

NEWSLETTER

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EDITORIAL

light years ago, I had the privilege of becoming the ✓ General Secretary of the famous International Association of Sedimentologists. I was catapulted from my small office in the small town of Fribourg in the small country of Switzerland into a world-wide network of sedimentologists. All of a sudden, I took - together with the other members of the IAS Bureau decisions concerning future international meetings and sedimentological congresses, I participated in the efpromote fort to Sedimentology across the continents, and I was confronted with editing this Newsletter.

Ambitions were great: unite all sedimentologists on Earth, have all IAS National Correspondents report on the activities in their countries, increase the scientific quality of our research through exchange and critical discussion, have Sedimentology take a prominent place in the Natural and Social Sciences, save the planet with Environmental Sedimentology.

After eight years on the job, the reality is of course quite different. Yes, we have a good network of communication, but I am sure that there are still some sedimentologists hiding somewhere who are not yet members of the IAS. Yes, some IAS members are very active and give feedback and input to the Association, but many are just readers of Sedimentology (which of course is

highly appreciated and quite good enough). Yes, our meetings and congresses are great melting pots where stimulating ideas are generated, but then we go back home and look at the same old microbial coating on the same old oncoid. Yes, we do make some propaganda to increase public awareness at least locally and for a few days, but the average citizen still has not a clue what Sedimentology really means (even the spell-check on my computer keeps underlining the word in red). Yes, we have initiated some specialized meetings on Environmental Sedimentology, but abuse and exploitation of our natural environment have reached unprecedented proportions, and there is not much we can do about it.

These eight years as the IAS General Secretary were a very rewarding experience. Some projects I dreamt about have been realized. I visited more places and made more friends than I had ever expected, and I learned a lot about Sedimentology and human relations. However, eight years are enough. New ideas are needed now, new initiatives have to be taken with a different outlook and different priorities. This Newsletter will certainly change its face, the website will be brushed up, and the communication channels sedimentologists will be adapted to the ways of the 21st century. What will stay unchanged is that spectacular cliff of cyclical peritidal limestones, that orange-black pattern in a cement crystal under cathodoluminescence, that lovely ravinement surface exposed in the creek, and the colours of that coral reef breathing in the ocean (at least I hope so).

I would like to thank all my colleagues from the IAS Bureau who made this job so enjoyable, everybody who furnished material for the Newsletter, and my students Joe Plunkett, Wolfgang Hug, and Niels Rameil who helped with the editing. The new General Secretary will be appointed at the 16th International Sedimentological Congress in South Africa. I wish him all the best and a lot of satisfaction in his new function.

> André Strasser General Secretary

Report on the

SECOND MEETING OF THE IGCP 449

Global Correlation of Late Cenozoic Fluvial Sequences

The second meeting of the IGCP 449 was held at the Indian Institute of Technology, Kanpur, from December 20 to 22, 2001. The meeting was jointly convened by Dr. R. Sinha (IIT Kanpur) and Prof. S.K. Tandon (Delhi University) and supported by UNESCO, IUGS, CSIR, and AICTE. The general programme of the meeting included invited talks on the first two days, followed by a field excursion in the adjoining Gangetic plains.

The first day of the meeting focused upon the fluvial systems of Australia (Prof. R.J. Wasson, Australia), Russia (Andray Tchpalvga. Ukraine), Turkey (R.W.C. Westaway, U.K.), and a series of talks on the Indian river systems. Prof. Vishwas Kale (University of Pune) presented a case history of western Indian rivers and highlighted the importance of palaeoflood studies during historical time periods, Dr. V. Jain (IIT Kanpur) presented some interesting results on the rivers of the North Bihar plains and showed that rapid migration of these rivers is a cumulative effect of tectonic activity and lateral erosion due to hydrological processes. Dr. U.K. Shukla (Kumaun University) presented his work on the Ganga

River and deliberated upon various sedimentation models.

The day ended with a workshop on dating of fluvial sediments by Prof. Ashok K. Singhvi of the Physical Research Laboratory Ahmedabad who emphasized the need of producing a comprehensive database on chronology of alluvial sediments in the Gangetic plains. Prof. Singhvi insisted on continuing a systematic study of dating fluvial sediments to trace back the history of these rivers and understand their long-term behavior.

The second day of the meeting started with the keynote lecture by the IGCP 449 leader Prof. Bridgeland of Durham University, U.K., who presented his research on the largest terrace sequence from Thames River, England. He also presented his recent work on the fluvial terrace sequences from Syria. Prof. R. Sinha, the convener of this meeting, presented his work on the North Bihar plains, eastern India, and emphasized that the plains of North Bihar are very different from the other parts of Gangetic plains in terms of their sedimentation history. The rest of the session was dominated by talks

on the western Indian rivers. Prof. S.K. Tandon (Delhi University) presented an excellent review of the sedimentological research in India, showing examples from different parts of the country. He emphasized the need for rigorous and intensive studies in the Ganga basin, as this region presents a variety of sedimentation patterns and a complex history of river evolution. The other important speakers included Dr. L.S. Chamyal from M.S. University Baroda, and Dr. Shiela Mishra from Pune University.

A group of researchers from the Wadia Institute of Himalayan Geology presented a detailed account on the long sedimentation history of the Himalayan foreland, based on facies analysis and palaeomagnetic data, They showed the variations in sedimentation history in the Himalaya since 10 million years and emphasized the need to find modern analogues of such sedimentary systems in the present-day environments. Prof. S.B. Bhatia (Chandigarh) presented a very detailed account on the use of microfossils for global correlation. Important aspects of arsenic contamination in fluvial sediments were highlighted by Prof. B.C. mahshay of IIT Kanpur who deliberated upon the various mechanism by

which arsenic is cycled in fluvial sediments.

The day ended with the IGCP 449 business meeting, in which the participants discussed the plans for the next year. It was strongly emphasized that a collection of papers arising out of this meeting should be published as soon as possible in a national journal. Attempts should also be made to publish a detailed review of the Indian work in an international journal.

The final day of the meeting involved a field excursion to the Yamuna plains around Kalpi and the Ganga plains around Bithoor. The participants were exposed to a variety of geomorphological features of the Ganga and Yamuna rivers, and the sedimentary sequences along the banks were examined. Prof. S.K. Tandon, Prof. R. Sinha, and Dr. U.K. Shukla explained their current research in this area. The field excursion generated a lot of interaction.

R. Sinha
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IIT Kanpur, Kanpur, India
S.K. Tandon
Department of Geology
Delhi University, Delhi, India

ACTIVITIES IN TUNISIA

he main activities in Sedimentology in Tunisia this year concern two workshops:

International workshop and field trip

This workshop on the "Jurassic on the Maghrebian margin of the Tethys", supported by ATEIG-GFEJ and IAS, was held in Tunis from 22 to 25 March, 2002. It was organized by Mohamed Soussi (Faculté des Sciences de Sfax) and Mourad Bédir (INRST).

NATO Advanced Research Workshop

This workshop on "North-African Cretaceous rudist and coral formations and their contribution to carbonate platform development" was held in Tunis from 13 to 18 May, 2002. The objective of the workshop was to review Cretaceous carbonate platform development in North Africa and promote future collaborative research focusing on:

- Sedimentological and palaeoecological characterization of rudist and coral formations and related facies;
- Stratigraphical synthesis of platform development within the regional geodynamic and palaeogeographic context;
- Integration of findings in the known record of the Cretaceous greenhouse ocean/climate system;
- Implications for resources.

This workshop was co-directed by Eulàlia Gili (Universitat Autònoma of Barcelona) and Hédi Negra (Faculté des Sciences de Bizerte).

M. Hédi Negra IAS National Correspondant Bizerte, Tunisia

IAS Special Publication 33

PRECAMBRIAN SEDIMENTARY ENVIRONMENTS: A MODERN APPROACH TO ANCIENT DEPOSITIONAL SYSTEMS

edited by Wladyslaw Altermann and Patricia L. Corcoran

This volume of 450 pages is a pot-pourri of articles on Pre-L cambrian supracrustal (mainly sedimentary) rocks. In common with many such special journal issues and special publications, it suffers from a lack of coherence. The articles are loosely bound (in a scientific, as opposed to a physical sense) by the common thread of Precambrian age. Considering that the Precambrian includes almost ninety percent of geological time (a geological record spanning more than 3 billion years) the 19 papers in the volume must of necessity represent small and widely separated pieces of the puzzle. The problem presented by the ambitious title is somewhat alleviated by inclusion of five "Introductory Papers" which provide overviews on certain problems of Precambrian environments.

The introductory papers, because of their more general topics will probably have the widest appeal. The lead paper by Donaldson et al. deals with etymological and philosophical aspects of actualism and concludes (not surprisingly!) that studies of Pre-

cambrian sedimentary rocks should be based on comparisons with present day environments, leaving actualistic approaches to less scientific endeavours in which unicoms seem to play a significant role! Altermann presents a synthesis of ideas on the evolution of life and comments prophetically on the "lack of criteria other than isotopic and morphological similarity to extant microbes" for identification of early life forms, an opinion that has been echoed in recent issues of both Nature and Science. Although his topic is somewhat divorced from the main theme of the S.P., Altermann also includes a section on "biosedimentation" and touches on deposition of ironformations and oxygenation of the atmosphere. Trendall's paper was the "cherry on the cake" for me. It provides a thorough and thoughtful resume of ideas on the origin of the enigmatic Precambrian formations and emphasizes their significant diachroneity, casting serious doubt on the widely held interpretathat their deposition "caused" by atmospheric oxygenation. Strauss comments on the significance

of previously published analyses of S isotopes and provides over 300 new analyses. This redox-sensitive element can provide valuable insight into the composition of Precambrian seawater and also provides a window onto atmospheric and possibly palaeoclimatic conditions in the distant past. The final "introductory" paper by Sumner is concerned with unusual aragonitic and calcitic encrustations. mainly in Neoarchaean marine carbonates. These may indicate high saturation states in ancient sea water. She also points out differences between these ancient seafloor encrustations and those associated with the much younger cap carbonates that overlie some Neoproterozoic glaciogenic rocks.

The remaining 14 papers, constituting the "case studies" part of the Special Publication, are scattered throughout time (Archaean to Neoproterozoic) and space (India to North America) and cover widely disparate subjects. They are roughly arranged in "chronological" order, dealing in sequence with Archaean, Palaeoproterozoic and Neoproterozoic subjects. The first three papers in this section, by Pehrsson, Mueller et al. and Corcoran and Mueller deal with different aspects of supracrustal (mainly sedimentary) Archaean successions of the Slave province in NW Canada. These papers perhaps enter most fully into the spirit of the title of the Special Publication. They include interpretations of sedimentary and tectonic settings that illustrate the remarkable similarities (and some

striking contrasts) that can be drawn between these ancient rocks and their modern counterparts. Pike and Cas describe a volcanic-dominated rift successions in the Archaean Whim Creek Belt in Western Australia. Rosen et al. and Zloben et al. adopt a geochemical approach involving normative calculations in their attempts to reconstruct environmental parameters in relatively metamorphosed and deformed terrains in the Baltic and Anabar shields.

Aspler and Chiarenzelli's wellillustrated paper on part of the Palaeoproterozoic Hurwitz Group focuses attention on an important lacuna of about 200 Ma duration between the Watterson Formation and underlying Hurwitz units. Similar breaks are being discovered in other Neoarchaean-Palaeoproterozoic successions in N. America and Australia, where they may represent periods of ocean crust formation, prior to basin closure and development of foreland basins. Strand documents sedimenа tary/volcanic complex in western Finland, which he interprets as the result of development of an intra-arc basin resulting from Svecofennian accretionary tectonics. Three papers dealing with different aspects of Palaeoproterozoic sedimentation include detailed sedimentological information on the Roraima Formation of Venezuela (Long), the Silverton Formation of South Africa (Eriksson et al.) and the Sirbu Shale of the Vindhyan Supergroup in northern India, These examples again show how classical sedimentological interpretations and

sequence stratigraphic principles can be applied to address tectonic and sedimentological problems in ancient sedimentary rocks.

The last two papers deal with Neoproterozoic glacial successions. Martins-Neto and Hercos describe the glaciogenic Macaubas succession from southeastern Brazil. On the basis of available geochronological results they consider these deposits to be between about 800 and 900 Ma, placing them among the oldest Neoproterozoic glaciogenic successions. Various facies are described in some detail and the palaeogeography is shown to involve several sub-basins. separated by palaeo-highs. Laajoki revisits the controversial Bigganjargga locality and surrounding areas in northern Norway and re-asserts the glacial origin of Varangerian (Vendian) striated surfaces and associated facies there.

The volume is generally well edited and illustrated and is relatively free of typographical errors (one missing page reference on p. 27). Some parts of the volume, particularly those in the section on "case studies", are somewhat specialized and will have a limited appeal. The introductory papers, which address more general problems should be on the bookshelves of all serious students of Precambrian sedimentary rocks and basins.

Grant M. Young Department of Earth Sciences University of Western Ontario London, Ontario, Canada

CALENDAR

16TH INTERNATIONAL SEDIMENTOLOGICAL CONGRESS

July 7-12, 2002

SOUTH AFRICA (Auckland Park, Gau-

teng)

Contact: Bruce Cairneross, 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/IAS2002

* * *

THIRD FRENCH SYMPOSIUM ON STRATIGRAPHY

July 8-10, 2002 FRANCE (Lyon)

Contact: Christian Gaillard, Pierre Hantzpergue,

pergue,

Université Claude Bernard Lyon 1, UFR Sciences de la Terre.

Géode – 2, rue Raphaël Dubois, 69622 Villeurbanne cedex, France.

Fax: +33 (0) 472 44 58 70 E-mail: strati2002@univ-lyon1.fr

Web-page:

http://www.univ-lyon1.fr/strati2002

DRYLANDS RIVERS: PROCESS & PRODUCT

August 7-10, 2002

SCOTLAND (Aberdeen)

Contact: Adrian Hartley or Colin North Department of Geology & Petroleum

Geology,

University of Aberdeen,

Aberdeen AB24 3UE, Scotland, U.K. e-mail: a.hartley@abdn.ac.uk or

e-man: a.narney@abun.ac.uk e.p.north@abdn.ac.uk

web

page:http://www.DrylandRivers.com/confer

* * *

ence/aberdeen02.htm

SEPM RESEARCH CONFERENCE Incised Valleys: Images and Processes

August 18-23, 2002 U.S.A. (Casper, Wyoming) Contact: Rod Tillman

E-mail: rodtillman@worldnet.att.net

Web-page: http://sepm.org

FOURTH SYMPOSIUM OF IGCP 434 Cretaceous Continental Margin of East Asia: Stratigraphy, Sedimentation, and Tectonics

September 3-12, 2002 RUSSIA (Khabarovsk)

Contact: S.M. Stavitskaya, L.D. Peskova, Institute of Tectonics & Geophysics

Far Eastern Branch RAS, Khabarovsk, Russia.

Tel.: +7 4212 21 08 59 Fax: +7 4212 22 76 84

E-mail: kirillova@itig.as.khb.ru

6TH INTERNATIONAL SYMPOSIUM ON THE JURASSIC SYSTEM

A meeting of the IUGS International Subcommission on Jurassic Stratigraphy

September 12-22, 2002 ITALY (Palermo)

Contact: Luca Martire

Dipartimento di Scienze della Terra, Via Accademia delle Scienze 5,

10123 Torino, Italy. Fax: +39 011 54 17 55 E-mail: martire@dst.unito.it

Web-page: www.dst.unito.it/6thISJS

6TH INTERNATIONAL CONGRESS ON RUDISTS

* *

September 16-18, 2002 CROATIA (Pula - Istria)

Contact: Mrs. Alisa Martek and Dr. Ivo

Velic,

Institute of Geology, Sachsova 2, P.O.Box 268, HR-10000 Zagreb, Croatia. Tel: +385 1 616 07 86, 616 08 11

Fax: +385 1 614 47 18 E-mail: amartek@igi.hr

6TH INTERNATIONAL CONFERENCE LITTORAL 2002

* * *

September 22-26, 2002 PORTUGAL (Porto) Contact: G. Soares de Carvalho, Instituto de Hidraulica e Recursos Hidricos, University of Porto, 4200-464 Porto, Portugal

Tel: +351 22 508 19 07 Fax: +351 22 508 19 52 E-mail: fpinto@fe.up.pt

CONTINENT-OCEAN INTERACTIONS WITHIN THE EAST ASIAN MARGINAL SEAS

November 11-14, 2002

U.**S**.A.

(The Bahia Resort, San Diego, California)

Contact: Peter Clift

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E-mail: deph@ldeo.columbia.edu

Web-page:

http://www.whoi.edu/pclift/EAB.html

ORGANIC-CARBON BURIAL, CLIMATE CHANGE AND OCEAN CHEMISTRY (MESOZOIC-PALEOGENE)

December 9-11, 2002
U.K. (Geological Society of London,
Burlington House, London)
Contact: Juergen Thurow,
Department of Geological Sciences,
University College London,
Gower Street, London WC1E 6BT, U.K.
E-mail: j.thurow@ucl.ac.uk
Web-page:
http://www.earthsci.ucl.ac.uk/conferences/GSLC

THIRD INTERNATIONAL LIMNOGEOLOGY CONGRESS

March 29 – April 2, 2003 U.S.A. (Tucson, Arizona) Contact: Andrew Cohen, Department of Geosciences, University of Arizona, Tucson, AZ, U.S.A.

Tel: +1 520 621 46 91 Fax: +152062126 72

E-mail: acohen@geo.arizona.edu

BRAIDED RIVERS 2003

April 7 -9, 2003 U.K. (Birmingham)

Contact: Greg Sambrook Smith

School of Geography & Environmental Sciences.

University of Birmingham, Birmingham, B15 2TT, U.K. Tel: + 44 (0)121 4158023 e-mail: g.smith.4@bham.ac.uk

Web-page:

http://www.cwr.bham.ac.uk/braid/

COASTAL SEDIMENTS '03 The 5th International Symposium on Coastal Engineering and Science of Coastal Sediment Processes

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May 18 -23, 2003

U.S.A. (Clearwater Beach, Florida)

Contact: Darlene K. Gregory Conference Secretariat Tel: +1 361 939 90 04 Fax: +1 361 939 93 55

e-mail: dgregory@coastalsediments.net

Web-page:

http://www.CoastalSediments.net

3RD LATINAMERICAN CONGRESS OF SEDIMENTOLOGY

June 8-11, 2003

BRAZIL (Belém, Pará)

Contact: Dilce de Fátima Rossetti,

Museu Paraense Emilio Goeldi,

CP 399, Belém, Pará 66040-170, Brazil E-mail: latinoamericano@museu-goeldi.br

Web-page:

http://www.ufpa.br/latinomerican

12TH BATHURST MEETING OF CARBONATE SEDIMENTOLOGISTS

July 8-10, 2003 U.K. (Durham)

Contact: Maurice Tucker or Moyra Wilson,

Department of Geological Sciences,

University of Durham,

Durham DH1 3LE, U.K. Tel: +44 191 374 25 24 / 25 01

E-mail: M.E.Tucker@durham.ac.uk,

Moyra, Wilson@durham.ac.uk

Web-page:

http://www.dur.ac.uk/bathurst.2003/

16TH CONGRESS OF THE INTERNATIONAL ASSOCIATION FOR QUATERNARY RESEARCH (INQUA)

* * *

July 23 - 31, 2003
U.S.A. (Reno, Nevada)
Contact: M. Jones,
Division of Hydrologic Sciences,
Desert Research Institute

Desert Research Institute, 2215 Raggio Parkway Reno, NV 89512, U.S.A.

Email: inqua03@dri.edu

Web-page: http://inqua2003.dri.edu

PRESENT STATE AND FUTURE EVOLUTION OF PALEOGENE STRATIGRAPHY

A Symposium of the International Subcommission on Paleogene Stratigraphy

August 26-30, 2003 BELGIUM (Leuven)

Contact: Noël Vandenberghe

Dept. Geografie-Geologie, Afd. Historische Geologie

KU Leuven, Redingestraat 16, B-3000 Leuven, Belgium

E-mail: noel.vandenberghe@geo.kuleuven.be

Web-page:

www.unituebingen.de/geo/isps/news

8TH INTERNATIONAL SYMPOSIUM ON FOSSIL ALGAE

September 18-20, 2003 SPAIN (Granada)

Contact: Juan C. Braga or Julio Aguirre Departamento de Estratigrafia y Paleontologia

Facultad de Ciencias Universidad de Granada Campus Fuentenueva s/n 18002 Granada, Spain.

E-mail: jbraga@ugr.es, jaguirre@ugr.es

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