A.A.S.P. NEWSLETTER

Published Quarterly by the American Association of Stratigraphic Palynologists Inc.

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American Association of Stratigraphic Palynologists Inc.

The American Association of Stratigraphic Palynologists, Inc. - AASP - was established in 1967 by a group of 31 founding members to promote the science of palynology. Today AASP has a world-wide membership of about 800 and is run by an executive comprising an elected Board of Directors and subsidiary boards and committees. AASP welcomes new members.

The AASP Foundation publishes the journal Palynology (annually), the AASP Newsletter (quarterly), and the AASP Contributions Series (mostly monographs, issued irregularly), as well as several books and miscellaneous items. AASP organises an Annual Meeting which usually includes a field trip, a business luncheon, social events, and technical sessions where research results are presented on all aspects of palynology.

AASP Scientific Medal recipients
Professor William R. Evitt (awarded 1982)
Professor William G. Chaloner (awarded 1984)
Dr. Lewis E. Stover (awarded 1988)
Dr. Graham Lee Williams (awarded 1996)
Dr. Hans Gocht (awarded 1996)
Dr. Svein B. Manum (awarded 2002)

AASP Honorary Members
Professor Dr. Alfred Eisenack (elected 1975)
Dr. William S. Hoffmeister (elected 1975)
Professor Leonard R. Wilson (elected 1975)
Professor Knut Faegri (elected 1977)
Professor Charles Downie (elected 1982)
Professor William R. Evitt (elected 1989)
Professor Lucy M. Cranwell (elected 1989)
Dr. Tamara F. Vozzhennikova (elected 1990)
Professor Aureal T. Cross (elected 1991)
Dr. Robert T. Clarke (awarded 2002)

AASP Board of Directors Award recipient
Dr. Robert T. Clarke (awarded 1994)

Teaching medal recipients
Professor Aureal T. Cross (awarded 1999)
Professor Alfred Traverse (awarded 2001)

AASP Distinguished Service Award recipients
Dr. Robert T. Clarke (awarded 1978)
Dr. Norman J. Norton (awarded 1978)
Dr. Jack D. Burgess (awarded 1982)
Dr. Richard W. Hedlund (awarded 1982)
Dr. John A. Clendening (awarded 1987)
Dr. Kenneth M. Piel (awarded 1990)
Dr. Gordon D. Wood (awarded 1993)
Dr. Jan Jansonius (awarded 1995)
Dr. D. Colin McGregor (awarded 1995)
Professor John H. Wrenn (awarded 1998)
Professor Vaughn M. Bryant (awarded 1999)
Dr. Donald W. Engelhardt (awarded 2000)

Awards at each Annual Meeting: Best Student Paper Award, and Best Poster Award.

AASP Student Scholarships may be awarded annually to three students in the amount of US$1500. The qualification of the student, the originality and imagination evident in the proposed project, and the likelihood of significant contribution to the science of palynology are factors that will be weighed in selection of award winners. Previous winners of this award are eligible only if they are pursuing a different degree than the one they were pursuing when they received the previous award. AASP Scholarships are available to all students of palynology in all countries and need not be members of AASP. Application forms appear in the January issue of the AASP Newsletter, are available from the Chairman of the AASP Awards Committee (Fred Rich frich@gasou.edu), or can be downloaded from our website at http://www.palynology.org/content/scholar.html

AASP Membership categories and dues (in US$ per year) are as follows:
Individual ($45.00), **Student** ($30.00), **Retired** ($15.00), and **Institutional** ($70.00). Dues may be paid up to three years in advance by using credit card (MasterCard, Visa, American Express), check or money order (made payable to AASP Inc.), and must be sent to the Secretary-Treasurer. All members receive the AASP Newsletter (mailed quarterly by hard copy or via email), Membership Directory (mailed annually), and (with the exception of Retired members) the journal ***Palynology*** that is published annually. Overseas members can receive their Newsletter and ***Palynology*** by airmail, rather than book rate surface mail; an additional surcharge is required in the amount of US$12.00 for Europe & South America, and U$15.00 for Africa, Asia & the Pacific region (includes Australia and New Zealand).

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Volume 37, Number 1
Carlos Jaramillo, Editor

The AASP Newsletter is published four times annually. Members are encouraged to submit articles, "letters to the editor", technical notes, meetings reports, information about "members in the news", new websites and information about job openings in the industry. Every effort will be made to publish all information received from our membership. Contributions which include photographs should be submitted a week before the deadline. Deadline for next issues of the newsletter is JUNE 1, 2004. All information should be sent by email. If possible, please illustrate your contribution with art, line drawings, eye-catching logos, black & white photos, colour photos, etc. We **DO** look forward to contributions from our membership.

PRESIDENT'S PAGE

By Sharma Lynn Gaponoff

I hope everyone has had an enjoyable and productive first quarter of 2004. As the year is going by quickly, I would like to remind you all to mark your calendars for our annual technical meeting this year. The AASP 37th Annual Meeting will be in Granada Spain, July, 4-9, 2004, in association with the Eleventh International Palynological Congress. The venue is fantastic, the cost is very affordable and the symposia are proving to be quite compelling. Nine of the technical sessions at the conference are being organized by AASP members and include: Entomopalynology and Melissopalynology, chaired by Vaughn Bryant and Gretchen Jones; Forensic Palynology, chaired by Vaughn Bryant and Dallas Mildenhall; Paleopalynology and Evolution, chaired by Rosario Rivas Carballo; Dinoflagellate Cysts and Dinoflagellate Biology, chaired by Rob Fensome, Martin Head and Edwige Masure; Upper Palaeozoic Palynology / CIMP Symposium, chaired by Charles Wellman; Mesozoic Palynology, chaired by Henrik Nohr Hansen and Koldo Núñez Betelu; Tertiary Palynology, chaired by Joao Pais; Long Continental Records: The Development of "Ground Truth" For The Marine Oxygen Isotope Chronology, chaired by Owen Davis and Henry Hooghiemstra; and Global Pollen Databases, chaired by Eric Grimm. Please see the links to this meeting on the AASP website, www.palynology.org, and read on in this newsletter for more details. In addition to the technical sessions and field trips, AASP will be sponsoring a "Swap Shop where folks can provide and swap for classical text, journals, journal articles or other related items. Please send inquiries to Eddie Robertson, ebr@mail.reihnardt.edu. This conference and the associated activities is a wonderful opportunity for you to meet colleagues, students, exchange ideas, generate new ideas and see palynology in its myriad of applications. Plus, AASP is sponsoring scholarships for students to attend this meeting. See our website for information and an application. The setting is lovely, the venue is superb, and the weather should be excellent. This will be a very well attended conference and worthwhile for all.

As a result of the Annual meeting being held earlier in the summer rather than customarily later the fall, the semi-annual AASP Board of Directors meeting is being held earlier this year, too, on March 13. The mid-year BOD meeting is being hosted by John Wrenn of the Center for Excellence in Palynology (CENEX), Department of Geology and Geophysics, Louisiana State University (LSU), Baton Rouge, Louisiana, USA. All AASP members are welcome to attend all BOD meetings. Lend your voice, and become involved in your organization. This is also a good opportunity for you to see CENEX in action and all the interesting work being done there. I would like to take this opportunity to thank the members of the Board of Directors for all their continued hard work behind the scenes, work that keeps this organization running, especially Jim Riding, Martin Head and Thomas Demchuk for filling in for the last few months. It is certainly a labor of love, and we are fortunate as an organization to have such an outstanding group of folks on the Board and welcome all comers.

The AASP ballot committee has been busy and a slate of candidates is presented for your review for the upcoming elections. As always, all candidates are imminently qualified and deserving and it will be difficult for each of us to choose. I do, however, encourage you all to cast your votes.

If you have forgotten to renew your membership, or if you have stumbled upon this newsletter or the AASP web pages and are intrigued and want to join or to continue your membership, dues is inexpensive and convenient using our secure on-line payment method. Also, if you haven't checked your information on our e-directory, or would like to add your information, contact our Web Master. Here is the link to the e-directory: www.palynology.org/portal/pandir.html. Our Web Master, Owen Davis also tells us that "the AASP web site has become one of the most frequently-visited palynology web sites, receiving over 7800 hits since April 2003." So, if you haven't yet surfed our site why not give it a try? It is very intuitive and thus easy to navigate. Enjoy.

Our web site is also a venue for learning about pioneers and colleagues who have been instrumental in the science of palynology and in AASP. There are new histories being added to the Oral History Project pages. If you haven't visited these pages I'm sure you will find them enlightening, and entertaining. Thanks again to Owen Davis for all his work in also maintaining these pages. Please see www.palynology.org/history.

Other items:
If you are considering publishing your work in Palynology, Volume 28 is currently "under construction." Please submit your manuscripts as soon as possible.

We are in need of creative people to help enhance our educational CD. You can see the current version on our website by clicking on "About Palynology" on the AASP Home page. Lend your ideas. Contact me, SLGaponoff@chevrontexaco.com, Satish Srivastava, sksrivastava@earthlink.net, or Vaughn Bryant, vbryant@neo.tamu.edu with your ideas.

AASP is a member organization of AGI, and Fred Rich is our liaison. Dave Pocknall is contributing to Geoscience World on behalf of AASP. We thank both these members for their work on behalf of the organization to help increase the visibility of AASP and palynology. As we live in exciting times, where adaptability is the key to success, I challenge you all to help do your part to increase the visibility of AASP in particular and palynology in general and think of new ways in which palynology can help solve problems. I leave you with the following: "Carpe diem" and hang on for the ride! I hope to see you all in Granada.

LESLIE ROWSELL MOORE, AN OBITUARY
By Ted Spinner, Bernard Owens and Pat Lunn

Leslie Moore, who died on the 13th November 2003, was one of the founders of modern Carboniferous palynology. The son of a miner, Leslie grew up in the small market and mining town of Midsomer Norton in the county of Somerset, England. His family encouraged him to obtain a good education and hoped that he would study medicine. However Leslie won

a scholarship to the University of Bristol and decided to read geology. In Bristol where he obtained both his BSc and PhD and later a DSc, he came under the guidance of Professor Arthur Trueman, the influential Carboniferous stratigrapher and coalfield geologist. This may well have influenced the decision that his PhD research should be on the structure, stratigraphy and economic geology of the eastern part of the Bristol and Somerset Coalfields. He realised early in this research the value of both fossil floral and faunal evidence and utilising these, he made numerous proposals relating to regional correlation of the Coal Measures.

Leslie's first job was in teaching but he was soon appointed as an Assistant Lecturer in Geology at the University College Cardiff, University of Wales, where his research was expanded to embrace the South Wales Coalfield. It was during this time that he began his research in those aspects of palaeobotany that were to give impetus to the science of palynology. Leslie Moore noted that miospores recovered from the macerations of many Carboniferous fructifications displayed a wide range of morphological (sculptural and structural) variation which he suggested was representative of a sequence of stages towards maturity. He noted the same developmental stages could be observed in fructifications from different plant groups. This had major implications for the morphological classifications, which were then emerging and resulted in the award of the Lyell Fund from the Geological Society of London in 1947. At about that time he moved on to more senior positions in the Universities of Glasgow and then Bristol before accepting the invitation to become Sorby Professor of Geology at the University of Sheffield in 1949. On accepting the appointment, Leslie was charged with the task of promoting the growth of the science in Sheffield, a challenge which was to occupy most of his working life. He saw the Department grow to one of the largest in Great Britain by the late 1960s - early 1970s. An excellent teacher, he always taught the major part of the first year course, frequently lecturing to classes of more than 100, arousing interest and enthusiasm for geology from many generations of students.

The heavy administrative burden of running a large university department was later to restrict the amount of time that Leslie Moore had available for personal research but it was never able to suppress his enthusiasm and commitment. Leslie's early work on Coal Measure plants and their developing miospores was to have a major influence on the development of palynology. In the early 1950s he appointed Charles Downie to the staff and supervised his work on the Jurassic Kimmeridge Clay. Shortly afterwards he began the supervision of the research of Roger Neves, Herbert Sullivan, George Hart and John Richardson on a range of Upper Palaeozoic studies. Under his guidance they provided the beginning of the Sheffield school of palynology which was to lead to the emergence of countless young palynologists who would find employment in industry and academia in many parts of the world.

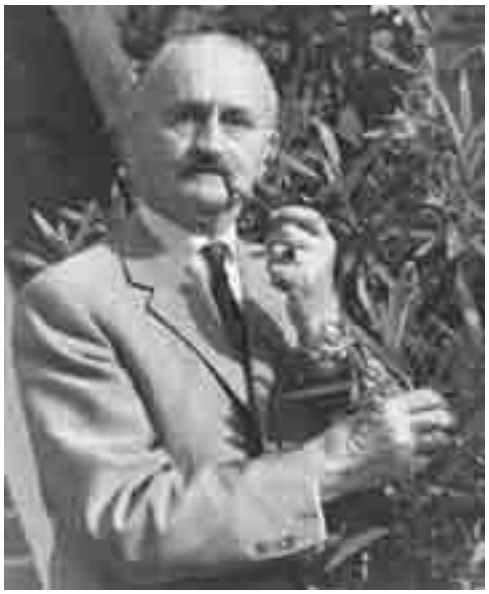
Leslie Moore together with others including Robert Potonié, Paul Corsin, Boris Alpern and W.J.van Leckwijck had the foresight during the Heerlen Congress on Carboniferous Stratigraphy and Geology in 1958 to propose the establishment of a component body of the Congress which would explore the value of spores in Carboniferous stratigraphy. From that proposal, the embryonic CIMP emerged in 1960 and the rest is history. Leslie Moore maintained his interest in the work of the organisation throughout his working life and on several occasions was delighted to welcome the organisation to hold its meetings in Sheffield. He was particularly proud to have been able to act as the host department for the staging of the 6th International Congress of Carboniferous Stratigraphy and Geology in 1967 when more than 400 scientists including members of CIMP and the International Commission on Coal Petrography held their meetings in Sheffield.

The increasing role that the wider science of micropalaeontology was playing in British stratigraphy was recognised early by Leslie. In 1970, after extended discussions with other geological societies, he was instrumental in the establishment of the British Micropalaeontological Society and served as its first President. During the latter part of his Sheffield career, he increasingly turned the attention of his personal research towards palaeo-microbiology in the search for evidence of fungal and bacterial attack on organic material in sedimentary rocks. Unfortunately little of this work was completed and published before his retirement but his account of these phenomena in the Precambrian Nonesuch Shale from the USA was to act as a catalyst for other workers.

Leslie Moore retired in 1977 after spending 28 years as Sorby Professor of Geology in Sheffield. He retired with his wife Peggy to the village of Curbar in the beautiful Derbyshire Peak District, from where he kept in touch with many of the Sheffield palynologists that he had watched develop. Unfortunately his wife died in 1985, a blow which hurt Leslie deeply. With the progressive loss of mobility, he decided that he would move to Birmingham in order to be close to his son. He died peacefully on 13th November 2003 at the age of 91 years.

KARL MÄDLER, AN OBITUARY

By Volker Wilde, Frankfurt am Main



I am sorry to have to inform you that Dr. Karl Mädler passed away October 22nd, 2003. Born in 1902, his life literally spanned a century. Initially trained as a pharmacist his first professional appointment happened to be at Seifhennersdorf, a small town in Saxony which is well known to palaeobotanists for the site of a rich Oligocene flora. There he gained interest in fossil plants and applied for a doctoral thesis with Prof. Richard Kräusel at the University of Frankfurt am Main in 1931. Following Kräusel's suggestion, he started to work on an exceptionally well preserved diverse Pliocene flora which was recovered from the construction site of the sewage treatment plant for Frankfurt (well known as „Klärbecken-Flora"). Due to unfortunate circumstances, he was not able to receive his degree at that time, but the results of his work were published as a monograph in 1939 („Die pliozäne Flora von Frankfurt am Main") in the „Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft, 446". Applying cuticular analysis to the leaves and including fruits/seeds, this is an early and still important example of a synoptic publication on a Late Neogene flora.

Following the turmoil of the war and post-war years, Karl Mädler started his permanent professional carreer as a palaeobotanist with the German Geological Survey (Hannover) in 1955. His research was now directed mainly towards application and focussed on "micropalaeobotany". This led to a number of pioneering contributions on charophytes (starting in 1953), on Mesozoic megaspores (Mädler 1955), and in Mesozoic palynology. He finally received his doctoral degree (Dr. rer nat.) in 1963 from the Technical University of Hannover with a thesis on spores and pollen from the German Triassic ("Die geologische Verbreitung von Sporen und Pollen in der Deutschen Trias") which was published in 1964 as "Beihefte zum Geologischen Jahrbuch, 65". When working on Mesozoic microfloras, he also realized the importance of remains of the microplankton (Mädler 1963, 1967, 1969) which is highlighted by his thorough study of the organic-walled phytoplankton from the Lower Jurassic Posidonia Shale (Mädler 1963, 1969). His palynological expertise was repeatedly demanded even by archaeologists for unraveling the origin of jet which was found in excavations (Mädler 1958, 1961, 1974, 1980).

Part of Karl Mädler's later work was again devoted to macropalaeobotany and is especially documented in some monographs on Cretaceous and Tertiary angiosperm floras. He early recognized that angiosperm paleobotanists were in need of a classification for leaves (Mädler 1940, 1950, Mädler & Straus 1971), but the classification proposed by him (Mädler 1975) was never widely accepted. One of his late papers is dealing with Pliocene charophytes and was published at the age of 86.

Even at the age of 90, Karl Mädler published a Permian flora. He still regularly attended meetings of the German Palaeontological Society and the group of German-speaking palaeobotanists (APP). When asked, he still liked to help with important informations and advice from his long lasting experience. He is remembered as a modest man never really boosting himself, but he was well recognized by the community of German speaking palaeontologists. In spite of a number of pioneering contributions to palaeobotany and palynology, Karl Mädler`s international recognition regrettably always remained limited because he published his work mostly in German; only three out of his 54 publications are in English.

An appreciation of Karl Mädler was published by Benda (1996) in a special issue (200) of the "Neues Jahrbuch für Geologie und Paläontologie Abhandlungen" at the occasion of his 95th birthday. A complete list of Karl Mädler's publications was compiled by Heunisch & Wilde (2003) for the APP-Rundbrief which can be found on the internet (www.uni-muenster.de/GeoPalaeontologie/Palaeo/Palbot/apptext.htm). The attached photograph of Karl Mädler in his garden at the age of 80 is from private sources and was passed on by C. Heunisch. W. Riegel has to be acknowledged for commenting the text of this obituary.

PRESENTATION OF THE CANDIDATES RUNNING FOR AASP OFFICES

President elect
Bob Cushman

Bob Cushman is an Assistant Professor of Geology and Associate Department Chair in the Department of Natural Sciences at Loma Linda University. Unlike Tom Demchuk, Bob cannot leap over tall buildings in a single bound or participate in covert operations with the CIA. However, he chairs a local K-12 school board and coaches men's high school varsity basketball. He still finds time to teach classes in paleopalynology, paleobotany, invertebrate paleontology, evolutionary biology and paleontology, tectonics and sedimentation, and advanced historical geology. Bob has advised graduate students on a broad range of topics including Cambrian trilobite evolution, modern plant taphonomy in Mono Lake, California, and sequence stratigraphy and paleoenvironments of carbonate lenses within the Navajo Sandstone, Arizona and Utah. Bob is currently working on the stratigraphic revision of the Green River Formation in Fossil Basin, Wyoming along with two other colleagues. He and one of his graduate students will also be submitting a paper in the near future entitled, A comparative analysis of plant macrofossils and microfossils from the Eocene Bitter Creek Delta in the Washakie Basin, Wyoming.

Bob earned his Ph.D. in Geology from the Colorado School of Mines in 1994 under the direction of Doug Nichols of the U.S. Geological Survey. His dissertation topic was the palynostratigraphy of the Upper Cretaceous (Cenomanian-Campanian) Mancos Shale in western Colorado. Bob owes his success to a variety of academic and industry palynologists with whom he has worked through the years: Doug Nichols at the U.S. Geological Survey, Bob Ravn at British Petroleum, Eddie Robertson at Phillips Petroleum, and Lanny Fisk at Loma Linda University.

Bob had the privilege of serving as a Director-at-Large on the AASP Board from 1998 to 2000. If elected, he would welcome the honor of serving the palynological community as president of AASP. In a time when the number of members in AASP is dwindling, we face a variety of challenges and exciting opportunities. Bob would love to have the opportunity to assist in developing a vision for the future of AASP.

Carlos Jaramillo

I am a palynologist with ICP-Ecopetrol at Bucaramanga, Colombia. I grew up in Colombia, received a B.S. degree in Geology at the Universidad Nacional de Colombia in 1993, M.S. degree at the University of Missouri-Rolla in 1995, and a Ph.D. degree at the University of Florida in 1999. I then held a postdoc at the Smithsonian and another postdoc with the PRF and UMR. I have been a member of AASP since 1994 and served as Director-at-Large between 2001 and 2003, and Newsletter editor since 2002.

My research investigates tropical biodiversity at diverse scales of time and space. I intend to address questions from a paleobiological perspective (mainly using pollen, spores and dinoflagellates). I am also very interested in the biostratigraphy of tropical latitudes during the Tertiary and Cretaceous. Currently I have two masters and six undergraduate palynological students working in my lab.

I lived in the academic world for many years, until I decide to taste what the "real" world was like (even though it will be just for a while, I'm sure). To my surprise I discovered how extremely useful palynology can be to hydrocarbon exploration! We have helped to drill wells, improve structural models, help seismic interpretations, refine outcrop maps, and even decide where new wells are going to be drilled. Palynology

has become a member of the exploration team rather than an outsider as it was before. We just needed to show other geologist what palynology could do to help solve problems.

Within AASP I would like to work in three different goals to increase our visibility and attract young people to our field, I think two big concerns right now: First, increase the coverage of our journal Palynology. More libraries should have it, non-palynologist should know about it. Second: sponsoring and organizing workshops on new analytical techniques that have been developed in recent years and could be applied to palynology (e.g. quantitative biostratigraphy, maximum likelihood, montecarlo randomizations, relational databases). Third: helping to organize a series of atlases similar to what the foraminifera workers are doing for the Tertiary (e.g. Atlas of Paleocene Planktonic Foraminifera, Smithsonian Institution Press, Olsson *et al.* 1999; now they are working in an Eocene version). These atlases could help to preserve the biostratigraphic and taxonomic knowledge we have gained to be used by future generations.

Secretary-Treasurer
Thomas Demchuk

The World According to Demchuk:
Without the Greeks, we wouldn't have history. The Greeks invented three kinds of columns - Corinthian, Doric and Ironic. They also had myths. A myth is a female moth. One myth says that the mother of Achilles dipped him in the River Stynx until he became intolerable. Achilles appears in "The Illiad", by Homer. Homer also wrote the "Oddity", in which Penelope was the last hardship that Ulysses endured on his journey. Actually, Homer was not written by Homer but by another man of that name. The government of England was a limited mockery. Henry VIII found walking difficult because he had an abbess on his knee. Queen Elizabeth was the "Virgin Queen." As a queen she was a success. When Elizabeth exposed herself before her troops, they all shouted "hurrah." Then her navy went out and defeated the Spanish Armadillo. George Washington married Matha Curtis and in due time became the Father of Our Country. Then the Constitution of the United States was adopted to secure domestic hostility. Under the Constitution the people enjoyed the right to keep bare arms. France was in a very serious state. The French Revolution was accomplished before it happened. The Marseillaise was the theme song of the French Revolution, and it catapulted into Napoleon. During the Napoleonic Wars, the crowned heads of Europe were trembling in their shoes. Then the Spanish gorillas came down from the hills and nipped at Napoleon's flanks. Napoleon became ill with bladder problems and was very tense and unrestrained. He wanted an heir to inherit his power, but since Josephine was a baroness, she couldn't bear him any children.

Which brings us to the year 2004, and another year as Secretary-Treasurer of the Association. I am happy to continue on in this capacity, until someone tells me I'm doing it so poorly that I'm no longer of benefit to AASP. This will be my sixth year, so only one more to go to tie Gordon Wood. Life still finds me happily employed at ConocoPhillips in the position of Biostratigraphic Coordinator. I just celebrated my seventh anniversary with the company (previously Conoco), and although I don't look down the microscope that much anymore, I still derive great joy working with palynological data derived from many of you out there in the consultant's realm. Speaking of history, as the membership gets distinctly "grey", I look forward to some of our younger members coming forward to accept positions on the Board, and on many of the committees that AASP sponsors. Hope to see many of you in Grenada in July!
(History notes above from http://www.concentric.net/~neotek/text)

Managing Editor
James B. Riding

James B. Riding is a palynologist/stratigrapher with the British Geological Survey based in Nottingham, England. He has over 20 years experience in Mesozoic-Cenozoic palynology. In the 1980s he worked mainly on the the Mesozoic palynology of onshore and offshore UK, principally the North Sea. His current interests have diversified to include the palynology of Europe, Australasia, Antarctica, west Africa, the Americas, Russia and the Middle East, paleoenvironmental palynology, floral provinces, the morphology, systematics and taxonomy of dinoflagellate cysts and palynological preparation techniques. Jim studied geology at the University of Leicester, before persuing a long standing interest in palynology by studying the famous MSc course at the University of Sheffield. Jim left Sheffield for BGS, where he received a PhD from the University of Sheffield in 1986 for a thesis on the Jurassic dinoflagellate cyst floras of northern and eastern England. The British Antarctic Survey have used Jim as a consultant palynologist and he visited the Antarctic Peninsula for a fieldwork tour during the Austral Summer of 1989. He recently undertook a years secondment to Geoscience Australia in Canberra, Australia, where he worked on the taxonomy of Australian Jurassic dinoflagellate cysts with Robin Helby and Clinton Foster. The work emanating from this was published in 2001 as Memoir 24 of the Association of Australasian Palaeontologists. Jim was awarded a DSc by the University of Leicester in early 2003. He is currently the Past President of AASP.

Directors-at-Large
Guy Harrington

I am a Lecturer in Palaeobiology at the University of Birmingham (UK) and have been a member of the AASP since 1995. I gained my initial exposure to pollen and spores as an undergraduate at Keele University that was followed by a Masters at the University of Cambridge in 1995. My original work centered on Holocene vegetation reconstructions from Hungary. But I followed this work with a Ph.D. from the University of Sheffield in 1999 that considered the palynological and floristic changes across the Palaeocene–Eocene boundary from North America. My research has also led me to dinoflagellate cysts too, most notably as a research fellow at Sheffield and University College Cork. My two years in Ireland were followed by an 18 month fellowship at the Smithsonian Institution. I believe that palynomorphs make extremely versatile fossils and I am an advocate of reaching out and using them to answer a spectrum of geological and ecological questions. I am enthusiastic to serve the AASP and hope to encourage and nurture a future generation of scientists that share our passion for palynomorphs.

Jeffery G. Richardson

He is currently an assistant professor of geology at Columbus State Community College in Columbus, Ohio where he teaches introductory geology, environmental geology, historical geology, and a history of science course. Although at Columbus State, Jeff conducts his lab work in the palynology lab at Byrd Polar research Center at The Ohio State University. His research interests are primarily focused on Mississippian palynology, although he has presented research on palynomorphs of earlier ages. Overall, palynostratigraphy has been the main goal of his studies. Geographically, the main areas of research have been the Borden Delta (Osagean, Lower Mississippian) in Kentucky and Indiana, miospores from the Ft. Payne Formation in Kentucky and Tennessee, and Ordovician cryptospores from Anticosti Island, Quebec, Canada. Currently, he is analyzing miospores from the Lower Mississippian clastic succession in the Michigan Basin, and constructing a palynostratigraphic framework for that area of the North American craton. All of his studies are multidisciplinary in nature, usually including sequence stratigraphy, depositional

environment analysis, and sea level fluctuations. He is suggesting that globally, Lower Mississippian clastic successions can be correlated (palynologically) and are a function of glacio-eustasy.

Future research projects include a continued study of Mississippian palynology, a detailed palynological and sedimentological study of a Lower Mississippian condensed section (Maury Shale), Ordovician cryptospres from the Hirnantian of Missouri, and a detailed study of the pollen history on San Salvador Island, Bahamas, and how the record correlates with the arrival of Europeans.

Jeff was born in Wheeling, West Virginia and studied geology as an undergraduate at Denison University in Granville, Ohio, where he received a B.A. in 1993. After interning with a local petroleum exploration company and the Ohio Geological Survey, Jeff entered the Masters program at The Ohio State University where he received a MS in 1998, working on Middle Ordovician biostratigraphy using conodonts. He entered the PhD program in 1999 and completed his research and received his doctorate in 2003. As a graduate student at OSU, he was granted the AASP student scholarship (in 2000), granted the Chevron Fellowship (from OSU in 2000) and in 2001, at the San Antonio National Meeting, was given the L. R. Wilson Award for the best student paper.

Jeff has been a member of AASP since 1999, and during this short time has presented research at three national meetings (Reno, San Antonio, and St Catherine's) and has also represented AASP ('working the booth') at national meetings of other organizations. Jeff is also a member of the Geological Society of America, the American Association of Petroleum Geologists, the Canadian Association of Palynologists, the Commission International de Microflora du Paleozoique, the Society for Sedimentary Geology, the Paleontological Society, and the Ohio Geological Society.

If elected, Jeff intends to continue working with a broad range of palynomorph-based projects, mostly in the Paleozoic, and continue to introduce the importance and usefulness of palynology to students, and recruit new members.

Jeff currently lives in Columbus with his wife Sara and their basset hound Otis.

Jörg Pross

Jörg Pross has held a lectureship at the Institute of Geosciences at the University of Tübingen, Germany since 2000. He has recently been appointed professor for micropaleontology and paleoceanography at the University of Frankfurt, Germany, and he will begin this position in the fall of 2004.

Jörg's initial contact with palynology dates back to 1988, when he was introduced to Holocene pollen and spores by the late Jane Gray during his time as a graduate student at the University of Oregon. His perspective shifted towards marine organic-walled microfossils when he started his diploma thesis on Jurassic palynomorphs from southern Germany under the direction of Hans Gocht and Hanspeter Luterbacher at Tübingen University, Germany.

Jörg's PhD work (again supervised by Hans Gocht and Hanspeter Luterbacher) focused on the paleoenvironmental and stratigraphic significance of dinocysts from the Oligocene of the Rhine Graben, SW Germany. After spending a year completing a research fellowship working on palynofacies characteristics of Holocene sediments of the Mobile Delta, Alabama, with Bob Gastaldo at Auburn University in 1999, Jörg was awarded a lectureship at Tübingen University in 2000.

Jörg's broad palynological interests include both the marine and terrestrial realms and range from sporomorph-based quantitative paleoclimate estimates to dinocyst-based paleoenvironmental reconstructions and palynofacies applications in sequence stratigraphy. Stratigraphically, his work (and that of his students) ranges from the Silurian to historic times, with current focus on the Jurassic, Cretaceous, Oligocene, and Late Quaternary. After having sailed on ODP Leg 210 in 2003, Jörg will also be involved in a biostratigraphic analysis of the Upper Cretaceous and Lower Paleogene off of Newfoundland.

Presently, Jörg also holds a position as a visiting senior researcher at the Laboratory of Palaeobotany and Palynology at Utrecht University, The Netherlands, where he collaborates with Henk Brinkhuis on the paleoenvironmental significance of Oligocene dinocysts. Most notably, Jörg is working on GSSP candidate sections for the Rupelian/Chattian boundary in Italy (together with Stefaan van Simaeys and Graham Williams) and on material from the Southern Ocean recovered during ODP Leg 189. Additionally, he is currently organizing an international short course with Henk Brinkhuis, Martin Pierce, and Jim Riding entitled "Jurassic – Cretaceous – Tertiary Dinoflagellates: Morphology, Stratigraphy, and (Paleo)ecology" to be held in Tübingen, Germany, from May 24-28, 2004.

Peter P. McLaughlin, Jr.

Pete is a Senior Scientist with the Delaware Geological Survey at the University of Delaware. His research interests are in applied micropaleontology and sequence stratigraphy, with an emphasis on their application to groundwater problems.

Pete has been an AASP member since 1999, when he "saw the light" of palynology after previously focusing on foraminifera. He received a BS in Geology at Delaware (1984) and a PhD at Louisiana State University (1989). From 1989 to 1999, he worked in Exxon's research and exploration divisions in assignments including biostratigraphy, sequence stratigraphy, seismic interpretation, and management. He gained an appreciation for the value of palynology working with Exxon colleagues Tom Davies, Yow-Yuh Chen, and Nicos Ioannides in the application of integrated biostratigraphy to exploration and production problems.

In 1999, Pete moved to the DGS and, with the encouragement of former State Geologist and AASP member Johan Groot, took up palynology to solve geologic problems in Delaware's Coastal Plain section. His current projects focus on the stratigraphy and palynology of Miocene shallow-marine aquifers and of mid-Cretaceous fluvial aquifers, emphasizing integration of geological and micropaleontological disciplines. He also recently initiated a project on the pollen record of natural and human-influenced environmental change in Holocene marsh sediments along Delaware Bay.

Pete considers the diverse programs and collegial atmosphere of AASP meetings to have been essential to his growth as a palynologist, and feels the organization plays a vital role in ensuring the health of the field. As a Director-at-Large, he would advocate continuing initiatives by AASP to periodically hold is annual meeting in cooperation with other micropaleontological societies, as was done for the London (2002) and St Catharines (2003) meetings. He would also promote AASP as a vehicle for information-sharing among users of pollen analysis across diverse fields ranging from geology and geography to archeology and forestry.

Pete is President-Elect of the North American Micropaleontological Section (NAMS) of SEPM, served as organizer of a Coastal Plain Micropaleontology and Palynology session for the 2003 Annual Meeting, and is an Associate Editor for the Journal of Foraminiferal Research. He serves on four MS student committees, one of which involves pollen analysis. He has twice taught a graduate "special problems" course in palynology at Delaware and is a regular classroom lecturer on sequence stratigraphy and wireline log analysis.

NEWS FROM THE UK
By Jim Riding

New Palynological Laboratory at U. Birmingham

Guy Harrington started as a Lecturer in Palaeobiology at the University of Birmingham, UK in January 2004. He joins a team of 4 existing paleobiologists whose research fields include fish, conodonts, trilobites, and Paleozoic plants. Before starting at Birmingham, he was a research fellow at the Smithsonian Institution and his research was centered on the Paleocene-Eocene boundary from North America. This appointment followed a period as a research fellow at University College Cork that also looked at the pollen record from North America, and particularly the US Gulf Coast, from the late Paleocene and early Eocene. He is looking forward to building up a strong paleo-

palynology unit at Birmingham which is already fully equipped for palynological research. His research will complement the existing Quaternary palynological research within the strongly research orientated University. Guy would welcome any inquiries from association members interested in his research and appointment.

NEWS FROM NEW ZEALAND
By Erica Crouch

New doctoral research by Chris Clowes, at Victoria University of Wellington, is focusing on dinoflagellate cysts from the mid Eocene-early Oligocene in New Zealand.

Commencing a PhD is not in itself an unusual undertaking: almost everybody reading these words will already have completed theirs. What is perhaps less usual about my case is to be embarking upon the venture in my late forties, having already worked and published in the field – then left it for a different industry entirely – some twenty years ago!

It was in 1983 or 4 that I submitted my last manuscript to *Palynology*, the description of a new dinocyst genus and species, eventually published in 1985. That dino was *Stoveracysta kakanuiensis* which, to the best of my knowledge, had not been reported elsewhere, even once, in the intervening decades while I laboured away at the barren outcrops of the IT industry. Perhaps it is prophetic, then, that it should suddenly turn up in the ODP leg 189 cores, reported by Henk Brinkhuis and others, late last year. It is certainly a pleasure to see the old fellow again. In fact my PhD project will pretty much resume where I left off, at the mouth of the Kakanui River, in southern New Zealand. There is a great deal of promising mid/Late Eocene to Early Oligocene sediment in the region, some of which has been surveyed by Graeme Wilson or me before, but not yet comprehensively worked over.

This PhD project will continue the dinoflagellate biostratigraphic study of the coastal Otago region, introducing a few correlatives where appropriate. The focus is primarily taxonomic, but an effort is also being made to characterise and compare whole assemblages. The latter endeavour is necessarily only a beginning; suggesting avenues for future investigation.

So, what has changed in two decades? There are now web sites and other computer-based resources, of course. And something called 'confocal laser scanning microscopy' which sounds exciting, though possibly beyond my reach for now. Digital photography has largely replaced the Polaroid. There is more interest now in phylogeny and, although this is an area still beset by many serious difficulties, I have an inkling that Fensome, Taylor, et al. 1993 will prove to be a watershed publication in the science. But the need for careful observation and meticulous description ... ah, how they're things that haven't changed. Graeme's advice of twenty years ago – "just write down exactly what you see" – is as valid today as it was back then!

Fensome, R.A.; Taylor, F.J.R.; Norris, G.; Sarjeant, W.A.S.; Wharton, D.I.; Williams, G.L. 1993: A Classification of Fossil and Living Dinoflagellates. Micropaleontology Special Paper, 7: 351 p.

NEWS FROM INDIA
By Naresh C. Mehrotra nareshmehrotra@indiatimes.com

Palynostratigraphy and Paleoenvironment of Panna Formation of Mumbai Offshore
N.C. Mehrotra, R.S. Rawat, N.P. Juyal and S.N. Swamy

Palynostratigraphic, source rock and paleoenvironmental studies on Panna Formation, in the area south – east of Mumbai High have been taken up. Six global dinocyst events have been recognized between Late Thanetian through Ypresian in the studied well sections. Based on these five interval zones are identified at 1 million year interval. These are – Alisocysta margarita Interval Zone (marking the Thanetian/Ypresian boundary); Deflandrea oebisfeldensis Interval Zone (Early Ypresian); Glaphyrocysta ordinata Interval Zone (Middle Ypresian); Thalassiphora patula Interval Zone (Late Ypresian) and Hystrichosphaeridium tubiferum Interval Zone (Top of Ypresian).

Source rock studies suggest marginal to good potential for hydrocarbon generation for the Panna Formation. Organic matter facies are Sapropelic; Sapropelic Humic–Charcoal; Humic–Sapropelic–Charcoal; Sapropelic–Humic–Wood; Humic Sapropelic–Wood; Humic–Charcoal types. These are mature with Thermal Alteration Index ranging from 2.50–2.75.

Paleoenvironmental conditions for the deposition of Panna Formation have largely been marine with sea level fluctuations limited to shallow inner shelf – inner shelf – deeper inner shelf. Formation of coals at many levels in the well areas – B–172–A–A and B–23–A is attributed to development of swampy conditions.

A series of paleogeographic maps at the top of five interval zones, representing the time planes 54.8Ma, 53Ma, 52Ma, 51Ma, 50Ma and around 49Ma, have been reconstructed based on integrated palynological and geological data.

Recent Special Publication from KDMIPE, ONGC, DEHRA Dun – Price (as indicated on the December, 2003 issue of AASP Newsletter)

ATLAS OF DINOFLAGELLATE CYSTS FROM MESOZOIC–TERITARY SEDIMENTS OF KRISHNA–GODAVARI BASIN

Volume–I: LATE JURASSIC–CRETACEOUS DINOFLAGELLATE CYSTS by N.C. Mehrotra and H.S. Aswal, pp. 1–145, fig. 1–8, plates, 1–36.

Volume–II: TERTIARY DINOFLAGELLATE CYSTS by N.C. Mehrotra and Kamla Singh, pp. 1–134, fig. 1–7, plates, 1–36.

The sale price of each volume have been fixed on US $ 22 (including portage) for sale outside India. Order can be place to :

Publication Division
K.D.M. Institute of Petroleum Exploration
Oil and Natural Gas Corporation Limited
9, Kaulagarh Road,
DEHRA DUN – 248 195 (India)
Telephone: 0135 – 2795376
Telex : 0585 – 273 MIPEIN,
Fax: 0135 – 2755265

NEWS FROM SOUTHAMERICA
By Mirta Quattrocchio mquattro@criba.edu.ar

XI ALPP Meeting on Paleobotany and Palynology

The Organizing Committee has the pleasure to send you a sincere invitation to participate in the XI Meeting on Paleobotany and Palynology (XI RPP), sponsored by the Asociación Latinoamericana de Paleobotánica y Palinología (ALPP). This event will be held in Gramado, Rio Grande do Sul, Brazil, from 7 – 10, november 2004. The web page of the event is www.exatec.unisinos.br/_rpp2004/ and we appreciate your suggestions to improve the technical program. Welcoming you in Gramado will be a great honor for us and we are working hard to provide an exciting opportunity for all of us to share experiences, teach and learn more about Paleobotany, Palynology and related themes.

Gramado is a beautiful city in the mountains, surrounded by Araucaria angustifolia forest and with a strong German and Italian influence, what means good food and warm hospitality. The touristic character of the city, near 100 kilometers away from Porto Alegre, the capital of Rio Grande do Sul state, guarantees transport and adequate acommodations. The weather in Gramado in November is warm (±20° C/70°F), with clear sky and pleasant days that probably will make your stay very enjoyable.

Our choice of pre- and post-congress field trips will give us the opportunity to illustrate the Permian- Triassic successions of the Paraná Basin (pre-congress field trip) and its paleobotanical content, and to know the modern subtropical rainforest biomas (Mata Atlântica and Araucaria forest) that grow in southern Brazil (post-congress field trip).

Please do not hesitate to contact us if you have any questions. Please note that both excursions have limited number of participants.

We hope that you will include this meeting in your agenda in 2004!
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NEWS FROM DENMARK
By Niels Erik Poulsen nep@geus.DK

Geological Survey of Denmark and Greenland Bulletin

Vol. 1, The Jurassic of Denmark and Greenland. Edited by Jon R. Ineson and Finn Surlyk

The Jurassic rocks of Denmark and East Greenland record the evolution of two discrete portions of the Mesozoic rift complex, now separated by the North Atlantic Ocean.The Jurassic of Denmark and adjacent areas occurs mostly in the subsurface and research has thus focussed on the wealth of borehole and reflection seismic data resulting from over thirty years of hydrocarbon exploration. The Jurassic of East Greenland, in contrast, is exposed in spectacular cliffs along fjords and mountainsides and has come to be regarded as a unique 'field laboratory', particularly amongst those working on the Norwegian shelf - the conjugate margin of East Greenland. This bulletin contains 28 articles, preceded by a short overview article, presenting the results of a period of intensive

research into the Jurassic in the late 1980s and 1990s. Following detailed chronostratigraphic and biostratigraphic reviews of the Jurassic of Northwest Europe, the successions of Denmark and East Greenland are subjected to a range of stratigraphic, sedimentological, structural and geochemical studies that together provide the basis for a detailed comparison of the Jurassic evolution of the East Greenland and Danish sedimentary basins.

The book contains several papers on palynology, e.g.:
The Jurassic dinoflagellate cyst zonation of Subboreal Northwest Europe Niels E. Poulsen and James B. Riding

Palynostratigraphy and palaeoenvironments of the Rævekløft, Gule Horn and Ostreaelv Formations (Lower-Middle Jurassic), Neill Klinter Group, Jameson Land, East Greenland. Eva B. Koppelhus and Gregers Dam

Palynostratigraphy and palaeoenvironment of the Middle Jurassic Sortehat Formation (Neill Klinter Group), Jameson Land, East Greenland. Eva B. Koppelhus and Carina F. Hansen

further details, see www.geus.dk/publications/bull

NEWS FROM CHINA
By CSBS hceis@mx.cei.gov.cn

New books on the Mesozoic Jehol Biota of northern China

The Jehol Biota-The Emergence of Feathered Dinosaurs, Beaked Birds and Flowering Plants (In English)
By Mee-mann Chang, Published in 2003, 208 pages, 280x290mm Casebound, US$160+$15 by sea mail, www.hceis.com/product/index/paleontology/the jehol biota.htm

In the recent years, the late Mesozoic Jehol Biota of northern China has shown the world some of the most astonishing fossil finds ever since the discovery of the first complete skeleton of Archaeopteryx in 1861, and thus has become the focus of many important paleontological researches in the global arena. On the Biota"s fabulous roster are the four-winged dinosaur and many feathered ones, first beaked bird and many of its allies, first plants with flowers and fruits, fishes with the potential to un-lock the mystery of their origins, mammals of the special interests to their early evolution, pterosaurs that rules the Mesozoic skies, and thousands species of invertebrates e.g. mollusks, conchostracans, ostracods, shrimps, insects, and spiders)that constitute a community of truly "wonderful life". These exquisitely preserved fossils not only give us a vivid picture of once a thriving biodiversity but also shed new light on a number of interesting theoretical issues in evolutionary biology today, such as the origin and early evolution of some major taxonomic groups (e.g., amphibians,birds and angiosperms),the origin of feather and avian flight, and the coevolution of pollinating insects and flowering plants. The Jehol Biota also bears significantly on paleobiogeography, paleoecology, paleoclimate and paleobiogeography, paleoecology, paleoclimate and paleoenvironments during the Mesozoic. This book has pieced together the most up-to-date information on the Jehol Biota that is otherwise Scattered in the vast technical literature and unavailable to the general readers. The first two chapters give an inviting introduction to the Jehol Biota in terms of its history of studies, its main components, its scientific importance, its geographical, geological and biostratigraphic framework, and its renowned fossil discoveries. Each of the remaining chapters deals with a particular organismal group of the Biota by its leading expert(s).In addition, the book is lavished with nearly 280 illustrations, which include 200 photographs that show diversity of the taxa and beauty of their preservations. The colored life restorations, elegantly done by some of China"s most celebrated primarily at an educated public, the book is also an invaluable source of information for the students and professionals in paleontology, geology, evolutionary biology, and science education in general

Contents related to Palynology
21. Land Plants
22. Angiosperms
23. Spores and Pollen

Jehol Biota (In Chinese with English Abstracts)
By Chen Pei-ji
Published in 1999
Page: 342 pages+ Plates
Size: 185x260mm, Softcover
Price: US$55+$8 by sea mail

1.Palaeobotany
(1) A Preliminary Study of the Jehol Flora from Western Liaoning
(2)Charophytes of the Yixian Formation from Northern Hebei and Western Liaoning
(3)Sporomorphy Assemblage from the Basal Yixian Formation in Western Liaoning and Its Geological age

Jehol Biota-Splendid Lives From More Than 100 Million Years Ago (In Chinese)
By Zhang Miman, 2001, 150 pages+183 figs, 290x215mm, Hardback, US$58+$8 by sea mail
2. Plants: Charophytes,higher plants, Spore and pollen

BOOK REVIEW

Aspects of Palynology and Palaeoecology: Festschrift in Honour of Elissaveta Bozilova, edited by Spassimir Tonkov, Pensoft Publishing Co. (Sofia, Moscow), 2003. 281 pp., B&W and color illus., $120.00, ISBN 954-642-179-0 (hardback).

This book of 15 separate articles on palynology was prepared and dedicated to Dr. Elissaveta Bozilova on the event of her seventieth birthday in 2002. As the editor notes, the book was dedicated to her for, "...her substantial contribution to the development of modern palynological and Quaternary palaeoecological studies in Bulgaria." In the beginning of the book there is a brief summary of her career and a list of her many pollen studies. The list is extensive and takes 10 pages of small print to complete.

Dr. Bozilova was born in Sofia, Bulgaria in 1932. After earning her undergraduate degree in botany at Sofia University she joined its Department of Botany as an assistant in 1958. From there she began her honored career which included earning a PhD in botany in 1972, and then rising to the rank of a professor of botany in 1988. She retired in 2000, but is still active in palynology and has continued to teach and work with graduate students at Sofia University. Her many accomplishments include playing a key role in identifying and reporting the changes in the postglacial vegetational history of Bulgaria, helping to organize and launch the important "European Pollen Database," and assuming the editorship of the "Annual of Sofia University-Botany Volumes."
The collection of articles in this book fall into two distinct categories. The first category includes a series of seven articles that discusses various types of inferences that can be gained from different types of pollen studies. The final eight articles all pertain to the use of pollen in the interpretation of the paleoecology of regions in Europe ranging from Sweden to Greece, but most reports focus on the region of Bulgaria.

The various paleoecological studies included in this book, which are based on fossil pollen data, are quite useful for anyone interested in late glacial through Holocene changes in European regions as far east as Siberia, as far south as Greece and the Balkans, and as far north as Estonia and Sweden. Each study presents pollen data from one or more cores collected from lakes or bogs and most also provide an overview of the previous pollen records from each region.

Of particular interest to this reviewer were two excellent articles in the first section of the book, one by Lang and the other by Hicks. In the first article, by the German palynologist Gerhard Lang, he has an excellent discussion on the initial expansion of the genus *Tilia* into Europe after the last major Pleistocene glacial period maximum and then its further expansion into Europe during the early Holocene. He notes that during the glacial maximum records indicate that *Tilia* was restricted to refugia areas in the Balkan peninsula, to regions of Italy, and along the southeastern slopes of the Alps. As the post Pleistocene climate improved, *Tilia* expanded northward and northwestward into Europe at a rate of about 350-820 meters/year. The author notes that his projected expansion rates for *Tilia* are faster than others have envisioned for this genus, however, he notes that *Tilia* produces effective winged seeds that are easily dispersed and in some cases have been observed to travel as far as several kilometers. Once the pioneer members of *Tilia* arrive in a new region, Lang notes, the next stage includes forming an established population of *Tilia*, and finally by the expansion of their numbers. He notes that the time lapse between the first arrival of pioneers of *Tilia* and the later mass expansion into a new location ranges from as short as 400 years to as long as 2,500 years, but that the average is about 1,000 years. Once established, the final expansion of *Tilia* covered regions from as far south as the Balkans, Spain, and France to northward regions of Europe between 63-75 degrees North Latitude, depending on local environmental conditions.

The second article of particular interest to me is the one by Finish palynologist Sheila Hicks that focuses on how to use the knowledge gained from monitoring modern pollen distributions to enhance the resolution and interpretation of fossil pollen assemblages. The first point she addresses is the problem of knowing "...how long a period of time is encompassed by one pollen sample and the period of time between samples." She points out that for most palynologists the basic problem of defining a Pollen Assemblage

Resolution (PAR) includes: 1) finding sampling locations where sediments accumulated rapidly, 2) being able to expose a large sampling area so that sufficient materials from each close-interval zone can be collected and processed to produce adequate numbers of palynomorphs for statistical reliability, and 3) ensuring precise dating. Once PARs are determined, she notes, it is then possible to use the pollen data to interpret differences in land use changes resulting from events such as climatic changes, fire-induced changed, and anthropogenic modifications.

Dr. Hicks used pollen data from a 20-year monitoring program in northern Finland to illustrate the importance of these programs and how she believes these programs can enlighten our ability to construct PARs from the fossil pollen record. For example, she notes that modern pollen monitoring reveals the annual fluctuation rates for key taxa and allows for averaging those fluctuations over longer periods of time. In addition, she notes that data collected from transect monitoring stations reveal influx levels that one can use to judge fossil data. For example, she noted that expected pine pollen concentrations are <300 grains/cm^{-2} $year^{-1}$ at a distance of >10 km from the edge of a pine forest, between 500-1500 pollen grains collected from locations in forests where pines are present but scattered, and more than 2,000 grains/cm^{-2} $year^{-1}$ from sampling locations within a dense pine forest.

In summary, Dr. Hicks' chapter illustrates how pollen influx data from long-term pollen monitoring stations can be used as proxy data for summer temperature ranges and for determining the density of selected plant taxa. She notes that when pollen studies of finely laminated sediments, such as glacial varves, are studied, there is the potential for those pollen data to provide continuous records of changes in summer temperatures as well as changes in species density through time. This possibility sounds inviting, yet for many regions of the world it may be too difficult to obtain.

Overall, this book provides a valuable edition to our knowledge of palynology and provides a useful reference for those wanting to know more about the late Pleistocene and Holocene pollen studies conducted in the Balkan region of eastern Europe and more about the paleoenvironment of that general region. The book's only drawback is its pricy cost.

Vaughn M. Bryant, Jr.
Texas A&M University

PHOTOSHOP TIPS FOR PALYNOLOGY
By Steve Manchester, steven@flmnh.ufl.edu

Following is a summary of some procedures useful for preparing photographic halftone plates for journals with Adobe Photoshop™. These procedures are all available with the basic version of Photoshop Elements™, which is supplied free with many computers (available separately for less than $100 US), but are also present in the more expensive "professional" versions like Photoshop 7™. This narrative is written giving the key commands for PC computers. For MacIntosh version, everything is identical except that you need to use the the Option key instead of Alt key and Command/Apple key instead of Control key.

A few basic commands are given here, as these commands are used very frequently: Control Z reverses the last action; Control Y restores. The same actions can be achieved by clicking on successive positions in the History window. By repeatedly tapping Control Z, you can reverse up to 20 prior steps. Similarly, the History window allows you to retreat up to 20 steps (by default; can be increased or decreased).

Selecting procedures
Selecting all or part of an image can be useful for various tasks, like copying the area for pasting into another window, changing the darkness, contrast and/or sharpness of the defined area. Once an area is selected, you can move it about by mouse-dragging while holding down the control key, or by pressing the up and down arrows (which move the image one pixel each keystroke). Moving the arrow keys while holding down both the shift and control keys nudges the image faster (ten pixels per key stroke).

Rectangles, Squares, Circles. You can highlight a rectangular or elliptical area by activating the Marquee Tool (press shift-M one or two times, or click on top left choice on the tool window). Drag the mouse to form a rectangle or ellipse. If you want a perfectly equidimensional circle or square, hold down the alt key while dragging, or change the style setting of the tool from "normal" to "constrained aspect ratio." Circles generated in this way, and filled with white, can be repositioned to the lower left or right corner of each figure, for labeling with sequential numbers (1, 2, 3...) or letters (A, B, C). To select the entire rectangle of your window, as for copying or deleting, drag the rectangular marquee across the entire window, or more quickly, by pressing Control-A.

Free form selection can be done with the Lasso. (Press L to go quickly to that tool). If you don't like to look at the little rope icon as you move the mouse

around or if you have dificulty in locating the exact location of the drawing point, you can press Cap Lock to change the icon to a cross hair which may be preferable.

How to use magnetic lasso. Shift-L toggles through the three choices of lasso. Magnetic is a nice time-saver. It is worth noting that the magnetic lasso does not require you to hold the mouse button down and drag. Simply click the starting point, then continue to move the mouse around what you want to select; double click for closing at the end. Hitting the delete key will eliminate the last point of the selection should you want to back up and change course. The resulting selection will probably have some imperfections, but these are easily corrected by fine tuning with the normal lasso. Holding down shift key while dragging will add to the selection. Holding down the alt key will subtract.

Experiment also with Magic Wand tool, for highlighting (Press W to go quickly to that tool). You can add to existing selection by holding down shift key simultaneously. Sometimes this leaves a lot of specks unhighlighted, but you can eliminate these specks inside the selection by using the Smooth command, under Select Menu, Modify.

Feathering is important for softening the edges of overlays. After selecting, choose Feathering, under the Select menu, and set the number of pixels to be feathered. Quick keyboard access is Control-alt-D. Control D is useful for deselecting; Control-shift-D reselects the most recent selection; Control H hides the selection.

If you want to leave a some extra pixels around your selection to be sure you are not trimming away anything important, then "expand" the selection by a set number of pixels: Select Menu, Modify, Expand.

Image sizing
Images must be at the resolution and dimensions appropriate for the journal in which you plan to publish, usually at 300 or 400 dpi. (start larger though, in case some of the images will be scaled up; avoid empty magnification). Changing resolution will change also affect magnification, so be sure to keep a scale in the same image, for use in calculating the final magnification or preparing scale bars. Be careful about resolution. If you are labeling a series of plates with text (e.g., with figure numbers), note that all plates should first be adjusted to the final page size, and placed at the same resolution–otherwise the lettering will appear in different font sizes for each plate when printed.

For e-mailing images, jpeg copies can be used, but to be on safe side, always store a Tiff or photoshop (psd) backup. [Warning Note that when you open and close JPEG files, they may be automatically saved by the program to lower quality (assuming settings from a prior save command) when you close the file, unless you use the "Save AS" command].

Under resizing menu, choose Canvas Size if you want to add more working space around an image, as for adding new images to form a plate.

Also under the resizing menu, choose Image Size if you want to change the outer dimensions and/or resolution. Pay attention to the little check box labeled "Resample Image." If this is checked (on), then when you reduce size, or reduce resolution, the file size will go down (good), but the internal resolution will be lost, so that if you increase resolution or dimensions of the same image in a later session the program will simply interpolate intermediate grays, giving "empty magnification" (bad). If you leave "resample image"" unchecked, you will note that as image size is degreased, the Resolution increases (no data are lost and the image will remain the same file size).

Scaling and rotating images. Select the portion you wish to affect, then press Control-T. This creates an outline that can be rotated by dragging a corner around with the mouse, or stretched to increase size. If you use this method to adjust image size, be sure to hold down the shift key when dragging the corners in or out, so that width and length stay in proportion. Also you can rotate by specified number of degrees left or right, using Rotation pull down menu.

Image enhancement
Getting rid of specks, bubbles, hairs, etc. This uses the cloning (rubber stamp) tool. This feature is really amazing. Press S to switch to this tool or click on the Rubber Stamp tool). Then set brush type and size as desired. Option click on the part of the image you want to paint from, then move the mouse over the region that needs to be covered with the copied pixels.

Dodging and burning tools. Helpful for selectively lightening or darkening part of the image. Dodge tool (press letter O) lightens; Burn tool, press shift-O) darkens.

Alternatively, you can achieve similar results by highlighting certain parts of the image with the lasso, feathering them, and applying Levels adjustment (Control L.)

Adjust contrast and brightness of whole image or selected parts within it, using Levels adjustment (Control L). When multiple images will be printed together in a single plate, the contrast of individual prints should be adjusted so that they are visually consistent in contrast and brightness through out the plate. Be familiar also with white balance control: with the levels window open, observe the three ink-dropper icons. Click on the right-hand one (white color), then click on the lightest area of your image (e.g., the gray background that you would like to lighten). This will lighten the whole highlighted area, setting the spot on which you clicked as the maximum white. Experiment by clicking in different parts of the image. The same can be done with black (the left ink-dropper icon).

Make a new window for experiments: Control-A highlights existing window, Control-C copies it, Control-N makes new window of same size and specifications; Control-V inserts contents into new window., Control-V a second time inserts an identical layer over the top, useful in next step. This gives the same result as the Duplicate Image command under Edit menu, except that this procedure quickly overlays a second identical layer (see below).

Play with partial "equalize". This is very useful for contrast enhancement, for example of fossil leaves. If you simply "equalize" an image (found under Image Adjustment), the effect is usually too strong, but by using a partially transparent top layer, you can adjust the proportion of "equalize" to be used in your image. "Photoshop searches for the lightest and darkest color values in a selection. Then it maps the lightest color in all the color channels to white, maps the darkest color in the channels to black, and distributes the remaining colors to other brightness levels in an effort to evenly distribute pixels over the entire brightness spectrum" (D.McClelland 1998: Photoshop Bible, IDG Books).

Make two layers of the same image in a new window, by the method two paragraphs above. Equalize the top image (Image Menu, Image Adjustment, Equalize), then go to the Layers toolbar and move the Opacity selector back and forth to choose the best blend of the lower layer (not equalized) and the upper layer (equalized).

Remember you have two layers here. It may be that you want to use the equalization of the leaf area, but retain the less contrasty lower layer for the surrounding rock matrix. This can be done by selectively erasing with the eraser set to a brush size and opacity level that seems suitable. The finished product can be amalgamated into one final layer by pressing control-shift-E (or by using the Merge Visible command under Layers menu).

To make your own pattern, e.g. for filling in spaces of a geologic map or for special shading of a graph. Construct your own pattern, e.g., of stipple dots, diagonal lines, etc. in a new window. With that window active with your completed design, "Define Pattern" under edit window. Assign the pattern a name as requested. Subsequently the new pattern can be chosen with the "Fill" command, under edit menu.

Additional quick commands
B, go to paint brush
bracket left ([ )or bracket right ( ]). move through paint brushes in palette
C brings up the cropping tool
Control-alt-S Saves a copy.
Control-T Free Transform
T, go to text tool
E, go to eraser tool

References
D.McClelland 1998: Photoshop Bible, IDG Books
See also: http://www.adobe.com/products/tips/photoshop.html

I thank David M. Jarzen for improvements to an earlier draft of this text. If you have additional photoshop tricks, or corrections to the above, that you wish to share, please let me know.

THE XI INTERNATIONAL PALYNOLOGICAL CONGRESS GRANADA, SPAIN – 4 TO 9 JULY 2004
By Ana T. Romero.

AASP has kindly offered me this opportunity to tell you a little about the 11 IPC we are organising here in Granada. We have had a high level of pre-registrations from all over the world and feel confident that the quality of the contributions will assure the success of the conference. May I remind you that the deadline for registration without surcharge is 15 April 2004.

You can find more detailed information on our regularly updated web site www.11ipc.org. If you want other accommodation or cheaper prices, information about the pre- and post-conference tours and so on, the Technical Secretary can be contacted at eurocongres@eurocongres.es.

GRANTS FOR IPC GRANADA 2004

AASP SUPPORT FOR STUDENT PARTICIPATION IN IPC GRANADA, 2004

The American Association of Stratigraphic Palynologists (AASP) will provide limited travel and lodging support for students registered for the 11 IPC. An application form will appear on the AASP web site http://www.palynology.org after the deadline for abstracts, January 15, 2004.

Students who have submitted abstracts, and who supply documentation of their current student status may apply for up to $500 for travel support and up to $250 for food and lodging support in Granada. The deadline for receipt of the applications will be March 31, 2004. The travel-support applications will be judged competitively by the AASP Awards Committee. Up to 9 awards will be made. The same application will also make students eligible for food and lodging support.

The awards will be based competitively on the best student talks and posters during the meeting, judged by an ad hoc AASP Awards Committee. The students must supply the title, time, date, and location for their talk prior to the meeting.

11 IPC GRANTS

Some grants will be available for students and researchers who wish to attend the 11 International Palynologycal Congress. The grants will include the registration fees and accommodation in a University Hall designated by the organising committee. Deadline: January 15, 2004. More information at http://www.11ipc.org/content/06_grnts_t.htm

IFPS FINANCIAL AWARDS FOR XI IPC

The IFPS has established a fund to assist a selected number of doctoral students and established, but financially disadvantages researchers, to attend the 11th IPC. The award could, for example, be used to help fund accommodation, travel, registration, etc.
The IFPS awards should not be confused with either the AASP or the 11 IPC grants. Deadline: March 1, 2004. For further information see the IFPS website at http://www.geo.arizona.edu/palynology/ifps.html

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AASP SILENT AUCTION

By Eddie B. Robertson

Do you have treasures you could pass on to new homes? Someone will fire up for the extra loved or unloved reprints and volumes from your files and shelves. Begun in 2003, the Silent Auction raises funds for student travel to meetings. It is also an opportunity to meet new folks and to share the profession. **Bring something to Granada** – a few reprints will fit in any suitcase. Bring items to the Association Dinner. What will you bring? What old or new friends will you meet poring over the table?

AASP STUDENT SCHOLARSHIP

Deadline: March 31, 2003
www.palynology.org/content/scholar.html

The American Association of Stratigraphic Palynologists is pleased to announce its program of Student Scholarships to support studies in palynology. Currently, two scholarships for $1500 (US) each may be awarded annually, and a third award of $1500 may be given as The Cranwell Award. Ordinarily, the scholarships will be awarded to beginning graduate students, but advanced undergraduate students may also apply.

BASIS OF AWARDS: The qualification of the student, the originality and imagination evident in the proposed project, and the likelihood of significant contribution to the science of palynology are factors that will be weighed in selection of award winners. Previous winners of this award are eligible only if they are pursuing a different degree than the one they were pursuing when they received the previous award. AASP Scholarships are available to all students of palynology in all countries. Students need not be AASP members.

TO APPLY: Scholarship applications for the current year must be postmarked no later than March 31. Scholarship forms are available from AASP web site or from the Chair of the AASP Awards Committe: Professor Fred Rich, Department of Geology and Geography, P.O. Box 8149, Georgia Southern University Statesboro, GA 30460-8149 US. tel: (912) 681-5361 fax: (912) 681-0196, frich@gasou.edu

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AGENDA

2004

March, 21-26, **VII International Organization of Paleobotany Conference (IOP) in Bariloche, Argentina**. Website http://www.iopc2004.org

April 14-19, The 5th International Symposium on Eastern Mediterranean Geology (5ISEMG) will take place in Thessaloniki, Greece.
Its topics cover the entire range of earth sciences, focussing on the broader area of Eastern Mediterranean and its surroundings.

Extended abstracts (up to 4 pages) will be published for all accepted presentations (oral or poster).

The first circular has been released, and pre-registration has already begun. You can pre-register now by one of the following means: i) download and fill the preregistration form (www.geo.auth.gr/5thISEMG) and send it by email to 5thISEMG@geo.auth.gr or ii) send the filled pre-registration form by fax to +30.231.0998482. For more information contact: Web: http://www.geo.auth.gr/5thISEMG,

April, 18-25, American Association of Petroleum Geologist Annual Meeting, Dallas, Texas, USA. Website www.aapg.org.

May 14-16, The 21st Annual Mid-Continent Paleobotanical Colloquium, Norman, Oklahoma at the Sam Noble Oklahoma Museum of Natural History at the University of Oklahoma. Meeting organizers are Rick Lupia (rlupia@ou.edu) and Amy McClain (amcclain@ou.edu).
Web site www.snomnh.ou.edu/mpc2004/

July 4-9, 11th International Palynological Congress (IPC) in Granada, Spain.
Website www.11ipc.org/

July 31-August 5, Botany 2004, Botanical Society of America Annual Meeting, Snowbird Utah
Website www.botanyconference.org/
There is an excellent program for the Paleobotanical section this year. In addition to submitted papers, the Section will be sponsoring two symposia, a post-meeting fieldtrip, and the annual Paleobotanical Section Mixer and Banquet on the Monday evening, August 2. The symposia are entitled: *Discerning homologies: Gene expression, development and morphology*, and *A century of seed ferns: A symposium to celebrate paradigm shifts in the understanding of seed plant evolution*. The field trip (FT-15) will explore the Cretaceous and Eocene plants of eastern Utah, and will run from Thursday Aug. 5-Friday August 6th. It will be led by Lisa Boucher, University of Nebraska-Omaha email: boucher@unomaha.edu

August 20-28, The 32nd session of the International Geological Congress. "From the Mediterranean Area Toward a Global Geological Renaissance" Geology, Natural Hazards and Cultural Heritage, in Florence, Italy.
http://www.32igc.org or contact Chiara Manetti, Dipartimento di Scienze della Terra, Via La Pira, 4 - 50121 Firenze - ITALY, Phone/Fax: +39-055-2382146, E-mail: casaitalia@geo.unifi.it

November 7-10, Geological Society of America, Annual Meeting, Denver, Colorado, U.S.A. http://www.geosociety.org

November 7-10, XI Meeting on Paleobotany and Palynology (XI RPP), sponsored by the Asociación Latinoamericana de Paleobotánica y Palinología, Gramado, Rio Grande do Sul, Brazil. http://www.exatec.unisinos.br/rpp2004