

# ANNUAL REPORT OF THE SOCIETY FOR 2008

## DIRECTOR'S REPORT, SOCIETY AWARDS AND AUDITED FINANCIAL REPORT (2007)

### Director's Report

#### Annual Meeting

SEPM held its Annual Meeting in Denver, CO, jointly with A.A.P.G. Mitch Harris (alternate for Dale Leckie, who could not attend) turned the gavel over to the new President, Steve Driese. Under the leadership of SEPM Vice-Chair David Budd and his committee, SEPM's sole and joint sessions accounted for 41% of the oral presentations and 49% of the poster program. The SEPM Research Symposium for 2008 was "Source to Sink Analysis of Clastic Depositional Systems: Models and Applications", Organized by Ole Martinsen & William Helland-Hansen. At the business luncheon, Andy Pulham gave his insights into "Explosive Miocene Volcanism, Great Plains Ash-Falls and Volcaniclastic Sands in the Deepwater Gulf of Mexico: Stratigraphy and Petrophysics". Then at the outgoing President's Reception Steve (standing in for Dale) honored the society's 2009 medalists and the best journal papers, best poster, best oral presentation and student awardees. SEPM offered a full load of courses and trips, however, one field trip had to be cancelled due to low registration.

#### SEPM Annual Meeting Committee

- **David Budd**, Vice-Chair for SEPM
- **Rick Sarg**, Oral Session Chair
- **David Eby**, Poster Session Chair
- **Gus Gustason**, Field Trip and Short Course Chair
- **Tim Farnham** and **Stephanie Gaswirth**, Award Chairs
- **John Robinson** and **David Eby**, Local Sponsorship Chairs

#### Short Courses & Field Trips

SEPM sponsored field trips and short courses at the Annual Meeting.

- SEPM Short Course: Sequence Stratigraphy for Graduate Students
- SEPM Short Course: 3-D Seismic Interpretation for Geologists
- SEPM Short Course: Seal and Reservoir Flow Barrier Analysis and Prediction
- SEPM Short Course: Introduction to the Petroleum Geology of Deepwater Settings
- SEPM Short Course: Recognizing Continental Trace Fossils in Outcrop and Core: Implications to Interpreting Environments of Depositional and Significant Surfaces
- SEPM Trip: Carbonate Reservoir Characterization: From Rocks to Models Using Sequence Stratigraphy, Paradox Basin, Utah
- SEPM Trip: Development of an Anomalous Clastic Wedge: A 400-Kilometer "Sink-to-Source" Transect through Upper Cretaceous Cordilleran Foreland Basin Fill, Utah and Colorado
- SEPM Trip: New Insights into the Climatic and Tectonic History of the Ancestral Rocky Mountains, Late Paleozoic Western Tropical Pangaea
- SEPM Trip: Reconsidering Sequence Boundaries and Reservoir Architecture: A Field and Flume and Source-To-Sink Look At Emerging Models for Sequence Development, Cretaceous Muddy/Dakota Group, Colorado

- SEPM Trip: Shelf to Basin Changes in Stratigraphic Architecture of Prograding Shelf-Slope-Basin Systems: Lewis Shale and Fox Hills Sandstone, Wyoming
- SEPM Trip: Iles-Williams Fork Field Trip, Southern Piceance Basin, Colorado
- SEPM Trip: A Shore-to-Basin Transect Through the Mancos Shale Mud Belt: Sedimentological Controls on Lithofacies Variability in Unconventional Hydrocarbon Plays

#### Journals

Both of our technical journals continued having excellent years. The Impact Factors for both journals increased. The *Journal of Sedimentary Research* continues publishing top-quality papers under the guidance of the co-editors, Gene Rankey (University of Kansas) and Paul McCarthy (University of Alaska). *PALAIOS* under the continuing editorship of Steve Hasiotis and Edie Taylor at University of Kansas published more pages and decreased turn around time. With online science journal access being the preferred mode by many scientists and students, SEPM and its journals continued to play an important role, as a founder and current board member of the geoscience online journal aggregate, GeoScienceWorld (GSW), which continues to thrive. *JSR* is part of the GSW and AAPG-Datapages, while *PALAIOS* is part of GSW, BioOne and JSTOR online aggregates.

*The Sedimentary Record*, the full color member magazine, is now in its seventh year, under the continued editorship of Molly Miller, Dave Furbish and Steve Goodbred, all of Vanderbilt University. The SedRec has continued publishing a current, interesting science article as well as giving members up to date information concerning the world of sedimentary geology. The Sedimentary Geology Division of GSA, continues to publish its newsletter section twice a year as part of this magazine in the March and September issues to better communicate to the wider sedimentary geology community.

#### Special Publications

Under the co-editorship of Gary Nichols, Don McNeill and Don's replacement, Brian Ricketts, the special publications of SEPM continue to produce top of the line products. In 2009, a total of five new books are either now out or planned to be published and the pipeline of future books continues to be well filled. SEPM has now instituted an online submission and review process similar to the journals for our books. This should help to reduce the time needed to take a book from idea to publication. The system being used is Allen Track, which is the same system used for both journals.

One of the biggest accomplishments this year was the digitization and CD production of essentially all of our past book publications, which includes some 150 books. This project, begun in 2007, was funded by contributions by the SEPM Foundation, Marta Weeks, Chevron, Shell and ConocoPhillips. The first of the books on CD were available earlier this year and

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all of them were for sale at the June Annual Meeting. Plans to make them available online are in progress.

- **SP # 91 - Cretaceous Oceanic Red Beds: Stratigraphy, Composition, Origins, and Paleooceanographic and Paleoclimatic Significance**, Edited by: Xiumian Hu, Chengshan Wang, Robert W. Scott, Michael Wagreich, and Luba Jansa
- **SP # 92 - External Controls on Deepwater Depositional Systems**, Edited by: Ben Kneller, Ole J. Martinsen and Bill McCaffrey
- **SP #93 - Geological Problem Solving with Microfossils I** - in progress for a late 2009 date.
- **Short Course Notes # 53 - Satellite Imagery, Visualization and Geological Interpretations of the Exumas, Great Bahama Bank: An Analog for Carbonate Sand Reservoirs**, Edited by Paul Harris and James Ellis.
- **CSP # 9 (Special Edition) - Sequence Stratigraphy of Siliciclastic Systems - The ExxonMobil Methodology: Atlas of Exercises**. Edited by Vitor Abreu, Jack E. Neal, Kevin M. Bohacs, and James L. Kalbas

### Research Conferences

In 2009, SEPM was involved in three research conferences, the all of which were very successful and summaries can be seen on the SEPM website ([www.sepm.org](http://www.sepm.org)). One of the conferences was held in Chile and the other two both have a Houston venue. The schedule for 2010 looks to be crowded with an estimated four to five conferences with meetings in London (with GSL), Golden, CO, Arizona and perhaps Nova Scotia.

- **Stratigraphic Evolution of Deep-Water Architecture: Examples on Controls and Depositional Styles from the Magallanes Basin, Chile**, February 22-28, 2009, Puerto Natales to Torres del Paine National Park, Chile.
- **Geological Problem Solving with Microfossils II**, A joint NAMS/SEPM Research Conference, March 15-18, 2009, Houston, Texas.
- **Application of Seismic Geomorphology Principles to Continental Slope and Base-of-Slope Systems: Case studies from seafloor and sub-Seafloor analogues**, November 12-14, 2009, Houston, Texas

### Collaborations (AAPG, GSL, GSA, ANAPS and NACSN)

In 2009, we continued our long tradition of holding the SEPM Annual Meeting in conjunction with AAPG and helping provide an excellent technical program with the volunteer work of the SEPM members on the Local Convention Committee. We cosponsored a student field trip with AAPG. SEPM continues to work with AAPG, GSA, GSL and our sections to produce jointly sponsored conferences and publications where applicable. SEPM remains an official member of the North American Commission on Stratigraphic Nomenclature (NACSN), Association of North American Paleontological Societies (ANAPS), as well as an associated society with the International Union of Geologic Societies. SEPM is also a member of the North American Committee for the Year of the Planet Earth (2007-2009).

SEPM had a joint booth with the Paleontological Institute at the ANAPS Conference in Cincinnati, OH in July, manned by Jill Hardesty, *PALAIOS* managing editor.

### Foundation Items

The SEPM Foundation, Inc. under the leadership of Tim Carr (Foundation President) continues to award student grants to those pursuing research in sedimentary geology. To date over \$425,000 has been dispensed from the foundation to students. In 2009, although the available funds were greatly diminished due to the downturn in investments, the foundation was still able to support 14 student presenters with travel grants to the Annual Meeting as well as 21 student research grants.

### SEPM Student Research Grants

- **Daniel Bulger**, University of Georgia
- **Sarah Cadieux**, University of Tennessee
- **Anne Hayden**, Utah State University
- **Miles Henderson**, University of Tennessee – Knoxville
- **Sean Loyd**, University of Southern California
- **Sophie Newbury**, University of Colorado – Boulder
- **Michael Osborne**, Stanford University
- **Joanna Oseguera**, University of California – Riverside
- **Victoria Petryshyn**, University of Southern California
- **Kathleen Ritterbush**, University of Southern California
- **Jennifer Rothfuss**, University of Alabama
- **Aaron Sappenfield**, University of California – Riverside
- **Morgan Schaller**, Rutgers University
- **Lidya Tarhan**, University of California – Riverside
- **Alexander Ullrich**, University of Florida
- **Nicholas Welch**, University of Kansas
- **Mara Brady**, University of Chicago
- **Sarah Greene**, University of Southern California
- **Rowan Martindale**, University of Southern California
- **Richard MacKenzie**, University of Florida
- **Kristen Myshrrall**, University of Connecticut

### Annual Meeting Mobil Poster Award Travel Grants

- **Jie Zhou**, Northern Illinois University
- **Kadira Singh**, University of Texas
- **Kenneth O'Donnell**, Indiana University
- **Christopher Howard**, University of Arkansas
- **Sharon Bywater**, University of Wyoming
- **Lauren Miller**, Oklahoma State University
- **Chrissie Hollon**, Western Kentucky University
- **Torrey Nyborg**, Loma Linda University
- **Damion Knudsen**, North Dakota State University
- **Tatiana Gaona Narvaez**, Florida Int. University
- **John D. Horn**, University of Nebraska-Lincoln

### Great Lakes Section Awardee

- **Bryan Sell**, Syracuse University

### NAMS Section Awardee

- **Claudia Cetean**, Univ. Babes-Bolyai, Romania

### Central European Section Awardee

- **Christina Glunk**, Univ. of Neuchatel, Switzerland

## Director's Report



SEPM 2009 – 2010 Council

Back row: Evan Franseen, John Holbrook, Tim Carr, Gene Rankey, Steve Hasiotis and Paul McCarthy

Front row: John Snedden, Paul (Mitch) Harris, Steve Driese and Nancy Engelhardt-Moore

(not pictured: André Strasser, Edith Taylor, Gary Nichols and Brian Ricketts)

TABLE 1.—Membership Statistics

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>SEPM MEMBERSHIP</b>											
Members	4,706	4,625	4,597	4,299	4,156	3,790	3,521	3,504	3,399	3,422	3,475
Nondues Paying Members	296	261	200	192	265	205	332	345	402	194	105
	5,002	4,886	4,797	4,491	4,421	3,995	3,853	3,849	3,802	3,616	3,580
<b>PALAIOS MAILING LIST</b>											
SEPM Members & Honorary (Regular)	1,040	992	937	906	810	812	807	848	830	775	894
SEPM Members (Students)	187	148	169	149	109	138	142	481	523	468	490
Subscribers	440	447	430	456	494	509	435	386	312	278	247
	1,667	1,587	1,536	1,511	1,413	1,459	1,384	1,715	1,665	1,521	1,631
<b>Journal of Sedimentary Research MAILING LIST</b>											
SEPM Members & Honorary (Regular)	3,170	2,959	2,859	2,569	2,107	2,175	2,112	2,261	2,191	2,083	2,119
SEPM Members (Students)	482	397	422	268	253	298	277	587	571	501	514
Subscribers	1,310	1,204	1,176	1,176	1,122	1,073	1,022	988	882	817	768
	4,962	4,560	4,457	4,013	3,482	3,546	3,411	3,836	3,644	3,401	3,401
<b>NEW MEMBER INFORMATION</b>											
Applications Completed	335	198	236	181	229	296	294	320	302	293	299
Reinstatements	19	16	15	12	10	8	20	25	20	25	22
Transfers	-	-	-	-	-	-	-	-	-	-	-
Resigned	31	34	29	14	15	45	30	15	28	10	8
Deceased	17	15	16	5	4	5	15	7	12	5	6
Dropped for non-payment of dues	288	281	236	306	713	294	336	387	495	380	408

## Society Awards



John Southard accepts the Distinguished Service Award from President-Elect Steve Driese.

### Distinguished Service Award For extraordinary service to the Society John Southard

John Southard has played an extraordinary role in shaping the field of sedimentary geology for over four decades, particularly as a key figure in the field of experimental sedimentation. John's experimental work led to the definition of stability fields of bedforms in three-dimensional space (flow velocity, water depth, and grain size). These are the foundation for many fields of research on surface processes that span nearly all environments from fluvial to deep sea. A series of books that John published with co-authors John Harms, Gerry Middleton and others were instrumental in providing sedimentary geologists with the tools to quantitatively interpret sedimentary structures. These hallmark publications are some of the most influential books in the history of sedimentary geology in that they provided the framework for the application of fundamental physics to modern environments and sedimentary rocks. John's contributions included the detailed application of fluid dynamics principles to all aspects of sediment erosion, transport, and deposition. John has published papers on a wide range of topics, including storm deposition, turbidite flow, combined flows, and most recently bedforms produced by flocculated mud.

Three papers published in 1990 with former student Larry Boguchwal established how water temperature and different values of  $g$  would influence bedform geometry. These have been critical for the interpretation of Martian images, and illustrate John's creativity and approach to problem solving.

An underappreciated aspect of John's career is his remarkable generosity of intellectual ideas. He has been an important mentor to students and young faculty, and many experimental facilities worldwide were built and/or modified based on John's input. John also served as editor for JSR for a full term and continues to act as Corresponding Editor. His exacting editorial work has helped set the standard for the presentation of scientific ideas in the field for more than a decade.

Biographer: Paul Myrow

Citation: In recognition of John's many contributions to the field of sedimentary geology. These include the application of fundamental physics, such as fluid dynamics and the mechanics of transport, to the analysis of sedimentary structures. Also in recognition of his many contributions to the education of students and professional geologists.

### Reply from John Southard

I was taken completely by surprise to learn that SEPM was giving me the "Distinguished Service Award." I was just enjoying doing my thing, looking after JSR and SP manuscripts for authors for all these years (and I haven't gotten tired of it yet). It was a nice surprise, and I am grateful for SEPM for it.

In my acceptance remarks I made mention of having heard the late, great Larry Sloss expound upon "Sloss's Three Laws." I remember the third law: procrastination can be a good thing: sometimes the problem goes away." Later I learned from Ed Clifton the second law: "There is such a thing as a free lunch: I'm having one." (It was an SEPM luncheon meeting.) The first law seems to be gone forever.

Anyway, I too have three laws. (Only the third has any real relevance.) (1) Never throw anything out: you never know when you might need it. (2) Never look back: something might be gaining on you (with credit to the great Satchel Paige). (3) Never pass up an opportunity to impart knowledge and understanding to others. I have been an educator for all these decades, and that third law always rings true with me.

I hope to keep on working with SEPM authors to maintain the highest standards of clarity of exposition for our publications until I finally fade away into the sunset. It will probably come down to be a race between eyes and mental acuity: which will give out first? (I'm assuming, of course, that SEPM will not cave in to the deplorable tendency nowadays in the world of publishing to not bother anymore with careful editorial oversight.)



Amy Draut accept the James Lee Wilson Award from President-Elect Steve Driese.

### James Lee Wilson Award For Excellence in Sedimentary Geology Research by a Young Scientist Amy Draut

Dr. Amy Draut is an exceptionally enthusiastic and promising young scientist whose passion for geology has resulted in a list of publications and a breadth of research that are more fitting of a successful mid-career researcher. She has worked on recent sedimentation offshore California, Hawaii, and the Gulf of Mexico; eolian/fluvial/archaeological interactions along the Colorado River in Grand Canyon; channel evolution of the Elwha River, Washington; arc-continent collisions; and climate stability during the Pliocene warm period. Her experience spans eolian, fluvial, coastal, and deep-sea environments and both modern and ancient sediments. She has worked on physical

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sediment transport, collection and interpretation of high-resolution seismic data, trace-element and isotopic geochemistry, coring, trenching, field mapping, remote sensing, and geomorphology.

Amy Draut completed her Ph.D. in 2003 in the Massachusetts Institute of Technology / Woods Hole Oceanographic Institution Joint Program, where she worked on nearshore sedimentation and evolution of the Gulf coast (advised by Gail Kineke), subduction-zone tectonics and geochemistry in Ireland and Alaska (advised by Peter Clift), and Pliocene millennial-scale climate variations studied using isotope data from foraminifera (advised by Maureen Raymo).

In 2003, Amy began a postdoc at the USGS (Santa Cruz, CA) working on relationships between eolian and fluvial sedimentation and preservation of archaeological sites in Grand Canyon (advised by Dave Rubin). This work is not merely of academic interest, because results have implications for future operations of Glen Canyon Dam. After her postdoc, Amy joined the permanent research staff at the USGS Coastal and Marine Center in Santa Cruz, where she has continued research on eolian, fluvial, and marine sediment.

Given Amy's passion for geology, it is not surprising that she previously has received awards from USGS, a Clare Booth Luce Fellowship from WHOI, a Geological Society of America student research grant, and six awards and grants while an undergraduate at Tufts University.

Dr. Draut enjoys working outdoors, and during one year of her postdoc she spent more than 4 months camping in the field. She is also eager for others to share the experience of field work and science, and toward that goal she has worked as a volunteer for Grand Canyon Youth, as a judge for regional and national high-school science and engineering competitions, as a volunteer teaching assistant for UCSC undergraduate field camp, as a panel member and chair of the GSA Research Grants Committee, and as a leader of field trips at GSA Penrose Conferences in Utah and Alaska. In her spare time she experiences life as a sedimentary particle by kayaking on rivers in the western US.

Biographer: David Rubin

Citation: Dr. Amy Draut has only recently begun her career, but has already made substantial contributions to a broad range of fundamental and applied topics in eolian, fluvial, coastal, and deep-sea sedimentary geology.

### Reply from Amy Draut

My sincere thanks to the Society for this extreme honor. Although I never had the privilege of meeting Dr. James Lee Wilson, a former student whom he mentored described him to me as not only a world-class scientist, but also an outstanding teacher and an exceptionally kind and generous man. I can only hope my career might someday be remembered as well as his.

It seemed to me when I started studying geology, as it does now, that this is the most fun you are likely to have while doing useful work. Aside from the sheer enjoyment of studying interesting research problems in some spectacular field areas, I'm continually aware of what an exciting and important time this is to be an earth scientist. What we learn about sedimentary processes is now needed not only to help find and use natural resources responsibly, but also to understand how climate change and human land use affect earth-surface and marine systems.

In addition to much-appreciated support from my family, I've been fortunate to work with and for many excellent scientists, to whom I am grateful for mentorship and collaboration: Dave Rubin and others at the USGS, my graduate advisors Peter Clift, Gail Kineke, and others at MIT and the Woods Hole Oceanographic Institution, and the Tufts University geology faculty.



William Morgan accepts the Honorary Membership Award from President-Elect Steve Driese.

### Honorary Membership Award For contributions to the science and SEPM William Morgan

Honorary Membership in SEPM for William A. Morgan recognizes his sustained and outstanding service and leadership to the Society, technical publications in carbonate stratigraphy and reservoir analysis, and contributions toward furthering our science.

Bill's service and leadership to SEPM are just short of amazing. He joined SEPM in 1974 and his "service" includes membership on numerous committees: Continuing Education, Computer Applications, Meetings Policy, Research, Sections and Committees, Publication Policy, Conventions Policy, Research Concepts and Continuing Education, Annual Meeting, and Investment. Bill chaired the Continuing Education and the Nominating Committees, served as Director and Vice-President for External Fund Raising for the SEPM Foundation, and was a member of the Endowment Fund Raising campaign for the SEPM Foundation. He served as Poster Sessions Chairman for the 1995 Annual Meeting, as Technical Program Chairman for the 2002 Annual Meeting, as Secretary Treasurer, and as President in 2005-2006. Bill has also been a member of the Midcontinent Section of SEPM since 1983 where he served as Vice-President in 1985 and President in 1986.

Bill's research contributions to carbonate stratigraphy, sedimentology, and reservoir analysis further support his honorary membership. He has co-convoked one Research Conference and served as a Technical Committee member for another. Bill has published and helped others to publish numerous research articles, and in so doing he has helped to bridge the science between industry and academia. Of particular note from an SEPM perspective are his: co-editing in 2003 of the Joint SEPM Special Publication No. 78 – AAPG Memoir 83 on *Permo-Carboniferous Carbonate Platforms and Reefs*; co-editing in 2008 of SEPM Core Workshop 22, *Developing Models and Analogs for Isolated Carbonate Platforms – Holocene and Pleistocene Carbonates of Caicos Platform, British West Indies*, in which he has a major paper;

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and his lead editing role of an in press SEPM Special Publication on *Cenozoic Carbonate Systems of Australasia*.

Bill is currently a Geoscience Fellow with ConocoPhillips in Houston and as such he plays an important role in advancing the use of sequence stratigraphy and the latest reservoir characterization methods within their company via technology transfer and technical service projects. Bill has also long been very proactive in interacting with academia thereby playing a role in helping to advance the science within a much larger sphere of influence.

This recognition today, though, would not have occurred without the support of his wife, Lori Millet, whose love and understanding have been a source of inspiration throughout his career.

Biographer: Paul M. (Mitch) Harris

Citation: For sustained service to SEPM as an outstanding leader, production of scholarly works, and inspirational mentoring.

### Reply from William Morgan

Receiving Honorary membership in SEPM is truly an honor. I want to thank the nominating committee for selecting me, and I especially want to thank Mitch Harris for his gracious citation. I also want to thank ConocoPhillips, my employer, without whose generous encouragement and financial support I would not have been able to donate nearly as much time and travel expenses to SEPM activities as I have during my 35 years as an SEPM member. But most of all, I want to thank my wife, Lori Millet, who has provided the love and support that has allowed me to take an active role in SEPM activities. No doubt many of us who volunteer our time and energies to organizations such as SEPM have a spouse or significant other on the home front backing us up and doing all the things that we really should be doing!

I was fortunate as a graduate student at the University of Wisconsin, Madison to come under the influence of several SEPM luminaries, including Bob Dott and Lloyd Pray, both Twenhofel Medalists, and my advisor Dave Clark, a Moore Medal recipient. All of them impressed upon me the importance of joining SEPM and being active in the Society. To them, SEPM embodied the science of sedimentary geology and, by providing forums such as meetings and publications, was a key element in the exchange of scientific information. Although the term was not in vogue at the time that I joined SEPM, the Society was also a means of "networking" with other scientists who shared your interests and learning from those who were engaged in other areas of research. All of those attributes of the Society are just as valid today as they were when I was a graduate student.

As I look back on my SEPM activities, I have to say that whatever contributions I have made to the Society have been repaid to me many fold by the scientific knowledge I have gained and the pleasure I have had working on SEPM activities with such outstanding individuals as Wayne Ahr, Mitch Harris, Rick Sarg, those I served with on SEPM Council, and others to numerous to mention; as well as interacting with Howard Harper, Theresa Scott, and the entire SEPM staff.

There is one more person that I want to acknowledge, and that is Bob Scott, an SEPM Honorary Member. Not long after I had graduated from college, I met Bob at an SEPM Annual Meeting and mentioned to him that I was interested in being involved in Society activities. About a week later, I received a letter from

SEPM stating that I was a member of the SEPM Continuing Education Committee. Maybe Bob was desperate at the time, but his inclusiveness and subsequent encouragements cemented my relationship with SEPM.

So, in conclusion, I want to ask all of you, especially those of my generation, to not only encourage but actively recruit young sedimentary geologists to be involved in SEPM. SEPM will certainly benefit, and a younger generation will be enriched by the experience - I know that I have.



Al Hine accepts the Francis P. Shepard Medal from President-Elect Steve Driese.

### Francis P. Shepard Medal For Sustained Excellence in Marine Geology Al Hine

The many and varied accomplishments of Al Hine are testament to something Jacob Bronowski stated in a 1967 Silliman Lecture at Yale, that science is, in effect, "man's attempt to understand what he sees." This is particularly a propos to geology wherein we continue to extend our ability to "see" the earth via advances in technology, computers, and a host of new observational techniques. Over the years and miles Al Hine has seen the edges of the ocean as well as what is on and under the seafloor. We understand the earth better now from what Al has seen and understood, particularly because he understands it as a dynamic and not as stop-frame images.

The "movie in the mind" approach to thinking of the earth was fostered by Al's early mentor, Miles O. Hayes, who is a pioneer in the dynamic geomorphology of clastic coastlines. Al was with Miles for both his MS at University of Massachusetts--Amherst and later his PhD at the University of South Carolina--Columbia. Between his AB at Dartmouth College and his 1973 MS at UMass Al was an active duty junior officer in the US Air Force during the Vietnam War.

Al extended this dynamic approach to sediments to shallow water carbonates for his doctorate pioneering the dynamic behavior of oolite shoals in the northern Bahamas. I was fortunate to be a part of this work and from the University of North Carolina we spent many hot, exhausting days on the beautiful Bahama Banks sampling and running high resolution seismic profiles. We also dove in DSRV Alvin on the lithoherms of the northern Straits of Florida. A life of friendship and collaboration ensued. From USC Al went on to post doctoral work on the North Carolina coast/shelf at the UNC Institute of Marine Sciences at Morehead City and adjunct at the Duke Lab



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at Beaufort. He then took a position at the University of South Florida's College of Marine Science where he is now Professor and Associate Dean. There he built a large and very active program of on-going research which spans a wide part of the world including the margins of continents and off-lying carbonate platforms. Notably are those on the Nicaraguan Rise via remote observational vehicles and the east Australian Margin via the Ocean Drilling Program—he was co-chief scientist on ODP Leg 182 which drilled into the cool-water carbonates within the Great Australian Bight. He is respected for administrative and advisory services to JOIDES, ODP and UNOLS. Al served as ambassador for the Joint Oceanographic Institutions, delivering 14 distinguished lectures at 9 universities. No desk-tethered scientist, Al has participated in no less than 70 research cruises. Over the last decade Al has dredged up 3.5 million in support from 5 agencies and authored or co-authored 24 papers. It is apparent that Al has worked widely in both the doing, writing and facilitating ocean science - a man for all seas and seasons.

With his team of colleagues and students Al has produced a remarkable record of publication, the valuable manifestation of seeing, researching and understanding the ocean and its margins. A few examples of the work in which Al has been involved are:

- the sedimentation and sealevel history of carbonate platforms including the Bahamas, Bermuda, south Florida, Nicaraguan Rise, and the Australian Marion Plateau

- the seismic sequence stratigraphy and paleoceanography of phosphate-rich units on the North Carolina continental shelf

- the sedimentary processes of tidal inlets, barrier island coastlines, glacial outwash coastlines, and marsh-dominated coastlines

- the discovery of deep, mesophotic coral reefs along west Florida margin and their relationship to paleo-shorelines, paleoceanography and past sea level changes

- karstic deformation and basin formation within the Florida Platform and the Cenozoic siliciclastic infilling of these basins.

It is fitting that the recognition of Al's accomplishments bears the name of Francis P. Shepard. Not only did both ply similar areas of study of the shore and shelf regions of the world ocean, but the men are similar in character as well. Al is a people person; attentive and understanding to those around him, a natural and low key leader. This was also my impression of Dr. Shepard. They share the prize in the goodness of their work as well as the goodness of their ways.

Biographer: A. Conrad Neumann

Citation: Professor Albert C. Hine is cited in recognition and appreciation of his many, varied and excellent contributions to Marine Geology in the training of students and in the conduct of quality research on continental shelves and shorelines, carbonate platforms both deep and shallow, clastic and carbonate sand bodies, as well as his administrative assistance and support to large national research efforts and goals.

### Reply from Al Hine

What a wonderful surprise to receive SEPM President Dale Leckie's email last fall notifying me that I was to be awarded the 2009 Francis P. Shepard Medal for excellence in marine geology! At first I thought it was a new, perverted version of "Candid Camera", but Dale assured me the award was legit. This is humbling as there are many who, I think, are more

deserving. Besides, these awards are for old guys—"where is this grey hair coming from—I am only 19". Guess, what, I am an old guy—well, starting to look like one, anyhow.

I am closing a loop of sorts in that spring semester of 1965 as a sophomore at Dartmouth, I took marine geology taught by Noye Johnson, and the textbook he assigned was Dr. Shepard's *Submarine Geology*\*. I was not yet a geology major, but told the department chairman at the end of the course to sign me up—I was hooked. At that time, I never would have guessed that I would be standing here accepting such an award. Little did I know then that in the next 44 years, I would spend >750 days at sea on many different oceans consuming >75 research cruises, including 2 legs on the *JOIDES Resolution*, as well as countless days working on many different coastlines. It has been great, and I am not dead yet!

So, what have I learned? **Have great mentors**--My early hard rock days taught me to work hard—particularly from Peter Robinson at UMass. Miles Hayes taught me how to observe. Conrad Neumann taught me about creativity. He has the most imaginative mind of anyone I have ever known. He also taught me about lifelong friendship for which I am forever grateful. I thank him for writing the bio that accompanies this award. Bob Ginsburg taught me to ask the "essential" question. Gene Shinn taught me (and still does) to look out for what's not there (read: beware of conspiracies!). **Have great friends in grad school.** I am indebted to Jon Boothroyd who answered all the questions I could not bring myself to ask others. He is one of the best geologists and teachers I know. **Have great colleagues.** My mentors and former, fellow grad students became my professional colleagues. But, I matured as a scientist by developing life-long friendships with Hank Mullins, Dan Belknap, Harry Roberts, Skip Davis, Stan Riggs, Bob Halley and, of course, Stan Locker. I owe much of any success over the past 20 years to Stan. **Work for great people.** Peter Betzer, as Dean of the USF College of Marine Science, provided resources, advice and friendship that were invaluable to my career. **Have great students.** Of course, all of my students have been great! But the best piece of advice from a student came from David Mearns who once said after a boring explanation I was handing him, "Al, whatever you do, be interesting and be interested!" Whoa, where did that come from? I have tried to live up to David's words.

Some advice for others—here goes--From raising my kids and seeing them grow up, to seeing my students excel on their own, **it all goes all too fast.** To those starting out, travel extensively, enjoy every field trip, admire the scenery, eat the local food, listen to the music, learn culture and history, talk to others, ask lots of questions and take lots of pictures. **Get a perspective of how far we have come.** Your 1st paper that you thought would redefine the field becomes a modest embarrassment in less than 10 years. To drive home this point, let me come full circle and quote from Dr. Shepard's 1963 magnum opus: "Another concept of ocean basin evolution has been suggested by Dietz (1961) called the Sea Floor Spreading Hypothesis...These hypotheses [other ideas at the time attempting to explain origin of ocean basins] are interesting and may have true merit, but at present there is no adequate way to test them. Drilling to the Moho may provide a means of testing the ideas" (p. 435)—no mention of the term "plate tectonics" and drilling into the Moho was never required to "prove" plate tectonics.

But, the idea of scientific ocean drilling led to the Deep Sea Drilling Program (DSDP), which led to the Ocean Drilling Program (ODP), which has morphed into the Integrated Ocean

## Society Awards

Drilling Program (IODP). This is our Hubble Telescope. The drilling platforms and the Hubble Telescope cost about \$1 billion each and both programs cost about the same to operate. One platform looks into deep space, the other looks back into deep time (well, maybe not the deep!). But, I encourage the new sedimentary geologists to become involved in scientific ocean drilling. Dr. Shepard pointed us in the right direction. Let's keep his legacy alive.

We have learned much since Dr. Shepard pioneered marine geology. But, I think we are just getting started.

Finally, I thank my companion in my life's journey, my wife, Jane.

\*Shepard, F.P., 1963, *Submarine Geology*: Harper and Row Publishers, New York, 2nd ed., 557p.



Leo Hickey accepts the Raymond C. Moore Medal  
from President-Elect Steve Driese

### Raymond C. Moore Medal For Sustained Excellence in Paleontology Leo J. Hickey

Paleontology is, at its core, a hybrid of geology and biology, and no paleontologist better illustrates the hybrid's vigor than Leo J. Hickey. As a Princeton graduate student Leo came to the daunting realization that most angiosperm leaf fossils had been misidentified by superficial comparison with living species. He bravely began a comprehensive examination of vein architecture in living angiosperms (~200,000 species, ~500 families!), and so brought a new standard of botanical accuracy to leaf identification.

Sedimentology and stratigraphy also were integral to Leo's research from the start. His early observations of fossiliferous rocks led him to realize that variation in plant fossil assemblages was correlated with depositional environment; the original mosaic of vegetation on ancient floodplains was preserved surprisingly often. By establishing that isolated leaf fossils could be identified botanically, and that their preferred habitats could be reconstructed by sedimentological analysis, Leo paved the way for an evolutionary paleoecology of plants – for understanding not only how plants evolved, but also how they made their living.

In Leo's years at the Smithsonian these approaches paid off in a fundamental re-writing of our understanding of the early evolution of flowering plants. Leo developed the idea, collaborating with Jim Doyle, that angiosperms first came to

dominance in channel-margin habitats characterized by high resource availability and frequent disturbance. All subsequent discussions of the evolution of this, the most important group of land organisms, bear Leo's influence.

During the "neo-catastrophist" revolution of the 1980s Leo's stratigraphic approach was again critical. Initial survey of the literature supported gradual plant extinction at the K-T boundary, but, by then at Yale, Leo and his student Kirk Johnson collected stratigraphically detailed data documenting sudden K-T extinction better than in any other terrestrial organisms. The base of the food chain had been whacked.

No tribute to Leo says it better than this: his hybrid approach has been adopted and extended by two generations of paleobotanists, producing important insights into biostratigraphy, paleoecology, evolution, systematics, and paleoclimate.

Biographer: Scott Wing

Citation: For integrating geological and biological approaches to paleontology that have produced major insights into plant ecology and evolution, for his role in educating new professionals and the public, and for his service to the academic community.

### Reply from Leo Hickey

It is a profound honor to be awarded this medal, named for one of the great paleontologists of the Twentieth Century, and I accept it with deepest gratitude to the Society of Economic Paleontologists and Mineralogists and to its officers. In a very real sense, however, this prize is little merited, coming as a result of the rare privilege of having been able to spend nearly my entire life reading the history of plant life from the record in the rocks. What drove me was an intense curiosity to know how the Earth and its green mantle came to be.

My inquiry began with a childhood chemistry set that would surely today be an item of interest to the Environmental Protection Agency or to Homeland Security; this led to a fascination with minerals as naturally occurring chemical compounds; then to crystallography as I sought to understand the patterns that lay behind the cold perfection of crystal faces; and finally to fossils—first to invertebrate shells on the New Jersey coastal plain, and then to plants gathered on weekend collecting trips with my father to the coal basins of my native Pennsylvania. Gradually I learned to read the patterns set in stone and in the fossil plants that it contained. In this I was aided by my teachers, especially Erling Dorf of Princeton University, who introduced me to the Earth's history and gave me hard lessons in the discipline needed to read the record; and by Marion A. Johnson of Rutgers University, who showed me how to gain evolutionary insights from plant morphology.

And so I set out on my journey. In my travels I have watched the greening of the land; I was present as flowering weeds spread from the banks of long-vanished streams to conquer the world; I have seen the sky turn red on the day the earth's forests burned to ash when the Age of Dinosaurs ended and our humble forebears emerged to claim their place; I have roamed the forests of Polar realms; and I have witnessed the incredible unfolding of the shapes and veins of angiosperm leaves.

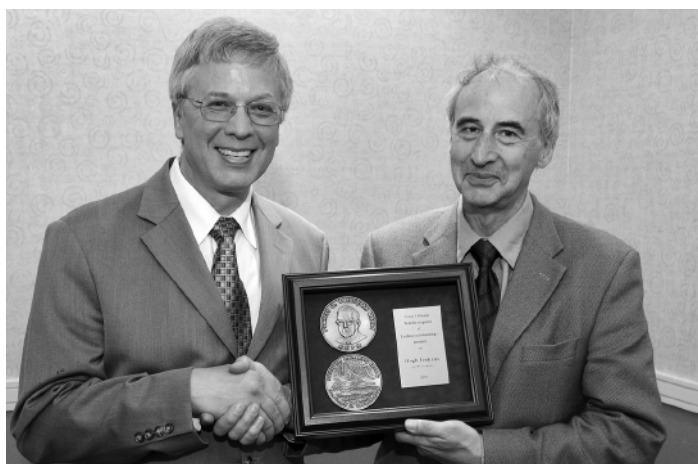
Throughout these travels my great joy has been in sharing—with my students, who have extended my vision far beyond what I could have imagined; with my colleagues, especially with Jack A. Wolfe with whom I shared a belief in the taxonomic value of leaves, if not a friendship; and with the lay



## Society Awards

public through my museum exhibits that taught by organizing the objects of my interest in time and space. Finally, I am immensely grateful to Judith, my wife of these many years, who is here with me today. Though she did not share a passion for my other love, she stood by me and supported me even when it carried me far from her and our boys.

In closing, I hope that you will pardon me for sharing this deeply personal reflection with you, but I thought it fitting on the part of someone whom you have chosen to honor as an example for your collective aspirations. In the end, my personal life and feelings should count for nothing unless I have given you, my fellow scientists, something on which to build the edifice of your endeavors. Today, I offer you my heartfelt thanks for the reassurance that I have indeed done so.



Hugh Jenkyns accepts the Francis J. Pettijohn Medal from President-Elect Steve Driese.

### Francis J. Pettijohn Medal For Sustained Excellence in Sedimentology Hugh Jenkyns

In honoring Oxford's Hugh Jenkyns, the SEPM recognizes an exceptionally creative and versatile scientist who combines sedimentology, paleoceanography, geochemistry and sequence stratigraphy to uncover and interpret the paleotectonic and paleoclimatic signals in the stratigraphic record, particularly as encoded in pelagic sediments.

Jenkyns' early work, carried out in the late nineteen-sixties, focused on the sedimentary and paleotectonic evolution of the western Tethys. His publications on the Mesozoic of western Sicily were a forceful exercise in sedimentology and syn-sedimentary tectonics, reconstructing the history of Jurassic carbonate platforms evolving into non-volcanic seamounts that were finally covered by pelagic sediments deposited in steadily increasing water depth. With this work, he laid the ground for the understanding of the paleotectonic evolution of the area, including recognition of ancient passive margins and their role in Alpine-Mediterranean geology. Jenkyns' work could thus be integrated seamlessly into a plate-tectonic synthesis of the Mediterranean and central Atlantic regions. Owing to his wide regional experience and his ability to read many European languages, Jenkyns became a leader in understanding the pelagic sediments of the Tethyan region, gaining knowledge that became particularly fruitful during his later participation in the Deep Sea Drilling Project (DSDP).

In 1973, DSDP Leg 33 recovered, from the Lower Cretaceous of the Pacific Ocean, a thin level of unusual black, organic-rich

sediment, a facies that became the basis for recognition of Oceanic Anoxic Events (OAEs), first proposed in a seminal paper by Jenkyns and Sy Schlanger. Jenkyns has since pursued a broad, long-term study of anoxic sedimentary environments and OAE's. Working closely with organic and isotopic geochemists, he has documented a detailed near-global record of these relatively brief intervals resulting from anoxia to euxinia in an expanded oxygen-minimum zone, typically accompanied by abnormally high near-surface ocean temperatures. From his work, we now have a growing understanding of the relations of the black shales to ancient ocean circulation and fertility patterns. He has established the global synchronicity of black-shale development in several short time intervals in the Mesozoic, in pelagic, shelf-sea and carbonate-platform environments, using not only classical biostratigraphic techniques but also carbon- and strontium-isotope stratigraphy. He has led in building a tight geological fence around the problem, a fence that constrains theories of origin.

Equally novel is his pioneering work on the isotope chemostratigraphy of Mesozoic sediments, utilizing less familiar proxies such as nitrogen and iron isotopes. Of particular importance is his research on the evolution of Pacific guyots that elegantly relates the drowning of these volcanic-floored carbonate platforms to Cretaceous greenhouse conditions.

That he has recognized important geological problems at a very early stage is reflected by the topics of numerous doctoral dissertations initiated and supervised by him. He is a true scholar in the best sense of the word and has an almost encyclopedic knowledge of the literature, including the history of our science. Reading his excellent chapter on pelagic sediments in Harold Reading's book *Sedimentary Environments and Facies* remains a great intellectual pleasure.

Through integration of varied disciplines and a large-scale vision, Hugh Jenkyns has shown us how sedimentology can guide us to a deeper understanding of the Earth's past and the causes and effects of global change.

Biographers: Daniel Bernoulli, Robert E. Garrison and Edward L. Winterer

Citation: For extraordinarily original research that combines interdisciplinary approaches with a global perspective to advance our knowledge of Earth history and for demonstrating how sedimentology contributes to resolving major geological and paleoceanographic questions.

### Reply from Hugh Jenkyns

I am extremely grateful to SEPM for awarding me this honour and to those who took the time and trouble to nominate me. The receipt of such an award is rendered doubly meaningful because it originates from a country other than my own. I, of course, know the name of Francis Pettijohn from his textbook, *Sedimentary Rocks*, from my days as an undergraduate: the second edition was a permanent resident in my bookshelf. My closest encounter with the man himself came several years' later, across a crowded breakfast room in a guesthouse in Heidelberg during the IAS meeting in 1971, when he was pointed out to me (by Wolfgang Berger) as 'the father of sedimentology.'

So, how did I come to be here as a recipient of the Pettijohn Medal? Well, luck, mostly, and a certain amount of motivation that, with hindsight, looks rather suspect! In my third-year as an undergraduate at the University of Southampton, I noticed an advertisement for a project to study the sedimentology of

## Society Awards

Jurassic limestones in Sicily, to be held at Leicester University. Having never visited continental Europe at this point in my life, I immediately decided to abandon my long-term interest in igneous petrology, and sent in my application. And so it came about that some months later, in the summer of 1966, armed with a smattering of schoolboy French that was subsequently revealed to be no use at all and a copy of *Teach Yourself Italian*, I found myself on a train trundling through southern Europe. After various missed connections in Milan and Naples, I finally arrived in Palermo in the company of assorted livestock. I later discovered that, as the only applicant for the graduate studentship, competition had not exactly been fierce! My mentors at this stage were Peter Sylvester-Bradley, a palaeontologist, and Hugh Torrens, now well known for his work on the history of geology. To the former, I owe a debt of gratitude for his vision in realizing that a fascinating geological story could be unravelled from the mountains of western Sicily; to the latter I owe a debt for his insistence that not everything geological worth reading was necessarily written in English. I well remember spending days deciphering numerous papers in German while a second-year graduate student and discovering, with a mixture of admiration and disappointment, a seminal paper by Arnold Heim that anticipated most of my own conclusions by almost half a century [Über submarine Denudation und chemische Sedimente, *Geologische Rundschau*, 15, 1-47, 1924]. From my supervisor John Hudson, who joined the Leicester department in my second year of graduate work, I gained an appreciation of the fertile interface between sedimentology, stratigraphy and geochemistry and an introduction to the world of stable isotopes.

Dropping more names: my friends and colleagues Daniel Bernoulli and Jerry Winterer were respectively responsible for widening my appreciation of Tethyan geology while simultaneously introducing me to the advantages of judiciously cooled Italian white wine, and involving me in the Deep Sea Drilling Project in the days when the spirit of adventure was palpable aboard the *Glomar Challenger*. My late colleague Seymour Schlanger and two students of Al Fischer's (Bob Garrison and Michael Arthur) were enthusiastic co-conspirators in the new discipline of field-based palaeoceanography.

Although I have made various attempts to discontinue working on Jurassic and Cretaceous black shales, the realization that, as globally distributed petroleum source rocks, they represent sequestered energy from the Mesozoic greenhouse world that is now being transferred to the present-day atmosphere has given them a topical relevance, as have the burgeoning disciplines of organic geochemistry and studies of redox-related transition-metal isotopes. Black shales clearly have 'legs'.

Finally, I should like to thank my wife, Evelyn, for her help and support through the years.



Eugene Shinn accepts the William F. Twenhofel Medal from President-Elect Steve Driese.

### William F. Twenhofel Medal For a Career of Outstanding Contributions in Sedimentary Geology Eugene Shinn

Gene Shinn has been an innovative and imaginative leader in carbonate sedimentology throughout his career, first with Shell Research and then, for 31 years, with the U.S. Geological Survey. He has published on a remarkable range of topics — from marine cementation in the Persian Gulf to airborne transport of dust and microbes as linked to reef health and human epidemiology (even spawning a novel, "Killer Dust"). Gene never shied away from controversial topics, writing insightful papers on the effects of offshore drilling on coral reefs, the origin of whittings and modern carbonate muds, tidal-flat sedimentation, burial-related compaction in carbonate rocks, environmental impacts on coral reefs, and the association between marine cementation and the legend of the lost city of Atlantis.

Gene is not only scientifically innovative, he has remarkable mechanical skills and an ability to engineer technological solutions to problems that stump other scientists. For example, he designed a system to inject epoxy into burrows in order to identify the organisms that produced modern trace fossils. Similarly, Gene developed inexpensive systems to compact modern sediment cores, simulating deep burial, and inexpensive portable drill rigs to examine the structure and substrates of ancient bioherms.

Although his employment was mainly in industry and government, Gene has been an eloquent educator his whole life, largely through field seminars, videos, T-shirts, TV interviews and public lectures, as well as through his written works. I have never had a more stimulating compatriot, or a better, more enjoyable and adventuresome field partner — always a source of new ideas, always willing to design innovative solutions to problems, and always articulate in presenting research results. Through all those efforts, Gene has richly earned the Twenhofel Award as well as his many earlier awards, including the USGS Shoemaker Award for Distinguished Achievement in Communications, the Meritorious Service Award of the Department of the Interior, and an Honorary Doctoral Degree bestowed by the University of South Florida.

Biographer: Peter Scholle

Citation: In recognition of a lifetime of accomplishments in carbonate sedimentology, including studies of marine cementation, tidal flat sedimentation, the origin of carbonate

## Society Awards

muds, reef health, and many other topics and the superb communication of research results to both the science community and the public.

### Reply from Eugene Shinn

Thank you, members of SEPM, for this special honor. I had originally intended to give a learned “Look-to-the-Future” acceptance speech. Many of you know I have frequently complained that we are not advancing science as fast as we could because we have a habit of revisiting earlier ideas, subjects, and locations. I’m guilty too! I was prepared to list a few new areas of research but fortunately a visit to the SEPM poster session showed me that many have already pushed into new territory! Ooids have been found to be forming in the Pacific! I was prepared to say there were none, but maybe we need to learn instead why there are so few. I still wonder why the Holocene of Florida lacks well-formed ooid accumulations, while the nearby Bahamas have extensive, shallow, actively forming ooid banks. Why are Caribbean stromatolites limited to the eastern Bahamas?

But I am getting off tact. What is most important to me are the many people who trained and helped push this bootstrap geologist along. As they say, we stand on shoulders of giants, but there is only one I leaned on. She supported me in many ways for the last 54 years. I’m talking of Patricia, my wife and life-long partner. She has shared all the strange and exotic settings at every phase of my career.

Our life together has seen many phases. The first significant one began with the Shell University years.

Bob Ginsburg took me into his small office/laboratory in Coral Gables, Florida, in 1959. Bob and his wife Helen practically adopted our three young boys and us. I think I was accepted because this skinny biologist/diver/musician was good at fixing and making things run. I learned much and with Bob’s encouragement and training pursued diving-related projects on weekends. I did have a small boat!

During this phase, many people taught and pushed me along. There were Mike Lloyd, Mahlon Ball, Ken Stockman, James Lee Wilson, and Clyde Moore, to name a few. When I did my training stint in the oil patch of West Texas, there were Duff Kerr, Real Turmel, Alan Tomson, Ray Thomasson, Dan Bakker, Pete Rose, Rick Farmer, Cal Parker, and Jim Rodgers, and many more! Bob’s little office was an international Mecca for visitors like Robin Bathurst, Adolph Seilacher, coral biologist Tom Goreau, and coral geologists Ed Hoffmeister and Gray Multer.

Phase 2 was a big one—Royal Dutch Shell and the Persian Gulf! My New Zealand-born supervisor, Bruce Purser, literally turned me loose on the mud flats in Qatar. Close associates included geochemist Kees DeGroot, and geologists Gerry Varney, Ken Glennie, Mike Hughes Clarke, and many others. Our return after 3 years abroad opened up version 2.1. Upon returning to Coral Gables, I worked with Bob Dunham, Paul Enos, Ron Perkins, George Herman, and next, during version 2.2 in Houston, there were Mike Lloyd and Bob Walpole, Marlan Downey, David Haglund, and again many others. Version 2.3 was subsurface exploration in New Orleans under the tutelage of Fred Strickland and Leighton Steward. In New Orleans, I met Ed Picou, Emmett Adams, and was reunited with George Herman. Version 2.4 arrived when Leighton Steward arranged my transfer to Shell Head Office in Houston. For two and a half years, I would be wearing a three-piece suit, riding the bus, and taking an elevator up 15 floors with briefcase and umbrella in hand. The experience taught me loads about what really makes the world go around. My title was Staff Biologist! During that time, I connected with

Christopher Kendall. He had worked on Abu Dhabi mud flats back when I was doing the same in Qatar. After many life phases of his own, he was then with EXXON Research. My job included interesting API committees and exciting business trips, but I was hankering to get back in the water and do my own research. Pat and I had moved seven times and owned five different homes in two countries!

Phase 3.0 began when I called my long-time friend Pete Rose. He had become Chief of the USGS Oil and Gas Branch in Denver. The oil embargoes had changed our world. Almost overnight it seems I was setting up a USGS Field Station on an island off Miami Beach. It was Fisher Island, accessible only by boat. We were not the only ones there. Someone else had beaten us to this Island Paradise—Bob Ginsburg and his many students and associates, including Wolfgang Schlager and Noel James. They were in the old Spanish-style building right next door. Our USGS Fisher Island “Skunk Works” careers had begun. With Pete’s support, we gathered in long-time biologist and diving buddy Harold Hudson. He would work on corals. Then came Bob Halley (the only PhD in our fold). He studied carbonate petrography, among other things. Later Cesare Emiliani sent over a young lady with a photographic memory and an eye for foraminifera. She was Barbara Lidz. She also ran our office, edited all our manuscripts and for 10 years served as SEPM editor of special publications. Barbara along with Jack Kindinger, are the only two “original” Fisher Island Feds still working for the USGS. A year later, Dan Robbin joined the crew. The best part? Pete had said, “I want you to do whatever you think is important.” We were on our own for 5 years, which turned into 15! We loved every moment of the experience, adventure, learning, and discovery. Halley moved on after 6 years and Jack Kindinger moved in. There were many colleagues during phase 3.0. They included Mitch Harris, Don McNeill, Peter Swart, and several NAGT scholarship students, including Lee Kump, Carol Lee, Lisa Robbins, and too many others to name. When Dan Robbin left, Frank “Pete” Spicer came aboard. Each would go on to gain distinction in his/her own field. After Pete Rose left the USGS, our bosses back at Denver headquarters included Dick Mast and Peter Scholle, my citationist. Peter presently heads the New Mexico State Geological Survey.

Version 3.1 came next and lasted 18 years. This time we moved to St. Petersburg, Florida, where Bob Halley was setting up a new USGS office affiliated with the University of South Florida (USF). I like to say that Bob had saved me from being transferred to the Beltway! We would work with Pete Spicer, Halley, Jack, Barbara, Terry Edgar, Christopher Reich, and Don Hickey. Later, my supervisor would be Lisa Robbins, who while teaching at USF had arranged that I receive an honorary PhD. I was commencement speaker for my own graduation!

Phase 4—and I hope it’s not the last!—Terry Edgar and I retired from the USGS together in 2006. Thanks to Al Hine and USF Dean Peter Betzer, I moved all my accumulated stuff next door to the College of Marine Science. I presently reside there as Courtesy Professor, whatever that is, as I receive the coveted Twenhofel Medal.

Again I thank every member and every one of you who has kept SEPM viable. Finally, I am especially pleased tonight that Lloyd Pray, one of my biggest supporters and fellow Maverick for several decades, is here to share this honor, and equally pleasing is the presence of Bob Ginsburg, the man who started it all. These young fellows are my idols that keep me going!

So, let’s get out there and attack new problems and try to avoid the bandwagons of science!

## Society Awards

### ***2008 Excellence of Oral Presentation (Co-Awardees)***

Sherry L. Becker

“Lowstands on the Rise?”

Linda Hinnov and James Ogg

“Applications of the Sedimentary Record of Astronomically-Driven Paleoclimate Oscillations and Trends”

### ***2008 Excellence of Poster Presentation (Co-Awardees)***

Beatriz Garcia-Fresca, Jerry Lucia and Charlie Kerans

“Numerical Model of Reflux Circulation during the Deposition of the Permian San Andres Formation, Guadalupe Mountains and Algerita Escarpment”

Martin P. Crundwell and Malcolm J. Arnot

“Sub-Millennial Anatomy of Late Miocene Deep-Water Mass-Transport Deposits: Case Studies of the Use of Foraminifera to Decipher the Stratigraphic Significance of the Mount Messenger Depositional System, Taranaki Basin, New Zealand”

### ***2008 Excellence of Poster Presentation - Honorable Mentions***

Christopher R. Mattheus and Antonio B. Rodriguez

“Controls from Late Quaternary Valley Incision: A Look from Coastal-Plain Systems from the Mid-Atlantic and Northern Gulf of Mexico Margins”

Jamie L. Shamrock and David K. Watkins

“Evolution of the Cretaceous Nannofossil Genus *Eiffellithus* and Its Biostratigraphic Significance”



Linda Hinnov accepts the 2008 Excellence of Oral Presentation award from President-Elect Steve Driese

### ***2007 Outstanding Paper in the Journal of Sedimentary Research***

Kathleen C. Benison, Brenda Beitler Bowen, Francisca E. Oboh-Ikuenobe, Elliot A. Jagniecki, Deidre A. LaClair, Stacy L. Story, Melanie R. Mormile and Bo-Young Hong

“Sedimentology of Acid Saline Lakes in Southern Western Australia: Newly Described Processes and Products of an Extreme Environment”

### ***2007 Outstanding Paper in the Journal of Sedimentary Research - Honorable Mentions***

Colin P. North, Gerald C. Nanson and Simon D. Gagan

“Recognition of the Sedimentary Architecture of Dryland Anabranching (Anastomosing)”

Martin R. Wells, Peter A. Allison, Matthew D. Piggott, Gerald J. Gorman, Gary J. Hampson, Christopher C. Pain and Fangxin Fang

“Numerical Modeling of Tides in the Late Pennsylvanian Midcontinent Seaway of North America with Implications for Hydrography and Sedimentation”

Lesli J. Wood

“Quantitative Seismic Geomorphology of Pliocene and Miocene Fluvial Systems in the Northern Gulf of Mexico, U.S.A.”

### ***2007 Outstanding Paper in PALAIOS***

John-Paul Zonneveld, Tyler W. Beatty and S. George Pemberton  
“Lingulide Brachiopods and the Trace Fossil *Lingulichnus* from the Triassic of Western Canada: Implications for Faunal Recovery After the End-Permian Mass Extinction”

### ***2007 Outstanding Paper in PALAIOS - Honorable Mentions***

Daniel Hembree and Stephen T. Hasiotis

“Paleosols and Ichnofossils of the White River Formation of Colorado: Insight into Soil Ecosystems of the North American Midcontinent During the Eocene-Oligocene Transition”

## Society Awards



Beatriz Garcia-Fresca accepts the 2008 Excellence of Poster Presentation award from President-Elect Steve Driese



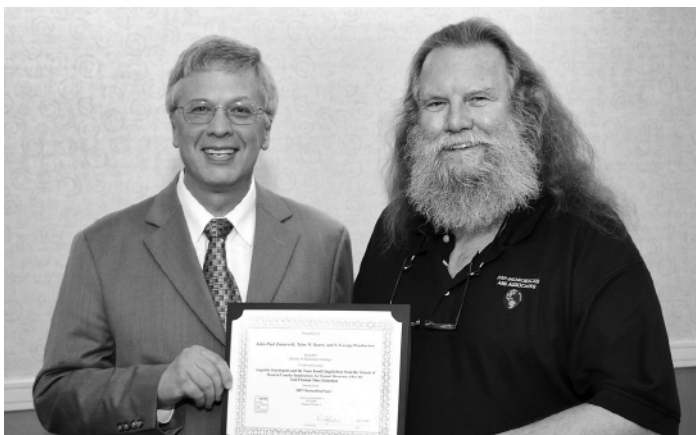
Kathleen C. Benison, left, and Brenda Beidler Bowen, right, accept the 2007 Outstanding Paper in JSR award from President-Elect Steve Driese



Colin North accepts the 2007 Outstanding Paper in JSR – Honorable Mention from President-Elect Steve Driese



Lesli Wood accepts the 2007 Outstanding Paper in JSR – Honorable Mention from President-Elect Steve Driese



George Pemberton accepts the award for 2007 Outstanding Paper in PALAIOS from President-Elect Steve Driese



Stephen Hasiotis accepts the 2007 Outstanding Paper in PALAIOS – Honorable Mention from President-Elect Steve Driese

## Audited Financial Report – 2007



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## INDEPENDENT AUDITORS' REPORT

SEPM Council  
 SEPM (Society for Sedimentary Geology)  
 Tulsa, Oklahoma

We have audited the accompanying statements of financial position of SEPM (Society for Sedimentary Geology) as of December 31, 2008 and 2007, and the related statements of activities and cash flows for the years then ended. These financial statements are the responsibility of the Society's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of SEPM (Society for Sedimentary Geology) as of December 31, 2008 and 2007, and the changes in its net assets and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

*Emmons, Hartog & Swarthout, P.C.*

Tulsa, Oklahoma  
 May 21, 2009

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

STATEMENTS OF FINANCIAL POSITION  
 December 31, 2008 and 2007

ASSETS	2008	2007
<b>Current Assets</b>		
Cash and cash equivalents	\$ 1,151,288	\$ 922,895
Accounts receivable	82,978	38,782
Inventories	146,696	128,280
Prepaid expenses	53,582	51,106
<b>Total current assets</b>	<b>1,434,544</b>	<b>1,141,063</b>
<b>Non-Current Assets</b>		
Furniture and equipment, less accumulated depreciation	45,383	26,023
Long-term investments, including board-designated funds of \$625,483 and \$808,963	1,343,682	1,874,804
	<b>\$ 2,823,609</b>	<b>\$ 3,041,890</b>
<b>LIABILITIES AND NET ASSETS</b>		
<b>Current Liabilities</b>		
Accounts payable and accrued liabilities	\$ 37,616	\$ 26,444
Deferred income	650,739	585,802
<b>Total current liabilities</b>	<b>688,355</b>	<b>612,246</b>
<b>Net Assets - Unrestricted</b>	<b>2,135,254</b>	<b>2,429,644</b>
	<b>\$ 2,823,609</b>	<b>\$ 3,041,890</b>

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## STATEMENTS OF ACTIVITIES

Years Ended December 31, 2008 and 2007

CHANGES IN UNRESTRICTED NET ASSETS	2008	2007
<b>Revenues, Gains and Other Support</b>		
Dues	\$ 104,050	\$ 108,435
Publications	269,861	214,485
Journal of Sedimentary Petrology - subscriptions, royalties and other	612,847	673,492
Palaaios - subscriptions, royalties and other	195,024	181,207
Continuing education	47,240	37,750
Meetings, conferences and field trips	224,955	121,845
Membership activities	26,270	29,565
Net realized and unrealized (loss) on investments	(626,983)	(55,786)
Investment income	113,534	155,886
<b>Total revenues, gains and other support</b>	<b>966,798</b>	<b>1,466,879</b>
<b>Expenses</b>		
Publishing costs - Journal of Sedimentary Petrology	223,880	233,914
Publishing costs - Palaaios	150,512	136,301
Publications	172,349	146,063
Continuing education	23,754	33,235
Meetings, conferences and field trips	130,951	52,677
Membership activities	120,707	115,831
General and administrative	439,035	382,942
<b>Total expenses</b>	<b>1,261,188</b>	<b>1,100,963</b>
<b>Change In Unrestricted Net Assets</b>	<b>(294,390)</b>	<b>365,916</b>
<b>Net Assets - Beginning of Year</b>	<b>2,429,644</b>	<b>2,063,728</b>
<b>Net Assets - End of Year</b>	<b>\$ 2,135,254</b>	<b>\$ 2,429,644</b>

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## STATEMENTS OF CASH FLOWS

Years Ended December 31, 2008 and 2007

	2008	2007
<b>Cash Flows from Operating Activities</b>		
Change in unrestricted net assets	\$ (294,390)	\$ 365,916
Adjustments to reconcile decrease in unrestricted net assets to net cash provided by operating activities:		
Depreciation	19,387	8,966
Net realized and unrealized loss on investments	626,983	55,786
(Increase) decrease in:		
Accounts receivable	(44,196)	(20,179)
Inventory	(18,416)	32,886
Prepaid expenses	(2,476)	(2,834)
Increase (decrease) in:		
Accounts payable and accrued expenses	11,172	(25,498)
Deferred income	64,937	97,338
<b>Net cash provided by operating activities</b>	<b>363,001</b>	<b>512,381</b>
<b>Cash Flows from Investing Activities</b>		
Payments for purchase of equipment	(38,747)	(10,535)
Purchase of investments	(95,861)	(436,708)
Proceeds from maturations and sales of investments	-	300,536
<b>Net cash (used in) investing activities</b>	<b>(134,608)</b>	<b>(146,707)</b>
<b>Net Increase in Cash</b>	<b>228,393</b>	<b>365,674</b>
<b>Cash and Cash Equivalents - Beginning of Year</b>	<b>922,895</b>	<b>557,221</b>
<b>Cash and Cash Equivalents - End of Year</b>	<b>\$ 1,151,288</b>	<b>\$ 922,895</b>
<b>Supplemental Cash Flows Information</b>		
Interest paid	-	-
Income taxes paid	-	-



## Audited Financial Report – 2007

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## SUMMARY OF ACCOUNTING POLICIES

## Organization and Business

On September 27, 1987, the Society of Economic Paleontologists and Mineralogists (Society) became a separate entity from the American Association of Petroleum Geologists. Prior to this date, the Society was an unincorporated technical division of the American Association of Petroleum Geologists. In the event of the dissolution of the Society, the net assets will be donated to charitable, scientific or educational institutions; no assets shall inure to the benefit of any member.

The objective of the Society is to advance the science of stratigraphy through the dissemination of scientific knowledge of, promotion of, research in, and other contributions to paleontology, sedimentology, and allied disciplines.

The Society primarily deals with members of the organization for services, to universities and oil-related companies for attendance at educational schools, workshops, and short courses, and for sales of special publications. Substantially all customers are located in oil-producing regions both within the United States of America and internationally.

## Estimates

In preparing financial statements in conformity with generally accepted accounting principles, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and revenues and expenses during the reporting period. Actual results could differ from those estimates.

## Inventory

Inventory consists of special publications (including short course notes), which excludes the journals published by the Society. The limited excess quantities of the journals are provided as reference material to the profession and, as such, are not inventoried.

Special publications are valued at cost (specific identification) in the year of publication and the next two succeeding years. After this period, publications are valued at 50% of cost, with the further limitation that the valuation of publications over five years old is limited to 100 copies.

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## SUMMARY OF ACCOUNTING POLICIES

## Inventory write-downs were as follows:

	2008	2007
Publications	\$ 11,917	\$ 27,817

## Inventory consists of the following:

	2008	2007
Publications	\$ 111,919	\$ 96,572
Continuing education materials	17,177	17,097
Work in process	17,600	14,611
	<u>\$ 146,696</u>	<u>\$ 128,280</u>

## Furniture and Equipment

Furniture and equipment are valued at cost. Depreciation is provided using the straight-line method over the useful life, three to 7 years.

## Cash and Cash Equivalents

The Society considers all cash and short-term securities with maturities of three months or less when purchased as cash and cash equivalents.

## Tax Status

The Society is exempt from taxation under Section 501(c)(3) of the Internal Revenue Code. It is not a private foundation.

## Revenue Recognition

The Society recognizes income and expense on the accrual accounting basis for financial statement presentation.

Membership dues and subscriptions are recognized as revenue ratably over the period of membership or subscription term.

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## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## SUMMARY OF ACCOUNTING POLICIES

## Contributions

Donor-restricted contributions are classified as unrestricted support if the restrictions are satisfied in the same reporting period in which the contribution was received.

## Advertising Expense

Advertising costs are expensed when incurred. No advertising expenses were incurred during the years ended December 31, 2008 and 2007.

## SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## NOTES TO FINANCIAL STATEMENTS

## Note 1. Furniture and Equipment

Included under this caption are the following:

	2008	2007
Furniture and equipment	\$ 207,815	\$ 169,069
Less accumulated depreciation	162,432	143,046
<b>Net furniture and equipment</b>	<u>\$ 45,383</u>	<u>\$ 26,023</u>

## Note 2. Investments

Investments at December 31, 2008 and 2007, consist of the following:

	Historical Cost	Market (Carrying Amount)
<b>December 31, 2008</b>		
General Investments		
Growth and capital appreciation funds	\$ 477,562	\$ 311,617
Cash and cash equivalents	42,449	42,449
Bond and balanced funds	295,293	219,091
International funds	181,350	145,042
<b>Total general investments</b>	<u>996,654</u>	<u>718,199</u>
New Frontiers Fund		
U.S. Government and agency obligations	52,842	68,511
Cash and cash equivalents	97,581	97,581
Growth and capital appreciation funds	269,789	189,824
International funds	128,041	86,338
Bond and balanced funds	209,712	183,229
<b>Total New Frontiers Fund</b>	<u>757,965</u>	<u>625,483</u>
<b>Total Investments</b>	<u>\$ 1,754,619</u>	<u>\$ 1,343,682</u>

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## Audited Financial Report – 2007

SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## NOTES TO FINANCIAL STATEMENTS

## Note 2. Investments (Continued)

December 31, 2007	Historical Cost	Market (Carrying Amount)
General Investments		
Growth and capital appreciation funds	\$ 448,338	\$ 514,141
Cash and cash equivalents	\$ 41,333	\$ 41,333
Bond and balanced funds	271,662	252,484
International funds	174,148	257,883
<b>Total general investments</b>	<b>935,481</b>	<b>1,065,841</b>
New Frontiers Fund		
U.S. Government and agency obligations	49,756	55,921
Cash and cash equivalents	94,978	94,978
Growth and capital appreciation funds	263,846	312,449
International funds	117,620	146,492
Bond and balanced funds	197,077	199,123
<b>Total New Frontiers Fund</b>	<b>723,277</b>	<b>808,963</b>
<b>Total Investments</b>	<b>\$ 1,658,758</b>	<b>\$ 1,874,804</b>

Realized and unrealized gains and losses were as follows:

	2008	2007
Unrealized (Losses) Gains	\$ (626,983)	\$ (57,776)
Realized Gains	-	1,990
Total realized and unrealized gains and (losses)	\$ (626,983)	\$ (55,786)

## Note 3. Fair Value Disclosures

The Society determines the fair values of its financial instruments based on the fair value hierarchy established in FASB 157, *Fair Value Measurements*, which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value.

Level 1 inputs: quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## NOTES TO FINANCIAL STATEMENTS

## Note 3. Fair Value Disclosures (Continued)

Level 2 inputs: inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly or indirectly through corroboration with observable market data.

Level 3 inputs: unobservable inputs for the asset or liability, that is, inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing an asset or liability (including risk assumptions) developed on the best information available in the circumstances.

The Society's financial assets that are measured at fair value on a recurring basis were recorded using the fair value hierarchy as follows:

December 31, 2008	
Level 1:	
Mutual funds	\$ 1,343,682
December 31, 2007	
Level 1:	
Mutual funds	\$ 1,874,804

## Note 4. Deferred Income

Deferred income consisted of the following:

	2008	2007
Dues	\$ 65,203	\$ 46,381
Subscriptions	446,757	475,650
Publications in process and other	138,779	63,771
<b>Total</b>	<b>\$ 650,739</b>	<b>\$ 585,802</b>

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## NOTES TO FINANCIAL STATEMENTS

## Note 5. Commitment

The Society leases its offices and warehouse under operating leases. Total minimum rent commitments for space and equipment leases are as follows: years ended December 31, 2009 - \$44,767; 2010 - \$45,477; 2011 - \$46,186; 2012 - \$46,896 and 2013 - \$27,597.

Rent expense was \$41,567 and \$32,706 in 2008 and 2007, respectively.

## Note 6. Unrestricted Net Assets

Unrestricted net assets consist of the following:

	2008	2007
General Fund	\$ 1,509,771	\$ 1,620,681
New Frontiers Fund	625,483	808,963
	<b>\$ 2,135,254</b>	<b>\$ 2,429,644</b>

The New Frontiers Fund represents board-designated funds for the purpose of funding the development of science and education. The board has designated one-third of the royalties from the Copyright Clearance Center, Inc., to be used specifically for the building of this fund.

At December 31, 2008 and 2007, the New Frontiers Fund consisted of the following:

	2008	2007
Investments	\$ 625,483	\$ 808,963

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

## NOTES TO FINANCIAL STATEMENTS

## Note 7. Related Party Transactions

The Society received \$8,000 for each of the years ended December 31, 2008 and 2007, respectively, from the SEPM Foundation, Inc. (an affiliated non-profit entity) for management fees.

The Society had receivables from the SEPM Foundation, Inc. of \$83,054 and \$34,422 at December 31, 2008 and 2007 respectively.

In 2007 the Society contributed \$18,053 to the SEPM Foundation, Inc. for student grant purposes.

## Note 8. Concentration of Credit Risk

The Society maintains its cash in bank deposit accounts which, at times, may exceed federally insured limits. The Society has not experienced any losses in such accounts. The Society believes it is not exposed to any significant credit risk on cash and cash equivalents.

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