July, 1990
Volume 23, Number 3

AASP NEWSLETTER

DEPT. GEOLOGY AND GEOGRAPHY
L.B. 8149
GEORGIA SOUTHERN UNIVERSITY
STATESBORO, GA. 30460
Attn: F. Rich

AASP NEWSLETTER

Published Quarterly by the American Association of Stratigraphic Palynologists, Inc.

VOLUME 23: 3 July, 1990

ISSN 0732-6041 F.J. RICH, EDITOR

PRESIDENT'S MESSAGE

Dear AASP Members:

Recently a European friend asked me "What kind of man would allow himself to be called 'Bobby'?" To understand the question, one needs to have lived in Europe where such a name would only be used for a child. In the United States, things are slightly different. Remember Bobby Kennedy or Jimmy Carter? Bobby is a nick-name for Robert, a childish diminuitive which, outside of the U.S.A., would not be passed on to a man with any status.

The Bobby in question is without doubt a man of status.; a Founding Member of AASP, the seventh President of the AASP, a founder and Trustee of the AASP Foundation and a 1978 recipient of the AASP Distinguished Service Award, yet it is difficult to imagine Dr. Robert T. Clarke as anything but Bobby Clarke. However, out of deference to the 52% of the AASP membership which lives outside the U.S.A., I shall refer to this remarkable man simply as "Bob".

In 1975 Bob, along with several other AASP members, decided that the AASP needed a trust fund for "educational, scientific and charitable purposes". As a result, the American Association of Stratigraphic Palynologists Foundation was established on May 17, 1976. Drs. Norman J. Norton, Robert T. Clarke and Raymond E. Malloy were the first Trustees of the Foundation. Ray Malloy was replaced by Dr. Richard W. Hedlund in 1977.

Like most members of the AASP, I had little idea about the nature of the AASP Foundation, until I was elected president. The Foundation is quite different from the AASP, Inc. which is a corporation. All funds, properties and assets of the Trust (AASP Foundation) are used exclusively for scientific or educational purposes. Funding of the Trust comes from donations ($100 makes you a Century Club member), bequests, the publication and sale of the AASP, Inc. journal PALYNOLOGY and the publication of THE CONTRIBUTION SERIES, which includes several books. Individual members who publish their larger manuscripts and books as a CONTRIBUTION SERIES do not receive royalties; all profits from the sale of the series go directly to the Trust.

Running the AASP Foundation is a significant task. It is easy to imagine three or four dedicated individuals, working full-time in an office somewhere in Dallas or Houston. These people would surely be well paid because they would be responsible for dealing directly with the publisher to ensure that the best quality reproduction is provided for both PALYNOLOGY and the CONTRIBUTION SERIES and that the price for the publication be kept as low as possible. Another person might be responsible for responding to all requests for items from the growing list of publications. This includes storing the printed materials, keeping track of how many of each publication are available, preparing the orders for mailing, sending out the invoices, or writing to someone to explain that the publication requested is now out of print. There would also need to be someone who is responsible for dealing with bequests and for soliciting donations through the sale of Century Club memberships. This same person could probably also take care of the reports to the Board of Directors of AASP, Inc. which are presented at the Annual Meeting and the Mid-year meeting. Unfortunately, because of the structure of the Trust, that individual would probably be responsible for his/her own air fare and hotel bills for these meetings. This employee could also be responsible for preparing a display of Foundation publications for sale at the annual meeting. A good accountant would also be necessary to record funds taken in for the sale of publications, donations, bequests, issue appropriate tax receipts and be sure that all invoices sent out with the publications are paid. This third employee would also keep track of all expenses for stationary supplies, extra workers, publication costs and mailing, as well as the preparation and submission of the labyrinthine tax forms that are required for Non-Profit Trusts. I suppose that this mythical AASP Foundation office would also need a manager to make sure all of these things get done by the other three employees.

Believe it or not, all of the above tasks are done by just one man - in his spare time, as a volunteer. Dr. Robert Clarke deals with the publisher, manages the sale of publications, is the trust accountant, marketing manager, and general manager of the AASP Foundation. That is the kind of man who would allow himself to be called "Bobby". Thanks Bobby, you are incomparable.

Bob isn't the only AASP member who works very hard and who has received an AASP award. The association, from time to time, presents various awards. The original award of the society is the AASP HONORARY MEMBERSHIP AWARD which was first given in 1975. This award is given to inividuals who have made a distinguished contribution to the science of palynology. Honorary members of the AASP include:

Dr. Alfred Eisenack, 1975
Dr. William S. Hoffmeister, 1975
Dr. Leonard R. Wilson, 1975
Dr. Charles Downie, 1982
Dr. Lucy Cranwell-Smith, 1989
Dr. William R. Evitt, 1989
Dr. ------?------, 1990 (surprise!)

For members of the AASP who give constantly of their time and effort to be certain that the ideals of the association are carried out there is a DISTINGUISHED SERVICE AWARD. It is not an exaggeration to say that without these special individuals the AASP simply would not have become the viable organization it it today. Members who have received this prestigious award include:

Dr. Robert T. Clarke, 1978
Dr. Norman J. Norton, 1978
Dr. Jack D. Burgess, 1982
Dr. Richard W. Hedlund, 1983
Dr. John A. Clendening, 1987
Dr. ------?-------, 1990 (another surprise!)

The AASP MEDAL FOR SCIENTIFIC EXCELLENCE is the last of the major awards given by the AASP and is probably the most coveted award given by the association. You will recognize the name of each recipient instantly and be delighted for them if you know them personally. The recipients of the AASP MEDAL FOR SCIENTIFIC EXCELLENCE include:

DR. WILLIAM R. EVITT, 1982 - "for 25 years of outstanding scholarship in the study of fossil dinoflagellate cysts. His early morphologic insights permitted an orderly development of dinocyst taxonomy and encouraged the detailed descriptions of species which greatly enhanced their use in geologic studies."

DR. WILLIAM G. CHALONER, 1984 - "to honor his innovative contributions to sporomorph and plant paleoecology. His ability to integrate his palynological and paleobotanical observations and insights into new scientific concepts has significantly advanced paleoecological studies in palynology."

DR. LEWIS E. STOVER, 1988 - "to honor his extensive contributions to the study of diverse groups of palynomorphs over four decades. His power of meticulous observation, insightful analysis, and clear discourse have set a high standard for research and applied palynological studies in evolution, morphology, systematics, and biostratigraphy."

Any AASP member in good standing (paid dues!) may nominate an individual for the above awards. The letter of nomination must include supporting documents and is sent to the chairman of the Awards Committee. The committee will review each nominee to determine worthiness and make its recommendation to the AASP Board of Directors for consideration. Approval is not automatic. The current chariman of the Awards Committee is Dr. Owen K. Davis.

Other awards are also given at the annual meetings. They include the L.R. Wilson Outstanding Student Paper Award, AASP Best Poster Award, and the Unocal Best Geologic Applications Award. All participants giving oral or poster presentations at the annual meetings are eligible for these awards. Students wishing to try for the L.R. Wilson award must indicate this desire on the abstract form for the meeting. There is also an AASP Scholarship which is announced in the fall NEWSLETTER and awarded in April of the following year. Students who have been given the scholarship are recognized in the AASP NEWSLETTER. (See this issue for this year's recipients)

All AASP members are encouraged to participate in the activities of the organization by attending the annual meetings, joining committees, writing articles for the NEWSLETTER and submitting manuscripts for publication in PALYNOLOGY and/or THE CONTRIBUTION SERIES. The AASP needs you.

We have received several letters requesting information about the various universities offering graduate courses in palynology mentioned in the last NEWSLETTER. As I do not have copies of the reqiurements of these schools, please address your inquires directly to the colleges or universities involved. In addition, Ian Harding at the University of Southhampton requested that the MSc and PhD programs at Southhampton shoud also be mentioned. A list of the addresses and contacts for the various universities mentioned are as follows:

Dr. Joe Hazel
AASP CENTER FOR EXCELLENCE IN PALYNOLOGY
Louisiana State University
Department of Geology
Baton Rouge, Louisiana
USA

Dr. Geoffrey Norris
Department of Geosciences
The University of Toronto
Toronto, Ontario
CANADA M5S 1A1

Dr. John Marshall / or Dr. Ian Harding
Department of Geology
The University
Southhampton, England
U.K. S09 5NH

Dr. Alfred Traverse
Dept of Geosciences
The Pennsylvania State University
University Park, Pennsylvania
USA 16802

Dr. David Batten / or Dr. Bruce Tocher
PALYNOLOGY RESEARCH CENTER
Inst. of Earth Sciences
U.C.W., Univ. of Wales
Aberystwyth, Wales
U.K. SY23 3DB

It surprised me that the AASP has no comprehensive list of the universities and colleges from around the world which teach palynology at various levels - undergraduate, MSc, and PhD. I would like to build a file of such institutions with a list of courses and specialities whether archeological, paleoclimatical, modern pollen dispersal, morphology, forensics, spores, chitinozoa, dinoflagellates, etc. Please send me your university brochure and any information you would like to have included in a display of universities and colleges offering palynological training. I will set up a table at the AASP annual meetings to accomodate the display. Send to Dr. Judith Lentin, L.I.B. Consultants, Suite 2110, 505 4th Ave. SW, Calgary, Alberta CANADA T2P OJ8. You can also bring materials to the meeting in Banff for display. I would like to publish a comprehensive list in a future NEWSLETTER, so please send information as soon as possible.

Best Wishes,

Judith Lentin, President AASP

AMERICAN GEOLOGICAL INSTITUTE

Charles G. Groat Appointed AGI's Executive Director

Charles G. Groat, currently serving as Louisiana state geologist, has been named Executive Director of the American Geological Institute. Frank Harrison, AGI's president, announced the appointment, noting that Groat will begin his official duties July 16.

Groat, 50, has been director and state geologist of the Louisiana Geological Survey since 1978. In addition, he was chairman (1976-1978) of the Department of Geological Sciences, University of Texas, Austin; and research geologist (1968-1971) and associate director (1971-1976), Texas Bureau of Economic Geology, Austin.

Groat has been professionally active in the American Association of Petroleum Geologists, including its Energy Minerals Division, the Association of American State Geologists, the Geological Society of America, and the Society of Mining Engineers of AIME. His areas of research interest are energy resources and coastal resources.

Groat was born in Westfield, N.Y. He received his bachelor of science degree in geology at the University of Rochester, his master's from the University of Massachusetts, and his PhD at the University of Texas, Austin.

Scholarship Winners

Owen Davis submitted the following results of the competition for AASP's Student Scholarships. Two such scholarships are awarded in the amount of $300 (US). Winners are chosen based on the qualification of the student, the originality and imagination evident in the proposed project, and the likelihood of significant contribution to the science of palynology.

The two first-place candidates for the AASP Student Scholarship are Thomas D. Demchuk, University of Calgary, and Ian D. Campbell, University of Toronto. The title of Tom's proposal is "Organic Petrology (Coal Facies) of the Highvale Coal Zone, Wabamun, Alberta, Canada." Ian's is "Modelling the Last 1000 Years of Forest Succession in Southern Ontario." Each will receive $300. Honorable mentions go to C. A. Baied, Univ. Colorado; J. L. De Lanoise, Univ. Arizona; Luis (Koldo) Nunez-Butelu, Univ. Calgary; F. E. Oboh, Univ. Cambridge; and E. L. Vezey, Univ. Oklahoma.

Biography for Ian D. Campbell

Ian was introduced to stratigraphic pollen by Dr. M. A. Geurts at the University of Ottawa, where he received a B.Sc. and M.Sc. in Geology. He is married to an archaeologist, with one child. Now living in Toronto, Ian is working on a Ph.D. under the supervision of Dr. John H. McAndrews.

His research focuses on causes of the beech decline/pine rise in southern Ontario during the last 1000 years. This is being approached primarily through simulation modelling of forest succession under climatic change and prehistoric Indian swidden agriculture. The simulation results are to be compared with pollen records. A second approach is the cluster analysis of trends in Ontario pollen diagrams.

Biography for Thomas D. Demchuk

Thomas is a true Albertan, being born and raised in Edmonton, Alberta. He received his B.Sc. in Geology from the University of Alberta in Edmonton in 1983. Through his many years of summer work with the Alberta Research Council, he became interested in the Upper Cretaceous and Paleocene stratigraphy of the Alberta Plains and Foothills. At the Research Council, he met Dr. Chaitanya Singh who introduced Thomas to palynology and suggested doing a Masters thesis. Under the supervision of Dr. Singh, this rsearch established a palynostratigraphic zonation for the Paleocene strata of the Alberta Plains. This was completed in the fall of 1987. That same year, Thomas moved on to Calgary to initiate a Ph.D. dissertation under the supervision of Dr. Len Hills, at the University of Calgary.

Thomas' Ph.D. research is an investigation into the paleoecology of a lower Paleocene coal zone from Wabamun, Alberta, in the central Plains. By investigating the palynology, the original flora of the coal swamps can be determined. By integrating these palynological data with coal petrography and coal geochemistry studies, a detailed depositional model for these coals can be developed. This depositional scenario can then be used to explain and extrapolate trends in coal quality variation. At Wabamun, Alberta, six thick coal seams are present over a small stratigraphic interval. Three open-pit mines in the area have exposed these coals and have allowed for very detailed sampling of all coals. At present, the palynological aspect of this research is being undertaken. Thomas hopes that his dissertation will be completed by late 1991 or early 1992.

In 1986, Thomas was a recipient of the AASP Student Scholarship (for his M.Sc.) and was a winner of the L.R. Wilson Student Paper Award at the 1987 Annual Meeting in Halifax. Currently, Thomas is on the Organizing Committee of the 1990 AASP Annual Meeting to be held in Banff in October.

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Following here is a note from the April, 1990, issue of Geographica, the National Geographic Magazine. An AASP member once again makes an impression on the public!

Corn on the Cob, 2,200 Years Old

I n science, as in most things, it pays to be lucky.

Stephen A. Hall, a University of Texas geologist, was in New Mexico to find out more about the early environment of today's Zuni Indian Reservation. He spotted some charcoal in deposits buried 23 feet deep but exposed in the wall of an arroyo. Hall and his colleagues with the Zuni archaeology program began to dig out the charcoal and found corncob fragments. The fragments proved to be bout 2,200 years old - the oldest corn ever found on a Zuni site and among the oldest samples in the American Southwest.

Hall, whose work was supported by the National Geographic Society, says that the cultivation of corn began in Mesoamerica at least 5,000 years ago. Little is known about the path that corn followed northward into what is now the United States. The combination of charcoal, corncobs, and clumps of pollen grains suggests that what Hall found was a field site of some sort, perhaps one where harvested corn was roasted. The absence of any other artifacts indicates that the harvesters lived elsewhere, perhaps in caves or in the open not far away.

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And yet more news...
Dr Vaughn Bryant, Jr., has, with due modesty, brought the following item to the editor's attention. Vaughn was among a number of faculty and staff at Texas A&M who were recognized last spring for distinguished achievement. Vaughn won the Distinguished Faculty Award for Administration, and I have no doubt he deserved it, with laurels. In the words of the May 7, 1990, issue of Fortnightly, "He was focused his administrative and interpersonal skills on establishing a nationally recognized department... and still maintains stature as one of the world's authorities on prehistoric diets." Way to go Vaughn!

LETTERS TO THE EDITOR

The following is reproduced here for everyones consideration. I would appreciate hearing your responses.

An awful lot of palynologists have been laid off (taken early retirement) the past 10 years and many are now consulting. How about a one page call for business cards from us (I join their ranks October 1st) in the next Newsletter? I have seen at least two local geological groups that have pages of business cards of consultants in their back pages.

This could be a regular feature ~ i.e. Consultant's Corner. Would AASP charge for this "advertising"?
This could be a regular feature ~ i.e. Consultant's Corner. Would AASP charge for this "advertising"?

Sincerely,
Bill Elsik

P.S. I would like to see this in the Newsletter at least to check out all the logos. It's also a way to find in one place the different sources for various palynologic service.

Book Reviews

Biogeography and Plate Tectonics, 1987, J.C. Briggs. Elsevier Science Publishing Company, Inc., 655 Ave of the Americas, New York, NY 10010. Dfl. 155.00 hardbound. 216 pages.

Biogeography and Plate Tectonics is volume 10 in a group of unrelated titles in Elsevier's "Developments in Paleontology and Stratigraphy" series. Briggs has produced a general essay on biogeography within the framework of plate tectonics- the result is somewhat disappointing from a theoretical (quantitative) view and somewhat overwhelming from a narrative standpoint. The need for such a voume stems from the incomplete integration of continental drift, sea-floor spreading and classical biogeography, but the author emphasizes a "classical" biogeography approach without articulating any single theme.

After a brief but interesting historical introduction to biogeography, including a glimpse into the debate between "dispersalism" and "vicarianism," Briggs sidesteps the philosophical issue of quantification associated with vicariance biogeography claiming that this book will consider both modes in their proper place. He takes an approach that centers of origin followed by dispersal (dispersalism) is the more general basis for diversification in organisms- vicariant geographic events are seen as a secondary component in the causation of genetic, and consequently, phenotypic diversity. The result is that this book represents more of a classical approach to the presentation of biogeographic information. It is a narrative, a natural history of the regional distribution of all organisms which have diversified during the Mesozoic and Cenozoic breakup of Pangea.

The body of the next is organized regionally into three parts: the northern continents, the southern continents, and the oceans. (The oceans chapter is quite short in relation to the other regions which include multiple chapters on each of the basic historical biogeographical regions.) This is followed by a short summary and a time series of biogeographic maps which is to be compared to plate maps generated from strictly geophysical data. The disparity between the two methods of continental reconstruction is actually quite interesting and one is left with the impression that we still have a long way to go in reconciling the differences between the two methods. For example, biogeographic data based on Mesozoic plant and animal distributions linking India to Madagascar and the East African coast are inconsistent with Antarctic and Australian proximity common to some "geophysics"-based reconstructions. Likewise, similarity of freshwater fishes indicates an India-Eurasia connection in the early Eocene in contrast to the Miocene date derived from some geophysical data.

I thought to check the abovementioned assertions using the Terra Mobilis program developed by Denham and Scotese (1988 version 2.0). This program enables depiction of plates and continental blocks over time in a current "best guess" configuration, creating movies of continental movement. The program shows a Tibet-India connection in the lower Eocene which persists throughout the subsequent Eurasian collision. Thus it appears that the freshwater fish disparity may not exist for this case. The Mesozoic Australian vs. East African coast disparity likewise does not appear in the computer model. Northern India is adjacent to the East African coast while the Pangean attachment to Australia occurs just at the southern tip of India. Thus, the presence of a "problem" in the sense of incompatible configurations disappears depending upon whose reconstruction is used and how it is interpreted.

This random example serves to point out both the strengths and weaknesses of this book. As an essay in natural history, Biogeography and Plate Tectonics is a gold mine of miscellaneous information. The text flows from vertebrates to freshwater insects to molluscs to plants to each group with its special contribution to the story of changing distribution over time. Herein lies a great strength- the accumulation (distillation) in one concise volume of a vast amount of useful information. And it's the kind of information which can be used by those in need of examples for teaching or anyone needing an introduction to the biogeographic literature for a specific region. But any single volume on biogeography is apt to suffer from the sheer vastness of topic-knowledge in the distributions of all species and how they got there over time. It is simply not possible to cover all the details in depth. It is not possible to discuss the alternative theories which the experts in each organismal group are willing to admit (e.g. what if the angiosperms did not originate in the Barremain?)

The weakness of Biogeography and Plate Tectonics is not in its imperfect coverage; Briggs has done an admirable job in providing a basic overview. Rather, the book lacks a clear philosophical mechanism for sorting through the vastness of the literature on this subject. The thematic opening sentence to the concluding paragraph of this work is that, "[p]late tectonics obviously had very important effects on the evolution of higher forms of life." This is not a particularly earth-shaking conclusion, nor is it one that is clearly derived from the data as presented in the text. Perhaps the logical positivists are right in this case: anecdotical presentation of data helps confirm that the continents have drifted (that which we already know) but without the framing of a (falsifiable) hypothesis, science will not proceed forward. In this case, one must ask, "1) what is the general relationship (if any) between biogeography and plate tectonics, and 2) how can these relationships be demonstrated with biological, geographic, and geophysical data?"

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Stratigraphy: Principles and Methods 1989, Robert M. Schoch. Van Nostrand Reinhold, 115 Fifth Avenue, New York NY 1003. $41.95. 375 pages.

Stratigraphy turns out to be a somewhat ill-defined discipline in an age where geochronology, basin analysis, facies snalysis, "punctuated equilibrium" theory, GIS, etc. constantly encroach upon what was once classically defined turf. It is probably safe to say that stratigraphy or stratigraphic geology is truly one of the basic subdiscipines of geology. The early nineteenth century effort to unravel the European stratigraphic column was clearly a principal component of the original discipline of geology in its modern sense. It is impossible to clearly separate sedimentology from stratigrphy but the inclusion of sedimentology in recent texts such as Dynamic Stratigraphy of Mathews have tended to merge the two. In a different vein, the massive tome by Frazier and Schwimmer (Regional Stratigraphy of North America) has approached the topic in much the same manner as Lyell did in beginning in 1838 when he split off the Elements of Geology from the Principles, generating what Lyell called "systematic geology"- essentially a list or history of all rock sequences and the fossils found in them for a given region.

Stratigraphy: Principles and Methods is a clear statement of the theory and "principles" of stratigraphy sensu stricto; it is the Lyellian "Principles" which is coupled to Frazier and Schwimmer's "Elements". Schoch is not concerned with a descriptive account of strata, rather the focus is essentially theoretical; the title is true to its name. The discussion begins with three introductory chapters which cover the use of rocks in stratigraphy and various historical and basic "conceptual foundations" such as bedding and unconformity. There follows a short chapter on codes and stratigraphic nomenclature preceding the main body of the text which covers (in broad terms): 1) lithostratigraphy, 2) biostratigraphy, and 3) chronostratigraphy. The book does not include a discussion of quantitative stratigraphy (due to "space limitations"), but given the publication this year of Quantitative Dynamic Stratigraphy (edited by Cross), this is not necessarily a drawback. Otherwise, the coverage is fairly comprehensive, providing a concise review for the professional and a thorough introduction for an advanced undergraduate/graduate student.

Schoch's approach is quit scholarly with numerous citations- the bibliography comprises about 10% of the entire book. In addition he has reprinted the 1983 North American Stratigraphic Code as an appendix to the text. This reflects the author's concern with nomenclature, the precise meaning of words and their proper useage. Because of his veneration for history, Schoch gives the reader a good historical sense of the development and understanding of stratigraphic principles, creating a far more mature approach to the topic than a typical undergraduate textbook comprised of an easy reading (citation free) essay of "facts".

Paul Strother

Nonmetalliferous Stratabound Ore Fields, 1989, M. K. de Brotkorb, editor, Van Nostrand Reinhold, New York, 332 p., $54.95.

Nonmetalliferous Stratabound Ore Fields is a continuation of the Evolution of Ore Fields Series. The compilation, which is composed of 14 chapters written by 17 authors, is about ore-grade deposits of celestite, barite, magnesite, and fluorite. At least 200 deposits worldwide

are compared and contrasted in a search for useful depositional models. Age, ore mineralogy, isotopic analyses, and diagenetic changes are also covered. Most of the deposits are sedimentary, but some are epigenetic hydrothermal and others are volcanogenic.

At the onset, I must admit that I bring my own biases to the forefront when I review a book for AASP. First, I look for any information that would be useful for palynologists in sedimentary deposits; then I read to discover how much biology is brought into the interpretation of geologic problems. The data given a prominant position show that not much biology has entered this field and that no paleoecologists have studied these stratigraphic sections that are host rocks for economically important mineral deposits. In the biological world, microscopic minerals percipitate with the aid of microbial catalysts at redox interfaces. As reflected in this book, the percipitation of $BaSO_4$, $SrSO_4$, $MgCO_3$, and CaF_2 are not linked in an intimate manner to biological processes. Therefore, I would like to bring my biases in to help assess the possible role of organisms in the environments of deposition of some of these valuable deposits.

Bacteria, algae, and even mollusks may have played an active role in the percipitation of Sr. The isotopic geochemistry of Sr is the subject of the chapter by M. Barbieri who stressed the passive substitution of Sr for Ca in the aragonite of shells and explains that Sr can become further concentrated during the diagenetic changes that lead to dolomitization. However, Sr also can be concentrated during evaporation processes, as is shown by M.K. de Brodtkorb and coauthors in their chapters on celestite deposits of Germany, England, Mexico, Spain, Iran, Canada, Algeria, and Argentina. Stromatolites and algal mats occur locally in these deposits, which suggests that at least some of the Sr was concentrated in the photic zone. Oil is discussed in conjuction with the Mexican and the Argentinian occurrences of celestite, which means that the distillation of oil from the algae may have helped to concentrate Sr. Isotopic work shows that the sulfur moiety has a microbial signature, which suggests that bacteria may have aided in the concentration process.

Barite precipitation may have an even stronger biological component than celestite. M. Barbieri added a fecal pellet connection with the sentence, "Ba is absorbed in organic matter and is then transported downward by the organic debris." J. Cassedanne showed that the Brazilian barite deposits were formed in the zone of mixing where onshore sources of Ba and fresh water were transported to nearshore, sulfate-rich, marine settings. Barite deposits associated with oil in such settings probably have algal cysts in the organic component. S. H. B. Clark and F. G. Poole stressed a hot-spring vent origin for barite nodules in volcanogenic deposits, but the isotopic sulfur signature is that produced by microbial reduction, which means that bacteria may have interacted with the precipitation of the barite. R. A. Zimmermann and G. C. Amstutz discussed the famous barite deposits in Arkansas. Stromatolites, abundant fossils, fetid smells, and bituminous material show that there is plenty of work in Arkansas for a playnologist. The barite deposits of northern Europe (Belgium, France, Germany, and Ireland) and Italy are discussed by Y. Fuchs, and those of Sardinia by G. Paladino and coauthors. The depositional models for the Sardinian deposits include a redox interface where stratiform barite overlies stratiform sulfides. This is exactly the environment where sulfur oxidizers would be intimately associated with sulfur reducers. The Kuroko barite deposits in Japan are discussed by K. Marumo. The Ba is considered to have been stripped by heated water from the underlying volcanics and crystalline rocks; the isotopic signature of the sulfur is microbial. M. K. de Brodtkorb shows that spherulitic bodies in the barite nodules and concretions in Argentina could be the remains of radiolarians.

The largest magnesite deposits are the result of alteration of ultramafic rocks, as shown by W. Wetzenstein, However, other deposits are the product of accumulation in evaporative settings, which means that organisms living in the evaporation pools may have interacted in the primary way with the precipitation of Mg.

The chapter by H. Magliola-Mundet on fluorite is delightful. Cenozoic lacustrine deposits in Italy are his specialty, and he stated that organisms could have interacted with the precipitation of the fluorite. The algal-rich ore in the Transvaal and the oil in the fluid inclusions in Mexico show that organisms may have been intimately tied to the deposition of fluorite.

Economic geologists and sedimentologists are the target group for this book. However, palynologists looking for new directions in which to take our field will find the names of scientists who probably would be interested in learning more about the biological components of their economic deposits.

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Pollen: Illustrations and scanning electronmicrographs. Y. Iwanami, T. Sasakuma, and Y. Yamada, Springer-Verlag, New York, 198 pp. $72.50

I remember seeing some of the first SEMs of pollen grains taken in the late 1960's and being struck by their symmetry and exquisite beauty. In many ways the scanning electron microscope has revolutionized the way palynologists think about pollen and work with it, and the fine surface detail has given added information for

taxonomy. In this work the authors have been similarly impressed with the microscopic world of pollen and as the title alerts us over half of the volume is comprised of full-page scanning electron micrographs of pollen grains. The general theme on these pages would appear to be horticultural and agricultural and many species illustrated here have been published elsewhere. For example, *Ginkgo, Nymphaea, Chloranthus, Hibiscus, Oenothera,* various mints, *Taraxacum, Allium,* and *Zea* were among those covering about 120 of the 198 pages. To my eye, the editors allowed too much contrast throughout, favoring strong blacks and whites with no greys; at the same time many of the images were enlarged beyond a useful magnification resulting in wasted space on these high quality glossy pages.

The authors seek to provide us with an overview on various topics in pollen biology and close with a brief chapter on pollen analysis. Their audience would surely be newcomers to the field but not advanced students or veteran workers. I must caution the reader that some text may have been inadvertently dropped or missed in translation which was hinted at in the first sentence of the preface - "Pollen is the male gamete [sic] of the flowering plants..." This pattern was too often repeated in other sections of the book.

The section on tapetum was interesting and there were excellent accompanying micrographs but I must admit that after reading it I still don't have a clear understanding of the distinction between pollenkitt and tryphine. Also, it would have been helpful to point out that there is a taxonomic sorting with respect to tapeta: dicots usually have a secretory tapetum while monocots more commonly have the amoeboid type. Here a discussion of the role of sporophytic vs. gametophytic control of pollen development would have been appropriate. The authors have ignored some recent literature with ultrastructural data on a third type of tapetum, possibly transitional between the other two, in which the cells are invasive (cells move into the locule) but do not break down and form a syncytium as with the plasmodial type. This type of tapetum produces exineless pollen such as in canna. One source of frustration here and throughout the work is that while technical terms and ideas are presented, no references were cited and only a bibliography listing 18 books was provided at the end. To begin with, I can suggest reading the excellent 1985 review of the tapetum by Pacini et al. (Pl. Sys, Evol. 149:155). Because of the ommission of citations and the overall format, this book is reminiscent of notes compiled from a team-taught course in pollen biology.

The role of cytoskeleton in pollen tube elongation has been an active area of research for more than ten years and studies have shown that actin filaments are important for tip growth, for cytoplasmic streaming moving tube wall materials in Golgi vesicles to the tip, and for tip rigidity. The authors mention using myrmicacim (an actin inhibitor) to study these functions without ever discussing actin or microtubules, the other main components of the pollen tube cytoskeleton which occur in cortical regions in the distal part of the tip. In this discussion we are left with a level of understanding of the role of cytoskeleton in pollen biology available prior to the advent of electron microscopy.

I think the real strength of this short volume -for there are only about 25 pages of text in all- lies in the numerous line drawings that help the reader visualize various topics such as microsporogenesis, pollen morphology, self-incompatibility systems, and the stigma reaction to pollen germination. And you may be humored as I was by the bizarre closing figure entitled- "Who will see the pollen grains of the plants of today a hundred million years from now?" In all, this is a good source from which to obtain black and white slides for lecture material in palynology and to inspire further work in the field of pollen biology.

Jerome Ward
Department of Biological Sciences
California State University, Sacramento
Sacramento, CA 95819

* * *

COMPUTERIZED TAXONOMIC KEYS IN PALYNOLOGY

The use of taxonomic keys for the identification of any biological entity, whether living, dead or fossilized, is a difficult task. One of the most demanding parts of describing and identifying fossils is knowing the terminology used to describe the particular object being examined. With fossil angiosperm pollen and fossil dinoflagellate cysts, there is a vast amount of terminology. The creator of any taxonomic key must use terminology which defines morphological characteristics seen on the fossil. However, the users of the key may not understand the meaning of the terms and spend more time looking up definitions than keying the fossil.

In addition to the problems of understanding the terminology there is the problem of forced choice in dichotomous taxonomic keys. By design, a choice must be made between two characteristics at each step of a key. If the user does not know, or is not sure about a feature he must guess. At the point of the first guess, the key ceases to be a scientific tool and becomes a game of chance. For years palynologists and other scientists dealing with morphology have been trying to establish a better way to identify their subjects, without simply leafing through picture books. With the introduction of computers into the work place a new tool is now available for the creation of taxonomic keys. Because of its prodigious

ability to store and search data, the computer is the ideal instrument for making a new type of taxonomic key. Because of the search capabilities of the computer, no "do or die" choices must be made in the selection of morphologic characteristics. Only those characters which can be seen on the specimen need be indicated.

It never has been easy to write taxonomic keys - it still isn't. The fact that computers are fast and very efficient does not supplant the basic necessity for the individual creating the key to have a fundamental understanding of morphology, standard terminology, and the literature. In creating computerized keys for the fossil angiosperm pollen genera and fossil dinoflagellate cysts we have a head start, in that several good, up-to-date,"databases" already exist.

The Jansonius and Hills Card Catalogue GENERA FILE OF FOSSIL SPORES which is published by the Department of Geology of the University of Calgary contains the name, author, reference, generic description, description of type species, emendations, age and location of the type material, and comparisons for all genera of fossil angiosperm pollen (1110 genera!). In addition, each card has a line drawing of the type species. The catalogue contains over 5000 cards, including gymnosperm pollen, spores, fungal sores and hyphae, Precambrian organic walled structures and some chitinozoa and acritarchs in addition to the angiosperm pollen.

The descriptions of the fossil dinoflagellates have been presented in Lentin and Williams, 1976; Stover and Evitt, 1978; as well as, Stover and Williams, 1988, which contains line drawings of the holotypes. Of the 593 genera of fossil dinoflagellates, all but 174 have been described in these volumes.

All of these compiled data provide palynologists with a good source of information which, if it were housed in a computerized database that could search on the basis of morphological characteristics, could be used for the creation of taxonomic keys.

Unfortunately, the searching process within any database will only match 1=1. For example, if a search is made in the generic description for "surface granular" and the original author said "surface granulose" no match will be found. The standardization of terminology must be exact. Because we are human, not robots, it is impossible to impose standardized terminology on those who write descriptions of new genera. It would take a superhuman effort to rewrite all of the old generic diagnoses in an absolutely standardized way. So, using a database program to search the descriptions of the genera is not an efficient method of finding fossil genera.

The most obvious way to avoid this problem is to have a knowledgeable individual read each description and fill in the blanks of a prepared form within the database and a simple "X" to indicate that a characteristic is present in the genus. We attempted this method, and learned quickly that there are problems that range from the recognition of terminology to the speed that the computer can search a massive database. A better mouse trap was needed.

ANGIOKEY and DINOKEY are the latest attempt to solve the problems of building keys. These two small programs take the information from the database and process it quickly through an easy-to-use computer program that allows the user to select morphological features that are illustrated as line drawings on the screen. This allows fully grown, adult palynologists to play computer games to identify fossils.

Let us assume that you are looking down the microscope at a simple triporate pollen grain which is roundly triangular in out-line. On screen 1 of ANGIOKEY you would select D (using your regular computer keyboard) corresponding to three apertures and M corresponding to roundly triangular. Using the PgDn Key, move to the next screen and determine if any of the characters seen on the screen match what is observed in the microscope. ANGIOKEY and DINOKEY use what is known as KISS logic ("Keep It Simple Stupid"). If the icons on the screen don't appear to match the morphology of the fossil, simply go on to the next screen. On screen 3 select A (Apertures pores). If you initiate a search at this point, by pressing F1 the computer will list 107 genera which have the three characters selected [three apertures, roundly triangular, and apertures pores]. This is a major step forward, but 107 generic diagnoses are too many to read so you obviously need to examine the fossil a bit more closely.

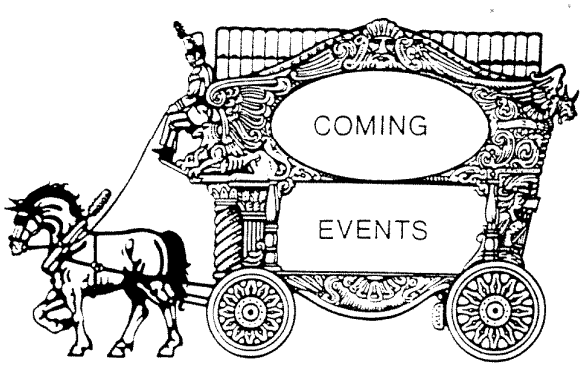
Looking at the nature of the pores, you see that they are surrounded by simple raised edges or labia (select T on screen four). By searching again (F1) we will see that 68 genera match these 4 characters. The next most obvious feature of the pollen grain is that it has a thin area over the poles. If you select N on screen seven [polar thinning] you will discover with the search that only *Momipites* and *Striatriporites* have this combination of five characteristics. At this point you can read the detailed descriptions of both genera on the screen to determine which is more likely to be the name of your pollen grain. In reading the descriptions you will find that *Striatriporities* is a striate, triporate pollen grain from the Maastrichtian of Nigeria. If you are studying a laevigate triporate grain with the above listed characteistics from the Eocene of the Texas Gulf Coast it probably belongs to the genus *Momipites*.

The use of the computerized key to help identify fossils is a fast and reliable method of finding the generic name. It is also an exellent method of training new palynologists. The simple, step by step method of examination of the fossils as each screen page is viewed, encourages a systematic method for observation.

Computers have become a necessary part of the everyday working environment for palynologists working in academia and industry. Optical disk systems are now available which allow the palynologist to attach a video camera directly to the microscope and create a catalog of color images with attached data files which make searching for other catalogued specimens extremely fast and efficient. The optical disk systems can create excellent photographic plates for publications, without the palynologist ever setting foot in a darkroom. Photos can be trimmed, reoriented, numbered and contrast enhanced at the computer. Old photographic catalogues can be scanned and added to the optical database so that existing data are integrated, not lost on a dusty library shelf. Computerized keys can "front end" the optical systems to allow for search when the name of the fossil is unknown.

Palynology is a dynamic, changing, science. Computerized keys and optical databases are in use today; they are not a dream of the future. Twenty years ago I did the statistics for my PhD thesis using an ancient adding machine and a slide rule (What's that?). Today, PhD students are writing their own programs to help interpret their data. Twenty years from today we will have computers which recognize our speech patterns and eliminate the need for a keyboard, which will be a great boon to those who reject the computer because of their inability to type. Palynologists need to keep up with this technology. A palynologist who does not use a compter is living in the past because of the vast quantities of data must we now coordinate and interpret. With the aid of computers we can study an entire basin, produce rate of deposition curves for each time/stratigraphic unit identified as well as clearly illustrate variations in environment of deposition. All of this work can be done on inexpensive IBM or MacIntosh personal computers. For about the price of a 15-year old car - a computer can drive into the Twenty-first Century in style.

Judith Lentin, President AASP



Geological Society of America

1990 ANNUAL MEETING

Dallas, Texas
October 29–November 1

Registration and Housing Information Available
August 1

Technical Program Schedule Available
September 1

Preregistration Due
September 28

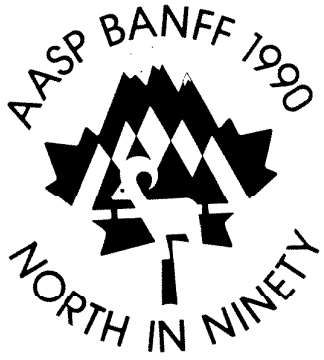
- Symposia, theme and discipline sessions
- Technical and scientific exhibits
- Field trips, short courses, workshops

Call for Information Today

GSA Meetings Department
P.O. Box 9140
Boulder, CO 80301
(303) 447-2020

The FIFTH INTERNATIONAL CONFERENCE ON TOXIC MARINE PHYTOPLANKTON will be held in Newport, Rhode Island, USA 28 October -1 November, 1991. The conference will focus on toxic, harmful and nuisance blooms and species of marine phytoplankton, and their consequences. The scientific program will consist of invited plenary lectures and contributed papers presented either orally or as posters. Workshops are also under consideration. Suitable topics include taxonomy, cellular and molecular biology, physiology, biochemistry, toxicology, ecology, environmental regulation, public health, aquaculture, and mariculture issues.
The deadline for pre-registration is 15 September, 1990. Please contact Dr. Theodore J. Smayda, Conference Convenor, at the University of Rhode Island, Graduate School of Oceanography, Narragansett, Rhode Island, 02882-1197 USA.

A.A.S.P. ANNUAL MEETING
Banff, Alberta, Canada
October 10-13, 1990



MEETING SCHEDULE

Tuesday, October 9th
- Palynodata meeting 8.00am (room to be announced).
- Registration and informal reception (cash bar) 6.30 - 8.30pm Mt. Stephen Hall.
- Board of Directors meeting, Oak Room (time to be announced)

Wednesday, October 10th
- Symposium, 8.30am - 4.30pm, Alhambra Room
- Registration, Alhambra Room Foyer
- CAP meeting, 4.45pm, room to be announced
- Icebreaker, 6.00 - 8.00pm, Riverview Lounge, Registration
- Poster set up, Alhambra Room

Thursday, October 11th
- Invited paper by A.R. Sweet, 8.30am, Alhambra Room
- Technical Session, 9.15am - 12.00pm, 1.30 - 4.30pm, Alhambra Room
- Registration, Alhambra Room Foyer
- Commercial exhibit, Alhambra Room
- Sulphur Mountain evening, (includes dinner and group photograph), 5.00 - 8.00pm

Friday, October 12th
- Technical Session, 8.30am - 12.00pm, 2.30 - 5.00pm, Alhambra Room
- Annual Business Luncheon, 12.00 - 2.00pm, Rob Roy Dining Room
- Remove posters, 5.00pm
- Board of Directors meeting, 6.00pm, Norquay Room.

Saturday, October 13th
- Field trip, bus leaves hotel at 8.00am, arrive Calgary at approximately 5.00pm

Sunday, October 14th
- Visit to Royal Tyrrell Museum of Palaeontology, Drumheller.
- Depart from Calgary (time and place to announced), return to Calgary approximately 4.00pm

Papers to be presented at the symposium:
Event Stratigraphy, A Multidisciplinary Approach

J. Bhattacharya - Sequence stratigraphy in the Cretaceous Alberta Foreland Basin; Cenomanian through Campanian examples.
G.A. Bishop - Positive taphonomic feedback in Cretaceous decapod-worm associations.
D. Eberth and D.R. Braman - Lithostratigraphy, biostratigraphy and radiometric dating of the Upper Judith River Formation of Muddy Lake, Saskatchewan and Dinosaur Provincial Park, Alberta.
R.C. Fox - Mammalian biostratigraphy of the Upper Cretaceous and Paleocene of Western Canada.
D.A. Leckie and C. Singh - A shallow condensed section in the Cretaceous Shaftesbury Formation of northern Alberta: an integrated study.
J.F. Lerbekmo, A.R. Sweet, T.D. Demchuk and D.R. Braman, - Magneto - and biostratigraphic correlations in Upper Cretaceous and Paleocene strata of the Western Canadian Plains.
D.J. McIntyre - Significant dinoflagellate events in the Upper Cretaceous of the northern part of the Western Interior Basin.
E.E. McIver - The application of Late Cretaceous plant macrofossils to biostratigraphy and paleoenvironmental research.
S.E. MacLeod - The biostratigraphic utility of Late Jurassic to Early Cretaceous plant macrofossils and their application to a sequence stratigraphy problem in the northern Bowser Basin.
D.J. Nichols - Palynological event horizons and their use in regional correlation, Upper Cretaceous, Western North America.
A.R. Sweet - How sensitive are terrestrial spores and pollen in resolving biostratigraphic problems?

TECHNICAL SESSIONS

Oral presentations

N. Aboul Ela - Albian and Cenomanian pollen and spores from the subsurface of the NW desert of Egypt.
H.F. Barron - The "acritarch" *Moyeria cabottii* Cramer from the Late Ordovician and Silurian of Wales, UK.

A.B. Beaudoin and M. Reasoner - Pollen focusing in lake sediments: a case study from Lake O'Hara, Yoho National Park.

V.M. Bryant Jr. - Melissopalynology in the United States.

E.T. Burden and D.A. Leckie - Palynomorphs of the Upper Blairmore Group, Southwestern Alberta.

A. Cadman, J.E. Baker and M.S. Zavada - Palynological investigations at the Makapansgat Limeworks, South Africa: an early man site.

A.T. Cross - Age comparisons of mid-Jurassic to Early Cretaceous terrestrial rocks in Iowa, Michigan and Ontario based on pollen/spore floras.

S.P. Damassa - Cysts without walls: morphologic analysis of *Evittosphaerula paratabulata* Manum 1979, and a new species of *Impagidinium*.

O.K. Davis - Climatic change in "younger Dryas" time in eastern North America.

J.L. de Lanois - Climatic change during the late Holocene from a south-central Colorado lake.

K.J. Dorning - Palynological evidence of the development of land vegetation through the Ordovician, Silurian, Devonian and Carboniferous and implications for the environmental interpretation of terrestrial, lacustrine, fluviatile and marine sequences.

L.E. Edwards and L.E. Stover - Selected Mesozoic dinocyst genera: analyses of paratabulation patterns and possible evolutionary trends.

R.F. Fleming - Detrended correspondence analysis of palynological data.

S.L. Gamarra and J.A. Legault - Acritarchs of the Ordovician Simcoe Group, southern Ontario.

J.A. Gennett - Palynology of Upper Eocene San Miguel lignites.

A.K. Graham - Utilization of the isthmian bridge during the Cenozoic.

W.A. Gregory and G.F. Hart - Taxonomy and distribution of dinoflagellate cysts from the Wilcox Group, Allen Parish, Louisiana.

J.G. Jones - Pollen as a key to the identification of Maya agricultural systems.

C.R. Klug - Miospores from the Cedar Valley (Middle-Upper Devonian) of Iowa.

W.L. Kovach and D.J. Batten - Multivariate analysis of palynofacies data.

R. Loeb - Historical period pollen records from two New York city parks.

D. McLean - Palynological assemblages from the *Gastrioceras listeri* marine band and associated sediments of South Yorkshire, UK.

S.B. Manum - Have leeches crept into palynology?

R.W. Mathewes and G. Quickfail - Pollen, peat and paludification of the Queen Charlotte Islands.

H. Nohr-Hansen - Dinoflagellate cyst zonation of Barremian to Albian deposits from East Greenland.

K. Nunez-Betelu and L.V. Hills - Palynology of the lower Kanguk Formation, Remus Creek, Ellesmere, Canadian Arctic Archipelago.

G. Playford and D.C. McGregor - Long-distance Devonian spore correlations: Australian and Canadian palynofloras compared.

R.L. Ravn - The type Dakota Formation (mid Cretaceous, north- central United States) palynological succession: comparisons and lithostratigraphic implications.

R.L. Ravn and J.E. Williams - What remains, however improbable...a review of methods of data presentation in palynology.

M. Reasoner and M. Hickman - Late Quaternary palaeoenvironments of the Lake O'Hara region, Yoho National Park, British Columbia, Canada.

E.I. Robbins and M.C. Coumo - Criteria for recognition of fecal pellets in palynological preparations.

M.G. Snape - Some unusual dinoflagellate cyst assemblages from the late Jurassic of Antarctica.

P.K. Strother - Nematoclasts: A proposal for a new category of palynomorph.

A.R. Sweet - The effect of scale, geography and discipline on the perception of Cretaceous-Tertiary Boundary events.

R.E. Taggart, A.T. Cross and A.P. Hascall - Preliminary analysis of the history of Oligocene Lake Florissant (Colorado) based on palynology.

R. Vance - A palynological record of Holocene drought frequency in southern Alberta.

G. Vasanthy, S.A.J. Pocock and D. de Franceschi - Pollen geometry and symmetry.

P. Wigand, M. Rose and M. Hemphill - Calibration of high frequency pollen records and tree ring sequences to reconstruct past climate in the southern Great Basin.

L. Yin - Large complex acritarchs from Late Proterozoic rocks (the Doushantuo Formation) in East Yangtze Gorge District, China.

Poster presentations

I.P. Brooks - The archaeological sourcing and characterization of Cretaceous flint.

R.A. Cushman Jr. - Palynostratigraphy of the Upper Cretaceous Mancos Shale, western Colorado.

K.J. Dorning - A palynological strew mount specimen examination system for palynomorphs studied with the optical microscope and scanning electron microscope.

J.Firth - Palynology and the ocean drilling program: accomplishments and opportunities for research.

J.A. Gennett - Palynomorphs from Eocene sediments, Wittsburg Quarry, eastern Arkansas.

J.L. Harding - Fossil pollen and palynofacies from lacustrine and lagoonal Holocene deposits in Puglia, southern Italy.

R.G. Holloway - Pollen and ecological assessment of the Fort Stanton Reserve, Lincoln County, New Mexico.

G.O.W. Kremp - Paleogeographic maps of the Cretaceous/Tertiary transition time based on the earth expansion theory.

K.R. Newman - Correlation of major palynomorph biozones with Paleocene land mammal ages, Rocky Mountain region, USA.
H. Nohr-Hansen - Barremian to Albian dinoflagellate cysts and their stratigraphic occurrence in East Greenland.
T.A. Okumura and D.J. Nichols - Palynomorphs from Cenomanian, Turonian and Coniacian marine strata of the Powder River Basin, Wyoming, USA.
M.G. Parsons and M.M. Anderson - The biostratigraphic potential of middle Cambrian-Tremadocian acritarchs: modification of existing zonal schemes based on material from Conception and Trinity Bays, Newfoundland and Saint John, New Brunswick.
P. Tricker - Hydrocarbon source potential of the lower Paleozoic of Wales and the Welsh borderlands.
J. Utting - Palynology and thermal maturity of Lower Carboniferous oil shales of Nova Scotia and New Brunswick.
G. Vasanthy, S.A.J. Pocock and B.S. Venkatachala - A comparative pollen morphological (LM, SEM and TEM) study of Triassic *Cornetipollis reticulata* and acanthaceous tribe Trichanthereae.
G. Vasanthy, B. Cornet and S.A.J. Pocock - Collumellae and collumelliform infratectum in gymnospermous and pre-Cretaceous pollen: a critical analysis.
J. Goodall, S.E. Wood and R. Tyson - North Sea Palaeogene palynofacies.

MEETING INFORMATION
Details of the meeting are included in both the January and April newsletters. Registration forms were sent to AASP members in June.

HOTEL RESERVATIONS
Reservations should be received by Banff Springs Hotel by September 9 to ensure accommodation.

Address enquiries about the meeting to
David J. McIntyre
Institute of Sedimentary and Petroleum Geology
3303 33rd Street NW
Calgary, Alberta, Canada T2L 2A7
Telephone (403) 292-7089 Fax 292-5377

THE 1990 AASP ANNUAL GOLF TOURNAMENT

The 1990 AASP Annual Golf Tournament will be held this year on one of the most spectacular golf courses in the world. This course sits in the valley of the Bow River and is overlooked by the extravagantly beautiful Banff Springs Hotel and the Rocky Mountains. Judith Lentin will host this years tournament.

Cost to each player	$55.00
extras	
Club Rental	20.00
Golf Shoe Rental	5.00

Please contact: David McIntyre
Inst. of Sedimentary and Petroleum Geology
3303 - 33rd Street NW
Calgary, Alberta CANADA T2L 2A7

Before October 1, 1990.

Based on past experience, it could be said that one does not even need to know how to play golf to have a wonderful time at the golf tournament.

Organisers:

M.J.M. BLESS,
Maastricht, The Netherlands.
M. STREEL,
Liege, Belgium.

J. VERNIERS,
Burssel, Belguim.

Commission Internationale
de Microflore du Paleozoique
(Microfossiles Organiques)

Palaeozoic and Mesozoic Quantitative Palynology, Tectonic versus climatic control?

A CIMP Symposium organized during the 1992 Palynological Conference at Aix-en-Provence.

Introductory lectures:
Palynology of sapropelitic sediments and paleoclimates in the Quanternary of the Mediterranean and Arabian Seas.
Palynological evidence for eustatic events in the Tropical Neogene.

Announced papers:
_Dinoflagellate/miospore quantitative distribution and relation to local tectonic trends in the Campanian/Maastrichtian of the Meuse Valley, north of Liege, Belgium and the Netherlands.
_Jurassic quantitative palynofacies analysis of Milankovitch cyclicity.
_Triassic climate of the Netherlands.
_Dinoflagellate/miospore quantitative distribution and relation to sedimentology in the Rhat of the Paris Basin.
_Miospore quantitative distribution in the Uppermost Famennian of Western Europe and relation to glacial deposits in South America.
_Acritarch/miospore quantitative distribution at the Frasnian/Famennian boundary event in Belgium.
_Detailed Chitinozoan and litho-stratigraphy in relation to cyclical patterns in the Silurian of the Caledonides.

WHY NOT JOIN US?

Your suggested title: .....

Your name and address: .....

TO BE RETURNED TO :

M. STREEL, Paleontology, The University
7, place du Vingt-Aout, B 4000 LIEGE, Belgium

FIFTH INTERNATIONAL CONFERENCE ON MODERN AND FOSSIL DINOFLAGELLATES

ZEIST, THE NETHERLANDS
APRIL 19 - 25, 1993

FIRST ANNOUNCEMENT

Dino5 will focus on all aspects of modern and fossil dinoflagellates, including, but not limited to, life cycles, ecology, morphology, biology, chemistry, stratigraphy and the significance of dinoflagellates in Recent and ancient environments. The conference will be held April 19-25 1993 in Zeist, at the premises of the Royal Dutch Soccer Association, near Utrecht. The meeting is being organized under the auspices of the Laboratory of Palaeobotany and Palynology of the University of Utrecht. The third symposium on Neogene - Quaternary Dinoflagellates will be organized in conjunction with Dino5.

ORGANIZING COMMITTEE

Raimond Below (Utrecht NL)
Henk Brinkhuis (Conference Manager, Utrecht NL)
Barrie Dale (Oslo N)
John Dodge (Egham UK)
Han Leereveld (Utrecht NL)
Jan Willem Weegink (Secretary, Utrecht NL)
Henk Visscher (Chairman, Utrecht NL)

THIRD SYMPOSIUM ON NEOGENE - QUATERNARY DINOFLAGELLATES

Co-Convenors:

Martin J. Head (Toronto CANADA) & John H. Wrenn (Tulsa USA)

Please take notice of this announcement and mark your agenda's in red. Fill in the form below to secure your participation and (preliminary) registration.

FIFTH INTERNATIONAL CONFERENCE ON MODERN AND FOSSIL DINOFLAGELLATES

ZEIST, THE NETHERLANDS
APRIL 19 - 25, 1993

Preliminary Registration Form

Name:

Address:

[ ] Yes, I plan to attend Dino5

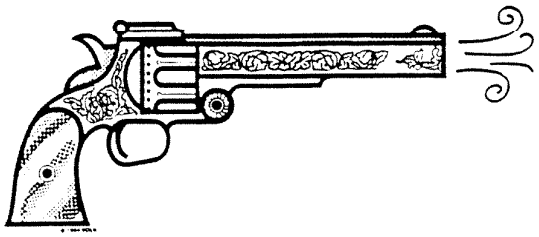
[ ] I also plan to present an [ ] oral presentation and/or [ ] poster

a probable topic will be _____

Please send this form to:

Symposium Secretariat
Jan Willem Weegink
Lab. Palaeobot. Palynol.
University of Utrecht
Heidelberglaan 2
3584CS Utrecht The Netherlands

Tel. xx31-30-532799
Fax. xx31-30-531357



PARTING SHOTS

I attribute the insane arrogance of the later Roman emperors almost entirely to the fact that, never having played golf, they never knew that strange chastening humility which is engendered by a topped chip-shot. If Cleopatra had been outed in the first round of the Ladies' Singles, we should have heard a lot less of her proud imperiousness.

P.G. Wodehouse, Golf Without Tears

According to British writer G.K. Chesterton, golf is simply "an expensive way of playing marbles". Be that as it may, golf is an amazing game and seems to be somehow particularly appropriate to the type of individual who spends his working hours examining wee things that nobody else can see. There are those who believe that golf is not really a "sport" or if it is a sport, then it is for old people with faces the color and texture of a suede coin purse -- not true!

At the Houston meeting two years ago, John Clendening removed his cowboy boots and put on proper golf shoes to host the First "Annual" ASSP Golf Tournament. The fee for the tournament was added to the list of costs on the registration form. Shortly after receiving the registation form, a sedentary palynologist from Chevron remarked that his boss didn't think that AASP meetings were "for having fun". The AASP was officially requested to keep "fun" things off the registration form that had to be approved by management. Last year, for the Second Annual AASP Golf Tounament, those who wished to have "fun" were requested to contact Len Eames of Amoco, who was the golf host. This year, again, the information about the Third Annual Golf Tournament is kept separate from the serious scientific stuff.

There is absolutely nothing serious or scientific about the AASP Golf Tournament. In fact, last year at the Golf Tournament in Tulsa, it was my laughing muscles which suffered most. You see, I play golf about once a year, in October - anywhere the AASP happens to be meeting. Most of the AASP players do play more often than I do, but in golf - practice does not always make perfect. To compensate for the varied levels (read "quality") of players, our tournaments are "Scrambles" (my thesaurus makes that equal to "mess, chaos, disorder, turmoil, jumble..."). In golf, "scramble" means that each player gets to shoot from the tee (that's the little stick that you balance the ball on), then, after retrieving his ball from the weeds or the pond, gets to take his next shot from the spot where the very best player on his team placed his ball. Thus, every player has a chance to contribute to the team effort with a lucky shot. Each player has special value; if he can't drive well, perhaps his chipping is better than most, or perhaps he is a great putter. If, like me, none of the foregoing is true, it is wise to be able to remember the punch line to numerous jokes.

There is a lot you can find out about a fellow palynologist from the way he plays golf. Like, does he pick up the ball and move it when he thinks nobody is looking? Is he relaxed? Is he competitive? Does he get frustrated easily? Golf brings out things in people that you might not otherwise see. Playing one round of golf with Vaughn Bryant is like reading an encyclopedia of body language -- definitely worth reading!

Last year the AASP golfers nearly froze to death in Tulsa, where we expected warm temperatures. This year we are playing at about 4000 feet above sea level, and it could be cold. The flat-landers will probably use this as an excuse for shortness of breath and a poor grip on the club. But the Banff Springs Golf Club is one of the most beautiful golf courses in the world and is well worth the fifty bucks for the chance to play. So, come on out and learn something new about those palynologists whose names you read attached to serious scientific stuff in our journal. If you can't get up the nerve to join us for the Third Annual AASP Golf Tournament, then pray for sunshine. We need all the help we can get!

Judith " The Masher" Lentin

FLASH !!!

Just as this newsletter was about to go to the printer I received the following news from the President. Election results are in and the slate of AASP officers for the coming year is as follows:

President	Barbara Whitney
President-elect	John Wrenn
Secretary-Treasurer	Gordon Wood
Managing Editor	David Goodman
Directors-at-Large	Leonard Eames (continuing)
	Nori Robbins (continuing)
	Nairn Albert (new)
	Eileen Williams (new)
Past-president	Judith Lentin

As Newsletter editor and an active supporter of the organization I want to thank everyone who took the time to vote. As I've said before, the right to vote is also an obligation to vote and those of us who work on an almost daily basis in the functions of this society appreciate the effort that the voters put forth.

Membership Application Form

Please type or clearly print all information. The AASP Directory file is limited to 5 lines @ 29 characters.

Date: _____

(First) (Middle) (Last)

Address:

Telephone:

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

Send to: Dr. Gordon D. Wood
Amoco Production Company
P.O. Box 3092
Houston, TX 77253 U.S.A.

Please send $20.00 (US) with your application.

Change of Address Form

Date: _____

Listed name: _____

Name change:

(First) (Middle) (Last)

Address change:

Telephone change:

Send to: Dr. Gordon D. Wood
Amoco Production Company
P.O. Box 3092
Houston, TX 77253 U.S.A.