

PALYNOLOGICAL SOCIETIES

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Volume 11, No. 1 - June 1988

NEWSLETTER of the INTERNATIONAL FEDERATION of PALYNOLOGICAL SOCIETIES

MEET YOUR NEW PRESIDENT

As provided by Article 9 of the IFPS Constitution, the members of the Council have recently elected a new President to lead IFPS during the period 1988-1992. He is Dr. **Henk Visscher**, Professor of Palaeobotany and Palynology at the State University of Utrecht (The Netherlands) and a CIMP representative on the IFPS Council. Dr. Visscher will formally take office on September 3 at the closing plenary session of the IFPS General Assembly at the 7th International Palynological Congress in Brisbane, Australia.

Henk Visscher originally majored in structural geology at the University of Utrecht. However, during field work in Spain, he became cognizant of the problems of Permian and Triassic stratigraphic correlation in Europe. Shortly thereafter, Dr. **Wilhelm Klaus** (Univ. of Vienna), pioneer in Permo-Triassic palynology, encouraged Henk to investigate the stratigraphic potential of Permo-Triassic palynomorphs. Fortunately, at this propitious time, Dr. **F. P. Jonker**, who had just founded the Laboratory of Palaeobotany and Palynology at the University of Utrecht, offered Henk the opportunity to initiate a Permo-Triassic palynological research program in this laboratory. This project ultimately led to the development of Henk's doctoral dissertation in 1971, entitled "*The Permian and Triassic of the Kingscourt Outlier, Ireland*" (Geol. Surv. Ireland, Spec. Paper No. 1, pp. 1-114). A decade later, upon the



Henk Visscher

retirement of Professor Jonker, Dr. Visscher was appointed to fill his chair as Professor of Palaeobotany and Palynology at the University of Utrecht.

Since 1973 Dr. Visscher has been a member of the Executive Committee of the *Commission Internationale de Microflore du Paleozoique (CIMP)*. Currently he is Secretary General of the IUGS Subcommittee on Triassic Stratigraphy, Member of the IUGS Subcommittee on Permian Stratigraphy and Member of the Subcommittee on Stratigraphy of the Netherlands Royal Academy of Sciences.

Apparently these manifold positions are insufficient to keep Dr. Visscher fully occupied, for he still finds time to serve on the editorial boards of *Palaeogeography, Palaeoclimatology & Palaeoecology* and the *International Journal of the Royal Geological and Mining Society of the Netherlands (Geologie en Mijnbouw)*.

Welcome aboard, Mr. President!!

IFPS HAPPENINGS

Since the beginning of the current year, two more palynological groups have been admitted to membership in the International Federation of Palynological Societies (IFPS); these new affiliates are: (1) the *Precambrian to Tertiary Palynologists of Belgium (PTPB)* and (2) the *Linnaean Society Palynology Group (LSPG)*.

The new Belgian affiliate includes 38 members and Professor **Maurice Streel** of the University of Liege has been appointed as their representative on the IFPS Council. The new British group has a membership list of 63 and their interim Councillor is Dr. **Steven Blackmore** of the British Museum of Natural History in London.

Recently a new Councillor has been named by the *Palaeobotanical Society of Lucknow (PSL)* - he is Dr. **B. S. Venkatachala**, Director of the Birbal Sahni Institute of Palaeobotany in Lucknow, India.

ATTENTION AUTHORS, ASPIRING AUTHORS AND RETIRING AUTHORS —

PALYNODATA, Inc. would very much like to receive reprints of your palynology papers for inclusion in our computer database. Please send reprints to:

Dr. M. Sedley Barss
Atlantic Geoscience Centre
P.O. Box 1006
Dartmouth, Nova Scotia
Canada B2Y 4A2

(Unpublished theses and dissertations are also welcome.)

SECOND SYMPOSIUM ON NEOGENE DINOFLAGELLATES

Woods Hole, Massachusetts, U.S.A., April 16-22, 1989

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

Symposium—

The Second Symposium on Neogene Dinoflagellates is to be held under the auspices of the Fourth International Conference on Dinoflagellates, at Woods Hole Oceanographic Institution, Woods Hole, Massachusetts (April 16-22, 1989). Papers on all aspects of Neogene dinoflagellates are welcome and papers on Quaternary dinoflagellates will also be considered. The half-day symposium will include two invited talks and as many as ten contributed presentations. This announcement seeks ten contributions for the Symposium.

Neogene Dinoflagellate Volume—

A Neogene dinoflagellate volume, including summary papers of the talks presented, will be published after the meeting. Contributions on all aspects of Neogene dinoflagellate research, including systematic contributions, are sought. *Poster displays and additional papers not presented at the Symposium will be considered for inclusion.* The official language of the Symposium and the Neogene dinoflagellate volume is English.

Workshop—

A dinoflagellate workshop will also be held in conjunction with the Neogene Symposium. This will be an opportunity to discuss taxonomy and to examine and compare palynological material (including holotype/topotype material) under the microscope. All participants are encouraged to bring microscope slides for this scientific "show and tell." If it is not possible for contributors to bring material, we will try to arrange for viewing of 35mm transparency film or videotapes. Participants are also strongly encouraged to bring microscope slides, residues, or sediment for exchange purposes.

Deadlines—

Response to this announcement:	As soon as possible, please
Titles:	August 26, 1988
Abstracts:	October 31, 1988
Manuscripts (1st draft) for volume:	March 31, 1989

Co-Convenors—

Martin J. Head (Department of Geology, University of Toronto, Toronto, Canada, M5S 1A1) and **John H. Wrenn** (Amoco Production Company, P.O. Box 3385, Tulsa, OK 74102, U.S.A.).

Response to this announcement—

Those wishing to contribute to one or more of these Neogene dinoflagellate events, please indicate events of interest (symposium, workshop, volume), together with name, address and telephone/telex, and mail to:

Martin J. Head
Department of Geology
University of Toronto, Tel: (416) 978-5080 (or 3022)
Toronto, CANADA M5S 1A1. Telex 06-23887 GEOLOGY TOR

NEW BOOKS

Bogdanova, T.N. & L.I. Khozatsky (eds.)
PALEONTOLOGY AND RECONSTRUCTION OF GEOLOGICAL HISTORY OF PALEOBASINS. Proc. 29th Session of the All-Union Paleontological Society. In Russian with English summaries. Nauka, 1987, 200 p.

Boehm, G.E. & R.M. Leuschner (eds.)
ADVANCES IN AEROBIOLOGY. Proc. 3rd Int. Conference on Aerobiology. Birkhauser Verlag, Basel. \$Fr. 98/DM 118.1987, 440 p.

Caratini, C. & J.P. Ybert (eds.)
PALYNOLOGIE, ECOLOGIE, PALEOECOLOGY. Proc. 10th Symposium APLF, Bordeaux. 34 articles with English summaries. Inst. Francais de Pondichery, Pondichery, India. 180 FF/US\$30, 1987, 416 p.

Friis, E.M., Chaloner, W.G. & P.R. Crane (eds.)
THE ORIGINS OF ANGIOSPERMS AND THEIR BIOLOGICAL CONSEQUENCES. Cambridge University Press, Cambridge, UK. \$44.50, 1987, 358 p.

7th IPC UPDATE

Scientific Program: Approximately 400 abstracts have been received in Brisbane; various aspects of paleopalynology, actuopalynology and iatropalynology are particularly well-represented, thus an extensive and interesting program is assured. There will be panel discussions involving data handling (Convenor, Dr. N. F. Hughes), palynology in the future (Convenor, Dr. E. M. Truswell) and terminology in palynology (Convenor, Dr. W. Punt). In addition to the General Assembly of IFPS, a number of affiliated societies will hold formal meetings, as will IGCP 245 (working group on non-marine Cretaceous correlations).

Excursions: Considerable interest has been shown in all scheduled excursions; if you haven't already enrolled for those of your choice, do so now to avoid disappointment.

Workshops: (1) *Pollination '88* - Convenor: Prof. R. B. Knox (School of Botany, University of Melbourne, Parkville, Victoria 3052, Australia). Scheduled for 26-28 August -- see p. 24 of Second Circular for details.

(2) *Quantitative Biostratigraphy* - Convenors: Dr. George R. Hart & Dr. Raymond A. Christopher. Scheduled for post-Congress, ca. Sept. 5. Applicants should register directly with Dr. Hart (644 Leeward Drive, Baton Rouge, LA 70808, USA).

Accommodations: Because World Expo 1988 is being held in Brisbane concurrently with the 7th IPC, accommodations are at a premium. Accordingly, all hotel and motel accommodations must be paid for in full by 1 August to insure your reservation is honored. However, for those staying in University College accommodations, an/A\$100 deposit by this date will be adequate.

Further Information Needed?

Secretariat 7th IPC, Uniquet Ltd., University of Queensland, St. Lucia, Qld 4067. Int. Telephone: 61 7 377 2899. Telex: AA40315 (UNIVQLD).



BOOK REVIEW

An Evolutionary Basis for Pollination Ecology by S.C. Willemstein. Leiden (Netherlands) Botanical Series, Volume 10, 425 pgs. 1987.

I do not think that any botanical problem has elicited more speculation than the origin and evolution of the angiosperms. This present volume is certainly a significant contribution to this large body of speculation. This book attempts to reconstruct the evolutionary history of floral morphology and their associated pollination syndromes based on pollination biology of extant plants and their associated pollinators.

The book opens with a short introduction followed by a chapter on methodology. Although the method in which this study is executed is concisely stated, the reader is minimally alerted to the caveats that are associated with the basic assumptions that underlie the study. The basic premise is uniformitarianism, i.e., by studying extant entomophilous plants and their associated pollinators and then examining the fossil record of insects and angiosperms, an evolutionary history of floral types is developed. The study draws heavily on a few references. Insect phylogeny and fossil history is largely based on Hennig (1969, 1981) and Rasnitsyn (1972, 1975, 1980) and references therein, pollination biology on Knuth (1898, 1899) and the fossil angiosperm record on Muller (1970, 1981, 1984). Much of the quantitative and qualitative analysis is based on data in these references. Willemstein's liberal use of these data makes me a bit wary of his subsequent discussions. These references are admirable contributions to their respective disciplines, but in themselves are replete with speculation. Hennig, using a rigorous cladistic approach, proposes a number of phylogenetic schemes that include the important anthophilous insect groups. The cladograms are reasonable, however, they are largely unsupported by paleontological evidence. We start with Hennig's speculation, which is then overlain by Willemstein's presumed chronological appearance of major insect groups. Knuth was cited to avoid the use of the more anecdotal reports of pollination biology. It must be born in mind, however, that Knuth reported (and summarized from his

contemporary literature) insect visits to flowers. There are few cases where Knuth actually demonstrates the insect that initiates a pollination that leads to fertilization. Here an important distinction between insect visitors and insect pollinators should have been made. I feel that Knuth is an excellent source reference, a starting point in which further pollination studies can be conceived and initiated; however, it is not the last word on well-documented pollination biology. Finally, in this regard, Muller's contribution, much like Knuth's, summarized the presumed botanical affinities of dispersed fossil pollen. Muller reasonably assigns a number of dispersed pollen taxa to angiosperm families. His work is based on light microscopic studies, and to a lesser degree, SEM and TEM. With the recent surge in SEM and TEM studies of dispersed fossil pollen, many of these assignments must be reevaluated. Much like the work of Dilcher and Hickey, which has alerted us to the pitfalls of assigning fossil leaves to extant taxa based on gross morphology, the same care must be exercised with fossil dispersed pollen. It is just these caveats that Willemstein should have more fully explored before overlaying his own speculation on this first order speculation.

There is an early chapter on insect feeding habits, which I found superficial due to the fact that this is highly variable (the details are often important to understanding how pollination takes place) and is treated at the subfamily level. This is followed by Willemstein's quantitative analysis based on the above references and forms the basis for the conclusions. Chapter five deals with the correlation of the anthophilous insect feeding habits with their phylogeny and fossil record. Throughout this chapter the synapomorphies that relate to the cladograms are suggested. This chapter closes with the stratigraphic occurrence of representatives of the families of anthophilous insects. Chapter six, "Statistical analysis of floral characters important to pollination ecology," is restricted to the central European flora. As mentioned, much of this analysis is used to speculate on the overall scenario, and culminates presumed transformation series in angiosperms. I think few contemporary botanists will find any major controversial issues with these transformation series.

Chapter seven begins Willemstein's speculative synthesis of the "data." The chapter opens with a cursory explanation of the Hill and Crane (1982) and Crane (1985) cladistic analysis of angiosperms and probable related fossil taxa. Few other analyses are considered (e.g., Doyle and Donohue, 1986), and it is not fully explained why this particular treatment is the center of attraction. It is unfortunate that so many elegant speculative works are encumbered by an "incomplete fossil record" and the reoccurring question of homology. The latter, I think, deserved more consideration by Willemstein. For example, Willemstein suggests that the selective pressure that brought about double fertilization was to avoid the occurrence of "endosperm" prior to fertilization in entomophilous, hermaphroditic plants, as in some gymnosperms. The term endosperm was applied to the substance that is a result of double fertilization and the gametophytic tissue present in gymnosperms prior to fertilization. I find this idea both appealing and interesting; however, I am left with the interesting question of the homologies of these structures. Throughout this section of the book Willemstein is forced into making numerous assumptions to continue to develop his scenario. I think, however, the end product is not significantly different from other published hypotheses (e.g., Faegri and van der Pijl, 1979).

Without a doubt this book will make interesting and stimulating reading for the angiosperm evolutionist and also would be an excellent text for a graduate level seminar course. The book can elicit from the reader both positive and negative reactions, depending on which particular ideas the reader favors. Willemstein does point out from time to time that this is a hypothesis; however, the way in which it is developed is where I had difficulty in being thoroughly convinced, i.e., the scenario is built on layer after layer of speculation. I do not think this book will replace the standard (Faegri and van der Pijl, 1979), but it does have many interesting and thought-provoking ideas and it will be sure to fulfill Willemstein's hope of promoting more interest and research in this direction.

Michael S. Zavada, Dept. of Biology, University of Southwestern Louisiana, Lafayette, LA. 70504.

**LIDIA GAVRILOVNA
MARKOVA
(1912-1986)**

On August 12, 1986 we lost one of the leading palynologists of Siberia—**Lidia Gavrilovna Markova**, who to the end of her days had headed the group of palynologists-biostratigraphers in the Siberian Scientific Research Institute of Geology, Geophysics and Mineral Raw Materials (SNIIGIMS). We have lost our great friend, a devoted colleague in the struggle for harmonic development of both the scientific and practical aspects of palynology in the USSR.

Because her undergraduate major at Tomsk University was in biology, she spent a number of years doing research in plant cytology. However, in 1956 she initiated palynological studies aimed at solving fundamental problems of Meso-Cenozoic evolution of floras, vegetation and climates in the West Siberian Plain. Her doctoral dissertation (1960) was entitled "The History of Jurassic and Early Cretaceous Floras in the West Siberian Plain"—this was based on palynological data. All of her later publications placed special emphasis on the use of palynology in solving stratigraphic problems.

Seven postgraduate students prepared their candidatures under the direction of Dr. Markova. She continually gave much of her time and efforts towards the training of new generations of scientists. She also contributed her share to the very interesting research on the reconstructions of West Siberian palaeolandscapes, whose evolution she claimed to be associated with palaeoclimatic reconstructions. She considered climatic successions within the whole complex of ecological problems to be at least partially solvable by means of palynological data. Although some of her concepts were occasionally regarded as controversial, she was persistent in adhering to her viewpoints, which she was able to defend because of her broad background in biostratigraphy, palaeobiology and systematics.

During her illustrious scientific career, Dr. Markova authored or co-authored 106 publications, including five monographs. These monographs include palaeolandscapes and palaeoclimatic reconstructions, stratigraphic data on West Siberian deposits of Cretaceous age, and Jurassic

spore morphology. One of her most recent monographs concerns the stages of evolution of Cretaceous and Jurassic floras in the region that is now the southeastern part of West Siberia. She has also contributed a large number of reports on biostratigraphy of the West Siberian Plain to the archives of SNIIGIMS; these will be of practical value to government geologists for many years to come. Her death came shortly after she completed editing the collective monograph "Methodical Aspects of Palynology," which discussed palaeofloristic grounds of environmental evolution in the vast epicontinental basin of Siberia.



Although somewhat isolated by her position in Tomsk, "The Star of the North" (as she was called by her colleagues) maintained close contacts with a broad range of both Soviet and foreign palynologists. She had been looking forward to attending the forthcoming 7th International Palynological Congress in Australia and had already submitted her abstract. Unfortunately, fate intervened—Lidia Markova is gone, leaving her last series of slides under her microscope. She will be long remembered by her family, friends, co-workers and students of several generations.

Let "The Star of the North" that shone so brightly throughout the years of rapid progress of our palynology never fade!

E.D. Zaklinskaya
Geological Institute
Acad. Sci. USSR
109017 Moscow



**RYSZARD FUGLEWICZ
1940-1987**

Although showing no signs of ill health, Dr. **Ryszard Fuglewicz**, a leading Polish palynologist and biostratigrapher at the University of Warsaw, died suddenly on December 27, 1987 at age 47.

He was born in Przemyslany near Lvov (USSR) on March 24, 1940. He began a major in geology at Lvov University, then completed his advanced education at the University of Warsaw. Since 1964 he has been a member of the faculty of the Department of Geology at the University of Warsaw.

His initial palynological research dealt with the utilization of megaspores to delineate the stratigraphy of the Lower Triassic (=Buntersandstein) in Poland. He described 76 species (66 were new) of megaspores in the Buntersandstein sequences of Poland; these palynomorphs made it possible to recognize three Assemblage Zones in the Lower Triassic of Poland. Many of the species he described were recognized later in Triassic horizons in other parts of Europe and even on other continents, e. g., in some Lower Triassic deposits of China.

About 15 years later his research in the Tatra Mountains (Carpathians) revealed the same assemblages of megaspores in the Lower Triassic of the Alpine facies; this enabled him to correlate the Germanic and Alpine facies of the Lower Triassic. More recently, he described large collections of megaspores from Mesozoic

horizons in Crimea and Cuba, as well as numerous Devonian megaspores obtained from boreholes in Poland.

Dr. Ryszard Fuglewicz was a respected lecturer in geology at the University of Warsaw and an indefatigable research worker in the field, thus he attracted many students into palynology and biostratigraphy. Not only was he regarded as a leading authority on the stratigraphic significance of megaspores, but also his concepts of plate tectonics during the Triassic were highly respected. He was very active right up to the last moments of his life. He was a good friend.

Stanislaw Orlowski
Department of Geology
University of Warsaw
Warsaw, Poland



**LUDMILA ANDREEVNA
KUPRIANOVA
1914-1987**

On January 13, 1987 the distinguished Soviet palynologist, Dr. Ludmila A. Kuprianova, Chairman of the Palynological Section of the All-Union Botanical Society (USSR), died of a heart attack.

Her scientific career spanned more than 50 years, most of it associated with the Komarov Botanical Institute in Leningrad; for many years she was the Head of the Palynology Group at this institution. She was among the first to recognize the importance of vouchered pollen and spore reference collections for research in both actuo- and paleopalynology. As a result, she was respon-

sible for the development and organization of the Komarov Institute's widely-known "Palynothea" which now includes some 21,000 slides of palynomorphs. During this period she also found time to direct the thesis research of one D.Sc. candidate and 7 Ph.Ds.

Dr. Kuprianova has published more than 200 papers on botanical systematics, history of floras and pollen morphology, especially as related to problem of the origin and evolution of the angiosperms. (Ed. note: Her complete bibliography is slated to appear in the second number of the 1988 volume of *Botanicheskii Zhurnal SSSR*).

Her earliest professional contributions were taxonomic treatments of several genera, e.g., *Lotus*, *Linaria*, *Panzeria*, *Leonurus*, etc., for the "Flora of the USSR." Her first palynological paper (on pollen of Rosaceae) appeared in 1940; shortly after the end of WW II (1948) she published a comprehensive (100-page) report entitled "Pollen Morphology and Phylogeny of Monocotyledons" which is often considered as a landmark paper on this subject.

"Palynology of Amentiferae" was the title of her D.Sc. dissertation; its publication as a 215-page book in 1965 provided many new insights on the systematics and phylogeny of this interesting major taxon.

She was one of the pioneers in the utilization of TEM and SEM for the study of pollen morphology, revealing fine details of such grains as *Liquidambar*, *Nelumbo*, *Nymphaea*, *Cousinia*, *Allium* and *Chloranthus*.

In 1972 she initiated an exhaustive research program—formal descriptions of pollen and spores indigenous to the European region of the USSR. This massive project was finally completed in 1983 with the appearance of the last of three copiously-illustrated volumes covering some 900 species of pteridophytes, gymnosperms and monocotyledons.

Dr. Kuprianova was an active participant in numerous international botanical and geological congresses. As a delegate to the 2nd International Conference on Palynology in Utrecht in 1966, she was elected as a member of the newly-formed International Committee for Palynology. She was also the first recipient of the prestigious Gunnar Erdtman Medal in Palynology.

Her breadth of palynological expertise was recognized by her appointment to the editorial boards of such journals as *Pollen et Spores* (France), *Review of Palaeobotany & Palynology* (Netherlands), *Journal of Palynology* (India) and *World Pollen and Spore Flora* (Sweden).

She was an attractive, energetic, outgoing person of considerable charm and warmth. Her death is a great loss to the fields of botany and palynology, as well as to her family and many friends.

Valentina Fedorovna Tarasevich, Ph.D.
Palynological Section
Komarov Botanical Institute
Leningrad, USSR

**OPEN LETTER FROM
IFPS PRESIDENT
MCGREGOR**

It is my pleasure to announce that Aix-en-Provence, France, has been chosen by vote of the Council of IFPS as the site of the 8th International Palynological Congress in 1992.

My congratulations go to Dr. **Jean-Pierre Suc**, President of the *Association des Palynologues de Langue Francaise (APLF)*, and to Dr. **Armand Pons**, Chairman of the APLF Candidature Committee. Please accept my best wishes, both to you and to the Executive and members of APLF on behalf of the IFPS Council, for a successful Congress in Aix-en-Provence in 1992.

May I also take this opportunity to thank and commend all of the four bidders, representing the palynologists of France, Japan, Poland and Scandinavia, for their attractive and excellently-documented invitations. The fact that so many societies were willing to host the 8th Congress is a testimony to the health and vitality of the science of palynology.

I trust that those who were not chosen on this occasion may, at the appropriate time, consider offering invitations to host the 1996 Congress.

D. Colin McGregor, Pres. IFPS

D. C. McGregor
Geological Survey of Canada
Ottawa, Canada K1A 0E8

BOOK REVIEW

Pollen of the High Andean Flora (Quebrada Benjamin Matienzo), Province of Mendoza, Argentina by **Monica Wingenroth** and **Calvin J. Heusser**. Instituto Argentino de Nivología y Glaciología, Mendoza, Argentina. 1985, 196 pp., 2 figures, 11 color photographs, 74 plates, key, glossary, index and bibliography, US. \$45.

Publication of this study of the pollen of the modern flora completes the first phase of research in a program of investigation of the Holocene vegetation and climatic history of a portion of the High Andes in Argentina. The volume has a tripartite structure. The introductory section briefly describes the physical and botanical character of the quebrada (a steeply-walled, ravine-like valley; the word derives from the Spanish verb *quebrajar*, to split), discusses the criteria of the pollen descriptions and identifies the publications which present comparable descriptive information. The bulk of the book is the set of analyses of the pollen of seventy-four species that grow in the district today. The third section presents a key for this pollen flora, an index of the analyzed taxa and a glossary of the morphological terminology employed.

Though the first section sets the contextual stage for the significant work of the book, and employs photographs and maps to good effect, the authors tend to substitute classification for analysis in their discussions of the geomorphological and vegetative characteristics of the landscape. The second section is focussed on the plates, which present quite excellent graphic, SEM and transmitted light photographic documentation for the careful descriptions of the pollen morphology of each taxon. A sentence or two about the general ecology of the taxon and its niche in the Quebrada Benjamin ecosystem, and a note identifying sources of comparable morphological information, rounds out each description. The size-frequency histograms for polar and equatorial axis length provide information on variability in a much more useful form than the traditional statement of minimal, average and maximal values.

The key, which comprises the principle feature of the last section of the book, is presumably the most signifi-

cant contribution this work will make to the research program as a whole, as it should allow highly-resolved identifications of the pollen recovered from the peat bog of Quebrada Benjamin and other Holocene deposits in the High Andes. Though no doubt accurate, much of its discrimination depends upon fine measurement distinctions. Exine width differences of only 0.7 microns, for example, discriminate the genera of grasses which are limited to boggy ground from those which occur on a variety of substrates. The degree to which such attributes function for credible taxonomic discrimination amongst fossil pollen grains is not discussed, and I am not convinced the key will prove as valuable as the energy its construction has consumed.

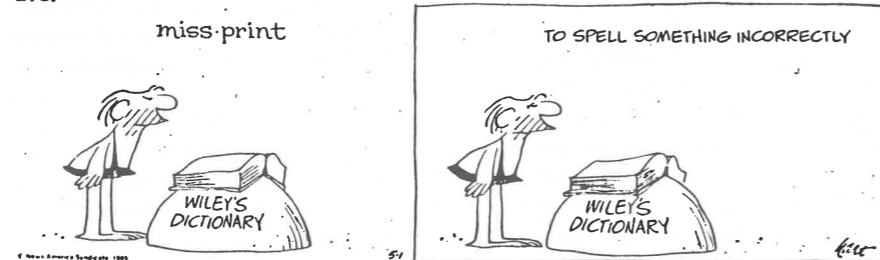
This English translation of an effort published in Spanish in 1983 should greatly expand the audience of palynologists who will find the work useful and valuable. Wingenroth and Heusser deserve a special commendation for achieving two goals of Quaternary research which are too often neglected: publication of the results of those preliminary phases of work which provide the structure and control for subsequent studies, and presentation of the information to an audience wider than the colleagues working on closely-related research problems in the same geographic area.

James Schoenwetter
Arizona State University
Tempe, Arizona

Ed. Note. Both English and Spanish versions of the above work may be purchased from:

Servicio Centralizado de Documentación y Información
Centro Regional de Investigaciones Científicas y Tecnológicas
Casilla de Correo No. 131, Correo Central
5500 Mendoza, Argentina

B.C.



IMPORTANT NEW JOURNAL

A relatively new journal on palynology called "*Anales de la Asociación de Palinólogos de Lengua Española (A.A.P.-L.E.)*" has appeared on the scene. This journal is published by *Comisión Asesora de Investigación Científica y Técnica* and is edited by members of the Department of Plant Biology and Ecology, University of Córdoba, Córdoba, Spain, in conjunction with APLE.

Three issues of this journal have already been published: vol. I (1984), vol. II (1985) and vol. III (1987). Each volume is brightly-coloured red and white with an attractive pollen grain logo on the cover. Reproduction is clear, large print on 17 cm x 24 cm glossy paper. Both optical and scanning electron microscope photomicrographs are accepted; the SEM photomicrographs are especially sharp. Although Spanish is the major language of this journal, the three published volumes include two English and two French papers. English or French abstracts accompany Spanish abstracts for each paper. The authors receive twenty-five reprints free of charge.

The published papers to date deal with various aspects of palynology: about 64% of the papers are concerned with pollen morphology; 13% with aerobiology and pollen allergy studies; 11% relate to Quaternary pollen stratigraphy; 5% each with melittopalynology and historical-modern pollen-vegetation relationships and 2% with pre-Quaternary studies.

This international caliber journal provides an excellent alternative for publishing palynology-related articles that are of international interest. Guidelines for potential authors, subscription information, etc., can be obtained from **Jose L. Uberta**, Dpto. de Botánica, Facultad de Ciencias, Universidad de Córdoba, 14071 Córdoba, Spain.

Thane W. Anderson
Geological Survey of Canada
Ottawa, Ontario K1A 0E8

PALYNOLOGISTS OF THE WORLD — AWAKEN!

The accompanying SEM of *Spiraea* pollen (Rosaceae) on the petal won EM Technician **Trisha M. Rice** of the Museum of Comparative Zoology of Harvard University 2nd price (\$750) in the 1987 Polaroid International Instant Photomicrography Competition, which attracted almost 400 entries worldwide. It seems that Miss Rice was in the process of decorating her office walls to display the capabilities of SEM, so plucked the subject flower on her way to work one day. This SEM will become part of a traveling exhibit that Polaroid makes available for display in science museums and universities. Her pollen was magnified x2,700 on an Amray 1000 Scanning Electron Microscope.

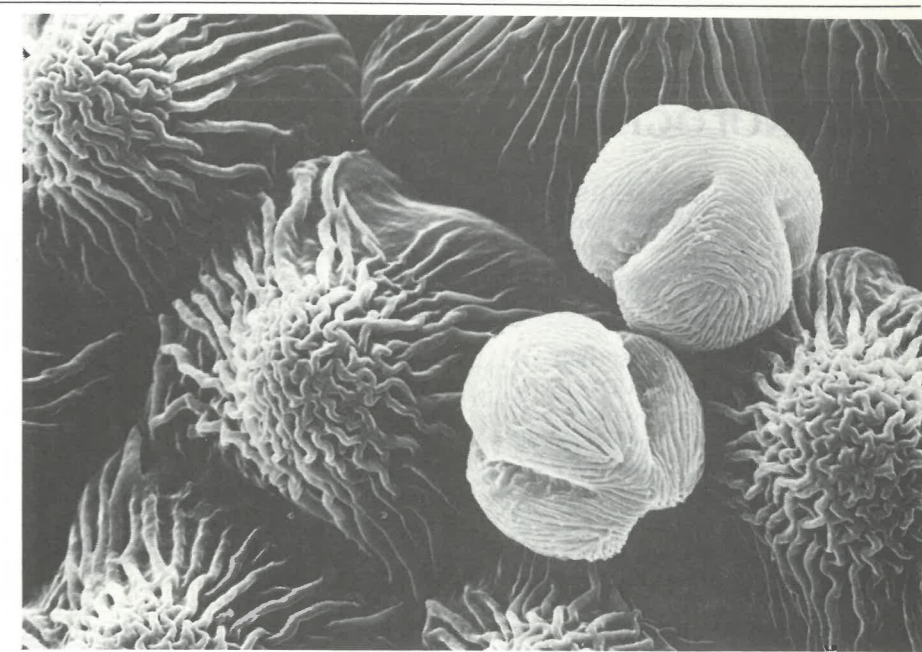
Surely some of our readers who "play" with pollen grains, spores and dinos every day have some SEMs in their files worthy of submission to the next Polaroid competition?

PALYNOLOGICAL GLOSSARY PROJECT

Although the former ICP Working Group on Terminology was dissolved during the 6th IPC in Calgary (1984), at the same time the need for a comprehensive palynological glossary was reaffirmed. At the suggestion of **Wim Punt** (Utrecht) a new IFPS-sponsored "Mini-Group" on Terminology held their initial meeting last July in Berlin upon the occasion of the 14th International Botanical Congress. Conferees here included **W. Punt** (Group Secretary), **Steven Blackmore** (London), **Siwert Nilsson** (Stockholm) and **Annick LeThomas** (Paris).

In September of 1987 a progress report on a preliminary draft of a glossary was given at the Bordeaux meetings of APLF by LeThomas & Punt. Members of the APLF Working Group on Pollen Morphology approved the concept of a glossary, but requested that terms relating to angiosperm pollen be given top priority. It was proposed that the original glossary be published in English and that translations into several other languages be planned for the future.

It is the intention of the Mini-Group on Terminology to present another progress report at the 7th IPC in Brisbane in August.



GENERA FILE OF FOSSIL SPORES AND POLLEN

The ninth and latest *Supplement* (cards #4361-4575) became available in September 1987. Unfortunately, the administration of the *Genera File* has not been fully efficient at all times. Also, problems with the mail may have caused some shipments to be lost. In order to enable subscribers to check whether or not they have received all *Supplements*, the first two entries of each one are listed below:

- Suppl. 1 (1977)-
3290 *Aleteverrucosispora*
3291 *Alienosporites*
- Suppl. 2 (1978)-
3438 *Achradosporis*
3439 *Alaidites*
- Suppl. 3 (1979)-
3523 *Adenantherites*
3524 *Alutisporites*
- Suppl. 4 (1980)-
3630 *Adelisporites*
3631 *Alatisporites*
- Suppl. 5 (1981)-
3809 *Aceripollis*
3810 *Ageratumpollenites*
- Suppl. 6 (1982)-
3936 *Abundacapsa*
3937 *Addosporites*
- Suppl. 7 (1983)-
4059 *Afropollis*
4060 *Alabroidaepollenites*
- Suppl. 8 (1985)-
4191 *Anacolosidites*
4192 *Angustisaccus*
- Suppl. 9 (1987)-
4323 *Pseudonothofagidites* (reprint)
4365 *Acanthotricolpites*

It is unlikely that the *File* will be reprinted when present stock is exhausted. Retiring colleagues are urged to offer their sets to a new generation of palynologists, or to find other ways to keep them in circulation.

Finally, I want to appeal again to all authors of new genera or emendations, especially when publishing in regional journals not readily distributed in North America, to send a reprint (even if only as a loan) or at least bibliographic details of the new taxonomy. One of the *Genera File's* greatest values is being up-to-date and complete. We welcome all correspondence on new names, omissions, or inadvertent errors in our text.

Order, enquiries, or correspondence should be addressed to:

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Genera File of Fossil Spores
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(Attn: Ms. Sharon Kaser)
University of Calgary
Calgary, Alberta, Canada
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Jan Jansonius
c/o Esso Resources Canada, Ltd.
#1859, 237 - 4th Avenue S.W.
Calgary, Alberta, Canada
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FUTURE MEETINGS OF INTEREST TO PALYNOLOGISTS

- July 18-22, 1988
GONDWANA (7th International Symposium), Sao Paulo, Brazil. Co-sponsored by IUGS, (A.C. Rocha-Campos, Instituto de Geociencias, Universidade de Sao Paulo, C.P. 20899, Sao Paulo, SP, Brazil)
- August 20-22, 1988
THE PROTEROZOIC BIOSPHERE: A MULTIDISCIPLINARY STUDY (Symposium), Los Angeles, California, U.S.A. (J. William Schopf, CSEOL-PPRG, Geology Building, UCLA, Los Angeles, CA 90024, U.S.A.)
- August 14-21, 1988
PEAT (8th International Congress), Leningrad, U.S.S.R. (Peat Congress. Ministry of Fuel Industry of the RSFSR, Sadovaya-Chernogryazskaya 8, Moscow 107813, U.S.S.R.)
- August 20-27, 1988
INTERNATIONAL PALAEOBOTANICAL CONGRESS (3rd) Melbourne, Australia. (Secretary, 3rd IOP Conference, P.O. Box 1901R, G.P.O., Melbourne, Victoria 3001, Australia)
- August 28-September 2, 1988
INTERNATIONAL PALYNOLOGICAL CONGRESS (7th), Brisbane, Australia. (7 IPC, Uniquest Ltd., Univ. Queensland, St. Lucia 4067, Australia)
- September 26-30, 1988
VII SIMPOSIO DE PALINOLOGIA - PLE, Granada, Spain. (Dr. M. I. Rodriguez & G. Blanca, Estacion Experimental del Zaidin, C.S.I.C., Lab. de Microscopia Electronica, C/ Profesor Albareda 1, 18008, Granada, Spain)
- October 1988
COAL RESEARCH (International Conference), Tokyo, Japan. (Dr. W.G. Jensen, International Committee for Coal Research, Bte 11, B-1150 Brussels, Belgium)
- October 3-5, 1988
CORRELATION IN HYDROCARBON EXPLORATION (Meeting), Bergen, Norway. (Norwegian Petroleum Society, P.O. Box 1897 - Vika, N-0124 Oslo 1, Norway)

701542
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1989

- April 16-22, 1989
FOSSIL AND LIVING DINOFLAGELLATES (Annual Meeting), Woods Hole, Mass, U.S.A. (D.K. Goodman, ARCO Oil and Gas, 2300 W. Plano Parkway, Plano, TX 75075, U.S.A.)
- May 1989
AFRICAN PALYNOLOGY (Symposium), Rabat, Morocco. (A. Ballouche, INSAP, av. John-Kennedy, casier postal, Rabat-Souissi, Morocco)
- July 5-8, 1989
CHAROPHYTES (International Colloquium), Montpellier, France. Languages: French and English. (Colloque Charophytes, Laboratoire de Paleobotanique, U.S.T.L., Place E. Bataillon, F-34 060 Montpellier, France)
- July 9-19, 1989
INTERNATIONAL GEOLOGICAL CONGRESS (28th), Washington, D.C., U.S.A. (International Geological Congress, P.O. Box 1001, Herndon, VA 22070, U.S.A.)

EDITOR'S VALEDICTION

In many parts of the world retiring editors of newspapers, magazines, journals, etc., seem to have established the custom of writing a farewell column or paragraph in the final issue bearing their editorial responsibility. In some cases these editors use the occasion to compliment their staff members and assistants; in other cases (especially when an editor has been forced to resign under fire), the editor will utilize the "free ink" to castigate his/her publisher and/or identifiable enemies who have denigrated his/her editorial efforts in the past.

My own position, however, is quite different from either of the above examples—I never *had* an editorial staff to assist me (although I gratefully acknowledge my wife's help with the extensive mailings). Furthermore, the "publishers" who appointed me—**Al Traverse** (ICP President, 1977-80) and **Colin McGregor** (IFPS Pres., 1984-88)—gave me pretty much of a free hand to design the newsletter's format and to set the editorial style.

Volume 1, Number 1 of the *ICP Newsletter*, my initial effort, appeared in May, 1978. With the completion of Vol. 3, No. 1 (June 1980), the ICP administration and editorial offices moved across the Atlantic to France for 4 years under the jurisdiction of **Claude Caratini** and **Roger Jan du Chene**. At the 6th IPC in Calgary in August of 1984, the name of our umbrella organization was changed from the *International Commission for Palynology (ICP)* to the *International Federation of Palynological Societies (IFPS)*. At that time the new IFPS President (McGregor) asked me to reassume the editor's position for their newsletter. This organizational name change necessitated our devising a new logotype and title for our newsletter (see account in *Palynos* 7(2), Dec. 1984).

The current issue represents my 13th newsletter production—five issues of the *ICP Newsletter* and eight issues of *Palynos*. Fortunately, since I am not superstitious, the number 13 holds no terror for me. I've certainly enjoyed the educational experience of editing these newsletters, as well as the increased opportunities to correspond with my palynological colleagues in many parts of the world. Since **Henk Visscher**, the incoming President of IFPS, has the authority to appoint a new editor, I presume that the next issues of *Palynos* will be produced in The Netherlands. I wish my successor(s) the best of luck. *Au revoir, Lebwohl, Adios, Arrivederci, Adeus, Farvel, Tsai tien, Sayonara!*

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