# Association for Environmental Archaeology Newsletter 73 (August 2001)

# ISSN 1363-6553

Submit information to the newsletter

**Editorial** 

**Change of Address** 

**News from the Committee** 

<u>Journal</u>

**Conferences & Meetings** 

AEA One Day Meeting [booking form - format: rtf - Word97]

QRA Field Meeting [booking form - format: rtf - Word97]

6th International Conference of Ancient DNA and Associated Bio-molecules

**Holocene Environmental Catastrophes and Recovery** 

**British Archaeological Association** 

**Conference report** 

**Jobs** 

**PhD Abstract** 

Publications [ Books - Thesis - Chapters - Articles ]

Edited by Wendy Carruthers and Vanessa Straker

Copy dates for Newsletter: 20th of the following months - January / April / July / October.

Items for the Newsletter may be submitted by e-mail or on disk (3.5" floppy disks in IBM-PC format as WordPerfect, Word or ASCII files). Short typed manuscripts can be sent to:

Wendy Carruthers, Sawmills House, Castellau, Llantrisant, Mid Glamorgan CF72 8LQ, U.K. - Tel: +44 1443 223462 - e-mail: wendy.carruthers@virgin.net

Vanessa Straker, School of Geographical Sciences, University of Bristol, University Rd., Bristol, BS8 1SS, U.K. - Fax: +44 117 928 7878 - e-mail: V.Straker@Bristol.ac.uk

AEA Membership Secretary: Ruth Pelling, Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW, U.K. - Tel: +44 1865 272 983 - Fax: +44 1865 272 970 - e-mail: ruth.pelling@oum.ox.ac.uk

AEA website: http://www.envarch.net/

## **EDITORIAL**

This edition of the Newsletter provides information about the one day meeting in Birmingham in honour of Professor Susan Limbrey (September 18th). Please help the organisers by returning the booking form at the back of this Newsletter as soon as possible. We are also grateful to Mark Nesbitt for his report on the very successful IWGP meeting that took place in Sheffield in June.

### **CHANGE OF ADDRESS**

Mark Nesbitt & Delwen Samuel are moving house from Cambridge. Their new address will be in London but is currently uncertain. In the meantime, please use their work addresses for communication, which are:

Mark Nesbitt Centre for Economic Botany Royal Botanic Gardens Kew Richmond Surrey TW9 3AE U.K.

email: m.nesbitt@rbgkew.org.uk

Delwen Samuel Institute of Archaeology University College London 31-34 Gordon Square London WC1H OPY U.K.

email: d.samuel@ucl.ac.uk

### **NEWS FROM THE COMMITTEE**

Moved recently? Got a new e-mail address? You can now register all changes of address electronically via an on-line form at the AEA website: <a href="http://www.envarch.net/aeaform.html">http://www.envarch.net/aeaform.html</a> or click on the "Modify your AEA details" option on the main menu. There is also a section on the form where you can provide an update on your current research interests. All completed entries are automatically e-mailed to the AEA Membership Secretary (Ruth Pelling, email: ruth.pelling@oum.ox.ac.uk).

# **ENVIRONMENTAL ARCHAEOLOGY: THE JOURNAL OF HUMAN PALAEOECOLOGY**

This is to remind all members of the AEA that they can submit manuscripts for consideration in EA. As you know, EA provides a forum for the full range of sub-disciplines in environmental archaeology and seeks to publish a wide range of contributions in all fields of environmental archaeology from all regions of the world. Topics can range from methodology to synthesis to theory. Papers on new techniques, philosophical discussions, current controversies and suggestions on areas for new research, as well as conventional research papers are acceptable. We particularly want to encourage contributions from AEA members so get your thinking caps on, pick up your pens, and send us your words of wisdom!

Glynis Jones, Co-ordinating Editor of 'Environmental Archaeology', Dept. of Archaeology &

Prehistory, University of Sheffield, Northgate House, West Street, Sheffield S1 4ET UK (Tel: 0114 22 22904, Fax: 0114 272 2563, Email: g.jones@sheffield.ac.uk)

# **CONFERENCES AND MEETINGS**

# **AEA ONE DAY MEETING, 18th September 2001**

In Honour of

Professor Susan Limbrey

The University of Birmingham

Nature of the meeting

This one day meeting is the annual one day AEA meeting with an added twist. In addition Prof. Susan Limbrey is retiring in September 2001 it seem the ideal opportunity to present a day conference in her honour.

The day meeting will take place in the Arts Building at Birmingham University. There will be a booking fee of £ 5.00 which can be paid in advance. To download a booking form click on one of the following options - rich text format (\*.rtf) or Microsoft Word97 format (\*.doc)

Provisional timetable

9.45 Welcome.

John Hunter, The University of Birmingham.

9.50 Introduction.

Alan Hall, EAU, University of York.

9.55 The Severn-Wye Revisited: Floodplain Palaeoenvironments in the Wye Basin. Tony Brown, University of Exeter.

10.20 Holocene Environmental Change of the Severn Estuary: Regional & National Perspectives.

Denise Druce, Lampeter University.

10.45 Coffee

11.15 The History of Woodland Management During the 19th and 20th Centuries in the Pindos Mountains NW Greece.

Caroline Hall.

11.40 Landscape Evolution and Land-Use in the Lesser Antilles.

Jen Heathcote, English Heritage.

12.05 Microstratigraphy and Micromorphology: Contributions to Interpretation of the Neolithic Settlement and Landscape at Catalhoyuk, Turkey.

Wendy Mathers, Reading University.

12.30 Lunch

2.0 Wondering about Worms: Stones Soil and Stratigraphy.

Mat Canti, English Heritage.

2.25 Environment and Health in Romano-British Urban Communities: Reflections from the Cemeteries.

Rebecca Redfern, University of Durham.

- 2.50 The long term Development of Anthropogenic Soils in the Northern Isles. Erika Guttmann, University of Sterling.
- 3.15 Coffee
- 3.45 Regional Review: Geoarchaeological Studies in Northern England. Ramimonda Usai, EAU, University of York.
- 4.10 Circular Field Systems in Herefordshire. Rebecca Rosseff.
- 4.35 Not Seeing the Trees for the Wood: Reflections on the Nature and Diversity of early and Middle Holocene Insect Faunas in the UK and Ireland.

  Nicki Whitehouse & David Smith.

5.0 Finish

# Catering

Tea and coffee will be provided on the day. Lunch will not be formally organized but there is a wide range of food outlets on the campus.

# Accommodation

Suggestions of were to stay the nights of the 17th and the 18th of September can be obtained from the organizers.

# Dinner in honour of Susan Limbrey

The dinner will be held at Horton Grange and costs £ 29.00 per person. The price includes a five-course dinner and half a bottle of wine. All friends of Susan, conference attendees and speakers are welcome. Unfortunately, no bookings for the dinner can be accepted without a cheque / money order for the full amount in sterling. Please indicated at the time of booking if you are a vegan / vegetarian or have any special dietary requirements. Please make your cheque payable to the University of Birmingham.

### How to get to Birmingham University

A number of maps and guides of how to get to the University of Birmingham by car, train or foot are available at the following web address <a href="http://www.location.bham.ac.uk/">http://www.location.bham.ac.uk/</a>. Alternatively, university maps are available from the organizers on request.

#### **QRA FIELD MEETING**

Thanks to Nicki Whitehouse for this information. Nicki writes:

"people wanting further details can get them from either myself (n.whitehouse@qub.ac.uk) or Mark Bateman (M.D.Bateman@sheffield.ac.uk). The field trip is likely to be of interest to Quaternary scientists and palaeoecologists as well as more widely to environmental archaeologists who have an interest in this area of Lincolnshire and Yorkshire"

# **Quaternary Research Association Short Field Meeting: North Lincolnshire and Eastern Yorkshire**

13th -16th September 2001

Organisers: Mark D. Bateman (Sheffield), Paul Buckland (Sheffield), Mark Dinnin (Exeter), Nicki Whitehouse (Queen's, Belfast)

This short field meeting will run from Thursday 13th to Sunday 16th 2001. This region was

ice marginal during the Dimlington Stadial and subsequently has undergone significant changes. Highlights include deposits of proglacial Lake Humber, periglacial covers and deposition and extensive peat development in the Humberhead levels.

Arrangements: The meeting will start with evening registration and introductory talk on Thursday 13th September at Tapton Hall, University of Sheffield where accommodation can be booked for those who require it. Sheffield is convenient for the M1, has direct rail connections to London and you can now fly directly to Sheffield using Sheffield City Airport. Transport will be restricted to 2 minibuses, which limits participation to around 25 people. (This can be reconsidered if there is sufficient demand).

#### Themes:

- 1. The Dimlington Stadial ice limits
- 2. The Lateglacial periglacial and aeolian record in Northern Lincolnshire
- 3. Holocene palaeoenvironmental peat records

To download a booking form click on one of the following options - <u>rich text format (\*.rtf)</u> or <u>Microsoft Word97 format (\*.doc)</u>

Provisional programme

Evening of Arrival (13th September)

Introductory talk

Day 1: East Yorkshire Coast

Dimlington Type site of Dimlington Stadial, Basement, Skipsea and Withernsea tills. Skipsea and/or Gransmoor Kettlehole sites with detailed palaeoenvironmental reconstructions associated with them.

Flamborough/Sewerby Ipswichian raised beach, Skipsea and basement tills,

Day 2: Ice Marginal North Lincolnshire

South Ferriby Cliff exposures of till and head deposits in the Humber gap.

Winteringham Moraine ridge and fluvioglacial sands and gravels.

Yarborough Cold climate aeolian sands (coversands), periglacial thermal contraction cracks/sand wedges.

Twigmoor Woods Inland dune system relating to Loch Lomond Stadial/Holocene Black Walk Nook Periglacial coversand sheet with exposures in old quarry.

Day 3: Ice Marginal North Lincolnshire and the Holocene Record

Gringley-on Hill Large mound (long barrow?) and view across the Humberhead Levels Cove Farm/Haxey Sand and gravel fluvial sequence, with Lateglacial organics, overlain by blown sands.

Thorne /Bradholme Devensian ice limits and Late Holocene diversion of the River Don. Lindholme/ Hatfield Moor Moraine ridge, extensive Holocene palaeoenvironmental record Evening Return to Sheffield for departures

Contact: Mark Bateman, Department of Geography, University of Sheffield, Winter St., Sheffield S10 2TN. Tel: 0114 232 4784; Fax: 0114 279 7912; E-mail: m.d.bateman@sheffield.ac.uk

# THE 6TH INTERNATIONAL CONFERENCE OF ANCIENT DNA AND ASSOCIATED BIO-MOLECULES

Jerusalem, Israel

July 21-25, 2002

The next international meeting on ancient DNA (aDNA) will take place in Jerusalem, July 21st to 25th, 2002. As well as papers on ancient DNA there will be a session on associated ancient biomolecules, as well as a full session on forensics (the practical aspect of aDNA).

Jerusalem and Israel stand at the heart of some of the most exciting archaeological finds relating to the rise of civilization. The Dead Sea Scrolls and Qumran, Massada, and the Carmel Caves will be central features of the visit. The conference will consist of keynote lectures, presented papers, posters, round-tables, and hands-on workshops. Major concerns will be plant and animal domestication, ancient pathogens -especially tuberculosis and influenza, forensic sciences, ancient bio-molecules other than DNA, and cutting-edge technologies.

Jerusalem will be the central focus, but field trips will be planned to important archaeological excavations and museums.

At the moment we are preparing a mailing of posters and pre-registration forms and would welcome expressions of interest etc. All announcements after the first mailing will be made by e.mail, including. pre-registration, and abstract submission. Any suggestions for organization and topics will be appreciated.

Mark Spigelman

DNA 6

email: dna6@md.huji.ac.il

An International Conference on:

### 'HOLOCENE ENVIRONMENTAL CATASTROPHES AND RECOVERY'

2-7 Sept. 2002 at Brunel University, west London.

Co-sponsored by Brunel University, INQUA and PAGES.

The four main themes are:

- 1 Geological catastrophes and their impact on society e.g. megalandslides, earthquakes, tsunami, fires, volcanic eruptions
- 2 Environmental causes of civilisation collapse
- 3 Biological impacts on societies: extinctions, epidemies, plague, haemorrhagic fever
- 4 Climatological impacts on society, e.g. historical droughts.

An informal pre-conference fieldtrip is planned that will examine evidence for past environmental catastrophes in the Scottish Highlands (post-glacial large-magnitude earthquakes; glacial megafloods; Storegga-Slides tsunami event; human impacts of Icelandic volcanic catastrophes; environmental disturbances in Loch Ness).

Preliminary dates for the fieldtrip are 26 to 31 August 2002. More details to follow.

see for more information:

http://www.brunel.ac.uk/depts/geo/Catastrophes/

Contact: Prof. Suzanne A. G. Leroy,

Department of Geography and Earth Sciences, Brunel University, Uxbridge, Middlesex UB8

3PH, (West London), UK.

email: <a href="mailto:suzanne.leroy@brunel.ac.uk">suzanne.leroy@brunel.ac.uk</a>

direct: +44-1895-20 31 78; fax: +44-1895-20 32 17, secretary: +44-1895-20 3215

# **BRITISH ARCHAEOLOGICAL ASSOCIATION**

Programme of Meetings 2001-2002

Meetings are held at 5.00pm in the rooms of the Society of Antiquaries of London, Burlington House, Picadilly, London W1V 0HS. Non-members are welcome to attend occasional lectures but are asked to make themselves known to the Hon. Director on arrival & sign the visitors book.

3 Oct. 2001

'Cistercian Austerity & Cathedral Splendour: the 13th century eastern arm of Fountains Abbey Church reconstructed' by Stuart Harrison (preceded by the AGM).

7 Nov. 2001

'Patronage, Promotion & Commemoration in the 15th century chantry chapel of North Leigh, Oxfordshire' by Kate Heard

5 Dec. 2001

'Nonsuch Palace Revisited' by Prof Martin Biddle

2 Jan. 2002

'St George for Merrie England: the meanings & metaphors of a patron saint' by Dr Samantha Riches (followed by Twelfth-Night Party).

6 Feb. 2002

'English Castles as Pleasure Palaces in the 13th & 14th centuries' by Jeremy Ashbee.

6 March 2002

'Anglo-Scottish Border Churches 1290-1690: fortification, security & defence' by Dr Christopher Brooke

3 April 2002

'The groundplan of the English Romanesque Church' by Dr Richard Plant

1 May 2002

Millennium Review Lecture Series –8 'Monumental Brasses from the 13th to the 20th century: new directions since Kent & Emmerson' by Sally Badham (followed by President's Reception).

# **CONFERENCE REPORTS**

# 12TH SYMPOSIUM OF THE INTERNATIONAL WORK GROUP FOR PALAEOETHNOBOTANY

Sheffield, 17-23 June 2001

# **Conference report by Mark Nesbitt**

The IWGP is a relatively informal gathering of (mainly) European archaeobotanists that meets every three years. The 1992 meeting in Kiel was perhaps the last at which the informal structure could cope with the ever-increasing numbers of participants. At Innsbruck (1995) and Toulouse (1998) there were far too many talks – 85 in Toulouse – often badly presented

and running over time. Precious time for microscope sessions looking at colleagues' material – the original raison d'être of the IWGP – was squeezed into the evenings.

Given the formidable reputation for efficiency of the Sheffield organisers, Glynis Jones and Mike Charles, there was every reason to hope for something different this year. A total of just 50 talks were accepted (through the application of a strict deadline for responses to circulars), and a good proportion of posters (20). Two full afternoons were given for lab sessions, and two for posters. The schedule allowed 25 minutes for presentations and questions, and this worked well – almost everyone kept within time. Overall the standard of talks was excellent, with slow, clear diction. Only the overheads continue to tantalise, with long lists of plant names in unreadable 12 point type.

One problem with the last IWGP venue was the nearby historic city centre. Combined with excellent weather, these led many to desert the lecture halls of Toulouse for easier distractions. Neither Sheffield's weather (uniformly grey except for sunny evenings) nor its city centre offered such distractions, and attendance was good throughout the meeting.

Speakers had been asked to choose a thematic aspect of their work, from Analytical Archaeobotany, Historical Archaeology, Consumption, or Collecting and Cultivation. Refreshingly, this prompted most to address issues of interpretation of wider interest, rather than the grimly descriptive accounts sometimes characteristic of earlier IWGPs. I can only mention a few talks that particularly struck me, starting with Analytical Archaeobotany.

# The talks - Analytical Archaeobotany

The role (if any) of shifting cultivation in the Central European Neolithic continues to be much debated. Amy Bogaard (Sheffield) presented an elegant ecological analysis of the weed flora from recent experimental plots in Germany, showing both that the weed flora did not resemble that known from the Neolithic, and in particular that the experimental flora was dominated by perennial rather than annual weeds. Manfred Rosch (Hemmenhofen) showed preliminary results from a much more long-term and large-scale experiment in shifting cultivation that will clearly generate a lot of new data on this topic. Continuing the theme of ecological interpretation of weeds, Sue Colledge (London) investigated correlations between cereals cultivated and their weed flora at Tell Brak in Syria. A shift to barley is accompanied by weeds suggestive either of environmental degradation or an expansion of cultivation onto steppe. Alison Hynd (Sheffield) addressed the vexed question of how detailed our weed seed identifications need to be, by looking at variability in ecologically significant physical characteristics at species, genus and family level. This could help us to decide which plant groups most merit investment in identification.

The routes by which plant remains enter the archaeological record (food? weeds? construction materials?) were investigated in some posters. Wendy Carruthers (Wales) and Kath Hunter (Gloucester) used spatial plotting to show that the very abundant remains of Carex nutlets at a Saxon site derive from burning of peat for fuel, or the use of turf in walls, rather than as weeds of cultivation on wet soils.

Walton "Tinker" Green (Yale) argued the importance of using simple graphics to display quantitative data. While I think it's true that in the late 1980s archaeobotanists became carried away by data analysis that sometimes obscured more than it revealed, that's not true now. Plenty of simple graphics were on display through the meeting, while more complex techniques, such as Correspondence Analysis, are now used to produce clear and easily understood graphics.

### **Historical Archaeology**

This session combined some dull descriptive accounts of routine data, with some truly extraordinary finds. These latter included Caroline Vermeeren's (Amsterdam) work on spices

used to embalm members of the Dutch royal family, and Mark Robinson's (Oxford) burnt offerings of stone pine, dates and figs from the gardens of Pompeiian villas (with similar material from a Roman temple in Mainz, reported by Barbara Zach(Köln)). In the poster session Jan Bastiaens and Heidi Tency (Belgium) presented intriguing burnt stores of grain from inside a 12th century church; the use of churches as a safe storeroom for grain seems to have been common at this time. These, and Angela Kreuz's (Wiesbaden) exploration of Roman agriculture in Germany, all made good use of historical sources, but this was a disappointingly thin session, given the potential for comparison of textual and archaeological materials in these later periods.

# Consumption – food, fodder and cuisine

I thought this too a thin section, reflecting the fact that consumption, though an interesting (and fashionable) topic, is not easily studied using most archaeobotanical material. Dorian Fuller (London) showed convincing differences between the Near Eastern crop complex of Neolithic western India, compared to the indigenous domesticates of southern India. However, it was not clear to me that the changes in pottery style that accompany the arrival of Near Eastern crops in southern India were necessarily linked to a parallel change in cuisine. It's plausible, but a more worked-out argument is needed to show that the changes in pottery shape are not simply changes in fashion. Tania Valamoti's (Thessaloniki) talk was a thorough analysis of some intriguing samples of fragmented grains from Bronze Age Greece. Careful experimental charring of cracked grains suggests the archaeological material does represent true food remains of cracked wheat (bulgur).

# **Collecting and Cultivation**

Interest in early agriculture continues to be strong. George Willcox (CNRS) presented a remarkably well-preserved Neolithic "kitchen" at Jerf el Ahmar, Syria. It was well furnished with grinding stones, one of which had two oilseed cakes sitting on top. Andy Fairbairn (Canberra) presented the rich plant materials recovered by extensive sampling at Çatalhöyük, central Turkey. Although a wide range of wild food plants was used, the abundance of cereals and pulses strongly suggests this was an agricultural settlement, contrary to results from physical anthropology. The significance of Anaya Sarpaki's (Crete) important new Neolithic material from Knossos in Crete is lessened by the tiny sample sizes: just 40 seeds from the earliest, prepottery level.

# **Open sessions**

These included some highly reliable regular speakers. Ann Butler (London) showed that, as often, if pod characters of multiple populations of legumes were studied, few truly diagnostic characters could be found. Rediscovery of Fahn and Zohary's (1955) paper suggests that the conventional anatomical explanation for loss of dehiscence in domesticated legumes (reduction in the layers of endocarp fibres) is incorrect. Alan Hall's (York) search for reliable evidence for tanning, in the form of oak bark identified by its sclerids, will be sending many to re-examine waterlogged lumps in their medieval and later pits. Mordechai Kislev's (Bar Ilan) excellent SEMs once again demonstrated how many insects can survive charring in crop stores. Rainer Pasternak (Kiel) presented results from an estimated 36 tonnes of charred grain at Hittite Bo?azköy. Some germinated barley grains found in Hittite amphora at Ku?akli suggest malting may have been in progress.

One group of two speakers offered a mini-symposium on wheat evolution, generating much discussion on this perennially fascinating (at least to me) topic. Continuing poor results in extracting ancient DNA from charred plant remains (desiccated material is much better) have prompted a shift to looking at DNA relationships in current day-wheats. Andrew Isaac (UMIST) compared microsatellites in Italian emmer wheats. Modelling of the genetic bottlenecks introduced during the spread of emmer into Italy suggests a point of origin in northern Puglia, a result that correlates well with archaeological evidence. Angela

Schlumbaum (Basel) presented continuing work on the enigmatic evolution of spelt. DNA evidence continues to fail to discriminate between a European origin (from an aestivum x dicoccum cross) and an Asian origin (MacKey 1954, Schiemann 1932). On the subject of wheat, my talk explored the rich vein of folklore surrounding mummy wheat and miracle wheat. A show of hands established that these tales – of germination of seeds from ancient tombs – are very widespread.

### **Demonstrations and other activities**

As ever, plant remains on show were either beautiful, rich samples, or horrible, unidentifiable weirdos. The prize winner for beauty was a superbly preserved mix of charred Avena sativa and A. strigosa florets from a stable. Much time was spent comparing notes on the robust form of emmer, recently published by Glynis Jones et al. (2000), with a tentative attribution to Triticum timopheevi. An opportunity to view material convinces me that it is a separate form, but attribution to a particular species depends on a broader survey of modern reference material.

A reception was held in the University's Glass Museum. This was a welcome opportunity to catch up with a broad range of attendees – sometimes difficult because of cramped conditions in the conference venue, and the separate housing of students (in a wonderful, converted church). The main conference accommodation was in the 1960s Tapton hall of residence, which benefited from proximity to the small but charming University Botanic Garden. A tour of its ecological experiments (the garden is home to the well-known Unit of Comparative Plant Ecology) was very popular.

## **Conclusions**

First-rate organisation and careful consideration to the balance of activities made this a highly successful and enjoyable meeting. There's no doubt in my mind that archaeobotany is less exciting now than in the 1980s (or is it just that I'm getting older?), perhaps reflecting a greater maturity in the discipline. However, one seemingly intractable problem that has foxed archaeobotanists for 100 years – the ecological interpretation of weed seeds – does seem to be making real progress, thanks to the impact of functional ecology and multivariate statistics (techniques pioneered at Sheffield). Wheat evolution continues to be exciting, too. But nothing beats the IWGP for exposure to results from around Europe, or as a forum for viewing material and catching up with colleagues. As is now usual practice, some conference papers will be published in the journal Vegetation History and Archaeobotany.

This IWGP attracted a lower attendance (of about 120) than usual, perhaps reflecting current exchange rates that make travel to the UK difficult for European colleagues. However the lower attendance made this a pleasingly intimate gathering, with plenty of time for talking. 33 of those present were former or current Sheffield University students, testimonial to its pre-eminent role in teaching archaeobotany in Europe.

The next IWGP will be held in Girona, Spain in 2004, hosted by Ramon Buxo i Capdevila of Barcelona. Girona has beautiful architecture, cheap accommodation and good food, so it will certainly be a well attended meeting. However, if IWGP is to continue to survive as a worthwhile meeting, the challenge for the Spanish team will be to maintain and further develop the organisational changes introduced so successfully by the Sheffield team. In particular, I would like to see the thematic sessions strengthened, perhaps though "subcontracting" their organisation to session chairs, along similar lines to many of the big American meetings.

#### References:

Fahn, A & M. Zohary. 1955. On the pericarpial structure of the legumen, its evolution and relation to dehiscence. Phytomorphology 5: 99-111.

Jones, G., S. Valamoti, and M. Charles. 2000. Early crop diversity: a "new" glume wheat from northern Greece. Vegetation History and Archaeobotany 9:133-146.

Mac Key, J. 1954. Neutron and X-ray experiments in wheats and a revision of the speltoid problem. Hereditas 40:65-180.

Schiemann, E. 1932. Pfahlbauweizen - historisches und Phylogenetisches. Zeitschrift für Pflanzenzüchtung 17:36-54.

#### JOB ADVERTISEMENT

Applicants are invited to work on a Leverhulme Trust funded project 'The potential of chironomids for characterising urban and rural human activities'.

The post will be for one year, commencing on 1st October 2001. The successful candidate will join the Late Quaternary Research Group of the School of Geography and Archaeology at the University of Exeter. Candidates must have completed a PhD in a relevant field and be experienced in entomology or palaeoecological analyses.

Further information may be obtained from Dr Pete Langdon (email: <a href="mailto:P.G.Langdon@exeter.ac.uk">P.G.Langdon@exeter.ac.uk</a>) or Professor Tony Brown (email: <a href="mailto:A.G.Brown@exeter.ac.uk">A.G.Brown@exeter.ac.uk</a>). This Postdoctoral Research Assistant post will be formally advertised on jobs.ac.uk in the near future.

Dr Pete Langdon
Department of Geography
School of Geography and Archaeology
University of Exeter
Amory Building
Rennes Drive
Exeter EX4 4RJ

Tel. 00 44 (0)1392264443 Fax 00 44 (0)1392263342

email: p.g.langdon@exeter.ac.uk

web: http://www.ex.ac.uk/geography/staff/langdon.html

### PHD ABSTRACT

Sarah H. Morriss, Department of Geography, University of Southampton, has kindly supplied an abstract of her recently completed PhD.

Recent human impact and land use change in Britain and Ireland: a pollen analytical and geochemical study

With the exception of a few researchers, the study of the historic period to the present day has largely been neglected by palaeoecologists and existing studies often lack multiple methods of reconstruction, sufficient chronologies or detailed correlation with the documentary record. Consequently, this research seeks to investigate what effect human activity has had on the environment over the recent past by using a multi-proxy approach, trying to establish more rigorous chronological control over profiles and comparing sequences with local historical evidence.

A number of analytical techniques have been applied to four peat profiles from three

ombrotrophic mires: Abbeyknockmoy (Co. Galway, Ireland), Shaw Moss (southwest Cumbria) and Tregaron (Southeast and West Bogs, Ceredigion, Wales); and three profiles from two lake deposits: Lake Gormire (Yorkshire) and Talkin Tarn (north Cumbria). Pollen analysis is used as the principal method of vegetation reconstruction at all sites, while Silicon and Titanium analyses were also undertaken at Abbeyknockmoy, Shaw Moss and Tregaron Southeast Bog. These geochemical profiles provide additional proxy records for the intensity and timing of anthropogenic activity. The chronology of each site is based on Pinus pollen data and AMS radiocarbon dates, with the exception of Lake Gormire where 210Pb dating is used. The presence of an historic tephra isochrone at Abbeyknockmoy allows direct comparison with the documentary record and can be used to constrain the radiocarbon chronology of this profile.

The original aim of the project was to reconstruct the land use history around each of the study sites for the last 1,000 years, with special reference to monastic influences. The results indicate, however, that some profiles date from either the prehistoric or Roman periods. While this was originally beyond the scope of this research, such profiles offer insights into the debates concerning the extent of Iron Age activity prior to the Roman invasion and the fate of agricultural activity after Roman withdrawal in c. 400 AD.

The results indicate varying degrees of Iron Age farming activity at Tregaron Southeast Bog, Shaw Moss and Talkin Tarn. Agriculture increased around the Southeast Bog during the period of Roman occupation, although the centuries immediately following Roman withdrawal are characterised by a phase of woodland regeneration and declining activity at the Southeast and West Bogs. Evidence from Talkin Tarn, however, suggests the continuation of farming after the end of Roman rule. The records from Abbeyknockmoy and the Southeast and West Bogs indicate that the establishment of local Cistercian monasteries in the 12th century AD had a significant impact on the landscape, while evidence from Abbeyknockmoy and Lake Gormire suggest that the Dissolution of the monasteries in the 16th century AD did not result in widespread land abandonment and woodland regeneration. The geochemical profiles correlate well with the pollen record for human impact and both proxies demonstrate a close relationship with the documentary evidence.

#### **PUBLICATIONS**

We are very grateful to Norbert Benecke and Wietske Prummel for the following information:

Publications of the Association for Archaeozoology and Prehistoric Anthropology (Information contributed by Norbert Benecke1)

During the 7th ICAZ conference held in Konstanz (Germany) in September 1994, the Gesellschaft für Archäozoologie und Prähistorische Anthropologie e.V. (GAPA, i.e. Association for Archaeozoology and Prehistoric Anthropology) was founded. The aims of the association are the promotion of research in archaeozoology, prehistoric anthropology and related fields as well as the distribution of new results of research. Presently, membership stands at 85 with members mainly coming from Germany and neighbouring countries.

GAPA is holding scientific conferences every two years. The first three conferences were held in Bad Homburg (1996), Braunschweig (1998) and Halle/Saale (2000). The next meeting will be in Potsdam in October 2002. The proceedings of the single conferences are published within the monograph series of our association "Beiträge zur Archäozoologie und Prähistorischen Anthropologie". Volume I (published in 1997) contains 26 papers given at the conference in Bad Homburg (main topic "Man and Animal in Roman Times") and Volume II (published in 1999) comprises 32 papers presented at the conference in Braunschweig (main topic "Common Problems in Archaeozoology and Prehistoric Anthropology"). Volume III including ca. 30 papers of the conference in Halle/S. (main topic "Biodiversity") will be out in

autumn this year.

Individual volumes may be purchased directly from our association. The current prices are: Volume I for DM 65, (plus postage) and Volume II for DM 120, (plus postage). There is a special offer for both Volume I and II for a price of DM 150, (plus postage).

For ordering books and further information, please contact Joachim Wahl in Konstanz.

Dr. Joachim Wahl Landesdenkmalamt Baden-Württemberg Archäologische Denkmalpflege, Osteologie Stromeyerstraße 3 D-78467 Konstanz Fax: 00-49-7531-9969955

e-mail: info@gapa-kn.de

Norbert Benecke (current chair of GAPA), Deutsches Archäologisches Institut, Eurasien-Abteilung, Postfach 330014, D-14191 Berlin, e-mail: <a href="mailto:nb@eurasien.dainst.de">nb@eurasien.dainst.de</a>

#### **PUBLICATIONS NOW AVAILABLE:**

Archaeozoology of the Near East III

Proceedings of the third international symposium on the archaeozoology of southwestern Asia and adjacent areas.

edited by: H. Buitenhuis, L. Bartosiewicz and A.M. Choyke (ARC Publications 18), 1998. ISBN 9036707919, Paperback Book Price= FL. 40, - (includes postage and handling)

Archaeozoology of the Near East IV

Proceedings of the fourth international symposium on the archaeozoology of southwestern Asia and adjacent areas.

edited by: M. Mashkour, A.M. Choyke, H. Buitenhuis and F. Poplin (ARC Publications 32), 2000. ISBN 9036712432, Paperback Book Price= FL. 65, - (includes postage and handling) (2 volumes)

NEW!!!

Animals and Man in the Past

Essays in honour of Dr. A.T. Clason, emeritus professor of archaeozoology Rijksuniversiteit Groningen, the Netherlands.

edited by H. Buitenhuis and W. Prummel

(ARC Publications 41), 2001. ISBN 903671371.

Book Price FL. 75,- + postage and handling

Book price includes tax.

Payments by Eurocard/Mastercard and/or Maestro only.

Procedure: please state: number of credit card, CVC II code (number on back card), expiry date, name of credit card holder, full address of card holder and state, title and number of book requested.

For further information and ordering contact:

E.M.C. Groenewoud, bureau manager ARC at Poststraat 6, 9712 ER, Groningen, the Netherlands

tel: 00 - 31 - 50 - 3636723 fax: 00 - 31 - 50 - 3636992

email: e.m.c.groenewoud@let.rug.nl

#### **PUBLICATIONS**

[ Books - Thesis - Chapters - Articles ]

We are very grateful to James Greig for providing us with the following bibliography, despite having just got back from holiday. James writes;

"Many thanks to Richard Carter, Lanfredo Casteletti, John Giorgi, Maria Hopf, Andy Howard, Stefanie Jacomet and W. van Zeist for references. Some further references have had to be held over for lack of time. Please send new references to greigjra@bham.ac.uk"

### **BOOKS**

- P.C. Anderson (1999) Prehistory of agriculture. New experimental and ethnographic approaches. (Institute of Archaeology (University of California) Monographs, 10), pp.
- R. Rolle and F.M. Andraschko (eds) (1999) Frühe Nutzung pflanzlicher Ressourcen [Early use of plant resources]. (Hamburger Werkstattreihe zur Archäologie, 4), Hamburg, 174 pp.
- E. Rudebeck (2000) Tilling nature, harvesting culture. Exploring images of the human being in the transition to agriculture. (Acta Archaeologica Lundensia 8th series, 32), Stockholm, 300 pp.
- C.de Vartavan (1999) Hidden fields of Tutankhamun. From identification to interpretation of newly discovered plant material from the Pharoah's grave, London, 222 pp.
- G.-C. Weniger (1999) Archäologie und Biologie des Aurochsen [Archaeology and biology of Aurochs]. (Wissenschaftliche Schriften des Neanderthal Museums, 1) Neanderthal Museum, Mettmann, 205 pp. ISBN 3 9805839 6 1
- W.van Zeist, M.G. Ouderkerken, R.M. Palfenier-Vegter, et al. (2000) Cultivated and wild plants in late- and postmedieval Groningen. A study of archaeological plant remains., Groningen, 134 pp.
- D. Zohary and M. Hopf (2000) Domestication of plants in the Old World; the origin and spread of cultivated plants in west Asia, Europe and the Nile Valley. (3rd edition) Oxford University Press, Oxford, 316 pp. ISBN 0 19 850357 1 [hb], 0 19 850356 3 [pb]

#### **THESIS**

J. Strzelczyk (1999) Proso zwyczajne (Panicum miliaceum L.) we wczesnym sredniowieczu Wielkopolski [Millet (Panicum miliaceum) in the middle ages in Greater Poland]. doctoral thesis, Poznan university.

#### **CHAPTERS**

H. Albrecht, A. Schlumbaum and S. Jacomet (1999) Das archäobotanische Fundmaterial: die Holzkohlen - ein Beitrag zur mittelalterlichen Holznutzung in der Nordwestschweiz [Archaeobotanical finds, the charcoal and medieval wood use in NW Switzerland]. In J. Pfrommer and D. Gutscher (eds.), Laufen Rathausplatz; eine hölzerne Häuserzeile in einer

- mittelalterlichen Kleinstadt: Hausbau, Sachkultur und Alltag. (Schriftenreihe der Erziehungsdirektion des Kantons Bern ) Haupt, Bern pp. 249-260. (ISBN 3 258 06144 0)
- D. Arobba et al. (1999) Analisi di un coprolite rinvenuto nei nivelli del Neolitico medio [analysis of a coprolite from mid Neolithic levels]. In S. Tine' (ed.), Il neolitico nella caverna delle Arene Candide (scavi 1972-1977). (Collezione di Monografie Preistoriche ed Archeologiche 10) Istituto Internazionale di Studie Liguri, Bordighera pp. 25-35.
- J. Auler (1999) Zwei bemerkenswerte Skelettfunde von Auerochsen aus den Rheinlanden und Westfalen [Two remarkable aurochs finds from the Rhineland and Westphalia]. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 195-205.
- L. Bartosiewicz (1999) Aurochs (Bos primigenius BOJANUS, 1827) in the Holocene of Hungary. In G.-C. Weniger (ed.), Archäologie und Biologie des Aurochs. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 103-118.
- S. Bottema (2000) The Holocene history of walnut, sweet-chestnut, manna-ash and plane tree in the eastern Mediterranean. In J.-M. Luce (ed.), Paysage et alimentation dans le monde grec (countryside and food in the Greek world). (Pallas 52), Toulouse pp. 35-59.
- C. Brombacher (1999) Die Pflanzenfunde aus den Latrinen [The plant remains from the latrines]. In K. Bänteli, R. Gamper and P. Lehmann (eds.), Das Kloster Allerheiligen in Schaffhausen. (Schaffhauser Archäologie 4) Baudepartement des Kantons Schaffhausen, Schaffhausen pp. 221-228, 229-230.
- C. Brombacher and M. Klee (1999) Analyse des macrorestes végétaux de structures de combustion [Analysis of plant macrofossils from burnt structures]. In J.-D. Demarez and B. Othenin-Girard (eds.), Une chaussée romaine avec relais entre Alle et Porrentruy (Jura, Suisse). (Cahier d'archéologie jurassienne 8) Office du patrimoine historique, Porrentruy pp. 139-143.
- C. Brombacher and M. Petrucci-Bavaud (1999) Die botanischen Makroreste [The plant macrofossils]. In D. Gutscher and P. J. Suter (eds.), Thun, Obere Hauptgasse 6/8. Die Funde der Rettungsgrabungen von 1989. (Archäologie im Kanton Bern 4) Berner Lehrmittel- und Medienverlag, Bern pp. 347-354.
- A.G. Brown (1998) Fluvial evidence of the medieval warm period and the late medieval climatic deterioration in Europe. In G. Benito, V. R. Baker and K. J. Gregory (eds.), Palaeohydrology and environmental change. Wiley, Chichester pp. 43-52.
- M.J. Bunting and R. Tipping (2000) Sorting dross from data: possible indicators of post-depositional assemblage biasing in archaeological palynology. In G. Bailey, N. Winder and R. Charles (eds.), Human ecodynamics. Oxbow, Oxford pp. 63-69.
- L. Casteletti and E. Castiglioni (1999) Resti antracalogici [charcoal remains]. In S. Tine' (ed.), Il neolitico nella caverna delle Arene Candide (scavi 1972-1977). (Collezione di Monografie Preistoriche ed Archeologiche 10) Istituto Internaxionale di Studi Liguri, Bordighera pp. 18-24.
- L. Casteletti, E. Castiglioni and M. Rottoli (2001) L'agricolture dell'Italia settentrionale dal Neolitico al Medioevo [agriculture of northern Italy from the neolithic to medieval]. In O. Failla and G. Forni (eds.), Le piante coltivate e la loro storia. Franco Angeli, Milano pp. 33-84.
- E. Castiglioni, M. Cottini and M. Rottoli (1999) I resti botanici di Santa Giulia a Brescia [Botanical remains from S. Giulia di Brescia]. In G. P. Brogiolo (ed.), S. Giulia de Brescia, gli scavi dal 1982 al 1992; reperti preromani, romani e alto medievali. All'insegna del giglio, pp. 401-424.

- L. Chaix and R.-M. Arbogast (1999) Holocene aurochs from western Europe: osteometrical data. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 35-48.
- J. Estévez and M. Saña (1999) Auerochsenfunde auf der iberischen Halbinsel [Aurochs finds from the Iberian peninsula]. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 119-132.
- J. Giorgi (1999) Archaeobotanical evidence from London on aspects of post medieval urban economies. In G. Egan and R. L. Michael (eds.), Old and New Worlds; historical / post medieval archaeology papers from the societies' joint conferences at Williamsburg and London 1997. Oxbow, Oxford pp. 342-348.
- C. Guintard (1999) On the size of the ure-ox or the aurochs (Bos primigenius Bojanus, 1827. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 7-22.
- A.J. Howard, K. Challis and M.G. Macklin (2001) Archaeological resources, preservation and prospection in the Trent valley: the application of geographical Information Systems to Holocene fluvial environments. In D. Maddy, M. G. Macklin and J. C. Woodward (eds.), River basin sediment systems: archives of environmental change. Balkema, Lisse pp. 405-419.
- H. Hüster-Plogmann, J. Schibler and S. Jacomet (1999) The significance of aurochs as hunted animal in the Swiss neolithic. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Shriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 151-160.
- S. Jacomet (1999) Ackerbau und Sammelwirtschaft während der Bronze- und Eisenzeit in den östlichen Schweizer Alpen vorläufige Ergebnisse [farming and gathering in the Bronze and Iron ages in the easters Swiss Alps, preliminary results]. In P. Della Casa (ed.), Prehistoric Alpine environment, society, economy. (Universitätsforschungen zur prähistorischen Archäologie 55) Habelt, Bonn pp. 231-244. (ISBN 3 7749 2945 9)
- J.G. Jones, V.M. Bryant and E. Weinstein (1998) Pollen analysis of ceramic containers from a late Iron Age II or Persian period shipwreck site near Haifa, Israel. In M. M. Bryant and J. W. Wrenn (eds.), New developments in palynomorph sampling, extraction and analysis. (American Association of Stratigraphic Palynologists 33), Austin, Texas pp. 61-74.
- W.von Königswald (1999) Palökologie und Vorkommen des pleistozänen Auerochsen (Bos primigenius BOJANUS, 1827)im Vergleich zu den gro?en Rindern des Pleistozän [Palaeoecology and occurrence of Pleistocene Aurochs compared with the tall Pleistocene cattle]. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 23-34.
- M. Monk (2000) Seeds and soils in discontent: an environmental archaeological contribution to the nature of the early Neolithic. In A. Desmond, G. Johnson, M. McCarthy, et al. (eds.), New agendas in Irish prehistory: papers in commemoration of Liz Anderson., Bray pp. 67-87.
- R. Nisbet and M. Rottoli (2000) Agricoltura e consumo delle piante al Castello della Motta [Agriculture and consumption of the occupants of Castello della Motta]. In F. Piuzzi (ed.), L'incastellamento nel nord-est italiano (IX-XII secolo). Stato della ricercae prospettive d'indagine. (Quaderni del "Museo Archeologico Medioevale di Attimis" 2) Museo Archeologico Medioevale di Attimis, Udine pp. 93-98.
- J.P. Pals (1999) Preliminary notes on the crop plants and the natural and anthropogeneous vegetation. In J. C. Besteman, J. M. Bos, D. A. Gerrets, et al. (eds.), The excavations at Wijnaldum. Reports on Frisia in Roman and medieval times. Balkema, Rotterdam pp.

139-149.

- T. Pfeiffer (1999) Systematic relationship within the Bovini with special reference to the fossil taxa Bos primigenius BOJANUS and Bos priscus BOJANUS. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 59-70.
- M. Rottoli (1999) I resti vegetali di Sammardenchia-Cûeis (Udine), insediamento del neolitico antico [plant remains from Sammardenchia-Cûeis, early neolithic settlement]. In A. Ferrari and A. Pessina (eds.), Sammardenchia-Cûeis; contributi per la conoscenza de una comunità del primo neolitico. (Edizioni del Museo Friulano di Storia Naturale 41) Museo Friulano di Storia Naturale, Udine pp. 307-326.
- M. Rottoli (2000) Nascita e sviluppo dell'agricoltura in Italia settentrionale [Origin and development of farming in northern Italy]. In A. Pessina and G. Muscio (eds.), La Neolitizzazione tra oriente e occidente. Edizioni del Museo Friulano de Storia Naturale, Udine pp. 91-98.
- A. Sarpaki (1999) The study of palaeodiet in the Aegean: food for thought. In S. J. Vaughan and W. D. E. Coulson (eds.), Palaeodiet in the Aegean. Papers from a colloquium held at the 1993 meeting of the Archaeological Institute of America., Oxford pp. 115-121.
- K.A. Sørensen (1999) The Holocene history of the Scandiavian aurochs (Bos primigenius BOJANUS, 1827). In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 49-58.
- K. Steppan (1999) The significance of the aurochs in the food economy of the Jungneolithikum (Upper Neolithic) in southwest Germany. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 161-172.
- M. Street (1999) Remains of aurochs (Bos primigenius) from the early Mesolithic site Bedburg-Königshoven (Rhineland, Germany). In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 173-194.
- H.-P. Ürpmann (1999) Der Rüchsicht-Auerochse und sein ausgestorbenes Vorbild [The reconstructed aurochs and its extinct pattern]. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochse. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 93-102.
- G.-C. Weniger (1999) Representations of the aurochs in the Upper Palaeolithic and Epipalaeolithic on the Iberian peninsula. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 133-140.
- K. Wüst (1999) Auerochsenfunds im französischen Jungpaläolithikum [Aurochs finds from the French Upper Palaeolithic]. In G.-C. Weniger (ed.), Archäologie und Biologie des Auerochsen. (Wissenschaftliche Schriften des Neanderthal Museums 1) Neanderthal Museum, Mettmann pp. 141-150.
- W.van Zeist (2000) Cultivated and wild food plants at Tell Ramad. In H. de Contenson et al. (eds.), Ramad; site néolithique en damascène (Syrie) aux 8e et 7e millénaires avant l'ère chrétienne. (Bibliothèque archéologique et historique 157) Institut Français d'archéologie du proche-orient, Beirut pp. 257-273.
- W.van Zeist, G.J.de Roller and S. Bottema (2000) Chapter 6, the plant remains. In M.

Verhoeven and P. M. M. G. Akkermans (eds.), Tell Sabi Abyad II; the pre-pottery Neolithic B settlement; report on the excavations of the National Museum of Antiquities, Leiden, in the Balikh Valley, Syria. Nederlands Historisch-Archaeologisch Instituut te Istanbul, Istanbul pp. 137-147.

# **ARTICLES**

- K. Ahlberg, E. Almgren, H.E. Wright, et al. (2001) Holocene stable-isotope stratigraphy at Lough Gur, Co Limerick, western Ireland. The Holocene 11(3): 367-372
- H. Albrecht and S. Jacomet (1999) Die Holzkohlen (the charcoal). Jahrbuch der Schweizerischen Gesellschaft für Ur- und Frühgeschichte 82: 101-104 (in Brogli W and Schibler J, Zwölf Gruben aus der Späthallstatt/Frühlatenezeit in Möhlin, pp 79-116)
- J.L. Araus, G.A. Slafer, I. Romagosa, et al. (2001) Estimated wheat yields during the emergence of agriculture, based on carbon isotope discrimination of grains: evidence from a 10th Millennium BP site on the Euphrates. Journal of Archaeological Science 28(4): 341-350
- E. Asouti and J. Hather (2001) Charcoal analysis and the reconstruction of ancient woodland vegetation in the Konya Basin, south-central Anatolia, Turkey: results from the Neolithic site of Çatalhöyük East. Vegetation History and Archaeobotany 10(1): 23-32
- S. Bates and P. Wiltshire (2000) Excavation of a burnt mound at Feltwell Anchor, Norfolk, 1992. Norfolk Archaeology 43(3): 389-414 (pollen etc.)
- A. Bieniek (1999) The use of plant resources in the early centuries AD on the basis of plant macroremains from the Roman Iron Age site at Wasosz Górny, near Klobuck, central Poland. Acta Palaeobotanica 39: 137-169
- A.J. Bunting and R. Tipping (2001) "Anthropogenic" pollen assemblages from a Bronze Age cemetery at Linga Fiold, West Mainland, Orkney. Journal of Archaeological Science 28(5): 487-500
- W.J. Carruthers (2000) Charred plant remains. Essex Archaeology and History 31: 27-29 (in Guttmann, EBA Excavations on the Hatfield Heath to Matching Tye rising main, north-west Essex, EAH 31 pp 18-32)
- J. Carter (1998) Reassessment of seasonality at the early Mesolithic site of Star Carr, Yorkshire, based on radiographs of mandibular tooth development in red deer (Cervus elaphus). Journal of Archaeological Science 25: 841-856
- R.J. Carter (1997) Age estimation of the roe deer (Capreolus capreolus) mandibles from the Mesolithic site of Star Carr, Yorkshire, based on radiographs of mandibular tooth development. Journal of Zoology, London 241: 495-502
- R.J. Carter (2001) Dental indicators of seasonal human presence at the Danish Boreal sites of Holegaard I, IV and V and Mullerup and the Atlantic sites of Tybrind Vig and Ringkloster. The Holocene 11(3): 359-365
- H.R. Chapman and R.van der Noort (2001) High-resolution wetland prospection, using GPS and GIS: landscape studies at Suton Common (South Yorkshire) and Meare village East (Somerset). Journal of Archaeological Science 28(4): 365-375
- A. Davis (1999) The plant remains. Transactions of the London and Middlesex Archaeology Society 49 (for 1998): 99-107 (in Knight H, Excavations at Cobham Mill Road, West Drayton)

- A. Davis (2000) Plant remains. MoLAS Monograph Series 4: pp? (in Barber B and Bowsher D, The eastern cemetery of Roman London; excavations 1983-1990)
- A.S. Fairbairn (2000) Charred seeds, fruits and tubers. Wiltshire Archaeological and Natural History Magazine 93: 168-175 (in Whittle, A et at, Neolithic activity and occupation outside Windmill Hill causewayed enclosure, pp 131-180)
- J. Giorgi (1999b) Botanical evidence. Transactions of the London and Middlesex Archaeology Society 48 (for 1997): 49-52 (in Malcolm G (ed), Excavations at Island Site, Finsbury Pavement, London EC2)
- J. Giorgi (1999c) The charred plant remains. Transactions of the London and Middlesex Archaeology Society 49: 22-25 (in Howe E (ed), A Romano-British farmstead at St Mary Abbots hospital, Marloes Road, Kensington)
- J. Giorgi (1999d) The environmental evidence. Transactions of the London and Middlesex Archaeology Society 49 (for 1998): 121-127 (in Tyler K (ed), Excavations at the former Allied Brewery, 148-150 St John Street, London EC1)
- J. Giorgi (2000) The plant remains a summary. MoLAS Archaeology Studies Series 4: 65-66 (in Mackinder A, A Romano-British cemetery on Watling Street; excavations at 165 Great Dover Street, Southwark, London. [Phoenix dactylifera, Prunus dulcis])
- J. Giorgi, A. Pipe and J. Sidell (2000) Environmental archaeology in London 1995-1998, part 1. London Archaeologist 9(3): 67-71
- K.W. Gobalet (2001) A critique of faunal analysis; inconsistency among experts in blind tests. Journal of Archaeological Science 28(4): 377-386
- C.O. Hunt, G. Rushworth, D.D. Gilbertson, et al. (2001) Romano-Libyan dryland animal husbandry and landscape: pollen and palynofacies analyses of coprolites from a farm in the Wadi el-Amud, Tripolitania. Journal of Archaeological Science 28(4): 351-363
- H. Kroll (2001) Literature on archaeological remains of cultivated plants (1999/2000). Vegetation History and Archaeobotany 10(1): 33-60
- K. Milecka (2001) The paleobotanical view of an early medieval settlement in Giecz, in the light of other fortified settlement centres of central Wielkopolska (Poland). Prähistorische Zeitschrift 76: 105-122
- C.M. Mindzie, H. Doutrelpont, L. Vrydaghs, et al. (2001) First archaeological evidence of banana cultivation in central Africa during the 3rd Millennium before present. Vegetation History and Archaeobotany 10(1): 1-6
- A. Monckton (2000) The charred plant remains. Oxoniensa 115: 254-258 (in Ellis,P Hughes,G and Jones,L An Iron Age boundary and settlement features at Slade Farm, Bicester, Oxfordshire: a report on excavations, 1996 Ox 115 pp 211-265)
- F.F. Múgica, M.G. Antón, J.M. Ruiz, et al. (2001) The Holocene history of Pinus forests in the Spanish northern meseta. The Holocene 11(3): 343-358
- A.K. Outram (2001) A new approach to identifying bone marrow and grease exploitation: why the "indeterminate" fragments should not be ignored. Journal of Archaeological Science 28(4): 401-410
- L. Peña-Chocorro (2000) Agricultura e alimentación vegetal en el poblado de la edad del Bronce de Peñalosa (Baños de la Encina, Jaén). Complutum 11: 209-219
- M. Rech (2000) Bohnen Kaffee. Archäologie in Deutschland 4: 42

- J. Schoenwetter and P.S. Geyer (2000) Implications of archaeological palynology in Israel. Journal of Field Archaeology 27(1): 63-73
- J. Sidell (2000) Environmental archaeology in London 1995-1998, part 2. London Archaeologist 9(4): 95-101

W.van Zeist and S. Bottema (1999) Plant cultivation in ancient Mesopotamia: the palynological and archaeological approach. Berliner Beiträge zum vorderen Orient 18: 25-41

A.C. Zeven (1998) De geschiedenis van de middeleeuwse nutstuin in the stad, in het dorp, bij de boerderij en tuinderij: armoede aan beschrijvingen en afbeeldingen [The development of the medieval garden in the town, the village, on the farm and market garden: scarcity of descriptions and pictures]. Bulletin van Tuinhistorie 4: 31-52

Return to main index