IAS NEWSLETTER No 130 February 1994



Carbonate debrite Middle Ordovician Cape Cormorant Formation

Newfoundland

BALLOT INCLUDED THE IAS FOR ELECTION OF THE IAS

IAS NEWS

NEWSLETTER DEADLINES

The IAS Newsletter is sent out with a corresponding issue of Sedimentology. It is thus necessary that material for the Newsletter is sent in good time to the General Secretary to allow time for writing, editing, printing (in Oxford), enclosing it with Sedimentology (at Blackwell's office). Material must thus arrive at the General Secretary's office by the following deadlines:

April Issue:

25 February

June issue:

25 April

August issue:

24 July

October Issue:

23 September

December issue:

28 October

NOMINATIONS OF IAS OFFICERS 1994-1998

The IAS Bye-laws paragraph 1,3 states:

"The members of the Association shall elect by postal ballot the members of the Bureau and Council. The Bureau will prepare a list of nominations for membership of the Bureau and Council which shall be published in the Newsletter of the Association by March of the year before the International Sedimentological Congress. Members of the Association may propose alternative lists of nominations to the General Secretary by September 30th of the year before the International Sedimentological Congress, provided any such list is supported by at least 50 signatures of Members and has the written agreement of the nominees".

The Bureau has proposed a list of new officers (shown on page 2). Alternative lists have not been received. According to the bye-laws a postal ballot shall be held, and IAS members are kindly asked to fill in the ballot form (page 3) and send it to the General Secretary.

List of Nomlnees

President:

Treasurer:

General Secretary:

Editor:

Special Publications Secretary:

Vice-presidents:

Past President:

Council members:

Alfonso Bosellini (Italy)

Isabelle Cojan (France)

André Strasser (Switzerland)

Julian Andrews (U.K.)

M.R. Talbot (Norway)

S. Ordónez (Spain)

A. M'Rabet (Tunisia)

Earl McBride (U.S.A.)

G.G. Zuffa (Italy)

Li Renwei (China)

J.N.J. Visser (South Africa)

V. Raiverman (India)

T. Peryt (Poland)

M. Suarez (Chile)

P. Ballance (New Zealand)

BALLOT FOR THE ELECTION OF THE IAS BUREAU AND COUNCIL 1994-1998

"I agree with the slat	e proposed in the	IAS Newsletter N	o. 125 "
(this issue p. 2)			
"I do not agree"			

Mail to: General Secretary Finn Surlyk, Geological Institute, University of Copenhagen, Øster Voldgade 10, DK - 1350 København K, Denmark



GENERAL NEWS

CONFERENCE REPORT

Concepts and controversies in phosphogenesis

An international symposium and workshop under the framework of IGCP

325 Interlaken, Switzerland, September 6-10, 1993

Phosphorus is an essential nutrient in the biosphere and, as such, it fuels photosynthesis and primary production, and drives hte transformation of other biophile elements such as carbon and oxygen. In improving our understanding of the transfer modes and mechanisms of phosphorus between the different reservoirs in biosphere, we can make a fundamental contribution to the responsible management of environmental change in the present and to the meaningful interpretation of environmental change in the past.

In this meeting, we focussed on modern concepts in the interpretation of phosphorus and phosphates in an attempt to analyze the controversies which surround many aspects of this topic. Concepts in science is scenarios and ideas which may enjoy a certain degree of acceptance or may be girdled by controversies. Controversial concepts push the boundaries of our knowledge and understanding, if they are openly and undogmatically discussed. Within the framework of this meeting, we emphasized round table discussions, organized a full day workshop, and allowed ample time for discussions, the exchange of ideas, formulation of concepts, and identification of controversies. The size (45) and mixture of participants from industry and research groups in the USA (7), Russia (4), Canada (1), Mexico (1) Argentina (1), Tahiti (1), India (1), Pakistan (1), Egypt (2), Jordan (5), Israel (2), Albania (1), Spain (1), Portugal (1), France (6), Germany (2), United Kingdom (2), Poland (1) and Switzerland (5) allowed for a lively and yet informal meeting.

The first three days were devoted to three different themes: (1) "Phosphorus, sedimentology, and palaeoceanography"; (2) "Phosphorus, geochemistry, agriculture, and industry", and (3) "Phosphorus, the microbiosphere, and interactions of phosphorus with other biophile elements". In the morning, the theme of the day received an overview in three or four introductory talks and was subsequently covered in a poster session. In the afternoon, concepts and controversies central to the theme were explored in two round-table discussion sessions, each guided by two chairmen and one rapporteur.

The first theme allowed the participants to address an array of topics such as "essential controversies in phosphogenesis" (G. Baturin),

"significance of phosphatic rocks in sequence stratigraphic interpretations" (R. Garrison), and "phosphorites from the Peru margin" (C. Glenn, who also showed a fascinating video from a recent Alvin drive in this area). In the poster session, we had a chance to become familiar with phosphorites from such different areas as Jordan (Upper Cretaceous; A. Abed and R. Sadagah), Baja California (Oligocene-Miocene; K. Grimm et al.), Russia (Cretaceous; A. Ilyin), Malta (Miocene; E. Jacobs), Pacific atolls (Pleistocene and recent; W. Burnett et al.; C. Jehl), offshore North Carolina (Miocene; S. Riggs et al.), Saudi Arabia (Palaeocene; R. Sheldon), Yangtze Platform (Precambrian-Cambrian; H. Siegmund), and western USA (Permian; J. Trappe). In the afternoon roundtable discussion, we pondered on questions such as "is phosphogenesis" possible at the sediment-water interface", "are autochtonous phosphorites reliable indicators of marine, resp. maximum-flooding surfaces", "different sources of P for phosphogenesis (e.g., upwelling, endo-upwelling in atolls, groundwater seeps in shelf areas, etc.)", and "importance and significance of phosphate peloids".

The theme of the second day was elegantly introduced by I. Jarvis ("phosphorite geochemistry"), P. Van Cappellen ("apatite precipitation in modern environments"). Y. Nathan ("rare earth elements in phosphorites offshore South Africa"), and W. Burnett ("environmental problems concerning phosphogypsum"). In the poster session, geochemical and environmental aspects were highlighted of phosphorite occurrences in Argentina (Cambrian, Palaeocene; L.Castro), Morocco (Eocene; A. Chariand L. Prévôt), Senegal Basin (Palaeocene; R. Filcoteaux et al.), Pakistan (Cambrian; V. Husain), and Jordan (Upper Cretaceous; O. Murry). General geochemical pattern in phosphorites were explored by A. Serlani and Y. Zanin. In the afternoon round-table discussion, we dove into such tricky questions as "the role of Mg in phosphogenesis", "what role plays octocalcium phosphate as a precursor in phosphogenesis", "what are the kinetics in phosphogenesis", "direct precipitation versus replacement in phosphogenesis", and "importance of rare-earth elements and stable isotopes in different types of phosphorites".

The third theme was taken up in the morning talks by j. Trichet ("phosphorus in microbial sediments"), J. Lucas and L. Prévôt ("biological activity, the driving force in phosphogenesis"), K. Krajewski ("phosphorus sources and mechanisms of phosphate mineralization in Tethyan condensed sequences"), and K. Föllmi ("phosphogenesis, an environmental approach"). In the following poster session, the impact of (micro-)biology on phosphogenesis and the impact of phosphorus on the biosphere was examined. Phosphatic stromatolites, generally laminated phosphorites, and inferred microbial structures in phosphorites were discussed by C. Galti (Oligocene-Miocene, Baja California), R. Knight (Albian, United Kingdom), M. Lamboy (Cretaceous, France; Miocene-recent, offshore Peru), A. Martin-Algarra (Cretaceous, Spain), and

V. Tewari (Precambrian-Cambrian, India). Coupling of phosphorus with carbon, anoxia, the biosphere, and climate were subjects of the presentations by P. Van Cappellen and H. Weissert.

In two evenings, these three themes were backed up by after-dinner talks: In a spirited and witty presentation, R. Trümpy elucidated the geological and tectonic setting of the phosphate-rich occurrences in the Swiss alpine and Jura mountains (which we visited during the field trip), and took us on a detour through the history and culture of Switzerland. M. Schidlowski guided us back to the early stages of earth's evolution and showed convincingly that stable carbon isotopes are a good tool to assess total biomass in the early Precambrian (not that different from today's), and that phosphorus may have played a crucial role in controlling total biomass.

On the fourth day, three working groups, each devoted to one of the three themes, explored the concepts and controversies introduces in the presentations and discussed in the round-table sessions. In the early afternoon, all members of the working groups gathered and exchanged the topics that were focussed upon and reported on the status of work. By the (late) end of the day, each working group produced a progress paper, which was to be delivered the following morning by representatives of the working group. These papers serve as a base for three multi-authored synoptic papers, each pertaining to one of the above themes, which will be submitted to Eclogae geol. Helv. and hopefully will appear in one of this years issues.

The meeting was followed by a three days field trip and workshop, in which we visited phosphate-, iron-, and glauconite-rich sediments of Jurassic, Cretaceous, and Tertiary age in the northern alpine and Jura mountains. Although the individual beds of interest lack economic significance, they do exhibit certain textural and palaeoecological features, which are relevant to the general understanding of sedimentological, palaeoceanographic, and palaeoclimatologic conditions under which these peculiar beds originated (for those who are interested; a small number of field guides are still avilable).

The workshop participants showed with their input, active participation, and enthusiasm, that there was a real need for a meeting in which ample time was provided for the mutual exchange of ideas. We approached a common language, in spite of all the cultural and national differences. Last but not least, generous financial and logistical support from the Swiss National Science Foundation, Swiss Academy of Natural Sciences, IGCP-UNESCO, Geological Institute of the ETH, Zürich and University Louis Pasteur, Strasbourg, and municipality of Mattern near Interlaken helped very much to organize the meeting and invite participants who otherwise would not have been able to come.

THE 12TH AFRICAN MICROPALAEONTOLOGICAL COLLOQUIUM AND

THE 2ND COLLOQUIUM ON THE STRATIGRAPHY AND PALAEONTOLOGY OF THE SOUTH ATLANTIC

JULY 16-20, 1994 - ANGERS FRANCE

Ten colloquia on African Micropalaeontology have been organized in African countries or in France since the first one took place in Dakar in 1963. The proceedings of these colloquia lead to about 5500 pages that provided essential data concerning West African and South American basins. In 1991, in Libreville (Gabon), the 11th Colloquium of African Micropalaeontology was grouped with the first Colloquium of Stratigraphy and Palaeontology of sedimentary basins of West Africa. During this colloquium several papers were presented concerning Brazil. Thus it seems judicious to extend the 1994 Colloquium to the whole basins surrounding the South Atlantic Ocean.

The proceedings for the two colloqia will be published in a special issue of the "Bull. Centres Rech. Explor. Prod. elf.aquitaine.

For further information see under "Future meetings".

3. INTERNATIONAL BRACHIOPOD CONGRESS

SEPTEMBER 2-5, 1995 - SUDBURY, ONTARIO, CANADA

The Third International Brachiopod Congress will be held September 2 5,1995, on the campus of Laurentian University, Sudbury, Canada. The Congress provides a venue for the presentation of papers of current interest to the 'brachiopod world', for the exchange of the latest research information and materials, and as a centre for a series of field excursions which will enable delegates to collect fossil specimens at sites which are not normally available for sampling. We invite not only brachiopod specialists to take part, but also those working in related fields, e.g. biostratigraphy, carbonate sedimentology, taphonomy of shell beds, palaeoichnology, biochemistry, benthic community analysis, evolutionary theory, etc. The organizing committee welcomes all papers on the taphonomy of brachiopod shell beds and the sedimentology of shell beds or related topics of interest to the study of fossil and living brachiopods.

For further information see under "Future meetings".

FUTURE MEETINGS

THE 3-D SEISMIC CHALLENGE PITFALLS, BENEFITS AND OPPORTUNITIES IN EXPLORATION AND PRODUCTION

March 7-9, 1994

NORWAY (Kristianssand)

Contact: Norwegian Petroleum Society, P.O.Box 1897 Vika, N-0124 Oslo,

Norway, Tel: 47-22-43-00-50; Fax: 47-22-55-46-30.

 \mathcal{Q}

HIGH RESOLUTION SEQUENCE STRATIGRAPHY: INNOVATIONS AND APPLICATIONS

March 28-30, 1994

UK (Liverpool)

Contact: Dr. John Howell <u>or</u> Dr. John Aitken, Sequence Stratigraphy Conference, Dept. of Earth Sciences, Univ. of Liverpool, P.O.Box 147, Resemble of Ch. Microscopi, 189, 1884, 1884.

Brownlow St., Liverpool, L69 3BX, UK.

Tel: (051) 794-5141; Fax: (051) 794-5170

13

ENVIRONMENTAL SEDIMENTOLOGY:

THE INTERACTION OF SEDIMENTS, WATER AND WASTE

April 7-8, 1994

UK (Reading)

Contact: Dr. J. Eyers, Postgraduate Research Inst. for Sedimentology,

Univ. of Reading, Reading, RG6 2AB, UK.

Tel: 0734-318944; Fax: 0734-310279.

Ø

10TH PETROLEUM CONGRESS AND EXHIBITION OF TURKEY

April 11-15, 1994

TURKEY (Ankara)

Contact: M. Ali Kaya, TPAO Arama Grubu Oda: 1715, Mustafa Kemal Mah. 2. Cad. No: 86, 06520, Ankara, Turkey. Tel: (90-4) 286-91-00/ (ext) 2902;

Fax: (90-4) 286-90-49; Telex: 42626-42044 TPAO-TR.

15th IAS REGIONAL MEETING

April 13-15, 1994

ITALY (Ischia, Naples)

Contact: Tullio Pescatore, Ischia '94, Dipartimento de Scienze della Terra,

Largo S. Marcellino 10, 80138 Napoli, Italy.

Tel: (81) 5516014; Fax: (81) 5525611.

 \mathcal{G}

GEOPROSPECTIVE

April 18-19, 1994

FRANCE (Paris)

Contact: Prof. Bernard Beaudoin, Ecole des Mines de Paris, 35, rue Saint

Honoré, 77305 Fontainebleau, France.

Tel: 33 (1) 64-69-49-24; Fax: 33 (1) 64-69-49-35.

Q

SYMPOSIUM AND FIELD EXCURSION ON THE ALBIAN AND UPPER CRETACEOUS STRATIGRAPHY AND SEDIMENTOLOGY OF THE MANGYSHLAK PENINSULA

May, 1994

REP. of KAZAKHSTAN (Almaty)

Contact: Dr. E.V. Nesterova, IGS NAS RK., Gl. Kabanbai batyra 69a, Almaty, Kazakhstan, 4801000, Rep. of Kazakhstan.

 $\boldsymbol{\Omega}$

MIOCENE REEFS AND CARBONATE PLATFORMS OF THE MEDITERRANEAN

May 3-6, 1994

FRANCE (Marseille)

Contact: Jean-Paul Saint Martin <u>or</u> Jean-Jacques Cornee, Université de Provence, Centre de Sédimentologie/Paléontologie (URA 1208 du CNRS), case 67, Place Victor Hugo, 13331 Marseille Cedex, France.

Tel: (33) 9110-6326 (or 27); Fax: (33) 9164-9964.

 \mathcal{Q}

4TH TUNISIAN PETROLEUM EXPLORATION CONFERENCE

May 4-5, 1994

TUNISIA (Tunis)

Contact: Mr. A. Chine, 27 Bis Avenue Khereddine Pacha, 1002 Tunis, Tunisia.

Tel: (216-1) 782-288; Fax: (216-1) 784-092; Telex: 15128-13877.

ANNUAL MEETING OF THE GEOLOGICAL ASSOCIATION OF CANADA AND MINERALOGICAL ASSOCIATION OF CANADA

May 15-18, 1994

CANADA (Waterloo, Ontario)

Contact: Alan V. Morgan, Dept. of Earth Sciences, Univ. of Waterloo,

Waterloo, Ontario, Canada N2L 3G1.

Tel: (519) 885-1211 (ext. 3231); Fax: (519) 746-7484.

Ø

2ND INTERNATIONAL CONFERENCE ON THE GEOLOGY OF SILICICLASTIC SHELF SEAS

May 24-28, 1994

BELGIUM (Gent)

Contact: Marc De Batist, Geological Institute, Univ. of Gent, Krijgslaan 281 S.8, 9000 Gent, Belgium. Tel: +32/9 2644587; Fax: +32/9 2644997.

 Ω

9TH ANNUAL MEETING OF SEDIMENTOLOGISTS IN GERMANY

May 25-27, 1994

GERMANY (Greifswald)

Contact: SEDIMENT '94, Fachrichtung Geowissenschaften, Ernst-Moritz Arndt-Universität Greifswald, Friedrich-Ludwig-Jahn-Str. 17 A, D-17489 Greifswald. Tel: (03834) 77271 ext. 298; Fax: (03834) 883351.

13

SEPM/AAPG ANNUAL MEETING

June 12-15, 1994

U.S.A. (Denver, CO)

Contact: Julie Ball, SEPM's Business Office, Tulsa, OK., USA.

Tel: (918) 743-9765.

THIRD ANNUAL MEETING OF THE HISTORY OF THE EARTH SCIENCES SOCIETY

July 7-9, 1994

U.S.A. (Troy, N.Y.)

Contact: Dr. Gerald M. Friedman, The Northeastern Science Foundation, Inc., Rensselaer Center of Applied Geology, 15 Third Street, P.O.Box 746, Troy, N.Y. 12180, USA. Tel: (518) 273-3247; Fax: (518) 273-3249.

THE 12TH AFRICAN MICROPALAEONTOLOGICAL COLLOQUIUM AND

THE 2ND COLLOQUIUM ON THE STRATIGRAPHY AND PALAEONTOLOGY OF THE SOUTH ATLANTIC

July 16-20, 1994

FRANCE (Angers)

Contact: Jean-Pierre Debenay, Laboratoire de Géologie, 2 bd Lavoisier,

49045 Angers Cedex, France.

Tel: (33) 41-73-53-82; Fax: (33) 41-73-53-52.

Ø

5TH ARGENTINIAN SEDIMENTOLOGICAL MEETING

August 8-14, 1994

ARGENTINA (San Miguel de Tucumán)

Contact: Dr. Gerardo E. Bossi, Presidente de la 5ta. Reunion Argentina de Sedimentologia, Laboratorio de Sedimentologia, Miguel Lillo 251 -

Tucumán, Argentina, Tel: 5481-239723; Fax: 5481-311524.

 \mathcal{Q}

14th INTERNATIONAL SEDIMENTOLOGICAL CONGRESS

August 21-26, 1994

BRAZIL (Recife, PE)

Contact: 14th International sedimentological Congress,

LAGESE/DGEO/UFPE, Caixa Postal 7801 - Ag. Cidade, Universitária,

0739 Recife (PE), Brazil. Tel: (081) 271-82-40.

 \mathcal{Q}

ICHNOFACIES AND BIOTURBATION TRACE FOSSILS IN SEDIMENTOLOGY AND BASIN ANALYSIS

SYMPOSIUM 5, 14th INTERNATIONAL SEDIMENTOLOGICAL CONGRESS

August 21-26, 1994

BRAZIL (Recife)

Contact: Dr. L.A. Buatois <u>or</u> Dr. M.G. Mángano, Casilla de correo 1, correo central, 4000 San Miguel de Tucumán, Argentina. Fax: 0054-81-311462. <u>or</u> Dr. S.G. Pemberton, Dept. of Geology, Univ. of Alberta, Edmonton, Alberta, Canada T6G 2E3, Fax: 0001-403-4928380.

 \mathcal{Q}

INTERNATIONAL SYMPOSIUM ON PALAEOENVIRONMENTAL HISTORY OF EAST AND SOUTH ASIA AND CRETACEOUS CORRELATION

(IGCP 350)

August 24-29, 1994

KOREA (Taegu)

Contact: Prof. Ki-Hong Chang, Dept. of Geology, Kyungpook Nationa Univ., Taegu, Korea 702-701. Tel: 82-53-950-5355; Fax: 82-53-957-0431;

E-mail: khchang@kyungpook.ac.kr

Ø

FIRST INTERNATIONAL MEETING ON PERIMEDITERRANEAN CARBONATE PLATFORMS

September 5-7, 1994

FRANCE (Marseille)

Contact: Jean-Pierre Masse, Centre de Sédimentologie-Paléontologie, Faculté des Sciences St-Charles, Case 67, 13331 Marseille Cedex 03, France. Tel: (33) 91-10-63-95; Fax: (33) 91-64-99-64.

Ø

EUROPEAN DINANTIAN ENVIRONMENTS 2 RECENT DEVELOPMENTS IN THE LOWER CARBONIFEROUS GEOLOGY OF EUROPE

September 5-9, 1994 (incl. field trips)

Ireland (Dublin)

Contact: Dr. Ian D. Somerville, Dept. of Geology, Univ. College, Benfield,

Dublin 4, Ireland, Tel: 353-1-706-23-25; Fax: 353-1-283-77-33.

 \boldsymbol{a}

1994 INTERNATIONAL CONFERENCE ON ARCTIC MARGINS

September 5-9, 1994

RUSSIA (Magadan)

Contact: International Conference on Arctic Margins, Geophysical Institute, Univ. of Alaska, Fairbanks, Alaska 99775-0800, USA.

U

3RD CONFERENCE ON GAS IN MARINE SEDIMENTS

September 25-28, 1994

THE NETHERLANDS (Texel)

Contact: Dr. Tjeerd C.E. van Weering/Mrs. Joke Hart, Netherlands Inst. for Sea Research, P.O.Box 59, 1790 AB Den Burg, Texel, the Netherlands.

Tel: 31-2220-69395/69367; Fax: 31-2220-19674.

GEOCHEMICAL EVENT MARKERS IN THE PHANEROZOIC

FINAL MEETING OF THE IGCP-PROJECT 293

September 26-28, 1994

GERMANY (Erlangen)

Contact: Michael M. Joachimski, Inst. of Geology and Mineralogy,

Univ. of Erlangen/Nürnberg, Schlossgarten 5, 91054 Erlangen, Germany.

Tel: (49) 9131-852615; Fax: (49) 9131-859295 or

Helmut H.J. Geldsetzer, Geol. Surv. of Canada, 3303-33rd Street N.W.

Calgary, Alberta T2L 2A7, Canada.

Tel: (403) 292-7155; Fax: (403) 292-5377

ø

LITTORAL 94

A MULTI-DISCIPLINARY SYMPOSIUM ON COASTAL ZONE RESEARCH, MANAGEMENT AND PLANNING -EUROPE AND MEDITERRANEAN September 26-29, 1994

PORTUGAL (Lisbon)

Contact: Associação EUROCAST-PORTUGAL, a/c do Instituto de Hidráulica e Recursos Hídricis, Faculdade de Engenharia-Universidade do Porto, Rua dos Bragas, P-4099 Porto codex, Portugal. Tel: 351-2-310870;

Fax:351-2-310870/ 351-2-319280.

Ø

QUATERNARY EVENTS:

CONSEQUENCES ON ENVIRONMENT & HUMAN BEINGS

September 26-Oktober 1, 1994

TUNISIA (Sfax)

Contact: Symposium TAAG Secretariat, Dept. of Geology,

Ecole Nationale d'Ingénieurs de Sfax, P.O.Box W, 3038 Sfax, Tunisia.

Tel: (216)-(4)-274-088/274-418; Fax: (216)-(4)-275-595.

 \mathcal{A}

ANNUAL MEETING OF GERMAN GEOLOGICAL SOCIETY (DDG)

October 4-7, 1994

GERMANY (Heidelberg)

Contact: Prof. Th. Bechstädt or Prof. R.O. Greiling,

Geologisch-Paläontologisches Inst., Ruprecht-Karls-Universität,

Im Neuenheimer Feld 234, D-6900 Heidelberg, Germany.

Tel: (0-62-21) 56-82-91 ; Fax: (0-62-21) 56-55-03; Telex: 461-515 unihd.

4TH INTERNATIONAL CONGRESS ON JURASSIC STRATIGRAPHY AND GEOLOGY

October 15-16, 1994

ARGENTINA (Mendoza and Neuguén)

Contact: Dr. A.C. Riccardi, C.C. 886, 1900 La Plata, Argentina.

Tel: 54-21-39125; Fax: 54-21-530189; Telex: 54-31-15 BULAP AR

RIFT SEDIMENTATION AND TECTONICS IN THE READ SEA - GULF OF ADEN REGION

October 22-November 2, 1994

YEMEN (Sana'a)

Contact: Dr. Dan Bosence, Royal Holloway Univ. of London, EGHAM, Surrey TW20_0EX, UK. Fax: (00) 44 (0) 784 471780 or Dr. Mohamed Al-Aawah, P.O.Box 13200, Sana'a, Rep. of Yemen. Fax: (00) 967-1-214075.

 \mathcal{Q}

INTERNATIONAL GEOLOGICAL CORRELATION PROGRAM IGCP PROJECT 351

EARLY PALAEOZOIC EVOLUTION IN NW GONDWANA

November 29- December 7, 1994

MOROCCO (Rabat)

Contact: Prof. Naima Hamoumi, Dept. de Géologie, Faculté des Sciences de Rabat, B.P. 1226 RP Rabat, Morocco.

Tel: 212-7-7719-57; Fax: 212-7-7742-61; Telex: 36607 M.

Ø

FIRST INTERNATIONAL SYMPOSIUM ON BIOSTRATIGRAPHY OF OIL AND GAS BASINS

December 3-10, 1994

RUSSIA (St. Petersburg)

Contact: Olga A. Sochevanova, VNIGRI, Liteiny 39, St. Petersburg 191 104,

Russia, Tel: (7-812) 275-7145/ 272-3677; Fax: (7-812) 273-7387;

Telex: AT 621626 (64121986).

Ø

SEPM/AAPG ANNUAL MEETING

March 5-8, 1995

U.S.A. (Houston, TX)

Contact: Julie Ball, SEPM's Business Office, Tulsa, OK., USA.

Tel: (918) 743-9765.

 \mathcal{Q}

2 INTERNATIONAL CONFERENCE ON MECHANICS OF JOINTED AND FAULTED ROCKS (MJFR-2)

April 10-14, 1995

AUSTRIA (Vienna)

Contact: Doz. Dr. H.P. Rossmanith, Inst. of Machanics, Technical Univ. Vienna, Wieder Hauptstraße 8-10/325, A-1040 Vienna, Austria.

Ø.

7TH INTERNATIONAL SYMPOSIUM ON THE ORDOVICIAN SYSTEM

June 12-16, 1995

USA (Las Vegas, Nevada)

Contact: Dr. Margaret N. Rees, Dept. of Geosciences, Univ. of Nevada-Las

Vegas, Las Vegas, Nevada 89154-4010, USA.

Tel: (702) 739-3262; Fax: (702) 597-4064

 $\boldsymbol{\varnothing}$

10TH INTERNATIONAL BATHURST MEETING ON CARBONATE SEDIMENTOLOGY

July 3-8, 1995

U.K. (London)

Contact: Dr. Dan Bosence, Royal Holloway Univ. of London, EGHAM, Surrey

TW20 0EX, UK. Fax: (00) 44 (0) 784-471780

Ø

SEPM CONGRESS ON SEDIMENTARY GEOLOGY

Albert Hine, General Chairman, Bob Halley, Technical Program Chairman August 13-16, 1995 U.S.A. (St. Petersburg, FL) Contact: Julie Ball, SEPM's Business Office, Tulsa, OK., USA.

Tel: (918) 743-9765.

B

THE FIRST INTERNATIONAL LIMNOGEOLOGICAL CONGRESS RESEARCH METHODS IN ANCIENT AND MODERN LACUSTRINE BASINS

The congress is sponsored by IAS, GLOPALS, UNESCO-IUGS, IGCP-324 Project

August (last week), 1995

DENMARK(Copenhagen)

Contact: Dr. Nanna Noe-Nygaard, Geological Institute, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen K, Denmark.

Tel: (45) 35-32-24-91; Fax: (45) 35-32-24-99

3 INTERNATIONAL BRACHIOPOD CONGRESS

September 2-5, 1995

CANADA (Sudbury)

Contact: Paul Copper, Laurentian Univ., Sudbury, Canada P3E 2C6.

Tel: (705) 675-1151 (ext 6575); Fax: (705) 673-6532.

Ø

Edited by Finn Surlyk Geological Institute University of Copenhagen Øster Voldgade 10 DK - 1350 København K Denmark

Telephone: +45 35 32 24 53

Fax: +45 35 32 24 99