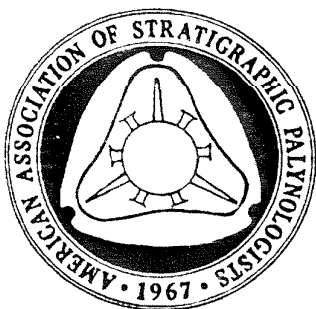


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# A.A.S.P. NEWSLETTER

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Volume 26, Number 4  
J.K. Lentin, Editor

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## MESSAGE FROM THE PRESIDENT

### AASP NEWSLETTER EDITOR:

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The AASP NEWSLETTER is published 4 times annually. Members are ENCOURAGED to submit articles, "letters to the editor", technical notes, 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.

Deadline for the next NEWSLETTER, the first in 1994, is Jan. 15\*. Please send all information on computer disk in IBM - ASCII or Word Perfect format, if possible. If not - send a typed manuscript. We look forward to contributions from our membership. FAX number for the AASP NEWSLETTER is as follows:

**FAX: (403) 262-1629**

\* Some articles originally intended for this issue of the NEWSLETTER will appear in the January, 1994 issue.

### Presidential Address

At the Halifax meeting ('87), I made the pledge. I swore I would not become a fuddy-duddy. I guess I have kept that promise --judging by the response at last year's Annual Luncheon in Aix when I was introduced as President-Elect (for you who weren't there, it was an "oh, no" from the back of the room, followed by collective laughter and applause).

Being a fuddy-duddy has nothing to do with age. Let's face it, we all get older. No matter what age we are, we can act like we aren't afraid to try new things. The world is changing and we all need to change with it.

If you don't want to be a fuddy-duddy, go to a restaurant. Find something on the menu that you have no idea what it is and order it. You may not like it, but maybe you will. At least you tried. Never let fear of failure stop you. Better yet, go to a restaurant in a foreign country where the menu is printed in three languages and you don't know any of them. Pick something that's the same in all languages -- it will be a native dish, something that just doesn't translate. Again, you may be surprised.

If you are not afraid to try new things, you are more confident. You do a better job at what you do. You may have been trained as a biostratigrapher. You may find yourself doing paleoecology, or even hydrology. Try it.

You should never be afraid of new ideas. Be willing to talk -- and, more importantly, to listen -- to people both inside and outside your field. When two different lines of reasoning produce two different conclusions, don't let your first thought be one is right, one is wrong. Be willing to think of something unexpected that could give these strange results. I remember long arguments about paleo-environments with a colleague who specializes in forams. I would say: "This must represent water so fresh you could drink it." He would say: "This represents a fairly deep water environment." Then one day we were out in the Gulf of Mexico, several miles offshore and the coring device jammed. I jumped in. Sure enough, the water was so fresh you could drink it. Or when two different mathematical manipulations result in two very different inferred paleotemperatures, be open to the idea of a no-analog situation. Try to think "What was the world like in the past that isn't like anything we know now?"

The world awaits us. So I ask you. Take the pledge: "I will not become a fuddy-duddy."

Lucy E. Edwards, President

## LETTER TO THE EDITOR



Dear Editor:

I am referring to the Message from the President which appeared in the July 1993 A.A.S.P. Newsletter, and especially to the perpetual question: "How can we gain greater exposure to non-palynological Earth scientists and the like?"

Unfortunately, I think one of the greatest problems lies in the very existence of journals dedicated exclusively to palynology, such as "Palynology" and others. Most of us tend to publish our researches in such journals, which are

hardly ever even scanned by other scientists. It seems to me that as long as this is continued we have no chance of getting to other people.

In other words, let us publish in "our" journal ONLY papers concerning topics which are "pure" palynology, and the rest should be published in journals dealing with the appropriate implications of our studies. I do realize, of course, that the number of papers submitted to palynology journals may drop considerably, but this is the only way to get to other people - instead of trying to convince them to look at palynology journals (which is hopeless), let us publish our papers in their journals. It may be difficult at the beginning - I still remember the trouble I had convincing the editors of Tectonophysics to print a seemingly palynological paper, but if they could be convinced probably everybody could as well.

The same naturally applies to meetings. It is important that we keep meeting, but on the other hand we should make an effort to present our studies at meetings and symposia dealing with other fields to which palynology can (and does) contribute. From my experience, people are willing to hear, only let them, especially if one presents the implications rather than the "pure" palynology.

I realize this is far from being a popular suggestion, but I believe its worth a try - I did get many responses on papers published in Tectonophysics and other journals, almost all of them from non-palynologists. On the other hand, journals such as "Palynology" and A.A.S.P. Newsletter should inform us palynologists of papers published elsewhere, by printing abstracts or at least titles.

Aharon Horowitz  
Palynological Laboratory  
Institute of Archeology  
Tel Aviv University  
Ramat Aviv 69978, Israel

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### Unfair on Madonna

President Robert Ravn raised a number of important questions in his Message from the President in the July issue of the AASP Newsletter (vol. 26, No. 3, p. 1-2, "On Madonna's boyfriends and other related matters"). The questions address how the Association should conduct its future business. The business of AASP is succinctly stated in the mission statement reprinted on the inside front cover of each recent issue of Palynology: "to promote the science of palynology, especially as it relates to stratigraphic applications and biostratigraphy; to foster the spirit of scientific research among its members; and to disseminate information relating to palynology". I would like to comment on these issues and will address each question, as posed by Rob, separately:

- a) Is there a real need for a mid-year Board meeting?  
As a former President of the Association, I would

say, unequivocally, "yes" there is a real need. Relevant issues can not be left for 12 months to be discussed at, for example, a Board meeting convened during the October Annual Meeting. There is no other medium which substitutes for the face-to-face get-togethers of the Board. Telephone conferences are no substitute and tend to stultify dialogue and, above all, minimize or eliminate the beneficial effects of the personal dynamics of an actual meeting. Mail (physical or electronic) is a medium for providing and exchanging information but suffers in an extreme way from the same drawbacks as teleconferencing.

- b) How can we best integrate non-North American members as active participants in the Association? Perhaps one approach to activating non-North American members (the majority of the membership) would be to require specified regional/continental representation on the significant committees, and to augment the Board by at least one "foreign" Director. I say this being fully aware of the thorny issue surrounding the name of our association (viz. American) which I debated with others as an American alien in Tulsa in the year (1966) prior to the founding of AASP; subsequently as a Canadian citizen; and currently as a resident of Latin America. The intent of the qualifier **American** by the founders of AASP was to indicate - I believe - the continental component of the organization, but to most of the world the unmodified word **American** suggests persons or things in or from the USA. Hence at the time of the foundation of our Association there was a significant faction (comprising both Canadians and American) supporting the name SNAP (Society of North American Palynologists) rather than AASP. I know there remains considerable confusion and diffidence on the part of many non-Americans as to their qualifications to become active participants in an organization which they believe is primarily related to the USA. This perception leads me to suggest also that serious consideration could be given to dropping the first adjective from the name of our organization if we wish to empower the majority of our membership which is apparently at this point non-American.
- c) How can we gain greater exposure? This is perhaps the most serious issue facing the Association, and if this could be solved, other issues would be minimized. And it is here that we should turn to Madonna as a role model. This most remarkable woman seems to evoke either revulsion or adoration, but little in between. Most significantly, almost everyone across the globe has heard of her (including our worthy President, even though he doesn't know the names of her boy

friends). With little to work with ( a small-town teenager from Michigan with an unremarkable voice, pleasant looks, some talent for dancing, no talent for acting, some musical ability) but a burning desire to succeed, Madonna has raised planetary awareness of herself in a little over a decade and in the process amassed profits well in excess of a billion (that's right, "b" as in bucks) dollars. I am no expert on Madonna, but it seems to me that she has managed to do this by recognizing:

1. if one thing doesn't work, try something else (sing, dance, act, play in a band, publish books, create fashions, disrobe, make videos, change your image, record, make movies, change your hair colour, comment on social issues, be seen with the right people/the wrong people, and so on).
2. personal control of the process is better than by a manager.

Well, we do have personal collective control of our Association and we do publish books, but what else can we do to assure the continued health of our organization? We must consider the need to be flexible, as suggested by Rob Ravn, to rise to current and future challenges.

First, let me list what I (and some others I talk to ) think we do well:

Publish books and periodicals  
Hold specialized scientific and technical conferences.  
Keep our annual dues at a very reasonable level.  
Promote the science by recognizing and rewarding proven and emerging talent with awards and prizes.

Now let me list what in my view might be considered requiring improvement:

1. **Liaison with other disciplines and societies.** Could we hold our annual meeting as an integrated part of a more broadly based existing society, as for example the vertebrate paleontologists do in their affiliation with the Geological Society of America? The large multi-disciplinary societies are also suffering as a result of economic/demographic pressures and it might be possible to work out a very good deal which on the one hand could provide us with many advantages whilst at the same time preserving our autonomy.
2. **Proactive recognition and promotion of the non-stratigraphic aspects of palynology.** A measure of discomfort exists for some of our colleagues with botanical, ecological, and Quaternary interests to

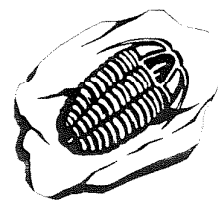
take part in our annual meetings with the current stated orientation towards stratigraphy, even though the published proceedings show a very liberal acceptance of papers on most topics related to palynology. Some well-defined symposia on non-biostratigraphic topics might dissipate this discomfort and lead to an augmentation of our association with new members with new ideas.

3. **Adaptation to the changing economic climate.** This in part relates to #2 above. AASP was born in a period of explosive growth in applied palynology related to the exploration sector. Now with downsizing in this field it is necessary to turn to other fields of endeavour to maintain membership interest.
4. **Adaptation to changing education trends.** Those in the education sector have seen a notable change in student interests in the last few years which in turn is partly driven by #3 above. Employment opportunities for earth scientists are changing, and the boundaries between the traditional disciplines are becoming blurred. Challenges to the universities include a recognition by geology departments that there is not necessarily an overwhelming desire by the majority of students to major in geology, and that there is a need to broaden the base of available cognate sciences to provide adequate education and training for various environmentally oriented initiatives. AASP might need to respond to these changing trends with a more broadly based approach to palynology if continuing recruitment of new students into the Association is considered desirable.
5. **New member services and options** Although the annual dues to our Association are the best bargain amongst all societies with which I am familiar, we have seen a continuing drain on our membership numbers as those caught in the downsizing trend in the petroleum industry have needed to turn elsewhere for employment opportunities. Perhaps some of those members could be retained with an optional package of lower annual dues but reduced numbers of publications. What else do our members need, not need, want, or not want? Perhaps a questionnaire could be formulated and circulated to the membership to gain some idea of directions which our members wish to follow and how much they are prepared to pay for future initiatives.

There is little doubt that now is the time to examine seriously if there is a need to change our act and change our image.

Geoffrey Norris, Caracas, Venezuela.

## HAS THE WORLD REALLY SHRUNK THIS MUCH?



A proliferation of laws to govern our daily lives seems to indicate that we are rapidly being squeezed, if not physically, at least intellectually into a crowded slum.

Past and present legislation, and current condition of some public landmarks, bear witness to our inability for self-control.

The current debate (John Pojeta, Jr. *American Paleontologist*, 1(1), 1992, p.9-12; R.S. Stucky, *American Paleontologist*, 1(4), 1993, p.8-9; B.L. Stinchcomb, op.cit., p.9; anonymous, op.cit., p.12-13) on the collection of vertebrate fossils on federal lands in the U.S.A. is another 'debacle in the making'. From the newsletter it is apparently already illegal to collect along roadsides in Illinois, thereby eliminating most field trips. It is illegal to pull over and park on the interstate highways in Texas.

Between misinterpretation (letter of the law) and eagerness to preserve (spirit of the law), we are seeing everything from federal intervention in the ownership of *Tyrannosaurus rex* (South Dakota) to sodding over of readily accessible roadside geology (Texas).

A small flood of criticism resulted in lack of action on Senate bill 1307 in 1992, after existence of the bill was made known. There is word the bill could be reintroduced in 1993 in modified form; alternatively another bill could be introduced in the House of Representatives, which would allow collecting under permit, and reduce violations to a misdemeanor.

If you are concerned, contact your political representatives in state and federal government.

## DO NOT CLOSE ALL PUBLIC LANDS TO FOSSIL COLLECTORS

Something must be preserved for future generations. Fossils are not replaceable resources, such as growing trees, etc. But a proliferation of laws which, in effect, punishes all citizens is not the way to handle the relatively few who greedily overindulge.

The 'old west' is rapidly being closed down. Yet the old west tradition continues. We all, past, present and future generations, as we take to the highways and byways, require a continuing education into newer, better attitude towards natural resources.

But, is it necessary to decree a moratorium until that education is accomplished? I think not. After all, we are all users, to one extent or another.

Should the many be deprived of that which eventually could be plowed under in the production of fossil fuels anyway? Tons of fossils are being irretrievably lost in strip mining of coals, and will be lost in the mini of oil shales.

It is inconceivable that those fossils could be made available to the public in immediate advance of the

commercial shovel. Our experience with the attempt to save archeological sites demonstrates our woefully inadequate staffing when we are forced to work just ahead of development(dams, highways, etc.).

It is imperative to have the U.S. Geological Survey and State Geological Surveys, and in some cases even local geological Departments designate areas that could be collected under local management, e.g. the Arkansas State run diamond locality.

I have over 30 years experience in *(the study of)* fossil spores and pollen. I feel very protective of fossils and our natural resources. But there must be a management program that does not put all fossils under lock and key. I can not draw scientifically an analogy between such a stance and past endeavors, but intuitively believe that fossils are like our native grasslands:

Overgrazed or overplowed, they will disappear. At the best, only rubble would remain of well-known fossil localities. At one time no burning of grasslands was allowed, and the growing cover of bush and trees began to encroach. Over-protected, fossil sites will disappear under the weathering mantle of rock debris and soil formation.

I have personal experience of the latter. My generation learned geology along roadsides, highway cuts and gulleys. Today I drive the roads of Texas amid a state wide effort to sod over all exposed roadside bedrock. The temporary beauty of seasonal flowers do little to ease the ache of the lost beauty of the underlying geological strata.

William C. Elsik  
Houston, Texas

*[In the province of Alberta in Canada, we have some very interesting laws regarding the "lifting" of fossils. The laws were enacted to protect the massive deposits of dinosaur remains found in southern Alberta.*

*Years ago I was involved in an archeological and paleontological survey of a pipeline route. Normally these surveys investigate the surface of the route. Unfortunately for the pipeline company, someone noticed the head of a dinosaur in the cutdown to the Red Deer River. Although the fossil was in poor condition, and was a common species that was not worth the cost of lifting, the pipeline was diverted at a cost of several hundred thousand dollars.*

*It is against the law in Alberta to remove fossils from their matrix without a lifting permit obtained from the government. The letter of the law prohibits extraction of fossil pollen and spores without a permit. However, the spirit of the law and the common sense of the good people of Alberta, have prevented problems for palynologists.*

*We look forward to hearing about the "fossil laws" of other areas of the world where our members live and work...*  
Editor]



## AASP ANNUAL MEETING - 1993-

LOUISIANA STATE UNIVERSITY  
BATON ROUGE, LOUISIANA

### 26th AASP ANNUAL MEETING REPORT

The annual AASP meeting was a great success. The local committee, George F. Hart and John H. Wrenn (Co-Chairs), deserve a "standing ovation" and vote of thanks from the AASP membership for their hard work and effort in preparing for the meeting and for ensuring that the events of the meeting ran smoothly once it began.

The pre-meeting activities began on Saturday and continued through Sunday. Attending members were presented with a choice of the following activities: a field trip to the nearby Mississippi delta (led by Jim Coleman and Jerry Kuecher), a Fungal Spore Short Course (Bill Elsik), or a Sequence Stratigraphy Short Course (Mac Jervey). The post-meeting activities included a field trip to the Louisiana swamps and marshes (led by Harry Roberts) on Friday and a three-day work session of the International Working Group on Organic Matter Classification. The three-day work session was held in Cocodrie, Louisiana from October 29-November 1.

The Technical and Symposia sessions began on Monday and ended on Thursday. The theme of the first Technical Session was **Facies Model and Sequence Stratigraphy**. Included in the following General Technical Sessions were a number of scientific papers ranging from the analysis of Quaternary-age pollen records from South American sediments to ways of applying pollen data to detect prehistoric earthquakes in the Pacific Northwest region of North America. The two symposia were **Palynology and Climate**, and **Palynology, Climate and Sequence Stratigraphy of the Pliocene**.

During the Pliocene symposium 26 speakers discussed the rapidly expanding research underway on Pliocene units world wide (for more details, see the specific report on the Pliocene symposium elsewhere in this newsletter). As a result of this symposium presentation, a Working Group on World Pliocene Ecostratigraphy has been established under the auspices of the Subcommission

on Neogene Stratigraphy of the International Union of Geological Sciences. Co-Chairs for the Working Group will be Robert S. Thompson (USGS in Denver) and Georges Clauzon (Universite D'Aix-Marseille II, Aix-en-Provence, France).

Over 120 people registered for the meeting. Of these, approximately 40% were individuals from 16 countries outside the United States. This confirms the growing international interest and participation of members from locations outside the USA in AASP and in our annual meetings.

The L.R. Wilson Student Paper Award was presented to G.J.M. Versteegh (University of Utrecht) for the outstanding oral presentation of his paper entitled: **Recognition of Cyclic and Non-Cyclic Environmental Changes in the Mediterranean Pliocene: a Palynological Approach**. The Outstanding Poster Award was presented to Dr. Gordon D. Wood (AMOCO Production Company) and his co-author Dr. Gunn Mangerud (I.K.U. Petroleum Research, Norway) for their poster entitled: **Biostratigraphic, Paleoecologic, and Paleobiogeographic Significance of Uppermost Permian-Lower Triassic Fungal and Fungal-like Remains**. Finally, the UNOCAL/AASP Best Applications Paper Award was presented to dual winners: (1) **Entomopalynological Techniques used in the Search for Migratory and Feeding Habits of Adult Corn Earworm, Celery Looper, and Cabbage Looper Moths** by V.M. Bryant, P.D. Lingren, M.W. Pendleton and G. Jones; and (2) **Microfossil Analysis for Detecting Prehistoric Earthquakes** by R.W. Mathewes. Each winner will receive \$500. The award is to be used by the winner to present the same paper at a national or regional scientific meeting of a related professional organization so that they may learn how pollen data can be applied to their discipline.

On Wednesday, the highlight of the Business Luncheon was the presentation of a large birthday cake, and a standing ovation, to acknowledge Dr. L.R. Wilson's 65 years of active research and publishing in the field of palynology.

The meeting ended with an invitation to attend the 1994 AASP Annual Meeting in College Station, Texas.

Vaughn M. Bryant, Jr.



**MORE**

in

**94**

**1994 AASP MEETING--COLLEGE STATION, TEXAS**

As the Chair of the AASP 1994 Meeting Committee, I want to bring you up-to-date on next year's

AASP Annual Meeting.

We have determined the meeting site for the 1994 Annual Meeting as being the Hilton Hotel and Convention Center in College Station. We have received guaranteed room rates of \$60-single and \$65-double/night. Not only our Hilton an excellent hotel and convention center, but it is the finest facility of its kind in the Bryan-College Station area and has a shuttle service to and from our local airport. It also has an excellent restaurant facility. The Hilton is located about one mile from the center of the Texas A&M campus.

The 1994 annual meeting is scheduled for November 2-4. The technical sessions and symposium will begin on Wednesday and continue through Thursday, and Friday. We propose to hold the usual two days of technical sessions, with the a one-day symposium on the second day of the meeting. The title of the symposium will be *Good and Bad Procedures for Collecting, Processing and Analyzing Palynomorphs*. The symposium will focus on both pre-Quaternary and Recent-age materials.

We have not decided upon any type of evening dinner and entertainment program as yet. We are considering a one-day workshop for Saturday that will be held on the Texas A&M campus. The workshop would be a short-course entitled: **PALYNOLOGY IN THE 1990s AND BEYOND**. The focus would be on new techniques in: Forensic Palynology, Archaeological Palynology, Melissopalynology, and Entomopalynology. The leaders and participants of this workshop will have access to our campus classrooms equipped with microscopes, slide a 16mm projectors and VCR equipment. In addition, we can also use the SEM center if needed. Our estimated enrolment would be limited to 15 or 20 individuals, and the fee for the workshop would be about \$30. The fee would cover the cost of materials, equipment usage, a small stipend for the workshop leader or leaders, and the balance would be given to AASP. Finally, it is possible that we might schedule a second work-shop (subject to be determined later) on Saturday (either 1/2 day or all day) in order to give those attending the AASP meeting a choice of which workshop they might want to attend. If you have any suggestions, pro or con, please let me know.

We will want to hold a golf tournament, if there is sufficient interest. The proposed date for the tournament would be on the Monday afternoon preceding the meeting.

The College Station area is reached easily by car from Dallas, Austin, or Houston. Also, we have a new airport facility that is served by regular commuter flights of three major airlines (American, Delta, Continental). These flights now leave and arrive in College Station almost hourly throughout the day and evening between the hours of 6:00 AM-11:00 PM.

We think that AASP members will enjoy meeting in College Station. The combined population of Bryan/College Station is just over 105,000, excluding A&T students. The University currently has 43,000 students. There is a large shopping mall with over 100 individual stores, and a large complex containing 16 different movie

theaters less than one mile from the Hilton Hotel. We have over 100 restaurants and night clubs and a number of other types of entertainment centers in our area.

We hope all of you will make your plans early to attend our next annual meeting. And, if anyone has suggestions for the 1994 meeting that they want up to consider, please let me know.

Vaughn M. Bryant, Jr.  
Chair, 1994 Annual Meeting

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## NOTICE

David Goodman has exhumed several extra prints of the DINO4 conference photographs (BOTH VENTRAL AND DORSAL VIEWS!!). If you attended DINO4 and did not receive this handsome matching set, Dave would be happy to send you copies. Supplies are limited. Please write to:

David K. Goodman  
Arco Alaska Inc.  
P.O. Box 100360  
Anchorage, Alaska 99501-0360

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The British company INTERCEPT LTD has joined with the Natural History Museum to provide a Catalogue

of Micropaleontological Bulletins. There are 11 palynological papers in the list. The organization allows for payment with Mastercard/Visa/Amex/Eurocard which is a great boon to non-British citizens. For more information, please contact:

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## 9th IPC: Request for Symposia

As mentioned elsewhere in this newsletter, AASP will be the host society for the 9th International Palynological Congress. As the Committee Co-Chairs, we (Vaughn M. Bryant and John H. Wrenn) request that all those palynologists, who wish to organize and chair a symposium at the 9th IPC Meeting, please begin work on your symposium now. Specifically, we ask that you contact us as soon as possible and tell us your plans. We would like this information now so we can determine how many symposia we should plan on holding, how many meeting rooms we will need to utilize during the congress, and how much meeting time we will need to set aside for each symposium.

The 9th IPC First Circular, to be mailed during the summer of 1994, will ask for specific details from each of the palynologists planning to chair a symposium. However, even before that time it would help us to know the answers to the following questions. Therefore, for each planned symposium please answer these questions and return the answers to us:

1. Tentative title and subject matter of the proposed symposium
2. Tentative number of participants
3. An estimate of the amount of time you think your symposium will require (1/4 day, 1/2 day, etc.)
4. Person or persons who will organize the symposium

Thank you for your assistance.

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## 1994 AASP ANNUAL MEETING

### REQUEST FOR SYMPOSIUM PARTICIPANTS

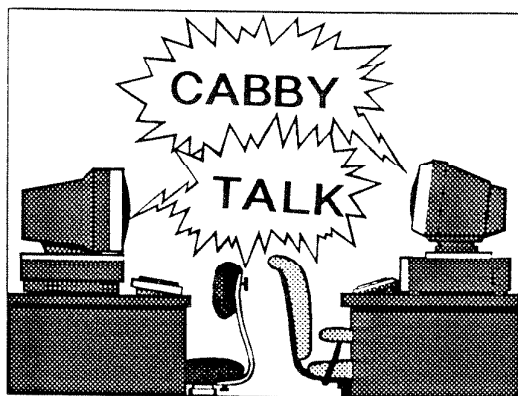
As mentioned elsewhere in this issue, in the news item about the next AASP Annual Meeting in 1994, we are planning to hold a symposium that will focus on *Procedures*



*for Collecting, Processing and Analyzing Palynomorphs.* The symposium will focus on existing, and potential, problems and solutions pertaining to both pre-Quaternary and Recent-age materials.

Although as organizers of this symposium we (Vaughn M. Bryant and John H. Wrenn) know some palynologists who are conducting research in these areas, we do not know all of you. Therefore, we hope that those of you who are interested in contributing a presentation as part of this symposium, and who also will be able to attend the meeting in November of 1994, will **contact either of us as soon as possible.** We are not able to guarantee that everyone who wants to participate will be able to, but we hope to do our best to accommodate as many participants as is possible.

At this time we are not certain whether or not we will want to publish a volume of papers that would include those topics presented at the symposium. Nevertheless, it is a strong possibility.



## COMPUTERS IN PALYNOLOGY

We urge the AASP membership to submit news and articles on computer application in biostratigraphy to our Newsletter. We are still interested in compiling a database on biostratigraphic software. Please contact any of the Committee members (Michael Farabee, Massoud Jameosanaie, Warren Kovach, Judith Lentin, or Pierre Zippi) if you like to share such information with your colleagues. We are looking forward to hearing from you!

### POINT COUNTER FOR PALYNOLOGISTS

M. Rosensaft, Geological Survey of Israel  
30 Malkhe Israel st., Jerusalem 95501, Israel  
A. Horowitz, Palynological Laboratory, Institute of  
Archaeology, Tel Aviv University, Ramat  
Aviv 69978, Israel

POINT COUNTER is intended for any job comprising point counting of up to 42 taxa, and presenting the results in both raw data form and any way percentage calculations set by the user. Counting is performed by pressing a predetermined key for each taxon. "Backspace" is used to delete mistakes, while the last 20 counted individuals are displayed on the screen. A facility is provided to inform the user by beeping when a certain number of individuals had been counted, both as a total sum and of a specific taxon or any preset combination of taxa.

Hardware demands are minimal, limited to an IBM XT computer or compatible, with only a single disk drive and 120 KB memory. More sophisticated equipment would naturally make counting somewhat more convenient. DOS required is version 3.0 or upward.

The program is loaded by typing "count16" at the cursor. An easier way for daily use is to copy the program onto a self-booting system diskette, so that the computer is ready for counting once it is turned on. To do so, in a two disk drive computer, insert a DOS containing diskette in drive "A" and turn the computer on. Insert a new diskette in drive "B" and type "format B:/s". Proceed by turning "B" to be the active drive, copy "command.com", "print.com" and any type of preferred "Editor" onto diskette "B". Replace the DOS diskette in drive "A" with the diskette containing "POINT COUNTER", and copy "count16.exe" onto "B". Create an "autoexec.bat" file by typing at the prompt:

```
"copy con autoexec.bat"
"count16"
and save by pressing F6 key, followed by "Enter"
```

This simple procedure can of course be further elaborated for any necessity or convenience. Write-protect the diskette when this operation is terminated.

The program operates by referring to two user-created files, one comprising a list of taxa and remarks, the other instructions for calculations. The list of taxa is mandatory for running POINT COUNTER, while the remarks and calculations are optional. These files should only be created once for any particular job, and are stored on the same diskette used for saving the data. In this way, if only a single disk drive is available, after the program is loaded the relevant diskette with user files and data is inserted and stays in the computer until the end of the job. With only one disk drive it is also suggested to copy an Editor onto the diskette containing the data, for easy access while editing files.

Every counted sample is saved as an individual file, its filename comprising two parts: the extension (limited to a maximum of three characters, less can be used), which defines a sequence or a batch of samples, and the filename (limited to a maximum of eight characters, less can be used) which defines the individual sample. Example:

"112-115m.SD1" defines a sample collected from borehole SD1 at depth of 112-115m. In this way, when further treatment of the countings is required (such as statistics, plotting, etc.) the other application program used can be asked to read all files with a certain extension and treat them as a single batch. Any limitations on the use of specific characters in filenames are found in the DOS manual.

When "POINT COUNTER" is loaded it will initially ask for the extension which defines the sequence or batch of samples, then the path, directory or disk drive where the relevant data are stored. A facility is provided to correct typing or other mistakes, if necessary. The program will then search for two files, which must have been previously created (see instructions for preparing these files at the end): "key.ext" which contains the list of taxa (and remarks, if required) and the optional "cal.ext" which contains the instructions for calculations, if such are needed. Note that "key" and "cal" are the filenames the program will look for, and "ext" varies according to the batch or sequence. The program runs a validity check on both "key" and "cal" files, looking for possible mistakes. Once these are corrected, the check is done internally and will not necessitate attention of the user.

When the extension is found valid (that is, "key.ext" file was read from the relevant path, directory or disk drive and had been correctly written), the program asks for the particular sample designation, which will consequently serve, together with the extension, as the individual sample's filename. Such filename may either be new, or one that was already in use, for a sample that had been counted before, and additional counting was found necessary. For a new sample, counting will naturally start from zero; for an existing, already counted sample, the program will read the previous counts and let the user continue counting from the point it was previously stopped. This is useful in cases when counting cannot be terminated in a single seating, or additional counting is found necessary in due time.

Two options are provided for inserting data into a file: either by actual counting, or by adding on numbers, such as from a counting made before POINT COUNTER was used, which one wants to present, calculate, continue counting, or otherwise treat within the same sequence or batch of samples. In this case previous counts will be printed on the screen in parentheses, and the new ones are inserted. "Backspace" can be used for corrections, and "Enter" to proceed to the next taxon. To ignore and proceed to the next taxon, when no data are to be inserted, press "Enter". Please note that once "Enter" is pressed no corrections can further be made to previous additions, only by loading the file again.

Following insertion of previous counts, the user is prompted to enter or change remarks. The maximum length of a remark is limited to 55 characters, but if mistakes are spotted, previous remarks can be corrected by pressing "Esc" once or more, as required.

If counting is chosen, the program will ask for a

number up to 9999, and a short tune is heard when the total counted individuals reaches this number (counting, however, is not stopped, proceeding as usual). To ignore, press "Enter". The program will further ask for another number, to sound a tune when counting reaches this other goal. The second number can be applied either to a single taxon or a group of taxa, and the question which taxa are included will be repeated until ignored by pressing "Enter". This facility is quite useful in palynology, for example, when target counting may be a certain number of arboreal pollen (or any other type) in the spectrum.

The list of taxa with their designating keys and previous counts (if there are such) now appears on the screen, together with such data as the sample designation (filename), date and time. Please note that the time shown is the starting time, and does not change through counting of a particular sample; date and time are read from the computer only if it supplies such data, and are not part of the program. If your computer does not supply the date and time, you can enter these as a remark, if you so wish.

Counting is performed by pressing the appropriate key which was assigned to any particular taxon in the "key.ext" file. "Backspace" is used to delete mistakes. A short beep is heard for each pressed valid key, while a sneer means that the wrongly pressed key does not appear in the list, or is not permitted. A note specifying what was done wrong appears at the bottom of the screen, and disappears once counting is resumed, by pressing a relevant key. The last 20 pressed keys are shown in the bottom row, to facilitate checking and corrections. The total number of counted individuals is also shown in the bottom row.

It is occasionally found necessary to add a taxon to the list while counting. To do so, press "Enter" and follow instructions. A validity check will be run by the program and the taxon thus added will be saved directly to the "key.ext" file. When not needed any more, it can be deleted from the file using an editor (as can be any other no longer needed taxon). After the taxon had been added to the list counting can be resumed.

When counting is terminated the list can be printed using the "Prt Sc" key for a hard copy saving of the data, or press "Enter" and follow instructions for saving, saving and printing or proceeding to enter remarks. Saving and printing at this stage are optional. If a "cal.ext" file exists calculations are carried on at this stage.

If found necessary, remarks can at this stage be added, provided such appear at the "key.ext" file. The user is now prompted to enter the remarks. Each remark is limited to a maximum of 55 characters, after which "Enter" is pressed for the next remark. If by mistake the remark is longer, it will jump to the next, but can be corrected by pressing "Esc", and deleted by "Backspace".

Once the remarks are typed, or ignored by pressing "Enter" in case not all are applicable to a specific count, calculations appear on the screen if "cal.ext" file exists. Consequently, the option to save the file is given.

The final printout will appear, comprising four parts: a heading, with details of the sample; a list of

counted taxa, showing the designating key, number of counted individuals and the taxon (note that taxa which were not counted in the particular sample are not printed); a list of remarks; and percentage calculations according to instructions in "cal.ext" file:

Sample designation: 112-115m - Sequence or batch: SD1  
 Number of taxa: 25 - Total counted: 67  
 Date: 14/6/1993 11:35

-----  
 D 5 Pistacia spp.  
 E 2 Podocarpus spp.  
 F 3 Pinus spp.  
 G 4 Picea orientalis  
 H 2 Cedrus libani  
 L 1 Juglandaceae  
 M 1 Tricolpate (small)  
 N 1 Triporate  
 O 3 Triporate (delicate)  
 Q 2 Gramineae & Cyperaceae  
 I 6 Acacia spp.  
 J 7 Tamarix spp.  
 S 2 Typha spp.  
 U 3 Labiatae  
 W 2 Umbelliferae  
 X 4 Asphodelus spp.  
 Y 4 Artemisia spp.  
 Z 1 Ephedra spp.  
 3 3 Papilionaceae  
 4 1 Liliaceae  
 5 1 Cruciferae  
 7 2 Centaurea spp.  
 8 3 Cyathea sp.  
 9 1 Trilete psilate  
 0 3 Indet. spores  
 -----

#### Remarks:

Sample designation: - Sedom Deep 1 Borehole, 112-115m depth

Rock Type: - grey marl  
 Pollen preservation: - fair  
 Pollen abundance: - poor  
 Clay: - some  
 Organic matter: - none  
 Others: - somewhat oxidized?  
 -----

#### Percentages:

QUERCETALIA out of AP = 0.00 %  
 CONIFERS out of AP = 41.18 %  
 PICEA ORIEN. out of AP = 23.53 %  
 BET. & JUGL. out of AP = 35.29 %  
 AP out of REGIONAL = 48.57 %  
 STEPPE out of REGIONAL = 34.29 %  
 DESERT out of REGIONAL = 17.14 %  
 HYDROPHIL out of LOCAL = 90.00 %

GRM & CYP out of LOCAL = 10.00 %  
 CHENOP. out of LOCAL = 0.00 %  
 LOCAL out of TOTAL = 32.26 %  
 SPORES out of TOTAL = 11.29 %  
 AP out of TOTAL = 27.42 %

#### Creating "key" and "cal" files:

General: POINT COUNTER does not recognize empty lines in both "key" and "cal" files. If such are inserted they will be ignored and error messages may be wrong, or occasionally the program may even halt.

These files can be created using either of three techniques: the simplest way is by using any kind of a "clean" editor (one that does not insert any additional characters to the ones typed); a word processor can be used, but all unnecessary additions will have to be deleted with an editor; or you can type at the prompt:

"copy con key.ext" (or "copy con cal.ext") followed by "Enter".

Proceed by typing the relevant file line by line, "Enter" at the end of each. The only disadvantage of this method is that once you pressed "Enter" for the next line you cannot correct the previous, so that typing should be done carefully, double checked before pressing "Enter".

Save these files by pressing F6 key, followed by "Enter".

To create a "key" file (see example below) you must type the taxa designations (up to 42, maximum 38 characters each), each in a separate line, preceded by its identifying key (a single key only), separated from the designation by a space. Note that upper and lower case keys are different identifiers. The desired list of remarks follows the list of taxa, again each remark in a separate line, but the first line of remarks should only have the word "Remarks", since the program is searching for this word as a guide. Remarks are limited to 20 characters maximum, while the number of permitted remarks is limited to 20 entries.

The file is then saved as "key.ext", where "ext" is replaced by the relevant sequence or batch designation. An example of a "key" file for a sequence termed "gen" (for counting pollen grains) is given below. The filename is "key.gen":

A Quercus calliprinos  
 B Quercus ithaburensis  
 C Olea europaea  
 D Pistacia spp.  
 E Podocarpus spp.

F Pinus spp.  
 G Picea orientalis  
 P Chenopodiaceae  
 Q Gramineae & Cyperaceae  
 S Typha spp.  
 U Labiatae  
 V Compositae  
 W Umbelliferae  
 5 Cruciferae  
 6 Malvaceae  
 7 Centaurea spp.  
 8 Cyathea sp.  
 9 Trilete psilate  
 0 Indet. spores  
 \* Indetermined

Remarks

Sample Designation:

Rock Type:

Pollen preservation:

Pollen abundance:

Clay:

Organic matter:

Others:

To create a "cal" file for the above list, which should be saved under the filename "cal.gen", follow the example below. This will provide a list of percentages for each of the categories listed after the instructions for calculation. For the calculations, two groups of identifiers are used, each enclosed in parentheses and separated by a slash, where the first sum of identifiers will be divided by the second, and shown as percentages in the saved or printed file. Note that the different number of spaces in the headings for each calculation are only inserted for the final appearance of the printout (see above) and are not mandatory:

(AB)/(ABEFG) QUERCETALIA out of AP  
 (EF)/(ABEFG) CONIFERS out of AP  
 (G)/(ABEFG) PICEA ORIEN. out of AP  
 (ABEFG)/(ABEFGVW567) AP out of REGIONAL  
 (567)/(ABEFGVW567) STEPPE out of REGIONAL  
 (VW)/(ABEFGVW567) DESERT out of REGIONAL  
 (U)/(PQSU) HYDROPHIL out of LOCAL  
 (Q)/(PQSU) GRM & CYP out of LOCAL  
 (P)/(PQSU) CHENOP. out of LOCAL  
 (PQSU)/(ABEFGPQSUVW567890\*) LOCAL out of  
 TOTAL  
 (890)/(ABEFGPQSUVW567890\*) SPORES out of TOTAL  
 (ABEFG)/(ABEFGPQSUVW567890\*) AP out of TOTAL

Please note: if at any time you want to re-calculate spectra in a different way, all you have to do is create a new "cal.ext" file, load the sample file with POINT COUNTER and save it again. The newly saved file will be calculated according to the new "cal.ext". If you also want to save the previous calculations, you should use a different

diskette for saving the new calculations.

To obtain a copy of POINT COUNTER you could write to Dr. M. Rosensaft at the address above, including US\$10 to cover expenses, or copy it freely from anybody who has it already.

We would appreciate your cooperation in mailing us your opinion and remarks, for possible improvements of following versions.

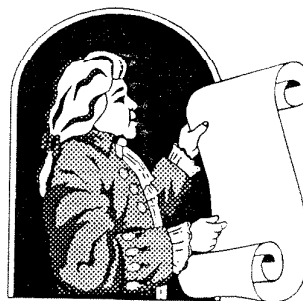
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## THESIS ABSTRACTS



No abstracts were received for this issue of the NEWSLETTER. Students are requested to send in abstracts. Teachers, remind them!

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**GORDON WOOD**

**RECEIVES**

**AASP  
DISTINGUISHED  
SERVICE AWARD**

At the Annual Business Luncheon, the AASP Awards Committee presented Dr. Gordon D. Wood with the Distinguished Service Award for his outstanding service and contribution to AASP. As noted by the Committee, Gordon has been the AASP Secretary-Treasurer for more than one-third of the entire time that the organization has been in existence as a professional society. Also, few may realize that the job of Secretary-Treasurer is the most demanding position, and perhaps the most critical, to the

overall success of AASP.

During the nine years he held office, Gordon served with nine different presidents and was a member of nine different Boards of Directors. Throughout that entire period he remained as an important entity who was able to bring administrative continuity from one year to the next and was able to become the "bridge" between each succeeding Board of Directors. More importantly, during Gordon's nine years he was successful in bringing the AASP treasury from the edge of bankruptcy to a position of financial strength.

All of us share in applause for this well-deserved recognition of an AASP member who has given a great deal of his personal time to ensure the progress and continuation of our organization.

## RESULTS

### OF THE 5th ANNUAL AASP GOLF TOURNAMENT



At the 1987 AASP meeting in Halifax, Nova Scotia, some of the members held the first AASP golf tournament as part of the yearly annual meetings. Since then, a few of AASP's most ardent golfers have met each year before the annual meeting (except for 1992 in France) to test their skills in avid competition. Attendance at the five annual tournaments has been sporadic, and has ranged from as few as two members to as many as eight. Nevertheless, for the faithful, these tournaments have become one of the added highlights of attending the annual AASP meetings.

This year as part of the annual meeting, the faithful again gathered on the first tee box of the LSU Campus Golf Course. The course carries a rating of 69.4 and is over 6,000 yards long with an 18-hole par of 72. By the end of the tournament the three participants, Vaughn M. Bryant, Ken M. Piel and John Steinmetz, acknowledged that they were not quite ready to go on "tour" with the PGA. Nevertheless, all agreed that the tournament had been fun, and that it had provided an opportunity to be creative in generating excuses for what at times might have been confused as being a lack of golfing ability. Changing the types and colors of the golf balls helped some of the contestants at times, but failed to bring down the scores in most instances. Also, the players noted that the inappropriate locations of lakes, trees, sand traps, and roads added to the list of reasons why their scores were not as good as they could have been.

By the end of the tournament all agreed to meet again next year in College Station, Texas, for the 6th

Annual AASP Golf Tournament. Also, by then maybe more of the AASP membership will want to add their names to the list of members who shall forever be enshrined in the AASP Golfing Hall of Fame.

*[Editor's Note: Skill at golf is not required to participate in the AASP golf tournament (although Mike Snape will be welcome on my team anytime). However, the ability to carry on sustained laughter for over 4 hours is most valued.]*

## AASP STUDENT SCHOLARSHIPS



The AASP Awards committee is pleased to announce the winners of the 1993 Student Scholarships: Donald C. Hargrove and Lynne Milne. Scholarships are awarded in the amount of \$300 (US) and 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.

Donald C. Hargrove is working on his M.S. degree at the University of South Carolina under the guidance of Dr. Arthur D. Cohen. A 1992 Department of Energy undergraduate internship with Westinghouse Savannah River Site through the Oak Ridge National Laboratory led to his present master's degree research.

Don's winning proposal is entitled "Palynologic investigation of the boundary between the Steel Creek Member of the Peedee Formation (Cretaceous) and the Ellenton Formation (Tertiary) on Savannah River Site near Aiken, South Carolina." He plans to use palynology to correlate the subsurface stratigraphy and to provide insight into both the sedimentological and environmental conditions under which these formations were deposited.

Lynne Milne was born and educated in Western Australia. She is pursuing her Ph. D. at the University of Queensland under the guidance of Dr. Geoffrey Playford. She received her B.Sc. (Geology) in 1977 and did Honours in palynology (First Class), graduating in 1981. She has worked as a part-time geologist with Asia Exploration in Singapore, as a consulting palynologist with Analabs in Perth, and as a palynological consultant in Queensland.

"Palynology of Tertiary sediments from the Bremer and western Eucla Basins, Western Australia" is Lynne's

proposed investigation. She plans to document the diverse spore-pollen and dinoflagellate assemblages recovered from Tertiary sediments from southern Western Australia. Her biostratigraphic framework will emphasize distinguishing between middle and late Eocene events. Comparative light and electron microscopy studies of fossil proteaceous-like pollen and extant Proteaceae will be used to determine botanical affiliations and infer evolutionary trends.

Lucy E. Edwards

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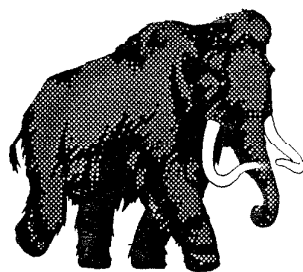
*Lucy Edwards has resigned as chairman of the Awards Committee in order to devote as much time as possible to the AASP Presidency. The new Awards Committee Chairman is Merrell A. Miller. Other committee members are Owen K. Davis, Frederick J. Rich, and Barbara L. Whitney.*

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## PLIOCENE WORKSHOP

A

## MAMMOTH SUCCESS



On the last two days of the 26th Annual Meeting of AASP, 110 scientists from 16 countries attended a 2-day interdisciplinary workshop entitled "PALYNOLOGY, CLIMATE, AND SEQUENCE STRATIGRAPHY OF THE PLIOCENE." The organizers of this symposium, J.H. Wrenn, Louisiana State University, and J.-P. Suc, Université Montpellier II, brought together 27 speakers to discuss the explosion of data and proliferation of techniques covering this critical period in the earth's history. Student participation in the workshop was excellent, and G.J.M. Versteegh, University of Utrecht, was given the L.R. Wilson award for the best student presentation of the 26th annual meeting.

Introductory papers by A.J. Baksi and M.B. Cita provided a chronologic framework for the terrestrial, lacustrine, and marine studies in the old and new world. Each subsequent speaker strove to present his or her data in the new Neogene time scale provided by <sup>40</sup>Ar/<sup>39</sup>Ar and astronomical dating: Calabrian/Piacenzian - 1.76 Ma. Piacenzian/Zanclean - 3.61 Ma. Zanclean/Messinian - 5.77 Ma.

Of particular importance to the meeting were papers by R. Poore and R.S. Thompson of the PRISM research group, and by D.M. Harwood, University of Nebraska, summarizing the global effects of the

Middle-Pliocene warm period. These effects include

- The existence of trees poleward of 80° latitude: *Pinus* sp. in the arctic and *Nothofagus* in the Antarctic. This implies polar temperatures 10° - 15° C greater than today
- The probable melting of most of the Antarctic ice cap, and consequent flooding coastal regions, including the American eastern seaboard to a depth of over 35 m.

Also of importance were the several lacustrine and near-shore records of environmental change that span the Neogene. These sites permit detailed comparison of terrestrial environments with the more-numerous marine records, and provide validation for the environmental records from well-dated but discontinuous terrestrial records. The long records include near-coastal sequences for western Africa (S.A.G. LeRoy), the Mediterranean and Black seas (M.B. Cita), the Gulf of Mexico (W. C. Elsik), and the Antarctic (D.M. Harwood). Neogene-spanning lacustrine records were presented for northern South America (V.M. Wijninga) and western North America (O.K. Davis).

Floristic studies generally indicated the origination of modern vegetation during the Pliocene. A comparative study by J.-P. Suc illustrated latitudinal vegetation gradients for the Mediterranean. Although several taxa were present that now are restricted to the tropics or to narrow refugia, the general vegetation gradients and dominant taxa during the Pliocene were those of today.

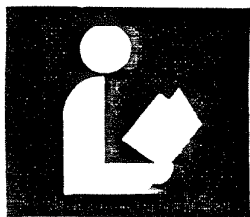
A comparison of mammalian with floristic indicators provided an interesting counterpoint for the meeting. In several areas, the two indicators produced conflicting results. Faunal-based reconstructions indicated maximum temperature and aridity 4.0 - 3.0 Ma, followed by gradual cooling and aridification (J.-P. Aguilar). This contrasted sharply with the floral reconstructions that indicated brief cooling at ca. 3.1 Ma, followed by the Pliocene warmth maximum until 2.5 Ma, with progressive cooling thereafter. In most regions, the 3.1 - 2.5 Ma interval contained floristic indications of greater moisture, but faunistic reconstructions from southeastern Spain recorded greater aridity from 3.2 - 2.0 Ma.

Also, certain differences among regional climatic chronologies became apparent. For example, the 2.48 Ma re-glaciation of the Antarctic coincided with the beginning of Milankovitch-band fluctuations in the marine records, and with the initial occurrence of *Artemisia* steppe in the Mediterranean. However, other records showed relatively minor change at 2.48 Ma. These differences among indicators and among regions can provide a valuable focus for future research.

The concluding session produced a synthesis of the various indicators from the diverse regions. Although the synthesis agreed in certain ways with the greenhouse-analog studies based on the early Holocene, the magnitude of

Pliocene warming was obviously far greater, particularly for the southern hemisphere. In the rapidly-developing field of Pliocene environmental study, the Baton Rouge workshop has provided an important benchmark for ongoing development of the methodology and techniques for the quantification and calibration of Pliocene climate.

Of particular significance was the creation of the "WORKING GROUP ON WORLD PLIOCENE ECO-STRATIGRAPHY" under the auspices of the Subcommittee on Neogene Stratigraphy of the IUGS. Dr. M.B. Cita, Head of the Subcommittee, appointed Robert S. Thompson, U.S.G.S, and Georges Clauzon, Université Aix-Marseille II, co-chairs of Working Group.



## BOOK REVIEWS

Book Review Editor - Reed Wicander  
Department of Geology  
Central Michigan University  
Mt. Pleasant, Michigan 48859

Early to Middle Carnian (Triassic) Flora and Fauna of the Richmond and Taylorsville Basins, Virginia and Maryland, U.S.A.

Bruce Cornet and Paul E. Olsen  
Virginia Museum of Natural History  
1001 Douglas Ave  
Martinsville, VA 24112

1990, 87 pages, 23 figures, 24 plates, ISBN 0-9625801-1-2  
\$18.00 US (paperback)

The Virginia Museum of Natural History has managed to publish an authoritative, detailed, and rather technical book which deserves careful attention by paleobotanists, and those who are interested in depositional systems generally. Early to Middle Carnian (Triassic) Flora and Fauna of the Richmond and Taylorsville Basins, Virginia and Maryland, U.S.A. does suffer from an unwieldy title, but once you get past that part there is some very substantial information which is designed to lead the reader through a fascinating landscape, literally. This book is a field trip guide as well as a treatise on the paleoecology, palynology, and depositional history of Triassic basins in Virginia, and careful attention to it could bring you nose-to-nose with one of the most intriguing geological stories I've come in contact with.

This volume (let's call it Triassic Flora and Fauna) was written by two men who surely are experts in the field, and who have better acquaintance with the geology of that area than anyone else. The depth of Cornet and Olsen's familiarity with the subject is immediately apparent as one reads the text. They rely on structural geology, paleontology (both vertebrate and plant paleo, with a sprinkling of invertebrates), stratigraphy, and process sedimentology. A complex story is woven which relates normal faulting and lacustrine deposition with the appearance and demise of the organisms which lived on the edge of a rifting continent. Because the geology and paleobiology of these basins is complex, explaining them necessitates a synergistic approach. Such an approach can only be successfully undertaken by people who know the area intimately, and I'm sure Cornet and Olsen do. Therein lies a problem for the casual reader, or armchair geologist, though; this publication is not for light-weights. I've known Bruce Cornet for many years, and remember talking with him as a fellow grad student at Penn State when he was formulating many ideas of the ideas which are represented in this book. The first palynological unknowns I ever had were from one of the Triassic basins. Many of their terms were, therefore, quite familiar to me and in a sense I felt as though I had trodden that ground once before. Still, I had to go back and re-read portions of the text just so I could keep the array of geographic, stratigraphic, and structural features clear in my mind.

There are a few places in this complex text which are a bit weak. The use of "relative percent" in a couple places rather than "relative abundance" caught my eye. When I read phrases like "middle Carnian in age" and "it appears to be older in age" I get the same sensation as when I bit down on a bit of pecan shell in a slice of fruitcake. Some of the figures could be just a bit more clear. In Figure 7, for example, the differences in dot density in some of the screen patterns are so slight that it is difficult to visually distinguish different stratigraphic units. This is particularly unfortunate when one is struggling with the text and, after turning to the figure for assistance, finds inadequate help. It's sort of like being thrown a rock when what you really wanted was a life buoy. The figures bear close scrutiny in any case. While they are not "busy", they do contain a lot of detail, and scales particularly need to be carefully observed. Cross-referencing of figures is essential to understanding the interrelationships of strata and the events which produced them.

A couple of things were left out of this text which I think would have added to its otherwise impressive content: 1) a description of the East African Rift would have been appropriate, could have been colorfully written, and would have helped the reader to get into the "mood" of a dynamic but vanished North American landscape; 2) a stratigraphic chart with Periods, Epochs, Ages, etc. would have been an excellent help to understanding just the time framework; 3) some explanation as to if one needs to get permission to

walk on the property where the road/foot-path log leads you, and who one should contact. There is a suggestion at one point that a quarry operator should be asked for permission to enter the quarry, but I like to know whether or not I can freely walk on anyone's land. Finally, I must chastise the authors for one important omission. It was the first thing I looked for, and the first thing I missed. Bruce Cornet has an unbelievable ability to create reconstructions of fossils using the demanding technique of pointillism. When I first saw this book, and the striking reconstruction of *Primauricaria* on its cover, all done in neat lines and tiny dots, I knew I had a treasure. To my disappointment, all the line drawings were borrowed from other authors. This was done in part, I suppose, because of the historical value of the other drawings in the context of developing our knowledge of this Triassic flora. Still, I think Bruce does much better work! My hat is off to these two scientists nonetheless. I am currently scheming a way to get a class to accompany me on a field trip to the Virginia grabens. The prospect of walking through the material in this text, literally, is an exciting one, and I think Cornet and Olsen have done an excellent job of presenting all of us with a fine piece of scientific work.

Reviewed by:

Fred Rich  
Dept. of Geology/Geography  
Georgia Southern University  
Landrum Box 8149  
Statesboro, GA 30460-8149

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## COMING EVENTS

1994

May 16-18: **G.A.C./M.A.C. Joint Annual Meeting.** Waterloo, Ontario. Details: Alan V. Morgan, Department of Earth Sciences, University of Waterloo, Waterloo, Ontario. N2L 3G1. Tel: (529) 885-1211, Ex. 3231, FAX: (519) 746-2543.

June 12-15: **American Association of Petroleum Geologists Annual Meeting.** Denver, Colorado. Details: AAPG Meetings, Box 979, Tulsa, Oklahoma 74101, USA. Tel: (918) 584-2555, FAX: (518) 584-0469.

September: **4th European Palaeobotanical-Palynological Congress.** Heerlen, The Netherlands. Details: Dr. G.F.W. Herengreen, c/o Geological Survey, P.O. Box 157, 2000 AD, Haarlem, The Netherlands.

November 2-4: **American Association of Stratigraphic**

**Palynologists. Annual Meeting.** College Station, Texas. Detail: Prof. Vaughn M. Bryant, Jr., Texas A&M University, Department of Anthropology, College Station, Texas 77843-4352. Tel: (409) 845-9334/5242, Fax: (409) 845-4070.

## - INVITATION -

### 1994 AASP MEETING--COLLEGE STATION, TEXAS

As the Chair of the AASP 1994 Meeting Committee, I want to bring you up-to-date on next year's AASP Annual Meeting.

We have determined the meeting site for the 1994 Annual Meeting as being the Hilton Hotel and Convention Center in College Station. We have received guaranteed room rates of \$60-single and \$65-double/night. Not only is our Hilton an excellent hotel and convention center, but it is the finest facility of its kind in the Bryan-College Station area and has a shuttle service to and from our local airport. It also has an excellent restaurant facility. The Hilton is located about one mile from the center of the Texas A&M campus.

The 1994 annual meeting is scheduled for November 2-4. The technical sessions and symposium will begin on Wednesday and continue through Thursday, and Friday. We propose to hold the usual two days of technical sessions, with the a one-day symposium on the second day of the meeting. The title of the symposium will be *Good and Bad Procedures for Collecting, Processing and Analyzing Palynomorphs*. The symposium will focus on both pre-Quaternary and Recent-age materials.

We have not decided upon any type of evening dinner and entertainment program as yet. We are considering a one-day workshop for Saturday that will be held on the Texas A&M campus. The workshop would be a short-course entitled: **PALYNOLOGY IN THE 1990s AND BEYOND**. The focus would be on new techniques in: Forensic Palynology, Archaeological Palynology, Melissopalynology, and Entomopalynology. The leaders and participants of this workshop will have access to our campus classrooms equipped with microscopes, slide and 16mm projectors and VCR equipment. In addition, we can also use the SEM center if needed. Our estimated enrolment would be limited to 15 or 20 individuals, and the fee for the workshop would be about \$30. The fee would cover the cost of materials, equipment usage, a small stipend for the workshop leader or leaders, and the balance would be given to AASP. Finally, it is possible that we might schedule a second work-shop (subject to be determined later) on Saturday (either 1/2 day or all day) in order to give



those attending the AASP meeting a choice of which workshop they might want to attend. If you have any suggestions, pro or con, please let me know.

We will want to hold a golf tournament, if there is sufficient interest. The proposed date for the tournament would be on the Monday afternoon preceding the meeting.

The College Station area is reached easily by car from Dallas, Austin, or Houston. Also, we have a new airport facility that is served by regular commuter flights of three major airlines (American, Delta, Continental). These flights now leave and arrive in College Station almost hourly throughout the day and evening between the hours of 6:00 AM-11:00 PM.

We think that AASP members will enjoy meeting in College Station. The combined population of Bryan/College Station is just over 105,000, excluding A&M students. The University currently has 43,000 students. There is a large shopping mall with over 100 individual stores, and a large complex containing 16 different movie theaters less than one mile from the Hilton Hotel. We have over 100 restaurants and night clubs and a number of other types of entertainment centers in our area.

We hope all of you will make your plans early to attend our next annual meeting. And, if anyone has suggestions for the 1994 meeting that they want up to consider, please let me know.

Vaughn M. Bryant, Jr.  
Chair, 1994 Annual Meeting

## 1995

March 5-8: **American Association of Petroleum Geologists Annual Meetings.** Houston, Texas. Details: AAPG Meetings, Box 979, Tulsa, Oklahoma 74101, USA. Tel: (918) 584-2555, FAX: (918) 584-0469.

August 28-September 2: **XIII International Congress on Carboniferous-Permian.** Kraków, Poland. Topics: Global syntheses: palaeogeography, plate tectonics, palaeoclimate; Stratigraphy and palaeontology, biostratigraphic global correlations; Sedimentology, analysis and reconstruction of sedimentary basins; Tectonics and magmatism; Post-depositional transformations of organic substance, coal petrology and geochemistry; Economic geology; coal, coalbed methane and hydrocarbons; Ecological impact of coal mining and related industrial activities. Details: Prof. dr. hab. Sonia Dybowa-Jachowicz, Państwowy Instytut Geologiczny, Oddział Górnolaski, 1 Królowej Jadwigi, 41-200 Sosnowiec, Poland. Tel: 48 32, 66 20 36 (38), FAX: 48 32, 66 55 22.

October 10-14: **28th Annual Meeting of the American Association of Stratigraphic Palynologists.** Ottawa, Ontario, Canada. Symposia, Technical Sessions, Posters, Field Trip. Details: Ms. Susan A. Jarzen, Canadian Museum of Nature, P.O. Box 3443, Station "D", Ottawa, Ontario, Canada K1P 6P4, FAX: (613) 954-4724.

## 1996

June 22-29: **9th International Palynological Congress.** Houston, Texas. Symposia, Technical Sessions, Posters, Field Trips. Details: Prof. Vaughn M. Bryant, Jr., Texas A & M University, College Station, Texas 77843-4352. Tel. (409) 845-5242. Fax: (409) 845-4070

# INVITATION

## 9th IPC Meeting: 1996 in Houston

Please mark your 1996 calendar with the dates of the 9th International Palynological Congress (June 22-29, 1996). The meeting will be held in the air-conditioned Marriott Hotel. Room rates are confirmed at \$100/night for single or double. We will also have triple and quadruple rooms available for the meeting.

Located across the street from the hotel is the Galleria, one of the largest shopping malls in the United States. It contains 6 1/2 miles of enclosed, air-conditioned corridors that provide access to more than 300 shops, four cinemas, 32 restaurants and an Olympic-size ice-skating rink that remains open to the public all year long.

Symposia topics and field trips for the 9th IPC are still in the planning phase; none have been organized as yet. We plan to hold up to seven concurrent sessions during each of the five days of meetings. This will provide for a maximum of 700 oral presentations. We have also arranged spaces for 250-300 posters, for those who wish to exhibit them at the meeting.

Our First 9th IPC Circular will be sent to individuals in June, 1994. Until then, we invite members to contact either of the Co-chairs if they want to volunteer to help, if they wish more information, or if they have suggestions for the meetings.

Co-Chairs, 9th IPC  
Vaughn M. Bryant, Jr.  
John H. Wrenn



## FROM THE EDITOR

You will undoubtedly  
notice that this  
NEWSLETTER is quite late.

It was to have been the October NEWSLETTER. It is a long, long story - but...

You may remember that I mentioned my "giant project on the geology of Kazakhstan" in the editor's column of the July NEWSLETTER. Part of that giant project took me to Almaty (Alma Ata), the capitol of Kazakhstan, and from there to various small towns along the Caspian coast. Along the way, I learned a great deal about the geology of Kazakhstan and I also picked up a nasty little virus which lodged in my liver. Unaware of this uninvited guest, I travelled on to Moscow and then to the interior of western Siberia.

Travel in Siberia is always difficult. Many areas are so distant from railroads and modern roads that the only method of travel is by air. On my trip north from Sverdlovsk, I travelled on a tiny 6 seat, twin engine airplane which was to take me all the way to my destination. Unfortunately, a logging truck had driven into one of the pylons holding up the electric wires to the village, so there were no landing lights at the airport. So I spent the night in a small village about 300 miles south of my destination. The next morning I flew in the most dilapidated helicopter I have ever seen. There were no seat belts...no seats either, I and the other unfortunate folks going north, sat on packing crates. Oh, and did I mention, there was no heater in the helicopter and -26°C on the ground and much colder in the air.

I stayed for 7 days in a pleasant little lodge without hot water or much heat. This is rather unusual in Russia, where most houses and offices are overheated. Unfortunately, the same accident to the electric power which had delayed my arrival had knocked out some of the heating plant. The pipes froze and ruptured when the electric heating coils failed. In spite of the discomfort of the sleeping room and the eating with my coat on, the work was fascinating.

It is amazing what one can see on grubby old seismic lines when viewed with the eyes of the local geologists. I visited a couple of drilling oil rigs that could have used some safety regulations, spent time with rig-site engineers and geologists and generally got a feel for the operations of a major producing field in Siberia. All the



while my little Kazakh virus multiplied happily in my nice warm liver. I should have drunk more vodka!

It took 3 days to get from the oilfield back to Moscow. That trip alone could fill volumes! After a day in Moscow, I flew home to Calgary.

But home isn't where I arrived. From the airport in Calgary, I was taken directly to hospital, deathly ill - that little Kazakh virus had been very busy! After 15 days in hospital I finally went home where I lay flat on my back for another three weeks. It's not a nice story. But, it is probably the best excuse you will ever get for a very late NEWSLETTER.! The January NEWSLETTER will be out on time - in only a month!

On an entirely different note. The AASP NEWSLETTER will have a new editor in the new year. Dr. Martin Head from the University of Toronto will take over the task of editor with the July issue. I have only two issues left to make my mark on the society! When I took over as editor, it was to be for just one year while our Editor-in-chief found a replacement. Well, the year grew a little, but that's OK. I am pleased to be your editor, but will be a lot more pleased when I'm not. I will make one last plea for articles, particularly for thesis abstracts. It is important to the society to know what research is being done. We also have space for short technical notes - so send them to me as soon as possible.

*Merry Christmas • Happy New Year*

*Joyeux Noël • Bonne Année*

*Feliz Navidad • Próspero Año Nuevo*

*С Рождеством и Счастливым  
Христовым • Новым Годом*

*恭祝圣诞 • 恭贺新禧*

I wish you the very best of the holiday season and a

**HAPPY NEW YEAR!**

**ANNOUNCEMENT: PALEOGENE DINOCYST SHORT COURSE  
JUNE 6-10, 1994**

Presented by

Graham L. Williams (AGS, Canada)  
Sarah Damassa (consultant, USA)  
Henk Brinkhuis (LPP Foundation, NL)

With contributions by

Jonathan P. Bujak (Lexis Group, UK) and A. James Powell (Millennia, UK)

**At the Laboratory of Palaeobotany and Palynology  
University of Utrecht, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands**

**Synopsis:**

Between June 6-10, 1994 a **Paleogene Dinocyst Short Course** will be presented at the LPP, University of Utrecht. Up to a maximum of 25 persons can attend the course, which will focus on selected taxa, morphological groups, phylogeny, first and last occurrences, zonations, sequence stratigraphy, paleoceanography and provincialism. Although data from different paleolatitudes is incorporated in the course, special attention will be given to the North Sea Basin, with the help of invited experts.

**Set-up:**

The 5-day course will be presented with the use of slide- and overheadprojectors. Participants will receive a detailed course manual, including line-drawings of all discussed taxa and detailed stratigraphic information.

**Costs:**

The course fee is set at US \$ 400.- for professionals (exclusive of housing, meals, etc.). A 50% discount is available for students, but priority will be given to professional participants. Places will be reserved on a 'first-come' basis.

**Note:**

In contrast to a previous attempt to organize the course (following the DINO5 Conference), the dates for the course are fixed and are not dependant upon the number of participants or pre-registrations.

**Reservations:**

You can reserve a place at the course by contacting Henk Brinkhuis, LPP, University of Utrecht, Heidelberglaan 2, 3584 CS Utrecht, The Netherlands. Tel. +31 (0) 30-532799 or Fax +31 (0) 30-535096. Fees can be directed to the bankaccount of the LPP Foundation, ABN/AMRO Bank account no. 46.50.04.512, Utrecht, NL.