VOLUME 18, NUMBER 2

AASP NEWSLETTER

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AASP NEWSLETTER

VOLUME 18, NUMBER 2 APRIL, 1985

R. L. RAVN, EDITOR ISSN 0732-6041

We regret to announce the death of long-time AASP member Dan Beju. Dan died April 9 following a long illness. A native of Romania, Dan was employed during the latter years of his career by Amoco Production Company Research in Tulsa, Oklahoma, where he remained active until shortly before his death. A memorial to Dan Beju will appear in the next issue of the Newsletter.

NOMINEES FOR THE BOARD OF DIRECTORS

With the elections of Mr. Reagan and Mr. Mulroney out of the way last year, most AASP members probably figured they were free of elections for a while. Fat chance. One of the big advantages offered by AASP is that we have an election every year. The following is the list of candidates for the AASP Board of Directors for 1985-1986:

PRESIDENT-ELECT: Don G. Benson (Amoco Production Company, New Orleans)
Harold V. Kaska (Chevron Overseas Petroleum, Inc., San Francisco)

SECRETARY-TREASURER: Kenneth M. Piel (Union Oil Co. Research, Brea, Cal.) unopposed

MANAGING EDITOR: Douglas J. Nichols (U. S. Geological Survey, Denver) unopposed

DIRECTORS-AT LARGE (2 to be elected):

William C. Cornell (Department of Geological Sciences, University of Texas at El Paso)
Kathleen M. Heide (Arco Oil and Gas Co., Dallas)
Barbara L. Whitney (Union Oil Co. Research, Brea, Cal.)

Members please note that only three candidates for Directors-at-Large have been nominated and approved at the mid-year Board of Directors meeting, as opposed to the normal practice of nominating four. A fourth candidate disqualified himself with regard to AASP bylaw 6.06a6, after it was too late to add a replacement candidate.

Article 7.03 of the AASP Bylaws states that: "Additional nominations may be made by any member in good standing by submitting a petition, signed by at least nine (9) other members in good standing, to the Secretary-Treasurer by June 15," for inclusion on the ballot to be submitted to the membership.

Biographical sketches of the candidates appear on page 2.

George Fournier at the microscope, Gulf, Research and Development Co., Houston, Texas, October 1975 (Photo courtesty of Al Traverse). See the memorial to George later in this Newsletter.

EVITT BOOK

Unexpected editorial difficulties have resulted in a delay in the release of Sporopollenin Dinoflagellate Cysts by W. R. Evitt. We anticipate the release of the book very shortly, and we regret the delay. For those wishing to purchase, the price is $30 US, postpaid. Please make checks payable to the AASP Foundation, and remit to:

Robert T. Clarke, Treasurer, AASP Foundation, Mobil Research and Development Corporation, DRD, P. O. Box 819047, Dallas, Texas 75381.

AASP Newsletter is published quarterly by American Association of Stratigraphic Palynologists, Inc.

BIOGRAPHICAL SKETCHES OF NOMINEES

President-Elect

Don G. Benson is the senior palynologist at Amoco Production Company's regional office in New Orleans. Don joined AASP in 1974, and was organizer and general chairman for the 1981 Annual Meeting. He was a judge for the Best Student Paper Award at the 1977 Annual Meeting. He has served on various AASP committees, including the Bylaws Revision Committee from 1982-84 and the Annual Meeting Guidelines Committee from 1984 to the present. He has been a Century Club member since 1981. Don also has served as a reviewer for papers in Palynology and other publications. His primary research interests lie with dinocyst morphology and biostratigraphy, and Lower Paleozoic biostratigraphy.

Harold V. Kaska, of Chevron Overseas Petroleum, Inc., joined AASP in 1972, and was chairman of the 1983 Annual Meeting in San Francisco. He has been chairman of the Annual Meeting Guidelines Committee from 1984-1985, and was a member of the Nominating Committee in 1974. Harold also has been a councillor for the International Federation of Palynological Societies (IFPS) since 1984.

Secretary-Treasurer

Kenneth M. Piel is employed at the Union Oil Company Research Center in Brea, California. He has been Secretary-Treasurer of AASP since 1982. He was a founding member of AASP in 1967 and has served in several other offices, including as President from 1975-1976. He was a member of the Nomination Committee in 1980 and general chairman for the 1973 Annual Meeting. He is unopposed for election.

Managing Editor

Douglas J. Nichols is employed at the U. S. Geological Survey in Denver. He joined AASP in 1968 and has served as AASP President from 1982-1983. He was Newsletter Editor from 1979-1981 and has been Journal Editor since 1981 and Managing Editor since 1983. Doug also was a member of the Nominating Committee in 1977 and 1980, and served on the Annual Meeting Committee in 1980. His research interests include Cretaceous-Tertiary palynostratigraphy. He is unopposed for election.

Director-at Large

William C. Cornell is Associate Professor of Geology and Assistant Dean of the College of Science at the University of Texas at El Paso. He is general chairman for the 1985 Annual Meeting. He joined AASP in 1968 and has served on the Nominating Committee from 1979-1980 and on the Constitution and Bylaws Revision Committee from 1982-1984. Bill is AASP liaison to the North American Micropaleontology Society, and is chairman of the Marine Micropaleontology Research Group of SEPM. He also served as President of the El Paso Geological Society in 1975.

Kathleen Heide is employed by Arco Oil and Gas Company in Dallas. She joined AASP in 1977 and was organizer of the Palynological Data Handling Symposium at the 1984 Annual Meeting in Arlington. She is also chairwoman for the U. S. Committee for the International Association of Mathematical Geologists.

Barbara L. Whitney, of the Union Oil Company Research Center in Brea, California, joined AASP in 1970. She was chairwoman of the selection committee for Best Student Paper at the 1980 Annual Meeting, Chairwoman of the Nominating Committee in 1982, and AASP delegate to the COSUNA Steering Committee from 1977-1983.

CAP OFFICERS CORRECTION

This may come as a shock to AASP members, but editors make mistakes, too. In the preceding Newsletter Issue, the list of officers for the Canadian Association of Palynologists for 1985 is erroneous. This year's CAP officers are:

President: J. Terasmae
President-Elect: R. W. Mathewes
Secretary-Treasurer: R. A. Fensome
Newsletter Editor: B. G. T. van Helden

The officers listed in the previous Newsletter were last year's. I regret the error.

In addition, we have the following change in address and phone number from Dave Jarzen:

Dr. David M. Jarzen, National Museums of Canada, Paleobiology Division, Ottawa, Canada KLA OM8. Tel. (613) 996-4518.

And finally, since we're on the topic of corrections and changes, I'd like to rectify an omission of a couple of issues ago. Back in the last issue of 1984, I noted the appearance of two AASP members in a National Geographic article; I neglected to note the presence of Tom Davies of Exxon Production Research in Houston, who is shown debating the identification of a palynomorph with Lew Stover, surrounded by a sea of photographs. I still don't know what the thing in question was, but I bet I've seen it, too, somewhere.

Ed.

CONSULTANT AVAILABLE

Dr. Reed Wicander is available as a palynological consultant during the summer months and on a limited basis during the rest of the year. His area of expertise is Paleozoic palynology and he would be interested in any palynology projects involving the Paleozoic. Please direct inquiries to:

Dr. Reed Wicander, Dept. of Geology, Central Michigan University, Mt. Pleasant, Michigan 48859; tel. (517) 774-3179 or (517) 772-5589.

MESOZOIC PALYNOLOGIST WANTED

The U. S. Geological Survey, Geologic Division, Branch of Paleontology and Stratigraphy announces a vacancy for research geologist in Mesozoic palynology. Duties include conduct of biostratigraphic investigations and original research on fossil palynomorphs, with emphasis on the U. S. Atlantic and Gulf coastal plains. Position is to be located at USGS National Center, Reston, Virginia. Applicants should be U. S. citizens. Position salary and grade negotiable based on career experience (salary range $31,619 - $67,940 per annum, GS-12 to GS-15). Application must include Standard Form 171 (SF-171), Personal Qualifications Statement, available from any Federal Personnel Office or from address below. Application must be received by July 15, 1985. The U.S.G.S. is an Equal Opportunity Employer. For further information contact:

T. A. Ager, 970 National Center, U. S. Geological Survey, Reston, Virginia 22092; tel. (703) 860-7745.

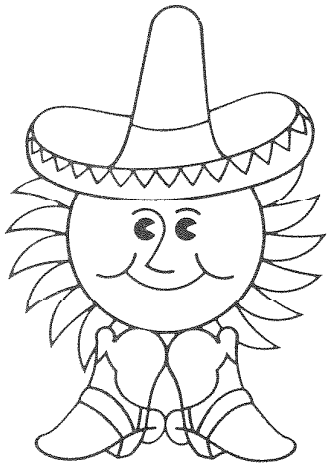
STRATIGRAPHY POSITION

The Department of Geosciences at the University of Arizona invites applications for a tenure-track academic position in stratigraphy. We are particularly interested in candidates whose research efforts are directed toward the application of stratigraphy to problems in paleobiology, biostratigraphy, sedimentology, or paleotectonics. We seek an individual capable of creative and interdisciplinary approaches to conceptual issues as well as practical problems in the paleobiological and sedimentological aspects of stratigraphy. Duties include teaching undergraduate stratigraphy, developing graduate course material to complement and extend existing programs, advising students, directing graduate research and developing a vigorous research program. Rank and salary will be commensurate with experience and qualifications. The position will be available August, 1986, or sooner.

The application deadline is August 15, 1985. All qualified persons are urged to apply. Applicants should send curriculum vita, bibliography, statement of research interests, and names and addresses of four references to:

Dr. George H. Davis, Department Head, Department of Geosciences, The University of Arizona, Tucson, Arizona 85721.

The University of Arizona is an Equal Opportunity/Affirmative Action Employer.



DOWN IN THE WEST TEXAS TOWN OF EL PASO . . .

Preparations for the 1985 Annual Meeting of AASP in El Paso proceed on schedule (previous organizing committee members for Annual Meetings will remember that things start going wrong about the night before the meeting convenes). We would like to remind the members expecting to attend of some important dates.

The meeting is to be held from October 16-19. Title deadline is May 15; Abstract deadline (if no title has been submitted) is June 15; Abstract deadline (if a title was submitted before May 15) is July 15. Abstracts should be sent to:

Dr. J. Richard Jones, Department of Geography, University of Texas-Austin, Austin, Texas 78712.

Abstracts must be prepared camera-ready for copying on the Abstract Form that was included in the preceding issue of the Newsletter. If another Abstract Form is needed, contact Dr. Jones. We encourage the participation of students in presentations at the meeting, and remind students of the L. R. Wilson Award for Best Student Paper, which carries a cash stipend and a plaque.

More detailed information on plans for the meeting appeared in the preceding Newsletter, or are available from:

Dr. William C. Cornell, Department of Geological Sciences, University of Texas at El Paso, El Paso, Texas 79968; tel. (915) 747-5218.

The tentative schedule of presentations plus other information on the meeting will appear in the next Newsletter issue.

BOOK REVIEWS

Late-Quaternary Environments of the United States, edited by H. E. Wright, Jr. In two volumes, Volume 1, The Late Pleistocene, Stephen C. Porter, Ed., 407 pp.; Volume 2, The Holocene, H. E. Wright, Jr., Ed., 227 pp. Each volume, $45.00. University of Minnesota Press, Minneapolis, MN 55414. (1983)

These two volumes summarize the last 25,000 years of geological history in the United States. They are arrangec chronologically -- Volume 1 covers 25,000-10,000 B.P.; Volume 2, 10,000 years B.P. to present. These volumes serve as an update to The Quaternary of the United States, published in 1965, although the new works are more temporally limited than the 1965 volume.

Late-Quaternary Environments of the United States and another, as yet unpublished, work, Late-Quaternary Environments of the Soviet Union, are the result of six conferences between U.S. and Soviet scientists concerning environmental protection. (The emphasis here is on environmental reconstruction.) New methods and techniques, as well as new data and interpretations, are discussed. The bibliographies for the articles are extensive and include an excellent summary of post-1965 Quaternary research.

Volume 1, subtitled, "The Late Pleistocene", is divided into sections of glaciation, nonglacial environments, coastal and marine environments, Pleistocene biota, and climatology. Stephen C. Porter introduces the volume.

The Pleistocene biota section includes three papers using palynological data, and one each concerning terrestrial vertebrates, fossil beetles, and man. Heusser summarizes the vegetational history of the Pacific Northwest and Alaska. Fossil pollen data are sparse but indicate altitudinally depressed ecotones during the Late Quaternary. Herb tundra was widespread in Alaska during the same period.

Spaulding and others summarize the Late Quaternary in the Southwest. Packrat (*Neotoma*) middens contain plant microfossils, and several stratigraphic pollen studies have been completed during the last twenty years. Plant associations existed that were unlike any that occur today. Altitudinal zonation existed. Species migrated individually, forming new plant associations. Deserts expanded near the end of the Pleistocene and caused isolation of mountain species. Some extinctions occurred.

Watts has more data for his summary of vegetational history east of the Rocky Mountains. He is even able to speculate on population anomalies and plant extinctions without altitudinal barriers. He, like M. B. Davis in Volume 2, discusses plant migrations as the climate ameliorated near the end of the Pleistocene.

Volume 2, subtitled, "The Holocene", contains seventeen papers dealing with physical geology, paleoecology, environmental archaeology, and climatology. An introduction by H. E. Wright, Jr., summarizes the Holocene. R. G. Baker's review of Holocene vegetation form the Pacific to the Great Plains extends Heusser's and Spaulding's discussion to the present. Too little data with adequate dating exist in the western U.S. to construct plant migration routes as Webb and others have done for the Midwest. Their article succinctly summarizes plant migrations using isopoll maps.

T. Ager's chapter, Holocene Vegetational History of Alaska, indicates the succession from Late Pleistocene herb tundra to the mosaic of forest, muskeg, tundra, and forest-tundra of modern Alaska. Similarly, M. B. Davis' Holocene Vegetational History of the Eastern United States traces the migration of trees northward from southern refugia into modern forests; Davis uses maps showing "first arrival" in radiocarbon years B.P. for tree taxa.

Climatic changes are the theme of these volumes. Each volume ends with a climatology section. Perhaps the increased role of climatology is the most important change in Quaternary science since the publication of The Quaternary of the United States.

Late-Quaternary Environments of the United States is destined to become an important reference. Quaternary palynologists will want to buy it.

Reference Cited

WRIGHT, H. E., Jr., and FREY, D. G., eds. 1965. The Quaternary of the United States. Princeton University Press, Princeton, New Jersey.

Kent Van Zant, Amoco Production Company, Denver, Colorado.

The Sex Life of Flowers, by Bastiaan Meeuse and Sean Morris. Facts on File Publications, New York, NY 10016. 139 pp., 79 color illus., numerous line drawings. (1984)

The Sex Life of Flowers is a remarkable book. If the title doesn't attract your attention, then open the book and look at the photographs; they are truly gorgeous. As the authors explain, the initial idea for this book began as a project by Sean Morris of Oxford Scientific Films. In 1973, it was suggested that Sean Morris should team his knowledge of photography and the genius of Oxford Scientific Films with Dr. Bastiaan Meeuse's encyclopedic knowledge of pollination ecology. The initial result was a special PBS (Public Broadcasting System) TV presentation called, "Sexual Encounters of the Floral Kind." Later, Meeuse and Morris teamed their efforts a second time to produce this book designed primarily for the layman botanist who has a curiosity about plants and how pollination takes place. The result of their efforts was a coffee-table type of book containing a readable text and breathtaking photographs of exotic mechanisms of pollination. Although marketed mainly for the layman, this book has a place on the professional botanist's library shelf and should enlighten any palynologist on the subject of pollination ecology.

The book is well-organized and carries the reader through a logical series of chapters using an easy-to-read style which nevertheless retains important scientific terminology familiar to the professional. For the layman, a convenient and well-defined glossary is provided in the back of the book. The first chapter covers a brief, yet fairly complete, look at plant evolution beginning with a description of the *Euglena* and its curious mixture of plant and animal characteristics and ending with an explanation about the rise and dominance of the angiosperms. The succeeding chapters carry the reader through a kaleidoscope of pictures and explanations about topics such as: 1) Why do flowers exist; 2) how did they evolve; 3) how do flowers work; 4) how do flowers use color, odor and shape to attract pollinators; 5) why do most angiosperms invoke an incest taboo and how does that mechanism work; 6) how do flowers and their pollinators coevolve; 7) how are mimicry and a host of other "tricks" used by plants to fool potential pollinators; 8) what are the advantages and disadvantages of wind and water pollination; and 9) a final chapter on the history and spread of human manipulation of pollination.

Every page answers new questions that the reader may have wondered about before reading this book. For example, answers are provided for questions such as: How do the Egyptians produce mature figs even though the only known insect pollinator (*Ceratosolen arabicus*) has never existed in Egypt? How has the vanilla orchid survived for centuries even though its insect pollinator probably became extinct long before Columbus arrived in the New World? Why have one-time efficient insect-pollinated plants such as the boxelder and some species of willow returned to wind pollination? And, why can some dioecious plants rapidly change their sex while others cannot?

As a botanist who has been teaching palynology for fifteen years, I had initial misgivings about reviewing a "popular" book based on a TV show. However, by the time I finished the first chapter I realized that this book offered a wide range of new ideas about pollination which warranted consideration and examination. As I read the other chapters I found that each new topic created added curiosity and, like a good mystery novel, I found it hard to put the book down until I had finished it.

If you are looking for an easy-to-read story about the intricate and remarkable history of pollination ecology, then you will want to get a copy of this book. Even if you think you already know about pollination ecology, the book is still a good investment for its remarkable pictures that capture the instant of pollination or illustrate the methods used by plants to attract, capture and fool pollinators into transporting pollen from the anthers of one plant to the stigma of another.

This book is worth your time and it is a convenient way to learn the true meaning of the "birds and the bees."

Vaughn M. Bryant, Jr., Anthropology Dept., Texas A&M University, College Station, Texas.

POSITION WANTED

M. Azizul Islam, a Sheffield-trained palynologist with general interests in the Tertiary and Mesozoic, seeks employment in industries, research institutions or universities; experienced in the palynology/palynostratigraphy of the Tertiary of England (NW Europe), SE Asia and the Far East, and the Tertiary and Mesozoic of Australia including the study of kerogen distribution in sediments and its significance; also experienced in integrated stratigraphic works and subsurface mapping. For curriculum vitae please write to:

M. Azizul Islam, 60 Wilber Street, Rossmoyne, Western Australia, 6155; tel. (09) 457-2387.

NEW INDIVIDUAL MEMBERS

Haytham A. A. Al-Tayyar, Aramco-Dhahran, P. O. Box 5062, Dhahran, Saudi Arabia.
Michael D. Clark, 1 2835 19th Street N.E., Calgary, Alberta, Canada T2E 7A2.
J. W. Eygink, Shell Int. Petr. My. (SIPM), Postbus 162, 2501 An, The Hague, The Netherlands.
Katherine M. Farr, Department of Geology, Marischal College, Aberdeen AB9 1AS, Scotland.
Roy H. Heise, Department of Geology and Geophysics, University of Calgary, Calgary, Alberta, Canada T2N 1N4.
Bonnie E. Lampley, 1023 Old Canyon Road, Fremont, CA 94536.
Martin J. Lester, SSI (UK) Limited, Tannery House, Tannery Lane, Send, Woking, Surrey GU23 7EF, England.
Armando S. Mensaque, 20202 Hwy 59 North, Suite 335, Humble, TX 77338.
Patricia J. Nolan, Chevron Oil Field Research Co., P. O. Box 446, Room 1184, La Habra, CA 90631.
Linda A. Raubeson, Biology Department, University of North Carolina, Chapel Hill, NC 27514.
Eva Reindl, SIPM /EP 12/1 C/O, KSEPL, Volmerlaan 6, NL-2288 GD Rijswijk /2H, The Netherlands.
R. P. W. Stancliffe, Room 108.3, General Purpose Building, Geology Department, University of Saskatchewan, Saskatoon, Saskatchewan, Canada S7N 0W0.
Lizaveta Teran, Edificio Sede Central Urbanization, Sta. Rosa Los Teques, Edomiranda, Venezuela.
Paul A. Ventris, Robertson Research Ltd, Ty'n-y-Coed, Llanrhos, Llandudno, Gwynedd, North Wales, U. K.
Edward L. Vezey, 1310 Columbia Circle, Norman, OK 73071.
Paul V. Waton, Palexon Geological Consultants Pte. Ltd., c/o Seta-Yasa-Core Lab Int. Ltd., Jl Kebon Sirih 43, Jakarta Pusat, Indonesia

NEW INSTITUTIONAL MEMBERS

Adelaide University, Barr Smith Library, Box 498, G.P.O., Adelaide, 5001, South Australia.
Arabian Gulf Oil Company, P. O. Box 263, Benghazi, Libya, S.P.L.A.J.
Postgraduate Unit of Micropalaeontology, c/o Dr. A. R. Lord, Department of Geology, University College London, Gower Street, London WC1E 6BT, England.

GEORGE R. FOURNIER, 1914-1984

IN MEMORIAM

George Richard Fournier died in Houston, Texas, 18 December, 1984. George was a founding member of AASP in 1967, and served as Vice-President in 1969 and President in 1970. It was through AASP that I came to know George well, as he and I served together on the executive committee in various capacities during most of the Association's early years. I suppose George was the oldest of the founding members, but that never occurred to me at the time! He was always young at heart. I recall well that George was thinking and talking big about the organization when my concerns as Secretary-Treasurer of AASP were to balance the budget and somehow to reach the 200-member level. The man was really irrepressible, and his enthusiasms were catching, even when they at first seemed foolish or even ridiculous. He was also generous, and good, and forgiving in a way most of us could profit from emulating.

Once upon a time in Toronto, as chairman of a technical session, I had to cut off George's microphone because he was over time and paying absolutely no attention to warning lights, hand signals and little notes. Terminal facility was not always among George's strong points. For many people, that would have meant curtains for a friendship, but for George, the offense was soon forgiven and was never again mentioned to me. Only five years later George invested hundreds of hours in helping my family and me out of a potentially catastrophic situation in a manner I can never forget. He was a marvellous friend. It was also characteristic that he never mentioned his failing health and I did not know of it in time to visit him -- he didn't want sympathy.

George was born in San Jose, Costa Rica, on 6 May, 1914. His father was a biologist for the Costa Rican government, whose father in turn was a French composer-conducter who had come to Costa Rica to establish a national symphony. George's mother was a native-born Costa Rican with the splendid name, America. George earned a B.S. degree at the Licéo de Costa Rica in 1932, and became an accountant, earing his CPA rank from the University of Costa Rica in 1940. He was appointed vice-consul for Costa Rica in New York City in 1941 (an honorary post). George detested accounting, however, and decided to take advantage of the consulship to switch careers, by studying geology at NYU (B.A., 1947; M.A., 1950), specializing in micropaleontology. He supported himself during his studies by working as an X-ray technician in Paterson General Hospital (1942-1950). Through his hospital work he met a nurse, Ethel Nightingale, whom he married in 1944. (George always called her "Linda", more or less equivalent to "beautiful", or perhaps even "cutie-pie", in Spanish.) The Fourniers had two sons, George, Jr., a urologist, and Frederick, a commercial pilot.

George's first job in geology was as a micropaleontologist for Mene Grande Oil Co. (a Gulf subsidiary), Caracas, Venezuela (1951-1956), and his first publications were about photographic techniques for foraminifera. In 1956 he became a palynologist for Mene Grande, and he remained in that job until 1964, when he was transferred to Gulf Research and Development Co., Houston. There he remained until he retired in 1983. The Fourniers had bought a ranch in Flatonia, Texas, and George told me several times how much he enjoyed clearing the land, working on his tractor, raising brangus cattle. He hoped to switch soon to longhorns and to do palynological consulting -- but his health quickly collapsed in 1984. His wife and his doctor son believe his bone marrow had been extensively damaged by his X-ray work in the '40s. If I know George, he would have quietly researched his disease, myelofibrosis, and knew very well how sick he was, though he never acknowledged this to anybody.

George Fournier will probably not be remembered too much for his publications -- they do not comprise a long list. Most of his work was proprietary and never released for publication. He did, however, do some very innovative work for Gulf -- in the last few years computer-based correlation of Cenozoic basins, for example. He will be long remembered for his work with diverse groups of palynologists -- for example, as a long-time (1967-1984) member of the steering committee for the "Kremp literature project", and in service jobs such as technical consultant for the United Nations in Ankara, Turkey, in 1978. George's assignment in Turkey was partly responsible for Volkan Ediger, then working for the Turkish Petroleum Corporation, later coming to Penn State to study for a Ph.D. with me. George's forte in palynology was technique, all kinds of technique -- from single-grain mounts to the computer, and he was well worth

listening to in all areas of palyno-methodology.

George was an enthusiast -- and it must have irked him no end that the rest of us were so restricted in our vision (more "practical", we call it). His idea of a "World List" for ICP was a good one, and he worked hard, to practically no avail, on it. I do hope the new IFPS will act on his vision, and produce an updated "George's List" now that funds are available. His plea of nearly two decades ago for industrial encouragement of academic palynology, as essential for the future of the subject, was and is right on the mark, though some used to wink when George began talking on this subject. It is hard for me to acknowledge that George's cheerful, enthusiastic, friendly voice is no longer out there to give us all such good advice.

Alfred Traverse.

Acknowledgment: Ethel N. Fournier helped me greatly by providing exact dates and other information.

Editor's acknowledgment: Thanks to Al Traverse and Jack Burgess for the two photographs of George that appear in this issue.

PROFESSOR AMIYA KUMAR GHOSH, 1905-1985

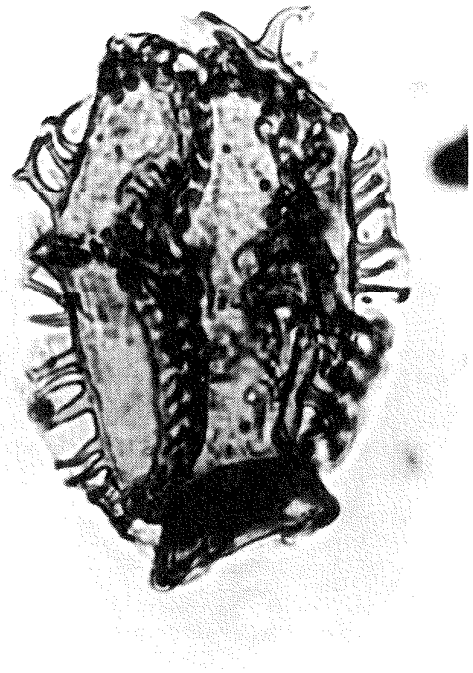
IN MEMORIAM

The world lost one of its ardent and inspiring palynologists with the death of Prof. Amiya Kumar Ghosh on January 18, 1985, in Ranchi, India. Prof. Ghosh was associated with the Botany Department of the University of Calcutta, and formerly with the Oil and Natural Gas Commission at Dehra Dun, also the Bose Institute in Calcutta.

He was the author of numerous publications and the inspiration of many more by his students and associates in India and elsewhere in the world. Those of us who had the good fortune to have known him personally remember his quiet manners and speech and his searching questions that reflected deep thinking. When he began hsi studies in palynology the science was extremely young and much that is now commonplace was then beyond imagination. Prof. Ghosh contributed to discoveries by his own efforts and probably equally as much by his encouragement of other investigators.

A tribute to his greatness was the publication of the 694-page "A. K. Ghosh Commemoration Volume of Evolutionary Botany and Biostratigraphy" sponsored by the University Grants Commission, Department of Botany, University of Calcutta, 1979. It contains 58 papers by many Indian and foreign scientists and covers numerous aspects of botany and geology. A resume of Prof. Ghosh's works is included in the volume as an Inaugural Address by Dr. R. N. Lakhanpal of the Birbal Sahni Institute of Paleobotany. It mirrors the warm and heartfelt esteem of Prof. Ghosh's colleagues.

L. R. Wilson



Stephanelytron redcliffense Sarjeant emend. Stover, Sarjeant and Drugg, 1977; Late Jurassic, North Slope, Alaska. Photo courtesy of John Williams and Linda Wright.

AASP NEWSLETTER TECHNICAL SECTION

IMAGE REVERSAL IN MICROSCOPE OPTICS: ONE MORE FLIP

Jan Jansonius, Esso Resources Canada Ltd., Calgary

A brief remark on Lucy Edwards' comment in AASP Newsletter Technical Section 18(1): 9: Edwards is correct in maintaining that there is a difference in essence between "dorsal face in ventral aspect, reversed" and "dorsal face, dorsal aspect." Yet, it may be the same difference.

In another reaction to my original note, I received reprints from Bjorn Berland on this optic topic, written in response to discrepancies he observed between descriptions of the same material by different authors, which varied in left-right orientation of asymmetric morphologic features (caused by unawareness of image reversal).

My point in bringing up this matter in the first place was that I am not convinced that all practicing and publishing palynologists are (or have been) aware of the properties of the optical system they employed. This may affect the interpretation of new, or published information.

Edwards holds that there is dishonesty in reversing a photographic negative and selling the resulting picture as "dorsal, dorsal", rather than "ventral dorsal, reversed." When we are dealing with a microscope producing inverted images, these problems are caused by the presence of odd number mirror surfaces in the tube of some microscope systems. The addition of one mor mirror rotates the image back to normal, the same was as the turning over of a negative.

Edwards appropriately questions whether negative reversal should be used merely to facilitate visual analysis. For instance, Below (1981) published excellent photographs of somewhat inflated specimens, in which the ventral focus is shown in ventral aspect, the dorsal focus in dorsal aspect. He does not specify whether this feat is managed by double coverslip mounts (allowing photography from both sides), or by manipulating the negatives. His results do make for easy interpretation, but this innovative handling of the illustrations might have benefited from a brief discussion of his techniques. (Optically, negative inversion should make little difference from photography through double coverslip slides, because the light, after it is concentrated by a condenser, still must traverse the specimen before it is collected by the objective.) A disadvantage of Below's presentation is that it is less convenient to use the various focal levels in the same manner as one does when working at the microscope.

The important point in all this is: To be aware of what is going on, and to clearly present those features judged morphologically significant in the simplest way. Not the least in this equation is the unequivocal usage of language. From Edwards' reaction, I conclude that maybe I did not succeed in expressing myself clearly enough; an express terminology would be welcome.

Anyone interested in or intrigued by this phenomenon of image reversal should read the brief but comprehensive article by Berland (Zool. Lab., Univ. Bergen, Norway). He analyzed the adventures of a microscope image as it is ducted through the tubes of various models of Wild, Leitz, Zeiss, etc., and how the results observed may vary by simply switching in drawing tubes, photo tubes, or dual discussion/demonstration tubes. While doing so, Berland also displays a nice sense of humor.

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