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I Editorial

Arrangements are now well advanced for the organisation of next year's joint meeting with the A.A.S.P. in Dublin. We include the second circular with this Newsletter. The organisers would be particularly grateful if you would return it promptly if you are thinking of coming. It is particularly important that we know as soon as possible the number of scientific papers which must be accommodated in the programme.

This is the time of the year when the Secretary and Treasurers look anxiously at the Commission's financial status. This year the response to payment of your contribution towards our running costs has been reasonably good. Several people still however have to pay and we would be grateful if this mention could act as a reminder to them. If people do pay promptly we can avoid having to have a high subscription to maintain our cash flow. How much longer we will be able to maintain our activities at the current levels on the current annual payment remains doubtful. The present rate was fixed in 1972 since which time our costs on paper and postage have risen by 200-300 per cent. How many other societies/organisations you belong to have not raised their subscription since 1972. Inevitably we will have to increase the rate (may be in 1982 or 1983) but in the meantime if you pay promptly we can delay the increase as long as possible.

Finally I would again like to remind you that this Newsletter is also for your use. If you have any item of interest or news to announce or meetings to report, all you have to do is send the text to the Secretary.

Thank you.

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## II FUTURE MEETINGS

- a) PROJECT ECOSTRATIGRAPHY - Plenary Meeting, Visby, Gotland, 22 - 28 August 1981

At the present time more than 80 specialists from 16 countries have indicated their participation in our symposium on Gotland and a fairly large number of papers will be presented. A list of participants is attached. A revised and more up to date list will be attached to the 3rd Circular.

SCIENTIFIC PROGRAM - The scientific program of the Gotland Meeting will start in the morning, Saturday 22 August. This and the following two days will be devoted to presentation of papers and discussions. The indoor activities will conclude with a panel discussion in the afternoon, Monday 24 August. If the final number of participants doesn't exceed about 80 these activities will take place at the Allekvia Research Station in the countryside of Gotland, 9 km east of Visby. With more participants the indoor activities will have to take place in Visby.

The field excursion will start in Visby, Tuesday 25 August, at 9 am and will last for four full days. The field excursion will be an integrated part of our program and ecostratigraphical problems will be shown and discussed in the field. The excursion will also be an introduction to the classical Silurian of Gotland and thus forms a basis for private collecting trips after the Plenary Meeting.

PAPERS - A fairly large number of papers have been announced already but more papers are invited. The following topics will be the main themes:

- (1) Crossing the boundaries of the facies realms
- (2) Basin analysis of the Silurian "Baltic Gulf" (the Lithofacies subproject, final reports)
- (3) Downtonian-Podlasian-Pridolian Correlation

The papers will not be published by Project Ecostratigraphy but the abstracts will be distributed to the participants of the Plenary Meeting. An abstract form which must be returned before 15 July, 1981, will be attached to the third circular for those whose papers have been accepted for presentation at the Plenary Meeting.

The Silurian Subcommittee will arrange a meeting at Allekvia in the time interval 22 - 28 August, 1981.

PANEL DISCUSSION - Ecostratigraphy in theory and practice, the fourth main topic of the Plenary Meeting, will be discussed by a panel as a follow-up of the unfinished discussion in Khabarovsk, 1979. Members of the panel will include Arthur J. Boucot (U.S.A.), Anders Martinsson (Sweden) and Antoni Hoffman (Poland). The panel discussion will be followed by an open discussion. Preferably, the panel should consist of five persons and if you would be interested to be among those five, please indicate your interest to Sven Laufeld who is responsible for the organization of the Meeting.

FIELD EXCURSION - The field excursion forms an integrated part of the Plenary Meeting. Four days will be spent in the classical Silurian sections on Gotland. Departure from Visby at 9 am and return at 6 pm on 25th, 26th, 27th, and 28th August. The field excursion will provide a useful introduction to the Silurian of Gotland for those who wish to make private study and collecting trips on the island after the Meeting. During the field excursion the participants will become familiarized with the ecostratigraphic problems in the Silurian of Gotland. With such a large number of specialists at the sections stimulating discussions are to be expected in the field. Please register your participation in the trip by returning the attached dark blue form before 1st April, 1981. The fee is 400 skr which covers transportation, four brown bag lunches and a small guide-book. Those who register participation in the field excursion will get information on when and how to pay the excursion fee.

REGISTRATION - Registration should have been completed by 1st April 1981. If you still wish to try to register, write immediately to Sven Laufeld, Geological Survey of Sweden, Box 670, S-751 28 Uppsala, Sweden. Only those who register will be informed on how and when the registration fee should be paid.

The registration fee is 200 skr which includes circulars, abstracts, transportation to and from and refreshments at Allekvia, museum entrance fees, and a guided tour of Visby. Registration fee for accompanying person who does not attend the indoor activities at Allekvia: 50 skr.

COSTS ON GOTLAND - 100 Swedish crowns (skr) = £9.25 = US\$ 22.20

	skr
Registration fee	200
Accompanying	50
Field excursion	400
Per diem 8 x 100	800
Accommodation in Visby, 8 x 40-50	320-400
Accommodation in Gustafsvik, 8 x 36-72	288-576

TRANSPORTATION TO AND FROM GOTLAND - Each participant will have to arrange his/her transportation to Visby. There are ferry connections from Visby to Nynashamn and Oskarshamn on mainland Sweden twice a day. The ferry takes  $5 \frac{1}{2}$  hours. The fee is  $2 \times 58 = 116$  skr/person. Cabins are extra  $2 \times 34-54$ /bed but not necessary. A car is  $2 \times 74 = 148$  skr. The prices are expected to increase ca. 15% before the Plenary Meeting.

There is a bus connection ( $2 \times 20 - 40$  skr) between the Stockholm Central Railway station and the ferry terminal in Nynashamn.

There are several daily flight connections between Stockholm and Visby.

The 3rd Circular will contain information valid through August, 1981 (definitive time tables, etc.).

SHIPPING OF SAMPLES FROM GOTLAND - Wooden crates (28 x 53 x 22 cm) will be sold at 15 skr apiece at Allekvia and if you wrap and pack your samples in those standard crates and label or mark the crates we will arrange shipping them COD. Further details will be provided later.

If you plan to attend this meeting and have not yet registered write immediately to Sven Laufeld, Geological Survey of Sweden, Box 670, S-751 28 Uppsala, Sweden.

NEXT CIRCULAR - Circular No. 3 will be air-mailed from Sweden not later than 15th June, 1981. It will be sent only to those who have indicated their intention to attend.

#### b) SUBCOMMISSION ON CARBONIFEROUS STRATIGRAPHY

A symposium on "A Mid-Carboniferous Boundary" will be held at the S.C.C.S. Field and General Meeting in Leeds, August 25 - September 1, 1981. The objective of the symposium will be to survey various Mid-Carboniferous boundary possibilities as indicated by up-to-date information on biostratigraphically useful invertebrate groups, through a series of presentations by several specialists for each (including conodonts, palynomorphs, forams, brachiopods, ammonoids, plant megafossils and possibly several smaller groups). Following these presentations, an attempt will be made to synthesize and to evaluate the various boundary alternatives, and discuss whether a natural mutual boundary exists.

Further information concerning this meeting can be obtained from Mr J Pattison, Institute of Geological Sciences, Ring Road Halton, Leeds LS15 8TQ, England. (see also details in C.I.M.P. Newsletter 25).

#### Summary of Programme

- (i) August 25 - 29 : Field meeting to visit boundary stratotype sections of Carboniferous stages in Northern England
- (ii) August 30 - 31 : Indoor meeting on "A Mid Carboniferous Boundary" (see outline programme below)
- (iii) September 1 - 3 : Field meeting continuation in South Wales and Ireland.

"A Mid-Carboniferous Boundary" - outline of presentations  
co-Conveners, W.H.C. Ramsbottom and W.B. Saunders

1. CONODONTS: H.R. Lane\* ; A.C.Higgins; T.I. Nemirovskaya.
2. PALYNOMORPHS: B. Ownes\*; R M Kossanke.
3. FORAMINIFERA: P Brenckle & B L Mamet.
4. BRACHIPODS: C F Winkler-Prins\*; M Gordon, Jr.; P K Sutherland  
M Legrand-Blain.
5. AMMONOIDS: W L Manger\*; W H C Ramsbottom; M F Bogoslovskaya.
6. PLANT MEGA FOSSILS: R H Wagner\*; V Havlena; H Pfeiffercorn.
7. CORALS: P K Sutherland".
8. OPEN DISCUSSION.

\*Principal Speaker

c) INTERNATIONAL COMMISSION ON STRATIGRAPHY  
DEVONIAN - CARBONIFEROUS BOUNDARY WORKING GROUP

The opportunity will be taken at the next SCCS meeting in Northern England to hold an open business meeting of our Working Group on the evening of August 31st, 1981 at Leeds (Parkway Hotel).

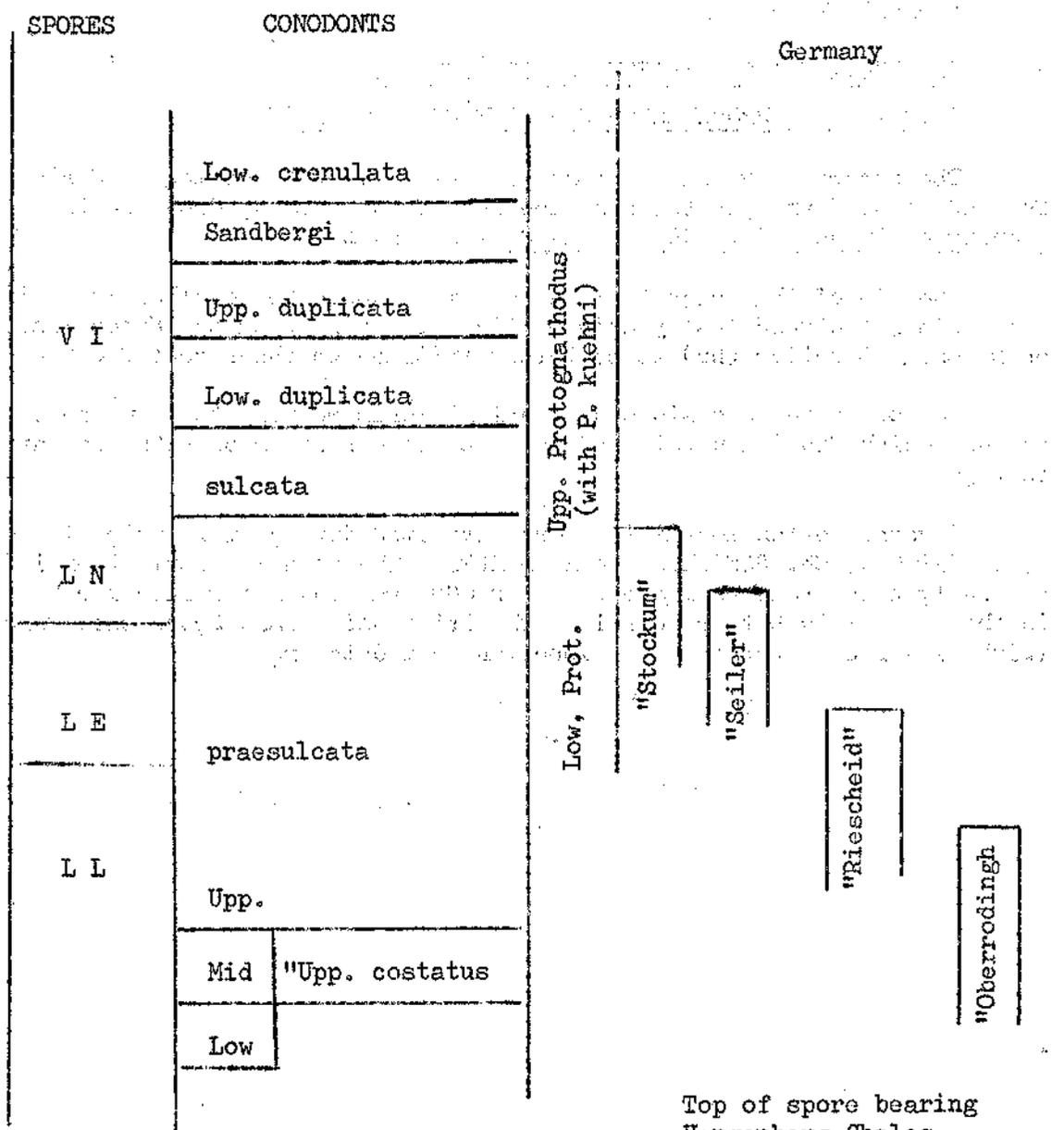
The aim of that open business meeting should be to allow specialists which did not attend last year's meeting at Paris (with the Subcommittee on Devonian Stratigraphy) to be better informed on the recent W.G.resolutions.

Following the decisions of the last Paris meeting to focus researches on the Renish State Mountain and some specific regions of USSR, we have to report:

- 1) Several German localities were revisited during field trips in 1980 by E. PAPROTH, Ch. SANDBERG and M. STREEL. The fossil distribution is currently being reinvestigated. K. HIGGS (Dublin) has worked further in the attempt to better correlate the Irish and German Spore succession (with STREEL collaboration). Important new data are:

Samples 138 and 101 immediately preceding the first entry of Protognathodus Kuehni in the trench I of Stockum (see ALBERTI et al 1974) have proved to carry respectively the LN and VI Spore zone. Consequently, the Conodont-Spore correlation has to be improved as shown on the enclosed chart, only depending now on a more precise correlation between the P. Kuehni biofacies and Siphonodella Zonation. The reopening (made possibly permanent) of this Stockum trench is considered.

2) A two-weeks visit (October 80) of K. SIMAKOV in Belgium has settled the organisation of a restudy of the Russian sections displaying a joint occurrence of Quasiendothyra and Siphonodella. Thanks to a Soviet-Belgian academy agreement, R. CONIL (Forams, Conodonts, Algae) and E. POTY (Corals) are intending to collect samples with Russian colleagues in USSR North-East, next summer.



Top of spore bearing Hangenberg Shales in 4 different localities.

a) ANNUAL MEETING OF AMERICAN ASSOCIATION OF STRATIGRAPHIC PALYNOLOGISTS

Dates : 7-10 OCTOBER 1981

Events : WEDNESDAY, 7 OCTOBER - Symposium on Morphologic Lineages of Palynomorphs through time.

THURSDAY & FRIDAY, 8-9 OCTOBER - General Sessions. Papers will be arranged according to their affinities with the following categories: Biostratigraphy, Morphology, Palaeoecology/Biogeography, and Organic Geochemistry.

THURSDAY, 8 OCTOBER - Annual icebreaker

FRIDAY, 9 OCTOBER - Business meeting and luncheon

SATURDAY, 10 OCTOBER - Field trips to: Swamps and marshes; Mississippi River Delta. More information on these trips will be available in the July issue of AASP Newsletter.

Place: Monteleone Hotel, 214 Rue Royale, New Orleans.

Rates: Single \$65.00. Double \$75.00.

Registration : Preregistration (by 30 September) \$30.00 (students \$20.00); after 30 September or on-site \$35.00 (Students \$22.00)

Special Event: Riverboat Cruise with shrimp and beer (cost \$11.75 until 30 September, \$15.00 thereafter).

Additional Information : From Don Benson, Amoco, P.O. Box 50879, New Orleans, LA 70150.

e) 10th INTERNATIONAL CONGRESS OF CARBONIFEROUS STRATIGRAPHY AND GEOLOGY, MADRID, SPAIN, SEPTEMBER 1983

For details write to X - ICC 1983, Instituto Geologico y Minero de Espana, C/Rio Rosas 23 - Madrid

f) MEETING OF ASSOCIATION DE PALYNOLOGIQUES DE LANGUE FRANCAIS

(A.P.L.F.) 30th September - 3rd October 1981, Geneva, Switzerland.

Further details may be obtained from Dr C Reynaud, Section des Sciences de la Terre, Universite de Geneva, 13 rue des Maraichers, 1211 Geneva, Switzerland. The reunion will consist of formal sessions for the presentation of papers followed by a choice of excursions concentrating on the deglaciation features of the Geneva Basin and the western part of the Lemanique Basin, or the Thanetian - Upper Eocene of the Gurmigel Nappe.

g) WORKSHOP ON THE ENGLISH ZECHSTEIN, DURHAM AND NOTTINGHAM, 25 MARCH - 2 APRIL 1982

A preconference excursion will be based at Durham (25-28 March) and Nottingham (29-30 March) examining Zechstein strata in north-east England. The number of participants on the excursion will be limited and preference will be given to those from overseas.

Sessions will be held at Nottingham (31 March - 2 APRIL); ~~papers~~ and exhibits on all aspects of Zechstein geology (palaeontology, sedimentology, palaeoenvironments, basin analysis, economic geology, etc) are invited. Papers should preferably be in English.

Further information from G.M. Harwood, Department of Earth Sciences, The University, Leeds LS2 9JT, U.K.

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### III REPORTS OF RECENT MEETINGS

#### a) INTERNATIONAL SYMPOSIUM ON THE PLANT CUTICLE, LONDON, SEPTEMBER 1980

This conference held under the auspices of the Linnean Society of London at Burlington House was attended by some 70 scientists representing 12 countries. It succeeded in bringing together research workers interested in widely differing aspects of cuticle studies. The first day was devoted mainly to the structure and chemistry of the cuticle, surface waxes and other components. The second day combined topics concerning the passage of materials through the cuticle and ranged from the structure and function of the specialised cuticles of the stigma and secretory cells to penetration of herbicides and pesticides in crop plants. The third day covered taxonomic aspects of cuticle structure and micromorphology, including reviews of the cuticle in early fossil vascular and non-vascular plants. The meetings were extended to an informal half day at Kew for further discussions of the taxonomic applications of cuticle organisation. The proceedings of the conference are to be published by the Linnean Society.

K.L. Alvin, London. (from I.O.P. Newsletter)

#### b) FOURTH ARGENTINIAN SYMPOSIUM ON PALAEOBOTANY & PALYNOLOGY 1980

This meeting was held in Cordoba city under the auspices of the National Academy of Sciences, the National Research Council, the Argentinian Palaeontological Association and the Latinamerican Association of Palaeobotany and Palynology. Seventeen papers were presented on a wide range of palaeobotanical topics. Additionally, Dr O. Rosler gave an address on "Current palaeobotanical and palynological investigations in Brasil" and finally a meeting of the working group on "Palaeophylogia Kurtziana" was held. After these lectures there was a two day field excursion to some Carboniferous and Permian localities.

S. Archangelsky, Buenos Aires (from I.O.P. Newsletter)

#### c) 25th ANNIVERSARY OF THE ARGENTINIAN PALAEOONTOLOGICAL ASSOCIATION

On November 21st 1980 the 25th Anniversary of the APA was celebrated. During the morning a round table discussion on palaeontological development and needs in the country took place. During the afternoon there were lectures by four specialists: Dr J C Gamarro gave a survey on palynology; S. Archangelsky talked on 100 years of palaeobotany in Argentina. Members of the first Commission were honoured with diplomas, two of them palaeobotanists: Pedro Stipanovic and Carlos Menendez (posthumously). The APA publishes the quaterly journal Ameghiniana, the only regular palaeontological publication in Latin America during the last decades. Palaeobotanical and palynological papers form an important part of the journal and some numbers have been devoted exclusively to these fields.

S. Archangelsky, Buenos Aires (from I.O.P. Newsletter)

d) Brief Account of some of the papers presented at Conference on Geology of Coals, Oil Shales and Kerogens held at University of Pau, France, April 1981.

Organised by Association des Geologues du Sud-Oest (A.G.S.O.) and International Commission of Coal Petrology (I.C.C.P.).

The diversity of oil-source rocks: their geological context and economic implications as illustrated by four examples - J. Claret, S. Jardine and P. Robert (Societe National Elf Aquitaine-Production; SNEA-P).

Four examples of oil-source rocks were taken from four hydrocarbon-producing basins of differing sedimentary type and age in order to examine the types of organic material that they contain and, if possible, relate this to their oil-generating potential.

The four sections sampled consisted of:

- A - Lower Cretaceous Black Shales from the Congo basin; lacustrine deposits in which the organic matter is almost wholly algal in origin; lakes formed in grabens.
- B - Kimmeridge Clay from the Viking Graben; marine clay in which the organic matter is largely algal in origin but includes small amounts of continental-derived material.
- C - Kimmeridgian Limestone from Aquitaine; marine shelf deposit in which the organic material is almost wholly derived from algae.
- D - Tertiary Sands and Shales from the Niger delta; deltaic environment in which the organic matter is almost wholly land-derived.

The nature of the organic material for each of these four environments was examined, as was the nature of the naturally occurring oils that they have given rise to. Kerogen type, thermal history, hydrogen-carbon and oxygen-carbon ratios and palynology were all examined from the source rocks. Sulphur content, ratio of saturated to aromatic hydrocarbons, pour point and other physical parameters were examined for the oils. A brief summary of the source rock-oil associations for each of the four examples is given in the table below.

Sample	Palaeogeographical Setting	Kerogen		Hydrocarbons		Sulphur
		Type	Amount	Amount	Paraffins	
A	Graben	Sapropelic I	+++	+++	+++	+++
B	Graben	Sapropelic II	++	++	+	++
C	Shelf	Sapropelic II	+	+	+	+
D	Basin	Sapropelic III	+++	+	+++	++

## Classification of oil shales based on organic matter type -

A.C. Cooke, A.C. Hutton and N.R. Sherwood (Woolongong University).

After a brief review of oil shale types, the main worked occurrences and the relationship of oil shales to coals, it was suggested that three basic types of oil shale could be recognized. Firstly, oil shales with very high organic content and containing a mixture of algal and higher plant material, such as torbanites, sapropelites and canneloid coals. Secondly, oil shales with well developed lamination, mostly laid down in lakes, and composed almost entirely of algal material, are called here by the new term 'lamosites'. In thin section, lamosites can be seen to consist largely of minute felted masses of algal kerogen. Thirdly, a mixed type of oil shale can be recognized in which lamination is only moderately well developed and the organic content has a mixed algal and higher plant origin. The widespread marine oil shales of the British Lias and Kimmeridge Clay fall within this mixed type.

Generalizations were made to show the relationship of these three types of oil shale to the potential resources they might contain. For the most part, these generalizations are statements of the obvious in that the marine mixed-type oil shales are known to be very widespread but to have relatively low potential yields, in contrast to the torbanites which occur as relatively small lenticular masses with extremely high potential yields. The general conclusion that the use of such a classification could enable more accurate comment to be made about the potential size of resources, appears to be ill-founded in that a knowledge of the fauna and the sedimentary sequence in which any particular oil shale occurs is likely to give a better guide to its areal distribution than is a study of the microfabric of individual samples.

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## Project Orgon : The Distribution of Organic Matter in Oceanic Sediments - R. Pelet (IFP).

Organic rich sediments were sampled in a number of oceanic environments that were thought to be representative of past environments that have given rise to oil-source rocks. Samples were collected from the Norwegian North-Sea, the Cariaco trench, the deeper parts of the Amazon delta, the Atlantic Ocean in the vicinity of Mauritania and Senegal, the gulf of Aden and the Sea of Oman. The petrology and organic geochemistry of the organic parts of the sediments from each of these localities was studied and a number of general conclusions were reached. Firstly, it was found that the hydrogen/carbon and oxygen/carbon ratios for the kerogens in the samples did not entirely conform to the simple pattern of types I, II and III kerogens as generally depicted on the Van Krevelen diagram. In the Black Sea, for example, it was found that the organic material derived from dinoflagellates falls within the correct position on the Van Krevelen diagram, but that for diatoms and coccoliths does not. Similarly for the higher plants, only selected groups of plants (largely depending on climate) fall within their correct place on the diagram. The degree of degradation (mostly oxidation) of the plant material during transport also affects its position on the diagram.

The general conclusion was reached that marine clays have the best theoretical oil yields because they are generally richer in organic material and this material has a high hydrogen/carbon ratio. In practice, however, terrestrial and near shore deposits, which are usually more arenaceous sediment piles, also have appreciable quantities of organic material but have the additional advantage that they commonly contain highly potential reservoir rocks.

A new method for the determination of the degree of maturity of organic matter in sedimentary rocks using spectral fluorometric analysis -  
H.W. Hagemann and A. Hollerbach (Aachen Technical University).

The aim of the study was to provide a rapid, standard method of determining the rank of organic materials without the need for preparing macerals or thin sections, and avoiding qualitative approaches which vary from observer to observer. The technique proposed consists of soluble extraction, using a 3:1 toluene/methanol solute for 12 hours, and then measuring the intensity and spectral distribution of the fluorescence caused by the extracted mixture under standard conditions. Experiments had shown that standard progression of fluorescence responses occur in relation to increasing organic rank, and that the degree of rank could therefore be accurately quantified. Studies in progress are designed to identify which particular organic compound or groups of compounds give rise to which types of fluorescence, so that, in the future, change of rank can be related to change in chemical composition.

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IV RECENT PUBLICATION NEWS

a) PUBLICATIONS OF SOCIETE GEOLOGIQUE ET MINERALOGIQUE DE BRETAGNE

La Societe geologique et mineralogique de Bretagne (S.G.M.B.), dans la serie de ses memoires, a recemment publie des ouvrages totalement ou partiellement consacres a la Palynologie :

- Mem. n°23 : "Les Schistes et Calcaires de l'Armorique (Devonien inferieur, Massif armoricain). Paleontologie-Stratigraphie-Sedimentologie". 1980, 317 p., 42 Pl. (Y. PLUSQUELLEC coordinateur) - Prix : 200 F.
- Mem. n°24 : "La tranchee de la Lezais, Emsien superieur du Massif armoricain. Sedimentologie-Paleontologie-Stratigraphie". 1981, 313 p., 39 Pl. (P.MORZADEC, Fl.PARIS, P. RACHEBOEUF coordinateurs) - Prix 200 F.
- Mem. n°25 : "Etude palynologique (Spores et Pollens) de gisements paleogenes du Massif Armoricain. Stratigraphie et Paleogeographie". (Auteur : M.F. OLLIVER-PIERRE), 239 p., 33 Pl. 1980 - Prix 180 F.
- Mem. n°26 : "Les Chitinozoaires dans le Paleozoique du Sud-Ouest de l'Europe. (Cadre geologique-Etude systematique-Biostratigraphie). (Auteur : Fl. PAIRS), 412 p., 41 Pl., 135 fig., 46 tabl. Parution : Mai 1981 - Prix de souscription, jusqu'au 15 juin 1981 : 180 F (230 F apres cette date). (see abstract below).

Dans la serie de ses Bulletins, la Societe Geologique et mineralogique de Bretagne a d'autre part publie des volumes entierement consacres a la Palynologie :

- Bull. 10, fasc. 2 (1978) : "Les Acritarches de l'Orvidocien superieur du Synclinal de Bucaco (Portugal). Systematique-Biostratigraphie-Interet paleogeographique. (Auteur : Z. ELOUAD-DEBBAJ). - Prix 90 F

Tous ces ouvrages peuvent etre obtenus en adressant votre commande a  
Societe Geologique et Mineralogique de Bretagne  
Universite de Rennes  
Institut de Geologie  
35042 RENNES-CEDEX, France.

## Les chitinozoaires dans le Palaeozoique du Sud-Ouest de l'Europe

This work deals with Chitinozoa of south western Europe (mainly France, Spain and Portugal), yielded by palaeozoic formations from lower Arenig to upper Emsian.

The first part adds a geological frame-work to the study of the Chitinozoa and gives the main lithological, palaeontological and chronostratigraphical datas for the fifty or so sections or localities which are analysed.

The second part tackles the problems of Chitinozoans test structure and chain-like organisation. This discussion is supported by numerous S.E.M. observations. Biological affinities and environmental influence are also discussed. A classification, compiled from evolutionary trend and phylogeny reconstruction, is proposed and applied to the systematical study of about 180 forms belonging to about 40 generas and sub-generas.

The third part deals with a biostratigraphical use of the Chitinozoa. 38 biozones, 18 in the Ordovician and 20 in the Silurian-Lower Devonian, are established, on the basis of the Range biozone, the acme biozone or the concurrent range biozone of index-species. A stratigraphical attribution is assigned to each biozone by direct reference to the international stratotypes (Bohemia, Great Britain) or on fossil evidence. In conclusion, the Chitinozoa which show a rather low provincialisme, appear to be a good tool for chronostratigraphical purposes, when compared with other fossils of stratigraphical value, such as Graptolites, Conodontes or Tentaculites ...

410 pages, 135 figures, 46 tables and 41 plates h.t.

(Friends of Chitinozoa can obtain copies for 150 F through an arrangement with Florentin Paris).

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### b) INDEX OF FIGURED PLANT MEGAFOSSILS

The third volume of this index was published in January 1981; the index gives a survey of plant megafossils from Devonian through Jurassic sediments as figured in literature from 1971 onwards. The third volume deals with 'Permian 1971-1975'. The data has been compiled by M. Boersma and L.M. Boersma-Broekmeyer.

In this volume illustrations are quoted of 1,101 species belonging to 279 genera. The taxa are alphabetically arranged. For each figure the relevant publication, the age of the source strata and the country (province) or origin are indicated. In separate chapters the taxa are arranged according to the major plant groups, the chronostratigraphical units and the countries of origin. Furthermore a list of 306 new taxa has been added as well as a reference list of the 164 publications from which the figures have been quoted.

The book consists of 133 pages, is cloth bound and costs Dfl. 45.00. Copies of volume 1 (Carboniferous 1971 - 1975, 1979, 183 pp. Dfl.40) and volume 2 (Triassic 1971 - 1975, 1980, 70pp. Dfl. 30) are also available. Send Dutch guilders in the form of an International money order to : Laboratory of Palaeobotany and Palynology, University of Utrecht, Mr A J Gosling, Heidelberglaan 2, Utrecht 2506, Netherlands.

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c) **KEROGEN - INSOLUBLE ORGANIC MATTER FROM SEDIMENTARY ROCKS.** Ed. B. Durand, 1980. Editions Technip, 27 Rue Ginoux, 75737 Paris, 519pp., 260 tables figures and plates, £55.00, US\$127.00. Marketed and distributed by Graham & Trotman Ltd, 14 Clifford Street, London W1. This very expensive book reviews the present state of knowledge of insoluble organic matter in sedimentary rocks from the French point of view. Many of the 15 chapters are written by geochemists though some biological detail is presented and illustrated by wonderfully reproduced colour. But the book has no specialised palaeobotanical contribution and much of the interpretation suffers by the authors not taking our science very seriously. Perhaps this is one of the things that is wrong with kerogen studies generally. There are many splendid palaeobotanical howlers - spores and pollen have integuments, angiosperm pollen have trilete marks and leaf cuticle is rarely recognised. What else are they missing, I wonder? But the volume offers an indispensable background of essential information to palaeobotanists contemplating new studies in this very fashionable field. Most of the references are from the last decade, showing that the authors, editor and publishers do not let the grass grow under their feet; but they may not recognise this!

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d) **POSSIBLE REPRINT OF DAVEY ET AL., 1966**

The British Museum is prepared to consider a reprinting of Davey, R.J., Downie, C., Sarjeant, W. A.S., and Williams, G.L. 1966. Studies on Mesozoic and Cainozoic dinoflagellate cysts: British Mus.(Nat. Hist.). Bull., Geol., Suppl. 3, p. 1-248. This important publication, which contains many holotype descriptions, has been out of print and unobtainable for several years.

The publications committee at the British Museum proposes a print run of 500 copies, but before they go ahead they require assurance that a substantial number will be sold. If you are interested in obtaining a copy of this publication, please write to : Chris Denison, Robertson Research (US) Inc., 16730 Hedgecroft, Suite 306, Houston, TX 77060.

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e) **INTERNATIONAL BIBLIOGRAPHY OF PALAEOBOTANY AND PALYNOLOGY FOR 1980**

Compiled by H.W. Pfefferkorn and W. H. Gillespie

A copy of this International Bibliography has been received by G.I.M.P. for examination. The aim is to compile an annual bibliography of all palaeobotanical and palynological publications based on data submitted to the editors/compilers by regional palynological societies and organisations and then to make the master copy of the bibliography available to the regional organisations for duplication and distribution to their members.

Individual references will be submitted as camera ready-copy, type-written on white paper so as to produce a good quality offset end product. The compilers of this proposed bibliography do not see it as a competitor to the existing regional bibliographies which are produced but instead as a way of making these regional editions more international. They envisage for example that the bibliography for 1981 could run to 100-150 pages.

There are clearly several obvious advantages for C.I.M.P. to be associated with this venture although we must be careful to avoid generating unnecessary duplication of effort by submitting information for inclusion through both your own regional societies and through C.I.M.P. as a specialist body. It might therefore be worth C.I.M.P. acting as a co-ordinator for Palaeozoic publication references from those workers who are not able to submit the information through a regional society.

There are comparable difficulties from the distribution of the end product. Clearly C.I.M.P. does not have the financial resources to produce and distribute copies of the total bibliography but we could attempt to circulate all Palaeozoic literature information with the first newsletter after the appearance of each annual edition of the bibliography.

If you have any comments about this proposal please let the Secretary know. If there are no objections we will include a formal request with the next newsletter for details of all your 1981 publications.

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f) Paleo Data Banks No.16 Carboniferous Palynological Literature :  
Twelve Hundred Implemented References

This latest issue in the Kremp Paleo Data Banks series has just been issued, Price 20 U.S. dollars. Copies may be obtained from Palynodata, 101 N Avenida Carolina, Tuscon, Arizona 85711, U.S.A.

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