

INQUA COMES TO CAIRNS – CONFERENCE REPORT

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David J. Lowe

Department of Earth and Ocean Sciences, University of Waikato,
Private Bag 3105, Hamilton 3240

Introduction

Around 1000 multidisciplinary scientists, including more than 40 from New Zealand and 200 from Australia, gathered in Cairns from 28th July–3rd August, 2007, for the four-yearly conference of the International Union for Quaternary Research (INQUA), the 17th such congress since INQUA's founding in 1928. The meeting, convened by Professor John Chappell of ANU and his committee – drawn from members of host organization, the Australasian Quaternary Association (AQUA) – was only the third to be held in the Southern Hemisphere, the previous two being in Durban (1999) and Christchurch (1973). A wide range of Quaternary topics was on show: reconstructing past climates, human evolution and dispersal, glaciations, sea-level change, tsunamis, identifying and using volcanic ash layers as a dating tool (tephrochronology), tree-ring studies, archaeology, ancient DNA, advances in dating techniques, ice-core research, biodiversity, ancient soils, climate modelling and so on. The choice of Cairns was an excellent one: it is a very pleasant, compact, historically interesting, and user-friendly city. The winter weather was perfect throughout the meeting.

Conference features: field trips, oral and poster papers

The congress was held in the impressive Cairns' Convention Centre over five days, with a sixth being set aside for local one-day field excursions (four were offered) including to the Atherton Tablelands and the Great Barrier Reef. Around thirteen pre- and post-congress trips also ran. One post-congress field trip (six days) to New Zealand's South Island, organised by Dr Peter Almond and PhD student Fiona Shanhan of Lincoln University, attracted 29 international (dominantly Northern Hemisphere) participants and was a great success. Additional tour leaders with Peter and Fiona included Jamie Shulmeister (University of Canterbury), David Barrell (GNS Science, Dunedin) and Marcus Vandergoes (GNS Science, Lower Hutt). Two pre-congress North Island, New Zealand, field trips had been planned in some detail but were reluctantly cancelled in late February because numbers of potential participants at that time were not viable. The trip to the Huon Peninsula was cancelled because of logistical problems in Papua New Guinea.

Because nearly 1600 abstracts were offered, the conference schedule was very busy with nine concurrent sessions operating at most times, beginning each day at 8 am sharp. A drawback of the otherwise excellent venue was that at times the rooms available for the concurrent sessions were too small, most with seating capacity for only about 50-70, and frequently audiences amounting to possibly 100 or more attempted unsuccessfully to squeeze in to them. Part of the problem of such a tight schedule arose because some people gave more than one oral paper, although the organisers I believe tried to restrict oral papers to a maximum of two per person (previously it has been one).

The papers were organised into 70 themes or symposia, which were typically split into several sessions over several days. At times 'left overs' from one symposium were spliced on to those of another to make up the right numbers for a complete session, some of which consequently ended up with rather odd combinations to say the least. At times, the sessions were too long with commonly eight or even nine papers in one case delivered without a break. Most oral papers in each theme were of 15 minutes duration, including questions, but symposium convenors were able to invite two keynote speakers, who each had up to 30 minutes. A frustration of the conference was that almost inevitably there was insufficient time for more than just one or two 'quick questions' at the conclusion of each talk – usually because speakers pushed time limits to the maximum.



1. Entrance to the impressive Cairns' Convention Centre

I counted numbers of papers per person as listed in the 486-page abstracts volume (published as *Quaternary International* volume 167-168 Supplement, July, 2007) and found that 31 people accounted for 286 papers between them. One, the very energetic David Fink (ANSTO), took first place as a co-author on 22 papers, F.H. Chen was second with 16 papers, and M. Leng third with 15 papers, followed by 13 papers (two people), 12 papers (one person), 11 papers (two people), 9 papers (one person), 8 papers (10 people), and 7 papers (12 people including yours truly).

The powerpoint set-up at the centre was superb and the technical staff who ran it very helpful, friendly, and expert. The misnamed internet 'café' (definitely minus the coffee, a severe problem for some of us at 8 am) with around 20 laptops available free of charge, was in use virtually from 8 am until the convention centre closed its doors at around 8 pm. The convention support staff who provided food and refreshments were extremely well presented as were the meals and teas.

Five poster sessions were run with several hundred posters in each. Effectively two sets of posters were each displayed for two or three days. A problem with the initial poster session, where authors were to stand alongside their posters to discuss them, was that the boards were placed too closely together and traffic quickly ground to a standstill (I struggled to actually reach my poster to 'present' it). The problem was alleviated later by dispersing the posters more widely.



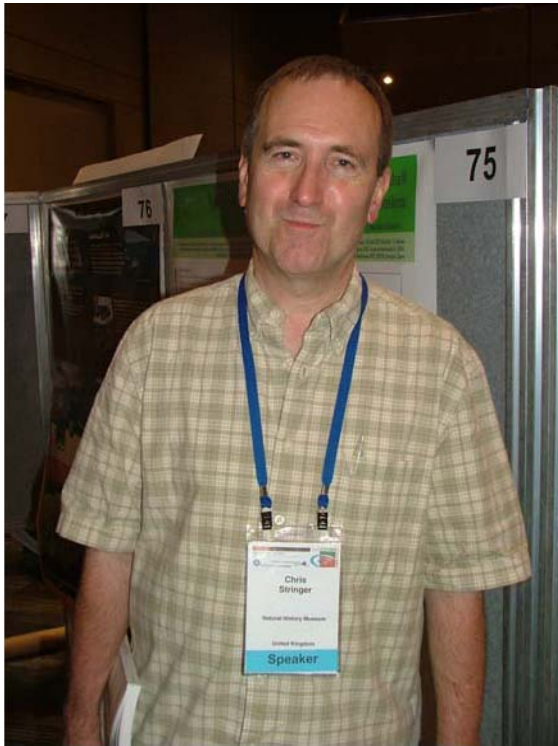
2. Part of the internet café during a quiet period

Plenary papers

Eight plenary papers were given including two by New Zealand speakers Professor Peter Barrett (Victoria University of Wellington), who spoke on “Antarctic climate history – distant past and near future”, and Professor Alan Cooper (University of Adelaide), whose topic was “Innovations in Quaternary research – the power of ancient DNA for reconstructing late Quaternary biogeography”. Other plenary speakers were Prof Gifford Miller (USA), Prof Stephen Oppenheimer (UK), Dr John Pandolfi (University of Queensland), Prof Stefan Rahmstorf (Germany) (Stefan undertook his PhD studies in New Zealand and worked for NZOI until the mid 1990s), Prof Chris Stringer (UK) and Prof Pinxian Wang (China). The plenary papers were without exception outstanding in content and presentation and a real highlight of the congress. As well as those by the New Zealanders, I was deeply impressed by Miller’s paper “Separating the impacts of climate change and human colonization on the flora and fauna of Pleistocene Australia”, and it was a special thrill to see Stringer’s talk “Origins and dispersal of pre-modern hominds”. At the International Council, however (see below), a criticism was levelled at the conference organisers that the gender bias for the plenary talks, 100% male, was not appropriate in these times.

Sir Nicholas Shackleton Medal

A special feature of the congress was the presentation of the inaugural Sir Nicholas Shackleton Medal “for outstanding young Quaternary scientist” to Dr Chris Turney, previously at the University of Wollongong but since September in a chair at the University of Exeter (U.K.). Dr Turney, who undertook his doctoral research at Royal Holloway, University of London, also worked in New Zealand at Landcare Research (Lincoln) as a postdoctoral fellow. As well as developing an outstanding scientific career including carbon dating “the Hobbit” *Homo floresiensis*, Chris has also given numerous talks to public groups and written a popular best selling book about time and dating: “Bones, Rocks and Stars: The Science of When Things Happened”. He was listed as co-author on 11 papers at the conference, and seemed to be everywhere!



(Left) 3. Chris Stringer, plenary speaker from the Natural History Museum, London

(Right) 4. Peter Kershaw and Chris Turney (far right), inaugural winner of the Sir Nicholas Shackleton Medal, answer questions about Lynchés Crater

International Council

INQUA's International Council met from 2 pm to 6 pm on each of three days. A new Executive Committee for the next intercongress period (2007-2011) was elected as follows:

President: Professor Allan Chivas (University of Wollongong, Australia)

Vice-presidents: Professor John Lowe (UK), Professor Koji Okumura (Japan), Professor Alan Ashworth (USA) and Professor Margaret Avery (South Africa)

Secretary-general: Professor Peter Coxon (Ireland)

Treasurer: Dr Marie-France Loutre (Belgium)

Past-president: Professor John Clague (Canada)

The council also voted for the venue of the next conference, with bids from Edinburgh, UK, and Bern, Switzerland, being presented. By one vote, it was decided that the 2011 INQUA congress would be held in Bern. Dr Okumura stated that Japan was likely to prepare a bid to host the 2015 congress.

Reports on the activities of members of each of the five commissions of INQUA were received, the commissions being (1) Stratigraphy and Chronology (SACCOM) (led by Professor Brad Pillans of ANU); (2) Coastal and Marine Processes; (3) Palaeoclimate (PALCOMM); (4) Terrestrial Processes, Deposits, and History (TERPRO); and Palaeoecology and Human Evolution (PAHE). One change made in Cairns was that the various subcommission groups prior to the 2007 meeting were discontinued as such and morphed into 'international focus groups'. In establishing such focus groups, INQUA aims to develop further its project-based approach. For example, in SACCOM, the Subcommission on Tephrochronology and Volcanism (SCOTAV) was renamed the International Focus Group on Tephrochronology and Volcanism (INTAV). INTAV still lies under the umbrella of SACCOM but has relevance to all the other commissions because of its inherent interdisciplinary character. INTAV will operate both as a separate group (and organise a specialist tephrochronology meeting in the intercongress period) and in collaboration with other focus groups within or beyond SACCOM, including contributing (for example) to the highly successful PALCOMM-based INTIMATE project examining the nature, timing and regional to global extent of climatic changes associated with the end of the last glaciation (e.g. see Turney et al. 2006;

Alloway et al. 2007).

Other points noted and discussed included: (1) the acceptance of INQUA as a full scientific union member of the International Council for Science (ICSU), which provides INQUA with more international 'clout' and the opportunity to consider taking on one or two very high profile projects; (2) the status of the term 'Quaternary', under intense debate for the past few years, is now formally approved/defined as a System/Period; (3) the age of the base of the Quaternary, although currently set at 1.8 million years but widely accepted as being 2.6 million years, is to be debated and (hopefully) formalized at a meeting in Oslo in 2008; (4) encouraging greater representation of South American and African Quaternary scientists is to be a priority; (5) an INQUA 'distinguished career' medal (to accompany the Shackleton Medal) for leading Quaternarists is to be developed by the next executive; (6) greater funding to better facilitate project-based research is to be sought (see next section); (7) honorary members of INQUA (usually distinguished scientists near or in retirement, and nominated by member countries) were voted upon. I note in regard to point (7) that potential honorary New Zealand and Australian Quaternary scientists must be nominated at least six months before the next congress, and that only four had ever been so elected (Max Gage and Pat Suggate from New Zealand, and Jim Bowler and [in 2007] Martin Williams from Australia). It is time to consider nominating more in time for the 2011 meeting. In New Zealand we have drawn up a tentative list of possible nominees.



5. Maarten Blaauw (left) and Rewi Newnham at the conference dinner

INQUA membership categories and subscription rates

The membership status of various countries, and the subscriptions for each, were revealed at Cairns to some embarrassment it must be said. Essentially there are eight categories as follows:

Associate (no voting rights): South America (Argentina is to become a specified member country), East Africa (no subscription)

1A (low GDP countries): No countries (subscription rate for 2008-2011 = 211 euro)

1: Brazil, Chinese Taipei, Czech Rep., Denmark, Estonia, France, Hungary, Ireland, Israel, Latvia, Lithuania, Mozambique, New Zealand, Poland, Portugal, Rep. of Korea, Serbia (453 euro)

2: Austria, Belgium, China, Finland, India, Norway, Spain, Sweden, South Africa, Switzerland (1376 euro)

3: Australia, Canada, Netherlands, Russia (2293 euro)

4: No countries (3208 euro)

5: Germany (4584 euro)

6: Italy, Japan, UK, USA (8733 euro)

It was noted (1) that these groupings are largely historical in origin but that they need to be reconsidered by the incoming executive and that some countries should be moved 'up' into new classes (e.g. class 3 countries could become class 4); (2) that New Zealand, Denmark, France, and Ireland (specifically named during the council meeting) and possibly some other countries should seriously consider moving up one or more classes and hence increase their contributions to INQUA (such a move was seen as one way of increasing INQUA revenue to enhance current or facilitate new projects and to support research in low GDP countries). I have brought this point to the attention of the Council of RSNZ for consideration. My personal view is that INQUA should be supported by New Zealand certainly as a 'class 2' country (or perhaps 'class 3' alongside Australia, naturally).

Quaternary journals rise

I attended a meeting of the editorial board of *Quaternary International*, one of four 'pure' Quaternary journals published by Elsevier (emboldened in list below). The rise of impact factor scores for these journals was highlighted, especially the dramatic rise of *Quaternary Science Reviews* (4.113) which is now the second-ranked geoscience journal behind only *Annual Reviews of Earth and Planetary Science* (7.683) and ahead of *Geology* (3.477). The 2006 impact factor scores (based on citations and publications for 2004-2005) for these and some other selected journals, and well-regarded *NZJGG*, are as follows (from a total of 164 journals):

Quaternary Science Reviews (2): 4.113

Earth-science Reviews (3): 3.989

Geology (5): 3.477

Paleoceanography (6): 3.018

Journal of Paleolimnology (7): 3.016

Geological Society of America Bulletin (9): 2.820

Quaternary Research (18): 2.319

Global and Planetary Change (25): 2.060

The Holocene (30): 2.000

Journal of Quaternary Science (31): 1.906

Palaeogeography, Palaeoclimatology, Palaeoecology (35): 1.822

Boreas (36): 1.812

Geomorphology (42): 1.698

Journal of Volcanology and Geothermal Research (43): 1.685

Quaternary International (45): 1.607

Journal of Archaeological Science (59): 1.322

Progress in Physical Geography (66): 1.278

Australian Journal of Earth Sciences (78): 1.640
NZ Journal of Geology and Geophysics (103): 0.822

Note that INQUA has an association with Elsevier such that it receives 25% of the profit derived from the publication of its flagship journal, *Quaternary International*. The return in 2007 (for sales in 2006) was a record 56,000 euro, and parallels the journal's growing status.

Conclusion

I congratulate the Australian Quaternarists and others for organizing and running a most informative, stimulating, and enjoyable conference. Undertaking such a task represents a massive effort and commitment. Apart from a few minor quibbles concerning the odd fragmentation of some sessions and rather small rooms for concurrent sessions, and the challenging programme layout, the conference was a terrific event. I had forgotten how 'full-on' a large conference such as INQUA is, but I learnt a great deal about the latest developments in a wide range of disciplines and I very much enjoyed the relaxed ambience of Cairns and meeting many old and new friends. I was very honoured to be the New Zealand delegate on the International Council.

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All photos by David J. Lowe.



6. Cinder cones of Seven Sisters group (>0.35 Ma) on Atherton Tablelands