

AMERICAN ASSOCIATION OF STRATIGRAPHIC PALYNOLOGISTS



J.B. Riding

NEWSLETTER



June 2007
Volume 40, Number 2



A.A.S.P. NEWSLETTER

Published Quarterly by the American Association of Stratigraphic Palynologists Inc.

June 2007 Volume 40, Number 2

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A.A.S.P.

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)
Professor Svein B. Manum (awarded 2002)
Professor Barrie Dale (awarded 2004)
Dr. David Wall (awarded 2004)
Dr. Robin Helby (awarded 2005)
Dr. Satish K. Srivastava (awarded 2006)

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)
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Dr. Tamara F. Vozzhennikova (elected 1990)
Professor Aural T. Cross (elected 1991)
Dr. Robert T. Clarke (awarded 2002)
Prof. Vaughn Bryant (awarded 2005)
Prof. Alfred Traverse (awarded 2005)

AASP Board of Directors Award recipient

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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)
Dr. David T. Pocknall (awarded 2005)
Dr. David K. Goodman (awarded 2005)
Prof. Owen K. Davis (awarded 2005)



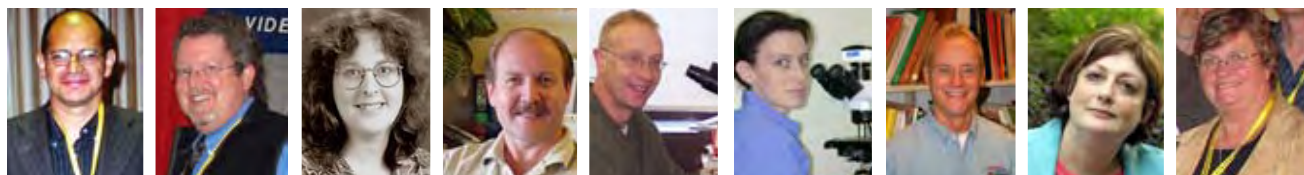
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Sophie Warny, Editor

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AASP BOOK REVIEW EDITOR

Reed Wicander, reed.wicander@cmich.edu

AASP WEBMASTER

Owen Davis, webmaster@palynology.org, website: <http://www.palynology.org>

AASP NEWSLETTER EDITOR

Sophie Warny, swarny@lsu.edu, Museum of Natural Science, Louisiana State University, 119 Foster Hall, Baton Rouge, 70803, Louisiana, USA.

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 **August 1**. 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 Carlos Jaramillo

The meeting in Panama is approaching very fast; deadline for abstracts is July 5. Please, send your abstract and registration if you have not done it already. We have sponsorships by BP, Chevron, ConocoPhillips, Exxon, and Statoil, that will allow us to give more grants to attend the meeting, specially to students. There are already two symposia, one on pollen morphology and phylogeny organized by David Jarzen, and the other on Cenozoic tropical vegetation dynamics organized by Vladimir Torres. We also have field trips to Barro Colorado Island, the Panama locks, and the canopy crane. We will also offer a free Sunday morning workshop, on analytical techniques for palynological analysis, using the free-share "R for Statistical Computing" software that can be downloaded from <http://www.r-project.org/>. The course will focus on the basics of using R, and how can you use it to perform several statistical analysis. There is room only for 15 people, on a first come, first served basis. To participate you only need to register by writing to aasp07@si.edu and bring your own laptop.

We will have a keynote speaker, Allen Herre, a world-expert on figs and fig-associated organisms, who will talk about the biodiversity in the tropics.

On March 31, at the mid year Board Meeting, I signed the LSU (Louisiana State University)- AASP Foundation Endowment agreement to support the AASP Center for Excellence in Palynology, an AASP Endowed Chair in Palynology, and an AASP Professorship at LSU. This is a milestone for our organization. After many years of hard labor by many members, AASP finally reached the necessary funds (\$600 K) to support an Endowed Chair and Cenex at LSU. This agreement will be used by LSU to apply for matching funds from LSU Board of Regents. In one or two years, if everything goes as planned, LSU will start an international search to fill the AASP Endowed Chair in Paleopalynology. Following the filling of that position, a new search will begin for the Endowed Professorship left vacant since John Wrenn's death. We have an extensive article by Ken Piel in this Newsletter's issue explaining the details of the agreement and the history of Cenex and the Endowed Chair, including all the people that have been involved in the process. Thanks to all of them, raising funds is not an easy task, especially when is done *ad honorem*. I hope that Cenex will become an international center for palynology, with many students and at the forefront of palynological research worldwide. The AASP Board proposed to create a new permanent committee of AASP, the AASP CENEX Committee, which will be the link between LSU and AASP. The Committee also will help to continue raising funds for Cenex that are very necessary for its growth during the next decade. You can read the proposed by-law amendment in this issue of the newsletter, and I hope you will find it satisfactory and will vote in favor. I see a bright future ahead of us for our discipline. Palynology is rocking!

See you in Panama!

Best,

Carlos

ELECTION TIME

AASP Secretary-Treasurer



Dr. Thomas D. Demchuk

....the palynological saga continues.....

Amoco had offered me a full-time job in their Houston office. They had recently consolidated their biostratigraphic operations in Houston and several of the senior staff did not wish to move from their home locations, primarily Tulsa. This resulted in

openings for several younger micropaleontologists: David Pocknall had been hired a short time before I arrived, and there were also new foraminifera and nannofossil specialists. For a young recently graduated palynologist in the midst of continued depressed oil prices, the job with Amoco was especially exciting.

I arrived in Houston on Saturday August 1st, 1992, after a 10 day drive from Calgary. The temperature was about 97 degrees and the relative humidity was about 97 percent. For a northern Alberta boy used to 30 below in the wintertime and daytime high temperatures equal to Houston overnight lows, the heat and oppressiveness was difficult to accept. Why in God's name would anyone want to live in this climate? Nonetheless, I had my new job duties and was able to escape the heat by hiding in air-conditioned facilities and cars.

I should go back a few months and describe my interview process with the many high-profile palynologists that Amoco employed at that time, many of whom I had the pleasure of meeting and chatting with at previous AASP meetings. Dick Hedlund and the late Don Engelhardt had retired, the late John Wrenn had just left for academia, but the current Amoco stable of palynologists was well-known. Don Benson was my

host, and the first night in Houston I was introduced to excellent Tex-Mex cuisine, something of short supply in northern Alberta. My most striking remembrance from my two-day interview was being introduced to and spending time with all the Amoco palynologists, in particular, Gordon Wood greeted me to his office by firing at me with his rubber dart gun, an arsenal that he added to as the years went by: the 30 minutes in his office on that day were spent talking about things that are better left off this page....only Gordon. Many of you I'm sure know of what I'm speaking. My two days of interviews introduced me to the unique personalities that I'm certain made up the rather large industry biostratigraphy groups of the time.

During my time at Amoco I had the pleasure of working on a few high-profile projects. Most pleasing was the opportunity to work with David Pocknall on the palynology of Trinidad. At the time, the Trinidad exploration group and the foram micropaleontologists on the project were a true pleasure to work with. I learned a lot about collecting, analyzing and integrating data from that project. Several palynologists I had peripheral dealings with, but they were part of my overall learning experience: David Wall, Don Benson, Len Eames, and of course the aforementioned Gordon Wood. Jeff Stein was the guru of graphic correlation and nothing was done to the Amoco database without his oversight. One of my larger projects was the Romanian Carpathian project where I had the opportunity to be tutored on dinoflagellate taxonomy and stratigraphy by Sarah Damassa who was brought into the company as a consultant. As a pollen/spore worker my knowledge of dinos was extremely limited and Sarah had to start from square one with her lessons.

Overall, as a wide-eyed recent graduate my four and a half years at Amoco were a remarkable learning experience, not only from the palynological standpoint but from the aspect of office politics and the manner in which large multi-national corporations operated. During my tenure at Amoco I survived 3 "downsizings/righsizings/layoffs": the biostratigraphy group which numbered 32 micropaleontologists in 1992, was only 13 when I left in 1997. I learned about other microfossil groups, sequence and seismic stratigraphy, and the exploration business, all of which prepared me greatly for my move to Conoco.

Of note, one observation that I must convey that I still believe today, is that palynologists are the best integrators of biostratigraphic data and have the greatest understanding of the utility of all aspects of biostratigraphic information. Perhaps it was just the strong personalities of the nanno and foram workers at Amoco, especially the nanno workers(!), but I learned to appreciate that no one person had all the answers and it took a multi-faceted integrated approach to solve the problem. A few of my foram and nanno colleagues at the time were not accepting of interpretations outside their own. As a young palynologist I bit my tongue on many occasions (how times have changed!); I wish I knew then what I know now, not only from a palynological standpoint but also from an understanding of human nature.

I am grateful for the opportunity that Amoco gave me, and grateful to all of the palynologists and other micropaleontologists who shepherded me through those years. The Amoco palynologists still remain my good friends, some more than others, and I thank them for all of their patience.

I am happy to serve AASP for yet another year as Secretary-Treasurer. Am I tired of these duties? Not quite yet and I know I still have the yearning to provide a service to the AASP membership. I will do my best to answer your membership concerns, and provide outstanding financial oversight to the AASP accounts. I look forward to a very exciting latter part of 2007, and a very exciting 2008.

Palynology Editor



James B. Riding is a palynologist/stratigrapher with the British Geological Survey based in Nottingham, England. He has over 25 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 presently include the palynology of Europe, Australasia, Antarctica, west Africa, the Americas, Russia and the Middle East, together with palynomorph provincialism, forensic palynology, paleoenvironmental palynology, palynomorph preparation techniques and the morphology, systematics and taxonomy of dinoflagellate cysts. Jim studied geology at the University of Leicester, before pursuing palynology by studying

the famous MSc course at the University of Sheffield. He left Sheffield for BGS in 1980, 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 has visited the Antarctic Peninsula for fieldwork tours during the Austral summers of 1989 and 2006. The most recent field season was spent on Seymour Island. He undertook a secondment to Geoscience Australia in Canberra, Australia in 1999-2000, 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 2003. He served as a Director-at-Large of AASP between 1999 and 2001, was President in 2003 and became Managing Editor in 2004.



Michael S. Zavada was born and raised in Bridgeport, Connecticut. He received his B.S. and M.S. degree in Botany / Palynology from Arizona State University, Tempe. He received a B.A. in Slavic Languages, and a Ph.D. in Ecology and Evolutionary Biology from the

University of Connecticut, Storrs. He spent one year as a Fulbright Scholar in Skopje, Macedonia at the Geologic Institute, and the Center for Foreign Languages. He did post-doctoral work at Indiana University, Bloomington, and Ohio State University, Columbus. He has served on the faculties of The University of the Witwatersrand, Johannesburg, South Africa, The University of Louisiana-Lafayette, was Professor and Chairman of the Department of Biology at Providence College, Providence, RI, and is currently the Chairman of Biological Sciences at East Tennessee State University and a member of the Center of Excellence in Paleontology. His field research has taken him throughout North America, South America, and Africa, including Madagascar. He has received over \$ 1.5 million in grants including grants from the National Science Foundation, National Institute of Health, NASA, American Philosophical Society, and National Geographic Society. He has published over 70 papers.

His research interests include elucidating the time and place of origin of the angiosperms. Pollen has a number of characteristics for track-

ing the time, place and early diversification of a variety of taxonomic groups. He has a broad approach in evaluating the taxonomic significance of these pollen characters and his data base includes ultrastructural studies (light, scanning electron and transmission electron microscopy) of the extant primitive angiosperms (e.g., basal angiosperms, Hamamelidae), dispersed fossil pollen of gymnosperm and angiosperm affinity from five of the seven continents, and pollen found in fossilized reproductive structures of various gymnosperm, pteridosperm and angiosperm taxa of the Permian, Mesozoic and Cenozoic. He is also interested in the functional significance of pollen characters. This may provide insight into the selective pressures which brought about angiosperm pollen characters. This area of his research has been more empirical, and has taken him into disciplines such as the physical sciences (engineering and geosciences), pollination and reproductive biology (particular angiosperm self - incompatibility), plant physiology, and development. Another area of investigation that has grown out of the ultrastructural work is an interest in the floristic development in the fynbos of South Africa, and the flora of Madagascar. Preliminary data for Madagascar suggest that this unique flora is a result of millions of years of development, and human impact on this flora will be irrevocable. He has an ongoing interest in ethnobotany, in paleo- and plant ecology, lichenology, and the application of paleobotany and palynology to archeology, and aerobiology.



Fred Rich is Professor of Geology at Georgia Southern University, and Regional co-PI on a n NSF Math-Science Partnership grant known as the Partnership for Reform in Science and Mathematics (PRISM). He earned his BS in geology from the

University of Wisconsin in 1973, and a Ph.D. from

Penn State in 1979.

He is certainly no stranger to AASP, having been a member since the 70's, and having served as President-Elect and, then, President in 1999-2000; he continues to be the organizational representative to the American Geological Institute. The eclectic nature of AASP's membership, and the organization's willingness to adapt to new economic, intellectual, and technical realities make it the kind of organization he is fond of. He has been a strong supporter of the

ties with the American Geological Institute and the Geological Society of America, believing that small organizations are doomed to extinction unless they can ally themselves with larger organizations that have the financial and political clout to place the earth and life sciences in the front row of the myriad interest groups that vie for the public eye, and support.

Current research interests continue to include the Quaternary geology and paleoecology of the Georgia coast. Rich edited, and otherwise had a hand in writing the fieldguide for the Southeastern Section of the Geological Society of America annual meeting. The group convened in Savannah in late March,

2007, and the fieldguide gave the many authors opportunities to up-date the fascinating array of research projects that have been in progress in this region for more than 20 years. Some members of AASP will remember the annual AASP held in Savannah in 1999, as well as a trip to the Okefenokee Swamp that Fred lead. Data continue to pile up, in spite of the fact that Rich has to devote most of his time to the PRISM program. With only a year and a half left on that, however, the time is right to start planning a true rejuvenation of palynological research in such colorful places as the Ocmulgee River floodplain in Georgia, and the Carizzo Plain of southern California.

Directors-at-Large



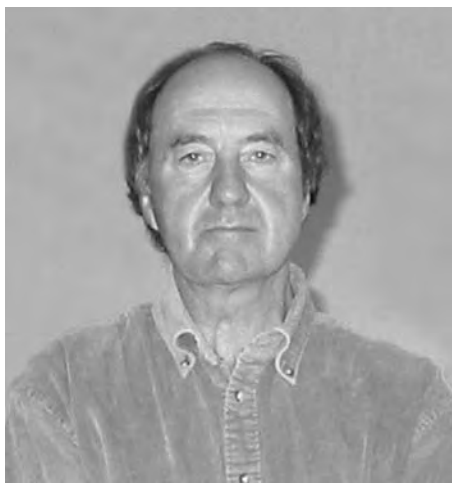
Dawn Marshall is a Doctoral Candidate and the Associate Director of the Palynology Laboratory at Texas A & M University. Her responsibilities include

instruction and lab maintenance. She also lectured as an instructor at Texas A&M University and was responsible for maintaining distance learning modules. She held positions as a lab instructor in the Department of Biology with the responsibility for four laboratory classes concurrently. In addition, she developed curricula and taught Anthropology at the high school level at St. Michael's Academy, College Station, TX, and created laboratory manuals including power point lectures and instructed laboratory methodologies at the Palynological Laboratory at Texas A&M University. Her interests are in the field of Quaternary Palynology with an emphasis on Palynological processing methodologies,

which must be specifically tailored to a sample based on considerations such as sample age, matrix, and research objectives. Archaeological applications include collection of pollen from amphora, extraction of pollen from unique media, such as resin, wax and other residues frequently found associated with underwater archaeology, paleonutrition, paleoecology and the use of statistics in archaeological palynology. She has terrestrial archaeology field experience having started out at the University of Wisconsin, Madison, where she received a B.S. in Anthropology under the tutelage of Dr. James B. Stoltman and continued field work for four summers with the Department of Natural Resources and the Wisconsin Historical Society. Her master's thesis was entitled *Pollen Analysis of Late 1800 Privy Deposits from Houston, TX*. She is currently completing a PhD. in palynological archaeology, the topics of which are myriad with a goal of educating and reaching field archaeologists and helping them to understand what palynology can accomplish, such as practical applications of palynological research, and sampling methods that maximize the significance of the palynological evidence at an archaeological site. Her second goal in choosing this topic is a desire to provide a

primer for the new palynologists on the horizon. Many good references exist for the beginning palynologist, however, for the palynologist with applications towards archaeology, reference manuals are limited. She participated in Summer Enrichment programs at Texas A&M which are aimed at low income and other high risk high school students to promote higher education. In keeping with this endeavor, she participated and received a grant from the Teaching Improvement and

Education Schemes in conjunction with research being conducted by Dr. Vaughn Bryant. The Virtual Field Trip Network was developed as part of this grant, along with a website 'The Virtual Apiary' she created. Dawn has conducted field work in Romania and Bolivia and processed samples from the Mediterranean region, Black Sea, Hudson Bay, New York, Alaska, California, the American Southwest, Texas, and Louisiana.



Barrie Dale

is a professor at the Geo Sciences Department, University of Oslo, Norway, teaching palynology in the introduc-

tory course in micropaleontology, and its applications in environmental studies at undergraduate and graduate student levels. He has more than forty years experience in research and teaching in palynology and related subjects, and has been a member of AASP almost since its inception.

His main research interests are trying to understand the basic ecological factors affecting dinoflagellate cyst assemblages in the presentday ocean, modelling these, and developing applications that allow paleoenvironmental interpretations of

fossil assemblages (statistical modelling of ecological signals, SMES). Research projects are about equally divided between "real paleontology" - applying SMES to cyst assemblages from industrial datasets from Mesozoic/Cenozoic basins, in cooperation with industry, and "environmental paleontology" - using the cysts as indicators of climate change, eutrophication, etc., on time scales of tens to hundreds of years. The working philosophy that continues to inspire his professional engagement is that there is so much more information to be gained from those paly-slides than we have generally managed to show the world so far!

Palynology is a fascinating subject with the potential for creating exciting science from the interphasing of biology/geology/archaeology/climatology - and a range of other "ologies". As with other areas of science, the future of palynology will be determined by its ability to strike the appropriate balance between basic and applied research. We need to publicise our successful applications, whether they be helping industry find oil or archaeolo-

gists to find Viking ships, but we also need to constantly question the way we do our science, in the search for more basic understanding of the tools in hand.

Barrie Dale, born 12.04.40, is a native of Sheffield, England, where he received a bare minimum of education culminating in a PhD in Geology from The Open University (many years later).

He “served his apprenticeship” as the first palynology technician at Sheffield University, worked for two years with UN community development work in Greece, nearly ten years at the Woods Hole Oceanographic Institution, USA, (together with David Wall “discovering” some of the first living dinoflagellate cysts and linking them to their fossil record), before moving to Norway in 1974. His career at the University

of Oslo included a visiting scientist position in the Marine biology Department, studying living plankton ecology prior to his position in the Geology Department (now Geo Sciences).

In 2004 he received the AASP Medal for Scientific Excellence.

He is very happily married to Amy Dale (a palynology consultant), and they have two daughters, 12 and 14 years old, whose interest in the natural sciences is presently concentrated on horses.



Yow-yuh Chen

is a stratigraphic palynologist at ExxonMobil Exploration Company, Houston, Texas. His responsibilities include palynological and other micro-paleontological examinations

and analyses, interpretation of ages and paleoenvironments, and geological integration of the biostratigraphic data with lithostratigraphic and seismic data. He has over 30 years of industry experience working with materials from all over the

world and all throughout the geological column.

He received his Ph. D in geosciences in 1978 from the University of Arizona, Tucson, Arizona. He is a member of both AASP since 32 years, and of AAPG since 27 years. His interests are in the field of pre-Quaternary Palynology with an emphasis on Mesozoic and Cenozoic Palynology and paleoenvironments.

He is honored to be nominated as one of the candidates for the AASP's 2007 director-at-large election. After more than 30 years of associating and participating in many of the AASP's activities and events, he feels that this is the least he could do to give back to the society and to ascertain its growth.

MANAGING EDITOR'S REPORT...

Articles for Palynology Volume 31 for 2007 are currently at various stages of editing. We now have four articles which are typeset, or are in the process of being typeset. I am editing three manuscripts for the final time. One article is with reviewers, and four manuscripts are with the authors following the review process. So, I am very pleased to report that it looks as if volume 31 will be a very full one! We anticipate that volume 31 will be published on time, i.e. during November/December 2007. In addition to the technical articles, this volume will also contain the award citation for Satish Srivastava which was presented at the Philadelphia meeting last October, and the AASP group photograph from that meeting.

The rate of manuscript submissions continues to be relatively high. I would again like to record my sincere thanks to all the many reviewers who have assessed manuscripts for me; your efforts are greatly appreciated.

Jim Riding (jbri@bgs.ac.uk)
Managing Editor
May 2007

DAVID BATTEN RECEIVES THE JONGMANS MEDAL

*International Organisation
of Palaeobotany*



AASP Member David J. Batten of the University of Manchester was awarded the Jongmans Medal at the Seventh European Palaeobotanical and Palynological Conference, held in Prague, Czech Republic, during September 2006. This is only the fourth time this medal has been presented. It was instigated in 1994 by the Dutch Foundation of Geology and Palaeontology to honour outstanding earth scientists and to commemorate the life and work of Professor W. F. Jongmans. Another palynologist, Maurice Streeel, received the Jongmans Medal in 1998.

The award of the Jongmans Medal to David is in recognition of his long and varied career which has included spells at Robertson Research, BP, and the Universities of Aberdeen, Aberystwyth, and Manchester. David's principal research interest is the palynology of the Cretaceous, but has also worked in other areas such as organic maturation, palynofacies, palaeobotany, and reworking. He is also a seasoned editor, and has been editor-in-chief of both Cretaceous Research and Palaeontology.

A full account of the award of David's medal can be found in Newsletter 81 of the International Organisation of Palaeobotany (<http://www.palaeobotany.org/index.php>). There is currently a direct link on the IOP website homepage to the article. Many congratulations to David from all members of AASP on this prestigious award!

Jim Riding

Environmental Archaeology

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MANEY

FROM THE DESK OF THE AASP SECRETARY-TREASURER

REPORT FROM THE AASP MID-YEAR MEETING

I am happy to present to the general AASP membership, the figures outlined at the recent AASP Board of Directors mid-year meeting held in Houston on March 31st, 2007.

Treasurer's Report

As of March 31st, total AASP assets were US\$89,867.45. This number did not include a few items such as outstanding checks to be cashed, did not include printing and postage costs for Palynology v.30, and did not include deposits such as the recent royalty check from Geoscience World. All being said, the AASP finances are sound and the Board is looking at additional avenues for sponsoring student research and travel to meetings, and also sponsoring meetings of general interest to the AASP membership. Of significant note, the decision to transfer our mutual fund portfolio to a different investment firm has paid significant dividends, and additional funds will be utilized for AASP activities of benefit to the membership.

Secretary's Report

At the time of the mid-year meeting, AASP membership numbers stood at 535: this included 390 Individual members, 56 Retired status members, and 89 Institutional members. We currently have 6 institutional members who receive complimentary copies of the Newsletter, and one publishing firm that receives a complimentary copy of Palynology for abstract documentation and dissemination. This total membership number is down 17 members from that reported at the mid-year meeting last year.

**Of significance, at the time of writing this article, 86 members have not paid their dues for the year 2007.
(see note on page 23 for details on how to renew)**

This is an extremely frightening number and I urge all members who are reading this Newsletter to ensure their membership is paid up. If your membership is in arrears, you would have received several notifications via e-mail and snail mail. Another notification was recently sent out, and Board members have been contacting those people not paid up. Your support of the Association is greatly appreciated and your dues significantly advance the goals of the Association and aid student research and participation. Please note that if you have not paid your 2007 dues, you will not receive a ballot to vote in the upcoming AASP election. Additionally, this is final Newsletter you will receive notification for until dues are paid. If you believe your membership is in question, please feel free to contact me at your earliest convenience.

If anyone wishes to investigate details of the recent Secretary-Treasurer's report I will be happy to pass that along. As per the by-laws, the AASP finances will be audited in the very near future.

I look forward to serving the AASP membership through the year 2007.

Respectfully submitted,

Dr. Thomas D. Demchuk, AASP Secretary-Treasurer

FORENSIC BOTANY

PRINCIPLES AND APPLICATIONS TO
CRIMINAL CASEWORK

EDITED BY
HEATHER MILLER COYLE

 CRC PRESS

A Book Review by:

David M. Jarzen, Florida Museum of Natural History,
University of Florida, Gainesville, FL. 32611

"I am glad of all details, whether they seem to you to be relevant or not." Sherlock Holmes in The Adventure of the Copper Beeches.

Anyone reading the past few AASP Newsletters, must be struck with the fact that forensic sciences, and in particular forensic palynology, have received a fair bit of coverage. The work of Dallas Mildenhall, Lynne Milne and Vaughn Bryant, among others, have paved the way for a better appreciation of the utility of palynology in aiding criminal investigations. Forensic palynology is one part of a larger science—forensic botany.

Heather Miller Coyle has collected the contributions of 20 authors and published *Forensic Botany: Principles and Applications to Criminal Casework*. The book is written for a general audi-

ence, people involved with the science of forensics, and approaches each chapter with basic, easy-to-read summaries of relevant topics.

The first six chapters of the book cover plant biology, structure and function of plants, plant diversity and basic or fundamental plant genetics and molecular biology. The chapter on plant biology provides a quick review of plant morphology, anatomy, systematics and ecology, intended for the non-botanical, forensic scientist. This review attempts to simplify plant classification schemes by categorizing plants into functional or practical groups as herbs, spices, fruit-bearing trees, landscape plants etc. Although this grouping is quite artificial, it allows the crime scene investigator to better understand the nature of the botanical evidence in terms of plant usage.

Chapters eight through ten are concerned with the use of DNA in forensic science, and in particular the identification of plants, fungi and selected microorganisms through DNA analysis. As in most of the chapters, the DNA chapters cite several case studies in which plant DNA evidence has been used successfully in forensic investigations. The importance today in using DNA analysis as evidence in court cases is now well accepted. The recent court decision as to the father of Anna Nicole Smith's baby clearly demonstrates the court acceptance of DNA results. But care must be taken in gathering the evidence which may eventually be used in DNA analysis, as was seen in the handling of the evidence gathered in the O.J. Simpson and JonBenet Ramsey

Forensic Botany: Principles and Applications to Criminal Casework. Heather Miller Coyle (editor). CRC Press LLC, New York, 318 pp., illus., bibliographic references, glossary, ISBN: 0-8493-1529-8. (\$132.95 Amazon.com) (Hardcover), 2005.

homicide cases. DNA analysis will no doubt continue to play an important part in crime scene investigations, and with increased interest in the techniques will come an increase in the growth of laboratories equipped to perform the analyses.



Lynne Milne, Vaughn Bryant and Dallas Mildenhall collaborated to contribute the material for Chapter 14, on Forensic Palynology. For AASP readers, this is the chapter in the book most worthy of our attention. Again, as in all chapters, the authors have introduced their topic in a concise and easy-to-read format that provides the very basics of palynology and its use in crime scenes investigations. The first part of this chapter outlines the physical characteristics of pollen and spores, including size, shape, sculpture apertures and wall composition and structure. This introduction provides a smart review, well written and necessary for a better understanding for the rest of the chapter. Milne, Bryant and Mildenhall then proceed with a description of pollination mechanisms and the importance of each in the amounts of pollen produced, distance traveled to or from a crime scene, and pollen preservation—all factors relative to crime scene evidence. Several case histories are provided as examples of how pollen evidence has been used as a tool in forensic science. The clever titles for many of the case studies spark curiosity in the reader and encourage attention. Case Histories as “Muddy Motorbike, Algal Assault, Canned by Cannabis Pollen, Hobbled by Hypericum, Nothofagus Noticed, and Sheepish Sale,” led me into reading the details of how the utility and nature of pollen and spores may and have been used in solving crimes. Unlike several of the other chapters in this book, the illustrations here, both black and white and color are reproduced in a clean, sharp, and properly exposed manner. At the risk of sounding somewhat biased, the chapter on Forensic Palynology is well done and the authors are to be congratulated. They present a detailed yet concise account of our science and its applications to the science of forensics in only 35 pages!

The book concludes with two appendices and a glossary of terms used in forensics. Appendix A is a detailed and extensive checklist of considerations in using botanical evidence in crime investigations. The forensic scientist must consider the gathering of evidence at the crime scene including sample collection techniques, sample storage, and transfer back to the laboratory for study. At the laboratory the forensic scientist must consider the storage, custody procedures, microscopic examination, identification of plant taxa, DNA extraction, and precision of procedures. In the court room the forensic scientist must provide a report of findings and conclusions, provide opinions, predictions, and maintain a high degree of confidence in the forensic work performed. I can still recall vividly at the College Station AASP meeting (1994), Dallas Mildenhall providing a demonstration of a court scene in which a defense attorney (portrayed by Dallas) would “drill” the palynologist in an attempt to discredit the information the palynologist provided the prosecuting attorney. Dallas made the portrayal so real, I felt that I would not stand up well in a court, where my testimony could and would be “torn apart” and where I would need to prove that my “findings” were the only possible outcome. I sincerely respect Dallas and other palynologists who have withstood the cross examination procedures of lawyers.

Appendix B is a glossary of mostly botanical terms, again written in very straightforward terminology, an approach intended not to scare off the non-botanist with terms like “apomixis, collenchyma, eucaryotes, and suberin.”

My only negative concerns about the book are few. Many of the photographs, especially those in Chapter 1, are too dark for proper viewing. Figure 1.2 for example is a black and white, close up photograph of the flower of Dahlia, which is barely discernable at all. Presumably in an effort to save publication cost, the color figures are grouped together and occur isolated from their respective chapters. This grouping unfortunately occurs within the

pages of the Forensic Palynology (Chapter 14), creating a somewhat disrupted read for that chapter.

Two other, recently published books cover aspects of forensic botany that may be of interest to palynologists. Walker (2005) covers entomological and palynological evidence as tools used in crime-solving, and this year saw the publication of the "Handbook of Forensic Botany" (Bock & Norris, 2007). These books are sound indications that the science of forensic botany and the application of palynology are important tools, heralding in a new era of research and investigation.

Forensic Botany: Principles and Applications to Criminal Case-work is packed with details--details that forensic scientists must note and perhaps use in their crime scene investigations. The details may provide the "clues" needed to solve the mystery often surrounding crimes. Details are sometimes the trivial information that become so important in the future. I hope I did not leave out an important detail in this review.



David M. Jarzen

"Has anything escaped me? I trust that there is nothing of consequence which I have overlooked?" Doctor Watson in "The Hound of the Baskervilles."

References Cited

Bock, J.H. and Norris, D.O. 2007. Handbook of Forensic Botany. Humana Press, Totowa, New Jersey, 300 pp.

Walker, M. 2005. *Entomology And Palynology: Evidence from the Natural World (Forensics: the Science of Crime-Solving)*. Mason Crest Publishers, Broomall, PA, 112 pp.

Farewell to Dr. Joey Coetzee



Drs. Scott and Coetzee

Joey Coetzee, a well-known African palynologist, passed away on the 28th of April 2007. She was the author of one of the most important papers on the Late Quaternary of the continent. She was the first to show that vegetation zones differed markedly during the last glacial period in the tropics (Coetzee, 1967). Further, she traced the origin of the Cape Fynbos Biome during the Tertiary period in a number of papers, linking it with global cooling and Antarctic glacial history (e.g., Coetzee, 1978; Coetzee and Muller, 1984).

References.

Coetzee, J.A. 1967. Pollen analytical studies in east and southern Africa. In E.M. van Zinderen Bakker (ed.). *Palaeoecology of Africa* 3, AA Balkema, Cape Town 1-146.

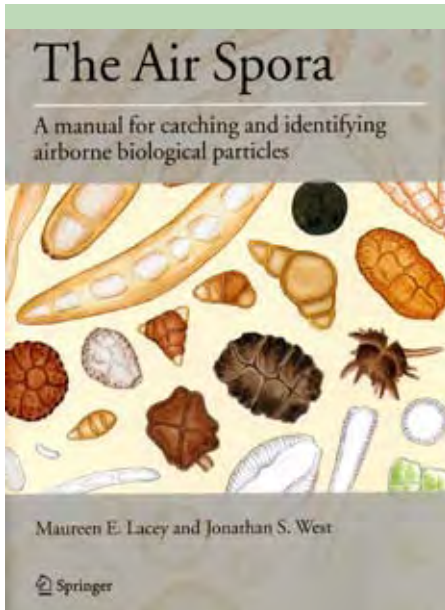
Coetzee, J. A. 1978. Climatic and Biological changes in south-western Africa during the Late Cainozoic. *Palaeoecology of Africa* 10: 13-29.

Coetzee, J. A.;Muller, J. 1984. The phytogeographic significance of some extinct Gondwana pollen types from the Tertiary of the Southwestern Cape (South Africa). *Annals of the Missouri Botanical Gardens* 71(4): 1088-1099.

Yours sincerely, Louis Scott

The Air Spora:

A manual for catching and identifying airborne biological particles.



**By Maureen E. Lacey and
Jonathan S. West**

**Springer, P.O. Box 17,3300 AA
Dordrecht, The Netherlands 156
pp., illus (B & W, Color), glossary,
index. ISBN-100-387-30252-2
(HB). (\$125.00). 2006.**

Pollen collection or trapping for the purpose of reporting daily or weekly pollen and spore counts, is a common practice today. Many newspapers run graphs or charts of the "total pollen counts" for use by allergy sufferers, allergists or others interested in knowing the relative or absolute pollen count within a given volume of air.

Lacey and West have written a detailed account of the history and practices used today in pollen trapping. Their book begins with a short, but detailed, history of the study of airborne particles and their "aerobiology pathway." Particles progress through different stages from their source to the effect they have when they eventually settle out of the atmosphere. Particles are released, dispersed, are eventually deposited, and finally have impact (allergy, sedimentation, fossilization, etc.). These stages of particle behavior are important factors in how and why air samples are taken.

Chapter 3 covers the various techniques used today in collecting pollen, spores or other airborne particles. These techniques include simple passive trapping (sticky slides) to the sophisticated and universally employed Burkard™ trap. Chapter 4 is devoted entirely to describing in detail, the operation of the Burkard trap. The Burkard trap is what we use at the Florida Museum of Natural History, Gainesville, Florida. We have monitored the daily flow and capture of airborne particles for the last 7 years (see photos), and have supplied our results to the local newspaper, doctors and allergists.

The Burkard seven-day recording volumetric spore trap is a remarkable instrument in that it records the flow of particles in the air for a seven day period, captures the data on "sticky tape" that can be cut to apply to the surface of a standard microscope slide for the purpose of making counts of the particles. These counts are used to report pollen and spore, relative or absolute, abundance information to doctors and allergy sufferers. The authors note that careful, clean work and consistent data recording are necessary in maintaining a successful pollen and spore recording station.

What I found to be of special interest in this book is the inclusion in chapter 5 of a section on the use of a microscope.

Jarzen and David Dilcher change the tape on the Burkard pollen trap. Photo credit Jeff Gage.



Professor Dilcher explains the operation of the Burkard pollen trap to students at the FLMNH. Photo credit D.M. Jarzen. David



Many of us have been using microscopes for so long, that the basics may have escaped our attention. Try teaching the principles of microscopy or the methods of calibrating the scale divisions of an eyepiece graticule to a student and you may quickly see the need for a clear and well-diagramed explanation as that found in this book. Lacey and West have illustrated and described the methods of calibration, the use of the stage micrometer, as well as the basic use of a microscope in a well-illustrated and easily understood manner.

Chapter 7 begins a series of identifications of airborne particles, and includes some very well-drawn paintings of common airborne pollen grains, spores of ferns and fungi, and a plate of 32 figures of "other" miscellaneous particles that one may encounter in air sampling. These miscellaneous particles include insect hairs, moth and butterfly wing scales, soil particles, sand, feather segments, etc. Although the pollen and spores are illustrations of UK plant taxa, many can be recognized as similar to North American taxa (e.g. *Juglans*, *Carya*, *Quercus*, *Fagus*, *Ambrosia*, *Tilia* etc.). This should not discourage the use of this book by North American palynologists or allergists.

NOTE: In the USA, The American Academy of Allergy, Asthma & Immunology (AAAAI) is the professional organization representing allergists, asthma specialists, clinical immunologists, allied health professionals, and individual members through research and clinical work on allergies. They are largely responsible for monitoring pollen and spore counts across the country. More detailed information is given at their website: <http://www.aaaai.org/>

The book is softbound with hidden O-wire binding, and printed on heavy semi-glossy paper. There are 12 colored plates, with 35 to 75 figures per plate. The several plates with fungal spores are very well done and include Latin binomials. The authors have supplied an appendix of recipes for the various mounting media used to coat slides and sticky tape, and templates of forms used in making counts of particles from selected traps and microscope scans. A glossary and extensive reference section complete the book.

I recommend this book to those actively running or thinking of running a pollen and spore trapping program. It will also be of

value to doctors, allergists, and those teaching the basics of palynology, wishing to include a lecture or two on air spora.

David M. Jarzen
Florida Museum of Natural History

DINOQUA

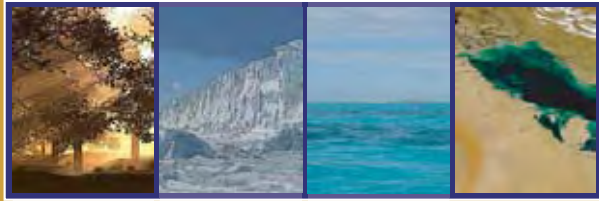
At the workshops on dinoflagellates and their cysts: their ecology and databases for palaeoenvironmental reconstructions in 2005 (Liverpool) and 2006 (Copenhagen), the participants discussed how to establish a more formal group. The outcome became an association called "the Quaternary Dinoflagellate Cyst Association (DINOQUA)."

The Association focusses on the science of Quaternary dinoflagellates and their cysts. Today DINOQUA consist of about 30 world-wide members. DINOQUA will be run by an executive comprising an elected Board. DINOQUA welcomes new individuals as members who are interested in the science of Quaternary dinoflagellates and their cysts. DINOQUA communicates primarily through e-mails and a website. The DINOQUA website is intended as a resource for DINOQUA members and anyone else interested in Quaternary dinoflagellates and their cysts. The DINOQUA website is founded by GEUS (www.geus.dk).

Website: www.dinoqua.org

Niels Poulsen (G E U S @ www.geus.dk)

The *Urbino Summer School in Paleoclimatology* presents Past Global Change Reconstruction and Modelling Techniques



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Tim White Pennsylvania State University
Scott Wing Smithsonian Inst. Washington DC
James Zachos UC Santa Cruz
Patrizia Ziveri Univ. Autònoma de Barcelona
Karin Zonneveld University of Bremen

Organization and coordination

Simone Galeotti
University of Urbino
s.galeotti@uniurb.it

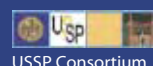
Henk Brinkhuis
Utrecht University
H.Brinkhuis@bio.uu.nl

Stephen Schellenberg
San Diego State University
schellenberg@geology.sdsu.edu

Roderik van de Wal
IMAU Utrecht
r.s.w.vandewal@phys.uu.nl



Università di Urbino



STARCH

In the fall of 1998 researchers at the Australian Museum in Sydney formed the Ancient Starch Research Group and then held a conference and workshop at the museum. This might not sound inviting nor important to most people, but it represented a significant effort to collect the world's leading experts involved in the search for, identification of, and interpretation of preserved starch grains recovered from archaeological sites. At the time few researchers even knew about starch research and thus less than a dozen scientists attended the initial conference. A few more attended the second meeting held in 2000. The result of these two conferences was a collaborative effort to write a starch manual and a "call to arms" alerting archaeologists everywhere about the importance of this new field of research.

This book, edited by Torrence and Barton, includes chapters that cover the latest techniques in "how to recover starch grains" from ancient artifacts and from archaeological sediments, "how to identify and classify" ancient starch grains, the importance of understanding "the taphonomy" of starch grains, "how to make reference collections" of starch grains, an review of "the historical background" of this field of research, several chapters that examine "the biology of starch," and a final chapter on the current and "future potential" that starch research holds for archaeology and how starch research will help us gain new insights into the origins, spread, and use of native plants and cultigens.

There is no question about the importance of starch research nor about the startling new insights starch grains are bringing to the field of archaeology. It is providing all of us with a new window into our understanding of the past. During the past few weeks Linda Perry and her co-authors (2007: *Science* Vol 315:986-988) made international headlines when they reported their discovery of starch grains from chili peppers in New World archaeological soils. Other plant evidence, including seeds, fruits, charcoal, and pollen from chilies has eluded archaeologists for decades because these remains are rarely preserved in semi-tropical and tropical soils. However, starch grains *are preserved* in many types of soils and this team of researchers (Perry et. al) used starch evidence to reveal that chili peppers originated in Bolivia, South America, were domesticated very early (before 6,000 BP), and then the use of chilies spread rapidly as a cultigen to Central America, and finally throughout the islands of the Caribbean. New World chili peppers, which are now such an important part of the cuisine of Europe and Asia, were among the first plants brought back from the New World by Columbus.

Last year Linda Perry et. al (2006: *Nature* Vol 440 No. 2:76-79) used records of starch grains and phytoliths in archaeological soils to expand the spread and use of early maize in the southern highlands of Peru to before 4,000 BP; nearly a millennium earlier than previously suspected. In other regions of the world, starch researchers are also rewriting the history books about how and

Ancient Starch Research. Robin Torrence and Huw J. Barton (editors). Left Coast Press, Walnut Creek, California. 256 pp., illus., biblio., index, ISBN: 1-59874-018-0. (\$69.95; £ 43.00) (hardback) 2006.



when various cultigens and plants were being used or grown. Two recently submitted manuscripts to the *Journal of Archaeological Science* by Mark Horrocks report the discovery of starch grains in archaeological soils of the Fiji Islands and Pitcairn Island. Horrocks' discovery of 3,000 year-old taro (*Colocasia esculenta*) and yam (*Dioscorea esculenta*) starch grains at archaeological sites in the Fiji Islands proved that early Lipita cultures living on those islands enjoyed a horticultural economy rather than being strictly foragers, which had been listed as being their method of subsistence. At Pitcairn Island, of *HMS Bounty* fame, Horrocks and Weisler recovered starch grains of both taro and sweet potatoes (*Ipomea* sp.) in archaeological deposits. They also believe that the starch grains are most probably from the domesticated species of sweet potato (*I. batatas*), but poor preservation makes that precise identification less certain. Nevertheless, Horrocks and Weisler believe that their starch discovery confirms that early Polynesians brought cultigens with them when they first occupied Pitcairn Island around AD 1400. They also believe that Polynesians may have arrived even be-

fore AD 1400, but thus far radiocarbon dating has not confirmed this, nor have the researchers been able to find well preserved starch remains in earlier stratigraphic levels at sites. Both problems, they argue, are the result of poor preservation rather than an absence of early cultural occupation.

During the past several years there have been a growing number of published articles and submitted manuscripts illustrating the search for, and recovery, of starch grains in archaeological sites all over the world. Starch grains are now being search for in soils, on the residue stuck to ancient pot sherds, inside amphorae, on the cutting edges of stone and bone tools, on stone artifacts, in bedrock mortars and on grinding stone surfaces, in coprolites left behind by ancient cultures, in the dental calculus found on the teeth of ancient burials, and from acetate peels taken from the surfaces of items suspected of containing starch grain residues. Now that archaeologists are becoming aware of the importance of starch grains, many of them are taking greater care in the recovery and storage of excavated materials. Like many excavators, I am guilty of probably discarding potential starch evidence at a number of sites where those data might have changed our knowledge and interpretations of past cultures. For decades I, like many of my colleagues, instructed workers and students "to wash stone artifacts carefully until clean." The only exceptions I made were grinding stones (manos and metates), and pottery vessels, with I would carefully clean and sample in a laboratory for trapped pollen and phytoliths. Many of those attempts were successful in recovering either fossil pollen or phytoliths, but unfortunately I never looked for trapped starch grains! Likewise, for more than 30 years I have been carefully extracting fossil pollen, plant and animal macrofossils, parasites, and lately even the molecular traces of DNA from ancient human coprolites, but I never looked for trapped starch grains! That, of course, has now changed for me as it has for others also working in this field of science.

So why am I reviewing a book about starch for the *AASP Newsletter*? What, one might

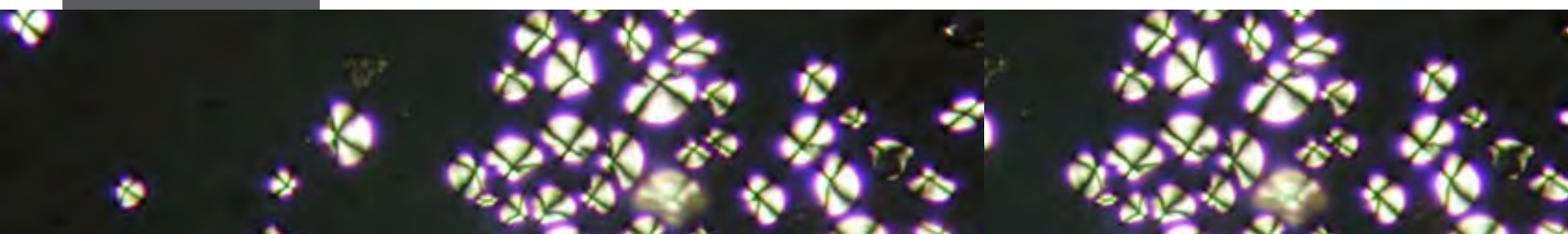
ask, does starch have to do with pollen? I guess that depends on what area of palynology you research. Perhaps for the Paleozoic and Mesozoic palynologists, and even those working in the Tertiary, the only interest you may have in starch might be the calories they release in the cereal or vegetal foods you eat! Not so for those palynologists who work with archaeological deposits from the Holocene or even the last part of the Pleistocene.

Traditionally, searching for pollen in archaeological sites has become common practice for more than half a century. In many of the temperate or arctic regions of the world fossil pollen records have produced many archaeological insights about ancient diets, origins of agriculture, functional use of various types of artifacts, the cargo contents of sunken shipwrecks, how paleoenvironmental changes affected early cultures, the medicinal use plants, burial practices, room usage in pueblos and other early structures, and the use of pollen as paints and dyes. Nevertheless, hundreds of reports and journal articles about sites excavated in mostly semi-tropical and tropical regions of the world are filled with information about how pollen studies were dutifully attempted, but yielded either no pollen or such meager amounts that the data were deemed unreliable. In many of those regions the lack of plant preservation and an absence of fossil pollen made knowledge about ancient plant usage and possible plant domestication a mystery. But all of that is changing rapidly as more and more

archaeologists search those same soils for traces of ancient starch, which in many regions is well preserved when nearly all other traces of ancient plant usage is missing.

Should you read this book or buy a copy for your bookshelf; that all depends on your areas of interest and your professional work as a palynologist. I doubt very many geologically-trained, paleopalynologists will purchase this book or even put it on their “what to read” list. But, for palynologists who work with archaeologists and even those working outside archaeology but in Holocene deposits, this book is essential. Even though there is little mention of pollen in this book, palynologists need to know the potentials of starch research, need to know how it can be recovered, need to know the types of information it might provide, and need to be alert about the potentials in order to recommend searching for “both fossil pollen and starch grains” in ancient sediments. When both fossil pollen and starch grains are present at archaeological sites they can provide confirming evidence for various types of plant usage. But, if pollen remains are absent, then perhaps starch grains will help fill the gap that might otherwise go missing in the ancient records of some culture.

**Reviewed by Vaughn M. Bryant,
Texas A&M University**



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Thank you for supporting AASP!

CENEX

AGREEMENT SIGNED IN HOUSTON, MARCH 31 2007



At the Mid-Year Board of Directors Meeting on March 31, a new Endowment Agreement was signed between AASP and Louisiana State University. Both entities are pleased with the new agreement, and excited about the projected developments expected over the next several months. On July 1 the earnings from the corpus will push the corpus over the \$600,000 mark which qualifies it for a \$400,000 match by the Louisiana State Board of Regents (BoR) to create a \$1,000,000 endowment for the Chair in Stratigraphic Palynology in the Department of Geology & Geophysics.

In January of 2008, the Dean of the College of Basic Sciences and the Chair of the Department of Geology & Geophysics will submit a proposal to the BoR for the match, and aggressively pursue that match. If their proposal is one of those selected by the BoR for a match, we should learn of the match in March or April and the funds could be in the *CENEX* account as early as May. Shortly after completion of the match, the search for an occupant for the Chair will begin.

My intent is that this article will: 1) signal to all that *CENEX* is alive and well, and ready to embark on a new and ambitious track; 2) provide a review and update for those from whose consciousness *CENEX* may have retreated; and 3) inform those who joined at some point after this effort was begun, and as a result may be unaware of its goals, objectives and accomplishments.

1967 - 1990: Why did we do it, and how did it begin?

It would not be surprising if many in the membership believed that the concept of an Endowed Chair in Palynology sprang *de novo* in the late 80s. Nothing could be further from the truth. From almost the earliest days of AASP's founding in 1967, several association leaders were keenly aware of the need to secure one or more Endowed Chairs as a means of assuring that a place(s) would always be available to train graduate students in the sci-



ence of palynology. But none of these frequent conversations was successful in formulating a mechanism for raising the required funding, or focusing a concerted effort on accomplishing the goal of a Chair. But that changed in 1988 when Harry Leffingwell chose to make the realization of this goal the centerpiece of his presidency, appointed a committee to aggressively pursue it, and thus pushed this initiative off dead center and launched AASP on the journey to *CENEX*.

As its first order of business the committee selected seven US universities that either had been leaders in teaching palynology during the preceding two decades, or at which it was reasonable to expect that fund raising might be ably assisted. One or more committee members visited each of those sites to assess the likelihood of success in establishing an Endowed Chair there, each university prepared and submitted a written proposal detailing their concept of a Chair and how they would support it, and the committee compiled a report that was presented to the AASP Board of Directors at its Mid-Year Meeting in 1990. University representatives were invited to attend that meeting to clarify any points the Board might raise, and at the conclusion of that meeting the Board selected LSU as the site at which it would seek to establish an Endowed Chair(s).

An Endowed Chair Agreement was concluded with LSU, specifying that AASP would use its best efforts to raise two increments of \$600,000 each to endow two Chairs, and a committee was formed to begin raising the required funds. The committee sought gifts primarily from companies in the petroleum industry, and secondarily from AASP members. Three companies--Amoco, Exxon and Unocal--responded with gifts of \$100,000 each. Several AASP members stepped forward with gifts of several hundreds or thousands of dollars, and one member (Paul Wesendunk) gifted *CENEX* from his estate for over \$120,000.

1991 - 2006: Struggles & Success

But before even the first \$600,000 increment could be completed, mergers in the industry and the harder times they experienced in the 90s effectively reduced or eliminated major gifts from this source, with the exception of a \$25,000 donation from Chevron-Texaco, and no further major gifts were received from individuals. While by the mid-90s the corpus exceeded \$400,000 and its investment was producing returns each year, rules of the LSU Foundation in place at that time (later rescinded) did not permit the earnings to be added to the corpus for purposes of reaching the \$600,000 plateau.

In an attempt to revive fund raising, the AASP Board retained a Baton Rouge group specializing in development in 1997, and efforts were again made to obtain substantial gifts from industry or individuals. Unfortunately, those efforts produced few results.

A major success was realized in 1993 with the hiring of John Wrenn as the first Director of the fledgling *CENEX*. Although we were a considerable way from reaching our goal of \$600,000 and a match to endow a Chair, it was possible to hire John as *CENEX*'s first Director because George Hart had just retired and the Chair of Geology & Geophysics chose to preserve that faculty position for palynology and filled it with a palynologist as another step on the path to AASP's goal for *CENEX*.

By early 2001 it seemed unlikely that AASP would be successful in raising the funding required to endow two Chairs, and at a meeting with LSU representatives on March 5 - 6, 2001, an amendment to the original Endowment Agreement was concluded. That amendment provided that \$120,000 would be taken from the corpus, and that the Louisiana State BoR would provide matching funds of \$60,000 to create an Endowed Professorship on behalf of the faculty position occupied by the Director of *CENEX*, John Wrenn.

The amendment further provided that, in order to effect the most timely accumulation of the additional funds required to elevate the corpus to \$600,000, the LSU Foundation would transfer current and future corpus earnings to the corpus until the \$600,000 level was attained. It also provided that the Endowed Professorship thus created would be granted the same permanent status as an Endowed Chair.

From the time of his hiring in 1993 until the return of major health problems and his untimely passing in 2006, John Wrenn ably discharged the duties of Director of *CENEX*, including scholarly research, instruction in palynology, and the supervision of one Post-Doc (David Atta-Peters) and the graduate studies of Martine Hardy, Carmen Fraticelli, Lawrence Febo, and Rebecca Tedford. During his stewardship *CENEX* acquired laboratory equipment and research microscopes, as well as gifts of several modern pollen and professional literature collections.

2007 & Onward: Current Status and The Future

From the time the original Endowment Agreement had been written in the early 90s, several changes had been made by the BoR regarding the Endowed Chair process at LSU. One of these was the adoption of a standard endowment agreement which did not in the least resemble our original. Because they saw that, either in mid-2006 or mid-2007, corpus earnings would push it over the \$600,000 required for a BoR match, and because they felt that some of the wording in the original agreement might compromise any possible match, the LSU Foundation submitted the new standard endowment agreement to AASP representatives for consideration in 2005. Thomas Demchuk, David Pocknall, Harry Leffingwell and Ken Piel met with Anne Marie Marmande (LSU Foundation) and Laurie Anderson (Chair, LSU Department of Geology & Geophysics) in October, 2005, for discussion of a new agreement, and the status and future of *CENEX* at LSU. Discussions and revisions continued via email during 2006, with Martin Head added to the AASP 'committee' to provide additional input, especially from an academic perspective. On February 14 Pocknall, Leffingwell and Piel met with Marmande, Anderson and Kevin Carman (Dean, College of Basic Sciences) and concluded the new agreement.

As this process neared its conclusion, it became clear to this informal AASP committee that a new and closer relationship between AASP and LSU had evolved—one which, if fostered and encouraged, could benefit AASP, *CENEX* and LSU. Accordingly, the committee submitted a proposal to the AASP Board at the Mid-Year meeting that a new permanent committee, the AASP *CENEX* Committee, be formed to build on and enhance this revitalized relationship. The Board accepted this recommendation and the necessary bylaws revision has been prepared to create this new committee. It will be chaired by Ken Piel, with Harry Leffingwell, David Pocknall, Thomas Demchuk and Martin Head as members.

One of the duties of the *CENEX* Committee will be to work with the LSU Foundation, the LSU Department of Geology & Geophysics, and AASP members to solicit additional gifts to: 1) increase the size of the corpus for both the Endowed Chair and the Endowed Professorship (which will be filled following selection of the Holder of the Chair); 2) increase the size of the corpus of the AASP Scholarship Fund; 3) establish any new funds whose earnings will promote the research and teaching goals of *CENEX*.

In realization of these goals the Committee will need and gratefully accept any assistance which members may be prepared to offer. Whether it is a gift of your own, the names of potential donors, or ideas you may have, please do not hesitate to contact me or any other member of the committee. Together we can achieve the goals we originally envisioned for *CENEX*.

Ken Piel

kenpiel@mme1.com

To the General AASP Membership Proposed By-Law Amendment

The Board of Directors has approved wording of a proposed by-law amendment to formalize the AASP CENEX Committee as a permanent committee of the Association. The proposed new article will read as follows:

Article 6: General

Article 6.06: Permanent Committees

Article 6.06.f. CENEX Committee (Center for Excellence in Palynology) – The CENEX Committee will consist of up to five Association members in good standing. The Chair of the Committee will be approved by majority vote of the Board. The Chair will select up to four additional Committee members. Committee membership should include one current member of the AASP Board of Directors, and at least one member each from the academic and industrial palynological communities. Each member of the Committee will serve in his/her position until such time that a member tenders his/her resignation to the Board. At such time, the Chair will select a new Committee member. The roles of the Committee will include, but not be limited to, the following:

- a. On behalf of AASP, conduct all negotiations with Louisiana State University (LSU), and its foundation, on future directions, matching fund application, fund raising options, etc.*
- b. Be accountable for maintaining and continuing to strengthen AASP's long standing relationship with LSU.*
- c. Continue to pursue additional funding for CENEX, to continue fund raising from multiple sources to enhance the value of the corpus, and to provide additional funding for current and future separate accounts in CENEX; the holder of the AASP Chair in Palaeopalynology will become an ex officio member of this committee and be expected to assist with fund raising*
- d. As required, provide two members, approved by the Board of Directors, to the LSU Departmental Search Committee regarding searches for the holder of the Chair in Paleopalynology as per the chair agreement*
- e. As required, provide two members, approved by the Board of Directors, to the LSU Departmental Search Committee regarding searches for the holder of the Endowed Professorship*
- f. Report directly to the President of AASP and provide a written report for the mid-year and annual meetings of the AASP Board of Directors*
- g. Attend AASP Board of Directors meetings if requested of the President of AASP*

According to the by-laws, proposed amendments must be presented to the general membership and published six (6) months prior to a vote. Please consider this official notification to the general membership of the proposed amendment. This amendment will appear in future newsletters, and it is anticipated that a vote will take place coincident with the regular AASP Spring Board election.

If anyone in the general membership has any questions or concerns regarding this by-law amendment, please contact a member of the Board of Directors.

Regards,

Dr. Thomas D. Demchuk

AASP Secretary-Treasurer



Florida Museum of Natural History in Gainesville Paleobotany and Palynology

<http://www.flmnh.ufl.edu/paleobotany/>

IN THE BEGINNING

It all started with **Edward Deevey** NAS who came to Florida in 1971 when he accepted the position of Distinguished Graduate Research Curatorship in Paleoecology and Professorship at the then Florida State Museum of Natural History at the University of Florida. He remained, active until 1988, when a heart attack following angioplasty ended his life at age seventy-five. <http://books.nap.edu/html/biomems/edeevey.html>

Following Deevey, the FLMNH offered the position of Graduate Research Professor to David Dilcher NAS, who in 1990, accepted the offer and moved his belongings and collection of about 100,000 fossil plant specimens from Indiana University (Bloomington, IN) to the FLMNH. Making the move to the FLMNH at the same time was Dr. Steven Manchester, a former student of Professor Dilcher.

Today the FLMNH Paleobotany and Palynology faculty and staff include; Graduate Research Professor **David L. Dilcher**, Curator **Steven R. Manchester**, Dr. **Hongshan Wang** (Collection Manager), **Terry Lott** (Biological Scientist), Dr. **David M. Jarzen** (Courtesy Research Scientist) and Dr. **Elizabeth Kowalski** (Research Associate).

A number of Graduate Students and Post Doctoral Students as well as some prominent researchers from around the world have passed through the Paleobotany and Palynology section at the FLMNH. Current postdoctoral Research Associate is Pro-

fessor **Chunlin Sun** of Jilin University, Chanchun, China.

Current Graduate Students include: **Iju (Judy) Chen**, a Ph.D. candidate in Botany, is working with Steve Manchester on the phylogeny of the grape family (Vitaceae) based on morphology; **Felipe de La Para**, working with Professor Dilcher and Dr. Jarzen, a Geology Master's student, is studying the pollen and spores across the Cretaceous-Tertiary boundary in tropical latitudes trying to understanding the response of tropical vegetation to a major environmental crisis; **Fabiany Herrera** also with David Dilcher is looking at the paleobotany and paleoclimate as interpreted from fossil leaves from the Cerrejon Formation (Colombia); **Elizabeth O'Leary** is working toward her Master's degree under the direction of Steve Manchester studying the fossil history of winged fruits; **Paula Mejia** has just completed her Master's thesis under the direction of David Dilcher, and is continuing her studies at the FLMNH in pursuit of the Ph.D., investigating the composition of tropical ecosystems present in Colombia during the radiation of angiosperms in the early Cretaceous.

POST DOCS AND VISITING SCIENTISTS:

Several Post Docs, Visiting Scientists or other scholars have passed through our laboratory since its establishment in 1991. These people include: Mohamed I.A. Ibrahim (Egypt), Mihai E. Popa (Romania), Yongdong Wang (China), Min Deng (China),

Wolfram Kürschner (The Netherlands) Friederike Wagner (The Netherlands), Thomas van der Hof (Germany), Harald Schneider (Germany), Sun Ge (China), Wang Qi (China), Bainian Sun (China), Kirk Johnson (Denver Museum of Nature & Science), Dana Royer (Penn State University), Scott Wing (Smithsonian Institution), Conrad Labandeira (Smithsonian Institution), Alexander Schmidt (Germany), Henk Visscher (The Netherlands), M.E.C. Bernardes-de-Oliveira (Brazil), Judy Skog (NSF), Paul Grote (Thailand), P. Sawangchote (Thailand), Herbert Meyer (US National Park Service), Kathleen Pigg (Arizona State University), Melanie DeVore (Georgia College and State University), Rolf Mathewes (Canada), Jiří Kvaček (Czech Republic), Zlatko Kvaček (Czech Republic), Timme Donders (The Netherlands), Michael Wiemann (USDA Forest Service), Zhou Zhekun (China), Kevin Hogan (USA), Mei Meitang (China), Yufei Wang (China), Chen Zhiduan (China), Elizabeth Wheeler (North Carolina State University), Mary Dettmann (Australia) and Lina Golovneva (Russia).

DISSERTATIONS AND THESES:

1999 "Middle Paleogene palynology of Colombia, South America: biostratigraphic sequence stratigraphic, and diversity implications" **Carlos Jaramillo** (Ph.D. Geology)

2000 "Systematics and biogeography of selected modern and fossil *Dipteronia* and *Acer* (Sapindaceae)" **Amy McClain** (MS in Botany).

2002 "Angiosperm leaf megafossil from the

Dakota Formation (Cenomanian, Cretaceous), Western Interior, USA" **Hongshan Wang** (Ph. D. in Geology).

2002 "The Cretaceous-Tertiary boundary and plant diversity in the earliest Paleocene, Eastern Denver Basin, Colorado" **Richard Barclay** (MS in Geology).

2004 "The Middle Miocene Alum Bluff flora Liberty County, Florida" **Sarah Corbett** (MS in Botany).

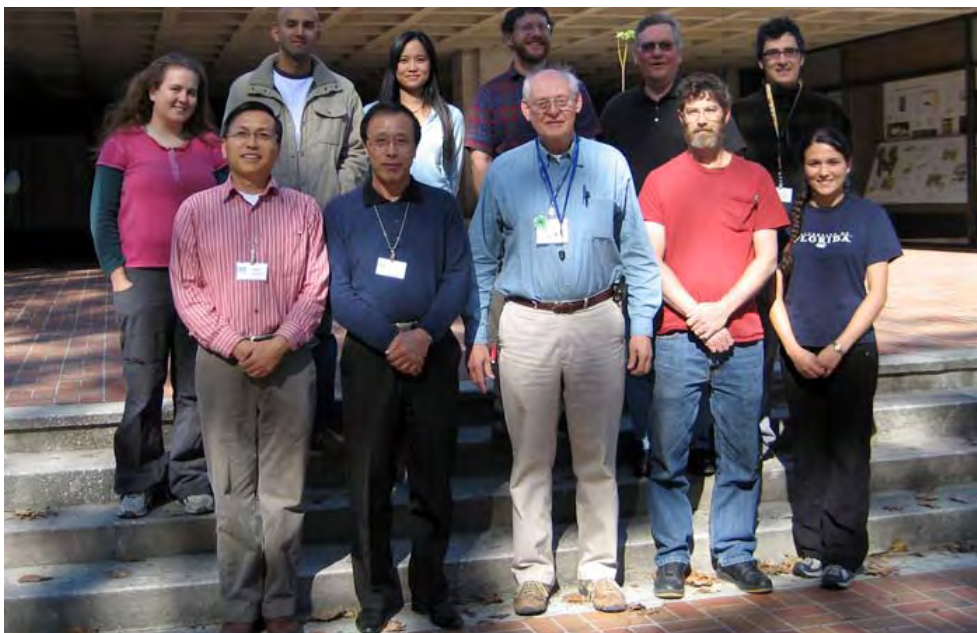
2004 "A study of plant mesofossils from the Dakota Formation in Kansas" **Xin Wang** (Ph.D. in Geology).

2006 "Palynomorphs and selected mesofossils from the Cretaceous Dakota Formation, Minnesota, USA. **Shusheng Hu** (Ph.D. in Geology).

INFORMATION:

The Paleobotany and Palynology section boasts several large international library donations including collections from **Herman Becker, John Hall, John Grayson, Dan Beju, Donald Engelhardt, S.A.J. Pocock, Evan Kidson**, and D.M. Jarzen.

The paleobotanical and palynological holdings number over 375,000 specimens with emphasis on Cretaceous, Paleogene and Neogene plant megafossils from North America, but include collections from around the world. The palynology collections are detailed at: <http://www.flmnh.ufl.edu/paleobotany/palynologyholdings.htm>



Current Faculty, Staff and Students in Paleobotany and Palynology, at the FLMNH.

Front Row (l to r) Hongshan Wang, Chunlin Sun, David Dilcher, Terry Lott and Paula Mejia. Back Row (l to r) Elizabeth O'Leary, Fabiany Herrera, Judy Chen, Steve Manchester, David Jarzen and Felipe de la Para. (Photo by Sharon Thomas)

TRANSFER OF THE PIERCE TYPE COLLECTION:



One of the earliest American papers on Cretaceous palynofloras is that of Pierce (1961, pictured left). Richard (Rick) LeRoy Pierce was a student of John Hall, at the University of Minnesota, Minneapolis and Saint Paul, MN. His thesis and

subsequent publication describe the pollen and spores, considered then to be from Lower, Upper Cretaceous sediments from several localities within the state of Minnesota. From the suggested botanical affinities, Rick interpreted ecological factors as paleoclimate related, and made determinations of which pollen and spore forms were useful for correlation studies (Pierce, 1961).

Pierce notes on page five of his paper that the slides used in this seminal paper are deposited in the Paleobotanical Collection of the University of Minnesota Botany Department. This note is to inform AASP members that the collection of slides has been donated to the **Paleobotany and Palynology Laboratory at the Florida Museum of Natural History, University of Florida** and are now a part of the Paleobotany and Palynology Collection there.

The collection of 44 slides, contain the Holotypes of 41 new genera and 97 new species described by Pierce. Location of the specimens is given by horizontal and vertical readings of a microscope vernier scale used by Pierce. Conversion of these coordinates to another microscope is facilitated by the placement of a conspicuous "X" etched into the glass slide by Pierce. Pierce has described in detail the steps necessary to make the appropriate conversion to any other microscope vernier scale (Pierce, 1959).

This donation to the Florida Museum of Natural History was made through the generosity of

Edward L. Cushing, Professor Emeritus at the University of Minnesota. It seems appropriate that the Pierce Collection be housed at the FLMNH, inasmuch as the John Hall (Rick's thesis advisor) Paleobotanical and Palynological Collection was moved from Minnesota in 1990 by David Dilcher and is also housed here. Rick's work with the Cretaceous palynoflora began in 1955 when searching for Cretaceous leaf impressions in clay seams at New Ulm, Minnesota. This collection of plant macrofossils, made by John Hall and his students, contains valuable cuticular data in this fossil flora. Rick and John Hall took a step forward and processed some of the matrix to see what pollen and spores might be found. Could they recover palynomorphs of the plant material they also identified as megafossils?

During the early stages of Rick's work, Traverse published his paper on the Brandon Lignite (Traverse, 1955), outlining an improved processing technique, which Rick then employed. To the joy of all concerned the new processing techniques provided a rich and diverse assemblage for Rick's thesis and future work. The cuticular work was laid aside in favor of the palynological studies.

Rick died in 1983, following a battle to recover from injuries he received in an armed robbery in Dallas, Texas. Rick's work will however live on, and his slides will hold testimony to the fine research this fine gentleman provided science.

D.M. Jarzen, March 16, 2007

References Cited

Pierce, Richard L. 1959. Converting coordinates for microscope-stage scales. *Micropaleontology* 5: 377-378.

Pierce, Richard L. 1961. Lower Upper Cretaceous plant microfossils from Minnesota. *University of Minnesota, Minnesota Geological Survey, Bulletin* 42, 86pp.

Traverse, Alfred, 1955. Pollen analysis of the Brandon Lignite of Vermont. *United States Department of the Interior, Bureau of Mines, Report of Investigations* 5151, 107p.

Recent AASP-Member Publications

compiled by Sarah de la Rue (sdelarue@geol.lsu.edu)

Are these articles promoting conversations between our members? Promoting ideas?
Are students finding them of use? Please continue to send me your published or *in press* articles!
Keep everyone up to date on your current research!

Achab, A., **Rubinstein, C.V.**, and Astini, R.A., 2006. Chitinozoans and acritarchs from Ordovician perigondwanan volcanic arc of the Famatina System, northwestern Argentina.

Review of Palaeobotany and Palynology 139: 129-149. crubinst@lab.cricyt.edu.ar

Arioli, C., **Wellman, C.H.**, Lugardon, B., and **Servais, T.**, 2007. Morphology and wall ultrastructure of the megaspore *Lagenicula (Triletes) variabilis* (Winslow, 1962) Arioli et al (2004) from the Lower Carboniferous of Ohio, USA. *Review of Palaeobotany and Palynology* 144(3-4): 231-248. c.wellman@sheffield.ac.uk; thomas.servais@univ-lille1.fr

Breuer, P., Al-Ghazi, A., Al-Ruwaili, M., **Higgs, K.T.**, **Steemans, P.**, and **Wellman, C.H.**, 2007. Early to Middle Devonian miospores from northern Saudi Arabia. *Revue de Micropaleontologie* 50: 27-57. K.Higgs@ucc.ie; p.steemans@ulg.ac.be; c.wellman@sheffield.ac.uk

Clechenko, E.R., Kelly, D.C., **Harrington, G.J.**, and Stiles, C.A., 2007. Terrestrial records of a regional weathering profile at the Paleocene-Eocene boundary in the Williston Basin of North Dakota. *GSA Bulletin* 119(3): 428-442. g.j.harrington@bham.ac.uk

de la Rue, S.R., Rimmer, S.M., and Rowe, H.D., 2007. "Paleoproductivity and Geochemical Proxies: Indicators of Water-Column Conditions, Frasnian-Famennian Boundary, New Albany Shale, Indiana". *International Journal of Coal Geology* 71: 72-84. sdelarue@geol.lsu.edu

Driese, S.G., Orvis, K.H., **Horn, S.P.**, Li, Z.-H., and Jennings, D.S., 2007. Paleosol evidence for Quaternary uplift and for climate and ecosystem changes in the Cordillera de Talamanca, Costa Rica. *Palaeogeography, Palaeoclimatology, Palaeoecology* 248: 1-23. shorn@utk.edu

Galfetti, T., **Hochuli, P.A.**, Brayard, A., Bucher, H., Weissert, H., and Vigran, J.O., 2007. Smithian-Spathian boundary event: Evidence for global climatic change in the wake of the end-Permian biotic crisis. *Geology* 35(4): 291-294. Peter.Hochuli@mcnet.ch

Ghavidel-syooki, M., and **Owens, B.**, 2007. Palynostratigraphy and palaeogeography of the Padeha, Khoshyeilagh, and Mobarak formations in the eastern Alborz Range (Kopet-Dagh region), northeastern Iran. *Revue de Micropaleontologie* 50: 129-144. bowens@palyno.freeseve.co.uk

Harrington, G.J., and **Jaramillo, C.A.**, 2007. Paratropical floral extinction in the Late Palaeocene-Early Eocene. *Journal of the Geological Society of London* 164(2): 323-332. g.j.harrington@bham.ac.uk; jaramilloc@si.edu

Jones, G.D., and **Bryant, V.M.**, 2007. A comparison of pollen counts: Light versus scanning electron microscopy. *Grana* 46: 20-33. g-jones@tamu.edu; vbryant@neo.tamu.edu

Le Herisse, a., Al-Ruwaili, M., **Miller, M.**, and **Vecoli, M.**, 2007. Environmental changes reflected by palynomorphs in the early Middle Ordovician Hanadir Member of the Qasim Formation, Saudi Arabia. *Revue de Micropaleontologie* 50: 3-16. mamiller@sahara.com.sa; marco.vecoli@univ-lille1.fr

Marshall, J., **Miller, M.A.**, **Filatoff, J.**, and Al-Shahab, K., 2007. Two new Middle Devonian megaspores from Saudi Arabia. *Revue de Micropaléontologie* 50 : 73-79. jeam@soc.soton.ac.uk; mamiller@sahara.com.sa; jfilatoff@yahoo.com

McKirdy, D.M., Webster, L.J., Arouri, K.R., Gostin, V.A., **Grey, K.**, 2006. Contrasting sterane signatures in Neoproterozoic marine sediments of the Centralian Superbasin before and after the Acraman bolide impact. *Organic Geochemistry* 37: 189-207. kath.grey@doir.wa.gov.au

Mildenhall, D.C., Wiltshire, P.E.J., and **Bryant, V.M.**, 2006. Editorial. Forensic palynology: Why do it and how it works. *Forensic Science International* 163: 163-172. d.mildenhall@gns.cri.nz; vbryant@neo.tamu.edu

Miller, M.A., and Al-Ruwaili, M.H., 2007. Preliminary palynological investigation of Saudi Arabian Upper Ordovician glacial sediments. *Revue de Micropaléontologie* 50 : 17-26. mamiller@sahara.com.sa

Moczydlowska, M., and Zang, W., 2006. The Early Cambrian acritarch *Skiagia* and its significance for global correlation. *Palaeoworld* 15: 328-347. malgo.vidal@pal.uu.se

Molyneux, S., **Osterloff, P.**, **Penny, R.**, and Spaak, P., 2006. Biostratigraphy of the Lower Palaeozoic Haima Supergroup, Oman; its application in sequence stratigraphy and hydrocarbon exploration. *GeoArabia* 11: 17-48. sgm@bgs.ac.uk; Peter.Osterloff@shell.com; randall.ra.penny@pdo.co.om

Molyneux, S., Raevskaya, E., and **Servais, T.**, 2007. The *messaoudensis-trifidum* acritarch assemblage and correlation of the base of Ordovician Stage 2 (Floian). *Geological Magazine* 144: 143-156. sgm@bgs.ac.uk; thomas.servais@univ-lille1.fr

Paris, F., Le Herisse, A., Monod, O., Kozlu, H., Ghienne, J.-F., Dean, W.T., **Vecoli, M.**, and Gunay, Y., 2007. Ordovician chitinozoans and acritarchs from southern and southeastern Turkey. *Revue de Micropaleontologie* 50: 81-107. Florentin.Paris@univ-rennes1.fr; marco.vecoli@univ-lille1.fr

Paris, F., **Owens, B.**, and **Miller, M.A.**, 2007. Palaeozoic palynology of the Arabian Plate and adjacent areas. *Revue de Micropaleontologie* 50: 1. Florentin.Paris@univ-rennes1.fr; bowens@palyno.freeseve.co.uk; mamiller@sahara.com.sa

Peng, S., Babcock, L.E., Geyer, G., and **Moczydlowska, M.**, 2006. Nomenclature of Cambrian epochs and series based on GSSPs – Comments on an alternative proposal by Rowland and Hicks. *Episodes* 29: 130-132. malgo.vidal@pal.uu.se

Quintavalle, M., and **Playford, G.**, 2006. Palynostratigraphy of Ordovician strata, Canning Basin, Western Australia. Part One: acritarchs and prasinophytes. *Palaeontographica, Abteilung B*, 275, pp. 1-88, 12 pls. Stuttgart. geoff@earth.uq.edu.au

Quintavalle, M., and **Playford, G.**, 2006. Palynostratigraphy of Ordovician strata, Canning Basin, Western Australia. Part Two: chitinozoans and biostratigraphy. *Palaeontographica, Abteilung B*, 275, pp. 89-131, 3 pls. Stuttgart. geoff@earth.uq.edu.au

Rubinstein, C.V., and Toro, B.A., 2006. Aeronian (Llandovery, Lower Silurian) palynomorphs and graptolites from the Lipeon Formation, Eastern Cordillera, north-west Argentina. *Geobios* 39: 103-111. crubinst@lab.cricyt.edu.ar

Schouten, S., Woltering, M., Rijpstra, W.I.C., Sluijs, A., **Brinkhuis, H.**, and Sinninghe Damsté, J.S., *in press*. The Paleocene-Eocene carbon isotope excursion in higher plant organic matter: differential fractionation of angiosperms and conifers in the Arctic. *Earth and Planetary Science Letters*. h.brinkhuis@bio.uu.nl

Uhl, D., Hamad, A.A., **Kerp, H.**, and Bandel, K., 2007. Evidence for palaeo-wildfire in the Late Permian palaeotropics – charcoalified wood from the Um Irna Formation of Jordan. *Review of Palaeobotany and Palynology* 144(3-4): 221-230. kerp@uni-muenster.de

Uhl, D., Klotz, S., Traiser, C., Thiel, C., Utescher, T., Kowalski, E., and **Dilcher, D.L.**, 2007. Cenozoic paleotemperatures and leaf physiognomy – A European perspective. *Palaeogeography, Palaeoclimatology, Palaeoecology* 248: 24-31. dilcher@filmnh.ufl.edu

Waisfeld, B.G., Vaccari, N.E., Toro, B.A., **Rubinstein, C.V.**, and Astini, R.A., 2006. Revision de la Zona de *Ogygiocaris araiorhachis* (Trilobita, Tremadociao tardio) en la region de Pascha-Incamayo, Cordillera Oriental Argentina. Parte 1 : *Bioestratigrafia. Ameghiniana* 43 : no pages given crubinst@lab.cricyt.edu.ar.

Wicander, R., and **Playford, G.**, *in press*. Upper Ordovician microphytoplankton of the Bill's Creek Shale and Stonington Formation, Upper Peninsula of Michigan, U.S.A.: Biostratigraphy and paleogeographic significance. *Revue de Micropaleontologie*. reed.wicander@cmich.edu; geoff@earth.eq.edu.au

Willman, S., **Moczydlowska, M.**, and **Grey, K.**, 2006. Neoproterozoic (Ediacaran) diversification of acritarchs – A new record from the Murnaroo 1 drillcore, eastern Officer Basin, Australia. *Review of Palaeobotany and Palynology* 139: 17-39. malgo.vidal@pal.uu.se

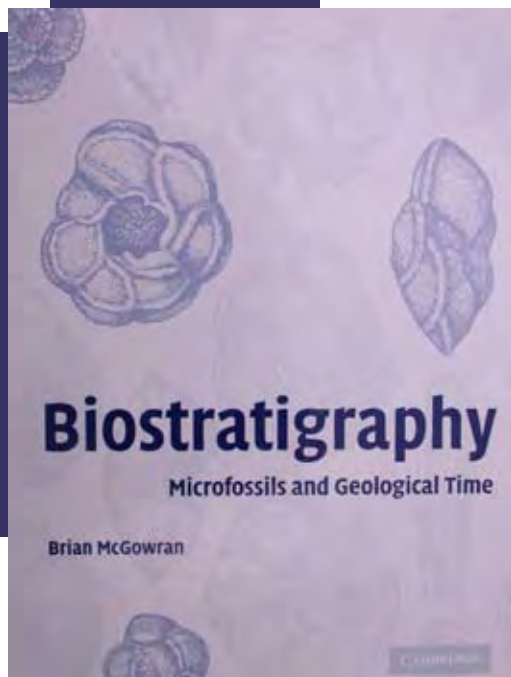
Current MSc and PhD Paleontological Research Opportunities

Palynology-oriented students may find of interest three PhD positions advertised by the University of Birmingham, UK. These include such topics as reconstructing Carboniferous Coseley flora, the significance of Late Palaeozoic wetland plant communities, and plant responses to Eocene-Oligocene climate forcing.

Student MSc research and courses in paleobiology, micropaleontology (e.g., plant pollen), and global environmental change are available, as well, from various universities in the UK. Paleontological-oriented PhD investigations include, to name only a very few, trilobite paleobiology, controls on the Cambrian explosion, diversity and evolution of various phyla (e.g., vertebrates, echinoderms, fish, arachnids, planktic foraminifers), Carboniferous microbial-dominated platforms, K-T boundary, and Southern Ocean circulation controls on climate change.

A complete listing of MSc courses and Ph.D. titles can be found at the following link sponsored by the Palaeontological Association (<http://www.palass.org/modules.php?name=palaeo&sec=careers&page=52>). The main web pages are also very useful and you might want to explore the various links to upcoming meetings and publications, or even download helpful analytical methods.

Sarah R. de la Rue (sdelar1@lsu.edu)



Book Review

Biostratigraphy: Microfossils and Geological Time

by Brian McGowran, Cambridge University Press, 2005.
£50.00 hbk (480pages) ISBN: 0-521-83750-2

Review by Niels E. Poulsen
Geological Survey of Denmark and Greenland, Øster
Voldgade 10, DK-1350 Copenhagen K, Denmark

Biostratigraphy. Microfossils and Geological Time gives a terrific review of the principles and development of dating rocks using the fossils that they contain (i.e. biostratigraphy). Although Brian McGowran concentrates on foraminifers, the book is worth reading for an understanding of the role of biostratigraphy in a geological science context. McGowran provides a significant amount of information, which is well illustrated with many figures showing examples of zonations (bodies of rock defined by the presence of fossils), correlations, sequence stratigraphy (prehistoric sea-level changes in sedimentary deposits) and cyclostratigraphy (which is based on the moon-earth-sun interaction and orbit system).

The review of the basic principles of zonation and the development of the zonal concept is essential to all those interested in the complexity of biostratigraphy. McGowran discusses the two different stratigraphic classification systems, chronostratigraphy, based on the age of the rock strata, and biostratigraphy, based on the fossil content of rock strata. He also presents fundamental disputes in the development of correlations and discusses the integration of biostratigraphy (bio-events, horizons and datum, and the first or last appearance of index species) into modern geochronology and construction of the classical geological timescale. The integration of magnetostratigraphy (the records of normal and reverse polarity of the Earth's magnetic field used to date the sediments), seafloor spreading, and radiometric (isotopic) dating are logically incorporated in this description. Furthermore, the incorporation of cyclostratigraphy into biostratigraphy and chronology is elucidated. McGowran also provides a fundamental basis of evolution, linking it to biostratigraphy, and further explains the development of the fossil species concept.

Part of *Biostratigraphy* is devoted to biostratigraphic practices concerning index fossil suitability, natural biostratigraphic units and quantitative methods in micropalaeontology. Regional timescales are similarly put in a global context. McGowran also describes the dynamic collaboration with other scientific disciplines in recent years. One such advance is the insight into fossil patterns arising from the development of sequence stratigraphy, sedimentary cycles and unconformities, and biostratigraphy. McGowran provides a well illustrated view of this

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advance. The overall objective of *Biostratigraphy* is to examine micropalaeontology and, in doing so, McGowran emphasizes the importance of using many fossil groups in correlation. He also describes the relationship between changes in the global environment and climate, particularly regarding provincialism and the correlation of global events.

McGowran describes the current status of the constantly developing field of biostratigraphy and concludes by describing three issues pertaining to future work: (i) the continued correlation of

biostratigraphy with magnetostratigraphy, and with different microplanktonic groups; (ii) sequence biostratigraphy; and (iii) continued incorporation of ecology in understanding the evolution, systematics and taxonomy of fossil communities. *Biostratigraphy* will be a useful handbook for any researchers and students working with geology. In particular, it will help them to become acquainted with many branches of biostratigraphy, particularly in relation to microfossils.

Invitation to participate in a special volume on the Jurassic System of Latin America

Dear colleagues:

We invite you to present your complete paper about different aspects and geologic and biotic events on the Jurassic of Latin America. Papers on the state of the art of the following fields will be specially welcome:

- Geochronology and isotopic geology
- Geochemistry
- Paleomagnetism
- Regional geology
- Structural geology and geotectonics
- Vulcanism and plutonism
- Economic geology
- Basin analysis and sedimentology
- Sequence stratigraphy
- Event stratigraphy
- Paleobotany and palynology
- Floristic changes at and around the Triassic-Jurassic boundary
- Paleozoology of invertebrates and high resolution biozonation
- Paleozoology and evolution of vertebrates
- Micropaleontology (calcareous microfossils, calcareous nanofossils, etc.)
- Biostratigraphy and stratigraphic correlation
- Paleobiogeography
- Paleoecology and paleoclimatology
- Ichnology
- Taphonomy
- Other items



Contact:

3sa-jurasico@lab.cricyt.edu.ar

As soon as possible with your intention to participate in this special volume

Please send the approximate title of your paper(s) by e-mail

Dr. Laura Giambiagi and Dr. Ana María Zavattieri



LIEGE, BELGIUM: 50 YEARS OF PALYNOLOGY

Liège University (ULg) was established in 1817 by William, King of the Netherlands. Belgium did not exist at this time. It is only thirteen years later that Belgium declared its independence. ULg is a public and pluralist university located only thirty kilometers away from Germany and The Netherlands.

ULg has a long tradition in geology. Officially, teaching and research in the field of mineralogy, geology and paleontology began in 1835 with the nomination of **André Hubert Dumont**. In 1953, Dumont published a first geological map. No other continental European countries had an equivalent at that time. Paleobotany was taught for the first time in 1878/1979? by Alfred Gilkinet, a pharmacist. He contributed important works on Devonian plants and Eocene flora from Belgium.

The real international contribution to paleobotany began with **Suzanne Leclercq**. She was appointed assistant at the Paleontology Institute of the ULg in 1924 and was head of the paleobotanical laboratory from 1933? (1937) to 1971. She was one of the first woman in Belgium to obtain an academic position and was an internationally recognized leader in paleobotanical research. S. Leclercq initiated the first work on palynology (spores and pollen) at ULg: “Contribution à l’étude palynologique du Crétacé supérieur du nord-est de la Belgique”, an honor thesis by a student, A. Vanoorbeek, in 1957, exactly fifty years ago! In his preface, Vanoorbeek acknowledged S. Leclercq for opening his mind to an exciting scientific field, but

with a promising future. Its premonition rapidly turned out to be true. Indeed, slightly later, while working on Middle Devonian macrofloras and microstructures of fossil woods, S. Leclercq recognized abundant dispersed spores in her macerations of plant macrofossils and subsequently entrust the project to her new assistant, **Maurice Streel**, who had just completed his PhD in Phytogeography. Maurice was appointed Associate Professor in 1971 and Full Professor in 1974. He served as head of the laboratory from 1974 til his retirement in 1995. He published more than 200 papers, most in collaboration (see Steemans & Loboziak, 1996). His most cited paper is obviously Streel et al. (1987). Maurice also initiated an Interuniversity Master in Palynology and introduced the first CIMP Newsletter. Despite (or maybe thanks to!) his retirement since 12 years, Maurice stays very active in palynology. Present every day, he is working on his passions: the late Devonian and Carboniferous miospores (Streel et al., 2000) but also on palynology of the Holocene in the Hautes-Fagnes area, east of Liège (Streel et al., 2006).

During the first years of the palynological lab, another well known palynologist, **Michel Vanguetstaine**, began a promising new career. In 1967, he published his first paper, devoted to the Cambrian acritarchs (Vanguetstaine, 1967); forty years ago – another anniversary! Michel did some pioneer work in the study of acritarchs. At Maurice's retirement, in 1995, Michel was appointed

head of the laboratory. He retired at the end of the 2004-2005 academic year, but unfortunately passed away the following year.

Another well known paleontologist completed the laboratory team: **Muriel Fairon-Demaret**. She began as S. Leclercq's assistant and retired in 2005.

Despite the faculty positions opened by these retirements, Philippe Gerrienne, the “spiritual son” of Muriel and myself, the “spiritual son” of Maurice, decided to stay at our position (we are both employed by the National Fund for Scientific Research or FNRS) to keep focusing primarily on research, rather than administration or teaching.

It was a wise decision as **Emmanuelle Javaux** was appointed at this position two years ago. Emmanuelle, after an honor degree in biology and research in zoopaleontology at Liège University, got a PhD in geology in Canada, followed by postdoctoral research at Harvard where she felt that Precambrian micro-paleontology was her vocation. Emmanuelle is now looking at patterns of early life evolution through intervals of environmental and biological changes in the Precambrian, and tries to discover the biological affinities of early (and younger) acritarchs. To do so, she uses a combination of microscopic and microchemical techniques on single microfossil, as well as insights from comparative biology and molecular phylogeny (Javaux and Marshal, 2006). This is a new domain of research being developed in the laboratory, applied to Precambrian but also to younger microfossils. With colleagues from various scientific disciplines and Belgian institutions, Emmanuelle is also actively developing the new field of astrobiology (the study of the origin, evolution and distribution of life in the universe) at the

ULg and in Belgium, by creating a new FNRS contact Group (<http://astrobio.oma.be/>), a federal Exobiology group, teaching astrobiology in Belgium and France, and giving many public conferences. In the lab, besides projects on Archean through Neoproterozoic acritarchs and cyanobacteria, as well as paleozoic and modern protists, Emmanuelle is currently working with **Pavel Medvedev**, an “invited professor” from Russia, to explore traces of life in the Paleoproterozoic of Karelia, as part of an international intracontinental drilling program in Russia.

Philippe Gerrienne (lab surname: Phil II) is working mainly on Devonian plant macrofossils, studying the systematics and the paleobiology of the earliest land plants. He is also in charge of teaching palaeobotany as well as modern palynology. We often work in close collaboration, for instance for the dating of his Devonian plant localities. Recently, Philippe has been involved in several palynological studies of Quaternary deposits from Belgium, South America and Africa.

Myself, **Philippe Steemans** (lab surname: Phil I, not because I'm the best of the Philippe's team but because I'm the elder of the two), am working on spores from their first appearance (Ordovician cryptospores) up to the Middle Devonian (miospores and megaspores). I am mainly interested in the terrestrialisation of the vegetation. Thanks to the spore assemblages observed on the different paleoplates, I try to understand how spores are dispersed over short and long distances. I have a paper in press (Steemans et al. 2007) with my friends and colleagues Charlie Wellman, from the Sheffield University, and John Filatoff, from Dharhan (Aramco society) demonstrating that at the Lochkovian, the differences recorded in spore assemblages



From left to right, at first rank: Emile, Chimène, Noémie, Chantal, Emmanuelle (the big boss), Pavel, Damien; at the second rank: Cedric, Cyrille, Phil I, Phil II and Sjeuf; at the third rank Maurice, Thomas and Pierre.

between Western Gondwana and the Old Red Sandstone Continent are mainly due to climatic conditions rather than paleogeographic barrier. The Rheic Ocean was probably much narrower than suggested in most paleogeographic reconstructions. Recently, we have discovered the richest megaspore assemblage of Devonian age (for Gondwana) in Givetian layers from Libya. Preliminary paleogeographic results are in accordance with observations done in the Lochkovian.

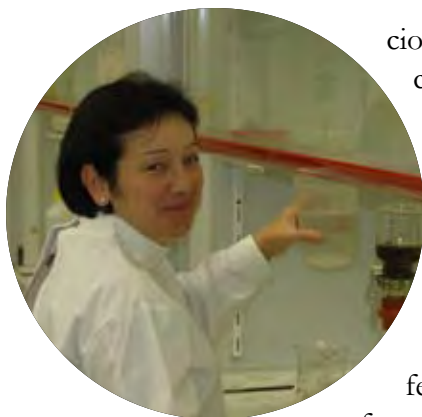
Two other retired colleagues complete the team: **Emile Roche** and **P.J. (Sjeuf) Felder**. At first a specialist of Tertiary miospores as FNRS researcher, Emile was employed by the Museum of Central Africa in Tervuren, where he became head of the Palynological Unit where his research focussed on the Quaternary of Central Africa. During this period, he intensively collaborated with our laboratory, supervising many Masters and PhD students. Now, he regularly comes to the University where he carries on with research, mainly focussing on the Maghreb palynology in collaboration with the University of Tunis. Emile is also the editor of *Geo-Eco-Trop*, a journal dealing with Quaternary environments of tropical areas. Sjeuf, before he retired, was employed as a geological engineer in coal mines in The Netherlands. Mines having been closed, he worked in the Natural History Museum. Here, he became an expert of Cretaceous sediments of the Maastrichtian Stage, with particular interest in bioclast assemblages. Since his retirement, he comes weekly to the lab to continue his research, analysing samples from Belgian boreholes.

Of course there are also students! **Pierre Breuer** is doing a PhD thesis under my supervision on Devonian miospores and megaspores from Saudi Arabia, Tunisia and Libya in collaboration with the Saudi petroleum company Aramco. He is finishing a systematic chapter with about 200 species, among which 60 are new. A part of his work has recently been published in collaboration with colleagues of the CIMP working-group on Saudi Arabia (Breuer et al, 2007). **Perez-Miguel Leyton**, one of our former master students, just finished his PhD thesis with Alain Le Hérissé (Brest) and myself, on Devonian palynomorphs (spores, acritarchs and chitinozoans) from Bolivia. The thesis was supported by TotalElfina. **Thomas Gerards** is finishing a PhD thesis on Early Cretaceous plant macro-, meso- and microfossils from the Mons Basin (Belgium), trying

to reconstruct the paleoenvironment of the famous Iguanodons from Bernissart. **Chimène Kaudjhis** is an African student from the Ivory Coast. She is beginning a PhD dissertation on pollen from Mangroves and Coastal forests of the eastern side of the Ivory Coast. **Cyrille Prestianni** is a PhD student, working on Famennian plant macrofossils (early seed plants); a part of his work is based on palynology. **Christine Strullu** (from Nantes) is doing a PhD thesis on early land plants from Anjou and Northern France, as well as on the early mycorrhization process. Her studied localities are dated by miospore stratigraphy. **Damien Fokan** is doing an honor thesis on the Famennian “Ride de Booze-Val Dieu”, integrating sedimentological, palynological and paleobotanical data. As an astrobiology exercise and honor thesis in geology, **Noémie Gaspard** is working on possible microbial origin of iron crusts from the Jurassic of Belgian Lorraine. **Cedric Luthers** is working on pollen analysis of the Hautes-Fagnes (Belgium) to refine biostratigraphic and correlation criteria within the last 2 thousands years of the Subatlantic chronozone. **Jan Hennissen** and **Chantal Kabonyi Nzabandora** are both students of the Master in Palynology organized by our laboratory. Jan is doing an honor thesis on Ordovician Chitinozoans from China. His supervisor is Jacques Verniers from Ghent and I serve on his committee. Chantal will join the PhD program next year. She is an African student from Congo D.R. working on Holocene environmental evolution, and studying pollen from the Kivu area in Central Africa.

Among the most recent discoveries, I would like to highlight two papers published in “Nature” and in “Science”. The first one concerns the discovery of the earliest acanthomorph acritarch, interpreted as evidence for unicellular eukaryote, and of complex eukaryotic ecosystem in the early Mesoproterozoic of Australia (Javaux et al 2001). The second is about *Runcaria*, a seed plant precursor dated by spores as Givetian in age (Gerrienne et al. 2004).

In addition to teaching and research, the laboratory is often asked to do palynological analyses for private companies or institutes. We regularly work for the Belgium Geological Survey and companies like Aramco, Petrobras, TotalElfina. We also do expertise of melissopalynology and more rarely forensic palynology. Our laboratory would be nothing without the pre-



cious help of our technician **Marcela Giraldo** (pictured left) who, despite never obtaining a permanent position, has processed all our palynological samples since 1983. Marcela can deal with many different kinds of samples

from the Precambrian to modern sediments like shale, carbonate, chert, coal, etc but also other kinds of samples such as honey or flowers. The laboratory is fully equipped to process and analyze all samples. We have 4 excellent microscopes (Zeiss, Olympus and Reichert) with digital cameras. We also have a MEB microscope, and a lab station to prepare samples for TEM. In a near future, we will acquire a FTIR-microspectrometer enabling the microchemical analysis of single palynomorph in house. We are currently doing so in collaboration with Craig Marshall in Australia.

I am the webmaster and the treasurer for the “Commis-

sion Internationale de la Microflore du Paléozoïque” or CIMP (<http://www.cimp.ulg.ac.be>). We organize the annual meeting of our Belgian palynologist association (Plant Palynologists and Micropaleontologists of Belgium – PPMB) who is a member of the IFPS of which I’m councilor. We now publish the extended abstracts of PPMB meetings in the Memoirs of the “Notebooks on Geology” (<http://paleopolis.rediris.es/cg/uk-index.html#Memoirs>). We had our PPMB meeting April 27th at the Royal Belgian Institute of Natural Sciences in Brussels (famous for its paleobotanical collections, and also its worldwide well known *Iguanodon* of Bernissart) and I hope to produce a third PPMB volume later this year.

Philippe Steemans
(p.steemans@ulg.ac.be) with the kind help of all his colleagues

Paleobotany, Paleopalynology
and Micropaleontology (PPM)
Université de Liège (pictured right), 6, Allée du Six Août, Bât. B-18 B-4000 Liège 1, Belgium



REFERENCE CITED:

- Breuer, P., Al-Ghazi, A., Al-Ruwaili, M., Higgs, K.T., Steemans, P. and Wellman, C.H., 2007. Early to Middle Devonian miospores from northern Saudi Arabia. *Revue de Micropaléontologie*, 50: 27-57.
- Gerrienne, P., Meyer-Berthaud, B., Fairon-Demaret, M., Streel, M. and Steemans, P., 2004. *Runcaria*, a Middle Devonian seed plant precursor. *Science*, 306: 856-858.
- Javaux, E.J., Knoll, A.H., and Walter, M. R., 2001. Morphological and ecological complexity in early eukaryotic ecosystems. *Nature* 412, 66-69.
- Javaux, E. J. and Marshal, C. P. 2006. A new approach in deciphering early protist paleobiology and evolution: Combined microscopy and microchemistry of single acritarchs. *RPP* 139 1–15
- Steemans, P. & Loboziak S., 1996. Maurice Streel, an annotated list of his publications. *Annales de la Société géologique de Belgique*, 117 / 1 (1994): V-XIV.
- Steemans, P., Wellman, C.H. and Filatoff, J., 2007. Palaeophytogeographical and palaeoecological implications of a spore assemblage of earliest Devonian (Lochkovian) age from Saudi Arabia. *Palaeogeography, Palaeoclimatology, Palaeoecology* doi:10.1016/j.palaeo.2007.03.009.
- Streel, M., Higgs, K., Loboziak, S., Riegel, W., Steemans, P., 1987. Spore stratigraphy and correlation with faunas and floras in the type marine Devonian of the Ardenno-Rhenish regions. *Rev. Paleobot. Palynol.*, 50: 21-229.
- Streel, M., Caputo, M. V., Loboziak, S., Melo, J. H. G., 2000. Late Frasnian-Famennian climates based on palynomorph analyses and the question of the Late Devonian glaciations. *Earth-Science Reviews* 52: 121-173.
- Streel M., Renson V. & Vleschouwer F. de (2007).- Palynological and geochemical data in peat sediments alongside an old (Roman or Merovingian) paved road in the Hautes-Fagnes. In: Steemans P. & Javaux E. (eds.), *Recent Advances in Palynology.- Carnets de Géologie / Notebooks on Geology*, Brest, Memoir 2007/01, Abstract 09 (CG2007_M01/09)
- Vanguetstaine, 1967. Découverte d’acritarches dans le Revinien supérieur du Massif de Stavelot. *Annales de la Société Géologique de Belgique*, 90, 585-600.

PANAMA 2007

40th Annual Meeting, September 8-12, 2007

The 40th Annual Meeting of the AASP (<http://striweb.si.edu/aasp07>) will be held on Sept 9-12, 2007 at the Smithsonian Tropical Research Institute in Panama. The Smithsonian is located in Panama City; Panama is located at 9°N and borders Costa Rica and Colombia. The country is 50-120 miles wide and is bounded by 477 miles of Caribbean coastline and 767 miles of Pacific coastline. The temperature in Panama City is usually 80-85 °F (27 degrees °C) during most of the year. Much for the countryside is farmland, but large areas of forest remain in many regions. Close to the city, there are many Natural Parks to visit and explore. The capital, Panama City, is located on the Pacific coast next to the entrance to the Panama Canal. The city offers a wide choice of restaurants, hotels and some museums. Other large cities include Colon at the Caribbean entrance to the canal, and David, in the province of Chiriqui (for more information on Panama visit <http://www.panamainfo.com>). The Smithsonian Tropical Research Institute (STRI: www.stri.org) is a unit of the Smithsonian Institution, and one of the world's leading centers for basic research on the ecology, behavior and evolution of tropical organisms.

David Jarzen is organizing a symposium in Pollen Morphology and Phylogeny; and Vladimir Torres is organizing another one in Tropical Palynology. We also will have a special talk delivered by Al Traverse on the first meeting of AASP, 40 years ago. Also, on Sunday there will be a free, half-a-day workshop on Analytical techniques for palynological analysis, using the free-share "R for Statistical Computing" software that can be downloaded from <http://www.r-project.org/>. The course will focus on the basics of using R to perform statistical analysis. There is only room for 15 participants, and to participate you only need to register by writing to aasp07@si.edu and bring your own laptop with the software already installed.

A block of single and double rooms has been reserved in the Hotel El Panama for participants at the meeting (ask for the AASP 2007 rate). There will be an opening mixer on Sunday evening (September 9th) at the Hotel El Panama following a pre-meeting field trip to Barro Colorado Island, one of the research stations of STRI, or to the Canopy Crane at the Metropolitan Park in Panama City.

We have sponsorships by BP, Chevron, ConocoPhillips, Exxon, and Statoil, that will allow us to give more grants to attend the meeting, specially to students presenting at the meeting; preference will be giving to talks over posters. All you need to do is register by the early registration deadline and send an email asking to be included in the grant with your CV and proof that you are a student. We will send messages to those selected.

Deadline for contributions is **July 5**

With the exception of keynote addresses, talks will be 20 minutes long (15 minutes for presentation and 5 minutes for questions). Information about registration, technical sessions, abstract submission, filed trips and social events, and a tour to the Miraflores Locks at the Panama Canal can be found on <http://striweb.si.edu/aasp07>. Please direct questions about logistics to Audrey Smith (aasp2007@



American Association of Stratigraphic Palynologists 40th Annual Meeting Panama

September 8-12, 2007

<http://striweb.si.edu/aasp07>

Hosted by the Smithsonian Tropical Research Institute

- a division of the Smithsonian Institution
- one of the world's leading centers for basic research on the ecology, behavior and evolution of tropical organisms.



Events

- Opening mixer
- Pre-meeting field trip to Barro Colorado Island or to the Canopy Crane at Metropolitan Park in Panama City
- Tour of the Miraflores Locks at the Panama Canal
- Short course on "R for Statistical Computing"



Guidelines

- Contributions accepted until July 5
- Student Financial Aid available
- Hotel rooms reserved at discount rate at the Hotel El Panama
- Additional information at <http://striweb.si.edu/aasp07>
- Contact us at aasp2007@si.edu

Sponsored by:





CIMP LISBON 2007

We are pleased to invite you to the CIMP Lisbon'07 joint meeting of the Spores/Pollen and Acritarch Subcommissions, organized by INETI-GEOSCIENCES (Portuguese Geological Survey), to be held in Lisbon, Portugal from September 24th to 28th, 2007. This meeting will involve three days of scientific sessions followed by a two-day post-meeting field trip to Southern Portugal. The venue is at the Portuguese Geological Survey headquarters. CIMP Lisbon'07 will be a forum for specialists interested in current progress, future developments, and application of Palaeozoic palynology.

You are strongly encouraged to participate and submit papers to CIMP Lisbon'07. The official working language is English and you are most welcome to visit the web page at <http://e-geo.ineti.pt/CIMPLisbon07> for further information. Please visit the web page and fill out the questionnaire regarding your possible attendance. Note that the deadline for filling out the questionnaire has been extended to March 30, 2007, the same date as for early registration. It would, however, help us greatly in planning for the meeting if you would answer the questionnaire as soon as possible so that we know approximately how many people plan to attend.

Lisbon, the capital of Portugal, is known throughout the world as the city of sun. It is located near the Atlantic Coast and is a well-known venue for international events. We hope to see you in Lisbon in September 2007.

Organizing Committee

Z. Pereira (LNEG-LGM, Portuguese Geological Survey)
J. Tomas Oliveira (LNEG-LGM, Portuguese Geological Survey)
P. Fernandes (University of Algarve, Portugal)
N. Vaz (University of Trás-os-Montes and Alto Douro, Portugal)

Scientific Committee

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J. Marshall (University of Southampton)
Z. Pereira (LNEG-LGM, Portuguese Geological Survey)
P. Steemans (University of Liege)
R. Wicander (Central Michigan University)



Location

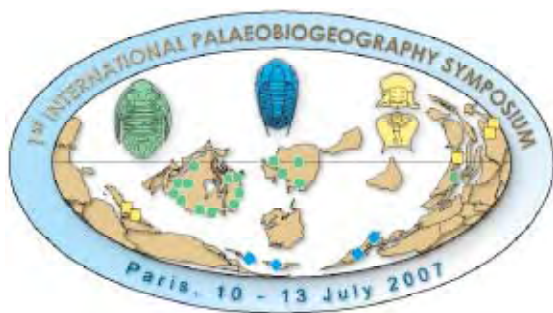
The headquarters of the Portuguese Geological Survey are in Alfragide, near Lisbon, just in front of the Lisbon Camping Park, on the west side of the Lisboa-Cascais highway. In addition to a 300-seat auditorium, the Portuguese Geological Survey has all of the facilities required for scientific meetings, including a cantina where the conference lunches will be served. About 300 m from the Laboratory are bus stops to the city centre.

CALL FOR PAPERS

This is a call for papers on Past and Present Palynology of Arid Zones. The papers will be published in a special edition of the Journal of Arid Environments planned for early 2008 in honour of the palynologist and quaternary geologist Prof. Aharon Horowitz (Tel Aviv University, Israel).

Guest editors for the edition are Prof. Louis Scott (University of the Free State, South Africa), Prof. Mina Weinstein-Evron (Haifa University) and Dr. L.K. Horwitz (JAE). Interested contributors please email Dr. Liora K. Horwitz by the end of July 2007 at: l.r.horwitz@durham.ac.uk

MORE TO MARK ON YOUR AGENDA



2007

July 10-13
First International Palaeobiogeography Symposium, Paris
University Pierre et Marie Curie
More info, contact Monique Troy,
palstrat@ccr.jussieu.fr

La 2ème circulaire va être mise en ligne sur le site de la Société géologique de France, en voici le lien:
<http://sgfr.free.fr/rencontrer/seances/s07-07paleobiogeo.html>

The second announcement will be available online shortly at the following link:
<http://sgfr.free.fr/rencontrer/seances/s07-07paleobiogeo.html>

XVII INQUA Congress
Cairns, Australia, 28 July - 3 August 2007
TWO SESSIONS OF INTEREST...

Ice Age Refugia

John R. Stewart (England) & Ian Barnes (England)

High-resolution analysis of catastrophic environmental changes and human response.

Suzanne Leroy, John Clague, and Matt McGlone

New members and reinstatements - Thank you for supporting AASP!

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LEUM GEOLOGY
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MESTONG BUILDING
KINGS COLLEGE
ABERDEEN, GRAMPIAN AB24 3UE
SCOTLAND, UNITED KINGDOM
TEL. 01224 273693
robertdaly@abdn.ac.uk

GADDAH, KHALED MAHMUD
UNIVERSITY OF SHEFFIELD
DEPT. OF ANIMAL AND PLANT SCIENCES
ALFRED DENNY BLDG., WESTERN BANK
SHEFFIELD, UK S10 2TN
TEL. +44 7727651711/0044
FAX. +44 114 2220002
kgaddah@yahoo.com

JAGER, HARTMUT
IM NEUENHEIMER FELD 234
HEIDELBERG
GERMANY 69120
TEL. +49 6221 545335
FAX. +49 6221 545503
h.jaeger@urz.uni-hd.de

MCARTHUR, ROBERT
2579 STONEHENGE DRIVE
BLAIRSVILLE, GA 30512
TEL. (706) 781-6087
rsundog@brmemc.net

STUKINS, STEPHEN
22 MERKLAND ROAD
ABERDEEN, SCOTLAND AB24 3HR
TEL. +44 1224273693
s.stukins@abdn.ac.uk

YETERIAN, EDWARD H.
4770 MAYFLOWER HILL
WATERVILLE, ME 04901
TEL. (207) 859-4772
FAX. (207) 859-4775
jhwood@colby.edu

REINSTATEMENTS

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jshane@core.com

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SPRING, TX 77380
TEL. (713) 478-4010
stefaan.van.simaey@exxonmobil.com

ADDRESS UPDATES

ATTA-PETERS, DAVID
DEPARTMENT OF GEOLOGY
UNIVERSITY OF GHANA
P.O. BOX L.G. 58
LEGON, ACCRA
GHANA
TEL. 0224 638511
FAX. 0233-21-514049
datta@ug.edu.gh
dattapeters@yahoo.com

CHMURA, GAIL L.
DEPARTMENT OF GEOGRAPHY
MCGILL UNIVERSITY
805 SHERBROOKE ST. W.
MONTREAL, QUEBEC
CANADA H3A 2K6
TEL. (514) 398-4958
FAX. (514) 398-7437
chmura@geog.mcgill.ca

DUNAY, ROBERT E.
OLD WAGGONERS
MARLEY LANE
FINGLESHAM, DEAL, KENT
ENGLAND CT140NF
TEL. +44 (1304) 617150
bobdunay.1@tiscali.co.uk

FEIST-BURKHARDT, SUSANNE
THE NATURAL HISTORY MUSEUM
PALEONTOLOGY DEPARTMENT
CROMWELL ROAD
LONDON SW7 5BD
UNITED KINGDOM
TEL. +44 (0) 20 7942 5142
FAX. +44 (0) 20 7942 5546
S.Feist-Burkhardt@nhm.ac.uk

JAKEMAN, MARCUS,
PETROSTRAT LTD.
TYLDESLEY HOUSE
48 CLARENCE ROAD
LLANDUDNO LL30 1TW
WALES, UNITED KINGDOM
TEL. +44 (0) 1492 870050
marcus@petrostrat.com

OOSTING, ANJA
ICHRON LTD.
5 DALBY COURT
GADBROOK BUSINESS CENTRE
NORTHWICH, CHESHIRE CW9 7TN
UNITED KINGDOM
TEL. +44 (0) 1606 46113
FAX. +44 (0) 1606 46114
anja.oosting@yahoo.co.uk

O'ROURKE, MARY K.
MEZCOPH
BOX 245210
1295 NORTH MARTIN AVENUE
THE UNIVERSITY OF ARIZONA
TUCSON, AZ 85724-5210
TEL. (520) 626-6835
FAX. (520) 626-8009
MKOR@email.arizona.edu

MARTYNIUK, OKSANA
ZHMERYNSKAYA ST. 32-A
APT. 11
KYIV, UKRAINE 03148
TEL. +38 044 407 17 62
o-martyniuk@bigmir.net

PURCELL, ROBYN R.
141 HASTINGS STREET
SCARBOROUGH, W. A.
6019 AUSTRALIA
TEL. +61 08 9245 2155
FAX. +61 08 9341 8679
robynpurcell@tpgi.com.au

QUATROCCHIO, MIRTA E.
MARTIN RODRIGUEZ 64
BAHIA BLANCA
8000 PCIA BS
AS ARGENTINA
TEL. +54 291-4087256
mquattro@criba.edu.ar

RAMIREZ-ARRIAGA, M.S. ELIA
LABORATORIO DE PALINOLOGIA
DEPTO. PALEONTOLOGIA
INSTITUTO DE GEOLOGIA
CIUDAD UNIVERSITARIA
COYOACAN, 04510 MEXICO D.F.
TEL. 56 22 4292 X178
FAX. 56 22 4281
elia@servidor.unam.mx

Thank you...

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EDITOR'S NOTE



Dear AASP members,

The signs are here on the LSU campus and on campuses around the world, graduation just passed and life is starting to slow down. Everybody is focusing on research and vacation! But think about us during the summer and make sure to send some material for the upcoming September issue.

Once again, we have a very full issue of the AASP Newsletter. Many thanks to all of you who keep providing feedback and material. It is a pleasure to work with such a great group.

As you saw, I started a new section presenting palynological laboratories in great details. My goal is to help our members and students find information about the various palynological research groups that exist around the world. I decided to start with two labs. One here in the U.S., in Florida, and the other is the palynological laboratory in Liege as

this is where I first learned palynology as a graduate student in the class of Professor Maurice Streeel... gosh, almost 15 years ago... I hope this will encourage you to send me articles and illustrations about your lab (word format document and pictures attached separately are best). Depending on the success of this attempt, I will try to have one or two labs highlighted in each future issue of the newsletter.

I want to reiterate that this newsletter cannot be created without your support. I encourage each of you, AASP members, future members, and colleagues, to send your contributions or ideas. With this in mind, I am looking forward to receiving your contributions.

Please send items such as (note that the order is not a reflection on priorities):

- Student thesis abstracts, updates on student research, etc.
- Reports on meetings, workshops, etc.
- Reviews on unique palynomorphs (one will be selected to illustrate our new NL cover)
- Historical notes
- Reviews on active research (climate, archeology, etc.)
- News on upcoming palynological and related meetings
- News on publications
- Human interest stories about members and students
- Information from groups outside of the United States
- Opinion pieces on palynological subjects
- Job openings in your company, university, or that you are aware of
- News flash items, serious or humorous
- Advertisements on palynological-related items
- And any items our members think are appropriate.

Thank you and have a great and productive summer!

Sophie Warny

