NEWSLETTER

N°171 December 2000

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OBSERVER'S REPORT ON THE 20TH IAS MEETING

Dublin, Ireland, September 13 to 15, 2000

Ireland possesses some remarkable geology. For example, it is the home of vast tracts of 'Waulsortian' limestones of Early Carboniferous age, and the Upper Carboniferous turbidites and deltaic sequences along its west coast are world famous – one of the beautiful cliff exposures has in fact been adorning the front cover of *Sedimentology* all year. Even hanging in my office is a framed 19th century steel engraving of Giant's Causeway. There is a vibrant mining industry. And Irish geology has quite a distinguished pedigree which you can read about in the chapter by G.L. Herries Davies in "A Geology of Ireland", edited by C.H. Holland (1981, Wiley & Sons). So, it was with great anticipation that I wandered into the sanctuary of Trinity College in central Dublin on Tuesday morning, and passed those blackened stone walls on my way to the regal Victorian geology building with its sweeping marble staircases, a testament to the days when geology could hold its head high as the most important and conspicuous of all the sciences in western Europe.

Times have changed, alas, but I still enjoy the intellectual ambiance of conferences in historic universities in Europe, and sometimes I think when teaching we professors could well adopt some of the Napoleonic poses of those ancient academics portrayed in the oil paintings that line the halls – maybe we might get more respect... Another advantage of these locations is their typical proximity to convivial watering holes, especially in this case because participants could engage in discourse while supping pints of Ireland's famous Guinness beer. The only problem was that there are just so many pubs in Dublin...

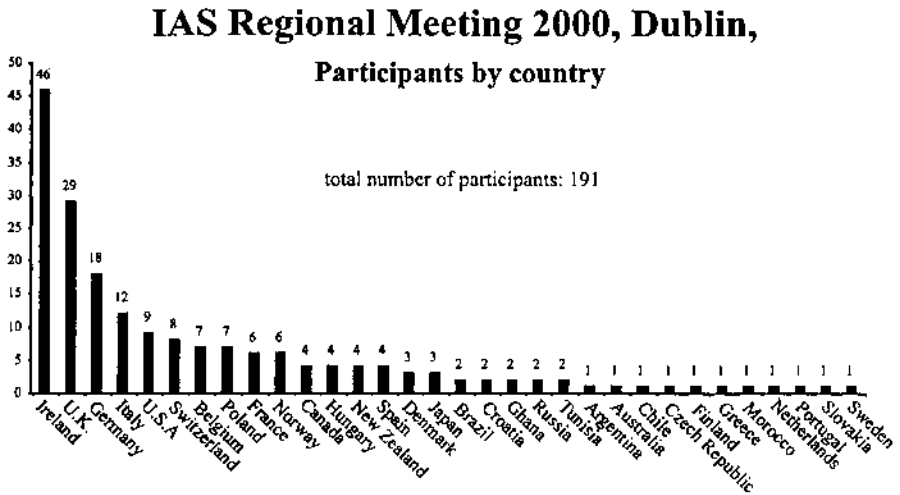
Besides me and four others from my group in distant Saskatchewan, some 190 other sedimentologists showed up to attend this IAS Meeting which was convened by Phil Allen, helped by several of his colleagues at Trinity and University colleges. It was not a large group, but I think that added to the enjoyment, for me at least, and it was relaxed.

The proceedings were held in somewhat more modern surroundings where the oral presentations were delivered in a large theatre, outside of which the coffee was poured and the posters displayed. Although the theatre could have accommodated a very much larger audience, I liked this arrangement. People could come and go quietly,

the technology worked properly, and the speakers could see and recognize the individual persons facing them rather than a menacing human morasse. Posters were in place the whole three days, another benefit because one could examine them at leisure, return to them for a second look after related talks, or get an unhurried guided tour once acquaintances with the presenter had been made. I liked this arrangement and I learned a lot from the posters. There was enough time to slip out and view the Old Library and the Book of Kells. I also managed to escape in order to visit the wonderfully antique Natural History Museum which is really a museum of a museum. Old-fashioned museums like this are a rarity in the push-button techno-world of today (the Laboratoire de Paléontology, Paris, is another) and I find them far more interesting. As a paleontologist, I especially like to be reminded of the vast diversity of marine organisms even in temperate seas. The priceless, truly incredible Blaschka glass models are worth a visit in their own right.

All told, some 60 talks and 70 posters were presented. The posters were virtually all produced at a very high standard, and the talks were generally very well delivered and well illustrated. I came away very impressed at the sophistication of modern sedimentological research and I had to fight the same feeling of inadequacy of my own work that many younger members probably have at their first conference. In addition, I am continually amazed at the superb command of English exhibited by our colleagues. I should use this report, however, to remind native-English speakers that an honest attempt to speak more slowly, avoid colloquialisms and moderate a strong accent is certainly appreciated.

Subject matter was thoroughy international and covered a great variety of subjects, and it was very worthwhile to sit through talks on things one would normally have to miss in a larger meeting. Interested parties should avail themselves of the abstract book. Most memorable for me was the excitement created by competing views on cyclostratigraphy of shallow-water carbonates in the Triassic Latemar platform of the Dolomites. André Strasser, the moderator, warned everyone to behave themselves in the fracas that was sure to come. After two related talks by Angela Coe and Andy Anderson, Arndt Peterhänsel and Sven Egenhoff showed that their detailed field observations do not conform at all to the stratigraphic sections and Milankovitch cyclic pattern recognized over a decade ago by R.K. Goldhammer. Then Rainer Zühlke presented his spectral analysis to argue for a Milankovitch cyclicity but at a different frequency than that of Goldhammer. Finally, the poster by Nereo Preto and Linda Hinnov presented yet a different spectral analysis; their poster was chosen by the Statoil representative as winner of



the best poster prize. All this made for vigorous conversation at lunch and in the pub. Some of you may know that I have never been comfortable with all of the 'received wisdom' about peritidal Milankovitch rhythms, and in fact I had just spent several days in northern Italy with Arndt and Sven in order to make up my own mind about these putative cycles. It was great to see the foundations of such a strong paradigm start to get questioned: we need a lot more healthy scepticism in sedimentology! And always solid field data.

Before the conference there was a half-day short course with a half-day field excursion on mud-mounds delivered by Alan Lees and associates. Alan had laid out core, thin sections and other materials to illustrate the variety of features of the Irish 'Waulsortian', and I especially got a lot out of this, being a devotee of mud-mounds but hitherto not fully aware of the complexities and subtleties of the Irish examples. The trip to the quarry at nearby Feltrim Hill was also very rewarding and the official conference briefcase turned out very useful for my samples. Several other two-day fieldtrips were also run. Participants on the Middle Cambrian of County Wicklow and the Jurassic of the Isle of Skye told me they thoroughly enjoyed themselves – one person even claimed that his excursion was the best one he had ever attended. Others had to be cancelled, which is not uncommon these rushed days, which is a pity because, at least for me, seeing new rocks and getting to know people on field trips are the aspects of conferences of most lingering value. Such is Irish hospitality, however, that John Gra-

ham enlisted John Murray to run a private trip for some of us to the west coast, and a good time was had by all. An excellent field trip guidebook is available which obviously represents a great deal of work by the various leaders. Anyone thinking of conducting their own trip could use it.

As always, I enjoyed renewing old friendships and striking up new ones. Attendance was perhaps less than expected and right now I don't know why that was so; I don't recall there being concurrent events, but then there are so many conferences one can choose. Participation was dominantly European, naturally (see breakdown of nationalities on p. 5), but there were surprisingly few attendees from North America, which was a pity. Does this represent a form of intellectual isolationism? I don't know, and hope not because the quality of sedimentological work being achieved outside of North America is obviously very high and the subject matter often quite different. I get much more out of these smaller meetings both in terms of the technical program and also for personal contact. Indeed, more e-mail messages arrived after the Dublin gathering than ever do after a monster Geological Society of America annual meeting. Those of you who missed this IAS Meeting make sure you come to the next one!

Brian R. Pratt,
Department of Geological Sciences,
University of Saskatchewan,
Saskatoon, Canada.

HYDROGEOLOGY OF SEDIMENTARY AQUIFERS

SEPM / IAS Research Conference on Environmental Sedimentology, Santa Fe, New Mexico, U.S.A., September 24 to 27, 2000

This interdisciplinary research conference focused on describing current research efforts in three areas in which hydrogeology and sedimentray geology are intricately linked: Aquifer Heterogeneity, Reactive Transport Modeling and Diagenesis, and Aquifer Characterization Technology. There were a total of 58 participants. Particular emphasis was placed on 1) conveying "disciplinary" research efforts to a broader audience, 2) identifying key research questions that require a more integrated approach, and 3) identifying mechanisms needed to continue and improve collaborative research among hydrogeologists and sedimentary geologists.

Research results from a wide range of projects were presented in nine keynote addresses and 35 posters. These presentations along with an afternoon field trip to an ongoing outcrop analog study generated very productive (and at times heated) discussion throughout the days and well into the nights about the complex problems associated with aquifer sedimentology. While there was always something happening at the Plaza Resolana Conference Center, participants also found time to enjoy the nearby attractions of the Santa Fe Plaza.

Some observations of the convenors:

Many of the presentations and much of the discussion clearly demonstrated the "convolution" of the hydrologic problem with the geologic problem. Flow and transport processes are strongly dependent on the geologic (physical and chemical) properties of the aquifer; however, identifying the most important geologic properties depends on the characteristics of the hydrologic problem (type of solute, flow geometry, modeling objective, and modeling scale). Historically, sedimentologists and hydrogeologists have expected their counterparts to identify the most important hydrologic/geologic questions. Sedimentologists desire greater input on what to describe in the field and hydrogeologists desire greater input on the general nature of the geologic system. It is clear that questions involving fluid flow, solute transport, and water-rock interactions do not lend themselves to a simple back-and-forth dialog. Rather the questions must be addressed in a truly collaborative fashion.

Reactive transport modelers are in a position to greatly assist petrologists working on diagenetic problems by quantitatively testing their models, etc. Sedimentary petrologists can help modelers by providing "real world" data on cement mineralogy, textures, etc. An example of the need for collaboration cited by the group is the lack of detailed surface area data available for modelers. Reactive surface area is an important variable in most models, but sedimentary petrologist rarely measure it (the petrologists present in the group discussion were unaware of its importance!).

Petrophysics (the relation between the "petrographic" properties with a "geophysical" signal) is a central component to using geophysical tools to characterize the subsurface. There was differing opinion as to the long-term ability to derive unique petrophysical relations. In the meantime, it will be necessary to use geophysics and hydraulic testing as an aid to interpreting the subsurface.

Recommendations:

Small focused research conferences that bring together different disciplines are critically important. While this meeting was rather novel, it should not be looked upon as a one-time event. It was proposed to reassemble hydrogeologists and sedimentologists biannually to review and renew collaborative research efforts.

Many of the participants (both sedimentologists and hydrogeologists) felt the need for focused short courses in areas that they are just beginning to learn. Sedimentologists expressed a desire for a short course on geostatistics and hydrogeologists expressed a desire for a short course on fluvial sedimentology. These could be held at annual meetings such as GSA or AAPG/SEPM.

* * *

Although considerable progress has been made in aquifer characterization in recent years, the field is still in its infancy. There is no general agreement on the best methods to pursue, or even on what form the most basic descriptive information should take. Further progress clearly requires interdisciplinary collaborative efforts in which researchers work closely with those from different fields.

Many thanks to all the participants and supporters of this very productive conference!

J. Matthew Davis
Gary A. Smith
Peter S. Mozley
Thomas Aigner

QUANTITATIVE MODELS ON CRETACEOUS CARBONATES: REPORT ON THE WG4 MEETING

Gargano, Italy, September 25 to 28, 2000

The historic town of Vieste, located on the eastern shores of the Gargano promontory in southern Italy, was the place for a gathering of about 80 sedimentologists from 13 different countries interested in quantitative models of Cretaceous carbonates. Peter Skelton, Lucia Simone, Jean-Pierre Masse, and Alfonso Bosellini convened this meeting of the GSGP/CRER Working Group 4. Twenty talks and around ten posters were presented during two days in the comfortable setting of a first-class hotel.

Presentations treated different quantitative aspects, such as a more precise definition of sedimentation rates, bathymetry, as well as accommodation and sea-level changes within and by means of a high-resolution stratigraphic and time framework. An important part of the papers was devoted to quantitative facies analysis and geochemical analyses in the quest to better understand environmental changes. Surprisingly, only few presentations involved modeling. One promising, but still very theoretical approach was to model carbonate sedimentation using predator-prey systems. Another interesting model included computer simulation of large-scale slope failures with the aim to clarify cause and effect relationships. Some talks were of more general interest but nevertheless stimulated discussion. One included the discovery of traces indicating a diverse dinosaur fauna on the isolated Apulian platform. This raised the question of a land bridge to Africa in the Cretaceous. Some participants may still ask themselves if a bunch of elephants not surviving in the Bahamas may be a good analogue experiment to disprove the island hypothesis...

During a round-table discussion it was decided to bring on the way a special volume with the presented papers, hopefully published next year in *Palaeo3*. Concerning the future of our research, the discussion was opened by Jean Pierre Masse who underlined the need for more high-resolution studies concentrating on the meter- and sub-meter-scale architecture of platform deposits. There is an important economical background to this since seismic resolution has improved significantly over the years and reservoir characterization studies focus more and

Slump folds, Gargano, Italy

more on small-scale heterogeneities. An important general point was raised by André Strasser. He urged that now it is "the time to start building the house". We spent so much time improving our analytical skills and tools, we now have to bring all this together. This is spoken out of my heart, because we have yet to understand how complex natural systems behaved during times of global change in the past. This can only be achieved with a more holistic, multidisciplinary approach not only concentrating on the evolution of a few factors, but bringing all together and looking at interactions and feedback mechanisms in the entity of the system. We have yet a long way to go.

Besides the mostly enjoyable scientific realities we also had to surrender to the culinary realities of the fabulous local cuisine. In fact, it was so plentiful and spectacular that a new classification scale for congress food was introduced to honor Alfonso, who was the organizer of all this. 10 "Bosellinis" is the rating for

a perfect 5-course meal and we had countless of them. I still wonder how to get rid of my extra pounds.

But this was not all because Alfonso Bosellini, Michele Morsilli and Claudio Neri were to lead us two days through the "Gargano Transect" of the eastern margin of the Apulia platform. We began our first day of the excursion with a boat trip along the rocky cliffs to the south of Vieste offering us spectacular views of slump structures in the Lower Cretaceous Maiolica limestones. Bright sunshine, panoramic views of the Adriatic sea, and a picnic on the beach almost let rise the feeling of being on vacation. However, in the afternoon, work became more serious again and concentrated on the Upper Jurassic and Lower Cretaceous inner platform and margin facies. The second day was spent to investigate the detailed architecture of the Lower Cretaceous to Tertiary platform margin leading us around the south-eastern edge of the Gargano area. Here we had the unforgettable chance to follow the very lively discussions (and to make up our own minds) whether the margin was a faulted or scalloped one. The truth, in my humble opinion, lies (as so often) somewhere in-between.

The meeting and the excursion were stimulating and very well organized. For me it was an experience I'm glad not to have missed, and I am already looking forward to the next meeting where, hopefully, I will meet all of you again.

Heiko Hillgärtner,
Fribourg, Switzerland.

FREE BOOKS

A member of the IAS doesn't need these books anymore and offers them for free. If you are interested in receiving one or more of these books, please contact the IAS General Secretary (for address, see p. 2). First come, first served.

Angevine et al. (1990): Quantitative Sedimentary Basin Modeling, AAPG

Beaumont and Foster (1987-1988): Treatise of Petroleum Geology Reprint Series 3-5 (Reservoirs I-III), AAPG

Berg (1986): Reservoir Sandstones, Prentice-Hall

Bush and Link (1985): Exploration Methods for Sandstone Reservoirs, OGCI Publ.

Demaison and Murris (1984): Petroleum Geochemistry and Basin Evaluation, AAPG Mem. 35

Doveton (1986): Log Analysis of Subsurface Geology, Wiley

Ellis (1987): Well Logging for Earth Scientists, Elsevier

Franseen et al. (1991): Sedimentary Modeling, Kansas Geol. Survey Bull. 233

Halley and Loucks (1980): Carbonate Reservoir Rocks, SEPM Core Workshop 1

Harris (1983): Carbonate Buildups, SEPM Core Workshop 4

Jackson and Galloway (1984): Structural and Depositional Styles of Gulf Coast Tertiary Continental Margins, AAPG

Longman (1981): Carbonate Diagenesis as a Control on Stratigraphic Traps, AAPG

Pirson (1985): Geologic Well Log Analysis, 3rd ed., Gulf Publ. Comp.

Tillmann and Weber (1987): Reservoir Sedimentology, SEPM Spec. Publ. 40

Turner-Peterson et al. (1986): A Basin Analysis Case Study: The Morrison Formation Grants Uranium Region, New Mexico, AAPG

Weimer et al. (1985): Depositional Modeling of Detrital Rocks, SEPM Core Worskhop 8

DEEP-WATER SEDIMENTATION OF SOUTHEAST ASIA

FOSI 2nd Regional Seminar, May 14 to 16, 2001

Deep-water reservoirs generating large volumes of hydrocarbon in areas like the Gulf of Mexico and the North Sea have been actively explored throughout the end of the 20th century. These intense and high-technology activities created spin-offs towards SE Asia and Indonesia, with several recent discoveries in offshore Kalimantan during the last couple of years.

However, the understanding of the depositional systems in relation to various types of reservoirs and various tectonic settings have not been fully understood. Responding to that need, FOSI (the Indonesian Sedimentologists Forum) attempts to bring together geoscientists and researchers who are keen to share and exchange their expertise and experience in order to better understand the potential of SE Asia's passive margins, and to find ways to economically develop these regions.

The seminar will include research, academic, and applied topics of turbidite and deep-water depositional systems, since these are relatively new exploration targets in Indonesia and vicinity.

Participants will benefit from exchanging ideas on the basinal framework, syn-depositional structures, petroleum systems, and analogues from other parts of the world. Topics such as complexity of predicting reservoir sands, seismic geomorphology, hydrocarbon trapping or outcrop analogues will also be treated.

Convenor:
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WWW.NORTHAFRICA.DE

A New Internet Platform For North African Geology

North Africa extends over a huge area, nevertheless, much of the geology across this region is remarkably similar. Cooperation of the geoscientists working in North Africa is needed, from both industry and academia. Hydrocarbon, water and mineral exploration are important industries in North Africa and the cost-effective search for energy, water and raw materials depends heavily on sophisticated, predictive geological models.

In order to improve communication between the various geoscientists working in the region (Morocco, Algeria, Tunisia, Libya and Egypt), a new internet site called the North Africa GeoNet has been started (*http://www.northafrica.de*). This site aims to provide a platform for the exchange of ideas and information about geological research and exploration in North Africa. Geoscientists from all institutions – academia and industry – are invited to participate. Access and all services on the site are totally free of charge.

The following information can be found on *www.northafrica.de*:

- On the message board you can post and search for any kind of information related to North African Geology, e.g. announcements, questions
- Current and planned geological studies
- The address database contains contact information of individuals, research departments, national authorities and companies associated with North African geology
- Geological references about North Africa can be searched in the literature database
- Announcements of future conferences, table of content of past conferences on North African geology
- Safety aspects for fieldwork in remote parts of North Africa
- The picture gallery contains illustrations of geological features in North Africa
- Availability of free and commercial GIS data
- Job announcements related to North Africa geology
- Useful links related to North African geology

Dr. Sebastian Lüning,
University of Bremen, Germany,
luening@uni-bremen.de

CALENDAR

BRITISH SEDIMENTOLOGICAL RESEARCH GROUP AGM
December 20-22, 2000
U.K. (Loughborough)
Contact: Katy Taylor
BG, U.K.
E-mail: katy.taylor@bg-int.com

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9TH MEETING OF SWISS SEDIMENTOLOGISTS
January 27, 2001
SWITZERLAND (Fribourg)
Contact: André Strasser,
Institut de Géologie, Pérolles,
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E-mail: andreas.strasser@unifr.ch
Web-page:
http://www.unifr.ch/geology/swissed.html

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GLACIER-INFLUENCED SEDIMENTATION ON HIGH-LATITUDE CONTINENTAL MARGINS: MODERN AND ANCIENT
March 29-30, 2001
U.K. (Bristol)
Contact: Julian Dowdeswell and Colm O'Cofaigh,
Bristol Glaciology Centre,
School of Geographical Sciences,
University of Bristol,
Bristol BS8 2SS, U.K.
Tel: +44 (0) 117 928 98 30
Fax: +44 (0) 117 928 78 78
E-mail: Colm.OCofaigh@bristol.ac.uk
Web-site: http://www.ggy.bris.ac.uk/glac/glacimarine.html

THE GEOLOGIC AND CLIMATIC EVOLUTION OF THE ARABIAN SEA REGION
April 5-6, 2001
U.K. (London)
Contact: Peter Clift,
Department of Geology and Geophysics,
MS#22, Woods Hole Oceanographic Institution,
Woods Hole, MA 02543, U.S.A.
Tel: +1 (508) 289 3437
Fax: +1 (508) 457 2187
E-mail: pclift@whoi.edu
and
Christoph Gaedicke
Bundesanstalt für Geowissenschaften und Rohstoffe (BGR),
Stilleweg 2,
D-30655 Hannover, Germany.
E-mail: gaedicke@bgr.de

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DEEP-WATER SEDIMENTATION OF SOUTH EAST ASIA
INDONESIA (Jakarta)
May 14-16, 2001
Contact: Dr. F. Hasan Sidi,
Conoco Indonesia Inc.,
Mulia Tower, Gatot Subroto Kav. 9-11
Jakarta 12930, Indonesia
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E-mail: franciscus.h.sidi@idn.conoco.com

SEDIMENT 2001
June 6-8, 2001
GERMANY (Jena)
Contact:
Organisationskomitee Sediment 2001,
Institut für Geowissenschaften,
Universität Jena,
Burgweg 11,
D-07749 Jena, Germany.
Tel: +49 3641 948 621
Fax: +49 3641 948 622
E-mail: sediment2001@geo.uni-jena.de
Web-page:
http://www.uni-jena.de/chemie/geowiss/tagungen/ tagungen.html

* * *

EARTH SYSTEM PROCESSES CONFERENCE
A joint meeting of the Geological Society of America and the Geological Society of London
June 24-28, 2001
U.K. (Edinburgh, Scotland)
Contact: Ian Dalziel and Ian Fairchild for scientific content,
E-mail: ian@utig.ig.utexas.edu
i.j.fairchild@keele.ac.uk
Helen Wilson and Michael Stevens for administration / printed copies of second circular,
Conference Office, The Geological Society,
Burlington House, Piccadilly,
London W1J OBG, U.K.
Tel: +44 (0)207 434 9944
Fax: +44 (0)207 494 0579
Web-page:
www.geosociety.org/meetings/edinburgh

12TH INTERNATIONAL CLAY CONFERENCE
July 29-August 4, 2001
ARGENTINA (Bahía Blanca)
Contact: Fernanda Cravero,
Secretary-General 12 ICC,
Departamento de Geología,
Universidad Nacional del Sur,
8000 Bahía Blanca, Argentina.
Tel: +54 291 459 51 01 ext. 30 41
Fax: +54 291 459 51 48
E-mail: 12icc@criba.edu.ar
Web-page: http://www.12ICC.criba.edu.ar

* * *

7TH INTERNATIONAL CONFERENCE ON FLUVIAL SEDIMENTOLOGY
August 6-10, 2001
U.S.A. (University of Nebraska – Lincoln)
Contact: Mike Blum,
Department of Geosciences,
214 Bessey Hall,
University of Nebraska - Lincoln
Lincoln, NE 68588-0340, U.S.A.
Tel: +1 402 472 78 72
Fax: +1 402 472 49 17
E-mail: mblum1@unl.edu
Web-page:
http://www.unl.edu/geology/icfs.html

* * *

21ST IAS MEETING OF SEDIMENTOLOGY
September 3-5, 2001
SWITZERLAND (Davos)
Contact: Haruko Hartmann,
IAS-2001, Institute of Geology,
ETH-Zentrum,
8092 Zurich, Switzerland.
Fax: +41 1 632 10 80
E-mail: info@ias-2001.ethz.ch
Web-page: http://www.ias-2001.ethz.ch

CL 2001 - CATHODOLUMINESCENCE IN GEOSCIENCES: NEW INSIGHTS FROM CL IN COMBINATION WITH OTHER TECHNIQUES
September 6-8, 2001
GERMANY (Freiberg)
Contact: CL 2001 Secretariat,
Freiberg University
of Mining and Technology,
Department of Mineralogy,
Brennhausgasse 14,
D-09596 Freiberg, Germany
Tel.: +49 (0)3731 39 26 28
Fax: +49 (0)3731 39 31 29
E-mail:
goetze@mineral.tu-freiberg.de (Jens Götze),
kempe@mineral.tu-freiberg.de (Ulf Kempe)
Web-page:
http://www.mineral.tu-freiberg.de/

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3,5 BILLION YEARS OF BIODIVERSITY
Annual Meeting Paläontologische Gesellschaft & Gesellschaft für Biologische Systematik
September 17-21, 2001
GERMANY (Oldenburg)
Contact: PalBioSys 2001,
Wolfgang E. Krumbein,
Geomikrobiologie, ICBM,
Carl von Ossietzky Universität Oldenburg,
D-26111 Oldenburg, Germany.
E-mail: palbiosys@uni-oldenburg.de
Web-page: www.uni-oldenburg.de/palbiosys

14TH SPANISH SEDIMENTOLOGICAL CONGRESS
4TH CONFERENCE ON THE CRETACEOUS OF SPAIN
September 10-16, 2001
SPAIN (Jaén)
Contact: P.A. Ruiz-Ortiz or L.M. Nieto,
Departamento de Geología,
Universidad de Jaén,
23071 Jaén, Spain.
Tel: +34 53 21 21 54
Fax: +34 53 21 21 41
E-mail: paruiz@ujaen.es; lmnieto@ujaen.es
Web-page: http://geologia.ujaen.es/jaen2001

* * *

7TH INTERNATIONAL CONFERENCE ON PALEOCEANOGRAPHY
September 17-21, 2001
JAPAN (Sapporo)
Contact: Prof. Helmut Weissert,
Geological Institute, ETH-Zurich,
CH-8092 Zurich, Switzerland.
Tel: +41 (0)1 632 37 15
Fax: +41 (0)1 632 10 30
E-mail: helmi@erdw.ethz.ch
Web-page:
http://www.iijnet.or.jp/jtb-cs/icp7/

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IV REUNIÓN ARGENTINA DE ICNOLOGÍA Y SEGUNDA REUNIÓN DE ICNOLOGÍA DEL MERCOSUR
September 24-28, 2001
ARGENTINA (San Miguel de Tucumán)
Contact: Luis A. Buatois,
Casilla de Correo I (CC),
4000 San Miguel de Tucumán,
Argentina.
Tel. & Fax: +54 0381 425 30 53
E-mail: ichnolog@infovia.com.ar

16TH INTERNATIONAL SEDIMENTOLOGICAL CONGRESS
July 7-12, 2002
SOUTH AFRICA (Auckland Park, Gauteng)
Contact: Bruce Cairncross,
Department of Geology, Rand Africaans University, P.O. Box 524,
Auckland Park, 2006, South Africa.
Tel: +27 11 489 23 13
Fax: +27 11 489 23 09
E-mail: bc@na.rau.ac.za
Web-page:
http://general.rau.ac.za/geology/announcement.htm

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