on the contract osteology front, Jo Buckberry (Experimental Officer) and Rebecca Storm finished the analysis of the Riccall, East Yorkshire, Anglo-Scandinavian human remains and Jo Buckberry completed an assessment of the late Anglo-Saxon human remains from Worcester Cathedral Chapter House. Jo and Rebecca have been continuing their research into social status in late Anglo-Saxon cemeteries (British Academy Small Grant).

Alan Ogden continues research in dental anthropology and palaeopathology on Middle Bronze Age skeletal remains from Sidon, Lebanon. He has been investigating gross dental hypoplasia in subadults from a 16th-18th Century cemetery at Broadgate, London, with Ron Pinhasi of Roehampton University and Bill White of the Museum of London. He has also been working with colleague Alex Gibson, under the auspices of a grant from English Heritage, on the extensive Neolithic human remains excavated in the late Nineteenth Century by JG Mortimer from barrows in the

Yorkshire Wolds, and since curated by the Hull and East Yorkshire Museum. Alan and Holger Schutkowski have joined Professor Alan Cooper's (School of Earth and Environmental Sciences, University of Adelaide) "Genographic Project" on the search for and population affinities of Phoenician populations through aDNA.

Rebecca Storm (Ph.D. Candidate) had a bumper award year, having won the Student prize for best podium presentation at the annual meeting of the Paleopathology Association. This contribution was published as "Medieval Deviants: Cranial Fluctuating Asymmetry Population Outliers" in the Paleopathology Association Newsletter. Later in the year, she also garnered the best poster presentation prize at the Eighth Annual BABAO Conference in Birmingham for her poster entitled: "Implications of a High Prevalence of Premature Craniosynostosis in the Medieval Hospital of St. James and St. Mary Magdalene, Chichester."

Sarah King (MA, New Mexico), an Overseas Research Studentship Award recipient, and Jeanette Wooding (MSc., Bradford, AHRC funded), began doctoral research in the BARC this year. Sarah is jointly supervised by Christopher Knüsel and Ian Armit, who is a new addition to the division and specialist in Iron Age Europe. Sarah's research is on engendered violence and trauma in the European Iron Age. Jeanette is jointly supervised by Julie Bond and Christopher Knüsel and is investigating the palaeopathology of human and animal tuberculosis in British Iron Age populations. Effrosini Vika continues her doctoral research on the diet of ancient Greek populations.

The MSc. in Human Osteology and Palaeopathology (see list, below) produced an excellent year with six participants achieving well-earned distinction-level performances, the highest number in any single year to date on the 16-year-old course. Two (Upex, Durham, and Craig, Sheffield) have already secured funded Ph.D. places, with another

(Wastling) employed in public archaeology.

Once (and likely before) the perspiration dries and the dust settles after the submission of RAE documents early next autumn, members of the BARC will be involved in new initiatives on the Iron Age Wetwang Slack population, further studies of the Chichester population, and a monograph on the Gristhorpe Man Early Bronze Age tree-trunk burial.

MSc. Human Osteology and Palaeopathology, Dissertations Completed (= distinction):*
Bewsher-Humphries 2006. A Study of Femoral Morphology, Body Mass and Joint Deneration in Skeletal Populations

Chaitow, E, 2006. Status in Life and Status in Death: A Bio-cultural Analysis of Wetwang Slack, an Iron Age Cemetery in Eats Yorkshire*

Craig, E.F. 2006. An Osteological and Palaeopathological Assessment of Stress Indicators and Social Status at Raunds Furnells, Northamptonshire*

Cross, A. 2006. Wasp-waisted Women: Skeletal Modifications of Corsetry

Cummings, S. 2006. A Consideration of Bronze Age Burials from Wetwang Slack, East Yorkshire

Dapling, A. 2006. Infanticide in Roman Britain*

Lawrence, D. 2006. A Healthy Outdoor Life? Evidence for Disease, Trauma, Habit, and Stress in the Orcadian Neolithic*

Lumb, C.A. 2006. The Transition from 'Childhood' to 'Adulthood' at Iron Age Wetwang Slack, East Yorkshire

Tesorieri, M.L. 2006. Distinguishing Specific Lesions and Patterning of Treponemal Disease in Medieval and Post-Medieval Britain

Upex, B.R. 2006. A Bio-cultural Analysis of the Mid to Late Anglo-Saxon Cemetery at Eccles, Kent*

Wastling, V.J. 2006. Gristhorpe Man: A Modern Assessment of an Early Bronze Age Tree Trunk Burial*

The Unit of Anatomy & Forensic Anthropology, College of Life Sciences, University of Dundee.

by Tim Thompson

Our two degree courses are expanding well. The BSc (Hons) in Forensic Anthropology is now teaching to all four years, with our first cohort of graduates due this summer. The MSc in Human Identification is also proving popular, and this year we have 13 students including some from India, Korea, Nigeria and North America. We are also in the midst of preparing further postgraduate degrees, which will exploit the developing expertise in the Unit.

There have been a number of changes with the staff in the Unit. Dr Becky Gowland has left for the University of Durham, and has been replaced by Chris Rynn who will continue to work and develop the Scheuer Collection of juvenile remains. The Scheuer collection has received a welcome donation from a local trust and we are in the process of developing a casting service for some of the material. Dr Tim Thompson will be leaving in Feb and hopefully his replacement will be in post by April. Along with the continued expansion of the Unit there will be at least another two posts advertised in the near future. Lucina Hackman has been expanding her role, and has been vital to the success of the undergraduate course. We look forward to the arrival of Dr Roger Soames in January and his research in joints and biomechanics will be especially exciting.

We have been involved in a number of interesting and varied forensic cases over the past year. These have included the reconstruction of heads from the NE England and the Netherlands, the analysis of bones washed up around Fife, bodies revealed by the spring thaws in Edinburgh and Glasgow and the examination of radiographs of illegal immigrants. You may also have seen some of our staff in the media, on everything from BBC Radio's 'Learning from the Dead' to '10 Years Younger'.

Further information on the Unit, our courses and work can be found at our website: <http://www.dundee.ac.uk/biocentre/uafahome.HTM>.

Submitted PhD Theses

Rynn, Chris (2006) An investigation into quantifiable statistical and functional relationships between skull and face morphology, with the aim of improving upon current techniques of forensic and archaeological facial reconstruction.

Schaefer, Maureen (2007) Epiphyseal Union in Bosnian Males: analysis from a forensic and biological perspective.

Submitted MPhil Dissertations

Mowat, Elinor (2006) An assessment of the validity of a database of dismembered body parts with a view to aiding identification.

Submitted MSc in Human Identification Dissertations

Duncan, Siobhan (2006) An Assessment of the Viability of Soft Contact Lenses to Survive Inhumation (burial).

Fairbairn, Lisa-Claire (2006) The Sacrum: A Metric Analysis.

Garrido-Varas, Claudia (2006) Metric and Morphological Analysis of the Proximal Phalanges of the Hand in the Human Adult.

Lythe, Christina (2006) Face Recognition: Measuring the Impact the Exclusion of Facial Expression and Facial Hair in Forensic Facial Reconstruction has on Recognition Rates.

McMinn, Laura (2006) Face Shape and Ear Shape and their Relationship with Hard Tissues

Meadows, Helen (2006) The Biometric Potential of the Human Hand.

Morrison, Christopher (2006) Identical Twins: A Loophole in Voice Authentication Systems?

Wasim, Shabnam (2006) A Comparison of the Imaging Modalities that can be used to Identify Sex from Costal Cartilage Ossification Patterns.

Department of Archaeology University of Durham

by Sarah Groves

People

Dr Becky Gowland joined the department in October 2006 as Lecturer in Bioarchaeology. Dr Tina Jakob has taken up a Teaching Fellowship in the department, teaching modules in Osteology, Anatomy and Palaeopathology. Dr Sarah Groves has been appointed as post-doctoral research on the AHRC funded project 'The Bamburgh Bowl-Hole Anglian Cemetery: A contextual study'

Current Projects

Charlotte Roberts is Principal Investigator for the AHRC funded project: The Bamburgh Bowl-Hole Anglian Cemetery: A contextual study. Dr Sarah Groves is the postdoctoral research assistant for the project, and it is in collaboration with the Bamburgh Research Project. Co-applicants for the grant are Dr Graham Pearson of Earth Sciences, Durham and Dr Sam Lucy of the University of Cambridge Archaeological Unit.

Andrew Millard is involved in a number of isotope projects in the Archaeological Chemistry Laboratory at Durham including; analysis of Crusader remains from Israel to investigate their migration (with Piers Mitchell, Imperial College), investigation of the origin of men believed to have died in the Battle of Chester in AD 616 (with Chester Archaeological Society), and Rosa Spencer's PhD work on the relation between diet and DISH using carbon and nitrogen isotopes.

Charlotte Roberts has started her 2 years Leverhulme Trust funded Research Fellowship to write a book entitled: A bioarchaeology leprosy: a global perspective on a declining disease (University Press of Florida).

Becky Gowland is continuing to work with Professor Peter Garnsey (University of Cambridge) and Paola Catalano (Soprintendenza di Roma) on a British Academy funded project which seeks to examine the health of individuals from Ancient Rome.

Paola Ponce has started the second year of her PhD in 'Activity-related pathologies in South American populations' supervised by Dr. Charlotte Roberts and Dr. Andrew Millard. She has recently visited the Museo Arqueologico San Miguel de Azapa, in Arica, Chile to gather the data for her research, finding very interesting pathologies in the two populations considered, which will be analysed in the present year.

The following are current research students in the Department:

Alvaro Arce (PhD, self funded): The good health of the Anglo-Saxons. Supervised by Charlotte Roberts and Andrew Millard

Karen Bernofsky (PhD self funded): Bioarchaeological study of respiratory disease in Britain. Supervised by Charlotte Roberts and Rebecca Gowland

Samantha Booth (MPhil/PhD self funded): Stress indicators and growth retardation in past populations: a late Medieval study. Supervised by Charlotte Roberts and Andrew Millard

Francisca Alves Cardoso (PhD, Portuguese Foundation): A portrait of gender in two 19th/20th century Portuguese populations: a palaeopathological perspective. Supervised by Charlotte Roberts, Marga Diaz-Andreu and Pam Graves

Charlotte Henderson (PhD, self funded): A tripartite study of musculoskeletal stress markers. Supervised by Charlotte Roberts and Andrew Millard

Jaime Jennings (PhD self funded): Conflict in the Borders of England and its impact on late medieval populations. Supervised by Charlotte Roberts and Pam Graves

Janet McNaught (PhD, self funded): Clinical and archaeological study of Schmorl's nodes. Supervised by Charlotte Roberts

Paola Ponce (MPhil/PhD, Durham Doctoral Award): Markers of occupational stress in South American populations. Supervised by Charlotte Roberts and Andrew Millard

Rosa Spencer (MPhil/PhD, NERC): Testing hypotheses about DISH using stable isotope analysis and other methods. Supervised by Charlotte Roberts and Andrew Millard

Anastasia Tsaliki (PhD, self funded): Investigation of extraordinary human body disposals with special reference to necrophobia. Supervised by John Chapman and Charlotte Roberts

The following students completed the MSc Palaeopathology in 2005-6 and undertook the following dissertations:

Bernofsky, K. The effects of environment on respiratory health in early Medieval northeast England

Boyd, J. Josefov: Presence of metabolic disease in Great Moravia

Haddon, J. European expansion and infectious disease in sub-Saharan Africa: How Colonialism affected health status, past and present

Hemer, K. City life: The effect of an urban lifestyle on the respiratory health of non-adults from Fishergate House, York

Hudson, B. Stable isotope analysis and paleopathology in prehistoric Thailand: Correlations and potential

Feeley, R. Age distributions of metabolic disease in the Roman and Medieval periods

Jennings, J. Hair or bone? The impact of preservation on stable isotope analysis methods and dietary profiles

Jones, R. Nutritional and environmental stress in the subadult population of Fishergate House, York

Park, V. Palaeopathology in professional and popular media – a current review

Pliska, J. You are what you eat: A multilateral look at the nutrition of the ancient Maya and methodological commentary

Roberts, N. The iceman: homicide or accident?

Robinson, F. Investigating changes of diet in a late medieval and post-medieval population. Does the dental evidence support what is suggested by historical and archaeological sources?

Rogers, K. What is Paget's disease of bone? Why is it considered a disease of the Northwest of England?

Whitaker, K. Tuberculosis in the past: Should visceral surface rib lesions be added to the diagnostic criteria?

Faculty of Medicine Imperial College London

by Piers Mitchell

The course in palaeopathology takes both BSc and MSc students, and encouragingly remains oversubscribed. Five members presented their research at the BABAO conference this year, on the topics of tuberculosis, cranial trauma, rickets, and crucifixion.

Departmental research continues at multiple sites in the Middle East, including the medieval castles of Blanchegarde and Jacob's Ford, the cities of Caesarea and Acre, and the village of Parvum Gerinum. Our work on weapon injuries in soldiers from Jacob's Ford Castle was shown in a BBC Timewatch documentary, broadcast in April 2006.

Collaborative projects this year involve staff from the Museum of London, University of Durham and University of Reading. The study of childhood diseases of the hip in the Spitalfields cemetery with Rebecca Redfern of the Museum of London Archaeological Service has progressed well and nears completion. The project with Gundula Müldner in Reading investigating medieval diet using stable isotope analysis in a range of crusader period populations is underway. Together with Andrew Millard at Durham, we have also been studying migration between Europe and the Middle East with the crusades, with the analysis of dental isotopes.

Department of Archaeology University of Reading

by Mary Lewis

The Department of Archaeology at Reading now has two dedicated human remains specialists adding to their already excellent reputation in mortuary analysis and mortality theory by researchers such as Heinrich Härke, Robert Chapman and Roberta Gilchrist.

Current research interests include child anthropology, forensic anthropology and palaeopathology (Mary Lewis) and bone chemistry, particularly dietary analysis using isotopic analysis (Gundula Müldner).

We were recently awarded a large AHRC grant under the Diasporas, Migrations and Identities research initiative. This multi-disciplinary project (2007-2009) will explore the cultural and biological experience of immigrant communities in Roman Britain and is directed by Dr Hella Eckardt, Dr Mary Lewis and Dr Gundula Müldner. We have also recently appointed two post-doctoral research assistants: Stephany Leach (osteology) and Caroline Chenery (isotopic analysis). Evidence for diaspora communities will be analysed through a combination of material culture, skeletal and isotope research. Sites were selected from settlements of differing status and function including military, civilian, and urban. The skeletons selected date from the 2nd-4th century AD. Skeletal remains will be studied to identify immigrants through ancestral traits, and through oxygen and strontium isotope analysis. We will then employ further osteological research and isotopic analysis to explore the biological and cultural experience of these diaspora communities. The examination of foodways through carbon and nitrogen analysis of bone collagen will form a crucial aspect of this work, and integrate current research on the importance of traditional diets and "nutrition transition" in migrant communities. Migration can have a considerable impact on the health of first and second-generation diaspora populations, including women and children. We will ask whether it is possible to identify specific diseases and trauma among diaspora communities in Roman Britain as well as what the archaeological analysis of the burial rite and material culture of these groups can contribute to debates about the religious and cultural life of diaspora communities.

We currently have 6 PhD research students working within the Bioarchaeology Research Group on sites in Jordan, the US and the UK:

Laetia Kress (Self-funded): The health of individuals buried at St Gregory's Priory Northgate, Canterbury.

Michela Sandias (Leverhulme Trust): Stable isotope analysis of human and faunal skeletal remains from ancient Jordan: changes over time in exploitation and availability of water and food resources.

Kay Lakin (NERC): Medieval health, diet and migration: isotopic analyses.

Bernadette Manifold (University of Reading Studentship): An investigation into the preservation of child skeletal remains and its implications for bioarchaeology and forensic anthropology.

Maria Jeleca-Tavakoli (Self-funded): A forensic approach to the estimation of human stature: a study based on measurements of the lumbar and sacral spine.

Justine Tracey (Self-funded): Cultural Behaviour or Natural Processes: Studying Prehistoric Human Remains in Britain and Ireland.

We will be holding the BABAO Annual conference in September 2007 and look forward to welcoming you to Reading!

Human Osteoarchaeology and Biological Anthropology University of Sheffield

by Andrew Chamberlain

Andrew Chamberlain has been promoted to Professor of Biological Anthropology.

PhD Theses submitted in the Department of Archaeology 2006:

Costa Eliopoulos: The creation of a documented human skeletal reference collection and the application of current aging and sexing standards to a Greek skeletal population.

Rebecca Harrison: Investigating the evolution of language. How the study of handedness in nonhuman primates can contribute to the debate on the origins of language.

Pamela Macpherson: Tracing change: an isotopic investigation of Anglo-Saxon childhood diet.

PhD Theses submitted in the Department of Forensic Pathology 2006:

Stephanie Davy-Jow: Forensic Facial Reconstruction Using Three-Dimensional Computer Modelling Techniques.

Xanthé Mallett: Facial Identification for the Courts: Science, Statistics and Law.

Dissertations submitted in 2006 for the MSc in Human Osteology and Funerary Archaeology:

Joseph Cosgrove: Biological anthropology of medieval and modern human crania.

Lucy Dawson: Extra-dietary use of anterior dentition: a comparison of microscopic wear patterns in the human population from the Blackgate collection.

Jessica Douglas: Buried soldiers? Evaluating activity-related skeletal change at Heronbridge, Chester.

Kate Ferron: Linear enamel hypoplasias as a marker of childhood physiological stress in the early Medieval assemblages of Berinsfield and Blackgate.

Gemma Gomersell: St Oswald's Church, Warton, Lancashire: an analysis of the skeletal remains for pathology and musculoskeletal markers.

Verity Herbert: Studying cranial trauma: an anthology of violence.

Iwona Kozieradzka: Frequencies of pathological conditions ascertained on the New Kingdom assemblage from the Theban area in Egypt.

Lauren McIntyre: To what extent are excavated samples of nineteenth century human skeletal remains representative of the populations that they come from?

Michelle Machicek: An analysis of musculo-skeletal markers and degenerative joint disease in a sample of early Iron Age skeletons from Pokrovka, Russia.

Bernadette Mercieca: The Tarxien cemetery: funerary ritual of the Maltese Islands.

Jenna Morgan: Investigating the prevalence rates and causes of Vitamin D deficiency in two populations from Newcastle and Sheffield.

Alison Sables: Prominent anteriorly projecting iliac tubercle from an Early Medieval Welsh population.

Carrie Sulosky: Regional variations in Romano-British cremation rites.

Danielle Thickett: A study of the relationship between fluctuating asymmetry and ill-health experienced by an individual.

Alexandra Thornton: Porotic hyperostosis: a study of alternative aetiology.

Department of Archaeology University of Southampton

by Sonia Zakrzewski

New Building

At the start of October 2006, the Department of Archaeology moved into a new building.

This included the refurbishment and development of a new suite of laboratories dedicated to osteology (both human and zooarchaeological), and a dedicated osteology library.

Staff Changes

Yannis Hamilakis spent the academic year 2005-6 in California as a result of winning a Getty Scholarship (based at the Getty Research Institute, Los Angeles). Jaco Weinstock has joined the department on a part-time basis (spending the rest of his time in Copenhagen).

Research Students

There are several research students working within the department on osteological and anthropological topics. Lisa Cashmore, funded through the British Academy Centenary Project (From Lucy to Language), mainly working with Sonia Zakrzewski, has developed a methodology for assessing MSM in the hand, and is currently comparing primate and hominin material. Kerry Harris, partially funded by English Heritage, has returned from Greece where she has been studying the zooarchaeological evidence for feasting in Bronze Age groups. Sarah Inskip, under the supervision of Sonia Zakrzewski and Joanna Sofaer, has started studying gendered differences in the palaeopathological changes resulting from urbanisation. Following on from her previous work on taphonomic change to Medieval Spanish material, Sarah will be concentrating upon differences between British and Spanish contexts. Argyro Nafplioti has submitted her PhD (awaiting viva), which has been looking at population movements and between the mainland and islands in Bronze Age Greece, combining both osteological and strontium isotope methods. She mainly has been working with Joanna Sofaer. Kristin Oma has successfully completed her doctoral dissertation under the supervision of Joanna Sofaer and Yannis Hamilakis, which looked at the relationship between humans and animals in southern and central Europe.

Dissertations Approved for the MA in Osteoarchaeology 2005-6

Martyn Allen: Social and cultural change in Southwest Britain, AD 0-600: A zooarchaeological study.

Amanda Di-Loreto: The relationship between juvenile age at death estimates obtained from four juvenile dental aging methods and four juvenile long bone length aging methods within and between an Islamic skeletal collection from Écija, Spain, and an Anglo-Saxon skeletal collection from Great Chesterfield, England.

Allison Grunwald: Animal bones of Berwick Field, Winchester: A partial assemblage from thirteen pits.

Richard Madgwick: Bone modification in Iron Age Wessex: patterns in the treatment of human and animal remains. A case study analysing remains from the Hampshire sites of Winnall Down and Danebury.

Emma Pomeroy: Metric postcranial sexual dimorphism in the medieval Muslim population of Écija, Spain.

Alan Russell: A methodological and social approach towards an interpretation of Anglo-Saxon Great Chesterfield, Essex.

Eleanor Williams: The medieval religious diet: a comparative study into the dentitions of Carthusian monks and mendicant friars.

Jennifer Wainwright: A craniometric study of the population of Écija, Spain.

POSTGRADUATE RESEARCH ABSTRACTS

PhD Abstract

Lisa Cashmore (continuing, Centre for the Analysis of Human Origins (CAHO) University of Southampton)

Hand morphology, hand preference and laterality

The lateralised organisation of language capabilities in the human brain has been often been pin-pointed as crucial for the development of the human genus. A functional link in the primary motor cortex between the Broca's area and the motor control centre for the hands has led researchers to propose an evolutionary link between the development of language capabilities and manual dexterity. Studies of manual dexterity within skeletal populations have, for methodological reasons, focused on bilateral asymmetry of the bones of the arm and shoulder. My current research, however, aims to demonstrate that the study of the often neglected bones of the hand can provide insights into hand preference in hominin evolution, and thus into tool manufacture and use. Modern concepts of 'handedness', with their focus on hand preference as reflected by culturally specific tasks such as holding a pen, are seen as unhelpful when determining patterns of hand use in archaeological populations, and therefore this study suggests a move towards classifying hand use as a preference for each hand to engage in fine manipulation and strength activities.

To this end, 95 modern human skeletons were studied from a variety of sites: Great Chesterford, Essex; Écija, Spain and the Greenwich Naval Hospital cemetery, London. Metric data were collected on both the humerus and the bones of the hand and compared with visual assessment of muscle attachment site development (such as that proposed by Hawkey & Merbs, 1995) in order

to compile a more complete picture of upper limb bilateral asymmetry. In addition, data were collected on 40 non-human primate skeletons (20 chimpanzee, 20 gorilla) to provide a comparative sample who are predicted to show reduced upper limb asymmetry due to the functional constraints of quadrupedal locomotion.

Data analysis is now underway to determine if the bones of the upper limb present a consistent pattern of asymmetry, that is to say, whether the bones of the hand lead to the same conclusions regarding laterality as the humeri. Additionally, a comparison between methodological approaches is in progress to ascertain the influence of the different techniques (metric and muscle marker analysis) on assessments of asymmetry.

This research is funded by the British Academy Centenary Project – From Lucy to Language: The Archaeology of the Social Brain (<http://www.liv.ac.uk/lucy2003/>)

PhD Abstract

Annia Kristina Cherryson (2005, University of Sheffield)

In the Shadow of the Church: Burial practices in the Wessex heartlands, c.600-1100 AD.

This thesis examines the impact of the introduction of Christianity and the ensuing consolidation of the position of the Anglo-Saxon church on burial practices between c. 600-1100AD in the Wessex heartlands. At the core of this study is a survey of the burial evidence in the counties of Berkshire, Devon, Dorset, Hampshire, Isle of Wight, Oxfordshire (below the Thames), Somerset and Wiltshire. This data is then used to examine the influence of the Church on the treatment of the body, grave type and grave variations, and on the commemoration of the dead. This study also examines the evidence for the development of churchyard burial. Finally, the impact of the

re-emergence of urban centres on burial is investigated through the use of two case studies focusing on early medieval Southampton and Winchester.

This study demonstrates that the initial impact of the Church on burial practices was limited and that most of the changes seen in mortuary behaviour in the seventh and even eighth century should be seen predominately as the result of other factors. In contrast, by the late Saxon period, the Church appears to have had a major influence over burial practices and it had become inextricably linked with burial and commemoration. In particular, the Church had a profound impact on burial location, with the development of churchyard burial, although the transition to churchyard burial was not as rapid as once thought with burial outside churchyards persisting into the tenth century within the study area. The later Saxon period also saw the Church increasing its control over the ceremonial and ideological aspects of burial. The Church provided funerary services such as prayers and masses prior to and during burial, the dead were interred in ground consecrated by the Church and commemorated in masses and prayers conducted by the Church. This is particularly apparent in the archaeological evidence for the commemoration of the dead both in the Christian iconography seen on funerary sculpture and in the inscriptions many bear with their references to Christian beliefs in the afterlife seen on funerary sculpture in late Saxon Wessex. The Church's impact on other aspects of the funerary process, such as the grave elaboration and the treatment of the body, was more subtle and indirect, and at times inadvertent.

Finally, while the primary focus of this study is the relationship between the Anglo-Saxon Church and mortuary behaviour, this work has generated a number of secondary findings. The case studies on burial in Southampton and Winchester with their multiple cemeteries and scattered isolated burials provide a graphic illustration of the complexity of burial in early medieval urban centres. These case studies

also demonstrate that the density and distribution of occupation within urban centres is correlated with cemetery number and location. In addition, the data generated by the survey of burial evidence in this study has allowed the chronological and geographical distribution of funerary practices within the study area to be examined. Finally, this research also confirms the findings of a number of other studies that gender and, to a lesser extent, age cease to be major factors in determining funerary provision, although social identity does continue to be signalled and to determine the nature of grave elaboration associated with many late Saxon burials.

PhD Abstract

Lizzy Craig (continuing, University of Sheffield)

Bio-cultural analysis of middle-Saxon cemeteries in northern England

Supervisor: Dawn Hadley

Funding: AHRC

Traditionally two distinct horizons have been identified in the funerary archaeology of the middle-Saxon period (c.650-850): the cessation of apparently pagan practices and the beginning of churchyard burial. However, it is increasingly apparent that churchyard burial did not become the norm until the 10th century, and that the preceding period is characterized by a diverse range of funerary practices and burial locations that have scarcely begun to be understood. Previous discussion of middle-Saxon burial rites has typically focused on southern England, and is usually limited to specific burial types (e.g. barrow burials) or focussed on a specific issue (e.g. the impact of Christianity). Where synthesis *has* been undertaken (e.g. by Andy Boddington and Helen Geake) the skeletal data have been neglected, while published site reports incorporating osteoarchaeology rarely

exceed comparison of grave-goods with age and sex. The funerary archaeology of the middle-Saxon period is, thus, in need of an interdisciplinary analysis, integrating a wider range of osteological evidence with study of grave goods, cemetery morphology and landscape setting. This will permit new insights into the social strategies of a period characterised by the emergence of more stable social hierarchies and the establishment of the Christian Church.

The study will survey the middle Saxon cemetery data from northern England, consisting of c. 50 cemeteries of varying extents. A study of the settlement and landscape context of the cemeteries will then be undertaken; Helena Hamerow's recent suggestion that middle-Saxon burials are increasingly found adjacent to, and within, settlements requires greater elucidation. The skeletal material from a selection of cemeteries will be analysed. Age, sex, stature, and pathological conditions will subsequently be correlated with burial provision (e.g. grave form, furnishings and location), a methodology that has been employed successfully for both early and late Saxon cemeteries in northern England (e.g. by Sam Lucy and Jo Buckberry), in order to investigate social factors such as status (comparing burial provision with markers for health and dietary status), gender identity (through comparison of treatment of the sexes) and group allegiance (evidence for family plots and zoning). Integrated studies of social and bio-archaeological evidence, although rare, highlight the potential of this approach; these include the identification of differential access to food in the early Anglo-Saxon cemetery at Berinsfield by Karen Privat and Tamsin O'Connell, and John Robb's identification of decreasing prevalence of stress indicators in wealthier graves in Iron Age Italy. In the middle-Saxon period more elaborate graves become separated from the remainder of the buried population at this time, and it would be insightful to assess the extent to which this separation is reflected in osteoarchaeological correlates.

PhD Abstract

Costa Eliopoulos (2006, University of Sheffield)

The creation of a documented human skeletal reference collection and the application of current aging and sexing standards to a Greek skeletal population.

Human skeletal reference collections have played an important role in the development of physical anthropology. Such a collection was put together as part of the present study. It consists of the remains of 153 Greek individuals. The remains come from cemeteries in the area of Athens and were donated to the University of Athens by local municipalities. All ages for both sexes are well represented in this sample, with the exception of subadult remains. A variety of pathological conditions are present in the collection, making it a useful sample for studying human skeletal morphology.

Recent publications dealing with methodological considerations in physical anthropology advocate the creation of population specific standards for aging and sexing techniques. This is the result of the realisation that there are differences between populations in the expression of sexual dimorphism and skeletal aging. The collection prepared for this study, along with an existing collection, were used as a sample upon which current aging and sexing methods were tested.

Results indicate that the majority of the pelvic sex traits can be used on Greek skeletal population, as they displayed high accuracy rates. Cranial traits performed poorly, suggesting that these traits are not appropriate for this population. Metric sex traits of postcranial elements appear to have a great potential as a sex determination method, but only after they have been adjusted to reflect the skeletal proportions of Greeks. The aging methods produced similar results to studies

conducted on populations from other parts of the world. In particular, these methods have a tendency to overestimate younger and underestimate older individuals. Modifications of these techniques are required before they can be applied on Greek skeletal populations.

PhD Abstract

Rebecca Griffin (2006, University of York)

Application of amino acid racemization in enamel to the estimation of age at death of archaeological remains

Archaeologists and forensic scientists are currently restricted in their ability to ascertain age-at-death for adults, due to the limitations of existing techniques. This study aims to develop a promising new analytical technique to ascertain age-at-death for adult skeletons biochemically, known as amino acid racemization. In this project, the method for measuring racemization in tooth dentine is adapted for application to dental enamel. Enamel is believed to be better preserved in the burial environment than dentine, making it potentially more useful for archaeological age estimation.

A new method for sampling enamel proteins, known as acid etching, was developed to prevent destruction of the teeth when sampled. This method was found to be highly promising as an age estimation methodology for recent human remains. A good correlation between known age and the extent of racemization was observed in modern teeth. Similarly promising results were obtained for two archaeological populations of unknown age-at-death. However, testing of the method on archaeological teeth of known age-at-death indicated that the process of racemization in the burial environment is not as simple as had been expected from the pilot analyses. This was found to be due to the presence of two pools of amino acids in dental enamel, one

acting as a closed system and one acting as an open system in the burial environment. The presence of amino acids in an open system in the enamel appears to compromise the ability of amino acid racemization to estimate age in recent archaeological populations. However, few of the amino acids from the open system remain after a thousand years post-mortem. In addition, retention of the amino acids of the closed system is high. Thus, it may yet be possible to apply amino acid racemization in enamel to the study of earlier archaeological populations.

PhD Abstract

Rebecca Harrison (2006, University of Sheffield)

Investigating the evolution of language. How the study of handedness in nonhuman primates can contribute to the debate on the origins of language.

Species-level right handedness and language are considered as markers of human uniqueness. There is however considerable debate over the origin and evolution of these two topics and how they are inter-related. Handedness is often used as a means of investigating the evolution of language, the reason being that there is a perceived biological connection between handedness and complex behaviours, for example tool manufacture and spoken and gestural language. Furthermore in modern humans the brain centres for right hand use and language are closely linked.

In this study I investigate limb preference in extant nonhuman apes. I collected 1000 hours of data on captive bonobos (N=22), chimpanzees (N=7), gorillas (N=21) and orang utans (N=21). Hand use was recorded across a range of behaviours which were part of the apes' daily routine. The results did not reveal any significant species-level handedness. This suggests that either species-level right handedness and by inference language capabilities evolved after the

divergence of chimpanzees and hominids, or that language capabilities evolved earlier but this cannot be effectively investigated using handedness.

Some hand preferences were found but these were significant only on an individual-level. In addition significant population-level preferences were demonstrated for certain behaviours. However in none of the species studied did these preferences translate into a species-level preference as is seen in humans. An alternative interpretation of these results is that the inconsistent limb preferences which are found in nonhuman primates might represent a weak form of handedness, i.e. an earlier manifestation of adaptation to such behaviour.

PhD Abstract

Sarah King (continuing, University of Bradford)

Engendered Violence in Iron Age Europe

The British Iron Age is best known from its many hillforts and metal weapons. The defensive function of these hill-top enclaves and violent use of weapons has been questioned, with greater emphasis placed on their putative role as symbols of prestige. Classical sources, however, although non-indigenous and often inimical, portray a society dominated by endemic violence. In order to address these conflicting views, this project will assess the occurrence and scale of violent interactions through the study of weapon-related injuries in human skeletal populations. Investigation will include population-level demography and injury assessment, burial associations, and the distribution of injuries by status, age, and sex. A comparative analysis of sites from East Yorkshire as well as remains from other contemporary sites, such as Danebury (Hampshire) and Yarnton (Oxfordshire), will be undertaken allowing for a regional

perspective of violent behaviour during the Iron Age.

PhD Abstract

Gill Scott (continuing, University of York)

A study of autopsies on mummified remains of ancient Egyptian origin: Assessing the techniques, outcomes and conservation issues surrounding these scientific and non-scientific procedures

One of the many objectives for this project is to create a computer programme which will record specific information for suitable *unwrapped* Egyptian mummies. The end product will allow researchers to identify specific scientific techniques that have been utilised both successfully and non-successfully on an individual or a group of mummies using a search facility.

Further information can be found at the weblink below:

<http://www.york.ac.uk/depts/arch/pgstudents/Scott.htm>

**EXCAVATION AND ANALYSIS
OF HUMAN SKELETAL
REMAINS 2005-6**

AOC Archaeology Group

by Melissa Melikian

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AOC Archaeology Group has been involved in a number of projects through Historic Scotland's Human Remains Call-off contract. The contract with AOC is designed to help

Council and local Trust archaeologists deal with unexpected finds of human bones.

Auldhame, East Lothian

In early 2005, AOC Archaeology Group were called in by Historic Scotland to investigate some human skeletons unearthed by ploughing near Auldhame, East Lothian (NGR: NT 6016 8476). The subsequent excavation revealed the remains of a previously unknown early medieval chapel and graveyard which overlay an Iron Age promontory fort, the ditch of which came to define the boundary of the later graveyard. The area around Auldhame is steeped in history and associations with the 7th century Saint Baldred who founded a monastery at nearby Tynningham and lived a life of solitude on the Bass Rock, which is situated in the Firth of Forth and is visible from the site. Preliminary comparative evidence indicates the chapel at Auldhame may date from the 9th century but there are burials which clearly pre-date the chapel and which, together with other partial structural remains, may be contemporary with Saint Baldred. The graveyard appears to have gone out of use during the 17th century.

Over five months 240 individuals were recovered from the graveyard. At least three phases of burial activity are clear from the alignment of the graves and initial Carbon 14 dating of six skeletons has allowed tentative sequencing to take place. The earliest of these groups are aligned northwest to south east and are dated from between 680 AD to 880AD. The second group have an east-west alignment the same as the chapel remains and have been dated to 890 AD to 1030 AD. These two groups were concentrated on the south side of the chapel while the third group, aligned southwest to northeast and dated from between 1280 and 1400 were a distinct group separated from the rest at the west end of the chapel. This group consisted of mostly juveniles whilst the two earlier groups were of mixed age. Graves were also seen to have been cut by the construction of the chapel and a dated skeleton suggests that the chapel remains can not have been built before 900

AD. If burials are taking place before the current building remains and together with the evidence of the changes in alignment it is possible that there was an earlier chapel at the site.

The type of burial also varied across the site. The majority were simple earth-cut graves but distinctive cists and coffin burials were also present. Grouping of graves with regard to demography has yet to be analysed but a significant number of neonates had been buried very close to the central south wall of the chapel - perhaps a way of sanctifying unbaptised infants. A deposit rich in beach shells was identified over part of the site, indicating perhaps that the graves were once marked with cairns of shells before being ploughed away after the graveyard ceased to be used. Very few grave goods were found but of particular note were an iron blade, two strap ends and possible stirrups from a single burial. Analysis of the artefacts and the shell-rich deposits will form part of the post-excavation programme but the bulk of the work will be concerned with the skeletal assemblage. The skeletal material is currently undergoing a population-based, detailed osteological analysis and further studies are proposed, in particular isotope analyses to examine the origins and the diet of the population.

Bowling Green Lane, Clerkenwell, London Borough of Islington

AOC Archaeology is currently undertaking archaeological works at 10 Bowling Green Lane, Clerkenwell, London Borough of Islington (NGR TQ 3144 8233). The site is a known post-medieval burial ground for the parish of St James dating from 1660-1853 and is first shown on Ogilby and Morgan's map of 1672. A prior evaluation phase on the site identified a high density of burials and 7000-10000 burials are thought to be within the development area. A portion of the site is being excavated under archaeological conditions with the remainder of the burials removed by an exhumation company under an archaeological watching brief. Excavation has been underway for two months and c.400

skeletons have been recovered from the archaeological excavation area. Only two legible coffin plates have been found. The excavation will be completed in March.

Museum of London Archaeology Service

by Natasha Powers

This year has seen the continuation of development projects requiring excavation of large scale post-medieval assemblages, particularly in east London. Staff also carried out analysis of Iron-Age and Roman cremations and inhumations burials from the City and elsewhere in southern England, including a spectacular group of cremation burials from Milton Keynes. A previously unknown Saxon cemetery has been discovered off Trafalgar Square. The recording of some 5,500 individuals from St. Mary Spital has ended, with the project due for completion at Christmas. The Roman assemblage from Spitalfields has also been completed. Copies of all assessments and archive reports are available from the LAARC or via MoLAS osteologists, in some cases permission must be sought from the project manager or client. Staff have also been involved in forensic work for the City and Metropolitan police.

Recent and current excavations

Royal London Hospital, Whitechapel (RLP05)

Period: Post-medieval.

Estimated MNI: >250 inhumations (177 single inhumations, the remainder 2 to 17 individuals/parts of individuals in shared coffins/graves).

Excavations in the eastern part of the old burial ground have been completed. A watching brief continues before the next phase of work starts in the west. Almost all burials have evidence of surgery, autopsy or anatomical dissection. Examination of the remains will tell us much about the techniques practiced and the health of those unfortunate

enough to have ended up in the dissection room: it was specified by the Hospital Governors that patients were not to be used for teaching purposes, from the evidence it looks like this was widely disregarded. Future analysis will provide a unique challenge to the MoLAS osteologists!

Excavation ongoing. Due for assessment 2007

Payne Road, Bow (PAY05)

Period: Post-medieval (Baptist).

Estimated MNI: c.250.

Individuals were interred in stacks with no intercutting of graves. Evidence of re-use of the grave plots was found with entire, disarticulated and redeposited individuals at the base of several graves. There was limited preservation of coffin plates but good records exist for the location of individuals within the cemetery and it is hoped that this will allow the identification of the majority of individuals.

Due for assessment early 2007

Prior Weston School, Whitecross Street, Islington (GDA05)

Period: Post-medieval (Non-conformist).

Estimated MNI: c.250.

This group was well preserved, with 30 individuals retaining significant quantities of hair, despite complete skeletalisation. Coffin and artefact preservation were also extremely good.

Due for assessment early 2007

'In-house' assessments

Bishop Challoner School, Lukin Street, Whitechapel (LUK04)

Period: Post-medieval 1843-54 (Catholic).

Estimated MNI: 747 inhumations (293 adults, 454 sub-adults).

The cemetery consisted of deeply stacked burials in wooden coffins, with no intercutting of graves. Partially legible coffin plates were recovered from 194 contexts, surname evidence suggesting a large Irish contingent. High rates of dental disease were seen. One adult had a composite gold and porcelain denture and two individuals had fillings (grey

metal and possible pitch). There was a high rate of traumatic injury, particularly fractures and predominantly affecting males. Seven individuals who had undergone craniotomy were noted. Skeletal lesions resulting from scurvy and anaemia were seen and 6.6% of the sub-adults had evidence of rickets. Three males had suffered from D.I.S.H. Tuberculosis and venereal syphilis were also present and particularly florid cranial changes were seen in an adult who had undergone autopsy. Two possible instances of inter-uterine death were recorded. One of the most intriguing features of the assemblage was the high number of notches resulting from habitual smoking of clay pipes, all of whom were male (22/90 males: 24.4%). Three factors raise the significance of this site: the narrow date range (11 years), the number of children, and biographic data for a large number of sub-adults.

Powers N. 2006. Assessment of human remains excavated from Bishop Challoner School, Lukin Street. Unpublished assessment report HUM/ASS/05/06

Glasshouse Yard, Islington (GLY01)

Period: Post-medieval (Non-conformist).

Estimated MNI: 25 inhumations (22 adults, 3 sub-adults).

The sample showed little evidence of disease or injury apart from degenerative joint disease and dental disease.

Powers N. 2006. Assessment of human remains excavated from Therese House, 29-30 Glasshouse Yard, London, ECI HUM/ASS/10/06

St, George the Martyr, Southwark (SGY05)

Period: late-medieval/early post-medieval.

Estimated MNI: 163 inhumations (109 adults, 54 subadults).

The remains were associated with the original (pre-1730) church. High rates of dental disease were noted, but apparently low rates of 'stress indicators'. Joint disease included one case of probable gout. Ten adults had evidence of trauma including two 'greenstick' fractures, a case of *myositis ossificans* and possible evidence of cranial surgery. An adult male had

advanced skeletal changes as the result of Paget's disease.

Powers N. 2006. Assessment of human remains excavated from the Church of St George the Martyr, Borough High Street, Southwark SE1. Unpublished assessment report HUM/ASS/13/06

St. Martin-in-the-Fields, Westminster (SMD01)
Period: Roman/Saxon/Medieval.

Estimated MNI: 29 inhumations (23 adults, 6 sub-adults).

Nine burials were of probable Saxon date, as yet 10 burials remain un-phased. The burial of an adult male within a plain stone sarcophagus was radiocarbon dated to the fifth century. All Saxon burials were adult and the five for whom sex could be estimated were male. There were relatively few indicators of disease or injury in the articulated assemblage. Dental disease, spinal and extra-spinal joint disease were noted, together with an adult male with a dysplastic right hip and active non-specific infection.

Powers N. 2006. Assessment of human remains excavated from St. Martin-in-the-Fields, Westminster Unpublished assessment report HUM/ASS/11/06

Royal Mint Square (RMI05)

Period: Post-medieval.

Estimated MNI: 187 inhumations (160 adults, 27 sub-adults).

The integrity of the assemblage was poor with many redeposited, mixed individuals. Dental and joint disease was frequent. There was little infectious disease noted, though one male had probable syphilis. Eleven adults had healed fractures. Three adults with resolved rickets were noted and four adults had suffered from D.I.S.H. There was no evidence of dentistry and a lower caries rate than seen at other 18th-19th century sites, which may support the theory that the group were from the earlier post-medieval period. Metastatic carcinoma, probable prostate cancer, was noted in an adult male. A disarticulated cranium showed evidence of dissection and peri-mortem trauma.

Powers N. 2006. *Assessment of human remains excavated from Royal Mint Square, London E1, London Borough of Tower Hamlets. Unpublished assessment report HUM/ASS/08/06*

Forthcoming publications and 2006 archive reports:

St. Marylebone School, Westminster (MAL92 and MBH04)

Period: Post-medieval.

MNI: 301 inhumations (223 adults, 78 sub-adults).

Archaeological investigation was carried out in conjunction with exhumation contractors, with 15-20% of the site archaeologically excavated. Biographic data was available for eight adults. Notable finds included a young man who had suffered from leprosy (his left foot subsequently surgically amputated) and an infant with smallpox osteomyelitis. Pathology prevalence rates were consistent with a relatively sedentary and risk free lifestyle. Fillings and dentures indicated wealth and a newfound interest in preserving a 'healthy' appearance. Two adult males and three subadults had been subject to autopsy. Most intriguing was an exceptionally high prevalence of infantile rickets (10.6%).

Miles A, Powers N, Wroe-Brown R with Walker D. In prep. St Marylebone Church and Burial Ground: Excavations at St Marylebone Church of England School, 2005

[Archive report: Powers N. and Walker D. 2006. Report on the Human Bone from St. Marylebone, Westminster, London MBH04 and MAL92. Museum of London Archaeology Service unpublished archive report HUM/REP/06/06]

Old Church, Chelsea (OCU00)

Period: Post-medieval.

MNI: 290 inhumations (198 recorded).

Twenty-three named individuals were recorded 'blind' in order to test the archaeological methods of ageing and sexing. Further comparisons were made between the written archive on the named individuals and

the osteological data. Some of the individuals were related and smaller family groups could be distinguished from the coffin plates, the parish records and the plans of the family vaults.

Cowie R, Bekvalac J and Kausmally T. In press. Late 17th- to 19th-century burial and earlier occupation at All Saints, Chelsea Old Church, Royal Borough of Kensington and Chelsea

[Archive report: Bekvalac J. and Kausmally T. 2006. Life and Death in Chelsea: excavations at 2-4 Old Church Street Museum of London Archaeology Service unpublished archive report HUM/REP/08/06]

Monkston Park, Milton Keynes (BU-MOK02)

Period: late Iron Age, Romano-British.

MNI: 18 cremations (inc. 12 adults, one subadult).

Several burials were extremely artefact rich. Cribra orbitalia, endocranial lesions, vertebral joint degeneration, ante-mortem tooth loss, rotation and impaction of teeth were seen. Most features contained less than 500g of burnt bone; the largest sample contained 2472g. Fruit seeds, charred grain and burnt animal bone indicated the inclusion of foodstuffs on the pyre. A finely carved bone handle, had also been included on one cremation pyre.

Bull R. and Davis S. In press Becoming Roman: excavation of a late Iron Age to Romano-British landscape at Monkston Park, Milton Keynes. MoLAS studies series

[Archive report: Powers N. 2006. Burnt human bone from Monkston Park, Milton Keynes, Buckinghamshire BU-MOK02 Museum of London Archaeology Service unpublished archive report HUM/REP/04/06]

Blossoms Inn, City of London (GHT00)

Period: late Iron-Age, Romano-British and Saxo-Norman.

MNI: 4 inhumations (one Saxo-Norman), 60 contexts redeposited bone (MNI: 6 adults, 8 sub-adults, including 4 neonates and one foetus – all periods).

A small Iron Age or early Romano-British burial ground, which included several neonate

burials in 'non-standard' grave locations and a prone adult, was excavated. In addition to four articulated inhumations, 60 contexts from a variety of features, predominantly early Roman, contained isolated elements of human bone. The burial of infants continued into the later Roman period. Two full-term neonates were interred in the Saxo-Norman period, the location of disposal appearing not to indicate careful deposition. Analysis of this site confirmed the importance of disarticulated and redeposited human remains for the interpretation of funerary practices and spatial distribution of burials in Londinium.

Powers N. 2006. Report on the Human Bone from Blossom's Inn, Gresham Street, City of London, GHT00 Unpublished archive report HUM/REP/09/06

Archive assessment or reports were also compiled on disarticulated Neolithic bone from the Thames foreshore, Chelsea (FKN01), cremated bone from the East London Gravels project, small amounts of human bone from a post-medieval cemetery at Liverpool Street station (LVB06), a burial from Dartford, Kent (KT-LGA05), a Bronze Age deposit of burnt bone from Belgravia (MCE06), redeposited bone from Whitechapel High Street (WCE01) and Roman remains from Basinghall Street, City of London (BAZ05).

Work carried out for external clients consisted of: cremated bone assemblages from Essex for the *Essex County Council Field Archaeology Unit*, Iron-Age/Roman inhumations and cremations from Cambridgeshire for *Albion Archaeology*, cremated bone from Sussex for *Archaeology South East* and Roman remains from Greater London for *L-P Archaeology*.

Other staff news

Dr. Rebecca Redfern was awarded her PhD by the University of Birmingham. Thanks to continued support from English Heritage, Amy Gray Jones was employed as on-site osteologist at Farthing Down, Croydon. Amy will be leaving MoLAS in January to begin an AHRC funded PhD at the University of Manchester.

Heritage Burial Services Oxford Archaeology

by Louise Loe

Over the last year Heritage Burial Services (HBS) has been involved in a range of burial related projects, including the excavation, analysis and reportage of assemblages dating from prehistoric to post-medieval periods. The last year has also seen several staff changes including the departure of Angela Boyle, former Head of HBS, who has been replaced by Louise Loe, and Jonny Geber, Osteoarchaeologist, who has been replaced by Brian Dean. Another new member of the department is Nicholas Marquez Grant who joins as an Osteoarchaeologist. Other staff members include Ceridwen Boston, Assistant Head of HBS and Sharon Clough, Osteoarchaeologist.

Excavations carried out by HBS:

Horcott Quarry, Gloucestershire

An unexpected discovery of Romano-British and possibly later burials was made during archaeological works undertaken at Horcott Quarry, Gloucestershire by OA between May and August. Excavation revealed a total of 78 skeletons contained within 73 graves. The burials observed three main rites including, supine extended (50 burials), prone (16 skeletons) supine decapitated (six burials), and prone decapitated (one burial). (Burial position could not be determined for five burials). They were located in two main areas, one to the south and one to the north of the site. The southern area, the main burial area, comprised 58 burials that occupied a NE-SW alignment. Based on associated pottery, these are of Romano-British date. The northern group comprised 19 burials that were aligned east-west with their heads in the west end. In addition, one skeleton was found in an area that lay between the southern and northern groups. This burial was prone and was aligned north south with the head at the north end. The

northern group was noted for its stone lined graves and, in one instance, a lead lined coffin that contained a sub-adult skeleton. A large proportion of burials from this group were those of children. Dating evidence, in the form of pottery from two disturbed contexts, tentatively places burial activity at the northern end of the site in the Saxon period. This awaits confirmation through radiocarbon dating.

Other evidence recovered from the cemetery includes iron nails (in some cases, very large ones) which were found in association with several graves and indicate that some individuals were contained within coffins when they were buried. Many of the individuals were also buried in footwear, as the numerous hob-nails found at the foot end of the graves attest. There were no grave goods as such, but dress items were found and include copper alloy bracelets recovered from the arm bones of one adult female skeleton and a copper alloy ring found on the finger bones of another adult female. In addition, three small iron knives were found in the region of the posterior, lower lumbar spines of three adult males, and may have been worn around their waists on belts.

Preliminary analysis of the skeletons has identified 61 adults (30 males, 18 females and 13 unsexed) and 17 sub-adults (below the age of 18 years). Most skeletons were over 50% complete and were in a good or fair condition.

In addition to the Romano-British/later burials, there was also evidence for prehistoric burial activity on the site. This was in the form of approximately three (analysis is yet to confirm this number) Bronze Age or Iron Age crouched burials. Full analysis of the cemetery is expected to commence later in the New Year.

St Hilda's, Coronation Street, South Shields
Archaeological excavation by OA of part of the former burial ground belonging to St Hilda's church commenced in June and has

almost neared completion. The site is situated on a former river inlet, 'Mill Dam inlet', the topography of which has been lost to the constant dumping and reworking of ships' ballast and industrial ash waste during the post-medieval and early modern periods. A 7th century nunnery, founded by the abbess Hild, is believed to have existed on the site of the present day church of St Hilda. From at least the early 18th century, Mill Dam inlet was an area of significant industrial activity comprising mills, saltworkings, St Hilda's Colliery gas works and, later on, a shipyard.

The present site lies within a southern extension of St Hilda's churchyard and is likely to contain the burials of individuals who lived and worked on the inlet during the post-medieval period. The recovery of skeletons from the nunnery is not expected, owing to the fact that they would have been buried closer to the church. In 1816 the capacity of the churchyard was increased by raising the level of the cemetery with ships' ballast but, in 1856, in common with the majority of urban cemeteries, the churchyard fell out of use in 1856.

Approximately 200 burials of late eighteenth and mid-nineteenth century date have been recovered so far. They comprise the burials of individuals of mixed ages and sexes, including a large number of young infants (numbers to be confirmed). Many graves were layered, some containing as many as five individuals, one on top of the other, and reaching a depth of between five and a half and six metres below the modern ground surface. The remains of coffins and their associated fittings have been found, although the preservation of these is poor. One named individual, Ann Purvis, from a local family of Wear Pilots, was identified from her coffin plate. Preliminary observations have noted a range of pathological conditions including most notably, rickets, trauma and joint disease. The assessment of the assemblage is expected to commence early in the New Year.

Porto, Portugal (for Dr José Jorge Argüello Menéndez)

In July, HBS was appointed as specialist consultant by Dr José Jorge Argüello Menéndez for the excavation and post-excavation analysis of a post-medieval cemetery in Porto, Portugal. The site occupies an extension to the present day hospital where a new operating theatre is to be built.

Approximately 400 mid-19th century skeletons have been excavated. These represent the remains of males, females, adults and children who were buried in wooden coffins. One gravestone was found and records a female who died in 1857, aged 74 years. However, this was not associated with a skeleton. Some of the burials were collective and contained two or more individuals who, the excavators believe, were buried at the same time. The skeletons in the collective burials were less ordered than those that were not, perhaps suggesting hurried burial as a result of an epidemic or war. Fragments of textiles, hair pins, buttons, shoes and organic material, such as plants, have been found. However, there are few grave-goods, rosary beads and copper medallions being among these. Preservation of the skeletons is variable and the discovery of a lot of charnel throughout the site testifies to heavy use of the cemetery. Adjacent to one grave was the fragment of an unexploded (but fragmented) canon ball. Historical evidence suggests that this was taken to Porto in 1832 by King D. Miguel during the Portuguese Liberal Wars. It may have been fired into the area now occupied by the cemetery and where King D. Pedro is believed to have sought refuge. Other historical evidence testifies to high a mortality rate among the population during outbreaks of cholera and typhus when the siege of Porto (1832-1834) took place. The skeletons that have been recovered from Porto therefore provide a unique opportunity to explore the osteological evidence against this historical background.

Field work was completed just before Christmas and post excavation analysis is expected to commence later this year.

Hemingford Grey, Cambridgeshire

An archaeological watching brief and subsequent excavation undertaken at this former Quaker burial ground (late 17th century to early 18th century) revealed 16 skeletons, amongst which were nine males, five females and two of undetermined sex. They ranged in age from 18 years to over 50 years. Bone condition was good however, many of the skeletons were incomplete owing to subsequent truncation by later burials and modern intrusions. Evidence for pathological conditions was frequent and includes a bilateral lower limb amputation and idiopathic scoliosis. One male individual had a pipe facet between his teeth.

Sutton Courtney, Oxfordshire

Ongoing excavation of a rural Bronze Age and Iron Age landscape near Sutton Courtney has revealed five burials: four tightly crouched inhumations and one *in situ* cremation burial. Whilst the unaccompanied pit and ditch inhumations are not an uncommon feature of these time periods, the *in situ* cremation burial is highly unusual. The burial comprised a shallow sub-rectangular pit containing the cremated remains of an adult individual lying on a bed of ash and charcoal. The human bone was heavily calcined and was laid out in anatomic order within the pit, presumably having fallen vertically as the overlying pyre burnt out and collapsed into the feature. Considerable scorching of the top, sides and base of the pit was present. The burial had all the hallmarks of a Roman *bustum*. Two complete pots placed within the grave, however, were of middle Bronze Age date (Deverill-Rimbry). The burial was also accompanied by the complete unburnt skeleton of a lamb. Radiocarbon dating is proposed to confirm the artefactual dating of this burial.

Tubney Woods Quarry, Oxfordshire

As part of a planning application to extend Tubney Woods Quarry, OA have carried out a number of archaeological investigations since 2001. Evidence for a small rural cemetery was uncovered during the most recent phase which commenced in May last year. Two Romano-British burials were found in a boundary ditch, and a further seven were found within small square-ditched enclosures. The burials from the boundary ditch are in addition to two others recovered from the same location during the previous year's investigations. They include a child and a decapitated burial. Of the seven found in square ditched enclosures, four were aligned north-south (head at north end) and had been buried prone, one was orientated east-west (head at east end) and occupied a supine position and two of the graves were empty.

The burials appear to date to the 1st century AD and iron nails indicate that the burials were within wooden coffins. Graves within enclosure ditches are common in urban Roman cemeteries, but less so in rural contexts. Where they have been revealed they are generally isolated examples. To find a cluster of such graves is unique in this area. The ditches around the graves may have simply been to keep animals out, or possibly to signify the importance of the person buried. A contemporary settlement with associated agricultural activity has also been found at the site nearby the cemetery.

A new phase of excavation is imminent. It is also possible that a medieval cemetery may be revealed (shown on a tithe map of 1841), although no evidence for any graves were seen during an earlier evaluation. The human skeletons are yet to undergo osteological analysis.

*Osteological reports prepared by HBS:**St George's Church Bloomsbury, London*

The full archaeological excavation report was completed by HBS late last summer. This

relates to a programme of archaeological recording of burials and structures at the Grade I listed Hawksmoor Church between April and June 2003. The work comprised recording of funerary architecture and the crypt structure, along with the recording and removal of all of the burials in the crypt. A total of 781 burials were discovered within seven vaults leading off the central chamber. These dated from 1800 to 1856, after which the crypt was sealed. Coffins and their associated fittings were recorded in full and osteological analysis was undertaken on 111 skeletons retrieved from open lead coffins. Of the 111 skeletons, 72 were of known identity and underwent high resolution analysis and 39 were of unknown identity and underwent low resolution analysis.

The burial population represented the wealthy upper middle classes resident in Bloomsbury, and numbered amongst them were many lawyers, doctors, MPs, imperial administrators and librarians of the nearby British Museum, although less elevated professions, such as servant, butcher and carpenter, have been identified from the burial registers. Palaeodemographic and palaeopathological analyses have revealed patterns that are consistent with this social picture. An interesting feature of this group was the wealth of evidence for dental surgery and prostheses and as such, the affluent population of St George's crypt, Bloomsbury provides a rare insight into the early history of dentistry. Funding is now being sort to produce a published monograph on the population.

St Martin's churchyard, Wallingford, Oxfordshire (for Northamptonshire Archaeology)

OA was commissioned by Northamptonshire Archaeology to complete the osteological analysis and report on the medieval assemblage from St Martin's churchyard, Wallingford, begun by the late Trevor Anderson. The assemblage comprised 187 late Anglo-Saxon- medieval skeletons (11th-15th centuries). Bone condition was good, but considerable truncation by later burials and

modern construction works has resulted in many skeletons being incomplete. The assemblage is an interesting sample of inhabitants of this prosperous medieval market town, and offers a number of contrasts with osteological assemblages from rural contexts and large cities of the period.

St Martin's New Romney, Kent (for Canterbury Archaeological Trust)

In October, thirty-nine 12th to 16th century skeletons from St Martin's cemetery underwent standard osteological assessment by OA on behalf of Canterbury Archaeological Trust. Results indicate an assemblage that is in excellent condition with most skeletons being over 75% complete. It comprises 28 adults and 11 sub-adults. Sixteen of the adults exhibited male characteristics, while 12 exhibited female characteristics. Joint disease was infrequent, as were non-specific indicators of health stress (for example, periostitis and cribra orbitalia). Fractures were observed on three skeletons and there was one possible example of pulmonary osteoarthropathy and one possible example of congenital hip dysplasia. These observations require confirmation through full analysis which is programmed for early in the New Year.

Whitefriars' Canterbury, Kent (for Canterbury Archaeological Trust)

Human skeletal remains from the site at Whitefriars, Canterbury, Kent were recently assessed on behalf of Canterbury Archaeological Trust. They ranged in date from Romano-British (AD120-200 and 350-425) to early medieval (AD 850-1050) and medieval (1225-1550), however the majority of burials were from the lay cemetery associated with the Friary (12th-16th century). The skeletons were in excellent condition, although many were fragmented. Owing to a high level of truncation across the site many were less than 50% complete.

There were 53 adults (over 18 years) and 19 sub-adults. Most adults were elderly and the sub-adults largely comprised neonates, infants

and five to twelve year-olds. Both sexes were represented, although there were more males than females. Periostitis was frequent. Further analysis of periosteal lesions will explore differential diagnoses by considering their distribution (for example, whether they suggest systemic infection or mild trauma). Other pathological conditions include DISH, healed fractures and sinusitis. More detailed analysis is to be undertaken at full analysis in the New Year.

Wessex Archaeology

by Jackie McKinley

Osteological Reports completed in 2006

Cremation cemeteries:

Rykniold Street, Wall, Staffordshire.

Part of an early Romano-British cemetery on the southeast side of the small Roman town of Wall including the remains of c. 40 cremation burials; inhumation graves were also present but no bone survived. The cremation burials appear distinct from many of their contemporaries in the south and east of the country and seem to reflect a regional variation in some aspects of the mortuary rite. The site (Site 12) is one of a number excavated as part of the works undertaken in advance of the Birmingham Northern Relief Road (BNRR). The volume, which includes site by site reports (the Site 12 report by J.I. McKinley) should be published this year (2007). A singleton of the same date was recovered from one other site along the route.

Heathrow T5.

Small groups and singletons (total 8) M-LBA and LRB burials.

Inhumation cemeteries:

West Butts Street, Poole, Dorset.

18th century Baptist chapel. 100 individuals. Known date range (1735-1815), whole-cemetery excavation. Site to be published as Wessex Archaeology Report later this year (auth. J.I. McKinley).

Small groups and singletons from several sites of M-LIA and Medieval date.

Mixed cemeteries:

Bryn Celli Ddu, Anglesey

(National Museum of Wales backlog); E-L Neolithic 'placed' deposits of cremated and unburnt bone.

Small groups and singletons of RB date.

Cemetery Excavations

Boscombe Down, Wiltshire

The excavation of the fifth (!) Roman-British cemetery in this area is now underway, all in hailing distance of each other and all containing c. 50 burials, mostly by inhumation. Cremation burials are now also coming to light. Total number from the project is likely to be in the region of 250-300 individuals. Assessment has only undertaken to date; but excavation is on-going.

Dartford, Kent.

Poorly preserved bone from c. 60 late Iron Age to Romano-British graves. Cemetery more extensive but no bone survived in many graves.

Old Sarum, Salisbury

Series BA ring-ditches and barrows containing remains of c. 4 inhumation and 16 cremation burials of early to mid Bronze Age date. No bone assessment yet undertaken.

York Archaeological Trust

by Katie Tucker

The following work has been undertaken by Katie Tucker at York Archaeological Trust.

Analysis of 118 individuals from the cemetery of the lost medieval church of St Stephens, York with publication as an archive level report due for 2007

Continuation of the analysis of 80 individuals from the Roman cemetery on the Mount, York, including large numbers of decapitated skeletons, with web publication due in 2007

Assessment of 250+ skeletons from the Anglo-Saxon and Medieval cemeteries of York Minster, excavated in the 1970s and 1980s, for English Heritage

Analysis of 150+ skeletons from the early medieval monastery at Whithorn, excavated in the 1990s, for publication in 2007

Assessment of a small amount of disarticulated human bone from excavations in the cemetery of St Saviours, York

CONFERENCE REPORTS

Review of the BABAO Conference 2006

by Andrew Millard

This year's BABAO Conference was in a house of confectionery – though not the place Hansel and Gretel found – the former home of the Cadbury family, now part of the University of Birmingham. Thanks to the silver-tongued persuasion of Martin Smith, we even got to partake of the products of the nearby Bournville factory. Martin together with Megan Brickley and a band of student helpers, managed to organise a conference which ran like clockwork over the two days.

We kicked off on the topic of integrating history and osteology with two invited speakers courtesy of sponsorship by the Wellcome Trust. Ann Herring from McMaster University in Canada told us how historical research into First World War official war diaries was revealing information about the spread of the 1918 flu pandemic, but also demonstrating the complexity of identifying the origin of the virus and of combining genetic analysis on stored tissue samples with

historical records. Piers Mitchell (Imperial College London) showed how documentary evidence for the Crusader Kingdoms can be combined with palaeopathological evidence to give a richer and fuller picture of life in the twelfth century Levant.

Unlike last year where the local theme was prominent, we failed to hear anything about Brummies, but the Londoners were back. Don Walker discussed the medieval mass burials from St Mary Spital, considering whether they were ‘catastrophic’ assemblages representative of the living population and what caused large numbers of people to die at the same time. Tania Kausmally compared violent injuries in the post-medieval populations of Farringdon and Chelsea. During other talks we managed metaphorically to travel further a field. Paola Ponce took us to the southernmost population in the world, on Tierra del Fuego, and demonstrated from the presence of external auditory exostosis that these people were diving despite the coldness of the waters. Chris Knüsel also visited the Americas, introducing us to ‘Little Leaguer’s Elbow’, an injury occurring in baseball-pitching young boys, but also appearing in medieval populations, where archery and certain other strenuous activities seem more likely causes than baseball-pitching. Our world tour was continued by Sarah Elton, who also took us to our chronological extreme in examining Plio-Pleistocene cercopithecoid dispersals out of Africa. On to Sweden where the burial records of the church of Linköping can be correlated with the excavated burials, but the process is slow and far from complete – hence Caroline Arcini’s enigmatic title of ‘Lacunae to fill’. Closer to our Cadbury home, Jackie McKinley introduced us to the eighteenth century Baptist community in Poole, whose cemetery included more women and less young children than one might expect. Closest to that home was Rachel Adams and Holger Schutkowski’s poster on childhood mortality in Wolverhampton.

Posters and presentations also brought us a host of methodological ideas and advances, of

which I can only mention a few. Alan Ogden produced his usual gory pictures of dental diseases, and proceeded to show that we need to take care in diagnosing dental abscesses, and that when we do see them in skeletal material they were probably chronic and not painful. Rebecca Griffin, in a presentation that won the Jane Moore Prize, updated us on the progress of her PhD research on determining age-at-death from amino-acid racemisation in enamel. Promising early results have been replaced by a more complicated picture which suggests that enamel may be just as difficult as dentine for the application of this method. In another chemically-oriented talk, Tina Hayes examined the potential of the rare earth element signature as an indicator of place of origin able to resolve places that strontium isotopes cannot resolve. A fascinating paper by Maureen Schaefer discussed in detail the sequence of epiphyseal fusion in a set of Bosnian males, and she boiled the mass of data down to a simple sequence which seems to me to demand a rhyme (you can guess the tune):

*The elbow bones fuse before the
hip bones,
And the hip bones before the ankle
bones,
And ankle bones before the knee
bones,
And the knee bones before the
shoulder bones,
And the shoulder bones before the
wrist bones,
And that’s the way we all grow up!*

Execution was a theme that ran through various papers, starting with Alex Bentley’s discussion of migration and relationships in a Neolithic mass burial from Germany. Piers Mitchell, speaking on behalf of Matthew Maslen, discussed the evidence for the cause of death in crucifixion. Ten different theories have been published, but none can be unequivocally supported by the limited evidence available. An equally gruesome method of execution was the subject of Mary

Lewis' talk discussing the identity of the man buried at Hulton Abbey who had been beheaded and quartered, and presumably drawn and hanged beforehand. After eliminating some previous proposals, it seems quite possible that these are the remains of Hugh Dispenser the Younger who was executed in 1326.

Outside of the academic sessions we were treated to large quantities of wine at the reception and at the conference dinner, though sadly the quality of the food didn't match that of the wine. The dinner was followed by a new departure – the Great BABAO Pub Quiz. After forming ourselves into teams hoping we had a range of experts on football, soap operas and the like, we were treated to a selection of questions on obscure and well-known osteological topics. Lulled into a false sense of security that we might just win without that football fanatic, came the coup de grâce: 'Who played in the 1979 FA cup final?' So sharpen your wits, just in case next year's hosts at Reading dare to try another quiz!

16th European Meeting of the Paleopathology Association, Santorini, Greece 2006

by Alan Ogden

Many times during this conference I had to pinch myself to make sure I was awake. Not because the speakers were droning on, but because it was all just too good to be true. I felt sure that at any moment I would wake up to find that I had dozed off in some British lecture theatre, with rain and wind beating against the windows and most delegates huddled in jumpers. But no, this was for real!

Santorini must be one of the most dramatic venues in the world. The horseshoe-shaped island is the steep and jagged rim of a caldera formed from a huge implosion and eruption in 1640BC, causing massive tsunami, thought to be related to the collapse of the Minoan

civilisation. Hosted by the Greek Ministry of Culture, the Hellenic Society for Biological Sciences, the University of Athens, and the American School of Classical Studies, this meeting was held August 28th – September 1st 2006 at the Nomikos Conference Center, Fira, Santorini. Very well organised, this meeting combined an exotic location, delicious food, and substantial nourishment for the enthusiasm and intellect of the delegates.

Paleopathology is evidently alive and well, all over the globe. This was a truly international conference with contributions from 'all the usual suspects', but also from Russia and the Ukraine and many delegates from all over South America. During refreshment intervals the courtyard echoed with a thrilling hubbub of many languages but gradually settled down into mix of English and Spanish. There was a vast array of topics on offer, with everything from 'Abdomen' to 'Zoonoses' and an excitement about the new analytic techniques that are transforming our discipline.

The conference opened with a seriously challenging workshop on a modern reference collection from Athens, where the medical history was taped over and we had to make what we could of the skeletal material alone. This proved fascinating, revealing how incomplete a dataset we have, when only the bones are there, unaccompanied by any clinical background. As soon as the labels were uncovered and the diagnosis exposed we all claimed to have suspected as much...

That evening Jane Buikstra gave a fascinating Plenary Lecture, in tribute to J. Lawrence Angel (1915-1986), and his renowned work in Greece and the Levant. She surprised us by quoting extensively from his school and university reports, along with family letters. All those in the audience who might one day have a similar speech made about them, promptly made a note to destroy their own documents directly they got home!

The rest of the conference very appropriately began with a session on the Bioarchaeology of

Island Populations and continued with sessions on Mummy Studies, Forensic links with Paleopathology and Stable Isotopic Studies in Greece. The following day, sessions on 'Studies on Population Health', were followed by a visit to the Archaeological Museum at Heraklion, where we were able to gaze in awe at the world-famous graceful wall-paintings and decorated pottery, which foreshadowed the more familiar art of the Minoans on Crete. Unfortunately we were not able to visit the excavations, as there had been a fatal accident at the site and it was now closed. The final day of the Conference-proper covered a wide range of infectious diseases and traumatic conditions and rounded off by considering New Methods in Palaeopathology.

The next day woke bright and sunny for our trip to the active volcano that smoulders in the centre of the Caldera. This island only appeared in 1707 and has since steadily grown, accompanied by a major earthquake in 1956. We were not to be deterred, and set out in a flotilla of little ships and spent the morning walking to the barren and cinder-strewn summit, experiencing for ourselves the hot ground and the vents issuing sulphurous steam. Not surprisingly all our academics survived, due to their years of exposure to hot air...

See you all in Denmark in 2008!

FORTHCOMING CONFERENCES

Value of Human Remains in Museum collections symposium 3rd to 4th March 2007

**Venue: Museum in Docklands,
London**

A two day international conference organised by the Museum of London, to be held at the Museum in Docklands.

The debate about the value of human remains is developing rapidly. In the last 15 years there have been new developments across the world that have seen human remains move away from simple display items and sources of archaeological and medical information to complex, often contested, cultural property.

For further information:

www.museumoflondon.org.uk/English/Collections/ArchaeologicalResources/HumanRemains/2007Symposium.htm

34th Annual Paleopathology Association Meeting 27th and 28th March 2007

Venue: Philadelphia, Pennsylvania

The Annual Meeting of the Paleopathology Association will be held in Philadelphia, Pennsylvania on Tuesday and Wednesday the 27th and 28th March 2007. This meeting will, as usual, precede the Annual Meeting of the American Association of Physical Anthropologists. The venue is the Sheraton Society Hill Hotel, Philadelphia.

For further information:

www.paleopathology.org/Meetings.html

Paleoanthropology Society 2007 Annual Meeting 27th and 28th March 2007

Venue: Philadelphia, Pennsylvania

The annual Paleoanthropology Society meeting will be held in Philadelphia Pennsylvania on Tuesday and Wednesday the 27th and 28th March at the University of Pennsylvania Museum of Archaeology and Anthropology, 3260 South Street. The meeting is scheduled in conjunction with the American

Association of Physical Anthropologists
annual meeting.

For further information:

<http://www.paleoanthro.org>

**76th Annual Meeting of the
American Association of
Physical Anthropologists
27th March to 1st April 2007**

Venue: Philadelphia, Pennsylvania

The 76th Annual Meeting of the American Association of Physical Anthropologists will be held in Philadelphia, Pennsylvania on 27th March to 1st April 2007 at the Sheraton Society Hill Hotel, Philadelphia.

For further information:

www.physanth.org/annmeet/

**16th International Congress of
the European Anthropological
Association
28th to 31st August 2007**

Venue: Odense, Denmark

The 16th International Congress of the European Anthropological Association will take place at the Odense Campus of the University of Southern Denmark on 28th to 31st August 2007.

For further information:

www.eaa2008.sdu.dk/index.php?menu=0

**British Association for
Biological Anthropology and
Osteoarchaeology
9th Annual Conference
14th to 16th September 2007**

Venue: The University of Reading

The 2007 BABAO conference will take place on the 14th to 16th September 2007 at the University of Reading. Further details will be made available via the BABAO website:
www.babao.org.uk

**PAMinSA II
14th to 16th November 2007**

Venue: Santiago, Chile

The second Paleopathology Association Meeting in South America (PAMinSA II) will take place in Santiago, Chile, on 14th to 16th November, 2007. Further details will be posted on the association website closer to the time of the conference:

www.paleopathology.org/Meetings.html

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OBITUARY

Trevor Anderson, osteoarchaeologist, born 28th November 1955 in Sunderland, died peacefully at the Pilgrim's Hospice, Canterbury on Monday the 20th June 2005.

Whether it be talking on national television or at an international conference or sitting in his front room repairing a skull, Trevor Anderson was devoted to his work. Trevor Anderson was born in and grew up in Sunderland, where he attended the local grammar school. In 1977 he graduated from Birmingham University, where he studied Ancient History and Archaeology, winning a prize for work done on Anglo Saxon Pathology. He then worked on a number of sites, principally Roman, from Orkney to Canterbury. He gradually became more involved with skeletal remains, so much so that in 1984 he was asked to head the Osteology unit in Riksantikvaren, Trondheim, Norway. This he did for the next 2 years. The work involved the excavation and analysis of 389 medieval burials.

In 1986 he studied at Sheffield University for his masters degree. In this he gained a distinction. His dissertation was on: *Post-Cranial Non-Metric Variation: the Examination of a Neglected Subject*. The following year he was appointed lecturer, teaching the post-graduate students on the Funerary Archaeology and Palaeopathology M.A. course. In the Summer of 1988 he became resident osteoarchaeologist, Canterbury Archaeological Trust, a position which he held until he died. The main site he dealt with was Northgate, Canterbury (1250 burials). In addition to this he worked for the Northampton Archaeological Trust and also worked in Southern Italy and Turkey.

As well as site reports, he had over 140 publications in archaeological as well as medical journals. He also wrote the chapter on Congenital conditions and neoplastic disease. In:

M. Cox & S. Mays (eds) *Human Osteology in Archaeology and Forensic Science*.

Trevor was always methodical and conscientious in his work. On his arrival at Canterbury, he set up his system for examining skeletons. In a complete skeleton he would note and record over 1000 markers, including 145 measurements and 128 non metric traits. His knowledge of the subject at times seemed phenomenal, if asked regarding a non metric trait or a vertebral pathology, he would immediately quote at least three relevant articles and within a few more moments find them in his extensive library. Trevor was an avid reader, particularly Victorian fiction. He was a devout Catholic. Trevor was greatly loved and will be greatly missed by his friends.

Ian Hodgins

BABAO SMALL RESEARCH PROJECT GRANTS

Changes for 2007

In October 2004 the BABAO committee approved funding for a series of small project grants which are available, by competition, to ALL members of the association. A copy of the application form is found in the Annual Review and upon the association website.

This year **three grants, of not more than £500 each**, will be available. **One of the three grants is reserved for research in the contract sector, and the other two grants are reserved for the academic sector.** These grants may be used to support research in biological anthropology and osteoarchaeology, both to undertake the research directly, and to commission specialist services required in the course of the research project. They may NOT be used to fund conference attendance. Specialist equipment required to undertake a project is unlikely to be funded unless it is highly specific to the research project, and, if this is the case, the applicant must also demonstrate that the funds could not reasonably be obtained from other sources (such as the developer).

The closing date for receipt of applications for the current year is **15th May 2007**. Applications, complete with a 2 page summary CV, must be sent electronically to the General Secretary (srz@soton.ac.uk) or by post to the committee, care of Dr Sonia Zakrzewski, BABAO Project Grants, Department of Archaeology, Avenue Campus, Highfield, Southampton, SO17 1BF.

Grant proposals will then be reviewed by the committee and three grants of up to £500 will be awarded. Notification will be given to the applicant, the BABAO e-mail list and the BABAO webpage.

Grant winners are expected to present their research at the BABAO conference in the year following the award (so 2007 grant winners are expected to give either a paper or a poster

at the 2008 conference). Publication of the research in the conference proceedings is also expected.

Guidance Notes

Section 1: To be completed by the applicant. Please give full and complete postal address, and, where applicable, affiliation.

Section 2: Please give brief details of current appointment (e.g. postgraduate student, lecturer, contract osteologist with #### company, freelance osteologist). If the applicant is a student, please provide details of the degree being taken, the name of supervisor (who does not need to be an association member), and the name of the institution.

Section 3: The brief name for the project may be placed upon the BABAO website.

Section 4: Please provide brief outline details of the research project. These details should be suitable for a non-expert audience, and the grant winner should be aware that these details will be placed upon the association's website.

Section 5: This section requires more detailed description and information about the research project being proposed / undertaken. Do not exceed the word limit for each box. The timetable for research is particularly important as the committee requires the projects being funded to be completed within one year. Where possible, sample sizes etc. should be included.

Section 6: Some institutions / organisation (e.g. some universities) require ethical permissions for research involving human remains or modern populations. Please complete this section only if this is applicable to the proposed research project.

Section 7: Please provide a breakdown of the budget required from the association. Travel should use the cheapest possible suitable mode. Accommodation may be requested where appropriate. All costs should be included in the application.

Section 8: Students must obtain a signature from their supervisor.



BABAO
Dept of Archaeology
Highfield, Avenue Campus
Southampton
SO17 1BF

Grant Award Application 2007

Compliance with the Data Protection Act 1998
In accordance with the Data Protection Act 1998, the personal data provided on this form will be processed by BABAO and may be held in a computerised database or in manual files.

RESEARCH PROPOSAL

1. Name of applicant

Title:
First name:
Surname:

Address for correspondence

Postcode:
Tel no:
Email:

2. Present position

Present appointment and employer (If student, please indicate degree in progress, name of supervisor and institution)

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3. Details of grant requested

Title of project (not more than 15 words)

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Sum requested
to the nearest £

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4. Project summary

Information on your research project may be placed upon the BABAO website. Please use this space to provide a description of your research in a way that could be used for a general – i.e. non-expert - readership. (Maximum 100 words.)

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5. Project information

Please provide concise details of your planned research project in the following boxes in order that the research validity and potential of your project can be assessed. (Maximum 500 words in **each** box.)

Research question(s) or problem	
Aims & objectives	
Research methods	
Timetable (Research is expected to be presented at the BABAO conference [either paper or poster] in the year following the award.)	

6. Ethical aspects of the proposal

a) Are there any ethical implications arising from the proposed research?

Yes No

If yes, please give details below of what they are and how you intend to address them.

7. Budget summary

Give a summary of the total costs that will be incurred; then complete the detailed breakdown below.

Summary	Cost (£)
Travel and subsistence	
Equipment	

Please itemise and justify expenditure requested for travel and subsistence, and equipment and materials.

Description	Justification	Cost (£)

8. Signature and date

I agree to complete the intended research within the BABAO timeframe, and will provide a break-down of my spending to the BABAO committee.

Signature of applicant		Date	
Signature of supervisor (for student applicants)		Date	

All applicants must be members of BABAO by 1st April in year of submission.

Closing date for applications: 15th May.

Please attach a full CV to this application, and post to the above address or e-mail to srz@soton.ac.uk.