
CAMQUA

The newsletter of the
GODWIN INSTITUTE FOR QUATERNARY RESEARCH

ISSUE TWELVE

MICHAELMAS TERM 1998

THE STAGE 3 PROJECT AT MID-POINT

On June 29-30th last, the Stage 3 Project celebrated the end of its second year with a workshop in Cambridge attended by 27 important contributors and observers. The modellers had provided a set of high-resolution climate models, still short on defining real input (only the European ice-sheets and the associated isostatically compensated topography and shore-lines had been specified) and too long on computed variables, but fully capable of showing what the next generation of simulations would look like. These models suggested a climate for the late Stage 3 that was disturbingly warm and much discussion followed on how to "make it colder", until a helpful question "Too warm relative to what?" brought the gathering back to reality. That reality requires that one more key input be provided, the observed sea surface temperatures, and then let the computer do its job without second-guessing. The output can be compared to quantitative estimates of temperature and precipitation based on micromollusc and beetle data. After all, one does expect Stage 3, the warmest part of the mid-glacial interval, to be warmer than the glacial maximum.

Having taken this courageous step, the group realised that we were about to alter our basic approach drastically, from a dominantly data-based synthesis to one where the models are used to forecast and the data to validate and test the simulations. Another forecasting approach, recommended earlier by a palaeobotanical working group, thus followed logically, viz. to predict the vegetation for a typical warm and cold event by coupling the climate model with a biodynamic one that rests on soil type, topography and climate. The prediction can be validated by statistically testing the biomes so created, with the existing pollen data.

This change is inspiring further thoughts along the same lines regarding the use of mammalian faunal data and perhaps even for the human distribution pattern in time and space, comparing the results with the mammalian and ar-

chaeological data bases that are being compiled. These methodological matters will occupy several learned and courageous (reckless, some might say) minds during the coming year.

The tasks of climate and climate/vegetation modelling will keep the computers busy for about nine months, since the runs required are long, but we should have a first generation of truly realistic simulations in hand at our next meeting, in the summer of 1999. At that point, the end of our third year, the probably anxious processes of validation and testing sensitivity for uncertainties in the outputs can begin. At the same time, the working groups concerned with mammalian faunas and geological data for permafrost and loess will be far enough advanced with their work to begin to incorporate it into the landscape simulations.

Consequently, the fourth and, one hopes, last year should bring the our final output, i.e. climatologically plausible landscape reconstructions equipped with a fauna likely to have played a major role in controlling the distribution of human beings, and we must begin the task of an orderly publication. Then the turn of the archaeologists comes to make sense of the archaeological record in a climatic and environmental context.

Tjeerd van Andel

Hot Off The Press!

A full report on the GIQR QV'98 Symposium held this summer can be found inside this issue

Meetings

Q.R.A. ANNUAL DISCUSSION MEETING Recent Advances in Quaternary Biostratigraphy Department of Zoology, University of Cambridge 5-6th January 1999

Papers are invited for an international, interdisciplinary two-day discussion meeting highlighting recent advances in Quaternary biostratigraphy. The primary emphasis of the meeting will be on the record from the British Isles, although evidence from both Europe and further afield is also welcomed. The records from a wide range of taxonomic groups will be discussed, including vertebrates, pollen, plant macrofossils, molluscs, ostracods, beetles, chironomids and foraminifera. Presentations on less well-known groups are also invited. Provision will also be made for a poster session, particularly to encourage postgraduate participation.

Contributions have been confirmed from the following speakers:

- Adrian Lister (UCL) & Tony Stuart (Norwich Castle Museum): *Early Pleistocene mammalian records*
- Danielle Schreve (University of Durham): *Middle Pleistocene mammalian records*
- Andy Curren (Natural History Museum, London): *Late Pleistocene mammalian records*
- Thijs van Kolfschoten (University of Leiden, the Netherlands): *Continental mammalian records*
- Chris Glead-Owen (University of Coventry): *Herpetofaunal biostratigraphy*
- Gill Thomas (CGCHE) & Helen Roe (University of Plymouth): *British Middle Pleistocene pollen records*
- Chronis Tzedakis (University of Cambridge): *Long pollen records from western/southern Europe*
- Felix Bittman (Universität Göttingen, Germany): *Long pollen records from western Europe*
- Jacques-Louis de Beaulieu (CNRS Marseille, France): *Long pollen records from France*
- Pete Coxon & Laura Dowling (Trinity College Dublin): *Pollen sequences from Ireland*
- Mike Field (University of Coventry): *Plant macrofossils*
- Richard Preece (University of Cambridge): *Early Middle Pleistocene molluscan records*
- David Keen (University of Coventry): *Late Middle Pleistocene molluscan records*
- Rich Meyrick (University of Cambridge): *Holocene molluscan records*
- Huw Griffiths (University of Hull): *Ostracod biostratigraphy*
- Russell Coope (Royal Holloway): *Coleopteran biostratigraphy*
- Steve Brooks (Natural History Museum, London): *Chironomid biostratigraphy*
- Bill Austin (University of Durham): *Foraminiferan biostratigraphy*

Deadline for abstracts: 1st November 1998 (address below). The registration fee is £20 (£15 for students/unwaged). Bed and breakfast accommodation will be provided at Jesus College, Cambridge, at a cost of £22.50 per night with a conference dinner (£15) on the night of 5th January.

For further information, please contact:

Dr Danielle Schreve, c/o Department of Palaeontology, Natural History Museum, London SW7 5BD.

Tel: 0171-938 9258, Fax: 0171-938 9277

E-mail: D.Schreve@nhm.ac.uk

Or

Gill Thomas, Department of Geography and Geology, Cheltenham and Gloucester College of Higher Education, Francis Close Hall, Swindon Road, Cheltenham GL50 4AZ. Tel: 01242-543311, Fax: 01242-532959

E-mail: gthomas@chelt.ac.uk

Registration forms can be found in the current *QRA Circular*: **Camqua** also has copies of this form (contact MRF).

Diary

Godwin Lunch Seminar Series

Michaelmas Term

Meetings will be held in Harker Room II (situated next to the original Harker Room) in the Department of Earth Sciences and start at 1.15pm.

Monday 26th October

Mick Frogley (Zoology)

Evidence for subdued climatic variability during the last interglacial in NW Greece

and

Mark Chapman (Earth Sciences)

The last interglacial as viewed from the North Atlantic

Monday 9th November

Adam Gardner (Archaeology)

Environmental response to Neolithic agriculture in SE Europe

and

Tjeerd van Andel (Earth Sciences)

The Stage 3 Project at the halfway point

Monday 23rd November

Liping Zhou (Earth Sciences)

Loess spectrophotometry: initial tests in China, Central Asia and Central Europe

and

John Stewart (Archaeology)

Morphological patterns among birds in the Quaternary: inter- or intra-specific evolution?

Further information may be obtained from Mark Chapman (m.chapman@esc.cam.ac.uk), Godwin Laboratory (x34878).

Quaternary Discussion Group

Michaelmas Term

Meetings will be held at West Court, 11 Herschel Road, Cambridge (*note new venue!*) from 8.30pm.

Friday 30th October

Dr A. J. Long

Department of Geography, University of Durham

Postglacial relative sea-level change, crustal motions and ice sheet dynamics in West Greenland

Friday 20th November

Dr M. -F. Loutre

Institut d'Astronomie et de Geophysique, Université catholique de Louvain, Belgium

Modelling Quaternary climates

Friday 4th December

Dr J. C. Woodward

School of Geography, University of Leeds

Holocene river behaviour and alluvial archaeology in the Nile Valley of Northern Sudan

Further information may be obtained from Mick Frogley (mrf1002@cus), Department of Zoology (x36625).

Contributions

Rather than this box acting as filler to make the page look balanced, we can include your news, gossip, and those essential tidbits of information that the rest of the Quaternary community here in Cambridge just can't live without....but only if you tell us! Contact the editors without delay!

Deadlines

Copy for the next issue of *Camqua* should be submitted by **Friday, 8th January, 1999** to any of the editorial addresses given below.

Credits

Editors:

Mick Frogley, Zoology Dept. (mrf1002@cus)

Rich Meyrick, Zoology Dept. (ram23@cam)

Tjeerd van Andel, Earth Sciences Dept.

Camqua would like to thank the Department of Earth Sciences for generously supporting the production of this issue.

Conference Reports

Gibraltar and the Neanderthals

Gibraltar

28th-30th August

If the tone of this report seems somewhat facetious in places, it probably reflects the atmosphere of an extremely enjoyable conference. The intimacy of the venue and the strange familiarity, yet exoticism, of the peninsula (it felt more like an island) were very beguiling. Cambridge fielded a strong presence at the Gibraltar conference: Professors Tjeerd van Andel and Paul Mellars, John Stewart and myself from the Stage Three Project, Mark White, Carolyn Szmidt and Marta Camps. As we trooped into the tiny airport building, few could resist a look at the huge Rock, towering 423 m above present sea-level.

For the period which comprised the scene for Gibraltar and the Neanderthals, however, we should be considering rather lower (-70-80 m) sea-levels than those of today. Tjeerd van Andel, in his guise as co-ordinator of the Stage Three Project started the conference off, speaking on the *Palaeoclimate and Landscape of the Western Mediterranean Region (60-25 ka)*. This paper helped to unify the subsequent ones on environmental conditions, human evolution, absolute dating techniques, taphonomy, sedimentology, and even archaeology. Yes, many archaeologists seemed to have been encouraged to abandon their ramshackle relative dating schemes, and to acknowledge that Neanderthals, and later anatomically-modern humans, were not forever trekking through glacial environments during OIS 3. It was pleasing to see so much ad hoc reference being made by individual speakers to the environmental scenario as expounded in this first paper, and not just because I am involved with the Stage Three Project: it gave proceedings a more organic, fluid structure rare for international conferences. However, the archaeologists could not be persuaded to abandon all their bad habits, as the second day was to reveal.

Many of the papers were concerned with integrating the recent work in three Gibraltar caves (Ibex, Gorham's and Vanguard), and with setting it into the wider Iberian context. This was especially important given the late survival of Neanderthals in other parts of southern Iberia, for example the skeletal remains dated to perhaps 27 ka (U-series) from the cave of Zafarraya. The range of specialists working on the Gibraltar Caves Project is very impressive, including archaeologists and physical anthropologists (Barton, Stringer), faunal specialists (Currant, Finlayson, Cooper, Fernandez-Jalvo, Andrews), sedimentologists (Macphail, Goldberg) and dating specialists (Pettitt, Rink). AMS radiocarbon determinations have placed the latest-dated Mousterian (assumed to be associated with Neanderthals) at ca. 45 ka, with the earliest-dated Upper Palaeolithic (pre-

sumed to be associated with modern humans) present by at least 30 ka. Seafood seems to have played a significant part in Gibraltarian Neanderthal diet, with mussels being exploited. Work has now stopped in Gibraltar to permit the publication of the monograph in the year 2000. Those who cannot wait that long can read about the work in a forthcoming edition of *Antiquity*, or in a book in honour of Dorothy Garrod which will be published next May.

The other contributions were also interesting, with several big names such as Erik Trinkaus and Ofer Bar-Yosef speaking, and others, such as Paul Mellars, Yoel Rak and Clive Gamble, chairing sessions. The human evolution session on the second morning was very useful for me, as it is easy to fall behind with the latest developments in this area. It is significant that the debate seems to have progressed beyond the multiregional vs. population replacement models for modern human evolution, and onto more interesting topics like hominid subsistence strategies and group mobility. One of the most impressive presentations of the day was the animated computer reconstructions of the Gibraltar child by a Swiss team; early results from this project made the front cover of *Nature* in 1995. The discussions appeared to be slightly less egalitarian than those of the previous day, with fewer people participating, and rather more loudly. This pattern was taken further in the afternoon session on archaeology (chaired by Paul Mellars), where four people commandeered all the discussions. There seemed to be a division between pragmatists and the more fanatical adherents to archaeological 'type-fossils'. The whole thing was predictably sterile and dispiriting: surely Palaeolithic archaeology has moved beyond most of these debates? The low point came when the excavators of an important north Iberian site were accused of not recognising disturbance in their stratigraphy by someone who had never visited the site. Despite these complaints, much useful information was presented and, as usual with these events, the most useful discussions occurred during the tea- and lunch-breaks.

Unfortunately, I missed the last day of the conference: I had had chicken pokora on the second evening and spent the following day in purgatory. However, I am reliably informed that the morning's final discussion proceeded along similar lines to those outlined for the previous two days. I was sorry to have missed the trip to caves (including Forbes' Quarry, where the first Neanderthal remains were uncovered 150 years ago this year), but maybe I just need an excuse to return sometime.

Two Gibraltar Neanderthal skulls had been loaned to the Gibraltar Museum for the duration of the conference, and they seemed to make a great impression on the many Gibraltarians attending the conference. While not for a

Conference Reports

moment suggesting that today's Gibraltarians are descended from Neanderthals and the rest of Iberia are derived from incoming modern humans, it was easy to form the impression that they saw this event as a chance to proclaim their difference from Spain. The ubiquitous media presence (print journalists and television crews) re-inforced the idea of this conference as a 'big event'. Our Gibraltarian hosts pulled out all the stops, providing dinner for us on the first night in St. Michael's Cave, and a reception on the second evening. But for a quirk of history, we could today be talking of *Homo calpicus* (from Mons Calpe, an alternative name for the Rock) rather than *Homo neanderthalensis*: however, the Germans got there first... The proceedings of this conference will be published next year.

William Davies

6th International Conference on Paleoceanography Lisbon August, 1998

Last August saw a mass migration of paleoceanographers from all over the world to Lisbon, the sunny capital of Portugal, for the 6th International Conference on Paleoceanography. This year, the title of the conference was *Reconstructing Ocean History: A Window into the Future*. Sessions took place at the well-equipped and thankfully air-conditioned auditorium of the Feira Internacional de Lisboa. The Godwin Institute and the Department of Earth Sciences were well represented, sending over a dozen participants, including two brave souls who had not begun their Ph.D. projects yet!

The conference got off to a good start with a speech by the Portuguese Minister of Science and Technology, Mariano Gago. The sessions were divided into five themes: polar-tropical interhemispheric linkages; the role of the ocean in abrupt climatic changes; biotic responses to palaeoceanographic changes; past warm climates; and innovations in monitoring ocean history. Mornings were devoted to talks given by invited speakers on the theme of the day. A wide range of methodological approaches was presented, including everything from tree-rings and corals to ice-cores and loess. It's not all forams and ice-rafted debris you know! This year there was particular emphasis on millennial-scale climatic and paleoceanographic oscillations like the Younger Dryas, Heinrich events and Dansgaard-Oeschger Cycles. Forcing mechanisms, correlation, geographical extent, intensity and environmental effects were all discussed. In the afternoons we were free to peruse the impressive number of posters (nearly 500!) which displayed a wide variety of new data. The current trend towards high-resolution multi-proxy studies was very much in evidence

amongst the forest of poster stands. Every day ended with a discussion session, summarising the present state of research, and drawing together the diverse topics encountered during the day. The conference was closed by Michael Bender, who gave a talk entitled *Correlating ice core and deep-sea climate records: implications for climate dynamics*.

In parallel with the conference, participants had the opportunity to experience a bit of Portuguese culture. The welcome reception was held at the Museu da Marinha, where exhibits representing centuries of naval history are kept. This provided a beautiful and peaceful space in which to meet and talk to colleagues. Amongst the boats and planes we sampled wines, chouriços, regional sweets and smelly cheeses, which we all enjoyed very much. Halfway through the conference we were treated to the customary palaeomusicology concert, this time held at the Salão Nobre da Academia das Ciencias de Lisboa. This was a rare opportunity to see a beautiful old library room, which formed an elegant venue for the concert. Conference participants and local members of the National Conservatory of Music performed wonderful music, including old Portuguese songs, a piano solo and a rather nervous violin and piano duet. It was lovely to also see some of our Cambridge colleagues and friends up there playing too. Nick Shackleton, Vivien Law and Karen Courtier all played beautifully, despite being wind players... Where were the violinists (ahem!!)?

Included in this year's celebrations of the 500th anniversary of the discovery of the seaway to India by Vasco da Gama, Portugal organised the World Exposition EXPO 98. This event chose the theme *The Oceans, a Heritage for the Future*. Virtually unmentioned in the British media, but well known worldwide, this was the last world exhibition of the millennium. Those that managed to join one of the guided tours offered by the conference were given priority access to some of the main thematic pavilions. They were lucky, as everyone else had to face vast queues for everything worth visiting. Being a native of the host city, Lúcia had to repeat the visit several times in order to gain a broader vision of the event. It required a lot of patience to queue for five hours just to see one pavilion! Still, this was one of the best exhibitions in the history of international EXPOs.

It was a wonderful idea to hold the conference in Lisbon during the 'year of the oceans'. It was also a chance for some old bones and pale skins to get a bit of sun, sea and warmth (sometimes a little bit too much warmth, with temperatures reaching 42°C!) in a country that welcomed all the participants with open arms.

Lúcia de Abreu and Katy Roucoux

Conference Reports

The Eemian – Local Sequences, Global Perspectives

Kerkrade, The Netherlands

6-11th September, 1998

Organised under the auspices of both INQUA and the Subcommission of European Stratigraphy (SEQS), this symposium attracted almost 100 researchers from around the world interested in all facets of the last interglacial. Held in a magnificent converted monastery in the south of the Netherlands (a region almost as hilly as Cambridge!), it was a suitably serene and peaceful setting in which to engage in fruitful scientific discussion (!). The GIQR was well represented in particular, with Phil Gibbard (one of the co-organisers), Richard Preece, Charles Turner, Chronis Tzedakis and myself all participating. There was also the opportunity to spot familiar faces from elsewhere in the UK (such as Russell Coope, Dave Bridgland, Chris Gleed-Owen, Danielle Schreve and David Keen), as well as catching up with the gossip from several ex-Cambridge people, notably Mike Field, Helen Rowe, Maria-Fernandez Sanchez-Goni and Nicole Limondin-Lozouet.

Analysis of the Eemian has a long tradition in the Netherlands – indeed, the Eemian type sequence is located there, in the Eem Valley, near the city of Amersfoort. However, the presence of erosional breaks in this record has provided the necessary impetus to locate and study a more complete sequence. Much of the first day of the symposium was therefore given over to the presentation of new work by the Dutch National Institute of Applied Geosciences TNO (part of the National Geological Survey), who have been working on a new Eemian parastratotype sequence, the so-called Amsterdam-Terminal borehole. In under a year, the multidisciplinary team have managed to not only recover the core, but also analyse a very broad array of parameters from the 26m of Eemian-age sediments, including pollen, dinoflagellates, foraminifera, molluscs, diatoms and heavy minerals. In addition, parts of the sequence have been subjected to a variety of dating techniques, including U/Th and amino-acid racemization. An opportunity to examine the Amsterdam-Terminal cores first-hand on the excursion day, served only to reinforce the impression that this entire project is a very impressive demonstration of what can be done in our field if only the will, the organisation and, of course, the funding are in place...

The symposium did not exclusively concentrate on Dutch Eemian records, however, and the net was soon cast somewhat wider. Long sequence, high-resolution results were presented from France, Greece and Denmark, amongst others. A particularly impressive presentation by Maria-Fernandez Sanchez-Goni and co-workers showed results directly comparing palynological land-sea records from the

Iberian margin. Clear from many presentations was the increasing use of high-resolution, multi-proxy techniques, particularly when addressing the thorny problem of intra-Eemian climatic instability. Whilst no clear consensus emerged regarding this most topical of debates, the presence of a multi-phase ('Younger Dryas'-type) deglaciation at the beginning of the period and at least one, short, mid-Eemian perturbation, appear to be increasingly well recorded from a variety of sites.

Much of the second half of the symposium was given over to faunal records and data from a range of western and eastern European sites were presented. Mammals, herpetofauna (amphibians and reptiles), molluscs and beetles all entered the equation, Russell Coope waking everybody up with his (by now) trademark theatrical exposition of the joys and delights of beetle faunas! The nature and timing of the last interglacial in North America was also considered, with Daniel Muhs (US Geological Survey) pulling together palynological, sea-level, sedimentological and faunal results, coupled with the U-series dating of corals and TL-dates from loess deposits, to provide an excellent review. The last session concluded with a series of broad review talks by George Kukla and Charles Turner, the final discussion addressing the principal problems and challenges facing Eemian workers in the future being led by a sparkling Chronis Tzedakis (!).

This brief review (largely due to reasons of space) does not do justice to the excellence and sheer breadth of this symposium. No mention has been given to the numerous workshops, the poster session or most of the excursion. Neither has any mention been given to the social pleasures (a great, subterranean bar!), the fine conference meal, or the highly professional level of organisation from our Dutch hosts. Nevertheless, all the participants will surely have come away not only having had a successful week, but with the distinct impression that the more we investigate the last interglacial, the more questions there are to be answered, that this is a field that is still to have its day.

Mick Frogley

Eemian Bibliography

As part of the conference, a detailed bibliography of over 2000 Eemian references was compiled by Tom Meijer of the TNO. Although largely European in focus, it nevertheless represents a huge and extremely useful database. I have a text file on disk for those who would like a copy.

Conference Reports

GIQR QV '98:
Quaternary Volcanism, Climate and Society
Department of Earth Sciences, Cambridge
29-30th September, 1998

The second GIQR discussion meeting, on volcanoes, climate and society, attracted an audience of over fifty people to the Department of Earth Sciences over two days at the end of September. Despite the broad theme, several issues were brought into a clear focus as the meeting proceeded. One fascinating outcome, from my perspective, was to see the way in which different sorts of volcanism are viewed as the agents of environmental damage in different contexts.

To geologists, it has always seemed obvious that it is the big, explosive eruptions that do the damage to climate. The tree-ring response following the great eruption of Tambora in 1815, and the measured effects of the Pinatubo eruption in 1991, both showed that the rapid injection of volcanic pollutants into the stratosphere causes widespread summer-cooling for a couple of years. To those measuring the human response on the ground, though, the distant impact of eruptions of this scale might be no more than another miserable harvest. On the other hand, large-scale eruptions of lava can have dramatic effects on a regional scale, when the conditions are right – as shown by the catastrophic effects of the acrid volcanic fog that enveloped Europe in June and July 1783, during the eruption of Laki in Iceland. In coping with the more immediate effects of an eruption at close quarters, experience in central America suggests that the form and complexity of the society that is affected is critically important. Complex societies that rely on a web of interactions and communications to function seem to be more prone to fail in the aftermath of a dramatic natural event than the 'simpler' less dependent societies, which can adapt more readily.

The challenges for the future are clear: we are still seeking for explanations of cause and effect when trying to understand which processes may trigger volcanic eruptions, and which are triggered as a response (e.g. glaciations). A good deal more work is also needed to bring out the full potential of the proxy record of past volcanic eruptions that is written in tree-rings and ice-cores. And we also need to understand better what it is that makes one eruption more 'significant' (in terms of impact or effects) than another.

In the intended spirit of the conference, this discussion meeting brought together a wider spectrum of researchers than usual, and as a result it provoked lively and continuing debate. From my perspective it was an unqualified success, and I should like to thank my co-organisers, the speakers and all who come for making it so.

David Pyle

Talks

Thursday, 22nd October

Dr Johannes Vogel (Department of Botany, Natural History Museum)

Where are the glacial refugia in Europe? Evidence from pteridophytes

Common room, Genetics Department, 4.00pm.

Wednesday, 11th November

Professor Julian Dowdeswell (Aberystwyth)

Ice in the Eurasian Arctic: past, present and future and

Professor Jan Mangerud (Bergen)

The last interglacial-glacial cycle of the Barents-Kara ice sheets in Svalbard and northern Russia

London Quaternary Lectures, Main Lecture Theatre, Queen's Building, Royal Holloway. First talk at 3.30pm; second talk (after tea) at 5.15pm.

Details of the Centre for Atmospheric Sciences seminars here in Cambridge can be found on their webpage:
<http://www.atm.ch.cam.ac.uk/cas/seminars.html>

WebStuff

European Pollen Database

Newsletter no. 8 of the European Pollen Database is available at the Internet site:

<http://medias.meteo.fr/paleo/epd/letter8/epd8.html>

QRA WWW Page

Don't forget to visit the QRA web page, containing up-to-date lists of meetings and multitudinous links to other Quaternary websites: <http://www2.tcd.ie/QRA>

Erratics...

New MPhil Course Begins

The new Master of Philosophy course in Quaternary Science begins this term. The one year course will be run jointly by the Departments of Earth Sciences and Geography and is completely revamped from the course that used to exist in the Faculty of Biology 'A'. It has a greater emphasis on taught courses, with many GIQR members participating in the teaching. Five students are registered this year (see *Welcome* section).

Alex on the move...

Alex Chepstow-Lusty is shortly to join the Quaternary Stratigraphy Group in the Department of Geography. He will continue to be mainly based in Plant Sciences until Easter, during which time he will give Keith Bennett's Part II Botany lectures on vegetational history and plant population migration. He is also apparently working on a major monograph concerning the morphology, evolution and national distribution of really good Battenburg cake...

Short Courses in Quaternary Techniques

The following courses are being offered again this year by the Environmental Change Research Centre, University College London. For course registration forms or further information please contact: Catherine Dalton, ECRC, 26 Bedford Way, London WC1H 0AP (tel: 01710-3807575, web site: <http://www.geog.ucl.ac.uk/ecrc/teaching.htm>). Please note that the *Environmental Palaeoecology* and *Numerical Analysis of Biological and Environmental Data* courses are now fully booked.

Introduction to Pollen Analysis (16th-20th November 1998, course fee: £300.00); *Introduction to Macrofossil Analysis* (7th-11th December 1998, course fee: £300.00); *Introduction to Diatom Analysis* (25th January - 5th February 1999, course fee: £500.00); *Palaeoceanography and Numerical Ocean Circulation Modelling* (8th - 12th February 1999, course fee: £300.00); *Introduction to Ostracod Analysis* (February 22 - 24th 1999, course fee: £180.00); *Introduction to Benthic Foraminifera Analysis* (February 25 - 26th 1999, course fee: £120.00).

Retirement

Jill Dye, who has been a long-serving, popular technician in the Department of Plant Sciences since 1982, retired this September. We wish her a long and happy retirement.

Congratulations!

Congratulations to Chris Glaister, who submitted his PhD thesis last month. He will be remaining in Geography for at least the next 6 months, working on a post-doctoral project with Phil Gibbard that continues with his marine Eemian investigations.

Welcome

Dr Marie-France Loutre (Université catholique de Louvain, Belgium) is visiting the Godwin Lab for the Michaelmas term. She will be investigating the uncertainties in astronomically tuned chronologies that are related, in particular, to tidal dissipation and changes the dynamic ellipticity of the Earth. She will also be giving a QDG in November on some of her modelling work (see *Diary*) and can be contacted in the Godwin Lab on x34872.

Professor Kamal M. Hussein (Department of Geology, University of Damascus, Syria) will be working on Plio-Pleistocene sediments in the Quaternary Stratigraphy Group's lab in Geography for six months from October.

Becky Smith begins a Ph.D on Fenland river history in the Geography Department (supervised by Phil Gibbard) and will be supported by a Newnham College studentship.

Sebastien Aubrey begins a PhD in the Zoology Museum, (supervised by Richard Preece), studying the effects of altitudinal gradients on molluscan assemblages. Sebastien graduated from the Université Pierre et Marie Curie in Paris, before this year gaining his DEA from the Université de St Jerome, in Marseilles.

Heiko Pälke begins a PhD in the Godwin Lab (supervised by Nick Shackleton). Heiko was a graduate of the Earth Sciences Department here in Cambridge before completing an MSc at UCL. His project will be concerned with the astronomical calibration of the geological timescale.

Five students begin the new all-singing, all-dancing MPhil course in Quaternary Science this term: Sa'ad Al-Omari (Darwin), Claire Allen (Downing), Nikolas Brookes (Trinity Hall), William Gosling (Queens') and David Nowell (St John's).

Meetings

British Micropalaeontological Society AGM

University College London
18th November, 1998

The 1998 AGM of the BMS will be held in the Gustav-Tucke Lecture Theatre, UCL, from 2.00pm. The afternoon includes invited talks by Matthew Collins (Newcastle) *Small beginnings: ancient biomolecules and micropalaeontology*; and Norman MacLeod (Natural History Museum) *The renaissance of graphic correlation*. A wine reception will follow the talks, at which there will be a poster display (*students are particularly encouraged!!*). Those wishing to display posters are asked to contact James Powell as quickly as possible (tel: 0181-948 6443, fax: 0181-940 5917, e-mail: bms@dinosystems.co.uk).

Extending the Ecological Timescale

Leicester University
6th January, 1999

Joint session of the Royal Geographical Society, the Institute of British Geographers and the British Ecological Society. An appreciation of the importance of temporal scale is crucial to resolving many ecological problems. However, potential scientific benefits of closer integration between palaeoecology and ecology have not been fully exploited. The aim of this symposium is to provide a forum for exchange of ideas between palaeoecologists and ecologists and to explore avenues of closer interdisciplinary collaboration. The keynote address (by Keith Bennett) is entitled: *The past as the key to the present?* Further details are available from Dr. Francis Mayle, Geography Department, University of Leicester, Leicester LE1 7RH (tel: 0116-252 3831, fax 0116-252 3854, e-mail fem1@leicester.ac.uk).

Central and Eastern Europe from 50,000 - 30,000 B.P.

Neanderthal Museum, Mettmann, Germany
18-21st March, 1999

The question of how the transition occurred between the Middle and Upper Palaeolithic periods in Europe is currently one of the most controversial issues in the disciplines of archaeology and palaeoanthropology. The goal of this workshop is to compile the research currently available from an Eastern European perspective, and to analyse these various theories and explanations in the light of the latest research results. Discussion of these results will be a particular focus of the workshop. Abstract deadline: 30th October, 1998. Further details available from the Director of

the Museum, PD Dr. Gerd-C. Weniger (tel: ++49 2104-97970, fax: ++49 2104-979796, e-mail: neanderthal-museum@t-online.de). Alternatively, visit the web page (<http://www.neanderthal.de>).

10th European Union of Geosciences

Strasbourg
28th March – 1st April, 1999

The 10th EUG will be held in Strasbourg next spring. As usual, a broad range of parallel sessions will be run, including those on *Climate – past and present* and *Polar Earth Sciences*. Deadlines for abstracts and applications for travel grants is 15th November; the registration deadline is not until 31st January, 1999. Further details can be found on their web page (<http://eost.u-strasbg.fr/EUG>).

QRA Annual Field Meeting

Northeast England
April, 1999

The annual field meeting will this year be based in Durham and visit a variety of localities in the northeast, including the Tees estuary, Holy Island and the North York Moors. Main organisers include Bill Austin, Dave Bridgland, Ian Evans, Jim Innes, Jeremy Lloyd, Ian Shennan and Antony Long (who is giving a **QDG** later this October!). Further details and a registration form will appear in the next (October) *QRA Circular*.

QRA Short Field Meeting

West Cornwall
20-23rd May, 1999

A short field meeting is currently being planned to visit West Cornwall. A provisional itinerary includes the Lizard, the Fal estuary, Penwith, Goonhilly Downs and Newquay. Themes to be examined include Cornish Tertiary outliers, Late Pleistocene coastal sequences, Holocene relative sea-level change, environmental archaeology and metalliferous mining, sediment budgets and estuarine stratigraphy. For further details see the next (October) *QRA Circular*, or contact Dr James Scourse, School of Ocean Sciences, University of Wales (Bangor), Menai Bridge, Anglesey LL59 5EY (tel: 01248-382876, e-mail: oss048@sos.bangor.ac.uk).

The End of an Era?

The beginning of this academic year marks a profound change in the Quaternary community in Cambridge; a fundamental change, yet one that is likely to pass relatively unnoticed by most of us around the University in Departments outside Plant Sciences, or the greater palaeoecology group. What is this change? It is the departure of two members of our GIQR community; both Keith Bennett and Kathy Willis are leaving to take up posts elsewhere.

Keith Bennett came to Cambridge as an undergraduate in Botany in 1976, taking up a Ph.D studentship to work with John Birks on the Holocene sequences in East Anglian lakes, including Hockham and Quidenham meres. After two post-doctoral years at Scarborough College in Toronto, working with Jim Ritchie, he returned to Cambridge, at first in an 'Assistant in Research' post that was converted three years later to an 'Assistant Director of Research', a position he held until resigning this year. He is leaving to become Professor of Quaternary Geology at the University of Uppsala, Sweden, a position previously occupied by Lars König-Königsson.

Unlike Keith Bennett, Kathy Willis began her University career as an undergraduate geographer at the University of Southampton. She came to Cambridge to work with Charles Turner and Geoff Bailey (then in Archaeology) on late- and post-glacial lake sediments as part of the environmental studies associated with the Klithi project, based in northern Greece. After completing her thesis, Kathy left the University to join Cambridge University Press. Finding herself not altogether happy in the publishing world, she returned to the Subdepartment with a NERC Post-doctoral Fellowship to work in the Balkans, still under the communist governments at the time. She persevered and her labours were rewarded by the award of a Royal Society Fellowship. She is leaving at Christmas to become a lecturer in the Geography Department at the University of Oxford.

Both Keith and Kathy are palaeobotanists, principally interested in the Holocene and the relationship of pollen analytical applications to problems of modern plant distribution, ecology, human interference and evolution. Their leaving is without doubt our loss, because together they represent a substantial part of an area in which this University has held an important presence for over 60 years.

What is significant about these losses is not perhaps solely the absence of two of our number who had contributed significantly to knowledge in their chosen areas, but also the minor and, one hopes, temporary weakening of the GIQR community. However, the new Head of Department, Roger Leigh, has expressed his continued support for the GIQR. Still, despite a 1-year freeze on recruitment imposed by the University, planning by members of the Advisory Board has begun in preparation for the time that conditions for appointments in palaeobotany will be favourable again.

The Department of Plant Sciences, formerly the Department of Botany, was undoubtedly the cradle of Quaternary Research in Cambridge. Harry Godwin, having founded pollen analytical research there in the early 1920s, went on to establish the enormously influential Subdepartment of Quaternary Research in 1948. Our modern GIQR arose from the ruins of that institution and has clearly prospered.

Nevertheless, the departure of Keith and Kathy exposes a weakness in our GIQR structure by underlining the fragility of our foothold in any one Department. What is obvious is that when staff leave, for any reason, their replacement by another Quaternary person will certainly not be automatic as far as the University or individual Department Heads are concerned. Inevitably, their commitment to the Quaternary must be assessed within the context of the needs of the parent Department as a whole, even though it may seem self-evident to us that an individual should be replaced by someone with closely-related expertise. In today's world of competition for resources and status, teaching institutions react by recruiting individuals from areas that are current, vibrant and rapidly developing, rather than continuing subject areas in which they have traditionally been strong, for their own sake. This is only natural, and most would argue that it is right that Departments do this if they are to remain pre-eminent. We must be aware of this and respond accordingly, as far as we can influence matters.

However one looks at the unfortunate coincidence of our colleagues' departures, one can really only conclude that they potentially mark the 'end of an era' for Cambridge Quaternary and for Plant Sciences in Cambridge. Naturally, we wish both Keith and Kathy great success in their future positions but also feel that their departure should serve to remind those of us still here how simple it is to lose the remarkably rich research environment we take for granted, almost without realising that it is happening.

Phil Gibbard

Quaternary Quiz

A huge thank you to the vast numbers of people who contacted the editors in response to the Quaternary photo quiz from the last issue. As everyone who entered rightly pointed out, the SEM picture was of a series of beautifully preserved sperm ducts from one of Dave Horne's freshwater Holocene ostracods (thanks for sharing that with us, Dave). Alas, however, there can only be one winner. Since in actual fact, nobody bothered even to try, the prize (of an all-expenses paid, first-class holiday to Barbados) goes, by default, to my cat. Due to the underwhelming response concerning this item therefore, the pictures editor will, in fact, be taking a short holiday this issue (to Barbados, I understand), so sorry, no exciting mystery picture this term...