

INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS

**May
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NEWS LETTER

ASSOCIATION NEWS

NATIONAL CORRESPONDENTS

It was agreed at the Council/Bureau meeting at Bochum on March 1st that the terms of office of National Correspondents would terminate at each International Congress and that normally National Correspondents were eligible for reappointment for one additional period of office only.

SEDIM NICE '75

Owing to some confusion resulting from the second circular, which should by now have been received, a statement of the scientific plans of the Congress is included in this Newsletter (see page 6).

WORLD NEWS

AUSTRALIA (from Victor Gostin)

Very full details of all sedimentological activities in Australia are given in the latest copy of "Sedimentological Newsletter No 4, 1973, Australian Group". Copies can be obtained from the Secretary, Dr P.H. Walker, C.S.I.R.O., Division of Soils, P.O. Box 639, Australia. Cost - Au.\$1.50.

25th International Geological Congress, 1976

A full sedimentological programme will be included in the Congress under the auspices of the I.A.S. and S.E.P.M. and organized by Australian and New Zealand sedimentologists.

The following symposia, which will include field meetings, are planned:

1. Continental arid-climate lithogenesis.
2. Shallow marine and non-marine carbonate sedimentation.
3. Shallow marine clastic sedimentation.
4. Physical and chemical aspects of the formation of mobile belt sediments.

FRANCE (from B. Beaudoin)

Complément au rapport présenté dans "News Letter" Février 1974, no 17.

M^{me} C. DUBOUL-RAZAVET (Perpignan)

Dynamique des sédiments et Crydrodynamique. Géochimie des roches sédimentaires meubles. Modèle de métallogène; étude des placeas. Evolution des matières organiques dans le premier stade de la diagenèse. Bibliographie jointe.

M^{elle} R. FRIDMAN (Paris)

Sédiments marins récents (Littoral du Centre-Ouest de la France). Phénomènes périglaciaires.

B.H. PURSER (Paris)

Sédimentation et diagenèse des carbonates actuels du Golfe Persique.
Sédimentation et diagenèse des calcaires et dolomies du Dogger dans le Bassin de Paris et en Bourgogne.
Synthèse du Jurassique Ouest-européen (en collaboration).
Rapports entre néotectonique et sédimentation.

(Diverses publications ont été faites sur les aspects sédimentologiques des calcaires et dolomies du Dogger: lithification synsédimentaire en milieu marin. The Persian Gulf, Springer-Verlag 1973).

SOUTH AFRICA (from Dave Hobday)

An Association of Southern African Sedimentologists has recently been formed. Activities have commenced with a five day field trip to the Karroo Coal Measures in northern Natal, Pleistocene beach and aeolian deposits near Durban, and Cretaceous, Tertiary and Recent sediments in Zululand. Twenty five geologists, representing nine different institutions, participated and an equal number were unable to attend but indicated support for the Association.

At the end of the field trip a meeting was held, during which it was resolved to approach the Geological Society of South Africa regarding the possibility of affiliation as a specialist subgroup. The requisite signatures were collected, and the request is at present being considered by the Society.

It was also decided that future field trips will concentrate on particular themes, e.g. deltaic sedimentation, or will have the objective of relating Recent and ancient environments. For this reason the next field trip, during the first week or two of February 1975, will be to Inhaca Island, Mozambique, where a particularly interesting variety of intertidal environments are to be observed. The following year the Association plans to organise a trip to the Eastern Transvaal to observe ancient sequences of presumed intertidal deposits.

U.S.A. (from George deVries Klein)

1973 was another active year for research conferences and meetings in sedimentology in the USA. In late January, the University of Kentucky Conference on Sedimentology emphasized newer concepts in clastic sedimentology with papers by Bruce Moore on fluvial sedimentation, G.V. Middleton on turbidites and associated conglomerates, and W.A. Pryor on the role of bioturbation on sediment transport.

A conference on Ancient and Holocene Tidal Deposits was convened in mid-February by R.N. Ginsburg and G. de V. Klein at the Fisher Island Station, University of Miami. Forty-five participants heard 30 separate papers presented by participants from nine countries. The conference proceedings are to be published by Springer-Verlag.

In May, a total of 74 papers on sedimentology were presented at the national meeting of the American Association of Petroleum Geologists and the Society of Economic Paleontologists and Mineralogists (SEPM) covering coastal sediments, dolomites, carbonates and evaporites, environmental geology, turbidites, geochemistry and deep water diagenesis of sediments. The annual SEPM research symposium dealt with Tectonics and Sedimentation and included 14 presentations all based on "land" geology.

A total of ten special research Group Colloquia were sponsored by the SEPM Research Committee. In addition, the first SEPM-sponsored short course was held before the meeting. This course dealt with Turbidites and deep-water sedimentation processes, was organized by

G.V. Middleton and A.H. Bouma, and included M.A. Hampton, L.D. Kulm, E. Mutti, R.G. Walker and C.D. Hollister as additional instructors.

At the annual meeting of the Geological Society of America in Dallas, Texas, in November, 36 papers were presented in four sessions devoted exclusively to sedimentology. A nearly-identical number of additional sedimentological papers were incorporated in sessions in Marine Geology, storm processes, stratigraphy and environmental geology. G.S. Visser organized a special symposium dealing with grain size distributions which features nine invited papers to be published in a forthcoming number of the Journal of Sedimentary Petrology.

As in 1972, sedimentological research programmes in the U.S.A., when considered as a group, are numerous and diverse. The field still continues to show vigor and strength and attract younger students who are well-trained particularly in the cognate areas of mathematics, physics, civil engineering and chemistry. This training in cognate areas will no doubt trigger new developments in the future.

ANNOUNCEMENT

The Society of Economic Paleontologists and Mineralogists has initiated a new campaign to make membership attractive to graduate students, faculty and other professional geologists in all parts of the world. One aspect of this programme is a special offer for 1974 for graduate students and new professionals who may apply for a first year membership at one-half the regular membership price. Applications can be obtained from the Business Manager at the headquarters of the Society:

SEPM
P O Box 4756
Tulsa
Oklahoma 74104

Write for an application form as soon as possible. Also request the pamphlet describing SEPM's activities.

FUTURE MEETINGS

22-24 August 1974

Sydney, Australia

Deep Sea Drilling in the Australian and New Zealand region

Symposium will include results of past D.S.D.P. Legs and a consideration of future drilling (I.P.O.D.). Details from Dr J.J. Veevers, School of Earth Sciences, Macquarie University, Sydney.

21 October 1974

Paris, France

Société géologique française "Sédimentation rythmée"

A session of the French Geological Society will be devoted to the sedimentology of rhythmic deposits. There will be eight invited papers on modern and past carbonates, evaporites and clastics. Anyone wishing to participate should write immediately to Mme Y. Gubler, 18 rue Ferrus, Paris 75014.

8-12 September 1975

Reading, U.K.

European Geological Societies

"Europe from Crust to Core"

The Meeting will provide an opportunity for members of earth science societies to discuss (1) common scientific, economic and organizational problems, and (2) ways of promoting closer co-operation in future. Emphasis will be laid on the treatment of Europe as a whole, in the light of modern global theories and economic problems.

Copies of the First Circular are obtainable from Mrs P.M. Powell, Local Organizing Secretary, Department of Geology, University, Whiteknights, Reading RG6 2AB.

SEDIM NICE 75

6-13 July 1975

All members who have applied will by now have received a copy of the 2nd Circular. Anyone who has not received a copy should write to Prof. J.P. Mangin, Sedim Nice 75, 48 avenue Jean Lorrain, 06300 Nice.

Many members are not entirely clear about the system by which the scientific sessions will be organized, although a brief explanation was given in the 1st Circular.

The sessions are divided into 10 themes (listed below), each theme having a director or two co-directors. Each theme is divided into a number of sub-themes, each of which will have a rapporteur.

Members wishing to present papers must send a title and two-sentence explanation as soon as possible either to the theme director or, if the author is uncertain in which theme his paper will fit, to Prof. J.P. Mangin. An abstract (in French and English) must be sent by 15 November 1974 and the manuscript of the paper (as described below) by 1 December 1974.

All the manuscripts will be read by a 'Theme Committee', consisting of the director, or directors and the rapporteurs. The 'Theme Committee' will decide whether the papers in a sub-theme will be presented by the authors in the conventional manner with the rapporteur simply acting as Chairman, or whether the rapporteur will himself present the sub-theme. If the latter system is used, the rapporteur will devote approximately 1/4 of the allotted time to a resume of all the papers. This will be followed by 1/2 of the time for open discussion in which the authors will have priority. The last 1/4 of the time will be used by the rapporteur to sum up.

Rapporteurs will inform authors by 1st March 1975 what is required for the meeting (e.g. 20 minute presentation of paper; 10 minutes in discussion, etc.) so that the speaker can prepare himself and his slides beforehand.

It is appreciated that the rapporteur system is one that is unfamiliar to most Congress participants, but it is a system that is frequently used in France, with great success. It requires more collaboration between rapporteurs (Chairmen) and speakers than is usual and more flexibility on the part of speakers than is found in the smooth presentation of an S.E.P.M. meeting. If done well it should lead to more dialogue and less monologue.

INSTRUCTIONS TO AUTHORS

- (1) Send title and two-sentence explanation to theme director as soon as possible.
- (2) Send abstract (80 words maximum) in English and French to theme directors to arrive as soon as possible, but no later than 15 November 1974. Abstracts received after this date will not be published in the volume of abstracts available to all Congress participants.
- (3) Send two copies of the paper to directors of themes to arrive by December 1st 1974. These will be published before the Congress.

Papers must be six pages in length only, including drawings and references. They should be typed on white paper 21 x 29.7 cms within a rectangle 17 x 24.5 cms. The title must be in block letters, in the language of the article with author's name (names) and address. An abstract should NOT be included in the paper.

The printing will be done by photographic reproduction to about 3/4 of the original (page size 15 x 21 cm) and the original submission will therefore not be corrected or retouched. The paper should not be folded during mailing.

Overlength papers may be charged extra, on the advice of the Theme Committee.

THEMES

1. "Sedimentological factors in the field of palaeo-climates, palaeo-latitudes, depth of sedimentation and tectonic framework for palaeo-geographical reconstructions in connection with global tectonics".
Director: Dr BUROLLET, c/o C.F.P.-39, 43 Quai André Citroën-75739-Paris-Cedex 15.
2. "Geochemical aspects of continental sedimentation."
Directors: Prof. GOTTIS, Université de Bordeaux, Inst.de géodynamique, avenue des Facultés, 33405, Talence.
Prof. FRIEDMAN, Rensselaer Polytechnic Inst., Troy, N.Y. 12181, U.S.A.
3. "Progress in sedimentological techniques and methods (mainly mathematical and experimental fields)."
Director: Dr BONNEFILLE, Quai Wautier, 78 Chatou.
4. "Tectonics and sedimentation."
Directors: Prof. LEMOINE, Ecole des Mines, 60 bd Saint-Michel, 75006, Paris.
Prof. DOTT, Dept. of Geology, University of Wisconsin, Madison, Wisconsin, U.S.A.
5. "Syntheses of sedimentary basins."
Directors: Prof. GUBLER, 18 rue Ferrus, 75014 Paris.
Prof. MUTTI, Ist. di Geologia Palazzo Carignano, 10123 Torino, Italy.
6. "Sedimentary mechanics. Rates of sedimentary processes."
Directors: Dr WINNOCK, Soc. Nle des Pétroles d'Aquitaine, 64000 Pau.
Prof. MIDDLETON, Dept. of Geol., McMaster University, Hamilton, Ontario, Canada.
7. "Progress in the knowledge of diagenesis (except at great depths)."
Director: Prof. FUCHTBAUER, Geol.Inst., Ruhr Universität, Postfach 2148, 463 Bochum, West Germany.
8. "Great depths: recent sediments."
Directors: Dr MONTADERT, Inst. Français du Pétrole, 92 Av. de Bois Préau 92500 Rueil-Malmaison.
Prof. DANGEARD, Inst.Océanographique, 195 rue Saint-Jacques, 75006-Paris.
9. "Sedimentology and economic geology: sedimentary ore deposits."
Directors: Dr SLANSKY, Service Géologique National B.P. 6009, 45018 Orléans Cedex.
Prof. AMSTUTZ, Mineralogisch-Petrographisches Institut, Postfach 840- D.69 Heidelberg, West Germany.
10. "Open Topics"
Directors: Dr IRR, Université de Nice, Laboratoire Sédimentologie, Campus Valrose, 06034 Nice Cedex.
Dr COTILLON, Université de Caen, Département de Géologie, Espalande de la Paix, 14032 Caen.

THEME 1

SEDIMENTOLOGICAL FACTORS IN THE FIELD OF PALAEO-CLIMATES,
PALEO-LATITUDES, DEPTH OF SEDIMENTATION AND TECTONIC
FRAMEWORK FOR PALEO-GEOGRAPHICAL RECONSTRUCTIONS IN
CONNECTION WITH GLOBAL TECTONICS.

The meetings will cover the studies and the combination and accuracy evaluation of the various sedimentological factors and/or markers leading to identification of paleo-climates, paleo-latitudes, water-depth, mobility or stability of areas of sedimentation, etc. The discussions will be presented in view of paleo-geographical reconstructions in connection with continent motion and mobile belt evolution.

The list of the factors may include for example: isotopic paleo-temperature, percentage of lithologic elements in the series (e.g. carbonates), faunal and floral data (including ecology and morphology), sedimentary structures and figures, red beds, eolian sands, glacial and periglacial phenomena, evaporites, reefs, markers for depth and agitation of waters, clay minerals, trace elements, ore deposits, mechanisms of weathering, etc.

Professor J. Lucas, G. Lucas and P. Rat have agreed to collaborate in scientific animation of the seances. Foreign vice-directors will be nominated after the receipt of abstracts.

We intend to divide the sessions into several sub-themes, including tentatively: temperate and warm shallow waters, low and middle latitude deep waters, cold and glacial climates, geo-chemical and mineralogical factors.

Close collaboration between directors of Themes 1, 4, 5, 6 and 8 will avoid duplications, gaps or overlaps.

THEME 5SYNTHESIS OF SEDIMENTARY BASINS

The object of the theme is to check all the information collected concerning the different processes responsible for the distribution and nature of sedimentary deposits in a certain environment and/or during certain intervals of time.

This information is related to morphotectonic, climatic, mechanical, chemical and biological processes. The interpretation of the past shall be supported by analogy with modern sedimentary basins.

The papers announced so far cover different aspects of the problem collected in subthemes concerning modern and past sedimentary basins.

Modern basins:

- Sedimentary models of estuarine basins;
- Sedimentary models of epicontinental basins;
- Sedimentary models of deltaic and coastal flood plains;
- Sedimentary models of intracontinental lakes.

Past:

- Fluviatile to marine clastic sedimentation during the Trias;
- Sedimentation and paleogeographical evolution of west European basins during the Jurassic;
- Sedimentological synthesis from basins in different climatic zones, during the Neogene.
- Specific characteristics of cratonic sedimentation during the Proterozoic.
- Regional sedimentological synthesis.

THEME 6SEDIMENTARY MECHANICS: RATES OF SEDIMENTARY PROCESSES

Sedimentation is related essentially to mechanical, chemical or biological processes. They take place in basins which belong to the three following domains: the continental or marine shelf, the abyssal plains and the slope between.

Whatever the processes and area of sedimentation involved, numerous agents work to increase or decrease the sedimentation rate. Besides the role of subsidence which is often prevailing, we have to mention: climate, currents, water depth, basinal morphology, proximity and relief of lands, orogenic belts and oceanic ridges.

It would be desirable that all the papers concerning both past and present sedimentation allow to synthesize the knowledge of the rates of sedimentation with a view on:

- the different sedimentary environments
- the processes involved
- the controlling factors

We wish to emphasize the bathyal environment - we mean the oceanic slopes where either erosion or progradation occurs, such as in large deltaic systems. This type of sedimentation is not always easy to recognize in the past; geometrical reasoning, especially based on seismic evidence, would help generating new ideas.

The scheme of the Theme is given in order to cover the greatest number of aspects of the problem. The sub-themes, subject matter of the sessions, will be settled as a function of the received papers, and their leaders elected on receipt of summaries of the contributions. As an indication, these sub-themes could be:

- sedimentary rate in continental environments
- sedimentary rate on the marine continental shelf
- sedimentary rate in the abyssal plains
- sedimentary process and rate on slopes

(each title including both recent and past sedimentation).

Close co-operation between the directors of Themes 1 - 4 - 5 and 8 will help to avoid repetitions and gaps.

INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS

The Association exists to promote the study of sedimentology and the interchange of research, particularly where international co-operation is desirable. Members of the Association (a) receive the journal *SEDIMENTOLOGY*, published 4 times a year, and are entitled to all issues of the year in which they subscribe, (b) receive Newsletters informing them of the past and future sedimentological activities throughout the world, (c) are entitled to reductions of fees at meetings sponsored by the Association. In addition to an International Sedimentological Congress once every 4 years, the Association sponsors smaller meetings designed to encourage the attendance of members from neighbouring countries.

Persons wishing to become members should complete the form below and send it direct to the Treasurer of the Association together with their subscription.

Payments of subscriptions should be made, preferably by International Money Order, to the Treasurer of the I.A.S., Dr. J.W.A. Bodenhausen, Geological Institute, Garenmarkt 1 B, Leiden, The Netherlands. The account number is No. 45.10.60.555 (Postal Transfer No. 9200) at AMRO BANK N.V., Leiden, The Netherlands.

The subscription is D.fl.40.00. For those under 26 years of age the subscription is D.fl.24.00.

Please state name with payment

To: The Treasurer, International Association of Sedimentologists, Geological Institute, Garenmarkt 1 B, Leiden, The Netherlands.

Family name _____ Forenames _____

Mailing address _____

Title (Dr, Miss, etc.) _____ Country of Residence _____

Qualifications _____

Date of Birth _____ (if under 26 on 1st January of year for which membership is desired)

I enclose D.fl. 40.00/24.00 by International Money Order/Bank Transfer/Postal Transfer/Cheque, made payable to the International Association of Sedimentologists, C/o AMRO BANK N.V., Leiden, The Netherlands, A/c no. 45.10.60.555, payment for the year _____ for membership of the International Association of Sedimentologists.