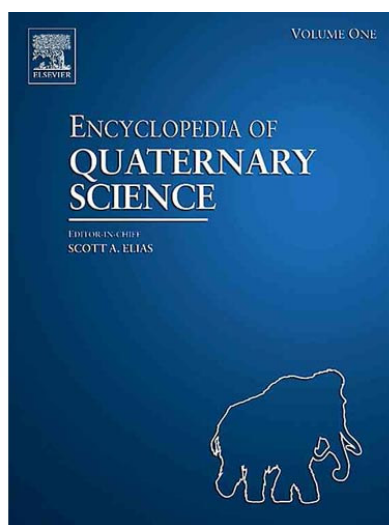


News Snippets

Dr Steve Boreham recently appeared on Ray Mears' BBC series 'Wild Food'. For the full story see the newspaper article on Page 6 of this issue. Core team in photograph: Steve Boreham, Julie Miller, Ray Mears and Chris Rolfe

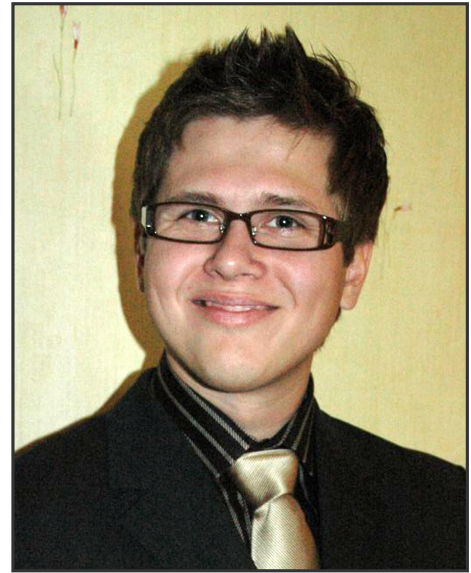


The **Encyclopedia of Quaternary Science**, edited by Scott Elias, was released in November 2006 and a copy has recently arrived in the RG West Lab. The four volume work provides broad-ranging, up-to-date articles on all of the major topics in the field of Quaternary Science and is aimed at the undergraduate level but also provides easily accessible, expert information for active researchers. **Prof Phil Gibbard** (University of Cambridge,

UK) and Dr Juergens Ehlers (Geologisches Landesamt, Germany) wrote a section entitled 'The History of Quaternary Glaciations'. The work is also available online via ScienceDirect.

Welcome!

The Quaternary Palaeoenvironments Group welcomes **Antti Pasanen** from the University of Oulu, Finland. Antti has funding from the Vilho, Yrjö and Kalle Väisälä Foundation and from the Academy of Finland to conduct part of his PhD based at the University of Cambridge. His study focuses on the internal structures of glaciofluvial sediments, including glaciotectionic structures, and his study sites are in western Finland, north-eastern Russia and East Anglia. He will be conducting sedimentological, tectonic and clast fabric analyses, and will be using ground penetrating radar methods. When he is not working, he enjoys sport, especially floorball (which is played in Cambridge!) and ice hockey.



Seminar Dates

February

Fri 23rd TBA
QDG

Wed 28th Dr Richard Hodgkins (University of Loughborough)
SPRI TBA

March

Wed 7th Alex Copley (University of Cambridge)
SPRI *"Large scale deformation of the continents; analogies with the dynamics of ice masses"*

Fri 9th Jess F. Adkins (CALTECH, USA)
QDG *Speleothem records of the last deglaciation in Borneo*

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/>

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

Full program:

<http://www.spri.cam.ac.uk/research/seminars/physical/>

ZOO talks: <http://www.zoo.cam.ac.uk/zooone/forthcoming/index.html>

ARCH talks: <http://www.arch.cam.ac.uk/pittrivers/GPRtalks.html>

PSci (Plant Sciences):

<http://www.plantsci.cam.ac.uk/seminars/index.html>

Conference/Meeting Dates

QUATERNARY ENVIRONMENTS AND THE HUMAN PAST

There is a one day discussion meeting hosted by the Quaternary Environments and Geoarchaeology Research Group at The University of Manchester on Wednesday 20th June 2007. Registration is free and all are welcome (registration form on Page 8 of this issue). The day will comprise a series of poster sessions on any theme related to Quaternary environmental change and/or the human past and three 45 minute talks with discussion. We welcome poster presentations from all Quaternary scientists and archaeologists. The speakers will be:

1. **Martin Williams** (University of Adelaide) - *Environmental impacts of an extreme event: the Toba mega-eruption, volcanic winter and the near demise of humans*
2. **Jamie Woodward** (The University of Manchester) - *Quaternary Environments and The Human Past: The View from the Mediterranean*
3. **Mike Baillie** (Queens University of Belfast) - *New Light on the Black Death: the cosmic connection*

XVII INQUA CONGRESS 2007

The XVII INQUA Congress will take place in Cairns, Australia from **28th July - 3rd August 2007**. Information on the congress can be obtained from the Congress website (<http://www.inqua2007.net.au>) where you can also register to receive further information as it becomes available.

QRA 6th INTERNATIONAL POSTGRADUATE SYMPOSIUM 2007

The 2007 Postgraduate Symposium will be held at the Geocentre, University of Copenhagen, Denmark, **21st - 24th September**. For more details, registration and contact information visit the website at <http://www.qra2007.geol.ku.dk>

Students of the QPG...

Sarah Farquhar (final year PhD) has just returned from the Ecolmas (European Graduate College in Marine Sciences) dinoflagellate course at the University of Bremen, Germany. Seminar topics included Tertiary dinocysts, transfer functions and the biology/ecology of present day species. "For someone who has spent the last 2 years counting fossilised cysts, it was exciting to see live dinoflagellate cultures, including *Tuberculodinium vancampoe* in the middle of the encysting process!"



Despite lost luggage, extended bank holidays and hospitalisation of field assistants, **Oliver Bazely** (final year PhD) successfully cored a Weichselian peat bog in the foothills of the Caucasus with the support of St. Petersburg University. Two days before he was due to leave Abkhazia, however, Russia suspended diplomatic relations with Georgia and his paperwork became worthless. He required the personal dispensation of the President to leave and was forced to leave the sediments behind. Four months later, he is still trying to recover his sediments.

Maria Papanikolaou (final year PhD) is currently writing up. Using dinoflagellate cysts, she developed a palaeoenvironmental and palaeoclimatic reconstruction for an area of the Ionian Sea, central Mediterranean Sea, during the Plio-Pleistocene period. The study focuses on two sites - the ODP marine core Site 963 and the outcrops of SE Zakynthos Island.

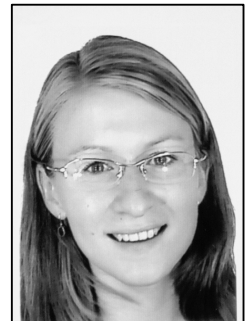


Deepti Bisht (2nd year PhD) conducted fieldwork in the salt marshes of Ston, Croatia in November 2006. She collected a sedimentary core and evaluated the coastal region for evidence of uplift. She found shelly beach deposits to support the theory of Holocene uplift in this region.



Lisa Ramsay (1st year PhD) conducted fieldwork in southern Africa in January 2007. Three cores were collected from the floodplain of the Umfolozi River in northern KwaZulu-Natal, South Africa for sedimentological and palynological analyses. The base of the cores revealed dune sands suggesting the cores may date back to ~18 000 BP. More than 200 modern pollen specimens were also collected to produce a reference collection since no published references material exists for the region.

Karolina Malinowska (MPhil) is conducting a palynological analysis of dated sediment samples collected from Megachad, Megafezzan and Chott Megalake. These samples were collected for the Saharan Megalakes Project led by Nick Drake from the Department of Geography, King's College, London. She aims to determine whether sediments taken from these mega-palaeolakes preserve a pollen record from the late Pleistocene to early Holocene.



Clayton Magill (MPhil) is using *Littorina littorea* intrashell $\delta^{18}\text{O}$ ratios as a proxy for harvesting season. He is working with material recovered from a late Mesolithic shell midden on the island of Oronsay, Scottish Inner Hebrides.

CAMBRIDGE EVENING NEWS - 17 JANUARY 2007

Down to earth in quest for Stone Age food

FOR most people, mud is something to be left on the ground – not put in your mouth. But TV's Ray Mears, the world's best-known survival expert, is not most people.

In his latest BBC series, *Wild Food*, Ray sets out to eat like our Stone Age ancestors. And, as tonight's episode shows, that involves eating dirt. "He said he'd tasted a lot of unusual things, but never 9,000-year-old mud," says Dr Steve Boreham, a geologist, ecologist and pollen expert based at Cambridge University. "But it doesn't taste unpleasant, just muddy . . ."

Ray enlisted the help of Steve and his fellow Cambridge experts to help unearth soil which is thousands of years old - by drilling six metres down into the ground at Hockham Mere, Norfolk. "I think the BBC had my details on record," explains Steve, a member of the university's geography department. "About 10 years ago I did a very similar thing with David Bellamy."

The aim was to work out what kind of plants were growing in Britain around 10,000 years ago, by examining soil samples. While filming, there was a debate as to whether the sample material was clay or silt. "If you put clay in your mouth, it's smooth like toothpaste," explains Steve. "Silt is grittier. So the easiest way to tell the difference is to taste a little bit; it's reasonably sterile, having been buried for thousands of years!"

Treating a sample with various chemical preparations, back in the lab, Steve and his colleagues were able to identify a significant quantity of plant matter under the microscope - hazel pollen. "You can't find hazel woodland like it today (Wednesday, 17 January)," says Steve. "It just doesn't grow. But, to a lot of people who lived back in the Mesolithic period (11,500 to 6,500 years ago), they were a fantastic food source, really rich pickings."

Working with Ray was, says Steve, a real pleasure. "He's a really genuine nice guy," he enthuses. "He listened carefully to everything we were saying and was able to summarise it for the viewers, which is quite a skill."

In the course of his day job, Steve studies the geology of Britain over the last two million years. "That sounds like an awfully long time," he says. "To put it in context, dinosaurs were around 200 million years ago, so we're talking about relatively recent geology."

"Looking back over the last two million years is important, because it shows massive climate change in Britain - from being as hot here as in the Mediterranean right through to ice ages, where ice sheets swept down as far south as London."

"It's hard to imagine Cambridge with a kilometre of ice on top of it, but that happened multiple times in the past. By looking at what the earth has done naturally, we can put present-day climate

change and global warming into context.

"I'm sure humans aren't helping much, but we can prove climate can change very quickly - and quite considerably."

A knowledge of ecology is, says Steve, essential: discovering a fossilised plant or animal, he needs to know whether they would have lived in wet or dry conditions; hot or cold. "It's a bit like a crime scene investigation," he explains.

"You have to look at the evidence and use it to work out what was happening at that moment in time."

From the remains of a huge forest elephant, found in West Runton on the Norfolk Coast, to minuscule pollen grains dredged from woodland floors, the fossils Steve works with vary enormously. In researching the history of vegetation in Britain, he's following in the footsteps of the famous Sir Harry Scott - the first man to drill into the ancient lake sediments at Hockham Mere.

"I'm very interested in what Ray Mears is doing, trying to find out how our ancestors made a living from the land," adds Steve. "If you took an average person from the street, landed them in woodland and said 'Right, you've got to live', they probably wouldn't get very far."

□ Ray Mears' Wild Food will be shown on BBC2 [17 January] at 8pm.

Study helps to solve murders

POLLEN may sound like innocent stuff. But, as Dr Steve Boreham knows, it has played a part in many a murder . . .

Among other things, Steve is a forensic palynologist which, in layman's terms, means he uses the study of pollen to help solve criminal cases. "Imagine a murder scene," he says. "The murderer may not have left DNA behind, but they might have mud on their shoe, clothes or car that proves they were there."

By examining the types of pollen present in a mud sample taken at the scene, and comparing them with those found in a sample taken from a suspect, Steve can work out whether a suspect was - or was not - in a particular place.

"I only do one or two cases a year, and quite often work in defence," he explains. "Recently, I was involved in a case in Bury St Edmunds. A man was accused of assisting another guy in disposing of the body of a co-worker. There was no DNA evidence to link him to the site and, when I did my work, it showed he'd been nowhere near it. He was acquitted."

QUATERNARY ENVIRONMENTS AND THE HUMAN PAST

A one day discussion meeting hosted by the *Quaternary Environments and Geoarchaeology Research Group* at The University of Manchester

<http://www.sed.manchester.ac.uk/geography/research/qeg/>

Wednesday 20th June 2007

Registration is free and all are welcome.

REGISTRATION FORM

Please complete this form and return it to

Jamie Woodward
Geography
Mansfield Cooper Building
The University of Manchester
Manchester, M13 9PL
jamie.woodward@man.ac.uk

Name:

Email:

Address:

I would like to present a poster at the meeting **Yes / No**

Title of poster:

I would like to stay for dinner in the evening **Y/N**
(This is not free)

I would like to receive information about overnight accommodation **Y/N**
(This is not free either!)

I would like to receive information about the one-day conference on THE
PLIOCENE-QUATERNARY NILE convened by Jamie Woodward and Rob Gawthorpe that is
taking place in Manchester on Thursday 21st June **Y/N**

Letter from the editor:

For this newsletter to continue, it is essential that YOU send in contributions. If you read something relevant in a newspaper then PLEASE drop me a line. If you do something interesting that is relevant then also let me know about it!

Editor: Lisa Ramsay (lfr26@cam.ac.uk)
Department of Geography, University of Cambridge



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