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Martin J. Head, Editor

AASP NEWSLETTER EDITOR

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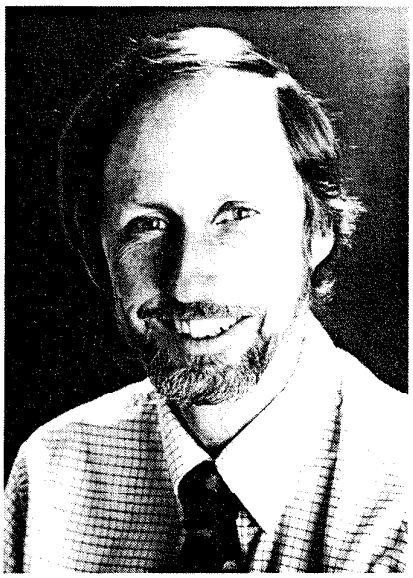
The AASP NEWSLETTER is published four times annually. Members are ENCOURAGED to submit articles, "letters to the Editor," technical notes, meeting reports, information about "members in the news," and information about job openings in the industry. Every effort will be made to publish all information received from our membership.

The deadline for the next NEWSLETTER, the last of 1995, is **September 15**. All information should be sent on computer disk (MS Word for the Mac is best, but anything will do) or by e-mail, if possible, or if not—send hard copy. Always include a duplicate typescript of all electronic copy sent so I can check formatting, diacriticals, etc. If possible, please illustrate your contribution with art, line drawings, eye-catching logos, black & white photos, color photos, etc. We look forward to contributions from our membership.



Reed Wicander, President of AASP

PRESIDENT'S MESSAGE

ELSEWHERE in this Newsletter there is a summary of the actions taken at the midyear Board meeting held in Chicago on April 8, 1995. What I would like to discuss here in greater detail are two of the items that are very important to our organization. One is CENEX and the other is affiliation.

As you are all aware, AASP has established a Center for Excellence in Palynology at Louisiana State University with Dr. John Wrenn as its Director. As part of the agreement with LSU, AASP is to raise $600,000 of the total $1,000,000 needed to establish an endowed chair in palynology. When our $600,000 has been raised, we can apply for the remaining $400,000 in matching funds from the State of Louisiana.

In order to raise our share of the funds needed for the endowed chair, the CENEX Development Committee was formed. Its initial fund raising effort resulted in donations of $316,000, primarily from major oil companies (Amoco, Exxon, and Unocal) and individuals in our organization. However, we still need to raise an additional $284,000 to reach our goal of $600,000, which along with matching funds from the State of Louisiana, will result in the establishment of the endowed chair in palynology.

The problem we face now is that with downsizing, restructuring, and cost control in the major oil companies, the likelihood of large donations from them is minimal. Instead we must concentrate our efforts on smaller donations from oil companies, environmental com-

panies and agencies, foundations, and individuals. Toward that goal, the current CENEX Development Committee of Ken Piel (chairman), Merrell Miller, David Pocknall, and Gordon Wood has been actively working on securing donations, but they need our help. Presently the committee has been contacting various people in various companies to solicit their help in securing donations. They are also in contact with LSU concerning fund raising activities, as well as contacting individuals about possible donations.

It is imperative that all of us **act now** to make sure the additional $284,000 needed is raised so that the endowed chair in palynology becomes a reality and not a lost dream. If you have any suggestions or can help in any way please contact one of the committee members. If there is any chance your company might be able to make a donation, please let one of the committee members know and information about CENEX will be sent to you. If a presentation would be helpful, that can also probably be arranged. The important thing is that we raise this money as soon as possible.

Why should we be so concerned about supporting CENEX and making sure there is an endowed chair in palynology? Let me quote from the original fund-raising brochure printed in 1990. "Pivotal to the health of palynology as a discipline is the increasingly severe shortage of both professors and practitioners. Retirements within industry have adversely affected the success of oil and gas exploration, and retirements from the university ranks have resulted in loss of graduate programs, making it increasingly difficult to develop a new cadre of either teaching staff or practitioners." If anything, the situation in academia related to the teaching of palynology has worsened since that brochure was sent out.

It is even more imperative today that CENEX succeed to ensure the education of the next generation of palynologists. That there is a demand for palynological training is evident from the numerous inquiries that John Wrenn constantly receives from prospective students. He presently has several students working on various projects, three of which presented some of their research at the last AASP annual meeting. Furthermore, John has received numerous donations of materials, equipment, literature libraries, and palynologic reference collections. Along with these donations and the renovation of the palynological lab, CENEX is well on its way to becoming the premier palynologic research and teaching center that was envisioned when it was originally proposed. But it may not succeed without our help. Please make the effort to help raise the remaining funds needed to complete AASP's commitment to CENEX.

The other item of business I want to report on is affiliation. Without going into a lengthy discussion on affiliation, let me state that Tom Demchuk checked on the possibility of affiliation with GSA and found out that there would be little difficulty in AASP obtaining affiliation with GSA. Furthermore, there would not be any cost to us in affiliating, nor would it prevent us from affiliating with a biological group. In short, we would not lose any of our independence, but we would gain more exposure within the larger geological and paleontological community. While we would not be guaranteed our own technical session at a GSA meeting, we could still hold our annual business meeting at the GSA site if we decided to have an annual meeting in conjunction with GSA.

In my opinion, there are many pluses to affiliation with GSA at this time and few negatives. I proposed at the midyear meeting that we have a discussion with the membership on this during the Ottawa meeting this fall and a decision be made by the board after the discussion. As an organization, we should not be afraid to try new ways to increase our visibility in the scientific community, and combining our annual meeting with GSA every few years may be one way to achieve that goal.

In closing, I would urge all of you who have access to the World Wide Web, and haven't done so, to check out the AASP Web site created by our Newsletter editor, Martin Head. In addition to news of AASP (including our Newsletter), he has included information and pictures about the upcoming IPC IX meeting in Houston. Martin is to be congratulated for the excellent job he has done in getting AASP on the "information highway." And finally, I hope to see as many of yo as possible at the annual meeting this fall in Ottawa. David and Su Jarzen have put together what should be an excellent and exciting meeting. See you this fall.

Reed Wicander, President
E-mail: 3yjwexp@cmuvm.csv.cmich.edu

SUMMARY OF 1995 MID-YEAR AASP BOARD OF DIRECTORS MEETING

The mid-year board meeting was held at the Essex Hotel, Chicago, Illinois, on 8 April 1995. Present were: Reed Wicander (President), Lucy Edwards (Past-President), Jan Jansonius (President-Elect), David Pocknall (Secretary-Treasurer), Rosemary Askin, Thomas Demchuk, Farley Fleming and Joyce Lucas-Clark (Directors-at-Large), and Paul Strother. David Goodman (Managing Editor), representatives of AASP Foundation, Vaughn Bryant Jr. (IX IPC) and several chairmen of special committees couldn't make it to Chicago, and Reed Wicander gave their reports. All motions were voted for unanimously.

At 0930 hrs, Wicander called the meeting to order, and presented the agenda for approval. Pocknall asked for one item to be added, after which the agenda was approved. The minutes of the two board meetings in College Station then were approved, after some typographic errors were corrected.

Pocknall presented the Secretary's report, produced in a new format (using Excel). AASP now has 836 members (717 individual and 109 institutional). There were 7 resignations and 10 new members in the last year. Many members have paid their membership fees in advance, but payment is not accepted for more than three years in advance. This year, we have started to strictly apply the bylaw requirement that members in arrears for more than three months are removed from the active membership list. Although the *AASP Newsletter* will continue to be sent for a full year after last payment, *Palynology* is no longer mailed out. At present, 87 and 153 individual members, and 17 and 41 institutional members, have not paid for 1993 and 1994, respectively.

Pocknall is now actively collecting e-mail addresses, and plans to make those available to the membership at large, possibly as an appendix to the Newsletter; anyone with an internet address is invited to pass that on to David, at: dtpocknall@hou.amoco.com.

Pocknall then presented the Treasurer's report, also in new format. At the end of March, our bank account stood at $93393; total income exceeded expenses for the year by $18650. This includes all prepaid memberships that will have to be served over the next three years. $47500 is earmarked as an advance to AASP Foundation to help defray the cost of printing "Palynology: principles and applications."

A new account this year is the dedicated Scholarship Account, s up with a one-time payment from general revenue of $3000, wh includes $1500 received earlier as donations specifically marked "for

scholarship fund." Where previously scholarships were paid out of general revenue, specific donations are now funnelled into this account (once a year, for simplicity of book keeping); furthermore, once a year funds amounting to $2 multiplied by the number of paying individual members will be transferred to the scholarship fund. [Since our business cycle is out of step with both the conventional business year and the calendar year, such transactions can be awkward, and for convenience are executed once a year.] Although the credit card account transactions have cost $940 in overhead and expenses, it is considered a real help for foreign members to pay for membership and publications, and it will be of great utility to the organizers of the IX IPC. The Board therefore decided to keep the account active; the extra costs will be treated as a business expense. Still, it will help if North American members use cheques, money orders, or cash where practical. Although we enjoy a healthy bank account (huge amounts of volunteer time and effort help keep expenses down), AASP is sponsoring the IX IPC, and will be responsible for any losses incurred.

The Managing Editor is still no further ahead with realizing his plans to form an editorial board, but planned to make progress on that front before the end of June. The *AASP Newsletter* is now back on schedule, and Martin Head is planning to keep it there. Head also plans to increase the presence of AASP on the Internet. The next issue of *Palynology* is partly typeset; actually, so many papers have been submitted and accepted for publication that we could nearly fill another volume. This threatens to cause a backlog. To solve that problem, we could possibly use smaller font in *Palynology*, or possibly collect papers of a similar topic into a Contributions Series volume. We do not want to go to two volumes in one calender year; however, we might advance the publication date of *Palynology*. Since Wicander has taken on the task of Book Review Editor, more than 120 reviews have appeared in the Newsletter.

Wicander read the AASP Foundation report. After AASP Inc. paid for production of *Palynology* volume 19 and the Newsletters, the bank account stands at about $28500, of which $9000 is paid-up plate/page charges for the book "Palynology: principles and applications." *Contributions Series* No. 30 should quickly recover its production costs, as there was a presale of 100 copies. This is an Atlas of pollen of the southwestern U.S.A., illustrated exclusively by SEM. A companion volume with only light-microscopic photographs has been accepted for publication in the near future.

The report on the past AASP Annual Meeting in College Station indicated that about 70 people had attended, fewer than at other recent meetings, but from many parts of the world. In all aspects the meeting was successful, with good opportunity to meet people and discuss various issues. Largely due to the attentive administration by Vaughn Bryant, the meeting was run well, and even made a small profit. The Jarzens, organizing this year's meeting in Ottawa, have benefitted from this experience, and adjusted their estimates to a smaller attendance figure.

Next year's meeting will coincide with the IX IPC, where Vaughn Bryant and John Wrenn, assisted by an active committee, appear to be in control of everything. More than 500 responses to the first circular were received, and the second circular is now mailed out. As well, the information therein has been made available on Internet bulletin boards and the World Wide Web.

Paul Strother presented an invitation, on behalf of six members, to host the 1997 meeting in Woods Hole, in the slightly different format of a theme meeting, where also non-AASP members would be invited to participate. This might make for a wider expertise coming together, providing new perspectives, and allowing for making new connections with colleagues in related fields. This invitation was accepted by the Board. Following the Nominating Committee report a discussion ensued concerning the adequacy of the present reimbursement of up to $300 per year for travel costs of board members to attend the mid-year and annual board meetings. This amount has not been raised in many years. Pocknall and Wicander will formulate suggestions for a new policy to be discussed at the next board meeting.

There was no news from the Short Course/Education Committee, other than the announcement that Elsik is preparing to give another session of his fungal spores short course immediately preceding the IX IPC.

Lucy Edwards and Reed Wicander together wrote a summary of palynological highlights of the past year for inclusion in the section Geoscience Highlights in the February 1995 issue of *Geotimes*.

AGI requested that membership societies submit abstracts of their publications in electronic format for inclusion on GeoRef. Fleming will endeavor to provide that information, including such for past years, with the help of Bob Clarke, by the end of this year. For following years, this should be easy to provide.

The Awards Committee reported that certificates had been mailed out to Francesca Oboh, Colleen Gillespie and Gail Chmura, winners of the best poster award in 1994.

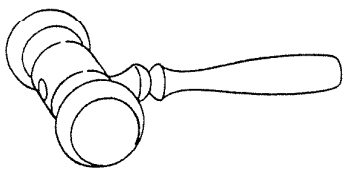
Jansonius reported on the IFPS. The bank balance of the IFPS account stood at $595 at the end of 1994. The credit post of $4140 (largely from dues) was reduced by printing and mailing costs of *Palynos* v. 17 ($2825) and the first circular for the IX IPC ($595). There is about $700 outstanding in uncollected revenue (from VIII IPC). In spite of the increase in dues from $1 to $1.50, all member societies are in good standing. The IFPS is pleased to announce that the IAA (International Association of Aerobiologists) have affiliated with IFPS; this adds 800 members (not all of whom will contribute dues, as they may already be affiliated through another organization).

Jansonius reported on the progress on "Palynology: principles and applications." The book will be produced in three volumes, each of about 450 pages. The first two volumes are essentially done (except for last checks on typography, corrections, and indexing), although a few chapters still need some more fundamental corrections. The third volume is almost complete, and all chapters originally announced will be in the book. There are now 100 authors involved. It is expected that the book will be in print before the Ottawa meeting.

Wicander reported on the CENEX Development Committee for Ken Piel. After extensive discussion, it was agreed that Pocknall, with one or two other members of the Committee will visit Baton Rouge, and confer with the new Department Head of Geology to formulate a new fundraising plan.

John Wrenn wrote a report, read by Wicander, on the progress made at the CENEX site.

Wicander's "President's Report" was wide ranging, in part touching on topics discussed in other context earlier or later. A few items of more general interest include: John Wrenn plans to write a special edition of *Palynos*, as was done for the VIII IPC, dealing with palynological and other aspects of the larger Houston region, and North America. He invites suggestions and help. As the 1996 annual business meeting will be much earlier in the year than normally, we need to adjust our deadlines, e.g. for the nomination of candidates for the Executive, and voting procedures.



The relationships between AASP, IFPS and IX IPC were discussed. AASP agrees to adhere to the stipulations of the applicable bylaws of the IFPS on the running of an IPC.

Affiliation with the Geological Society of America was investigated by Tom Demchuk. For AASP, there appear to be no difficulties, or costs, involved in acquiring status as an affiliate. The matter of affiliation will be further discussed with the membership and at the second board meeting in Ottawa, where a decision will be made.

Martin Head already has placed the April AASP Newsletter on a page of the World Wide Web, and plans to do more similar things. Strother suggested that illustrations should be attached; he could provide some digital files for that.

Pocknall requested that board members wanting to claim reimbursement for up to $300 in travel/expenses incurred in relation to the mid-year meeting send him an invoice with receipts.

The meeting ended with a discussion on nominations for Distinguished Service Awards.

Jan Jansonius, President Elect
jjansonius@gsc.emr.ca

1995 AASP ELECTION RESULTS

Results are in for the 1995 Election of AASP Officers. By the closing date of 2 June 1995, the ballot committee (Farley Fleming and Doug Nichols) received 166 of the 459 ballots mailed to members eligible to vote. In addition to the slate of eight candidates printed on the official ballot there was one write-in vote. Votes have been tallied and the winners are:

PRESIDENT-ELECT	Gordon Wood
SECRETARY-TREASURER	David Pocknall
MANAGING EDITOR	David Goodman
DIRECTORS-AT-LARGE	Donald Engelhardt Jocelyne Legault

We thank all of the candidates for their commitment to AASP in agreeing to run for office. Congratulations to the winners and we look forward to their tenure in office.

Ottawa Canada
a CAPital experienc

"AASP 28"
28TH ANNUAL MEETING, OTTAWA, CANADA
10–14 OCTOBER 1995

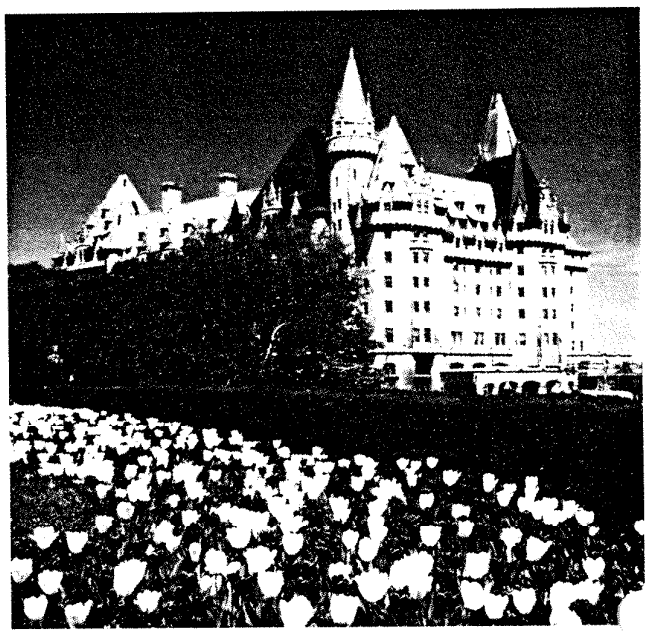
The Canadian Association of Palynologists (*CAP*) cordially invite you to attend the 28th Annual Meeting of the American Association of Stratigraphic Palynologists to be held in Ottawa, Canada.

NOW is the time to mail in your registration for the 1995 AASP Annual Meeting in Ottawa. Not only is this a fantastic city to visit, but this meeting offers super sessions: *Quaternary Palynology in Canada* convened by Dr. Pierre J.H. Richard of the University of Montréal; *Dinoflagellates and Acritarchs of Mesozoic–Cenozoic Oceans and Marginal Seas* organized by Dr. Geoffrey Norris and Dr. Martin J. Head of the University of Toronto.

A third Special Session was scheduled with selected papers from the two AASP Foundation Volumes, *Palynology: principles and applications*. Unfortunately, due to budget constraints of the GSC and the disappointing news that Dr. Graham Williams and Dr. Rob Fensome will not be able to convene the session, it will therefore not be organized. The upswing on this topic is that we will now have an extra half-day for the General Session which would include papers not in either of the above-mentioned topical sessions.

SO, if you haven't sent in those abstracts, DO IT NOW!! Only yo can make "AASP 28 Great!" but we need your input.

An exciting field trip to Eardley, Québec, is planned for Saturday, October 14th. This visit to a Quaternary nodule site will be led by Dr. Richard Harington of the Canadian Museum of Nature. Only a limited number of participants will enjoy this dig, so get your registration in



Chateau Laurier – venue for AASP 28. Photo: D. Jarzen.

early! Fifty dollars covers transportation and a box lunch.

The registration fee is a bargain at $105 for a regular Professional, or $80 for Student and Retired Professionals. The Field Trip will cost $50. All fees are in Canadian dollars, or U.S. dollars at a rate "Canadian dollars times 0.8 = U.S.$"

The Chateau Laurier, a Canadian Pacific Hotel, is our venue for this meeting. The rooms are Canadian $125 for single or double occupancy. Please contact the hotel directly at 1 Rideau Street, Ottawa, Ontario, Canada K1N 8S7.

The Wednesday night, October 11th, Ice Breaker will be held in the Salon of The Canadian Museum of Nature located at Metcalfe and McLeod Streets, a short walk along Elgin Street from the Chateau Laurier.

For our viewing pleasure the new Viola MacMillan Mineral Gallery will be available to participants, as well as the Botany Hall, which contains the special Pollen Exhibit. A cash bar and specialty foods prepared by *Thyme & Again Catering of Ottawa* will be provided.

Be sure to check with USAIR, telephone 1-800-334-8644 refer to Gold File No. 11270009 for an appropriate discount. Or Air Canada/ Continental Airlines for special discounts for this meeting by calling 1-800-361-7585, requesting Event No. CV950224.

AASP golf at Pine View: The picturesque 4th hole. Photo: P. Nesbit.

For all you golfing pros, contact Dr. Vaughn Bryant, Jr., telephone 409-845-5242/845-5255, to be included in this auspicious event!!

For the complete registration package, consult the April, 1995, *AASP Newsletter*, Volume 28, No. 2, or contact S.A. Jarzen at FAX 613-954-4724 or E-Mail sjarzen@mus-nature.ca or Telephone 613-954-0355. The registration package with printable forms is also available on the AASP Web site at: http://www.geology.utoronto.ca/AASP

If you have never been to Ottawa, the Capital of Canada, then you are in for a real treat. It will truly be

A CAPital Experience !

See you there!

David Jarzen, Susan Jarzen & Rob Fensome
Co-Conveners, AASP 28

Ottawa Canada
a CAPital experience

"AASP 28"—VISITOR INFORMATION

For ease of entry into Canada, citizens and permanent residents of other countries must have a valid passport and/or a valid visa where applicable. U.S. citizens should have a valid passport or birth certificate.

As a visitor to Canada, you can claim a refund for some of the tax you pay on accommodation, as long as you stay less than one month in that accommodation. You can also claim a tax refund for eligible goods you take home. This program includes refunds for the Goods and Services Tax (GST) and provincial sales taxes paid in the provinces of Quebec and Manitoba.

Upon arrival at a Canadian Airport, request the booklet entitled Goods and Services Tax Refund for Visitors distributed by Revenue Canada. This will give complete information and a form to mail back for your refund. A supply of these booklets will also be available at the registration desk for AASP 28.

Susan Jarzen, Co-Convener, AASP 28

AASP STUDENT SCHOLARSHIP WINNERS FOR 1995

The AASP Student Scholarship recipients for 1995 are: **Carolyn Davies** of the Arizona State University, and **Florin Neumann** of the University of Toronto.

Carolyn Davies' thesis title is "The biogeography of Levantine palaeoclimatic transition zones" and her advisor is Dr. Patricia Fall.

Florin Neumann's thesis title is "Stratigraphy and paleobiogeography of organic walled dinoflagellate cysts in upper Neogene deposits of the Columbia and Panama basins" and his advisors are Martin J. Head and Geoffrey Norris.

Further details will appear in the October issue of the AASP Newsletter.

Merrell A. Miller, Chairman, AASP Awards Committee

LETTERS TO THE EDITOR

Devonian plants in crisis

Dear Editor.—I read a fascinating article in the most recent *New Scientist* (April 22, 1995, p. 17). Apparently Thomas Algeo of the University of Cincinnati has a neat new theory regarding the extinctions of marine life during the Devonian. According to this theory, about 385 mm years ago the land plants began developing supporting tissues which "transformed them from small creeping species into the first large trees. By 363 million years ago plants had evolved seeds which allowed them for the first time to spread widely over dry, upland areas."

Although Dr. Algeo realizes that land plants today have a stabilizing

influence on most soils his theory requires that the Devonian was very different. His theory is that as root-bearing plants first began colonizing previously barren areas their initial effect would have been to break up the surface both chemically and physically, making it more susceptible to weathering and erosion, the burgeoning populations of Devonian plants **caused** large amounts of soil particles and dissolved nutrients to be washed into rivers and oceans and fertilized the waters causing an explosive growth of algae. As the algae died, their decomposition would have used the oxygen from the deeper layers of the ocean, suffocating many marine animals.

This new theory explains why extinctions in the late Devonian crisis consisted of distinct pulses; each pulse may correspond to the population explosion of a particular land plant, following a single evolutionary advance. The author also thinks that the occurrence of black shales containing large amounts of algae during periods of rapid extinctions also proves this theory.

Since black shales are often deposited during periods of low sedimentation, it seems at odds with the increased sedimentation required by the plant-induced run-off theory. My main problem with this theory is that it seems to require that all the plants of the pre Middle Devonian be located in low lying land, near water with every thing above a certain level being without plant cover. This does not fit well with my perception of life on our planet at that time. That does not mean that I can't be wrong, but the idea that plants cause such massive erosion that it resulted in the extinction of 70% of marine life (the number provided in the article for the late Devonian Crisis), just doesn't fit with my perception of ecology. I am very curious how other palynologists respond to this theory.

Judith Lentin.
Calgary, Alberta.

[The above letter refers to a report by Ruth Flanagan, "Killer trees choked ocean life," *New Scientist*, No. 1947 (22 April 1995), p. 17. Thomas Algeo and his colleagues describe their theory in the March issue of *GSA Today* (vol 5, p. 45), published by the Geological Society of America.—Ed.]

Geologists and the History of Geology

Dear Colleague.—In late fall of this year I hope to be able to publish three volumes: Supplement 2 (1985–1995 and Additions) to my bibliography, Geologists and the History of Geology. An International Bibliography from the Origins to 1978.

However, it is likely that these volumes will not be published unless you can help by ordering a set or getting your library, your society, or institution to order one. This will be a strictly limited edition; the 3-volume, 2350 page set will cost U.S. $299.50 before publication, and U.S. $365.00 after publication. For ordering this supplement (or the whole bibliography, better still!) please contact Krieger Publishing Co., P.O. Box 9542, Melbourne, FL 32902-9542, U.S.A.; tel. (407) 727-7270 or fax (407) 951-3671.

Many thanks for your consideration.

Yours sincerely,

William A.S. Sarjeant
Please note address change:
Department of Geological Sciences
University of Saskatchewan
114 Science Place, Saskatoon
Saskatchewan S7N 5E2 Canada
Tel: (306) 966-5722
Fax: (306) 966-8593

MEMBER'S NEWS

CHARLIE FELIX has been essentially incapacitated by Parkinson's Disease and other ageing problems. He has moved to a Senior Citizen facility in Abilene. Charlie would appreciate hearing from old friends and colleagues and will reply as he has time and is able. His new address is: Christian Village of Abilene, 633 E. No. 19th St., Apt. 303, Abilene, Texas 79601.

The correct address of KENNETH M. PIEL is: 97 Billings Avenue, Medford, MA 02155, U.S.A.; telephone: (617) 393-0854. Not as cited in the AASP Members directory for 1995.

WILLIAM A.S. SARJEANT was elected as Fellow of the Royal Society of Canada in May of this year. This is one of the most prestigious honors awarded by the Canadian academic establishment. Other Fellows include AASP members Peta J. Mudie and Geoffrey Norris.

B.G.T. VAN HELDEN has retired from Chevron Canada Resources. Bert has established himself as a biostratigraphic consultant and his new mailing address, effective immediately, is: B.G.T. van Helden, 427 – 53rd Avenue S.W., Calgary, Alberta, T2V 0B8, CANADA. Phone: (403) 258-2874.

TRADING CORNER

Journal Trades/Needs

Most palynologists have a few duplicate volumes in their library which they might be willing to trade for that illusive issue they need to use in a new project. Vaughn Bryant has suggested that the Newsletter could be a place to advertise wants/trades and I enclose a listing of some volumes I would like to obtain.

Duplicates available:

Geoscience & Man vol.VII, Palynology 8,9,16

AASP Contributions Series 7, 16

Seeking:

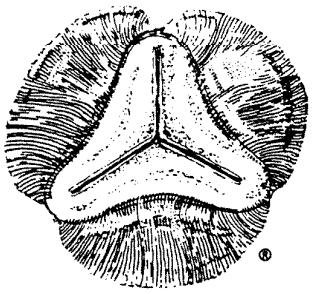
Brideaux 1971, Palaeontographica.

Brideaux and McIntyre 1976, Geological Survey of Canada Bulletin 252.

Singh 1983, Alberta Research Council Bulletin 44.

Stan Stancliffe, Imperial Oil Resources Limited
Research Center
3535 Research Road, N.W.
Calgary, Alberta, T2L 2K8, Canada
stan.stancliffe@exxon.sprint.com

SALE—CATALOG OF FOSSIL SPORES AND POLLEN



Reinschospora—*Logo of the Catalog of Fossil Spores and Pollen*

During the period 1957 to 1985, forty-four volumes of the Catalog of Fossil Spores and Pollen plus four index volumes and two translation volumes were published. The Catalog provides, in concise and standard format, illustrations, descriptions, and other information for all taxa of fossil palynomorphs, except those covered by other catalogs or those of purely animal origin. A sizable portion of the literature is represented by these 44 volumes. The Catalog is a compendium of systematic information intended primarily for nomenclatural-taxonomic use. Nevertheless, it is useful in obtaining a general view of the fossil spores and pollen characteristic of various parts of the stratigraphic column. The Catalog is a condensed library of palynological systematics, making it especially useful to palynologists where library facilities are limited.

There are no plans at this time to publish further volumes of the Catalog.

Now, for a limited period and while supplies last, the Catalog is on sale for a fraction of its original price. Until recently, the cost to institutions for a complete set of the Catalog (as described below) was $2,760.00. The price during this limited time offer is $685.00. The sets consist of printed Volumes 3–4 and 28–44 and the Indexes for Volumes 21–40 in a looseleaf format bound in sturdy plastic binders; the remaining volumes plus two indexes and two translation volumes are out-of-print but are included in the sets as photocopies in spiral binders with soft covers. Individual printed volumes are available at the special price of $25.00 each, reduced from the recent institutional price of $85.00. There is an additional charge for packing and shipping, estimated to be about $90.00 for shipment within the U.S.

A second format, printed on card stock for filing, is also available for 35 of the volumes. For information on this format, please contact the address below.

Orders or further information in the form of a 27-page brochure can be obtained from:

Coal & Organic Petrology Laboratories
105 Academic Projects
Penn State University
University Park PA 16802
Tel: 814-865-6544; Fax: 814-865-3573

D. J. Nichols
U.S.Geological Survey, MS 919,
Box 25046, Denver, CO 80225
TEL: 303-236-5677; FAX: 303-236-5690
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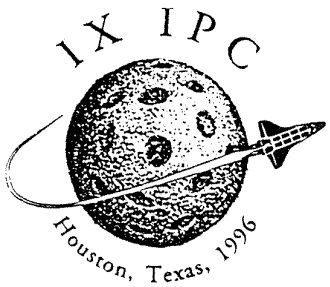
NINTH INTERNATIONAL PALYNOLOGICAL CONGRESS



NEWS UPDATES

A new symposium has been added to those listed in the 2nd Circular. Details are as follows:

Symposium on

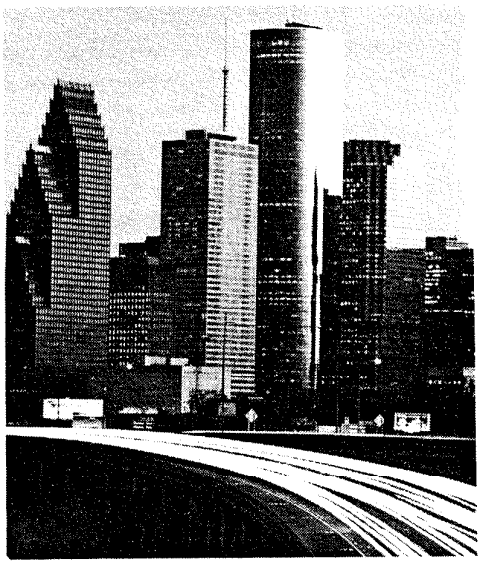
"PALYNOLOGY AND SEQUENCE STRATIGRAPHY"

Co-Convenors: Francisca Oboh, Martin Farley & David Goodman

Sequence stratigraphy is one of the major modern exploratory tools being used in the petroleum industry to integrate sedimentologic, biostratigraphic, seismic and other geological data. The goal of this symposium is to provide a forum for the presentation of research or industrial studies aimed at improving our understanding of the contribution and use of palynolgy in sequence stratigraphy.

We invite participants who wish to present papers on palynofacies and palynostratigraphy of either modern or ancient depositional systems within a sequence stratigraphic context to contact us as soon as possible. A keynote speaker will introduce the subject of sequence stratigraphy and set the stage for the symposium "Palynology and Sequence Stratigraphy."

If you are interested in participating, please contact one of the convenors at the following addresses:



Skyline of Houston—venue of the 9th International Palynological Congress

Francisca E. Oboh, Dept. of Geology & Geophysics, University of Missouri-Rolla, Rolla, MO 65401, USA, Tel: (314) 341-6946, Fax: (314) 341-6935, E-mail: foboh@umr.edu

Martin B Farley, Exxon Production Research Co., P. O. Box 2189, Houston, TX 77252, USA, Tel. (713) 965-4033; FAX (713) 965-7279; E-mail: Martin.B.Farley@eusa.exxon.sprint.com

David K. Goodman, ARCO Alaska Inc., 700 "G" Street, Anchorage, AK 99501, USA, Tel: (907) 265-1135, Fax: (907) 265-1515, E-mail: dgoodma5@is.arco.com

FAX CORRECTION

With respect to our symposium Intertropical Last Glacial–Holocene Climatic Change, we would like to point out that fax number of our laboratory is incorrectly listed in the Second Circular. The correct number is 31-20-5257662.

Prof. dr. Henry Hooghiemstra
Hugo de Vries-Laboratorium, University of Amsterdam.

PALYNOLOGY IN THE NEWS

POT POLLEN A HARBINGER OF DRUGS TO FOLLOW FROM MOROCCO

by Marlise Simons, New York Times

Madrid, Spain.—Scientists sampling the air in southern Spain the other day came across a surprising event, a great stream of marijuana pollen coming off the Mediterranean waters, carried by a warm southern wind.

The pollen, though invisible to the naked eye, was measured along no less that a 400-kilometer stretch of the Spanish coast, from Estepona to Cartagena, and it reached more than 150 km inland, beyond Cordoba. "This is exceptional," said Eugenio Dominguez, coordinator of Spain's Network for Aerobiology which detected the particles. "We've never measured marijuana pollen in so many places."

Researchers soon established that the tiny grains appearing in their microscopes were harbingers of a likely bumper crop of marijuana in Morocco, across the water some 40 km to the south. At this time of the year, they said, the great marijuana plantations are in flower along the north coast of Morocco between Tangiers and the Algerian border.

"No, you don't get high breathing this," Dominguez said by telephone from Cordoba, where he is a biology professor at the local university. "We'd all be very cheerful by now, but the pollen does not contain the narcotic compound."

While provoking chuckles among some scientists and potential customers, the wafts of pollen are also a reminder of a reality that many European officials have preferred to overlook: that Morocco is the largest supplier of marijuana to Europe and one of the world's leading hashish producers. Most of the country's marijuana crop is converted to hashish, its resin concentrate.

From part of an article by Marlise Simons, New York Times, appearing in *The Gazette* (Montréal), June 18, 1995, p. B5, supplied by Gail Chmura, McGill University, Montréal.

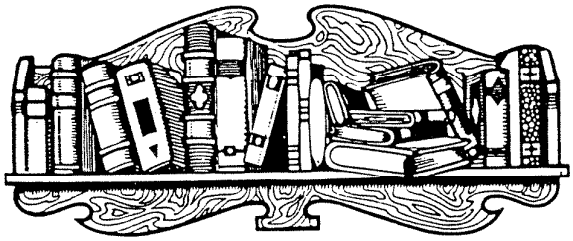
BOOK ANNOUNCEMENT

POLLEN ET SPORES D'EUROPE ET D'AFRIQUE DU NORD
Supplément 1
by Maurice Reille

This pollen atlas is 325 pages in length and has more than 8,000 photos from over 1,600 taxa (581 genera, 114 families). It has the same size (24 x 31.5) and same presentation as the first volume (Rielle, 1992) except that photomicrographs are printed on a white background. It features a short introduction (5 pages), 274 photographic plates, and a threefold index: by taxa, families, and pollen types (45 pages). The price is 600 French francs (subscription price) and 800 French francs after April 15, 1995. Send your order, with your name and address to: Laboratoire de Botanique historique et Palynologie, boite 451, 13397 Marseille cedex 20 France. Make your check (only in French francs) to the order of "APLF, Comité d'organisation."

Reference:

Rielle, M., 1992. *Pollen et spores d'europe et d'Afrique du Nord.* Laboratoire de Botanique historique et Palynologie, boite 451, 13397 Marseille cedex 20 France, xxiii+520 p., 446 pls.



THESIS ABSTRACT

SEQUENCE STRATIGRAPHY OF A COASTAL TO OFFSHORE TRANSITION, UPPER CRETACEOUS KANGUK FORMATION: A PALYNOLOGICAL, SEDIMENTOLOGICAL, AND ROCK-EVAL CHARACTERIZATION OF A DEPOSITIONAL SEQUENCE, NORTHEASTERN SVERDRUP BASIN, CANADIAN ARCTIC*

Ph. D. dissertation by Koldo Núñez-Betelu

The stratigraphic nature, palynological constituents, and petroleum potential of the Kanguk Formation and contiguous strata have been assessed by combining palynology, sedimentology, and Rock-Eval/TOC pyrolysis. In the northeastern Sverdrup Basin the Kanguk is ?latest Cenomanian/early Turonian to Campanian in age. It constitutes a depositional sequence bounded by two major unconformities throughout the study area except at Remus Creek. The lower unconformity spans the Albian–?latest Cenomanian/Turonian interval whereas the upper unconformity includes the late Campanian–Paleocene interval. Both unconformities are diachronous.

In the northeastern Sverdrup Basin the Kanguk Formation can be traced from coastal areas (Mount Bridgman) westward to offshore areas (Glacier Fiord). Marine and terrestrial palynomorphs are well-preserved and represented by 428 taxa, including 226 marine and 202 terrestrial species. One new marine dinocyst genus, seven new marine

dinocyst species and a new terrestrial pollen species have been tentatively proposed. The species *"Odontochitina octopusa"* sp. nov. is age-significant and restricted to the latest Coniacian. Based on the palynological content, the Kanguk Formation can be subdivided into a lower marine dominated interval and an upper terrestrial dominated interval. The formation has been subdivided into four biozones. The upper three biozones roughly correlate with previously established biozones for the Kanguk Formation or equivalent units in other areas of the Arctic.

A combination of sedimentological and Rock-Eval/TOC pyrolysis data supports the presence of three informal members in the Kanguk Formation, namely the "Mount Bridgman member," the "bituminous member," and the "Remus Creek member." The first two members are, in part, laterally equivalent of each other and represent coastal and offshore deposition respectively. The "bituminous member" was deposited in anoxic, offshore environments, and is correlative to the worldwide Cenomanian/Turonian anoxic event. It may represent a good source-rock for oil and gas, whereas only gas could be generated from the deltaic "Remus Creek member" and the coastal "Mount Bridgman member."

The nature of the Kanguk Formation and the marked variations in thickness might be indicative of deposition in a tectonically active basin as suggested also by the abundance of bentonite beds. This tectonic activity would be linked with the Eurekan Orogeny.

* Ph. D. Dissertation, September 1994. Dept. of Geology and Geophysics, The University of Calgary, Calgary, Alberta, Canada. Supervisor: L. V. Hills.

FROM AROUND THE WORLD

Meet our Newest Correspondent

Koldo Núñez-Betelu joins the AASP Newsletter Editorial team as correspondent for southern Europe. The team, which provides a window on international palynological activities, also includes Niels Poulsen (correspondent for the Nordic countries) and Jim Riding (correspondent for the U.K.). A biographical sketch of Koldo appears below.—Ed.

KOLDO NÚÑEZ-BETELU was born in 1958 in Donostia (Basque Country) where he spent his early years. In 1986 he finished his five-year B.Sc. in Geology, specializing in Paleontology and Stratigraphy, at the University of the Basque Country, and after teaching Geology and Basque Language at a High School for a year he moved to St. Andrews (Scotland) in the fall of 1987. There, Koldo collaborated with Professor

Koldo Núñez-Betelu: AASP Newsletter Correspondent for southern Europe

E.K. Walton on some Canadian projects for a Calgarian oil company for a year and in 1988 he changed his residence to Calgary to work with this company. Once in Alberta he also made contact with professor L. V. Hills from the University of Calgary and took his first steps in palynology.

Palynomorphs became his passion and in 1989 Koldo started his M.Sc. under the supervision of Dr. L.V. Hills working on the arctic Upper Cretaceous Kanguk Formation. He graduated in June 1991 (with a best M.Sc. Thesis Award) and decided to continue at Ph.D. level to deal with a project that combined palynology, sedimentology, and organic geochemistry to establish a sequence stratigraphic framework for the Kanguk Formation. During his stay at the University of Calgary, Koldo was the recipient of several awards and scholarships (AASP, GSA, AAPG, SEPM, Spanish Ministry of Education, oil companies, etc.) in recognition of his achievements.

He presented his Ph.D. dissertation in September 1994 and then moved back to Europe to hold a postdoctoral fellowship at the University of the Basque Country as part of an interdisciplinary study of the entire Paleocene of the Basque Basin which includes the top of the Cretaceous and base of the Eocene. The research team involved in this study includes specialists on macro- and microforaminifers, calcareous nannoplankton, sedimentology, magnetostratigraphy and geochemistry. Within this team Koldo is responsible for the palynological analysis. This Basin contains abundant, undisturbed, deep-marine sedimentary rocks that are appropriate for sequence stratigraphic, paleontologic and magnetostratigraphic studies.

Over the years Koldo has become familiar with the palynology, organic geochemistry, and sequence stratigraphy of the Upper Cretaceous to Eocene of parts of western North America, the Arctic and south-western Europe. He is also correspondent for *Paleontological News* (newsletter of the Spanish Paleontological Society) and for several Basque journals.

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MEETING REPORT

EUROPEAN SCIENCE FOUNDATION

4th International Workshop of the Scientific Network on Impact Cratering and Evolution of Planet Earth

Ancona di Portonovo, Italy, May 12–17, 1995

"The role of impacts on the evolution of the atmosphere and biosphere with regard to short-and long-term changes"

by Koldo Núñez-Betelu, correspondent for southern Europe

Extraterrestrial impacts were until a few years ago considered common only for the beginning of Earth history, and geologists believed that these phenomena became anecdotal from the Proterozoic onwards. Therefore, since impacts were considered by almost everyone to be extremely rare, the majority of geologists lacked any interest in this topic. However, this attitude changed in the last two decades, especially after the publication of L. W. Alvarez's team paper in 1980. Since then the study of extraterrestrial impacts and their possible connection to changes in the lithosphere, biosphere, and atmosphere has acquired major proportions. This has prompted the identification of an increasing number of impact craters in the geological record, and the analysis of possible links between impacts and biological and climatic crises. This was the objective of the present workshop which brought in over 150 scientists from around the world, including experts such as W. Alvarez, J. Smit, A. Montanari, R. Rocchia, and B. Bohor, as well as a numerous Russian representation.

Since this is already the fourth conference of its kind organized under the direction of the European Science Foundation it indicates acceptance by many geologists, geophysicists and paleontologists of the importance of extraterrestrial impacts. More than half of the papers presented were related to the Cretaceous/Tertiary (K/T) boundary and only about 25% were associated with ages older than this. Despite the preponderance of K/T related studies, it is stimulating to observe an increasing attention towards the Eocene/Oligocene boundary that attracted the interest of several presentations, and that was the main focus of one of the two field trips.

Paleontology, both of marine microorganisms and of vertebrates, was also well represented at this conference. Interestingly, the idea of a possible cause-effect relationship between some massive extinction events and impacts, especially for the K/T boundary, is being slowly accepted by the paleontological community. The stepwise pattern of extinction observed for many species had been somewhat contrary to the idea of such a link, but more and more detailed studies have brought a change in attitude. However, some groups, such as the vertebrate paleontologists, may still question the importance of extraterrestrial impacts, even though in the last few years some data seem to support a catastrophic end for various vertebrate groups. For instance, in this conference Dr. N. Bardet and Dr. X. Pereda-Suberbiola presented detailed information on a possible catastrophic extinction pattern for marine reptiles at the end of the Cretaceous when about 36% of the families, 84% of the genera, and 97% of the species became suddenly extinct.

Data on other micro- and macrofossils, including dinocysts, foraminifers and dinosaurs, were also presented. Regarding palynomorphs, the attending Dutch scientists observed that dinocysts indicate a short-term climatic cooling followed by a long-term warming event, although no massive dinocyst extinction event has been recorded at the K/T boundary. On the other hand, planktic foraminifers did go through a relatively massive extinction event (42% became extinct according to data from Basque sections) that was even more important for benthic foraminifers. The relative survival patterns followed by marine palynomorphs in comparison with foraminifers may be related to th complex life cycles of the former.

The conference also included two beautiful field trips. The famous K/T boundary sections of the Gubio region were visited in the first trip, whereas the second trip included both this boundary and the Eocene/Oligocene boundary at the Global Stratotype Section and Point in Massignano.

Finally, it is a pleasurable duty to acknowledge the wonderful organization of this conference by A. Montanari and R. Coccioni. The conference was held at the Hotel Excelsior-La Fonte whose owner was one of the sponsors of the conference, and who received a little award in recognition for all his support to the local geological community through many years. This hotel is located on the coast of the Adriatic Sea at the base of the northern slope of Monte Conero, a beautiful park that includes several K/T boundary sections and the Eocene/Oligocene Global Stratotype. According to many of the attendants at the conference, it was admirably well organized and will be remembered as a model for future meetings of its kind. Moreover, the organizers gave a great amount of help to scientists from low income countries as well as to graduate students and post-doctoral fellows. Thus, in recognition of the high quality of the conference and of the support given, GRAZIE SANDRO and RODOLFO.

GEOLOGICAL SURVEY OF GREENLAND

by Eva Bundgaard Koppelhus, Henrik Nøhr-Hansen, Jens Michael Lyck & Stefan Piasecki

Department of Petroleum Geology

Geological Survey of Denmark and Greenland

Øster Voldgade 10, DK-1350, Copenhagen K, Denmark

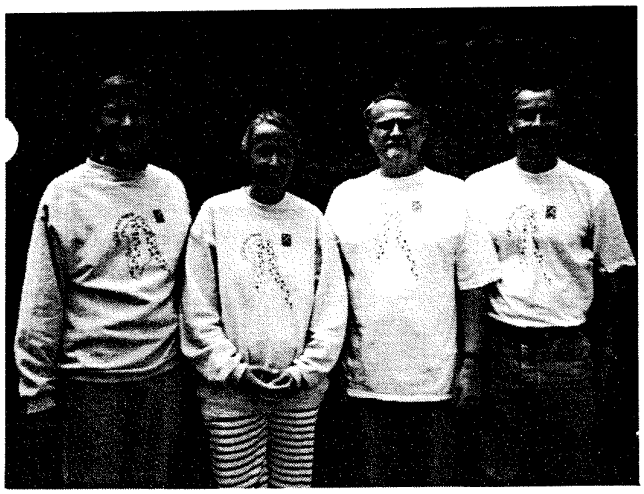
On 1st June, 1995, the Geological Survey of Greenland (GGU) was amalgamated with its Danish sister organization into the new Geological Survey of Denmark and Greenland (DGGU). GGU was a research organization and focussed on scientific and practical geological work in Greenland and comparative studies in Arctic/Antarctic regions. This work continues within the frame of the new organization.

Palynological work in Greenland is undertaken by four palynologists: Stefan Piasecki Ph.D., Henrik Nøhr-Hansen Ph.D., Eva Bundgaard Koppelhus Ph.D. and most recently Jens Michael Lyck M.Sc., all attached to the Department of Petroleum Geology.

Greenland is covered by a large ice-sheet but our working area is the ice-free onshore areas and the shelf regions of Greenland, an area corresponding in size to Western Europe.

There are still huge unexplored on- and offshore areas in Greenland but due to the snow cover and harsh climate most of the year, geological field work is limited to late June to early September.

The order of priority in which sedimentary basins are investigated is partly governed by the perceived hydrocarbon potential of the basin and partly by pure scientific interest. The first licensing round was in Greenland was held offshore southern West Greenland. Five exploratory wells were drilled through Tertiary and Upper Cretaceous shelf sediments in 1976 and 1977. New GGU studies have attracted indu trial attention to this region, and the dinoflagellate cyst stratigraphy the on- and offshore Upper Cretaceous–Tertiary sediments is therefore



Palynologists of the Greenland Geological Survey. From left to right: Henrik Nøhr-Hansen, Eva Bundgaard Koppelhus, Stefan Piasecki, and Jens Michael Lyck

currently being reinvestigated by HN-H. Terrestrially deposited pollen and spores in parts of the equivalent onshore Cretaceous sediments have been studied by EBK. Based on experience from the Danish and Norwegian area, JML has started graphic correlation of the complete microfossil database from the offshore wells and combined with geophysical data this will lead to a sequence stratigraphical interpretation. The dinoflagellate cyst stratigraphy is a continuation of HN-H's work on mid-Cretaceous dinoflagellate cysts in East Greenland.

Onshore oil exploration in East Greenland (Jameson Land, 1985–1990) with an Upper Permian target, required stratigraphical results obtained by SP on Carboniferous to Lower Triassic pollen and spores in this region; This work started in 1982, and the research area was extended stepwise northwards to the Wandel Sea Basin in North Greenland.

The distribution and thermal maturity of potential hydrocarbon source rocks in Lower Paleozoic shelf and trough sediments in North Greenland were studied by the "Nordolie" project (1984–1987). Palynological studies of the organic matter from that area were undertaken (HN-H) and Ordovician spores were described by HN-H and EBK.

New research on Jurassic palynostratigraphy in the boreal realm in East Greenland was initiated in association with an Energy Research Programme on sea level changes and hydrocarbon models. The expertise of EBK on Upper Triassic–Jurassic palynology in the Danish area is being exploited in East Greenland in research on similar rocks and combined with dinoflagellate cyst stratigraphy of the Middle–Upper Jurassic strata (SP).

Due to the similarities between Greenland and Canada cooperation with D.J. McIntyre and J. Utting at the Geological Survey of Canada, Calgary has been logical and fruitful. Traditionally, colleagues from all over the world have received or collected material from Greenland for academic studies.

An image-database (WORM) has been evolved at GGU for the storage and documentation of basic data in our palynological research in Greenland and as a new routine palynological tool for recording and reporting. More than 6000 images of palynomorphs are now stored. The database has recently been combined with the dinoflagellate holotype database DinoSys from LPP in Utrecht.

THE U.K. SCENE

by James B. Riding, U.K. correspondent

The main news from the UK at this time is a report on the British Micropalaeontological Society (BMS) meeting held in the Centre for Palynological Studies, University of Sheffield on the afternoon of Thursday April 27th 1995. This gathering was organized by Duncan McLean on behalf of the Palynology Group of BMS and entitled "Current research in palynology." Proceedings were started by David Jolley (University of Sheffield), who gave a very polished performance on "Land-surface temperature controlled vegetational change in the Late Paleocene/Early Eocene northeastern volcanic margin." David lucidly discussed how volcaniclastic ashes depressed paleotemperatures close to the Paleocene–Eocene boundary. This main interpretation was backed up by some very convincing palynofloral signatures. The next talk was "The Jurassic dinoflagellate cyst floras of Russia—some preliminary results," by James B. Riding (British Geological Survey—BGS), Valentina A. Fedorova (VNIGRI, St. Petersburg) and Vera I. Ilyina (IGG, Novosibirsk). It was presented by your correspondent, who explained that this collaborative work is sponsored by INTAS, an agency of the European Commission, and industry and aims to help scientists in the Former Soviet Union in terms of expertise and equipment in addition to establishing research which will be of practical utility to Russia and the independent states formerly within the USSR. This work is definitely "Current research" as the palynological analyses were commenced early this year. The majority of the material is from the Russian Platform (central Russia) and Siberia and ranges in age from Early Jurassic (early Pliensbachian) to Early Cretacous (Ryazanian–Valanginian). Jim first illustrated dinoflagellate cysts from the early Pliensbachian–Toarcian of the Anabar Bay region of northern Siberia. Highlights included diverse associations of *Nannoceratopsis* throughout and the *Parvocysta* suite and superabundant *Phallocysta* in the late Toarcian. The Lower Callovian of Siberia has yielded relatively low diversity dinoflagellate cyst floras including distinctly northern elements such as *Crussolia perireticulata* and *Lacrymodinium/Paragonyaulacysta*. Localities investigated from the Russian Platform include sample sets from the banks of the rivers Unzha and Pizhma. The River Unzha material, for example, is largely of late Callovian–

Oxfordian age and the high diversity palynofloras are extremely similar to counterparts from western Europe. A lively discussion followed on Jurassic dinoflagellate cyst taxonomy and provincialism. Ken Dorning (Pallab Research) then presented a talk on "Acritarch and chitinozoan preservation in the Silurian of Gotland, Sweden." This was a well illustrated account of fieldwork on, and the palynology of, the Silurian limestones of Gotland. Ken showed us some memorable slides of, for example, fossil sea stacks and the largest cement quarry in northwest Europe. The several formations samples are much more calcareous than counterparts from the Welsh Basin; nodular beds of blue-hearted limestone are relatively common. They yield sporadically well-preserved chitinozoan associations; many of the taxa were originally described by Sven Laufeld in his classic paper of 1974 *(Fossils and Strata,* No.5). The limestones, however, consistently yielded diverse acritarch assemblages, which Ken demonstrated could be correlated with coeval material from the Welsh Basin. Some low diversity spore floras were encountered and certain beds appear to contain entirely terrestrially-derived organic material. The uppermost formations are of Pridoli age and are dominated by sphaeromorph acritarchs.

Tea was taken in the staff room, where five poster displays were on view. All the posters were by local Sheffield authors and ranged in subject matter from the Silurian of Saudi Arabia, through the UK Carboniferous, and the English/African Cretaceous to the Oligocene of Nigeria. Following the break, David Cole (University of Southampton) described his research on "Microplankton, sequence palynology and the Lias of Dorset." One of the principal aims of this work is to integrate acritarchs into the standard Lower Jurassic palynozonation. As such, this work is the most comprehensive research programme on Lower Jurassic acritarchs since David Wall did his doctoral research (at Sheffield) in the early 1960s. David started by outlining his palynofacies work; these analyses do not consider the ubiquitous amorphous material which tends to swamp the kerogen assemblages. Using spiking techniques, absolute counts were made and signatures developed each using two elements. Some lowstand anoxic events were recognized and maximum flooding surfaces characterize the tops of the Blue Lias and the Belemnite Marls. These and other maximum flooding surfaces are defined by acritarch 'spikes.' David showed slides of some apparently undescribed acanthomorph acritarch taxa. *Classopollis* dominates the pollen floras and the dinoflagellate cysts *Dapcodinium priscum* and *Liasidium variabile* were not encountered. The range base of the *Parvocysta* suite was found to be within the *margaritatus* zone; the Toarcian Junction Bed represents the stratigraphical inception of *Nannoceratopsis* and common *Parvocysta* spp. This turned out to be the last BMS meeting of Ali D. El-Mehdawi's time as a researcher at the University of Sheffield, Ali spoke on "New dinocyst taxa from the Late Cretaceous of the southeastern Sirte Basin, Libya." All new material is from the late Cenomanian/Turonian to early Maastrichtian of well C3-65. A large, previously undescribed cavate peridiniacean genus similar to *Deflandrea ("Khazmidinium")* was illustrated. An unusual form of *Odontochitina* with paratabulate and perforate periphragm was described from the Santonian/Campanian of C3-65. One of the late Campanian markers is *"Jaludinium,"* a cavate peridinacean form with longitudinal ridges, a flagellar scar and closely-spaced antapical horns. Ali has now returned to Libya; we all wish him the very best of luck in his new job. The final talk of the meeting was presented by Duncan McLean and entitled "An integrated approach to sequence stratigraphic interpretations: onshore analogues to Namurian plays in Quad 43, southern North Sea," and was co-authored by S. Davies (University of Liverpool) and D. Oliver (Conoco UK Limited). This is a multidisciplinary study using wireline log signatures, sequence stratigraphy and palynology to attempt to better understand offshore reservoirs by examining well-exposed onshore analogues. The R1c goniatite biozone, incorporating four marine bands and a single miospore zone was selected. This strategy should ensure that changes in the spore assemblages will reflect vegetational change rather than evolution. A hand-held natural gamma ray spectrometer was used in order to help correlate strata from the Clare Basin in Ireland and the Pennine Basin with coeval sediments from the southern North Sea. Both the onshore areas proved similar to the offshore sediments although transgressive systems tracts are rare in the Pennine Basin. The onshore marine bands proved high in Uranium and low in Thorium, thus helping to identify these horizons in the offshore area. Furthermore the results proved that palynology coupled with wireline log evidence can pinpoint marine bands in the deep basin. The two disciplines also are also mutually supportive in the sandstone-mudstone successions between the marine bands. Palynology is best at identifying systems tracts and gamma ray traces can pick systems boundaries.

Duncan McLean and Nick Turner (BGS) chaired the two sessions. The BMS is grateful to Duncan McLean for organizing this interesting and convivial meeting and to the University of Sheffield for the use of their facilities. Attendance was fair, however I was struck by the relatively few attendees not from the Sheffield region. It is a great pity that these sort of gatherings do not seem to generate major interest these days. The adage 'time is money' has never been more true in these rather unforgiving times, but employers, postgraduate supervisors etc. should realize that these meetings are normally of great benefit and endeavor to send at least one delegate.

News has reached me from the University College of Wales, Aberystwyth that an appointment has not been made in response to the recent advertisement of a lectureship in palynology. I believe that the position has been readvertized, with much broader terms of reference. May I remind AASP members that the BMS's Silver Jubilee Meeting will be held at University College London on Saturday 18th November 1995. Six keynote lectures will be given; these will include a presentation on radiolarians and micropaleontological information technology by Bill Reidel. Another U.S. micropaleontologist, Tom Cronin (United States Geological Survey) has agreed to give a talk on h ostracode research. The journal and reprint sale is continuing; an orders should be routed to myself. Recently the committee decided to instigate a new class of membership. As of 1995, members who are retired may pay a lower rate of subscription, i.e. £15 per annum. This works out at approximately U.S.$23. Suitably qualified AASP members may, of course, take advantage of the retired membership subscription rate.

SHORT COURSE REPORT

Paleoecology and Human Impact from "Extra" Microfossils

B. VAN GEEL (The Netherlands) gave a course called "Algae, Fungal Spores, and Animal Remains in Pollen Slides—Their Morphology, and Ecology" at the Institute of Botany, Bern, Switzerland, 23–26 Jan. 1995. Fifteen palynologists from various central European countries participated. In a series of lectures, van Geel showed that these extra fossils, combined with pollen, help in reconstructing local vegetation in the past more faithfully than can be achieved with pollen alone. They can also be used to infer and distinguish various kinds of human impact, such as grazing, deforestation, or burning. A better assessment of human impact in the past will help to more clearly separate anthropogenic and climatic signals in palynological diagrams.

Report by P. van der Knaap,
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E-Mail: knaap@sgi.unibe.ch.
Reprinted from the newsletter *Pages*, 3(1): 3.

PALYNOLOGY AND THE WORLD WIDE WEB

AASP LAUNCHES WWW SITE

The AASP Web site was officially launched on April 24, 1995 by announcements on the e-mail lists PaleoNet, Micropal, Polpal, and Quaternary-L. The site is a series of hyperlinked "pages" and features:

- The AASP executive for 1994–1995.
- Official AASP notices and deadlines.
- Awards, medals & honorary memberships.
- A Members' bulletin board.
- A trading corner.
- Instructions on how to join AASP.
- A complete list of AASP Foundation publications with ordering instructions.
- A text-only version of the current AASP Newsletter (the April issue was on-line several weeks before arrival of hard copy).
- A regularly updated e-mail directory of AASP members.
- Latest information on the AASP Annual Meeting (Ottawa, 1995) including color photos of the Chateau Laurier, and Schedule & Call for Papers, with printable abstract and registration forms.
- 9th International Palynological Congress (Houston, 1996) including Second Circular with color photos, printable forms, and all updates.
- News of AASP Student Scholarships.
- AASP's collection of 14 Palydisks, supplied by Owen Davies, which can be downloaded directly from the AASP Web site.
- Other information of interest to palynologists.
- The usual cross links to other Web sites.

The AASP web site address (case sensitive) is:

http://www.geology.utoronto.ca/AASP

The AASP Web site can be accessed with any browser, but looks best on the graphical browser *Netscape* which allows text to be centered, wrapped around graphics, and even made to blink! Future features include the published abstracts of all papers in *Palynology* as a single downloadable text file for easy searching. The AASP Web site is currently located on a server in the Geology Department at the University of Toronto.

The Web Site was developed by Martin Head who welcomes suggestions for its improvement. Please also contact Martin if you wish to place an item on the AASP Web site (e.g., the bulletin board or trading corner) or if you wish to have your e-mail address or personal home page added to the e-mail directory. The AASP Web site is usually updated weekly.

Martin J. Head, AASP WebMaster
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PALAEONTOLOGICAL ASSOCIATION NEWSLETTER ON WWW

The Newsletter of the Palaeontological Association is now available for you to download and peruse at your leisure. From this day forward, each issue (four a year) will be made available as it appears. The latest issue contains, among other juicy bits, the contents of The Association's journal "Paleontology", announcements of forthcoming meetings of the Pal Ass and other bodies, conference reports, excursion reports, book reviews... All this and more.

The Palaeontological Association Newsletter is now available on the WWW at the following url:

http://www.nhm.ac.uk/paleonet/PalAss/Newsl26.html

Note that the web is case sensitive, and that "Newsl" is as in Newsletter, not news(one). This service could not have been provided without the assistance of the nhm and Norm MacLeod in particular.

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E-MAIL DISCUSSION LISTS

For those seeking e-mail discussion lists, I have uploaded to the paleonet ftp server an updated version of an article published in the Winter 1994 issue of the Canadian Association of Palynologists Newsletter (a modified version appeared in the January issue of the American Association of Stratigraphic Palynologists Newsletter).

The file, named "palaeo-discussion-lists.txt" comprises (1) a short introduction to e-mail discussion lists, aimed at the novice user, and (2) a list of e-mail discussion lists of possible interest to palynologists, and paleontologists in general.

The file is in setext format, i.e. it can be read with any text editor or word processor (PC, Mac, unix, etc), but it looks better if browsed with EV 1.6 (PCs), EasyView 2.61 (Macs), or sv 0.5 (unix boxes). You can download it via anonymous ftp from ftp.nhm.ac.uk in the paleonet/General_Paleo. directory.

For web enthusiasts, the URL is:

ftp://ftp.nhm.ac.uk/paleonet/General_Paleo./palaeo-discussion-lists.txt

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U.K. POLLEN CATALOG ON WWW

I have set up a WWW site with a pollen catalogue of pollen and spores of the British Isles. I have begun illustrating it with pollen photographs, and am actively seeking funds to complete the task (I have most of the photos that are necessary: it is time and money to transfer them from 35mm slide film onto CR-ROM and thence into usable graphics format that I need). I envisage a system with a set-up cost, but no running cost to the user. The user needs only internet access and a graphical WWW

browser.

My efforts so far can be seen at the URL:

http://www-palecol.plantsci.cam.ac.uk/

I would be interested in any comments, and particularly in the quality of the pollen images as seen through different web browsers. Perhaps the main limitation at the moment is the speed of lines for transmission of graphics files (especially across the Atlantic).

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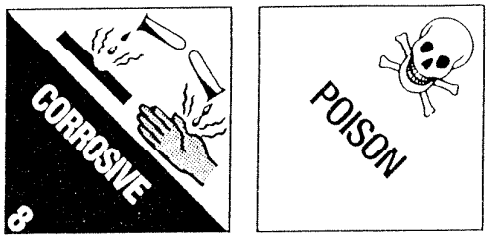
HF ACID BURN TREATMENT



TOPICAL DMSO/CA GLUCONATE

A paper by Zachary et al. (1986), brought to my attention by Vaughn Bryant, highlights the dangers of misusing hydrofluoric acid. The main conclusion of this paper is that the application of topical calcium gluconate in dimethyl sulfoxide (DMSO—which acts as a penetrant-carrier) in concert with subcutaneous injections of calcium gluconate *together* provide (perhaps synergistically) an effective treatment. The topical DMSO/Ca gluconate is particularly important in hand injuries where excessive injections of calcium gluconate can *themselves* cause tissue and vascular damage. An abridged abstract of that paper, followed by a case report, are reproduced below—Ed.

Abridged abstract: Hydrofluoric acid burns commonly involve the hands. Treatment with subcutaneous injections of calcium gluconate in the fingers may be limited by the volumes needed to neutralize the fluoride ion. Hydrofluoric acid burns of the hand and fingers in a patient were treated with a topical DMSO/10% Ca gluconate. This clinical experience was then used to determine whether topical DMSO and 10% gluconate would improve the treatment of experimental hydrofluoric acid burns. Laboratory experiments using rats suggests that the combined use of subcutaneous 10% Ca gluconate plus topical DMSO/Ca gluconate may act synergistically to prevent progression of this injury.

Case report: A 27-year-old laborer was holding a container into which another worker was transferring 70% HF acid. Acid spilled down his glove and over the dorsum of the left hand. The man quickly rinsed the hand and sought treatment at a neighborhood clinic, where an unknown cream was applied to the burn as part of a dressing. The patient was then released. Later, because of persistent, severe pain, he was seen in the emergency room of another hospital and referred to our burn center, where he was evaluated 10 hours postburn. The chemical burn involved the dorsum of the left hand and the web spaces of the second through fourth digits. The skin was edematous with white discoloration ar early blister formation. Active range of motion (ROM) was limite. Capillary refill and digital artery Doppler pulses were present.

Initially the patient's hand was injected subcutaneously with 10% Ca gluconate, about 0.5 ml/sq cm of tissue, causing the skin over the digits to become tense. Following injection, the patient reported some relief of pain and was transferred to hydrotherapy for further dilution of the acid and for debridement. The hand was dressed with gauze, which was kept moist with a solution of 10% Ca gluconate and dimethyl sulfoxide (DMSO).

Evaluation on postburn day (PBD) 2 showed no apparent progression of the injury. Treatment consisted of application of DMSO/Ca gluconate dressings moistened every two hours, active ROM exercises, hydrotherapy with splinting, and elevation at night.

On PBD 7, the wounds were largely epithelialized, and the DMSO/Ca gluconate dressings were discontinued. The patient had full ROM with symmetrical grip strength and was discharged on PBD 9 with good functional results, confirmed at outpatient follow up. The only problem was loss of the nail of the involved digits, but the nail matrix remained viable with growth of new nails by six weeks.

Excerpted from: Zachary, L.S., Reus, W., Gottlieb, J., Heggers, J.P., and Robson, M.C., 1986. Treatment of Experimental Hydrofluoric Acid Burns. *JBCR*, 7(1): 35–39.

OTHER HF TREATMENTS

Soaking in an iced aqueous solution of Hyamine (2g of Hyamine dissolved in 1 liter of distilled water) has also been used for HF burns (see AASP Newsletter, vol. 28[1]: p. 15—January 1995). Hyamine 1622, is the commercial name for benzethonium chloride, a quaternary ammonium compound. It appears to work by penetrating the skin and forming an insoluble complex with the fluoride ion, thereby preventing further damage.

Topical application of 2.5% calcium gluconate gel has been recommended for the treatment of HF burns in an article by Tom Shelley (see AASP Newsletter, vol. 28[2]: p. 13–14—April 1995). This article gives the address where it can be purchased. Weak acid splashes can be particularly dangerous because they may go unnoticed for a number of hours. For this reason users of HF should keep a supply of calcium gluconate gel (or other agent) **at home** as well as in the lab.—Ed.

POLLEN ANALYSIS IN BELIZE

The Department of Botany at the Natural History Museum in London has a research program centered around a joint NHM and Belize Forest Department research station at Las Cuevas in the Maya Mountains of Belize.

I am currently preparing grant proposals to support pollen analytical studies based on cores from various sites in Belize. In the early stages of this project I am very keen to hear from anyone who is workin on pollen analysis at other sites in Central America, to know references for published literature on the region. Copies of reprints wil be especially welcome.

Finally, as we begin production of pollen reference slides for the Belize flora, starting in early 1996, is there anyone who would like to establish a programme of microscope slide exchanges? Many thanks!

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NHM World-Wide-Web Home Page: http://www.nhm.ac.uk/index.html
[Posted to the list "Polpal" on 6 Jun 1995]

REVISED CHRONOLOGY OF NEOGENE DSDP HOLES FROM THE WORLD OCEAN

by

David Lazarus, Cinzia Spencer-Cervato, Milena Pika-Biolzi, Jean Pierre Beckmann, Katherina von Salis, Heinz Hilbrecht, and Hans Thierstein

After nearly 30 years of growth in geochronologic knowledge, the originally published age models for many older deep sea marine sections have become badly outdated. In this report we present newly revised age models for Neogene sediments from 94 DSDP holes. Biostratigraphic data for planktonic foraminifers, calcareous nannofossils, diatoms and radiolarians, paleomagnetic and other stratigraphic data were compiled from the original Initial Reports volumes of DSDP. The Berggren et al. (1985) scale was used for the age of magnetic reversals, and a variety of recent papers were used to establish a standard modern set of calibrations for marine microfossil events to the magnetic reversal scale. New age vs depth plots were made for each hole, and for each a new line of correlation was created. All tabulated stratigraphic data, new age models, and age depth plots are given as appendices to the report.

The report is available in two forms. A printed version (301 pp.; incl. approx. 130 p. of tables and 157 black & white plots) is available from the Ocean Drilling Program as Technical Note # 24. Single copies are normally free of charge. Contact:

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Publications Distribution/ODP-TAMU
Ocean Drilling Program
1000 Discovery Drive
College Station, TX 77845 USA
Alexandra_Moreno@odp.tamu.edu

An interactive hypertext version, including full color plots, freely downloadable computer readable versions of all files, etc, is available from the NGDC via the World-Wide-Web. The URL for this is:

http://www.ngdc.noaa.gov/mgg/geology/lazarus.html

The NGDC version also includes a downloadable copy of the Age Depth Plot program used to create most of the figures in the report (runs only on Macs). Questions, comments, and suggestions for improvements may be directed to me.

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INDUSTRY BIOSTRATIGRAPHIC COORDINATORS GROUP

by H.R. Lane

For those of you who are not familiar with the Industry Biostratigraphic Coordinators (formerly Industry Paleontology Managers), we are a representative body of Paleontologists working within the major oil companies. We meet every 1–2 months and discuss issues and problems facing paleontologists in industry as well as those facing paleontology as a science. It is not a formal organization, nor are we affiliated with any society or external organizations and we plan to maintain it as such. We have a mission and vision, but I will not share those here. They are available for those who are interested. We do keep minutes and we thought there might be a number of you out there who would be interested in our results. I will be sending out these minutes of our meetings as we hold them for reasons of promoting communication with the entire paleontological community. I hope they will not be regarded as junk E-mail and we would suggest that other such organizational interest groups (museums, consultants, academics, funding organizations, etc), where and if they have formed, might consider doing the same. As with 1994, we have set out a list of objectives that we would like to work toward for 1995. Those are listed below. We had objectives for 1994 and earlier this year, we summarized our success/failure in meeting those objectives. I will send that out at a later date.

Objectives for 1995 (with comments on progress)

1. Form a Paleontological Network including industry, consultants, academia, government, museums, societies, etc.

Ongoing. This we consider to be one of our big successes for 1994. We organized the Denver AAPG Meeting consisting of a cross-section of Paleontologists to begin a dialogue. The main fall out of this meeting was the establishing of PaleoNet. Thanks to the major effort of the NHM, London it is a reality. We also have organized a Paleo Network Meeting in Seattle and Houston. Bottom line on the objective is that we strongly feel that paleontologists of all disciplines and organizations need to communicate better so as to form a more cohesive science. Remember what Ben Franklin said about 'hanging together or surely we will all hang apart.'

2. Send out summaries of annual results and meeting summaries on PaleoNet, Micropal. [These are e-mail list: see article by Florin Neumann in AASP Newsletter for January 1995, p. 18–21.—Ed.]

Just what we are trying to do.

3. Meet with Museum Specialists to begin Networking.

With industry focusing on the applications-only part of the work chain, we feel the heart of paleontology is left hanging. The analysis and taxonomic part of our business is at risk and we want to do something about it. Museums would seem to us to be a stable organizational entity that with the available staffing could carry this part of paleontology forward and perhaps make a profit at it. It certainly is more vision than reality at this time, but we would like to talk to a group of museum paleontologists/directors to see what could if anything be structured.

4. Identify key contacts in museums, NSF, Government, Academia, Surveys, etc., for communication–resource reasons.

We believe that, in addition to paleontologists communicating through PaleoNet, journals and so on, we need the leaders of museums, heads of government paleo groups, heads of industry paleo groups, key academicians, etc., to be communicating. We sense that this is not happening. Such a communicating group could be a powerful force within the scientific world and could do nothing but good for paleontology as a whole.

5. Continue to investigate quality of best practices among vendors and options.
    a. processing/sample handling
    b. analysis

We feel we need to provide consultants and vendors with some best practices guidelines to improve and standardize quality of processing and analysis of fossils that we ask them to work on for us.

6. Formalize a plan for an industry library network.
    a. Initial focus on current journal subscriptions.
    b. Contact person at each company for books.
    c. Highlight strengths of each.

Large industry paleontological libraries are currently at risk and we need to strategize around maintaining them and utilizing them most effectively to all of our benefit.

7. Work on article targeted for Explorer on need for paleo coordinators in larger independents. Initiate with follow-up letter informing them of available biostrat. services to differentiate between independents doing paleo/rock work vs. no paleo.

Many larger independent oil companies request volumes of paleontological work from outside sources but they do not have the staff to analyze and effectively utilize the paleo information they receive. We would like to convince them that they can save and make money by having at least one paleontologist on staff. This would also probably have the effect of increasing the work for those on the outside.

8. Establish User Groups on Quantitative Stratigraphy and Ragware.

We would like to start some Houston based discussion groups on particular computer product use or emerging specialties.

9. Promote better communications with Houston area paleo community.

10. Compile a contractor register for vendor services.

Comments

We would appreciate any comments you may have. Are we on target, or do you think there are other matters we should be addressing.

Rich Lane
hrlane@amoco.com
[This article appeared on the e-mail list *PaleoNet* and is reproduced with permission.—Ed]

EDITORIAL

THIS issue introduces "Trading corner," a new column intended to facilitate an exchange of items (reprints, samples, equipment, etc.) of interest to palynologists. This feature has been on the AASP Web site for more than a month (see p. 13), and I will gladly post contributed items both on the Web site and in the Newsletter.

It is a pleasure to introduce Dr. Koldo Núñez-Betelu as Newsletter Correspondent for southern Europe (see p. 9). He joins Niels Poulsen (correspondent for the Nordic countries) and Jim Riding (correspondent for the U.K.) in providing readers with an insight into palynological events outside North America. I first met Koldo several years ago at a conference in Utrecht and then a short course in Calgary, and I'm sure we can expect a steady flow of interesting news items from him. I am still looking for correspondents to represent other parts of the world. Please contact me if you are interested in the job.

The April issue of the Newsletter reported on budgetary cuts to the Geological Survey of Canada, and our President's address in that issue discussed proposed cuts at the U.S. Geological Survey. A seven-year budget resolution has now been approved by the House of Representatives and the Senate which will dramatically trim federal spending on science and technology. Details of cuts at the USGS apparently will be announced on August 1, and the implications for palynology will be outlined in the next issue of the Newsletter.

On the industry front, the April issue of the *AAPG Explorer* colorfully articulates the value of paleontology in oil field exploration and production (see Durham, L.S., 1995, Paleo not MVP—but still a player; *AAPG Explorer*, April 1995, p. 18, 19, 25: this article was kindly brought to my attention by Judi Lentin). In it I read that the cost of running paleo on a well is less than several percent of the mud bill on many wildcat wells, and that E&P in the Gulf Coast is 90% stratigraphy and sedimentation! While the cost benefits of palynology are apparent to all of us, convincing management is still a battle. Plus, the downsizing of many companies and extensive reliance on consultants has led to a "cottage industry" that is difficult to optimize for efficiency. With these kinds of issues in mind, the Industry Biostratigraphic Coordinators Group is operating to benefit paleontology in industry, and has set out its aims and its progress on page 15. One objective is to compile a contractor register for vendor services. It occurs to me that such a register for consulting palynologists might be a useful item for the AASP Web site, and for added exposure could be linked to the home page of PaleoNet at the Natural History Museum. I will happily coordinate this if I receive positive feedback from AASP members.

The AASP Annual Meeting in Ottawa promises to be an exciti event (see p. 4, 5 and the AASP Web presentation) and I look forward to seeing many of you there.

APPENDIX TO *AASP NEWSLETTER*, JULY 1995
AASP MEMBERS E-MAIL DIRECTORY

This directory was prepared by David Pocknall (with additions by Martin Head) and is taken from the AASP Web site. Personal WWW home pages of members will be added to the Web version of this list as they become available. You may have your e-mail and/or WWW address added, changed, or removed from the list by notifying Martin Head (head@quartz.geology.utoronto.ca). The Web version of this directory is usually updated weekly.

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AASP MEMBERSHIP APPLICATION AND DUES NOTICE

Dues may be paid up to three years in advance. Overseas AASP Members (Individual or Institutional) who would like to receive their AASP Newsletter and Palynology by air mail, rather than book rate surface mail, need to include the applicable postage surcharge (noted below). Credit card users must pay a $1.00 U.S. surcharge per transaction.

		Enclosed
Dues		
Individual dues:	$30.00 U.S. per year	$ _____
Institutional dues:	$40.00 U.S. per year	$ _____
Air mail surcharge (increased for 1995 and beyond)		
Europe & South America:	$12.00 U.S. per year	$ _____
Africa, Asia & Australia:	$15.00 U.S. per year	$ _____
Credit card surcharge ($1.00 per transaction)		$ _____
Contribution to the AASP Student Scholarship fund		$ _____
TOTAL ENCLOSED (IN U.S. FUNDS)		$ _____

Credit card payments (ALL information must be completed)

Mastercard ☐ **Visa** ☐

Credit card number: |_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|_|

Signature: _____ **Card expiration date:** _____

Send dues, surcharges (if applicable) and Student Scholarship contributions, with this form, to:

Dr. David T. Pocknall, AASP Secretary-Treasurer
Amoco Production Company
P.O. Box 3092
Houston, Texas 77253 U.S.A.

Be sure your name is on your check or international money order. Your cancelled check is your receipt. If you need a written receipt, advise the Secretary-Treasurer when you pay your dues. **All drafts must be payable through a U.S. based bank**.

Name: _____
Address: _____
_____
City & State: _____
Country: _____ Zip or Postal Code: _____

Membership Application and Change of Address

New member: ☐ Change of Address: ☐

Please type or clearly print information. Date: _____
Name (First, Middle, Last): _____
Address: _____
_____
Telephone: _____
Fax: _____
E-mail: _____

Nature of work (graduate student, exploration stratigrapher, etc.)

Send along with your remittance to Dr David T. Pocknall at the above address.