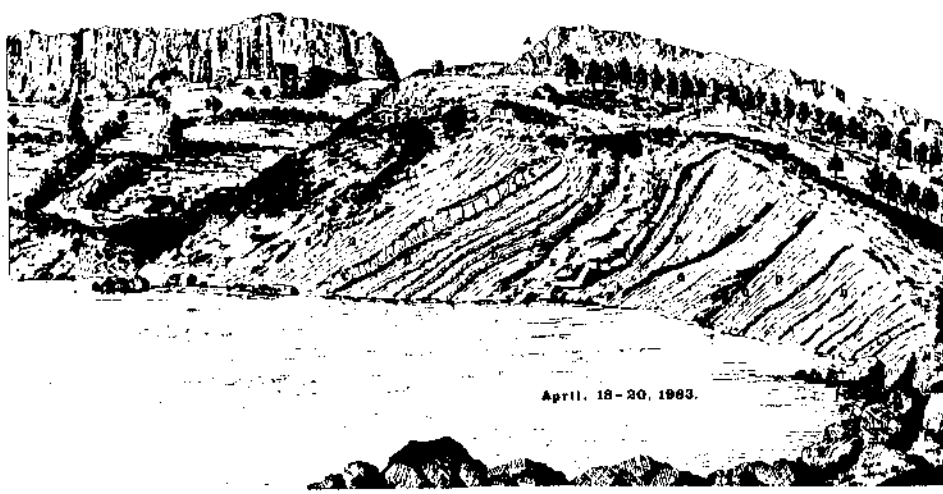
INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS

NEWSLETTER

N°67 APR.1983

IAS 4th EUROPEAN MEETING
SPLIT, YUGOSLAVIA



F R O M T H E P R E S I D E N T

The I.A.S. exists as an association of individual members whose nationality is unimportant, since we record only their country of residence. Any scientist is free to join, provided he or she can pay their dues. Sadly not every sedimentologist is allowed to do so and not all are able to pay the dues.

The Bureau and Council

The I.A.S. is run by a Bureau consisting of the executive officers, living mostly in western Europe. The Bureau meets twice a year to conduct the day-to-day business of the association. There is also a Council which includes three Vice-Presidents and six Council Members, selected to give a wider representation in I.A.S. affairs. Minutes of all Bureau meetings are circulated to Council members; when able to do so they attend Bureau meetings and they have the ultimate decision on major policy matters of the association.

Financially the association is dependent on the dues of members together with a share of the profit that the publishers make on the sale of SEDIMENTOLOGY to non-members. At Dfl. 50.00 (currently U.S. $ 27.00) the cost of membership is not high and those under 26 years of age can join for half that sum. An age limit was chosen rather than the status of research student for a reduction in dues because of the difficulty of defining a bona fide research student in so many different countries, with a range of educational systems. Dues of U.S. $ 13.50 for junior membership must be about the best value for money of any association, especially considering the additional expenses of running an international rather than a national association. The low dues are partly achieved through the excellence and efficiency of our publisher who helps us in so many ways to reduce costs. They are also due to the voluntary work of the officers, especially the Treasurer, and the use of space and facilities in their universities. We have no paid executive secretary or office and hence the costs of running the organization are kept to the minimum. If sometimes members feel that the executive officers are a little slow in answering queries or sorting our problems, please forgive us and remember that we are all working geologists who too spend weeks in the field away from our offices and return to Himalayan-sized piles of mail.

Socialist and Third World Countries

For many years the I.A.S. has been all too aware that sedimentologists in Socialist countries and some Third World countries are not able to join the association because of the financial cost, currency restrictions or limitations on the freedom of individual sedimentologists. Some also have difficulties in attending Congresses, though for such people these meetings are even more important than for those from western countries because usually they are the only occasions when they can meet and talk with foreigners. We have considered or attempted several solutions, including the opening of separate bank accounts in Socialist countries, subsidising travel and registration fees for Congresses, but our success in opening the association to sedimentologists in these countries has been only partial. This is a very sad state of affairs because, while western scientists do not really need I.A.S. in order to collaborate with those from other countries, those from many Socialist and Third World countries do.

We shall therefore continue to do all we can to encourage exchanges by assisting sedimentologists from Socialist and Third World countries to participate in I.A.S. activities, although what we can do is limited by our funds, which come mainly from individuals in western countries, and our relatively simple organization. One way we can help is by the promotion of Regional Meetings in these countries (see later).

Commission on Sedimentology

Another way is by supporting strongly the establishment of a Commission on Sedimentology under the auspices of the International Union of Geological Sciences. The I.U.G.S. (to which we are affiliated) is funded by UNESCO and grants from geological organizations in member countries. It is not a governmental organization but since it operates through national scientific bodies rather than through individuals it can reach sedimentologists in Socialist and Third World countries more easily than we, as a collection of individuals, can do. It is not only responsible for the International Geological Congresses but runs a number of Commissions - on Stratigraphy, Marine Geology, Tectonics, etc... - and the Commission on Sedimentology would be similar. Its function would be the promotion of international research rather than the conduct of research. It would influence

the sedimentological programme of International Geological Congresses and of international multi-disciplinary research programmes such as the International Lithosphere Project. It would convene special international symposia or workshops on sedimentological topics. We hope that perhaps an International Sedimentological Research Programme would be set up which would support specific projects suggested by individual scientists and scientific bodies. In addition we hope that I.U.G.S. or UNESCO would give financial support to subsidise I.A.S. membership fees and attendance at meetings for sedimentologists from Third World countries. To this end an ad hoc Committee on Sedimentology was set up some time ago, at first with our President, Ken Hsü, as Chairman, and how under the Chairmanship of Keith Crook, one of our Vice-Presidents. We expect that this Commission on Sedimentology will get the approval of I.U.G.S. at the International Geological Congress in Moscow in 1984.

The I.A.S. would of course be independent of the I.U.G.S. Commission but we shall work closely with it, with individuals serving both bodies and seeing which international functions each can do best.

SEPM

We also work closely with SEPM, our sister organization in North America, many of us being members of both associations. We freely exchange information; we help to advertise each other's publications; and officers of each association are invited to attend each other's committee meetings when they are able to do so. We constantly try to emulate each other and the friendly rivalry is a spur to both of us.

The Hamilton Congress

The Hamilton Congress was an enormous success. Not only was the organization superb, thanks largely to Gerry Middleton but the scientific proceedings had a breadth and quality which has never been achieved before. It was a joy to see the substantial North American input tempered by contributions from Africa, Asia, Australasia, Europe and, for the first time, from the People's Republic of China. A notable difference from previous congresses, and reflecting how sedimentology is at last becoming a respectable geological discipline was the presence of so many earth scientists, especially geophysicists, who would never have called themselves sedimentologists. Perhaps they need us at last! Sedimentology, which itself has always drawn from other disciplines, is now returning its contribution. The only problem at such a meeting is the richness of the food and

the variety of the menu. To those of us who remember, less than twenty years ago, just one single offering, the difficulty of choosing between twelve concurrent sessions was sometimes more than we could manage.

Honorary Members

The association has a limited number of honorary members who have contributed substantially, over a period of time, to the work and aims of the association. It is my very great personal pleasure to announce that Council has agreed to confer Honorary Membership on two of our most distinguished members, Gerry M. Friedman and Gerry V. Middleton. Both have given service over very many years; Gerry Friedman as Vice-President , President and then Past-President guided the association from 1971-1982; Gerry Middleton served the association from 1967-1982 as Chairman of the now defunct Membership Committee, Council Member, Vice-President and finally Chairman of the Organizing Committee of the Hamilton Congress. Honorary Membership will be conferred on both during the 12th Congress in Australia in 1986.

Sedimentology

Some members have expressed disquiet at the rather specialized nature of papers in SEDIMENTOLOGY and the lack of papers from the lesser known parts of the world. First of all it should be remembered that the editors can only play with the manuscripts they receive; they must look primarily at the scientific quality and presentation of the manuscripts, and can only choose the best. However we do think it important to encourage more regional papers from parts of the world about whose geology we know rather little, provided they have something significant to say about the understanding of sedimentological principles or of the application of sedimentology to geology, especially tectonics, sea-level changes, climate and palaeoecology. When preparing regional papers authors should avoid too much local detail and emphasize why the study of the area is significant. We want to have as wide a coverage of authors and papers as possible.

Special Publications

In 1974 the I.A.S. published its first Special Publication. The purpose was to provide a series of books where sedimentologists could publish material on specific themes stemming from meetings or

symposia, of the quality of SEDIMENTOLOGY and selling at a price which individual members could afford. We now have six such publications and hope to increase the rate of publication to one or more a year. Sales of these publications have been fewer than we had hoped, in spite of the undoubted scientific quality and relatively low cost to members. The first volume (Pelagic Sediments) was sold only by direct sale from the publisher at a price of £ 5.50 for members, not through book shops. We thought, later, that we would improve our sales by selling also through bookshops since the buyer can then see the book on display and publications 3, 4 and 5 were sold this way. By this method we may have sold more copies to "non members". However, in the U.K., bookshops increase the price by 33 % (the mark-up) if they are to sell them and the publisher has to charge the same amount to non-members even if they order direct from the publisher. In other countries this "mark-up" is even greater, at least 50 % or even 100 % in some European countries and has been known to be as much as 200 % on the basic price. I was shocked to see that I.A.S. Special Publication No. 4 was on sale at a bookseller's display at Hamilton for $ 90.00 when it can be bought by members for $ 22.00. For I.A.S. Special Publication No. 6 "Modern and Ancient Fluvial Systems" we have returned to the earlier system. The volume will therefore not be on display, nor advertised, by bookshops. But we can sell it at a price which is less than we could sell No. 5 and at U.S. $ 30 pre-publication price for the 600 pages of I.A.S. Special Publication No. 6 it is about as cheap as the SEPM Special Publications, whose price we are trying to match.

I urge all members therefore to buy our special publications for themselves and also to make sure that their organization has a copy. The more we sell the lower the price we can set. We need to sell in order to generate funds for future publications and so compete effectively with the commercial publishing houses whose books sell at such a price that neither we, nor our organisations, can afford them; and their sales are often so limited that many of the books are unread.

This brings me then to asking members to consider our series as a place for symposia volumes which they are editing or hoping to edit. We can offer a high quality, SEDIMENTOLOGY-style, publication at a price which both institutions and members can afford.

Regional Meetings

The first Regional Meeting of the I.A.S. was held in 1980 at Bochum, Western Germany. Since that time there has been an annual regional meeting in Europe designed primarily to give an opportunity to younger research workers from different countries to meet and read papers. The topics have been broad, with a bias naturally towards the local geology and with excursions an essential part of the meeting. These "European" meetings have been so successful that we have already accepted invitations from France (Marseilles) for 1984 and from Spain (Lerida) for 1985 with further venues offered beyond that year.

We want, however, to encourage regional meetings from other parts of the world, particularly from countries which might find a full international congress difficult to organize. These meetings might have a theme, stemming from the local geology and expertise, to encourage international specialists -- old hands and aspiring students -- from outside the region, or they might be general -- to encourage a larger number of younger scientists from the region to get to know each other. Initially it might be advantageous for a region to have a fixed indentity -- Australasia, South America, the Middle East, Eastern Asia, etc..., in the way that the first regional meetings have been called "European". But we should be flexible and there is no reason why, for example, a North African country should not promote a "European" meeting, although it might prefer to call it "North African" or "Mediterranean". We hope, by encouraging more regional meetings, that countries far distant from North America or Europe, whose sedimentologists, especially younger ones, have difficulty in travelling abroad might be able to associate with sedimentologists from far afield.

Initiative for Regional Meetings must come from the regions, from local sedimentological groups or geological societies, or from regional geological groups if they exist. It is up to individual members to initiate these Regional Meetings through their local organizations.

The Members

The association is run, for periods of four years, by a Bureau and Council which have to make decisions without direct reference to the members.

For the efficient and rapid making of decisions, this has to be so. We are selected, whatever our individual office, to represent a wide range of both sedimentological disciplines and of world experience, compatible with the efficient running of the association and we try to reflect the opinion of as many members as possible. Nevertheless, we are all creatures of our heritage, our education and experience, and our views of the world are limited. We therefore all welcome criticisms and ideas as to how the association can best serve its members. We want suggestions for regional meetings and special publications.

To all members : it is your association.

H. READING

A S S O C I A T I O N N E W S

ENGLAND
(from P.A. Allen)

The British Sedimentological Research Group celebrated its 21st birthday at the University of Liverpool in December 1982 under the convenorship of Pat Brenchley and Andy Gardiner. As a special arrangement to mark the 21st year of BSRG, the meeting was extended to three days of talks and posters with invited addresses from dearly-loved specialists. The meeting was very well supported, with over 320 attendees. In particular, it was very pleasant to see the healthy mixture of academic and industrial geologists, with the resultant "cross-fertilization" of ideas that too often remains a figment of the imagination.

To commemorate the Anniversary of BSRG a book will be published as a special issue of the Geological Society of London entitled "Sedimentology : recent advances and applied aspects". It is hoped that the book will be available in late November 1983

and can then be purchased at this year's BSRG at less than half price. Members of the Geological Society will also be able to buy the book at a considerably reduced price.

It is difficult and probably inadvisable to mention the scientific highlights of the meeting since they would be very personal choices. As always at BSRG there was a very wide range of subject matter from turbulent boundary layers to earth-worm turds. The plenary sessions covered clastic facies models, deep-sea sediments, carbonate facies models, methods, alluvial sediments, fluid dynamics and sedimentary structures, reservoir models, carbonate diagenesis, recent sediments, tectonics and sedimentation, sedimentary mechanisms (?!), exploration models, clastic diagenesis, ancient shallow marine sands. Longer review talks which will form the basis for the "Sedimentology : recent advances and applied aspects" volume covered the entire breadth of sedimentology.

Field excursions visited the Dinantian limestones of the Clwyd region, North Wales, the Permo-Trias of the Eden Valley, Cumbria, the Lower Carboniferous cyclic carbonates of the Llangollen area, North Wales, the Trias of the Wirral area, Merseyside and the Westphalian near Stoke-on-Trent.

During the Annual General Meeting it was decided that St Andrews (convenor Ken Walton) would host BSRG in 1984. Birmingham (convenor Ian Fairchild) will be the venue for 1983.

The responsability for field workshops and special meetings has now passed from Ian Tunbridge to David MacDonald (BP, London). Please contact David if you have any bright ideas.

Sedimentology continues to flourish in Britain but I, for one, would like to see more research students giving talks and presenting posters. BSRG is for encouraging new talent rather than congratulating established workers !

SOUTH AFRICA
(from C.S. Kingsley)

Sedimentology '82 - Report

The symposium called Sedimentology '82 was held on the 13th and 14th of September, 1982, at the Rand Afrikaans University.

In presenting the theme for our third symposium of the Sedimentology Division, the organizers of Sedimentology '82 decided to place the emphasis on the practical application of sedimentology in industry, inviting papers or poster displays from a broad spectrum of disciplines which included exploration, mining, engineering and environmental sciences. The response was overwhelming and some 30 speakers had to be accommodated in parallel sessions during the two-day event which was attended by more than 200 registered delegates.

Of the thirty-five papers read, fourteen were topically on energy minerals, five dealt with various aspects of gold mineralisation and the other sixteen covered a wide range of subjects. Coal sedimentology dominated the presentations and it seemed appropriate, therefore, that the two keynote speakers should both be prominent personalities in coal exploration and mining sedimentology. Dr. John Horne from Colorado, U.S.A., discussed the uses of facies modelling to predict the location, geometry, continuity and quality characteristics of coal on a mine scale. By applying depositional modelling to mine planning, Dr. Horne illustrated how potential problems in roof stability and water seepage can be identified in advance of underground development and mining. Dr. Dave Hobday, a South African from the University of Sydney, Australia, is well known to most of us, particularly for his sedimentological work in the Ecca coalfields of Natal. Dave's keynote address dealt with sedimentological factors controlling hydrocarbon distribution in a Recent petroleum province in Texas, where facies analyses in non-marine sequences are becoming increasingly important for delineating the different reservoir potentials of distinct but spacially-related fluvio-deltaic depositional systems. In his address to the coal session, Dr. Hobday described the genesis of coal deposits in wet alluvial-fan systems in the Permian Sydney Basin of Australia. Dave drew attention to the importance of recognising the facies characteristics of humid fans as distinct from those of arid fans, as a means for

locating favourable exploration target areas in the fan periphery and interlobe subenvironments of prograding and inactive gravelly alluvial systems.

The keynote addresses were very well received and it was gratifying to note the interest shown by many of the delegates not normally involved with sedimentological activities. The quality of all the presentations and the prompt manner in which the proceedings were conducted by the various session chairmen, must be commended. One must attribute much of the success of Sedimentology '82 to the diversity of subjects presented and, although it is perhaps unfair to single out certain of the presentations as being particularly noteworthy, it was certainly very interesting for most of us present to learn something about the sedimentation and recovery of coastal diamonds, the sedimentology of Archaean stratiform gold mineralisation, the sedimentary origin of strand-line and storm-induced heavy-mineral deposits, the application of tectonostratigraphy in mineral exploration and the statistical analysis of sedimentary parameters to predict the distribution of gold in Witwatersrand placers.

Nick Beukes was the prime motivator behind Sedimentology '82 and most of the administration and organisation was done almost single-handedly by him. For all this we owe him and his university, a very big thanks. Judging from the participation at, and response to Sedimentology '82, it can be confidently assumed that similar events will be held on a more regular basis by the Sedimentology Division.

Another small news item is that Dr. R.C. Selley is visiting South Africa in May this year as a guest of SOEKOR. He has agreed to deliver a lecture at the University of the Witwatersrand on May 5, 1983. The topic of his talk will be on the contrasting characteristics between braided alluvial fan facies and proximal deep-sea fan facies.

U.S.S.R.
(from V.N. Kholodov)

The research works carried out in the Soviet Union and aimed at studying sediments, sedimentary rocks and ores are headed and coordinated by the Interdepartamental Lithological Committee (ILC) placed under the Presidium of the USSR Academy of Sciences; President of ILG is Professor P.P. Timofeev, his first Vice-President and Chief Editor of the Journal "Lithology and Mineral Resources" is Professor V.N. Kholodov.

During the past 1982 year the ILG, together with other bodies of the USSR Academy of Sciences and Ministries organized 11 All-Union seminars and conferences; their list was published in the Journal "Lithology and Mineral Resources" No. 4, 1982.

Among them special attention is given to the 5-th All-Union School of Marine Geology (April 17-25, 1982, the town of Gelendjik) and II All-Union Conference of Oceanologists (December, 1982, the town of Yalta). During these meetings the lithologists and oceanologists of the USSR discussed the most important results of the lithological, mineralogical, geochemical, tectonic and geologo-geophysical study of sea and oceanic sediments.

The problems of volcanics sedimentation under shallow-water conditions of shelves, geochemical processes proceeding at the boundary "river-sea", biochemical phenomena in the seas and oceans, conditions of accumulation of abyssal-pelagic sediments, structure of the sedimentary cover of the seas and oceans, the formation of Fe- and Mn nodules and volcanogenic- sedimentary sulphides ores of the Mid-Oceanic ridges, secondary transformations of the basaltic bed of the oceans, the evolution of oceanic sediment accumulation and tectonics of the lithospheric plates were discussed at this conference.

A wide range of questions dealing with theoretical lithology was elucidated at the All-Union School of young Lithologists held in September 26 - October 4, 1982 in the town of Rostoc-on-Don (Rostov State University). Leading lithologists of the USSR delivered a series of lectures for young specialists : "Urgent problems of the present-day lithology", type of source provinces on the continents, their evolution and influence on the composition of sediments and sedimentary rocks, "Problems of katagenetic ore-formation", "Problems of sedimentation cyclicity", "Minerals -

indicators of geological processes", "Methodological principles of the facial analysis", "Sedimentological peculiarities of phosphate formation", "Accumulation and evolution of halogene formations". During the work of the School a geological field excursion to the region of Novorosiisk (the North Caucasus) was organized.

At the 3-rd All-Union Meeting held on May 25-27, 1982 held in the town of Karadzhal (Kazakhstan) and devoted to manganese ores the results of geological and mineralo-geochemical investigations of manganese deposits of Kazakhstan, the Urals, Siberia and the Far East were discussed. Various points of view on the origin of manganese accumulations were discussed too. Attempts were made to work out a universal theory of manganese ore genesis.

More than 1000 lithologists, geochemists, mineralogists and specialists on ore deposits took part in the work of the above-mentioned meetings, seminars, symposia and schools.

F U T U R E M E E T I N G S

August 29 - September 3, 1983 JAPAN (Tokyo)

International Geological Correlation Programme

SEA-LEVEL CORRELATIONS AND APPLICATIONS (Project No. 200).

Place : Komazawa University, Tokyo, Japan

Conference to be held during the "International Symposium on Coastal Evolution in the Holocene".

Contact : Prof. Y. Ota
Department of Geography
Yokohama National University
Tokiwadai, Hodogaya-ku
Yokohama
240-Japan

October 22-24, 1983 IRAQ (Baghdad)

SECOND GEOLOGICAL CONGRESS ON THE MIDDLE EAST

organized by the Arab Geologist Association (AGA).

Contact : Dr. Wissam S. AL-HASHIMI
Secretary General
Second Geological Congress on Middle East,
Arab Geologist Assoc.
P.O. Box 1247 Central Post Office
Baghdad
Iraq

April 11-13, 1984 ENGLAND (Manchester)

EUROPEAN DINANTIAN ENVIRONMENTS

The aim of this Symposium is to bring workers in sedimentology, palaeontology, palaeoecology, stratigraphy and tectonics to produce a "state of the art" survey of environments in the Dinantian of Europe. A collection of contributions will be published as a Special Issue of the Geological Journal.

Themes :

TECTONIC FRAMEWORK OF DINANTIAN BASINS - the European plate tectonic context; major structural and sedimentary basins; detailed structural models for specific areas, with emphasis on new work.

MESOTHEMS, CYCLES AND EUSTACY - review of the present status of cycle theory; criteria for detecting cyclicity; orders of cyclicity; stratigraphic, structural and palaeoceanographic controls; case histories of different types of cycles.

SEDIMENTARY ENVIRONMENTS - case histories for environments including continental clastic, calcretes and other soils, fluvial, freshwater, oil shales, coals, peritidal and lagoonal; ramps, reefs and basins; reef and buildup types - palaeoecology, bathymmetry and economic implications; platform development; deeper-water carbonate and clastic facies.

DIAGENESIS, ORE DEPOSITS AND HYDROCARBONS - diagenesis related to environmental analysis, emphasising new techniques, e.g. cathodoluminescence; hydrocarbon source facies and porosity development, diagenesis, syn- and epigenetic mineralization; structural and facies constraints on mineralization; environmental interpretation as a prospecting aid.

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