CAM QUA

The newsletter of the
GODWIN INSTITUTE FOR QUATERNARY RESEARCH

ISSUE EIGHTEEN ***LENT TERM 2001***

QRA Annual Discussion Meeting 3-5 January 2001

National Museums & Galleries of Wales

'Modern analogues and their value for the interpretation of past environments'

The National Museums & Galleries of Wales, venue for this years Annual Discussion Meeting, are set in an impressive turn of the century site overlooked by Cardiff Castle. The meeting attracted about 80 quaternarists who were treated to two and a half days of high quality presentations. Mary Seddon and colleagues are to be congratulated for organising this illuminating event.

Opened by Mike Walker, President of the QRA, the meeting was organised into three sessions, Palaeoecology, Landscapes and Processes, and Marine Environments. It began with a stimulating keynote lecture by Brian Huntley that used modern plant distributions to emphasise the importance of multiple physical controls (notably not just temperature) on biotic distributions. The Palaeoecology session embraced a wide array of terrestrial and lacustrine subjects, including pollen studies from Finland and the Amazon, modern plant taphonomy, diatoms and fungal spores. Landscapes & Processes focused mostly on glacial and periglacial processes, but also included interesting talks on speleothem records and non-analogue mammalian communities of the Late Pleistocene. Last, but not least, the Marine Environments session showed how diatoms, benthic forams, dinoflagellates and pollen were being brought to bear on questions of sea-level change in the Holocene, and on the recognition in the Quaternary record of water stratification and frontal systems that occur on the continental shelf - phenomena that give rise to extraordinary biotic productivity today.

Given the theme of the meeting, there was an inevitable slant towards the Holocene, particularly the modern environment. Truly understanding modern datasets is.....

(Continued overleaf....)

London Quaternary Lectures 6 December 2000

Royal Holloway College

The London Quaternary Lectures have become an annual fixed point in the MPhil calendar, and so again this year, a group of us including the Masters students went down to Royal Holloway for the 64th and 65th lectures given by Professors Ellen Mosley-Thompson and Lonnie Thompson from the Byrd Polar Research Center at Ohio State University.

Following on from last year's Greenland Ice focus, this year's lectures looked at the shorter time-scale record, with Ellen Mosley-Thompson looking at Holocene climate variability as recorded in several locations, particularly pointing out the inverse temperature response of the Antarctic peninsula to cores at the south pole and the Quelcaya ice cap.

She also introduced a programme that their group has started in order to monitor changes in mass-balance of the Greenland ice-cap. After coffee, Lonnie Thompson made us all very jealous with his beautiful pictures of tropical ice-caps such as the famous Quelcaya ice-cap featured on the front of Lowe and Walker. The geographic range of these is quite amazing with records from all tropical continents. Similarly, the logistics of successfully reaching the sites (all at very high altitude) and of returning the cores to ground level without melting were fascinating. However, the most interesting part to me was the fact that none of these records seemed to extend beyond 20,000 years ago. This certainly put paid to my subconscious assumption that these ice-caps were remnant features from the last glacial period, and stimulated much discussion about the aridity or otherwise of this period.

Becky Briant.

'Modern analogues and their value for the interpretation of past environments' - *continued*

.....clearly the first step towards using them to interpret the past. This meeting underscored the many aspects we still don't know about the modern environment. We have yet to fully understand what limits modern biotic distributions and physical processes, and only when this is achieved can we accurately apply these indicators to the geological record. Perhaps we will then be in a better position to approach the equally fascinating subject of 'no-analogue' associations in the past!

Martin J. Head

NEW QRA TECHNICAL GUIDE

The new blockbuster from the QRA technical guide series is now out and racing up the sales charts. Not available from any good booksellers, it is instead available from the QRA publications secretary - details below!

Griffiths, H. I. and Holmes, J. A. (2000) Non-marine ostracods and Quaternary palaeoenvironments. *Quaternary Research Association Technical Guide*, **8**. 188pp.

Price £17.00 (£9.00 + plus postage and packing for QRA members)

Available from the QRA Publications Secretary, Dr Simon Lewis, at the Department of Geography, Queen Mary, University of London, Mile End Road, London, E1 4NS. Alternatively, email S.Lewis@qmw.ac.uk

Telecom Tunnel under River Cam helped by Cambridge Borehole Database

Three telecom companies recently joined forces to cut disruption caused by road digging in Cambridge by agreeing to combine cable laying through the city centre in a single trench. The project, laying much-needed phone and internet cables from Maids Causeway under the River Cam to Chesterton, was undertaken by communication companies ntl, Manet and MKI.

A special directional drill imported from the US, which uses high-pressure water jets to tunnel, and bentonite clay to line the hole, was used create ducts under the River Cam in two locations at Jesus Green and Stourbridge Common. Before drilling started, Paul Raeburn from ntl and Mick Brown from Manet contacted Steve Boreham of the Quaternary Palaeoenvironments Group, Department of Geography, for advice on ground conditions beneath the river. He was able to tell the telecom companies that a deep gravel-filled channel runs beneath the current course of the river.

Steve has collected a database of thousands of borehole records from across the Cambridge area over the last six years as part of his PhD thesis. The combined records form both an invaluable source of stratigraphic information for Quaternary scientists and an important resource for the city's engineers. Paul Raeburn from ntl said;" I have lived in Cambridge my whole life, but had never been aware of this buried channel beneath the River Cam. Steve Boreham was able to tell us exactly what we would be drilling through".

A further directional drill is planned beneath the disused railway crossing on Milton Road later this year.

Web Snippets....

Quaternary Fiction

Whilst it could be argued that some of the work published in the field of Quaternary Science is fiction, Paleo-books publish a series of truly fictional tales dealing with life in geologic history. Fictional series include titles under the headings of Palaeontological Science, Palaeoanthropological fictions and Archaeological fictions. Titles of possible interest to Quaternary Scientists include “Pleistocene Redemption” by Dan Gallagher and “Mammoth Hunters” by Jean Auel. “Pleistocene Redemption” is Dan Gallagher’s prehistoric science fiction / spiritual thriller about ancient mysteries and extinct species regeneration (megafauna, Cro-Magnon & Neanderthal).

Information can be found at http://www.paleobook.com/index.html.

Digging down - under

Catch up on Antipodean research by browsing the Australasian Quaternary Association website at http://rses.anu.edu.au/enproc/AQUADATA/AQUA.html. If you’ve had enough of working in the UK, the site has lots of information regarding Quaternary positions in Australian and New Zealand Universities. The web site also provides a variety of useful links, such as to the CLIMANZ (palaeoCLImate Mapping of Australia and New Zealand project) web pages.

SEA-SEARCH

SEA-SEARCH is an online gateway to marine data, information, products and services in Europe, and acts as an umbrella site for a European cooperative network of oceanographic data centres and marine information services from 14 European countries.

The SEA-SEARCH website provides:
• An internet gateway for searching ocean and marine data and information in Europe .
• A support infrastructure and shop window if you wish to disseminate or promote your ocean and marine data and information to a wider community.
• A valuable resource for data management expertise and support.

The site hosts searchable catalogues of data sets, research projects and cruises, in addition to a wide range of information and links together provide a central gateway to marine data, information, products and services within Europe.

Find it at http://www.sea-search.net/

Goodbye

Chronis Tzedakis, who leaves us on the 22nd of January, to take up a lectureship position in sunny Leeds. Chronis has been with us since 1987, and has been a key contributor to Quaternary research here in Cambridge, particularly in his work on the Ioannina terrestrial sequence. We wish him the best of luck in the land of pale ale and Yorkshire pudding, and have no doubt that he will stay in regular contact with the Godwin Institute here in Cambridge.

Dictionary Definitions!

Bog burst
"This may happen when an area of peat or swampy ground is confined. The bog may build up and subsequently become oversaturated with water and flow out as a kind of mud flow".

Comings and Goings in the Godwin Lab.....

Coming....

Isabel Cacho Lascorz (researcher) has joined the lab to research palaeoceanography of the Western Mediterranean Sea in relation to millenial scale past climatic changes.

Patrizia Ferretti and Luke Skinner have both joined the lab to work on their PhD research projects.

Helen Pfhul (researcher). After completing her PhD, Helen has taken up the post of researcher, working on projects relating to ODP Leg 154 and 189.

Lucia de Abreu (researcher) is working on ocean/climate interactions off Portugal, following the completion of her PhD.

Going....

Neil Loader (researcher) has left to take up a post in the Department of Geography at the University of Wales (Swansea).

Liping Zhou (researcher) has returned to China, taking up a post at Beijing University.

Laura Sbaffi has successfully competed her PhD.

Conferences

QRA Annual Field Meeting and AGM, West Wales

April 17 - 20th 2001
Venue: Aberystwyth

Organisers: Danny McCarroll, Mark Macklin, Mike Walker

Contact: Danny McCarroll, Department of Geography, University of Wales, Singleton Park, Swansea SA2 8PP.

E-mail: d.mccarroll@swansea.ac.uk

Palaeo-Ice Stream International Symposium

17 - 20 October 2001
University of Aarhus, Denmark

An update is available on the INQUA Commission on Glaciation homepage

http://www.inqua.au.dk
under upcoming meetings.

6th International Drumlin Symposium

17 - 23 June 2001
Nicholas Copernicus University, Torun, Poland

An update is available on the INQUA Commission on Glaciation homepage

http://www.inqua.au.dk
under upcoming meetings.

BGS Proposal for a Mapping-Related Lithostratigraphy for the Quaternary of the Onshore UK

February 21st 2001
Keyworth, Nottinghamshire

Contact: Richard Hamblin, Geology, Geotechnics and Palaeontology, British Geological Survey, Keyworth, Nottingham, NG12 5GG

Tel: 0115 936 3175
Fax: 0115 933 200

Glacier - Influenced Sedimentation on High - Latitude Continental Margins: Modern and Ancient

29 - 30 March 2001
Bristol Glaciology Centre

Invited speakers include:
J.B. Anderson, J.T. Andrews, M.J. Hambrey, R.D. Powell and J.P.M. Syvitski

Convenors: Professor J.A. Dowdeswell & Dr. Colm ó Cofaigh

For further details and updated information:

http://www.ggy.bris.ac.uk/glac/glacimarine.html

Held at: Bristol Glaciology Centre, School of Geographical Sciences, University of Bristol, Bristol BS8 1SS

Fax: 0117 928 7878

Diary

CAMBRIDGE QUATERNARY DISCUSSION GROUP

February 2nd ***Stephen Brooks:***
'Reconstructing environmental change: what do chironomids have to offer?'

February 16th ***James Scourse:***
'Ice-ocean interaction during stages 2 and 3: what do European precursor events tell us about the origins of Heinrich events ?'

March 9th ***David J. Beerling:***
'Global productivity changes on glacial-interglacial timescales'

Meetings are held at 8.30pm at West Court, 11 Herschel Road, Cambridge.

Further information can be obtained from:
Professor Nick Shackleton
e-mail: njs5@cam.ac.uk

Wednesday 24 January
Dr Nicky White, University of Cambridge
A stepping stone on the way to a general inverse model for sedimentary basins

Weds 7th February
Dr Charlotte Gladstone, University of Cambridge
Experimental turbidity currents

Weds 14th February Dr Steve Tait , Imperial College
The evolution of explosive volcanic eruptions and the formation of small and large calderas

• All 3 of the above Lectures are at 4.30pm, Bullard Lecture Room, Department of Earth Sciences.

Thursday 22 February
Dr Mike Hulme, University of East Anglia
Climate Change Risk and Sustainability
4.15pm, Seminar Room, Department of Geography.

Thursday 1 March
Professor Mark Chase, Jodrell Laboratory, Royal Botanic Gardens, Kew.
DNA sequence data and flowering plant classification
4pm, Large Lecture Theatre, Department of Plant Sciences.

MIDLAND QUATERNARY LECTURE

Thursday 15 March 2001 at 7.30 pm
C. Mohrange
Holocene sea levels and geoarchaeology in the Mediterranean

COVENTRY QUATERNARY DISCUSSION GROUP

Thursday 18 Jan 2001 at 1 pm T. Mighall
Reconstructing atmospheric pollution from prehistoric metal mines

Wednesday 31 Jan 2001 at 1 pm R. Preece
Cromer Forest - bed Formation: new thoughts on an old problem

Thursday 8 Feb 2001 at 1 pm C. O'Brien
Quaternary palaeoenvironmental reconstructions in SW France

Thursday 22 Feb 2001 at 1 pm A. Wood
The stone tapestries of the Red Crag

Thursday 1 March 2001 at 1 pm S. Lewis
Lower Palaeolithic human occupation & landscape change in eastern England

Thursday 8 March 2001 at 1 pm G.R. Coope, M. Field.
Investigation of interglacial sediments from north London

Thursday 22 March 2001 at 1 pm J. Bunting C. Green D. Keen
Reconstruction of wetland environments

Thursday 26 April 2001 at 1 pm B. Horton
Foram and diatom data as a tool in the investigation of Holocene sea levels

Additional information from Dr Michael Field (Tel: 024 76888428, fax: 024 76888447, e-mail: apx126@cov.ac.uk). Meetings will take place in the William Morris Building, Coventry University, Gosford Street, Coventry. All welcome.

Earth - Link Seminar Series

The Earth-Link seminar series is intended as a multi-disciplinary discussion series covering all aspects of the Earth Sciences. The ethos is similar to that of the Godwin Institute. In the coming term the series is split into two, with regular lunchtime seminars comprising two talks of approximately 20 minutes each, and a one-off evening meeting, as detailed below. Dates and times are not as yet confirmed, so please contact the persons listed below.

Lunchtime Series

'Linking mantle processes to sedimentation at rifts'

The first series of Earthlink seminars discussed the many processes that occur between the creation of sediment by erosion and its deposition in a sedimentary basin. Rift zones provide some of the world's major sediment sinks, and this series will focus on the fact that they aren't just holes at the end of a river system, but complex and dynamic regions where deep-seated earth processes can be linked to sediment dispersal at many scales. It's not just the sediment sinks we're worrying about; the causes and patterns of uplift and continental separation are rooted in the mantle, yet they have fundamental impacts on erosion, sedimentation and ocean circulation.

If you think your research would fit into this theme, it's not too late to offer a talk! Contact **Simon Inger** at simon.inger@casp.cam.ac.uk

Evening Meeting

'The impact of physical factors on macroevolutionary patterns'

The history of life seems to have been shaped by two major factors.

(1) intrinsically biological processes (adaptation, dispersal, learning, social interactions, competition); and (2) physical processes (climate, extra-terrestrial impacts, plate tectonics, changes in sea-level etc.).

Organisms have proved themselves to be extraordinarily adaptable and have helped shape their physical environments; yet major aspects of the history of life have, to some degree, been controlled by physical properties of the Earth. The complex interaction between these processes is largely responsible for Life's unique history, including instances of origination, adaptive radiation, mass extinction, organismal geographic distribution, and anatomical/ physiological adaptation. The goal of this evening seminar meeting is to bring together geologists, climatologists, oceanographers, geographers and biologists in order to explore the role of physical processes in Earth-life co-evolution. It is hoped that this event will stimulate discussion of one of the key issues in current evolutionary theory: that is, the relative importance of 'contingency' in evolutionary history.

The evening seminar meeting is planned for early March, 2001 (exact date to be arranged). If you would like to offer a talk title, please contact **Paul Upchurch** (pupc98@esc.cam.ac.uk).

Want to be famous?

Ruth Banger in Earth Sciences library wants your thesis! The eventual aim is to have all relevant PhD theses on open loan in the library. To this end, people who've completed their PhD in the last 4-5 years, and everyone who will subsequently finish are asked to talk to Ruth (x33429). She is willing either to pay for production of a new copy, or to take the second BOGS copy.

It's your CAMQUA!

Camqua wouldn't exist without your contributions. In order to carry on we need more involvement from all departments, particularly Archaeology and the Godwin Lab. Always of use are reports on meetings or conferences. Don't presume someone else is already doing one, get in touch with your editors and volunteer! Invariably, we will gladly accept!

Deadlines

Copy for the next issue of ***Camqua*** should be submitted by **20th April 2001** to the editors at the Geography Department.

Credits

Editors: Chris Glaister (cg10016@cus.cam.ac.uk)
Phil Hughes (pdh27@cam.ac.uk)

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