
CAM QUA

The newsletter of the
GODWIN INSTITUTE FOR QUATERNARY RESEARCH

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MICHAELMAS TERM 2002

The Quaternary: a near death?

The normally peaceful world of the INQUA Commission on Stratigraphy was greatly disturbed of late. Moves to disband the Subcommission on Quaternary Stratigraphy implied the imminent abandonment of the term Quaternary and the incorporation of the Pleistocene within the Neogene.

Events began in late December last year when Phil Gibbard (the Secretary of the Stratigraphy Commission) received a message from Dr Davide Castradori, the Vice-President of the International Commission on Stratigraphy's (ICS) Subcommission on Neogene Stratigraphy (SNS), stating that he had been appointed the chairman of the Working Group on Pleistocene Subdivisions, organised under the umbrella of SNS after the decision by ICS to disband the Subcommission on Quaternary Stratigraphy. (It is important to understand that up to this point (i.e. August 2001) the INQUA Commission on Stratigraphy was also the International Commission on Stratigraphy's Subcommission on Quaternary Stratigraphy (SQS). The role of the suppressed SQS was therefore to become the responsibility of the SNS.

Phil Gibbard's initial reaction to the message was to ask the ICS for clarification and, at the same time, to contact Commission members and others to ask for their advice. A flood of replies arrived virtually instantaneously from around the world, most expressing shock, many clearly angry and a few, notably those from colleagues aware of the SNS and its parent organisation's operations, expressing resignation. The SNS, and its parent organisation the ICS, were equally surprised at how their decisions had caused such a seismic reaction, since they had been planning this change for some time.

After the Christmas break matters rapidly evolved. The

SNS chairman, Dr Zachariasse (University of Utrecht), contacted Phil Gibbard for further clarification of the tailed exchanges with Professor Felix Gradstein, the ICS President. Meanwhile, aware of the controversy generated by his intervention, Dr Castradori resigned as chair of the SNS Working Group. At Phil Gibbard's request, Dr Thijs van Kolfschoten (President of the INQUA Subcommission on European Quaternary Stratigraphy) attended a meeting in February with Professor Gradstein, Dr Zachariasse and Dr Fritz Hilgen (SNS Secretary) in Amsterdam to discuss the whole matter. In addition, Thijs van Kolfschoten discussed the developments with Professor E. de Mulder (President of the IUGS of which the ICS is a constituent body).

Meanwhile, the INQUA Executive Committee was scheduled to meet near London in April 2002 and Professor Sylvi Haldorsen (INQUA Secretary General) invited Phil Gibbard to report on the situation. Following his report the Executive expressed its full support for Dr Gibbard and the Commission on Stratigraphy's efforts and asked to be kept informed of developments.

A flood of replies arrived from around the world, expressing shock and anger, but also resignation.

It was agreed that a second meeting with the SNS officers and Professor de Mulder should occur and that Phil Gibbard and Thijs van Kolfschoten could attend as the INQUA representatives. This took place in Utrecht on 22 May 2002.

At the meeting it was agreed that merger of the two ICS Subcommissions should be an amalgamation, not a 'takeover' of the Quaternary by the Neogene. In addition, progress was made towards the establishment of a working group to subdivide the Quaternary. It became clear that the Neogene colleagues were neither concerned with, nor aware of, the stage-scale units in general use in the Quaternary, e.g. Eemian, Wisconsinan etc., nor the

marine isotope stage system, which they do not accept as a formally-based scheme. Instead their favoured subdivision was a three-fold large-scale division analogous to the stage-scale units of the pre-Quaternary. Such units might be thought to be of limited usefulness to a community used to working in thousands rather than millions of years. Ironically, large-scale units are already in daily use in the Pleistocene but rather than being of stage rank, they are subseries; the Early, Middle and Late Pleistocene. There is also a need to define formally the Pleistocene / Holocene Series boundary. The working group's task was to identify and define Global Stratotype Section and Point (GSSP) localities for each of these boundaries.

Finally, it was agreed to ensure the continued usage of the word 'Quaternary'; a term viewed by pre-Quaternary stratigraphers as anachronistic since it relates to the superceded geological divisions: Primary, Secondary and Tertiary. A report of these discussions was sent both to Professor Gradstein and to Sylvi Haldorsen.

Following these developments Phil Gibbard was invited to attend the ICS meeting at Urbino, Italy, 14 – 16 June 2002 to represent the INQUA Commission on Stratigraphy and to present the views of Quaternary scientists on formal stratigraphical subdivision.

At Urbino there was a very positive atmosphere. Professor Gradstein on behalf of the ICS stressed how important they considered it to have a representative from the Quaternary community. He also apologised formally for the breakdown in communications between ICS and INQUA.

Phil Gibbard presented the Quaternary position, which was well received, it being very apparent both from the formal and informal discussions that followed that the pre-Quaternary geologists were unaware of the detail, time resolution and quality of the evidence available. It was also obvious that Quaternary scientists, whilst sharing many of the problems common to all stratigraphers, have many that are very different from those of earlier periods.

As the meeting continued it became evident that there was a strong groundswell of opinion against the continued merger of SQS with the SNS, so much so that by the second day (Sunday 16 June) the merger concept had been dropped. This was reinforced by a ruling from the ICS's parent organisation IUGS saying that the merger was 'on hold' since no formal agreement had been received from INQUA by the IUGS. Phil Gibbard emphasised that the merger was certainly not the preferred option of INQUA, but that if the ICS wanted this INQUA was prepared to accept it, pending guarantees that the Quaternary would be properly represented. Negotiations continued and it was agreed that the SQS should be reinstated if an active commission group to complete the large-scale subdivi-

sions by 2008 could be established. Phil Gibbard said that he would be happy to accept this role and all seemed clear. However, in the executive committee meeting held at the end of the conference, it emerged that Professor Gradstein had had some second thoughts and this, together with protests from Professor D. Rio, the SNS representative, resulted in some slight 'back-peddling'. The final decision was to invite Phil Gibbard to propose plan for subdivision of the Quaternary, and to propose the names of three individuals who could take-up the officers positions of chair, vice-chair and secretary. Once

these papers were received in a satisfactory form by Professor Gradstein an executive decision to formally re-establish the SQS would be taken.

(report: <http://www.micropress.org/stratigraphy/urbinoexp.pdf>)

In recent weeks some further rethinking has led the ruling body of the ICS – the IUGS Executive Committee – to re-establish formally the SQS and Phil Gibbard has been invited to form a new Subcommission structure.

- P.L.G.

Comments and views concerning these issues or any other stratigraphical topics are very welcome and should be addressed to Phil Gibbard, (plg1@cus.cam.ac.uk).

Further information on the ICS can be found on: <http://www.micropress.org/stratigraphy/index.htm> and the Subcommission on Neogene Stratigraphy on: <http://www.geo.uu.nl/sns/>

QRA Annual Discussion Meeting

Land-Ocean Correlation: Recent Advances

**6th - 8th January 2003
Newcastle-upon-Tyne**

Organisers:

**Dr Darrel Maddy (University of Newcastle)
Dr Antony Long (University of Durham)
Dr David Bridgland (University of Durham)**

**Online information and registration:
<http://www.qra.org.uk/meet.html>**

Notices

Geography

Matti Eronen, Professor of Geology and Palaeontology, University of Helsinki, will be a working visitor in the Quaternary Palaeoenvironments Group this term. His research interests include Quaternary stratigraphy, sea-level history, palynology and dendrochronology.

Becky Briant has successfully defended her thesis *Fluvial Responses to Rapid Climate Change in Eastern England during the Devensian glacial period*.

Steve Boreham, laboratory manager, has also successfully defended his Ph.D. thesis *The Pleistocene Stratigraphy and Palaeoenvironments of the Cambridge District*. The Ph.D. was completed part-time over 7 years with the Open University. He thanks all those people who have supported his research over the years, particularly his supervisors Dr Charles Turner and Dr Colin Forbes.

Petya Blumbach, Katie Greaves, John Higgins and **Alison Loomis** are new students taking the Quaternary Science M.Phil, replacing Richard Betts, Heather Cheshire, Anna Nelson and John Trehearne who completed the course successfully in 2001/2002. This is the 5th year which the course has run and a total of eighteen students have successfully completed the course since it started in 1998. At least eleven of these students are known to have continued to PhD research.

New Ph.D. students are **Maria Papanicolaou**, supervisor: Phil Gibbard, *Palaeogeographic reconstruction based on marine Quaternary sediments in Western Greece*.

Stijn De Schepper, supervisor: Martin Head, *Pliocene organic-walled phytoplankton from the southern North Sea Basin: biostratigraphy, palaeoecology and sequence stratigraphy*.

New Quaternary-related Ph.D. topics in Cambridge include:

Scott Polar Research Institute

Anna Nelson, supervisor: Ian Willis, *A sedimentological study of the glacial processes of Hagafellsjokull Eystrí: Iceland*.

Earth Sciences

Edward Carder, supervisors: Prof. Harry Elderfield and Dr. Galy, *The Earth's Climate Thermostat: Evidence from Magnesium and Calcium Isotope Budgets of the Modern Ocean*.

Samia Mantoura, supervisor: Prof. Elderfield, *Climate change and the bio-geochemistry of the Antarctic sea-ice environment*.

Jimin Yu, supervisor: Prof. Elderfield, *Environmental Change and Marine Chemistry*.

Edward Tipper, supervisors: Prof. Mike Bickle, Dr. Galy, *"Carbonate weathering on the Tibetan Plateau"*.

The Scott Polar Research Institute also welcomes Dr. **Colm Ó Cofaigh**, Quaternary glacial geologist.

Zoology Tea Talks

Thursday, October 24

Impacts of climate change on butterflies.

Jane Hill (York)

Thursday, November 7

The genetic legacy of the Quaternary ice ages.

Godfrey Hewitt (University of East Anglia)

Tea Talks take place at 5pm in the Part II Lecture Theatre on the first floor of the Department of Zoology. Everyone welcome.

**All enquiries contact: R C Preece,
(3)36666, r.c.preece@zoo.cam.ac.uk**

23rd - 31st July 2003

XVIth INQUA Congress

LOCATION: Reno Hilton Resort & Conference Center Reno, Nevada USA.

"Shaping the Earth: A Quaternary Perspective"

The XVIth INQUA Congress will be held at the Reno Hilton Resort & Conference Center Reno, Nevada USA.

For full details of the Congress see:
http://www.dri.edu/DEES/INQUA2003/inqua_home.htm

Call for Submissions

This newsletter provides information to the Cambridge Quaternary community on a termly basis. Please support CAMQUA through the submission of short articles, reports and notices regarding events, projects and research taking place within Cambridge and beyond.

Quaternary Discussion Group

Friday, November 8

Artica Islandica: towards an absolute
chronology for the ocean

*Graham Forsythe (University of Wales,
Bangor)*

Friday, November 22

Past rapid climate variability in the
western Mediterranean region: links
between marine and atmospheric
processes.

Isobel Cacho Lascorz (Cambridge)

Friday, December 6

Catchment-scale fluvial system
response to climate change: the
northern Fenland in the Devensian

Becky Briant (Cambridge)

**The talks will take place at
8.30pm at West Court, Clare
Hall, Hershel Road.**

Everyone welcome.

All enquiries contact:
R.C. Preece, (3)36666,
e-mail r.c.preece@zoo.cam.ac.uk

More Talks.....

Wednesday, October 23 at 5pm

Documenting the ecological history of the
Mediterranean

Oliver Rackham (Cambridge)

F3 Gibb's Building, Kings College

Monday, November 4, 11:30am - 1:00pm

A conceptual model for climate change at millennial
timescales during the late Pleistocene

Michael Schulz (University of Bremen)

Harker Room, Department of Earth Sciences

Thursday, 14 November at 4:15pm

The Role of Physical Geographers in the
Understanding of the Canadian Cordillera

Professor Olav Slaymaker (University of British Columbia)

Seminar Room, Department of Geography

Wednesday, November 27 at 4pm

The 74 kyr BP Toba super-volcano eruption, and its
environmental and human consequences

Clive Oppenheimer (Cambridge)

Seminar Room, Level 6, Department of Biological
Anthropology

Polar Physical Science Seminar Series

**The weekly seminar series begins
Wednesday, 23 October, with**

Arctic glacial landsystems:
implications for palaeoglaciology
Dr. David Evans (University of Glasgow)

**All seminars will be held in the Scott Polar
Research Institute Lecture theatre at
5pm.**

**Full details of the seminar series may be
viewed at [http://www.spri.cam.ac.uk/research/
seminars/physical/](http://www.spri.cam.ac.uk/research/seminars/physical/)**

Credits

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