

Association for Environmental Archaeology Newsletter 74 (November 2001)

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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:

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

EDITORIAL

In this, the last Newsletter of 2001, there is information about an extended field trip in Shropshire and Herefordshire that has been offered in place of the Annual Conference in 2002. We would like to thank Tim Mighall and Alison Locker for sending in Conference Reports, and, as always are very grateful to James Greig for gathering information about recent publications. On James' behalf we would like to encourage members to send details about publications to James at greigjra@bham.ac.uk

With Christmas rapidly approaching (as if you needed reminding), we'd like to wish everyone a Merry Christmas & Happy New Year!

NEWS FROM THE COMMITTEE

Request for Organisers and a Venue for the Autumn 2002 One-day Meeting

The AEA committee is looking for organisers and a venue for the autumn one-day meeting in 2002. These meetings normally take place in September or October. One-day meetings are usually an event at which short, informal papers are presented on a wide range of topics; reports on work in progress, especially students' research, are particularly encouraged. Recent one-day meetings have taken place at Birmingham (2001) and York (2000). It is at the discretion of organisers whether or not they would wish to publish papers presented at a one-day meeting. In 2002, the AGM of the AEA will take place at the one-day meeting. If you are interested please contact Dr. Helen Smith, The School of Conservation Sciences, [University of Bournemouth](http://www.bournemouth.ac.uk), Dorset House, Talbot Campus, Fern Barrow, Poole BH12 5BB, UK. Tel: +44 (0)1202 595 185; Fax: +44 (0)1202 595 255; e-mail: hsmith@bournemouth.ac.uk

Election of New AEA Committee Members

As there is no spring conference next year, election of new AEA committee members is postponed until the Autumn 2002 one-day meeting. However, if you know someone whom you would like to nominate to serve on the committee or are interested in being a committee member yourself, please contact Dr. Carol Palmer. The address is: School of Archaeology and Ancient History, University of Leicester, Leicester, LE1 7RH. Tel: +44 (0)1274 2564; Fax: +44 (0)1274 5005; e-mail: cp24@le.ac.uk. A formal request for nominees will appear next year.

Circaea on the Web

Following a member's suggestion, the AEA is investing some of its funds to make *Circaea* available on the AEA website (<http://www.envarch.net>). This service will be **password protected** to make it available to **AEA members only**. In the first instance, volumes 1 to 3 will be converted to downloadable format. We will inform members when this new service becomes available and will also issue a password at that time. Any items, comments and suggestions in relation to the website are always welcome, please contact the [Webmaster](#) or Carol Palmer; e-mail: cp24@le.ac.uk. **[N.B. please note that the password is no longer required for access to AEA vols 1-3, which are currently available for public access... AEA webmaster]**

Environmental Archaeology , Volume 6

The sixth *Environmental Archaeology* volume will be published shortly and is due to be distributed in November/December as usual.

CONFERENCES AND MEETINGS

ANNOUNCEMENT.

**Association for Environmental Archaeology extended Field Trip:
Shropshire and Herefordshire. Early July 2002.**

David Smith, The University of Birmingham.

Geraint Coles, The University of Edinburgh

Intent

With the absence of a formal conference this year, and noting the success of recent QRA field outings, we decided to try to start the ball rolling with the AEA by organising an similar extended field trip. (Equally, we have found that in the past that the field trip is often the most enjoyable and useful part of the normal three-day conference -so why bother with the papers). Shropshire and the Welsh Borders is a beautiful, biologically diverse, archaeologically rich but largely unexplored area of Britain.

Our base for the trip will be just south of Shrewsbury, Shropshire. We are planning on using a number of small, comfortable hotels as our base for three nights.

Proposed contents

Day 1:

Wroxeter Roman town tour in particular with emphasis on the recent results of the remote sensing survey. Possible tour of the Wroxeter Vineyard.

Caer Cardoc hill fort and the environmental sequence of the *Chruch Stretton Gap*. (possible walk up the Wrekin to watch the sun set)

Day 2 : *Mitchel s Fold stone circle.*

Powys Castle gardens

Nature reserve at Llanyminich hill fort.

(formal dinner)

Day 3 :

Tour of the deer park at Attingham.

Recent botanical and entomological work at Birches Farm Hay meadows.

Costs

We are aiming to keep the costs at around £ 150.00 to £ 200.00 per person. Numbers will be limited to 14 people. Dates and full costings will be provided in the February newsletter.

To reserve your place or if you have any questions please contact:

David Smith, Department of Ancient History and Archaeology, The University of Birmingham, Edgbaston, Birmingham. B152TT.

Phone: 0121 414 6542.

E-mail: d.n.smith@bham.ac.uk

4th INTERNATIONAL MEETING ON PHYTOLITH RESEARCH 2002

New Perspectives in Phytolith Research: Climate, Environment and Archaeology

The meeting will be held at the McDonald Institute for Archaeological Research from the morning of **28 August till the afternoon of 31 August 2002** . The Conference has five presentation sessions that will be run plenary:

- Phytolith Taxonomy, Methodology and Taphonomy
- Phytoliths in Palaeoclimatology and Palaeoecology
- Phytoliths in Archaeological Structures, Ancient Agriculture and Hunter-Gatherers Societies
- Phytoliths in Soil Studies and Micromorphology
- Phytoliths in Plant Studies

Each presentation will last 20 minutes and there will be 10-15 minutes for discussion.

There also will be a Poster Session with 5 minutes introduction for each poster and 5-10

minutes for discussion.

All information about the conference can be found at :

<http://www.arch.cam.ac.uk/phytolith>

Or contacting:

Marco Madella
The McDonald Institute
Downing Street
Cambridge, CB2 3ER
e-mail: mm10018@cam.ac.uk
fax 01223-339285

CONFERENCE REPORTS

AEA One day meeting in honour of Professor Susan Limbrey

University of Birmingham, 18th September 2001.

This one-day meeting was organised by Megan Brickley and David Smith to honour Professor Susan Limbrey's contribution to the field of environmental archaeology. The conference attracted a diverse array of papers, many of which reflect Susan's own academic interests and were presented by colleagues who have worked with Susan or have been inspired by Susan's own research. **John Hunter** (University of Birmingham) described the sizeable contribution Susan Limbrey has made to the Department of Ancient History and Archaeology at Birmingham University whilst **Allan Hall** (EAU, University of York) outlined the importance of Susan's research in shaping the field of environmental archaeology. It was fitting, therefore, that Allan had the pleasurable task of informing the audience that Susan had been made an honorary member of the Association for Environmental Archaeology.

In a room devoid of heating it was most appropriate that **Tony Brown** (Exeter University) presented pollen data from a late-glacial to early Holocene organic sediment from a palaeochannel located in the Lugg valley in the Severn-Wye Catchment. Combined with radiocarbon dates, chronomid and fossil insect data, this site provides us with a snapshot of vegetation probably marking the beginning of the Windermere Interstadial in the western Midlands of Britain. The palaeoenvironmental reconstruction theme continued with a paper by **Denise Druce** (Lampeter, University of Wales). Denise presented the evidence for Holocene sea-level changes in the Severn Estuary. Denise then placed the significance of these changes in an archaeological context. Interestingly, one of the major positive sea level tendencies around 3000 to 2500 Cal BC coincides with evidence of occupation and utilisation of the coastal zone.

Caroline Hall (Sheffield University) presented an interesting paper on the history and management of woodland in the Pindos Mountains of Greece. Historically woodland in this region of north-west Greece has been managed to provide leafy hay. Caroline compared the historical documentary evidence and with tree-ring data. The degree of compatibility between the two approaches provides a good example of testing the reliability of interpreting landscape changes and evidence for woodland management using tree-ring data

Soil was the major focus of five of the conference papers. Jen Heathcote (English Heritage) and Erika Guttman (University of Stirling) covered the evolution of landscapes and soil development in two papers. Using pedo-geomorphological mapping and more detailed analyses of selected soil profiles Jen discussed the extent and cause of accelerated soil

erosion in the Lesser Antilles and the implications that past land use changes has for modern farming and land use. Erika discussed the long-term development of anthropogenic soils in the Northern Isles of Scotland. These Isles provide evidence for the creation of plaggen soils from the Neolithic onwards with their use intensifying in the Iron Age and Norse period. Phosphate analysis has been used to provide evidence for the possible application of manures/fertilisers.

Wendy Mathers (Reading University) convincingly outlined the value of soil micromorphology in archaeology. Wendy discussed some of the soil micromorphological data she and co-researchers have gleaned from the Neolithic settlement of Çatalhöyük in Turkey. Wendy discussed how the evidence provided details the spatial and temporal variation in activities and conventions within the complex buildings with wall paintings. **Raimonda Usai** (English Heritage) has been investigating the application of micromorphological structures found in the soil to help identify past phases of agricultural activity. Although progress is being made in this area of research Raimonda discussed some of the difficulties in recognising diagnostic micromorphological features.

Matt Canti (English Heritage) reviewed his research on the impact of earthworms on sediment stratigraphy. Matt demonstrated using a variety of examples how earthworms can internally re-organise material in a soil profile. However, the production of excreted calcite granules may also have advantages in helping archaeologists resolve some stratigraphic issues through concentration counts, identification and possibly dating.

The daily life of people is a subject that has always fascinated archaeologists and thus it is an area of research that has attracted much attention including **Rebecca Redfearn** (University of Durham). Rebecca is using a biocultural approach to reconstruct the urban environment and health of people during Roman times. To date Rebecca's results are encouraging. Palaeopathological data from a number of cemeteries across southern Britain has provided evidence of some of the health problems suffered by people who lived in Roman towns and provides some useful insights about urban sanitary conditions and diet. In contrast, **Rebecca Rosseff** (Herefordshire Council) presented a synthesis of the evidence for circular field systems in Herefordshire. Using a combination of field mapping and reference to early editions of Ordnance Survey maps Rebecca outlined the nature of circular field systems and then discussed how and when these systems formed.

David Smith (Birmingham University) and Nicki Whitehouse (Queens University, Belfast) finished the afternoon session with a discussion of fossil insect data found in prehistoric woodlands across Britain. Their results suggest that diverse faunal assemblages existed across Britain in early and mid-Holocene woodlands. The traditional view of *urwaldrelikt* faunas and a decline in species as a result of habitat loss and forest clearance by humans from the Early Iron Age may need updating!

In summary the diversity and content of the papers presented made this a very enjoyable one day conference and an excellent way to honour Susan Limbrey's academic career. We can now look forward to reading the planned publication of the proceedings!

Tim Mighall
Geography, Coventry University

ICAZ Fish Remains Working Group Conference.

Paihia, Bay of Islands, New Zealand. October 8-15th

The FRWG conference (held every 2 years) was hosted by Foss Leach and Janet Davidson of Te Papa Museum of New Zealand in Wellington. The conference was held in Paihia in the

NE of the North Island, a popular resort for sports fishermen and followed by a 3 day field trip ending in Auckland.

The distance did not deter delegates from many countries attending to give 38 papers. The delivery of 20 minute papers in 30 minute time slots allowed lively discussion to develop, the papers were wide ranging in both location and subject, mostly fish with a few papers on shellfish. New Zealand and Australia were well represented with other papers from the Pacific including the Cook Islands, New Caledonia, Fiji and Hawaii. The wide range of topics included; Salmonidae in Japan, fish in Mexican offerings, coastal fisheries from 5th - 1st millennium BC in SE Arabia, Neolithic fish from Borneo, avoidance or differential preservation of eel remains in the Pacific and New Zealand and storage of fish in Shetland.

A general interest through the papers seemed to develop with regard to the different ways used to quantifying the fish bone data both by bone numbers and other methods, including weight. Fish species and calculation of their size were frequently used to reconstruct changes in marine exploitation, for example at; Precolumbian village sites in Jamaica, the St Augustine area in the SE USA and in the type of fish targeted in prehistoric fishing strategies in Hawaii. A depletion in the amount and variety of fish consumed at Lachish (Israel) was evident from the Bronze Age to the Iron Age. Large boreal gadids were present in Palaeolithic levels from Nerja on the Costa del Sol, Spain, in contrast to later deposits dominated by Mediterranean mid water groups. Tony Pitcher, a fish biologist, considered much of this archaeological data to be relevant in respect to modern fishing policies, in the current climate of global depletion of fish stocks through over fishing.

Other topics explored included; difficulties in radio carbon dating fish bone, the use of mtDNA to differentiate species within osteologically similar fish families. On a more ethnographic theme; the role of women and children in Scottish fisheries within historic times and an unusual use of fish vertebrae in a religious context broadened the theme beyond that of interpreting specific assemblages.

These papers are intended for publication in Archaeofauna and the next meeting is to be held in Mexico in 2003.

The verdant green of New Zealand in the spring was amply maintained by heavy rainfall and so the reliability of weather conditions on the free day mid conference for boat trips was in doubt. Janet arranged a bus and we visited a pa (similar to iron age hillforts) used by the Maori. We then viewed the Hundertwasser public toilets whose Rennie Mackintosh/Flintstones architectural style must be unparalleled. After lunch at a winery we arrived at the Treaty House where the Waitangi treaty was signed in 1840 between the British Crown and Maori chiefs. The translations of the treaty left the interpretation of this document open to much legal dispute ever since.

The walk back to Paihia stirred appetites for the excellent conference dinner that night at the Paihia Beach Hotel. Local restaurants were amply tested in the evenings in Paihia with much fish consumed. Tom Largy (who accompanied his wife Tonya for the fishing) and Tony Legge caught enough fish for 2 memorable dinners cooked for us at the Swordfish Club which coincidentally had the cheapest drinks in town.

The field trip left on the Saturday and Janet had prepared an extensive guide book. On the first day we visited the early 19th century Mission House and Stone Store House at Kerikeri, both restored to their original state. Another pa (Kororipo) was seen close by, belonging to a famous warrior chief, Hongi Hika. Driving on eastwards we passed extinct volcanic cones and lava fields with the stone remains of pre European cultivation gardens on the way to the pa at Pouerua, Rain became synonymous with pa s and this one involved a walk across farm fields and up to the top. At this point the coach driver seemed to accept the inevitability of mud and other organic matter on his carpets! After a picnic lunch we visited

Ohaeawai church (1871) built on the site of a pā, the objective of an unsuccessful attack by British forces in 1845. We arrived at Omapere a resort on the west coast, where some hardy individuals swam in the sea here during a beautiful sunny late afternoon.

The next day we visited the Waipoua Forest and saw the largest surviving Kauri tree, the museum showed pictorial evidence of the kauri gum industry which flourished between the late 19th and early 20th century. Arriving at the Te Houhanga Marae (the marae is the social centre for local Maori communities) we were warmly welcomed and learnt something of the Maori traditions and their role in a modern New Zealand and listened to songs by the children. Lunch was accompanied by more songs and dances by the children followed by a final meeting in the marae and after much hospitality we took our leave. Arriving at Whangerai back on the east coast, where we were to spend the night, we visited the Museum of Fishes. This was a wonderful collection, a mixture of live fish, casts of many species, stuffed birds and shell collections.

Leaving Whangerai we went to Goat Island, to the Leigh Marine Laboratory (part of Auckland University) where a student spoke of his work radio tracking snapper (sea bream to Europeans) to record their movements within the marine reserve. A lunch time visit to a winery included a talk and extensive tasting of the wine produced there, followed by lunch. Driving on to Auckland a visit was made to the Seamount fish shop and finally to Mt Eden, an extinct volcanic cone with archaeological evidence of broad terraces and deep pits, unfortunately only viewed from the coach due to rain. At this point some delegates were off to the airport for long flights while others had a few days in reserve for more sight seeing.

Much of this review seems to have centred round hospitality and not just the excellent food and New Zealand wines. Foss and Janet (along with others from their museum, particularly Colleen Stuart and Jim Samson) had obviously spent much time preparing for the conference and were tireless during it meeting everyone's needs. We all had a memorable time and have much to thank them for.

Alison Locker 6/11/2001

REQUEST FOR INFORMATION

"The potential of chironomids for characterising urban and rural human activities"

We are currently undertaking a Leverhulme funded project investigating the palaeoenvironmental potential of chironomids in archaeological contexts.

Chironomids have been shown to be sensitive to changes in trophic status, as well as effective indicators of levels of dissolved oxygen (DO) and total phosphorus (TP) in freshwater bodies. We will be working on waterlogged, reasonably organic rich sediments in both rural and urban contexts. If anyone is currently excavating a site which is likely to yield such sediments and wanted some analyses for chironomids undertaken, then there is a possibility that this could be done as part of the project and we would be interested to hear from you. Likewise if suitable samples have already been taken and archived (kept dark, damp, cool or frozen) then please contact us.

Pete Langdon - email: P.G.Langdon@ex.ac.uk - Telephone: 01392 264443

Tony Brown - email: A.G.Brown@ex.ac.uk - Telephone: 01392 263331

PHD ABSTRACT .

Alison Locker has recently completed her Ph D thesis at the Dept of Archaeology, University

of Southampton.

The role of stored fish in England 900-1750 AD; the evidence from historical and archaeological data.

This thesis examines the historical and archaeological data for the consumption of herring and the gadid fishes (primarily cod, haddock, whiting, ling and hake) as stored fish cured by salting, drying and smoking.

The thesis is divided into three parts, in the first part the historical evidence for developing fisheries, storage methods, marketing and consumption is discussed with an evaluation of the nutritional changes to the fish as a result of storage.

In part two factors affecting fish bone preservation and recovery are presented and the authors own recording criteria. A new methodology is introduced using the documented data for portions and rations from monasteries and the forces, showing herring and the gadids by volume of fish eaten compared with the number of bones counted. Distribution of body parts as evidence for stored and fresh fish in the large gadids, hitherto only used to show processing is adapted for application to the data sample which largely represents consumption.

In part three the 20 sites comprising the data sample are described. **Portion** and **body part** methods are applied to the herring and gadid bones from these assemblages. In the majority of sites herring predominate by number of bones, by portion cod becomes the primary fish in many cases. Evidence for stored cod, ling and hake were found by body part distribution in many assemblages.

The results of this study have shown that the archaeological data, when expressed as a volume of fish, supports the historical evidence for cod as the prime fish among these species, both as fresh and stored. Fish assemblages transcribed into portion from bone numbers present fish as a volume of food and often relegate herring, excessively favoured by bone numbers, into a subsidiary position.

A limited number of copies are available in reduced size format as a paperback 14x21cms, 305 pp, b/w with 1 colour frontispiece.

Price 12.00 pounds + postage (or equivalent in French francs or US dollars).

To order contact; Alison Locker, Appt 207, Chateau Perigord 1, 6 Lacets St Leon, MC 98000, Monaco.

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PUBLICATIONS

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As always, we are very grateful to James Greig for the following information. James writes:

Many thanks to Öрни Akeret, Mark Beech, Richard Carter, Petra Dark, Marianne Kohler-Schneider, Angela Monckton, W. van Zeist for sending in references. All references would be very gratefully received on greigjra@bham.ac.uk

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