

# CAMQUA

The newsletter of the CAMBRIDGE QUATERNARY

ISSUE 32

MICHAELMAS 2005

## Goodbye Godwin Institute for Quaternary Research, Hello Cambridge Quaternary!



**Cambridge Quaternary** (CQ) officially replaced the Godwin Institute for Quaternary Research (GIQR) on October 1<sup>st</sup> 2005. This new grouping represents a more informal structure than the GIQR but at the same time incorporates a wider range of research groups both within the University and beyond.

The CQ provides a co-operative umbrella organisation including over 40 people. Its constituent research groups being based in the Departments of Geography, Earth Sciences, Archaeology and Zoology, whilst links also exist with the Departments of Physics and Bioanthropology, the Scott Polar Research Institute and the British Antarctic Survey. The research environment at all levels is fostered by the staff, post-doctoral workers, and both Ph.D. and M.Phil. students pursuing interdisciplinary research in a wide range of Quaternary fields. This environment is unique in Britain, offering opportunities for research training unequalled elsewhere, in terms of the range and quality of the expertise available in a single institutional setting.

The CQ is managed by an Advisory Committee that meets annually. It includes Professor Phil Gibbard (Geography - chair), Dr Tom Spencer (Geography), Professor Nick McCave (Earth Sciences), Dr David Pyle

(Earth Sciences), Dr Richard Preece (Zoology), Dr Maryline Vautravers (British Antarctic Survey and Geography), Professor Roy Switsur (Godwin Lab), Professor Martin Jones (Archaeology) and Dr Eric Wolff (British Antarctic Survey).

We hope that you will want to participate fully in the day to day running of the organisation and continue to make Cambridge the centre for excellence in Quaternary science that it has been for the last 8 decades or thereabouts.

All the normal functions of the GIQR will continue under the new CQ structure, including the Quaternary Discussion Group seminars, the CAMQUA newsletter etc, and hopefully some new events will emerge. The website is also being updated and will include announcements of relevance to CQ members, including the QDG information. It is open for any groups to add information, links etc., so please use it. You will also be able to download versions of the logotype which we hope you'll use on posters and other presentations to help spread the word and to help us present a united face to the public.

Phil Gibbard

Cambridge Quaternary website: <http://www.quaternary.group.cam.ac.uk/>

# Dates for your Diary

## Michaelmas 2005

### October

**Tue 25<sup>th</sup>**  
**ESC** Jake Lowenstern (Yellowstone Volcano Observatory) "Intrusion, deformation and gas discharge at the Yellowstone Caldera"

**Wed 26<sup>th</sup>**  
**SPRI** Professor Atsumu Ohmura (Swiss Federal Institute of Technology, Zurich) "Mass balance change of glaciers and ice sheets during the 20th century"

### November

**Tues 15<sup>th</sup>**  
**ESC** Don Canfield (Odense, Denmark) "Neoproterozoic ocean chemistry"

**Wed 16<sup>th</sup>**  
**SPRI** Dr Doug Mair (University of Aberdeen) "The challenge of determining change in the percolation zone of the Greenland Ice Sheet"

**Tue 22<sup>nd</sup>**  
**ESC** Rainer Zahn (Barcelona) "Oceanic records of climate change"

**Wed 30<sup>th</sup>**  
**SPRI** Dr Dag Ottesen (Geological Survey of Norway) "Ice sheet dynamics and palaeo-ice streams on the Norwegian shelf based on bathymetric and 2D and 3D seismic data"

**QDG** talks are yet to be finalised – watch the website for news

**ARCH** talks also yet to be finalised – watch their website too!

**ESC** seminars: 5 pm in the Harker Room. Wine in the common room from 4.45. All welcome. Full details: [www.esc.cam.ac.uk/~dmp11/seminars](http://www.esc.cam.ac.uk/~dmp11/seminars)

**SPRI** seminars to be held in the Scott Polar Research Institute Lecture theatre.

Full program: <http://www.spri.cam.ac.uk/research/seminars/physical/> Enquiries contact: Jeff Evans, (3)36570, ([jeffrey.evans@spri.cam.ac.uk](mailto:jeffrey.evans@spri.cam.ac.uk))

**ARCH** talks of the George Pitt-Rivers bioarchaeology laboratory are held in the McDonald Institute lecture room (ground floor).

Full program: <http://www.arch.cam.ac.uk/pittrivers/GPRtalks.html> Enquiries contact: Rachel Ballantyne, (3)33537, ([rmb51@hermes.cam.ac.uk](mailto:rmb51@hermes.cam.ac.uk))

**QDG** talks to be held at 5:30 pm in the Lloyd Room at Christ's College Cambridge.

Full program: <http://www.quaternary.group.cam.ac.uk/events/qdg/> Enquiries contact: Luke Skinner ([luke00@esc.cam.ac.uk](mailto:luke00@esc.cam.ac.uk))

# A New Home



After more than 17 years on the New Museums Site, the Godwin Laboratory is being packed up for relocation and incorporation into the Department of Earth Sciences. Mass Spectrometers, computers, microscopes and books are being carefully stowed in 2,000 boxes for transportation across the road to the second floor of the Department of Earth Sciences. The Godwin Lab's familiar corridor, with its Sequoia tree-trunk section and array of rooms down either side, will soon fall silent and dark - the retirement of Nick Shackleton has signalled a sea-change for the laboratory. The administrative reorganisation that transferred the Laboratory from the Department of Plant Sciences to the Department of Earth Sciences has ultimately led to the physical incorporation of the laboratory into the Department of Earth Sciences on the Downing Site.

In part, this is a cost-cutting move on the part of the Department of Earth Sciences. The transfer of the Laboratory facilities will free up some fifty thousand pounds per year for Departmental use.

However, there are potential gains in terms of the closer integration of the Godwin Lab's work with that of others in the main Department, in particular with the Geochemistry group. It was expected that the buildings currently occupied by the Godwin Laboratory, which are part of the old

Cavendish Laboratory, would have to be vacated within the next few years in any case, because the University's use of the area is changing. On the downside, space is going to be much more restricted on the "other side". Some hard decisions are going to have to be taken about equipment and books for which there will not be room in the new facilities.

Space has been made available for sample storage - but with material having to be moved out of the Department as well as from the Godwin, it is unclear whether enough space will in fact be available. Relocating Mass Spectrometers - which are notoriously sensitive to any kind of disruption - is a difficult business in any case, and it will take some weeks before the units are operational in their new homes. The bulk of the move out of the laboratory is expected to occur in early December, after a reschedule from mid-November.

This is not the first time that the Godwin Laboratory has changed location. The original University Radiocarbon Laboratory was sited on Station Road.

What everyone hopes is that the magic of the Godwin Laboratory - its productivity and capacity for scientific achievement - will survive the move. And what will the laboratory be called in its new location? That, it appears, remains to be decided.

*Simon Crowhurst*

## NEWS: emeritus CAMQUA editor moves to France

Having successfully defended his thesis last month, Will Fletcher will be taking up a one-year post-doc funded by the CNRS (**Centre National de la Recherche Scientifique**) at the Département de Géologie et Océanographie, Université Bordeaux 1, France. He will be working with Maria Fernanda Sanchez Goñi on marine pollen from cores MD95-2042 and MD95-2043 from the Atlantic Iberian margin and the Alboran Sea, focusing on isotope stages 2 and 3. The work will contribute to the RESOLuTION project, a four-year European Science Foundation (ESF) project commencing this year which aims to relate the terrestrial, marine, ice-core and archaeological data for stages 2 and 3.

# QUATERNARY SCIENCE REVIEWS



## LONDON QUATERNARY LECTURES

*Wednesday 26 October 2005*

*15.30pm*

**Dr J. Jouzel**

Lab. Sciences du Climat et de l'Environnement, Gif-sur-Yvette, France

**'Water isotopes in deep ice cores - recent  
results from Dome F, EPICA, NGrp'**

[LQL No. 74]

*16.30 - 17.00pm Tea*

*17.00pm*

**Dr J.P. Steffensen**

Niels Bohr Institute, Glaciology, Copenhagen

**'New results from the NGrp ice core  
& environmental implications'**

[LQL No. 75]

*18:15pm Wine reception*

*in The Main Lecture Theatre,  
Queen's Building, Royal Holloway, University of London*

Organised by

*The Centre for Quaternary Research, Department of Geography  
Royal Holloway, University of London*

Sponsored by

**Quaternary Science Reviews**

Depending on demand, there may be a minibus going from Cambridge. Contact Phil Gibbard, (plg1) to express an interest.

# INQUA-SEQS 2005 meeting in Bern, Switzerland

## 4<sup>th</sup> – 9<sup>th</sup> September 2005

The annual meeting of ICS's Sub commission on European Quaternary Stratigraphy (SEQS) took place in Bern. Part of Bern had suffered some major flooding two weeks before, but at our arrival no noticeable damage remained – so we didn't have to feel disaster-tourists and could start the meeting reasonably undistracted. We participated in two days of presentations and discussions, and 3 days of excursions to the NE (Alpine foreland), centre (Alpine midlands) and SE (Inner Alps) of Switzerland – under very pleasant weather conditions. Thirty oral presentations covered themes such as: New results of dating sediments from the Alpine region; High-resolution archives of Quaternary climate change; Glacial dynamics and sedimentology, Palaeozoology and environmental change; and Glacial stratigraphy from the T/Q boundary to the Holocene.

The majority of the talks were on Swiss, Italian and Bavarian Alpine Quaternary sites and their stratigraphic context, many of which were also visited in the excursions. A consistent picture of last glacial dynamics of the alpine ice cap emerged from evidence that includes provenance and exposure datings of erratic boulders, trimline mapping in the higher Alps, moraine mapping and dating in the foreland and post LGM retreat phase dating in the midlands and higher valleys upstream, including Holocene ice-front oscillations such as the little ice age. The sedimentary record of pre-LGM glaciations in the alpine midlands was also discussed in presentations and at excursion sites. Thick accumulations of pre-last glacial sediments (mainly lake deltas) occur as pockets filling glacial-eroded structures within the LGM ice margin. For some of the sites, optical dating (of quartz sand and silt) now has confirmed palynology-suspected ages attributing deposit to the penultimate glacial/last-interglacial deposits (equivalent to MIS-6/5). At other sites, Early-Middle Würmian ages (equivalent to MIS-4) are now attributed to pre-LGM outwash deposits. At other sites, middle Pleistocene/deglaciations are now recognised. In-filled lake sites that produced an alternating palynological sequence (warm/cold/warm/cold) and previously were considered to cover several interglacials are now reinterpreted to reflect alternations within one glacial at most sites: multiple cycles have seldom preserved at one site. Nevertheless, the oldest middle Pleistocene to be

interglacial(s) found in the Alpine midlands still are correlated to MIS 11 and older, because they contain *Pterocaria* pollen. The field-meeting also discussed evidence for extensive glaciation in Plio-Pleistocene times. In the alpine record the early Pleistocene is a big gap and so is the Pliocene. In the alpine foreland there is some evidence for glaciation at the Pliocene-Pleistocene transition, in the form of gravels found at high levels ('deckenschotter' forming table mountains, visited during excursion). Also from heavy minerals in Rhine deposits of the Upper Rhine Graben down to the North Sea basin, the establishment of a drainage connection with the Alpine area at that time is clear. One can wonder if in Early Pleistocene times following this time the Alps were glaciated to as large extends as during the 'first' plio-pleistocene glaciations and later Middle-Late Pleistocene glaciations. Sediments in Quaternary depocentres in the Upper Rhine Graben may hold a semi-continuous record for this period and therefore a major collaborative project involving three >500-m deep boreholes near Heidelberg that is in progress now. Jumping to the most recent deglaciation: in the last decades from below some mountain glaciers a lot of Middle Holocene stems of trees appear, indicating that at some point during the Holocene (~6-8 ka BP) glaciers were even smaller than they are now (after the 2003 extreme summer).

The talks on other European stratigraphic issues that completed the meeting should not be left unmentioned. They covered topics such as the Pleistocene stratigraphy of the Russian plain and Ural foreland and the framework available for palaeontological and palynological zonation; the Pleistocene of the North Sea Basin where there is new insight regarding Rhine and Meuse and regarding ice-lakes and lake deltas during the Elsterian glaciation; Mountain glaciation in Turkey and Romania; the Eemian in Scandinavia; and more. If you would like more information, ask one of the following people for a list of presentations/speakers: Kim Cohen (Utrecht), Phil Gibbard or Charles Turner.

Kim Cohen

CAMBRIDGE PHILOSOPHICAL SOCIETY  
&  
THE GEOLOGICAL SOCIETY

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**EVOLUTION OF THE EARTH**

An interdisciplinary scientific meeting open to all who are interested

ADMISSION BY TICKET ONLY

*Organiser:*

**Professor Herbert Huppert, FRS**

*Session Chairmen:*

**Lord Oxburgh, FRS**

**Professor Keith O’Nions, FRS**

*Speakers:*

**Professor Dave Stevenson, FRS**  
Formation of the Earth and its early history

**Dr Andrew Mackenzie**  
Oil and minerals

**Professor Dan Schrag**  
Early evolution of the oceans

**Professor David Catling**  
Evolution of the atmosphere

**Professor Dan McKenzie**  
Geology of the lithosphere

**Professor Steve Sparks, FRS**  
The role of volcanism

**Professor Simon Conway-Morris, FRS**  
Does the fossil record tell us anything, and if so what?

**FRIDAY, 16 DECEMBER 2005**

starting at 9.00 a.m.

**Pippard Lecture Theatre, Cavendish Laboratory,  
Madingly Rd, Cambridge**

Applications for tickets and full programme to the Executive Secretary, Cambridge Philosophical Society, Bene’t Street,  
Cambridge CB2 3PY Telephone 01223 334743 Email: [philsoc@hermes.cam.ac.uk](mailto:philsoc@hermes.cam.ac.uk)  
<http://www.cam.ac.uk/societies/cps> <http://www.geolsoc.org.uk>  
(the first 120 fellows of the Society to apply will be offered a complimentary lunch)

## More News:

New PhD students in  
Quaternary and related fields

**Deepti Bisht** (Geography): Holocene coastal geomorphological changes along the Ploce Dubrovnik Fault, SE Dinarides of Croatia (P.L. Gibbard). Deepti comes from the University of Lucknow, India, where she studied for her Bachelors and Masters degrees.

**Caroline Dawber** (Earth Sciences): Response of the ocean-climate system to global perturbations of the carbon cycle (H Elderfield, A Tripati).

Quaternary Mphil students 2005

**Lisa Ramsay**, University of KwaZulu-Natal, South Africa (Environmental Sciences)

**Leda Smith**, Middlebury College, VT, USA (Environmental Studies)

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Check out back-issues of CAMQUA on-line at  
<http://www.quaternary.group.cam.ac.uk/camqua>

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**Deadlines:** Contributions for the next issue of CAMQUA should be submitted before the start of next term.

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