



PALYNOLOGICAL SOCIETIES

Volume 16, No. 1 - June, 1993

The NEWSLETTER of the INTERNATIONAL FEDERATION of PALYNOLOGICAL SOCIETIES

IFPS VICE-PRESIDENTS ELECTED

DAVID J. BATTEN



Dr. David J. Batten studied at Queen's University, Kingston, Ontario, Canada, earning a Bachelor of Arts Degree in Liberal Arts in 1964 and a Bachelor of Science in geology in 1965. The following year, 1966, David completed a Master of Science Degree in Micropaleontology at University College London. He moved to Cambridge University to pursue a Ph.D. in

Geology and Palynology, which he completed in 1969, rounding out a decade of academic achievement.

David stayed on at Cambridge University as a Postdoctoral Research Fellow for one year (1970-1971) before joining Robertson Research International, where he worked from 1972 to 1974. In 1974, he joined the International Staff of British Petroleum (BP) as a biostratigrapher.

David spent two years with BP (1974-1976), after which he became a Lecturer in the Department of Geology at Aberdeen University, thus beginning his teaching career. He became Senior Lecturer and then Reader during his stay at Aberdeen University (1976-1989). Since 1990, David has been Director of the Palynological Research Centre at the University of Wales, Aberystwyth. He currently holds the rank of Professor in the Department.

David's main research interests include Mesozoic-early Tertiary paleobotany and palynology, paleoenvironments, palynofacies, organic maturation and source potential for hydrocarbons.

David's current professional activities include serving as the Editor-in-Chief of Cretaceous Research and on the editorial board of the Review of Palaeobotany and Palynology. He also is IFPS Councillor for and Chairman of the Palynology Group of the British Micropalaeontological Society.

David's address is: Institute of Earth Studies, University of Wales, Aberystwyth, SY23 3DB, United Kingdom. (Tel. 0970-622573; FAX 0970-622659).

DAVID M. JARZEN



Dr. David M. Jarzen is a Research Scientist (Palynologist) at the Canadian Museum of Nature, Ottawa, Canada. Born in Cleveland, Ohio, he grew up in northern Ohio gaining an early interest in biology and natural history. He earned his B.S. degree in 1967 from Kent State University majoring in Biological Sciences, and two years later received his M.A. degree in Botany from the same institution. In 1973 he was awarded

a Ph.D. in Geology from the University of Toronto.

His research interests in the nature of plant life during the Earth's geologic history has led to extensive field work in all regions of Canada and the United States, as well as Europe, Africa, Panama, Mexico, Colombia, New Caledonia, New Zealand, Fiji, and most recently, to several localities within Australia. The focus of his work incorporates a global view towards understanding the evolution of major plant life at the Cretaceous/Tertiary boundary, especially flowering plant evolution. His publications of scientific papers number over one hundred, including both professional papers and popular articles. David has contributed to several television productions including the CBC's "Nature of Things", the PBS NOVA Series, and the NHK (Japan) Series, "The Miracle Planet."

Since graduation from the University of Toronto he has served the Canadian Museum of Nature, developing one of North America's finest fossil and extant pollen and spore collections, largely acquired through his world travels. David's work has been recognized by his colleagues through their election of him as President of the Canadian Association of Palynologists (CAP; 1979-1980), and as Secretary Treasurer of the International Federation of Palynological Societies (IFPS; 1984-1988). Since 1988 he has been the CAP Councillor to the IFPS. David was an invited Visiting Scholar to the Geology Department (1987-1988), University of Queensland and in 1991 to the Botany Department of the same university.

He is a member of 13 learned scientific societies as well as the honorary scientific society, Sigma Xi. David has served the Canadian Museum of Nature and its public programs through many slide lectures, videos, and museum popular publications. His extracurricular activities include nearly all forms of music, nature photography, writing, scientific illustration, and snorkeling.

JEAN-PIERRE SUC



Jean-Pierre SUC was born on February 22, 1945 in Marseilles, France. He studied geology in Marseilles and in Montpellier, completing his Third Cycle Thesis in 1972, and his State Thesis (Thèse d'Etat) in 1980. He taught in secondary schools for 10 years before joining Centre National De La Recherche Scientifique (CNRS). He has directed 10 Ph.D. or State Theses. Jean-Pierre has been a Research Scientist at CNRS since 1974 and since 1990, he has been the Director of Research. He spent one year (1981) as an expert palynologist for TOTAL (Compagnie Française des Pétroles) oil company.

Jean-Pierre has served in various professional societies and, as anyone knows who went to the 8th International Palynological Congress, he was the Organizer of the 8th IPC in Aix-en-Provence, France (and impromptu pianist and impresario at the Congress' gala dinner!)

He is currently the President of the Association des Palynologues de Langue Française (APLF; 1987-Sept. 1993) and President of the Regional Committee on Mediterranean Neogene Stratigraphy (RCMNS; 1991-1995). Jean-Pierre has organized several APLF and RCMNS Symposia and edited the subsequent symposia volumes. He is the co-organizer of the "Palynology, Climate and Sequence Stratigraphy of the Pliocene Symposium" that will be held October 27-28, 1993 at the American Association of Stratigraphic Palynologists 26th Annual Meeting (Louisiana State University, Baton Rouge, LA). Jean-Pierre is the organizer of the PHOTOPAL digital image bank that is based on the extensive pollen collections of Montpellier University.

His many interests in palynology include:

- the origin of the Mediterranean vegetation and their climate through Neogene history;
- Pliocene and lower Pleistocene climatic changes in the Mediterranean in relation to arctic coolings (steppe-forest alternations);
- Mediterranean Messinian salinity crisis (chronologic, climatic and eustatic aspects); and
- Modern pollen transport and sedimentation in marine coastal sediments.

MEET THE NEW LSPSG COUNCILLOR

MRS. MADELINE HARLEY

The Linnean Society Palynology Specialist Group



Madeline Harley began her career as a systematic pollen morphologist in the Palynology Unit of the Royal Botanic Gardens, Kew, shortly after its inception by Dr. Keith Ferguson, over twenty years ago. Since then she has published pollen morphological accounts for the Sapotaceae, Commelinaceae, Menispermaceae, Labiatae, Euphorbiaceae, Rutaceae and Limnocaritaceae. She is presently

completing an account of the morphology of Burseraceae pollen. Her main research interests are the extant and fossil pollen morphology, systematics and evolution of the Palmae. This also is the subject of the Ph.D. dissertation she is currently preparing.

Madeline is the acting head of the Palynology Unit, under the direction of Keith Ferguson. She has been Secretary of the LSPSG since 1990 and will be the IFPS Councillor representative of the LSPSG until 1996.

SPECIAL IFPS REPRESENTATIVES NAMED

Dr. Annick Le Thomas, Director of the Laboratory of Phytomorphology at the Ecole Pratique des Hautes Etudes (EPHE) has been reappointed as the IFPS Representative to the International Union Of Biological Sciences (IUBS). She has ably served as the IFPS Representative to the IUBS for the past four years.

Dr. Lucy E. Edwards, United States Geological Survey, Reston, Virginia, has been appointed the IFPS Representative to the International Union of Geological Sciences. Dr. Edwards is currently the President-Elect of the American Association of Stratigraphic Palynologists.

PEOPLE IN THE NEWS

NEW DIRECTOR OF THE BIRBAL SAHNI INSTITUTE OF PALAEOBOTANY NAMED

Dr. Ram Shankar Tiwar was appointed Director of the Birbal Sahni Institute of Palaeobotany on March 29, 1993, replacing Dr. B.S. Venkatachala. Dr. Tiwar graduated from the Bhopal University, M. P. and joined the Birbal Sahni Institute of Palaeobotany in 1959. He earned a Ph.D. in Botany from Lucknow University in 1964. He subsequently studied with Dr. F. Schaarschmidt (Frankfurt Museum, Frankfurt, Germany) while on an Alexander von Humboldt Fellowship. Dr. Tiwar has worked extensively on Paleozoic and Mesozoic microfossils, particularly fossils in Permo-Triassic boundary sections. Dr. Tiwar is the Secretary of the Palaeobotanical Society, Lucknow, India.

PALEOBOTANICAL SOCIETY AWARDS INTERNATIONAL MEDAL

The Palaeobotanical Society, Lucknow (PSL) has honoured **Dr. B.S. Venkatachala** by awarding him the "Palaeobotanical Society International Medal", on January 12, 1993. This medal is awarded to an eminent palaeobotanist every alternate year by the PSL. Dr. Venkatachala is well known for his outstanding work in palaeobotany which has provided a new perspective on fossil plants.

To commemorate the occasion, a one-day award ceremony was held at the Birbal Sahni Institute of Palaeobotany, Lucknow. A scientific session on "Contemporary Research Trends in Palaeobotany" was held and 28 oral and poster presentations were given. The papers dealt with microbialite, assessment of Indian coals, microfossils of doubtful origin, Cretaceous and Tertiary biostratigraphy, archaeobotany, radiometric dating, the recent past of Himalayas, taphonomy, etc. Dr. H. P. Singh, President of the Palaeobotanical Society, enumerated the contributions and achievements Dr. Venkatachala, who delivered the Medal Award Lecture entitled "The Earliest Biosphere - The Part of the Terrestrial Flora".

OFFICERS

PRESIDENT

Dr. James E. Canright
Department of Botany
Arizona State University
Tempe, AZ85287-1601
U.S.A.
FAX: (602) 965-6899

SECRETARY-TREASURER

Dr. Owen K. Davis
Department of Geosciences
University of Arizona
Tucson, AZ 85721
U.S.A.
FAX: (602) 621-2672

PAST PRESIDENT

Dr. Henk Visscher
Laboratory of Palaeobotany
& Palynology
State University of Utrecht
Heidelberglaan 2
3584CS Utrecht
The Netherlands
FAX: 31 (30) 535-096

VICE-PRESIDENTS

Dr. Jean-Pierre SUC
(Representing Paleopalynology)
Laboratoire de Palynologie
Université Montpellier II
F34095 Montpellier, Cedex 5
France
FAX: 33 (67) 042-032

Dr. David M. Jarzen
(Representing Actuopalynology)
Canadian Museum of Nature
Box 3443, Station "D"
Ottawa, Ontario
Canada K1P 6P4
FAX: (613)954-4724

Dr. David J. Batten
(Representing Paleopalynology)
Institute of Earth Studies
University of Wales
Aberystwyth SY23 3DB
United Kingdom
FAX: 44 (970) 622-659

EDITOR

Dr. John H. Wrenn
Department of Geology
& Geophysics
Louisiana State University
Baton Rouge, Louisiana
70803-4101 U.S.A.
FAX: (504) 388-2302

IFPS Societies & Councillors

AASP

(American Association of Stratigraphic Palynologists)
Dr. Jan Jansonius
Esso Plaza West, Room 1859
237 4th Avenue, SW
Calgary, Alberta
Canada T2P 0H6
Tel. (403) 237-2438

IFPS MEMBER SOCIETIES, OFFICERS AND COUNILLORS

Dr. Vaughn M. Bryant, Jr.
Anthropology Department
Texas A&M University
College Station, Texas 77843
U.S.A FAX: (409)845-4070

ALPP

(Asociacion Latinoamericana de Paleobotanica y Palinologia)
Dr. Thomas Fairchild
Instituto de Geociencias
Universidade de Sao Paulo
Caixa Postal 20899
Sao Paulo 01498
Brazil
FAX: 55 (11) 210-4958

APLE

(Asociacion de Palinologos de Lengua Espanola)
Dr. M.F. Rodriguez-Garcia
Estacion Experimental del Zaidin
Calle Prof. Albareda, 1
Granada 18008
Spain

APLE

(Association des Palynologues de Langue Française)
Dr. Jean-Pierre SUC
Laboratoire de Palynologie
Université Montpellier II
F34095 Montpellier, Cedex 5
France
FAX: 33 (67) 042-032

Dr. Jacques-Louis Beaulieu
Botanique Historique et Palynologie
Case 451
Faculté des Sciences St. Jérôme
F-13397 Marseille, Cedex 13
France
FAX: 33 (91) 288-668

APP

(Arbeitskreis für Paläobotanik und Palynologie)
Dr. Eckart Schrank
Technische Universität Berlin
Sonderforschungsbereich 69
Ackerstrasse 76
D-1000 Berlin 65
Germany
FAX: 49 (30) 3147-2837

BMS

(British Micropalaeontological Society, Palynology Group)
Dr. David J. Batten
Institute of Earth Studies
University of Wales
Aberystwyth SY23 3DB
United Kingdom
FAX: 44 (970) 622-659

CAP

(Canadian Association of Palynologists)
Dr. David M. Jarzen
Canadian Museum of Nature
Box 3443, Station "D"
Ottawa, Ontario
Canada K1P 6P4
FAX: (613)954-4724

CIMP

(Commission Internationale de Microflore du Paléozoïque)
Dr. Geoffrey Clayton
Geology Department
Trinity College
Dublin 2, Ireland
FAX: 353 (1) 711-267

Dr. Florentin P. Paris

Laboratoire de Paléontologie
Université de Rennes
35042 Rennes Cedex
France
FAX: (33) 9928-6989

CPS

(Collegium Palynologicum Scandinavicum)
Dr. K. Raunsgaard Pedersen
Geologisk Institut
Aarhus Universitet
Universitetsparken
DK-8000 Aarhus-C
Denmark
FAX: 45 (86) 139-248

GPSBI

(Gruppo di Palinologia della Società Botanica Italiana)
Dr. Donatella Magri
Dipartimento de Biologia Vegetale
Università "La Sapienza"
P.le. Aldo Moro 2
00185 Roma, Italy
FAX: 39 (6) 446-3865

LSPG

(Linnean Society, Palynology Group)
Dr. Madeline M. Harley
Palynology Unit, The Herbarium
Royal Botanic Gardens, Kew
Richmond, Surrey TW9 3AB
England
FAX: 44 (81) 332-5278

OCP

(Organization of Czechoslovak Palynologists)
Dr. Milada Vavrdova
Geological Institute Academy of Sciences
Rozvojova 135
Praha-6 16500
Czech Republic
FAX: 42 (2) 323-426

PK

(Palynologische Kring)
Dr. Piet Cleveringa
Rijks Geologische Dienst
Richard Holkade 10
P.O. Box 157
2000 AD Haarlem
The Netherlands
FAX: 31 (023) 351-614

PPAA

(Palynological and Palaeobotanical Association of Australasia)
Dr. Michael K. MacPhail
Palynological Consultant
20 Abbey Street
Gladesville, N.S.W. 2111
Australia

PSC

(Palynological Society of China)
Dr. Song Zhi-chen
Nanjing Institute of Geology and Palaeontology
Academia Sinica
Nanjing
People's Republic Of China

PSL

(Palaeobotanical Society, Lucknow)
Dr. B. S. Venkatachala
Birbal Sahni Institute of Palaeobotany
53, University Road
Lucknow, U.P. 226007
India
FAX: 91 (522) 246-169

PSJ

(Palynological Society of Japan)
Dr. Norio Fuji
Department of Geosciences
Faculty of Education
Kanazawa University
Marunouchi 1-1
921 Kanazawa
Japan
FAX: 81 (0762) 64-5557

Dr. Hisako Miki-Hirosige

Kanagawa Dental College
82 Inaoka-cho
Yokosuka 238
Japan
FAX: 81 (0468) 22-8801

PSP

(Palynological Society of Poland)
Dr. Anna Sadowska
Institute of Geological Sciences
University of Wrocław
Cybulskiego 30
50-205 Wrocław
Poland
FAX: 48-201-467

PTPB

(Precambrian to Tertiary Palynologists of Belgium)
Dr. Maurice Streeel
Laboratoire de Paléontologie
Université de Liège
7, Place du Vingt Août
B-4000 Liège
Belgium
FAX: 32 (41) 665-700

RPC

(Russian Palynological Commission)
Dr. Lidiya V. Rovnina
Institute of Geology & Development of Fossil Fuels (IGIRGI)
50, ul. Fersmana
117312 Moscow
Russia
FAX: 7 (095) 231-8106
or: 7 (095) 233-5590

TCP

(Turkish Committee for Palynology)
Mr. Zühtü Bati
Turkish Petroleum Corporation
Research Center
P.O. Box 209, Bakanlıklar
06520 Ankara, Turkey

DEPARTED COLLEAGUES

PROFESSOR XU REN (HSU JEN)



Professor Xu Ren, a well-known palaeobotanist and palynologist, the founder of palynology in China, and a member of the Scientific Division, Academia Sinica, passed away in Beijing, China on Nov. 18, 1992 at the age of 82. As one of the world's senior palynologists with a long record of service, Professor Xu Ren began his palynological research during the late 1930's. He attended the 1950 International Conference of Palaeobotany held in Stockholm, Sweden. Subsequently, he studied palaeobotany, including fossil spores and pollen, at a number of west European research institutions and at the Birbal Sahni Institute of Palaeobotany in India.

In 1952, Prof. Xu Ren returned to China, to work as a researcher in the Institute of Palaeontology, Academia Sinica. The following year (1953), the first Palynological Research Section of China was established under his guidance, and fundamental research on recent spore and pollen morphology was begun. Shortly after his transfer to the Chinese Academy of Geological Sciences, Ministry of Geology in 1954, he offered a class in coal palynology, and began training the first group of Chinese palynologists. For more than ten years, he successfully trained large numbers of palynologic and palaeobotanic researchers at the Chinese Academy of Geological Sciences.

Subsequently, he joined the Beijing Institute of Botany, Academia Sinica, and, taking charge of the Palaeobotanical Research Section, Professor Xu Ren continued training large numbers of palynologists. The result of his many years painstaking labour is that all of the organizations in which he worked have become important palynologic research centers in China.

Professor Xu Ren possessed a noble character and was accorded high regard and reverence, especially among the Chinese palaeontological circles. Professor Xu Ren has published a number of treatises and books in palaeobotany and palynology. He was a member of the council of the Chinese Palaeontological Society (including all previous sessions); a leading member of the council of Chinese Palynological Society (1st-2nd sessions); an honorary, leading member of the council of the Chinese Palynological Society (3rd session) and a member of the council of the International Federation of Palynological Societies (5th-6th sessions).

Dr. Zhichen Song
Nanjing Institute of Geology and Palaeontology
Academia Sinica
Nanjing, People's Republic Of China

DR. LEWIS E. STOVER



Dr. Lewis E. Stover, Lew to his numerous friends, died on the March 13, 1993 after a short illness. The sudden loss of this gifted scientist came as a shock to all his friends in the palynologic and geologic communities. His absence will have a profound effect on those colleagues who have worked with him closely, and have come to appreciate his many fine qualities.

After serving in the U.S. Army Air Corps in the later years of World War II, Lew graduated with a Bachelor of Science degree from Dickinson College, Pennsylvania. He then enrolled in the postgraduate program of the Geology Department, Rochester University. At the same time, he enrolled in a lifelong commitment to Nan, his wife. They married before moving to Rochester and together experienced the joys of living in the snow belt.

The focus of Lew's research at Rochester was on Devonian ostracodes and marine megafossil communities. His supervisor was Bill Evitt, at that time a trilobite specialist. Neither of them realized how much their interests would change in the succeeding years and what a major impact they would have on palynology.

How did the conversion occur? The chairman of the Geology Department had a brother, Bill Hoffmeister, who was a palynologist with Carter Oil in Tulsa, Oklahoma. The upshot of a talk that Bill Hoffmeister gave to the graduate students at Rochester was that Lew was offered a job with Carter Oil upon obtaining his Ph.D. in 1956. Lew's inquisitive nature and motivation soon led to his involvement in several major palynological studies, initially on Carboniferous spores. His enthusiasm also convinced Bill Evitt that life with an oil company had advantages and soon the two were working side by side in the north Tulsa laboratory.

During Lew's professional career of thirty years, he stayed with the same company, though during that time the name of the company changed, first to Jersey Production Research Company and ultimately to Exxon Production Research Company. Most of this time was spent in Houston, where the Stover family moved in 1965; the only major interruption was a three year posting to Australia from 1969 to 1972.

Lew Stover's accomplishments while at Exxon were legion. He pioneered the use of Cretaceous calcareous nannofossils for biostratigraphic control and he described some of the ephedroid and elateroid pollen from the Cretaceous of west Africa. Lew demonstrated the similarities between Early Cretaceous spore and pollen assemblages of Maryland and England, and he postulated the

close paleogeographic proximity of these areas during the Cretaceous, prior to the opening of the Atlantic Ocean. Lew and his Australian colleagues developed the accepted biostratigraphic zonation for the Late Cretaceous-Early Tertiary of the Gippsland, Bass and Otway basins, of southeast Australia. He provided biostratigraphic input for the Mesozoic-Cenozoic global cycle charts.

Even while he made significant contributions to company projects, Lew consistently published outstanding papers on dinoflagellate cyst morphology, taxonomy, stratigraphy and paleoecology. One such paper was the now classic book that he published with Bill Evitt, "Analyses of Pre-Pleistocene Organic-Walled Dinoflagellates".

What of Lew Stover the person? I first realized that Lew was human when he attended a course on Cretaceous dinoflagellates that Evan Kidson and I presented at Louisiana State University in 1976. He foolishly sat on the front row and was continually having to duck, because I would suddenly swing around while still holding a lethal wooden pointer. Probably to protect himself, Lew asked if I would like to help him present a course on Tertiary dinoflagellates the following year.

Preparation of the course material involved several trips to Houston, where invariably I was made to feel welcome by his wife, Nan. Like Lew, Nan has a mischievous sense of humor so I always had to be on my guard. I also met Nan and Lew's three children, Jim, Barbara and Virginia.

After Lew and I had given the Tertiary course in Baton Rouge (September, 1977) we had to drive back to Houston. Upon arriving at Lew's, he informed me that he had lost the key to the house and we would have to break in through a second floor window, since Nan was out of town. What he hadn't told me was that he would climb the ladder while I stayed at the bottom, to make friends with Mick, the Stover's exceedingly protective dog. As soon as Lew started on the ladder, Mick started on me, convinced that I was a threat to the safety of the family. Fortunately, I could climb faster than Lew, even if we were both on the same ladder and he was on a higher rung. So, I arrived at the second-floor window first, much to Lew's surprise. And then he had the audacity to find the missing key in his jacket pocket. In spite of this experience, Lew and I remained close friends and were involved in several projects at the time of his death.

Lew never ceased to amaze me with his grasp of geology in general, his understanding of sequence stratigraphy, his unparalleled knowledge of dinoflagellate morphology and stratigraphy; and his meticulous attention to accuracy. As a microscopist he was superb but his motivation was more than the deciphering of a complex morphology. He wanted to use that understanding to provide more precise biostratigraphic control.

All of us would like to believe that we have a positive impact on our chosen profession and that we have expanded the horizons of scientific knowledge. Lew did have a positive impact. He set standards which are impossible to emulate and always demonstrated the highest integrity in his research. Recognition of his standing as a scientist was shown when he was awarded the "Medal for Scientific Excellence" by the American Association of Stratigraphic Palynologists (A.A.S.P.) in 1989.

Lew Stover was one of the most dedicated members of the A.A.S.P. There are many scientists who do not consider they have any responsibilities to the scientific community. Lew was not of this ilk. He worked tirelessly for A.S.S.P. commencing with his role as a founding member in 1967. He served as the first A.S.A.P. editor (1967-1969),

and set the consistently high standards that have been maintained to the present day. Further honors came in 1980 when Lew became President-Elect and in 1981 when he deservedly became President. Over the years, he was a continuing contributor to the Foundation Century Club, one of many examples of his commitment to the A.A.S.P.

In 1989, Lew retired from Exxon Production Research, but continued to work at the same demanding pace as a consultant. The following year, Nan and Lew moved to Kerrville, Texas. It was a relief being able to walk, rather than drive, to the office, which was located in one corner of the spacious back yard. But there was little other evidence of someone in retirement. Lew worked hard, as always, and continued his commitment to publishing his scientific findings.

What have we lost? The world of palynology has lost a mentor; those studying dinoflagellates have lost the most knowledgeable and talented biostratigrapher in the field; I have lost my best friend; and Jim, Barbara and Virginia have lost a father. But the greatest loss is Nan's.

G.L. Williams
AGC--Bedford Institute
P. O. Box 1006
Dartmouth, Nova Scotia
Canada B2Y 4A2



UPCOMING MEETINGS OF NOTE

9TH INTERNATIONAL PALYNOLOGICAL CONGRESS

The American Association of Stratigraphic Palynologists (AASP) will be the host society for the 9th International Palynological Congress (IPC) during June of 1996. Meeting Committee Co-chairs, Vaughn M. Bryant, Jr. and John H. Wrenn, have arranged to hold the meeting at the Marriott Hotel in Houston, Texas. Meeting dates have been selected (June 22-29, 1996), and the 1996 hotel room rates have been confirmed. They will be no higher than \$100 for either a single or double accommodation. Triple and quadruple rooms also will be available for the meeting.

Across the street from the Marriott Hotel is the Galleria, one of the largest shopping mall complexes 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. The hotel has three racketball courts, tennis courts, and a complete fitness and workout complex containing a weight room, sauna, Jacuzzi, and large swimming pool.

Nearby cultural attractions include the: National Aeronautical Space Administration facility and museum, Houston Zoo, Museum of Natural History, Museum of Fine Arts, Burke Baker Planetarium, Houston Symphony, Houston Grand Opera, and Houston Ballet. Recreational facilities include more than 20 nearby 18-hole golf courses and amusement-type facilities such as Water World, Astro World, and the

new 70 million dollar Space City Houston complex, which includes simulated rides in space ships through our solar system and galaxy.

Symposia topics and field trips for the 9th IPC are in the planning phase, but none have been organized as yet. We are planning 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 space 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 write 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.

Dr. Vaughn M. Bryant, Jr.
Department of Anthropology
Teas A. & M. University
College Station, TX
77843
U.S.A.
Phone: 409-845-5242
FAX: 409-845-4070

Dr. John H. Wrenn
CENEX
Dept. of Geology and Geophysics
Louisiana State University
Baton Rouge, LA 70803
U.S.A.
504-388-4683
504-388-2302



XIII INTERNATIONAL CONGRESS ON CARBONIFEROUS-PERMIAN

The XIII International Congress on Carboniferous-Permian will be held in Krakow, Poland (August 28-September 2, 1995). Congress topics will include stratigraphy, paleontology, sedimentology, tectonics, magnetism, economic geology, ecologic impact of industry, diagenesis of organic substances, plate tectonics, etc. Pre- and Post-Conference Field Excursions to Permo-Carboniferous sections in the area are being planned. A comprehensive trade exhibit will be conducted in tandem with the Congress. The official language of the Congress is English. A copy of the First Circular can be obtained from:

The Secretary General
Prof. dr. hab. Sonia Dybowa-Jachowicz
Panstwowy Instytut Geologiczny
Oddział Górnoslaski
1 Królowej Jadwigi
41-200 Sosnowiec
Poland
Phone: / 48 32 / 66 20 36 (38)
FAX: / 48 32 / 66 55 22



PALYNOLOGICAL SOCIETY OF CHINA

The Fourth National Conference of the Palynological Society of China (PSC) was held on October 21-25th at Cili - Zhangjiajie in NW Hunan Province -- one of the most beautiful scenic spots in China. More than 100 delegates, including 75 PSC members attended this conference.

The task of the conference was twofold. First, to elect the new leading board of the PSC and second, to exchange information, ideas and recent achievements. Sixty-two research reports were submitted and compiled, and some 30 oral presentations were made either in general sessions or special symposia. These presentations covered a wide range of topics in palynology, including: Devonian to Quaternary palynomorphs and palynostratigraphy, phytogeographic problems, morphology and taxonomy of some modern spores and pollen, palaeoecology and palaeoclimate, archeology and environment, and pollen as special nutrients and medicine, the use of computers in palynology, etc. In order to encourage the rapid growth of young scientists, the PSC awarded seven palynologists the "Excellent Paper Prize for Young Palynologists of China". This was the first time such awards were made by the PSC and it was the highlight of the conference.

The 4th-Session Board of PSC has been elected and consists of 21 members. The first board meeting resulted in the election of the following executive officers: President, Song Zhi-chen; Vice-Presidents, Yang Ji-duan, Wang Kai-fa, Zhao Chuan-ben, Sun Xian-jun and Ouyang Shu (concurrently Secretary-General); Deputy Secretary-General, Yin Chong-yu.

Professor Xu Ren (Hsü Jen) was once again elected as the Honorary President of the Palynological Society of China, unfortunately, he passed away on November 18, 1992, not long after the close of this conference. This was a great loss to palynology and palaeobotany in China.

BIRBAL SAHNI INSTITUTE OF PALEOBOTANY, LUCKNOW

Professor Birbal Sahni Birth Centenary Celebrations

The Birbal Sahni Institute of Palaeobotany concluded year-long Birth Centenary Celebrations of the Founder of the Institute with an extensive program. An exhibition, "Years of Achievement", highlighting recent research and achievements was inaugurated by Dr. S. Varadarajan, Chairman, Consultancy Development Centre, D.S.I.R., New Delhi. It was followed by the Founder's Day function. Welcoming the

distinguished gathering, the Director, Dr. B.S. Venkatchala, praised the recent scientific contributions of the Institute. Professor H.Y. Mohan Ram, Chairman, Governing Body, stressed the importance of plant fossil studies in deciphering the evolutionary mechanism. Dr. S.Varadarajan emphasized the need for multidisciplinary efforts in the study of plant fossils. He urged the scientists to make palaeobotany utility based and lauded the approaches made by the Institute. He also recalled the contributions of Professor Sahni who explored all possible avenues to make the science of palaeobotany versatile. Lectures delivered at the observance celebration included:

The 38th Sir Albert Charles Seward Memorial Lecture
"Himalayan Earthquakes" - Dr. Harsh K. Gupta (Director, National Geophysical Research Institute, Hyderabad)

The 22nd Professor Birbal Sahni Memorial Lecture :
"Palaeozoic Biostratigraphy of Himalaya - A Re-evaluation of Palaeoecology & Palaeogeography" - Professor S. K. Shah (Head, Department of Geology, University of Jammu).

As a sequel to the symposium on Four Decades of Indian Palaeobotany, a two day Group Discussion on the "Thrust Areas in Palaeobotany" also was held in October, 1992. Several Thrust Areas have been identified for future research.

As part of the year long celebration, the publications listed below were released. (Additional information on these publications can be obtained from the Birbal Sahni Institute.)

- 1- Plant Fossils - A Link with the Past - B.S.Venkatchala et al.
- 2- Four Decades of Indian Palaeobotany (Proceedings of the Symposium held on November 18-19,1991) Eds. B.S. Venkatchala & H. P. Singh, Palaeobotanist 40 : 545 pages.
- 3- Essays in Evolutionary Plant Biology (Proceedings of the Symposium held on November 16-17,1991) B.S. Venkatchala et al., Palaeobotanist 41 : 239 pages.
- 4- Archaean-Proterozoic Computer based literature searching of 1883 references is available through the Birbal Sahni Institute of Palaeobotany Library.
- 5- Inventory of Type & Figured specimens Part - II, 1992
- 6- Indian Gondwana, Memoir 21. Ed. B.S.Venkatchala & H.K.Maheshwari;
- 7- Extinct Plants, Evolution and Earth's History. Ed. B.S.Venkatchala et al.
- 8- Birbal Sahni - Link with the past & Birbal Sahni Institute of Palaeobotany
- 9- A Catalogue of fossil plants from India, M. Shukla et al.
- 10- Research papers of Birbal Sahni & of the Birbal Sahni Institute of Palaeobotany : A Catalogue, J.S.Guleria
- 11- Type and Figured specimens at the Repository : An Inventory Part 1, 1991. G.P.Srivastava.

"SOUTHERN TEMPERATE ECOSYSTEMS: ORIGINS AND DIVERSIFICATION"

A joint conference of the Southern Connection, the Australian Systematic Botany Society, and the Ecological Society of Australia
January 18-22, 1993
Hobart, Tasmania.

Whether by accident or design, the formation of the Southern Connection Group¹ comes at a time when Australia and Australian science are being directed northwards to Asia, a move that may be logical in terms of trade (and drift of the Australian plate) but which may leave much of the Gondwanic heritage common to middle-high latitude regions of the southern hemisphere out in the cold.

This highly successful conference organized by Professor Bob Hill, Plant Sciences, University of Tasmania, is the first of a series dedicated to taxa and ecosystems common to southern Africa, southern Australia, New Zealand and southern South America.

Emphasizing the long-term reality of our common heritage was evidence for not one but two Australian biological icons in the fossil records of other countries: duck-billed Platypus in Patagonia (Mike Archer, University of New South Wales) and Eucalyptus leaves in New Zealand (Mike Pole, University of Tasmania).

Not surprisingly, the main theme of the conference was Nothofagus (Van Steenis' "key genus in time and space" in the southern hemisphere) in its many fossil and living guises. If any unifying thread could be discerned it was the necessity of infrequent disturbance in the regeneration of Nothofagus. Unfortunately fire, the one disturbance guaranteed by man, is the exception. The same theme was evident for the southern conifer families—the subject of a parallel session for the first two days. Here longevity was seen as the main factor in the persistence of these ancient life-forms. Intentionally or not, almost all the visual material used bore witness to the massive recent destruction wrought on these ecosystems.

Particularly gratifying was the acceptance of the role that macrofossil and palynological data have to play, not only in understanding the origins and diversification of austral floras but also as a predictive tool for managing modern representatives. Based on the key note address by Liz Truswell (Australian Geological Survey Organization) commemorating the eminent Australian phytogeographer Nancy Burbidge, plant fossils are no longer the poor cousin of cladistic analysis but can be used as primary evidence for the history of plant families and genera beginning with Late Cretaceous times.

It is anticipated that the monograph on Australian vegetation history (edited by Bob Hill) upon which this lecture was based will be published by Cambridge University Press by mid-year.

Rather than filling a vacuum, the conference has established the Southern Connection as a major builder of bridges between the earth and biological scientists and ecosystem managers from many cultures (and longitudes). Its successor will be held in Chile, probably centred around ecosystems of 'Mediterranean' climates.

(NOTE: 1-The Southern Connection Group was formed "over lunch" several years ago by Peter Raven, Ebbe Neilsen (CSIRO, Australia) and 22 other participants, with the aim of fostering links between scientists conducting research on southern hemisphere ecosystems. Those wishing to receive the Southern Connection Newsletter (up to its

third issue) are invited to contact Professor R. S. Hill, Plant Sciences, University of Tasmania, GPO Box 252C, Hobart, Tasmania 7001, Australia [Fax 61-02-202698; e-mail Bob.Hill@plant.utas.edu.au]

Report by:
Mike Macphail
PPAA Councillor
Palynological Consultant
20 Abbey Street
Gladesville, N.S.W. 2111
Australia

PALYNOLOGY AND PLIOCENE CLIMATES

Over the last several years, the U.S. Geological Survey's Pliocene Research and Synoptic Mapping Project (PRISM) has accumulated information for a "snapshot" description of global marine and terrestrial conditions for the mid-Pliocene, the last period of sustained warmth in Earth history. PRISM researchers and collaborators are analyzing time-series of environmental changes in both marine and nonmarine settings to determine the amplitude and periodicity of Pliocene climatic changes, and are assembling gridded data sets of vegetation cover to provide boundary conditions for General Circulation Model (GCM) simulations. Palynological and other terrestrial data will also be employed in validation exercises of Pliocene climate simulations provided by researchers using Goddard Institute for Space Studies (GISS) and NCAR (National Center for Atmospheric Research) GCMs.

As part of this effort, Bob Thompson of the PRISM group organized a workshop on "Pliocene Terrestrial Environments and Data/Model Comparisons," which was held in Herndon, VA, on May 22nd and 23rd. The primary objectives of this meeting were to review the available data on mid-Pliocene terrestrial environments, and to provide a forum for geological researchers and climate modelers to discuss the uses of palynological and other terrestrial environmental data in initializing and validating GCM simulations of past climates.

Palynologists and geologists who attended the workshop came from Canada (A. de Vernal), France (R. Bonnefille, J.-P. Suc), Germany (L. Dupont), the Netherlands (H. Hooghiemstra), Russia (O. Borisova, A. Gladenkov, T. Svetlitskaya), South Africa (T. Partridge, L. Scott), and the United States (D. Adam, J. Barron, T. Cronin, H. Dowsett, F. Fleming, A. Graham, S. Ishman, D. Muhs, R. Poore, R. Thompson, D. Willard, J. Wrenn). They met with scientists specializing in numerical model simulations of past climates (M. Chandler, S. Hostetler, L. Sloan) and quantitative reconstructions and data/model comparisons (P. Bartlein).

Marine data indicate that Pliocene equatorial sea-surface temperatures were similar to those of today, whereas those from higher latitudes in the North Atlantic and other regions were as much as 8° C warmer than today. Terrestrial data presented at the workshop indicate a broadly similar pattern on land, although some regions such as East Africa and the western interior of North America may have been substantially cooler and wetter than today. Preliminary modeling efforts with the GISS GCM simulate many of the climatic conditions seen in the terrestrial data, although much work remains to be done to refine the boundary conditions used to initialize the model.

PRISM will continue its focus on Pliocene paleoclimates over the next few years. Palynologists who are interested in additional information can contact Bob Thompson via e-mail (thompson@greenwood.cr.usgs.gov) or writing to Bob at the: U.S. Geological Survey, Box 25046, MS 919, Denver Federal Center, Denver, Colorado 80225, U.S.A.



EVOLUTIONARY PLANT BIOLOGY (A BIRBAL SAHNI BIRTH CENTENARY TRIBUTE)

(Edited by B.S. Venkatachala, D. L. Dilcher & H. K. Maheshwari, 1992 [=The Palaeobotanist Vol. 41]) 239 pp. Paperback, \$90, obtainable from Birbal Sahni Institute of Palaeobotany, 53 University Rd., Lucknow 226007, India.)

This volume grew out of the symposium of the same title at the Birbal Sahni Institute, in November, 1991, on what would have been Professor Sahni's 100th birthday. However, the publication has more of the spirit of the occasion than of the actual substance of the symposium in common with it. Some of the papers presented at the meeting are not included, and many papers not heard at the BSIP are in the book. There are 29 chapters in all, including Venkatachala's prodigious introductory tour de force--presenting a summary of all of paleobotany/paleopalynology in 8 pages. That, I recall very well, was presented as a lecture at the beginning of the session. I was also on the platform waiting somewhat impatiently my turn, to deliver Harlan Banks' summary (chap. 6 of this publication), of the current phylogenetic status of early land plants, as Professor Banks could not be present.

This book is fun reading for any paleobotanist or spore/pollen paleopalynologist. It's fun because (with a great range of quality) it touches upon countless aspects of a massive potpourri of the subject. The bibliographies alone are an instructive compilation of the pertinent literature. Of the 29 chapters, 18 are summaries of the status of various subjects, ranging from Banks on Rhyniophytina, Zosterophyllophytina, Trimerophytina, and "Aberant Genera," to Bagyaraj and Ravindra's review of "VAM": vesicular-arbuscular mycorrhizal fungi and their significance for evolution of terrestrial plants, to Desikachary's chapter on evolutionary trends in the blue-green algae, and many others. From both the exemplary and from the less satisfactory efforts, there are things to be learned, or ideas to chew on. Subramanian uses fungal evolution as a springboard to advocate somewhat quixotically "non-violent (=non-competitive) evolution." Nayar's chapter on the evolution of the cormophytes (plants with stems) holds that the leaf-unit ("phyllorhize")-not the stem- is the basic architectural building block of plants. It's rather reminiscent of Zimmerman's telome, Goethe's "Urpflanze," and other such hocus-pocus--but fun. Tiffney's masterful chapter on the role of vertebrate herbivory on plant evolution provides a neat framework for one to contemplate events such as the Early Jurassic massive occurrence of *Corollina* pollen. The same goes for Ananthakrishnan on the chemodynamics of insect-plant interaction and Rao on angiosperm floral evolution (governed by pollination mechanisms), vis à vis angiosperm evolution in the Cenozoic. As already stated, the book is very diverse in quality and coverage but,

even so, it's startling that a sizable amount of text in a book on plant biology is devoted by Agrawal et al. to nest-parasitism of cowbirds and cuckoos!

Eleven of the chapters are reports of investigations, albeit in some instances with considerable literature review as well. It is in this section that palynologists will find most of their directly pertinent new information. Some of these research reports are megafossil paleobotany, but with obvious palynological connections. There is even a new genus and species of pteridosperm seed-bearing leaf, proposed by Mei, Dilcher and Wan. The new name is unfortunately apparently not validly published, as I find no indication of the institution where the type specimens are deposited, as is now required by the ICBN. Dilcher et al. discuss the functional biology of Devonian spores with bifurcate processes, relating this strange condition to life in an aquatic environment. Norstog et al. present a beautifully illustrated and entertaining discussion of Zamia's obligate pollination by beetles--as good an example of "pollen as reward" as I've read. Gastaldo's summary of taphonomic processes in plant sedimentation in relation to phytoclast production is most instructive for those of us who constantly study palynodebris along with our sporomorphs. Dettmann's chapter on angiosperm biogeography in southern Gondwana, based on palynological data, is most informative about the history of early angiosperms, *Nothofagus*, Proteaceae and other groups of pollen-producers in Australia, South America, Africa, and Antarctica during the last 120 Ma. An example of pure paleobotany with obvious palynological connections is Sen and Roy's contribution on DNA homology, showing gnetalean/angiosperm linkage and long dicot/monocot separation. Axelrod's paper on the relation of floral composition to rainfall regimes in the Neogene of the USA Pacific coastal area has direct relation to interpretation of Neogene pollen floras. It is unfortunate that the book, which is relatively free of gross typos, somehow managed to drop an unknown number of lines from his discussion of the Latah flora, so one doesn't know what Professor Axelrod's point was.

I fear that the \$90 price tag, for what looks from casual inspection to be a slick-cover magazine, will put most individual would-be purchasers off. But be sure it is purchased for your local library, and read around in it for profit and occasional amusement!

Reviewed by:
Dr. Alfred Traverse
Department of Geosciences
Penn State University, Deike 435
University Park
Pennsylvania 16802
U.S.A.

NEOGENE AND QUATERNARY DINOFLAGELLATE CYSTS AND ACRITARCHS.

(Edited Martin J. Head & John H. Wrenn, 1992, 439pp, hardback, US\$40.00 including book rate postage American Association of Stratigraphic Palynologists Foundation.)

This publication has appeared almost six years from the date of the first symposium on Neogene dinoflagellate cyst biostratigraphy held at the 19th Annual Meeting of the American Association of Stratigraphic Palynologists (AASP) in New York City. It is an important milestone in the research of a group of previously understudied palynomorphs and forms an important companion volume to AASP Contributions Series Number 17 (1986, edited by Wrenn,

Duffield, & Stein) which included a selection of papers from the New York City symposium. The hard work and enthusiasm of the convenors of the Second Neogene Symposium and the support of the AASP Foundation in providing a medium for publication are to be applauded.

Papers presented in the Second Symposium on Neogene Dinoflagellates during Dino IV (Marine Biological Laboratory, Woods Hole Oceanographic Institute) are included in the volume, together with papers by researchers who were unable to attend the symposium. So it marks a true "state-of-the-art" publication. The book begins with a very informative preface written by the editors where they outline some of the historical background leading up to this publication. This is followed by the edited transcript of discussions held during the Second Workshop on Neogene Dinoflagellates.

Neogene dinoflagellates are now studied worldwide and the papers in this publication (17 in total) are from such geologically diverse and geographically distant areas as the Arctic and southern Australia, and range in age from the latest Oligocene to the present day. There are three papers on modern dinoflagellates (Matsuoka, Edwards, and Edwards & Andarle), seven that deal almost entirely with the Quaternary (Zippi, Morzadec-Kerfourn (two papers), McMinn, Vernal et al., Vernal & Mudie, and Mudie), and five that are dedicated to the Tertiary part of the Neogene (Head et al., Matsuoka & Head, Mehrotra & Rawat, Brinkhuis et al and Verteuil & Norris). In addition to the papers on marine dinocysts there are papers on freshwater dinocysts and acritarchs from Neogene sediments in the South China Sea (Cole). A paper on probable copepod eggs from the Holocene of the Banda Sea, Indonesia (van Waveren) is also included in this volume. It may appear out of place, but, as the editors point out, these fossils are often encountered in palynological residues so an understanding of their origin is important.

For the student of Neogene dinocysts, this volume provides an insight into the valuable contribution this group can make to biostratigraphy, paleoecology, sedimentology, oceanography, evolution, and climatic studies. For the relatively new student of this particular group of fossils (of which I am one) it not only provides a means of referencing past work (albeit rare), but also provides a stepping off point for future studies.

This is the third hardback book published by the AASP Foundation (the other two are "*Sporopollenin Dinoflagellate Cysts*" [Eviitt, 1985], and "*Pollen Records of Late-Quaternary North American Sediments*" [edited by Bryant & Holloway 1985]). It is appropriate to comment on the quality of this publication from an editorial point of view. The layout of the papers is identical to that of the AASP Journal, *Palynology*, which is a style I find very easy to follow. The figures and plates are generally of a very high standard. There are minor exceptions, but in these cases it is more a reflection of the quality of the originals rather than poor printing.

At a cost of US \$40.00, which includes bookrate postage, this publication is a bargain and would make a significant addition to any palynologist's reference library. I hope that the AASP Foundation continues to sponsor this type of publication.

Reviewed by:
Dr. David Pocknall
Amoco Production Company
Box 3092
Houston, TX 77253
U. S. A.



ESGUEIRA GEN. NOV., FOSSIL FLOWERS WITH COMBRETACEOUS FEATURES FROM THE LATE CRETACEOUS OF PORTUGAL

(Friis, E. M., Pedersen, K. R. and P. R. Crane. 1992. The Royal Danish Academy of Sciences, Copenhagen, Biologiske Skrifter, 41: 1-45.)

Paleobotany has recently witnessed a shift from an emphasis on the study of Paleozoic spore and seed bearing plants to an emphasis on angiosperms. Understanding angiosperm evolution is of great interest to neontologists. However, the fossil record was thought to contribute little to our understanding of angiosperm phylogeny for two reasons, a) the extant taxonomic system draws heavily on flower morphology, and b) fossil flowers were considered to be rare and nothing more than a novelty in the fossil record. Leaves and petrified wood were considered to be the only fossil angiosperm remains common enough to be of value. However, papers by William L. Crepet and David L. Dilcher (e.g., Crepet et al., 1974), employing careful field observation, scanning and electron microscopy, and rigorous comparative techniques demonstrated that fossil flowers are more common than previously thought, and preserve significant morphological information. Since these benchmark papers the recognition and recovery of fossil flowers has been steadily on the rise. Subsequently, fossil flowers have significantly contributed to our understanding of the origin and diversification of various angiosperm groups.

In this paper, the authors demonstrate once again their skill at extracting as much information from fragmentary fossil remains as possible, an aspect of paleontology that always brings satisfaction to not only the investigator, but the reader. Given the diversity of angiosperms, and the territoriality of extant plant taxonomists with regard to their favorite OTU, this paper will be of general interest to the paleobotanist as yet another example of the significant contribution of our science to angiosperm phylogeny. It also will be of particular interest to the neontologist working on the Dilleniidae. Based on previous published works and the quality of these contributions, Friis et al. have established themselves as one of the more active groups working on fossil flowers. The present contribution reaffirms this status.

Reference: Crepet, W.L., Dilcher, D.L. and F.W. Potter. 1974. Eocene Angiosperm Flowers. *Science*, 185: 781-782.

Reviewed by:
Dr. Michael S. Zavada
Department of Biology
University of Southwestern Louisiana
P. O. Box 42451
300 East St. Mary Street
Lafayette, Louisiana 70504 U.S.A.

ERDTMAN'S HANDBOOK OF PALYNOLOGY

(2nd Edition, Edited by Siwert Nilsson and Joseph Pragowski, 1992, 580 pp. Hardback, DKr 650.00, Munksgaard, Copenhagen, Denmark.)

I do not consider either the first or second editions of this volume to be a handbook. Though it treats many aspects of palynology, it does not deal with all the sub-fields of palynology, nor does it treat any of them in great depth. Because of its eclectic nature, it might better be called a "Potpourri of Palynology". The fact that it is a mixture of things palynologic, however, makes it very readable, with some exceptions. Such as the disconcerting discussions that pop out of nowhere (e.g. the discussion of palynomorphs and plant taxonomy (pages 132-142) just when the book was beginning to seem organized. The lack of a unifying idea is a major short coming of this book. The editors have made a valiant effort to bring order to chaos in the second edition, and because of their efforts, it does have a number of good points.

The book is broken into four main sections: Morphology, Taxonomy, Ecology, and Invited Contributions. The latter are most to be recommended and include overviews by various authors of micrography and photomicrography, palynomorphs other than spores and pollen, and aeropalynology.

The discussion of "Pollen and Spore Morphology" (pages 27-79) in the "Morphology" section (pages 27-129) is still basic reading important to all students of palynology. The 16 figures and 109 high quality plates illustrating this and the subsequent section ("Taxonomy"; pages 132-311) provide a clear picture of most matters under discussion. In fact, one of the best features of this book are the 150 high quality plates of pollen photographs and drawings. These plates, and their reproduction, set a standard that aspiring and practicing palynologists would be proud to achieve. I particularly admired the spore and pollen drawings and what they represent: a critical observer who carefully recorded what he saw with great skill.

Although some of the material discussed in the book is provincial in that it deals exclusively with Scandinavia, (e.g. "Recent Pollen Spectra", pages 315-325 and "Pollen Diagrams From Bog and Soil Profiles", pages 336-344) it may be of interest to boreal researchers, though perhaps mainly for historic reason.

The invited contributions were of most interest, easier to read and better organized than was the main body of the text. When I reached the end of the contribution by K. E. Samuelsson and Y. Arremo (Photomicrography of Recent and Fossil Pollen Grains and Spores), I wanted to keep on reading and learn more of what they had to say. (If there is a third edition of this book, this section should be greatly expanded--perhaps at the expense of the Taxonomy section.) Similarly, I found the section on Aeropalynology by S. Nilsson fascinating, well written and informative. W. A. S. Sarjeant provided a very useful overview of palynomorphs, exclusive of the spores and pollen.

There are a few typos and editorial errors, which is very hard to prevent in a book this large, and only one was really vexing. Figure 13 is first referred to in the text on page 40. But the figure doesn't appear until page 141. Sandwiched in between pages 40 and 141, are Figures 8 through 12. It might have been better to renumber the figures and move Figure 13 (which should be Figure 8) closer to the first reference to it in the text. (This is nit picking, I suppose, unless you have to leaf through 100 pages trying to find Figure 13.)

Technically, this is a very high quality, hardback book. The printers and the publishers did an excellent job on this volume. Its strong binding should provide many years of hard service and the glossy cover will be easy to clean. The binding opens flat, so that the book can be kept open to one of the spectacular plates, without having to nail it open or use three hands. The font is easy to read, and as noted previously, the photographs and drawings are reproduced clearly and with very good contrast over all.

Even though the book lacks coherency, the discussion of pollen morphology, the high quality plates, and the invited sections have something to offer all palynologist, especially students.

John H. Wrenn
Department of Geology and Geophysics
Louisiana State University
Baton Rouge, LA 70803 U. S. A.



Future Meetings

Indicates this is the first notice of this meeting in *PALYNOS*

August 8-12, 1993

STRATIGRAPHIC RECORD OF GLOBAL CHANGES: CLIMATE, SEA LEVEL, AND LIFE (SEPM Meeting), University Park, Pennsylvania, USA. (Mike Arthur, Department of Geosciences, Pennsylvania State University, University Park, PA, 16802, USA; Phone: 814-865-6711)

August 16-20, 1993

PALYNOLOGICAL CONFERENCE (7TH), Saratov, Russia. (Palynological Commission of Russia, Palynology and Problems of Sequence Stratigraphy, IGIRGI, Fersman str. 50, Moscow 117312 Russia. Phone 095-124-36-55).

August 28-September 3, 1993

INTERNATIONAL BOTANICAL CONGRESS (15th), Tokyo, Japan. (M. Furuya, Frontier Research Programs, The Riken Institute, Wako City, 351-01, Japan).

September 7-20, 1993

THE ARKELL INTERNATIONAL SYMPOSIUM ON JURASSIC STRATIGRAPHY (S. Brown, The Petroleum Science & Technology Institute, 25 Ravelston Terrace, Edinburgh, Lothian EH4 3EX United Kingdom; Tel: 031-451-5231, Fax: 031-451-5232)

September 22-23, 1993

PALAEOCLIMATOLOGY AND PALAEOCEANOGRAPHY FROM LAMINATED SEDIMENTS The British Sedimentological Research Group and the Marine Studies Group of the Geological Society are convening this meeting for researchers on laminated sediments of marine or lacustrine origins. (Alan Kemp, Department of Oceanography, University of Southampton, Southampton, Hampshire SO9 5NH, United Kingdom).

September 18-26, 1993

ASSOCIATION OF EUROPEAN GEOLOGICAL SOCIETIES (AEGS) (8th Congress), Budapest, Hungary. (Geological Society of Hungary, P.O. Box 433, H-1371 Budapest, Hungary; Phone: (36-1)2019129; Telefax: (36-1) 1561215; Telex: MTESZ MFT 224343).

September 20-24, 1993

ASSOCIATION DES PALYNOLOGUES DE LANGUE FRANCAISE (APLF) (XIIITH SYMPOSIUM), Université de Franche-Comté, Besançon. (Herve Richard, APLF, CNRS — UPR 7557 — Chrono-Ecologie, UFR Sciences et Techniques, 16, route de Gray, F25030 Besançon Cedex France; Phone: 010-33 81 66 62 80; FAX: 010-33-81 66 62 67.)

September 27-30, 1993

ENVIRONMENTAL BIOGEOCHEMISTRY (11th International Symposium), Salamanca, Spain. (J. F. Gallardo Lancho, I. E. T./CSIC, Apto. 257, Salamanca 37071, Spain; Phone: (923)219606; Telefax: 923-219609.)

October 25-28, 1993

AMERICAN ASSOCIATION OF STRATIGRAPHIC PALYNOLOGISTS (26th Annual Meeting), Baton Rouge, LA. (George F. Hart or John H. Wrenn, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA, 70803, U.S.A.; Phone: 504-388-4683; Fax: 504-388-2302.)

October 27-28, 1993

PALYNOLOGY, CLIMATE AND SEQUENCE STRATIGRAPHY OF THE PLIOCENE, Baton Rouge, Louisiana. Sponsor: The American Association of Stratigraphic Palynologists (AASP). (Co-conveners: John H. Wrenn, Director, Center For Excellence in Palynology, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA, 70803, U.S.A.; Phone: 504-388-4683 Fax: 504-388-2302; or Jean-Pierre SUC, Laboratoire de Palynologie, Case 061, Université de Montpellier II, F-34095 Montpellier, Cedex 5, France; Phone: 33-67-14-32-69; Fax: 33-67-04-20-32.)

November 12-13, 1993

THE ARCTO-TERTIARY '93 WORKSHOP, London, England. (Ms. Jess Clark, Faculty of Science, University of East London, Romford Road, London, E15 4LZ, England, Phone: 081-849-3489; FAX: 081-519-3740.)

August 28-September 2, 1995

THE XIII INTERNATIONAL CONGRESS ON CARBONIFEROUS-PERMIAN (XIII ICC-P), Kraków, Poland. (Sonia Dybova-Jachowicz, Panstwowy Instytut Geologiczny, Oddzial Gornoslaski, 1 Królowej Jadwigi, 41-200 Sosnowiec, Poland; Phone: 48 32 66 20 36 (38); FAX 48 32 66 55 22.)

June 22-29, 1996

9TH INTERNATIONAL PALYNOLOGICAL CONGRESS Marriott Hotel, Houston, Texas, U.S.A. Host society: American Association of Stratigraphic Palynologists, Inc (Vaughn M. Bryant, Jr., Department of Anthropology, Texas A. & M. University, College Station, TX; Phone: 409-845-5242; FAX: 409-845-4070 or John H. Wrenn, Center for Excellence in Palynology, Department of Geology and Geophysics, Louisiana State University, Baton Rouge, LA 70803, U.S.A.; Phone: 504-388-4683; FAX: 504-388-2302).



PALYNOS (ISSN 0256-1670) is published semiannually (June and December) and is distributed to all individual members of the scientific organizations affiliated with the **International Federation of Palynological Societies (IFPS)**. News items, photos, member and society activities are welcomed. (Scientific papers will not be published in *PALYNOS*.) Please forward materials for *PALYNOS* to the Editor.

Dr. John H. Wrenn
Center for Excellence in Palynology
Department of Geology & Geophysics
Louisiana State University
Baton Rouge, LA 70803 U.S.A.

Phone: 504-388-4683
FAX: 504-388-2302

POLLEN ET SPORES D'EUROPE
ET D'AFRIQUE DU NORD

The French and English introduction (23 pages) is the gateway to this extraordinary atlas that contains 446 pages and more than 13,000 photographs of spores and pollen of 2,276 taxa (900 genera, 186 families). A three fold index (74 pages) lists taxa, families and pollen types.

Author : Maurice Reille, Marseille, France
Published by: Botanique Historique et Palynologie
Price : 1 600 F.F.

Send Order Form to:

M. Reille
Botanique Historique et Palynologie
Case 451
13397 Marseille cedex 20, France

Name :

Fax :

Address :

Date:

Signature