SEPM Annual meeting and GSA Meeting Activities

SEPM held its Annual Meeting in Houston, Texas, USA, jointly with A.A.P.G. Outgoing President Vitor Abreu turned the gavel over to the new President, Maria Mutti. Under the leadership of SEPM ACE Vice-Chairs Vitor Abreu and Morgan Sullivan and their committee, SEPM’s sole and jointly sponsored sessions accounted for about 40% of the technical program. The SEPM Research Symposium for 2017 was “Sequence Stratigraphy – Past, Present and Future”. At the business luncheon, John Snedden gave attendees the latest updates on details of mudstones in his presentation “Can We Do Big Science in a Petroleum-Rich Basin? – The Robust Sedimentary Archive of the Deep Gulf of Mexico Basin.” Then at the outgoing President’s Reception, Vitor and the membership honored the society’s 2017 medalists and the outstanding journal papers, and student awardees. This year SEPM again awarded three cash prizes to the 2017 top SEPM Student Posters. SEPM again offered a balanced selection of courses and trips in 2017.

SEPM Annual Meeting Committee

- Vitor Abreu, SEPM Vice Co-Chair
- Morgan Sullivan, SEPM Vice Co-Chair
- Laura Zahm, SEPM Field Trip Chair
- Don Van Nieuwenhuiuse, SEPM Short Course Chair
- Jake Covault, SEPM Awards Chair
- Howard Harper, SEPM Sponsorship Chair
- Rick Beaubouef, Tobi Kosanke, Andre Droxler, Leslie Wood and Rick Sarg, SEPM Theme Chairs

Additionally, SEPM sponsored multiple technical sessions at the Geological Society of America’s Annual Meeting in Seattle, WA, USA under the direction of Howard Harper as SEPM’s Joint Technical Program Chair. SEPM also cosponsored the Seds & Suds event. Along with the Sedimentary Geology Division of GSA and the Limnology Division, SEPM cosponsored the Tuesday evening reception for sedimentary geologists. Four cash prizes (three from SEPM and one from SGD) were awarded to the outstanding student poster presentations in the SGD/SEPM sponsored student session.

Short Courses & Field Trips

Annual Meeting (AAPG – Houston, TX, USA)

- SEPM Short Course: Sequence Stratigraphy for Graduate Students
- SEPM Short Course: Sequence-Stratigraphic Analysis of Shales and Mudstones
- SEPM Short Course: Advance Sequence Stratigraphy for E & P Executives
- SEPM Short Course: Basin Analysis Methods for Exploration
- SEPM Short Course: Seismic Geomorphology and Seismic Stratigraphy
- SEPM Short Course: Rock & Seismic Sequence Expression of Carbonate Systems – Exploration & Reservoir Characterization
- SEPM Trip: Fluvial and Coastal Clastic Sedimentology and Ichnology in Modern Environments and Core
- SEPM Trip: Shelf to Basin Sequence Framework and Facies Architecture of a Cretaceous Carbonate Ramp: Late Alban Maverick Intrashelf Basin, Southwest Texas
- SEPM Trip: Revised Stratigraphic Framework for the Cutoff in central Texas (Mason County).
- SEPM Trip: Deepwater Deposits of the Pennsylvanian Ouachita Trough: Fans, Faults and Seafloor Failures)
- SEPM Trip: Modern Galveston Island and the Brazos River Delta as Reservoir Analogs

International Meeting (AAPG/SEG ICE- London, UK)

- SEPM Short Course: Advance Sequence Stratigraphy for E & P Executives

Journals

Both of our technical journals continued having great years. The 5-year Impact Factors for both journals continue to be highly ranked. The Journal of Sedimentary Research continues publishing top-quality papers under the guidance of the co-editors, Leslie Melim (Western Illinois University) and James MacEachern (Simon Frasier University). PALAIOS was under the editorship of Gabriela Mangano (University of Saskatchewan) and Tom Olszewski (Texas A&M) and his replacement, Martin Zuschin (University of Vienna). JSR has increased its annual content to about 1500 pages and PALAIOS is at about 900 pages. Both journals are using continuous publishing where new articles are published online as soon as they are ready, not waiting until the entire monthly issue is ready. 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 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. Additionally, SEPM’s content of the Journal of Paleontology (1927-1985) is also online at JSTOR.

Both of the journals as well as an SEPM Book Archive are within SEPM’s independent online publications site.
www.sepmonline.org, which also hosts the Gulf Coast Section SEPM (GCSSEPM) Conference Proceedings. In late September, 2017, SEPM’s online content, including GCSSEPM content, was moved from being hosted at Highwire Press to Silverchair, the new home for GSW. Selected SEPM journal and book content is also part of the Geofacets dataset, which SEPM members can access as a membership option.

Also starting with 2016 and continuing in 2017, both SEPM journals are now available in print at the SEPM Bookstore (www.sedimentary-geology-store.com). Individuals or libraries can purchase selected issues (printed as double issues) or buy each new one as it comes out to maintain a complete set of the printed version.

The Sedimentary Record, the full color member magazine, is now in its 15th year, continued under the temporary editorship of Howard Harper. The SedRec has continued publishing a current, interesting science article as well as giving SEPM 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. The online version often contains additional content.

Special Publications

The editorship of Brian Ricketts was smoothly transitioned to John-Paul Zonneveld, as the special publications of SEPM continue to produce top of the line products. In 2017, four new books were published as complete books and the pipeline of future books continues to grow with new proposals and several additional manuscripts being prepared. SEPM’s online submission and review process, similar to the journals, continues to function well. This helps to reduce the time needed to take a book from idea to publication.

New Books in 2017

- **New Advances in Devonian Carbonates: Outcrop Analogs, Reservoirs, and Chronostratigraphy**, SEPM Special Publication 107, edited by Ted E. Playton, Charles Kerans, and John A.W. Weissenberger
- **Autogenic Dynamics and Self-Organization in Sedimentary Systems**, SEPM Special Publication 106, edited by David A. Budd, Elizabeth A. Hajek, and Sam J. Purkis
- **Propagation of Environmental Signals within Source-to-Sink Stratigraphy**, SEPM Field Guide 13, edited by Julian Clark, Cai Puigdefábregas, Sébastien Castelltort and Andrea Fildani

Online First. SEPM’s Online First, where new Special Publications are published chapter by chapter online at http://www.sepm.org/OnlineFirst.aspx as each chapter or article is finalized, currently contains over 16 book articles with more on the way. After the last chapter is finalized the books are compiled and sold on the SEPM Bookstore, in print or digital format as well as being uploaded to our online sites. The current books with chapters loaded to Online First include:

- **Characterization and Modeling of Carbonates – Mountjoy Symposium I**
- **From the Mountains to the Abyss: The California Borderland as an Archive of S. California Geol. Evolution**
- **Latitudinal Controls on Stratigraphic Models and Sedimentary Concepts**

SEPM Online Books. SEPM Online Book Archive I (1929-2009 books) was first launched late in 2010 and it, along with Archive II (2010-2014 books), continues to be used by both library and member subscribers. Books in the Special Publications, Concepts, Short Course Notes and Core Workshop Notes Series are uploaded to the site as they are published and can be purchased individually or via an Archive I or Archive II collections. In late 2017, with the switch to Silverchair and in conjunction with GSW society services, the SEPM online book content will also include the Field Guide and Atlas series. SEPM’s new books are now available in print, hard digital format (CD/DVD/USB) or via online access.

Additionally, SEPM book publications continue to be included in the GSW e-books collection, which first opened in 2015. SEPM book publications are also part of the Geofacets dataset which SEPM members can access as a membership option.

Research Conferences

In 2017 SEPM operated four research conferences.

- **Microfossils IV: Geologic Problem Solving with Microfossils**: NAMS, April, Houston, TX, USA
- **S2S: Propagation of Environmental Signals within Source-to-Sink Stratigraphy**: SEPM, June, Ainsa, Spain.
- **Mountjoy II – Carbonate Pore Systems**: SEPM/CSPG, June, Austin, Texas, USA
- **Sequence Stratigraphy: The Future Defined - GCSSEPM Perkins-Rosen Research Conference**, December, Houston, TX, USA

Additionally, SEPM supported, cosponsored or exhibited at these scientific meetings operated by other organizations:

- **Western Inter-University Geosciences Conference (WIUGC)**: January, Edmonton, Alberta, Canada
- **11th International Conference on Fluvial Sedimentology**, July Calgary, Alberta, Canada.
• IGCP 591 – The Early to Middle Paleozoic Revolution, July, Ghent, Belgium.
• IAS-ASF Sedimentological Meeting, October, Toulouse, France
• AAPG/SEG International Conference and Exhibition, October, London, UK
• Annual Meeting of the British Sedimentological Research Group: BSRG, December, Newcastle, UK.

Collaborations (AAPG, AGI, GSL, GSA, NACSN, IUGS, AGU, IAS and CSPG)

In addition to SEPM’s long standing relationship with AAPG and its memberships in AGI and NACSN, SEPM has previously signed Memorandums of Understandings (MOUs) with The Geological Society of London, American Geophysical Union and Geological Society of America for cooperative activities. These agreements have resulted in numerous jointly sponsored technical sessions, conferences, short courses and field trips.

In 2017, continued cooperation between SEPM and IAS is evolving into mutually beneficial ways to increase the understanding and research in sedimentary geology globally. SEPM will be sponsoring a keynote speaker, Kitty Milliken for the International Sedimentological Congress, August, Quebec City, Canada as well as potentially offering short courses or field trips.

SEPM continues to be a society that works with other groups to fulfill its mission for sedimentary geology.

Howard E. Harper, Executive Director

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  jsedres@gmail.com
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SEPM 2017 – 2018 Council

Pictured left to right:
Back: John Reijmer and Laura Zahm
Front: Jean Hsieh, Maria Mutti, and Gary Nichols
Table 1. – Membership Statistics

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Deep-water Depositional System’, is exemplary of Jake’s passion for contributing to the science of sedimentary geology. This game-changing manuscript, orchestrated by Jake and Bill, with Brian Romans (SEPM James Lee Wilson Award 2014) and Steve Graham, set the tone for his early career; the work was rigorously built on hard collected data, boldly dismantling the paradigm that deep-marine sedimentation only happens at low sea-level stands. His involvement with the USGS continued throughout his Stanford career as he was the recipient of USGS-Stanford Fellowship for the Academic Year 2008-2009.

As Jake transitioned from an undergraduate ‘distracted’ by football to graduate student engrossed in science, he joined the Sedimentary Research Group at Stanford, a training ground for many generations of influential earth-scientists under the vigilant but benign eyes of Stephan Graham and Donald Lowe. This ‘forging gym’ has been an endless resource of talents, and Jake developed collaborations with remarkable young scientists including Kathleen Surpless, Brian Romans, Steve Hubbard, Zane Jobe, Liz Cassel, and Julie Fosdick (among many others). Jake was keen to broaden his knowledge of deep-water sedimentation beyond the modern seafloor, and visited the remote Patagonian wilderness in search of shelf-margin deposit outcrops in the most elusive places (Cerro Escondido). He got involved with early work done at the SHRIMP Lab (a USGS-Stanford collaboration) on applications to provenance by using detrital zircons – something considered routine these days but transformative in the early 2000s. By graduation from his PhD in 2009, Jake had already co-authored/published contributions in Geology (2), Journal of Sedimentary Research (2), GSA Bulletin, Marine and Petroleum Geology, Marine Geology, Austrian Journal of Earth Sciences, and a GSA Special Publication!

Since his Ph.D., Jake has continued to establish his reputation in two major areas of research: (1) the science of sediment delivery into deep-marine environments and the intricacies of sediment transfer from its production (source) to final deposition (sink); and (2) the geomorphological analysis of modern deep-marine systems, including insights into the subsurface stratigraphic expression in analogous ancient deposits.

Since 2009 Dr. Covault has managed to have more careers than most senior earth scientists. He has twice worked as a research scientist at the Clastic Stratigraphy R&D team at Chevron Energy Technology Company (though in different locations, San Ramon and Houston), in between he experienced a stint as research Scientist at the Energy Resource Division of the U.S. Geological Survey in Reston, Virginia, and is now a Research Scientist and leader of the Quantitative Clastics Laboratory at the Bureau of Economic Geology of Texas. Dr. Covault is not among those who think a scientist must choose between basic and applied...
research; he is comfortable and skilled at contributing at either end of the spectrum and, importantly, along the continuum. This talent has resulted in, and will continue to result in, creative ideas for improving our ability to predict and characterize sedimentary rocks, whether it’s for natural resource extraction, for understanding feedback relationships of pollutant sequestration into natural systems, or to answer fundamental scientific questions about the stratigraphic record.

Citation: In recognition of Dr. Jacob Covault’s contributions to our understanding of sediment delivery into deep-marine environments, the building blocks of deep-sea systems, and the complexities of sediment transfer from the erosional engine (source) to the final resting place (sink).

Reply from Jacob Covault

I am happy to receive the 2017 Wilson Medal in recognition of my early-career collaborations with great teammates: the Sedimentary Research Group at Stanford and the Clastic Stratigraphy R&D group at Chevron. At Stanford, my colleagues Andrea Fildani, Steve Hubbard, and Brian Romans worked with me under the supervision of Steve Graham, this year’s Pettijohn Medal recipient, and the late Bill Normark, who received the 2005 Shepard Medal. While Graham and Normark set the tone of our work on basin analysis and marine geology, Fildani and Hubbard set examples for the younger students: Fildani in basin analysis and geochronology, and Hubbard in the field. Romans, who received the 2014 Wilson Medal, was my primary collaborator on sediment routing in tectonically active sedimentary basins, and our close interaction strengthened our individual research projects.

At Chevron, Morgan Sullivan and colleagues assembled a formidable group of applied geoscientists including Andrea Fildani, Ashley Harris, Andrew Madof, Michael Pyrcz, Brian Romans, Richard Sech, Tao Sun, Zoltan Sylvester, Brian Willis, and others. Sullivan is an excellent applied geoscientist and we benefitted from his style of deploying research to oil and gas business units. My friends Zoltan Sylvester and Richard Sech are among the most talented and innovative of quantitative geoscientists and modelers, and, with Ashley Harris, Tao Sun, and Brian Willis, they were a core of sedimentary innovation at Chevron during the last couple of years. My former colleagues at Chevron are among the most effective communicators of applied geoscience with whom I’ve worked and I’m indebted to them for teaching me how to reach a broad audience.

I’m lucky to continue to work with several of those mentioned above in my current role at the University of Texas at Austin. I look forward to learning and working with my new colleagues at UT-Austin including preeminent geoscientists and contributors to SEPM, Bill Ambrose, Shirley Dutton, Bill Fisher, Mike Hudec, Xavier Janson, Charlie Kerans, David Mohrig, Ron Steel, and Scott Tinker, as well as my friends Angela Hessler, Glenn Sharman, and Danny Stockli.

On behalf of my teammates, I thank SEPM for the Wilson Medal. It is an honor to be recognized for collaborations at Stanford and Chevron. I’m looking forward to maintain those collaborations in the future, forge new ones at UT-Austin and with our affiliates, and cultivate relationships with students that lead to exciting work and friendships, such as those I share with my mentors.

Honorary Membership

For contributions to the science and SEPM

Don McNeill

Honorary Membership in SEPM for Don McNeill recognizes his sustained service and leadership to the Society and his technical publications in carbonate sedimentology and the stratigraphy of mixed systems. His contributions to the use of paleomagnetics in sedimentary geology, especially Neogene platform limestones, have provided new age markers in these often difficult to date shallow-water deposits. Don received his Ph.D. from the University of Miami, working on the magnetostratigraphy of Bahamian core borings under the supervision of Robert Ginsburg.

Don has served SEPM in several capacities. His first contribution was as convener of a SEPM Research Symposium at the 1991 annual meeting, followed by editorship of a Special Publication (no. 49) from that session. At the urging of two other Honorary Members (Rick Sarg and Bill Morgan) he reengaged with SEPM and served two terms as co-editor for Special Publications between 2004 and 2010. He then assumed the Chair of the Headquarters and Business Committee (HBC) from 2010 to 2016. During this time he was involved with the financial oversight of the transition from print to digital for the Society publications. He was on the SEPM Foundation board from 2011-2014 and currently assists with review of student research
grants for the Foundation (he repeatedly states that this is the most difficult task in the Society!). Since stepping down from the HBC in 2016, Don has contributed to the Society as a member of the Nominating Committee, and as co-chair of the Technical Committee for the upcoming Mountjoy Conference in Austin.

Don’s research contributions further support his honorary membership. He has over 70 peer-reviewed publications ranging from biogenic magnetite in carbonates, to chronostratigraphy of mixed system deposits around the Caribbean, to early fracturing in platform margins, to a compilation of accumulation rates of carbonate platforms and slopes. Don has been involved with a number of drilling campaigns and core analysis efforts including the Bahamas Drilling Project, ODP Leg 133, Panama Paleontology Project, South Florida Drilling Project, Mururoa Project, ODP Leg 166, and the New Caledonia Atoll Project. More recently he was co-PI for the NSF-funded Dominican Republic Drilling Project that recovered a core transect across the Pleistocene fringing reef deposits of the uplifted south coast.

Currently, Don is a principle of the CSL-Center for Carbonate Research at the Rosenstiel School, University of Miami. He teaches a number of courses in the undergraduate geology program, but still maintains an active research program and mentors graduate and undergraduate students. Don has contributed to the greater community as a 10-year associate editor for the GSA Bulletin; as a panelist for NSF Sedimentary Geology and Paleontology, and as a consulting geologist on local issues such as deep-well effluent injection, the Port of Miami dredging, disputed sinkholes under residential houses, and the recent construction of the Port of Miami Tunnel.

Don’s service to the Society is made possible by the support of his wife Lourdes, who tries, but doesn’t understand why he returns to the same field site year after year.....

Biographer: James S. Klaus

Citation: For sustained and exemplary contributions to SEPM and the sedimentary geology community, as a strong leader, dedicated researcher, and inspiring teacher.

Reply from Don McNeill

Thank you Vitor for that kind introduction and citation. I thank my nominator and those who supported my nomination. I am extremely grateful to SEPM and extremely humbled to be presented this award, especially when I look at the list of previous awardees dating back to 1930. This award is really a reflection on 4 things: 1- My Wife. Whose support allows me to do MOST of the things I want to do (professionally that is). Although for the first 10 years of our marriage she couldn’t understand why I repeatedly returned to the same place to do fieldwork. This was difficult to explain (she’s a lawyer) until I gave her a copy of Francis Pettijohn’s 1956 SEPM Presidential Address to read. “In Defense of Outdoor Geology” quotes Hans Cloos’ book Conversations with the Earth that discusses why it is so important to revisit outcrops and refine one’s interpretation; 2- My Mentors. Two former Shell geologists: George Griffin (clay mineralogist) and Robert Ginsburg (whom many of you know). They taught me the importance of asking good questions, and how to try and answer those questions. In Miami, the “So What?” question is still commonly asked; 3- My Colleagues, Collaborators, and Students. I thank Robert Ginsburg, Gregor Eberli, Peter Swart, Jim Klaus, Mitch Harris, Hal Wanless, Mike Grammer, and Ann Budd. They trusted me. They let me explore. In 30+ years Peter has never turned down a request to run stable isotope samples (although perhaps he should have on a few occasions). When we wanted to drill in the Dominican Republic, Gregor provided Industrial Associates support for the exploratory phase with just a minimum of justification; And finally, 4- The Society. Involvement has been so important in my career. It gives an opportunity to contribute in a tangible way to a benefit that is largely intangible. (I realize Staff works very hard to make the benefits tangible). I thank Rick Sarg and Bill Morgan for getting me involved. And lastly: for the students out there, try to get involved in SEPM early in your career, it’s still about the people in our profession! Thank you kindly.

Francis P. Shepard Medal

For Sustained Excellence in Marine Geology
L. Donelson Wright

Don Wright’s innovative work on morphodynamics of deltas, beaches and shelves fundamentally changed the way marine geologists view feedbacks between physical forcing and sedimentary response in coastal environments. In addition, his novel program utilizing instrumented bottom boundary layer tripods in coastal environments helped opened up a new suite of tools for the community and provided many important insights.
to the field of sediment transport. Recognized as a selfless leader and generous collaborator in the coastal community, he has tirelessly promoted colleagues and students alike.

Wright received a Bachelor’s in Geology and Geography in 1965 from the University of Miami and a Master’s in Geomorphology in 1967 from the University of Sydney. He earned a PhD from Louisiana State University through the Coastal Studies Institute in 1970, where he then served as an Assistant and Associate Professor. In 1974, Wright moved to the University of Sydney, where he founded their Coastal Studies Unit. Wright joined the faculty of the Virginia Institute of Marine Science/College of William & Mary in 1982 as a Professor and Head of the Department of Geological Oceanography and was awarded a William & Mary Chancellor Professorship in 1994. He served as Dean and Director of the Virginia Institute of Marine Science from 1995 until 2004, and retired from VIMS in 2007. Since 2004, Wright has served as the Director of Coastal & Environmental Research at the Southeastern Universities Research Association.

Wright has published over 100 peer-reviewed articles and book chapters, enhancing fundamental understanding across an impressively wide range of sedimentary environments. For example, Wright was one of the first to quantify river sediment plume dynamics and developed the classic paradigm of river delta morphology as a function river input, waves, and tides. Wright was a pioneer of the concept of “morphodynamics”, the feedback between physical processes and geomorphic expression, through his classic work on beach systems. This concept was extended offshore in his 1995 book “Morphodynamics of Inner Continental Shelves”. In the 1970s, Wright was among the first investigators to employ computer controlled current and pressure sensors with internal data loggers in the nearshore. In the 1980s, his benthic tripods went on to discover remarkable gravity-driven underflows of suspended sediment off the mouth of the Yellow River. Over the last two decades, Wright secured his legacy well beyond the impact of his own scientific investigations through his contributions to the professional development of colleagues and students, his selfless leadership of Virginia Institute of Marine Science, and through the collaborations he has guided via the Southeastern Universities Research Association.

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Biographers: Carl T. Friedrichs and Steven A. Kuehl

Citation: In recognition of L. Donelson Wright’s groundbreaking research on the sediment dynamics of coastal environments and his pioneering application of instrumented benthic tripods, which together have provided essential insight into feedbacks between physical forcing and sediment response. And in appreciation of his generous leadership in promoting graduate education and collaboration across the coastal science community.

Reply from Don Wright

I am honored to have been selected by SEPM to receive this prestigious Shepard award. I thank Carl Friedrichs and Steve Kuehl for the generous biography and citation and my many mentors, official and unofficial, for guidance and collaboration throughout my career. I have had too many collaborators for me to name but most know who they are. They were my teammates at LSU, at the University of Sydney, at the Virginia Institute of Marine Science and on numerous multi-institutional federally funded projects. Many have been my coauthors. A few were my supervisors and many others were my graduate students. To my former students I offer special thanks for helping me to think “out of the box” by asking me questions that I had no idea how to answer. So we had to write proposals to do new things. One person that I will name, however, is my wife Jeanne who nurtured me with love and support from the time that I was a Masters student in the mid 1960s until today—a span of 52 years. The future of marine geoscience is brighter than ever and I am confident that trans-disciplinary collaborations will underpin exciting new understandings. Thank you.

Raymond C. Moore Medal
For Sustained Excellence in Paleontology
Susan M. Kidwell

Susan Kidwell has transformed the face of paleontology, not only to paleontologists, but also to stratigraphers and ecologists. She has done this from what would have been a most unlikely route at the start of her career: taphonomy, the study of fossil preservation. For decades, taphonomy underscored Darwin complaints, that the fossil record is incomplete and biased. It was a message heard not just by paleontologists but by the broader scientific community. Through three remarkable lines of research, Susan has led the field in changing this perception by showing how good the fossil record is for a wide variety of scientific questions.
Susan is perhaps best known among sedimentary geologists for her earliest focus, the formation of shell beds. In her Ph.D. studies of the Maryland Miocene, she showed how fossil concentrations are produced by variations in sedimentation rate and the rate of shell production. Her timing couldn’t have been better: her research came at the advent of sequence stratigraphy, and she found that fossiliferous beds were stratigraphically predictable. With continuing exploration of other basins, she showed how shell beds were valuable clues to sequence stratigraphic architecture. Her papers on shell and bone beds are now required reading for any sequence stratigrapher.

In her second phase, Susan led the way on experimental and actualistic approaches to taphonomy. Taphonomy had tended toward ancient case studies, where processes and rates were inferred, often based on scant modern evidence. Susan sought to understand taphonomy through well-formed experiments and measurements in the lab and modern environments, where rates of degradation could be measured directly. Her studies proved the importance of limited exhumation and high burial rate for fossil preservation, as well as the dominance of environmental factors over shell-specific factors. Experimental taphonomy has now grown into a rich field of study.

Susan’s current research addresses the fidelity of the fossil record, especially whether shells of dead mollusks in shallow marine sediments reflect the mollusks that live there. Susan has shown that the fossil record faithfully preserves the relative abundance of species, and that it is a better sample of what lives in an area than the relatively small samples collected by modern ecologists. This exceptional fidelity is good news not just for paleontologists, but for modern ecologists: fossil death assemblages provide a pre-human baseline, one that shows how humans have affected marine habitats. Conservation paleobiology is now an important approach in many systems, including marine, freshwater, and terrestrial habitats.

As anyone who has met Susan knows, her positive approach to paleontology reflects her positive approach to life. Her enthusiasm is contagious, and this, along with her commitment to scientific rigor and her breadth of interests, has made her a successful mentor to numerous graduate students and postdoctoral fellows. Notably, Susan’s students have tackled projects far from her own research, and she has trained independent and successful scientists. Susan’s boundless energy is also shown by her service on numerous advisory boards and panels, where she has shaped research directions and scientific agendas.

Through her leadership in research, her commitment to education, and her devotion to service, Susan Kidwell has had a defining influence on modern paleontology.

citation: for her leadership in showing the promise of paleontology for understanding the stratigraphy of the past and the ecology of the future.

Reply from Susan Kidwell
Thank you for this honor. SEPM was the first professional society that I joined as a graduate student – I wanted my own copy of JSP to read over breakfast, the Special Publications were some of the first items in my professional library, and two of my first papers went intoPalaios. SEPM epitomized then, as it does now, the integration of biological information with physical and geochemical insights in the analysis of sedimentary records.

That lack of a sharp line among kinds of evidence is essential for geohistorical interpretation at any scale, and probably owes a lot to RC Moore’s early role in our Society, all making receipt of this medal a very special honor.

I went to grad school because I had become fascinated by hiatuses as an undergrad, using the classic text Dunbar & Rodgers 1957. It had an entire chapter on unconformities, focused on Barrell’s conceptual diagram of episodic accumulation controlled by baselevel, and I was smitten with the elegance and tension of that view. Given a record that was more gaps than rocks -- more pauses and erasures than accretions -- an entire world of non-depositional dynamics had to exist, the counterpoint to (the tyranny of) depositional facies. That Barrellian thread has carried through everything, including the paradox of preservation of skeletal remains, especially aragonite, under conditions of slow permanent burial. How long do such particles reside in seabeds, and what are the consequences of mixed-layer dynamics for the reliability of fossils as carriers -- workhorses of environmental and biological information? How do these fundamental attributes of the fossil record vary as a function of bathymetry, tectonic setting, latitude, productivity, and geologic age, which now unfortunately has to include an Anthropocene?

Steve Holland’s description of my career sounds more organized in retrospect than it actually was. It’s presently at a kind of biological extreme, although it’s looping back to permanent records via Holocene cores. I now work closely with benthic biologists at wastewater agencies -- their biomonitoring of marine communities since enactment of the Clean Water Act tells us what the late Holocene fossil record should look like, an ideal experimental set-up for quantifying the resolving power of time-averaged skeletal remains. Importantly, it turns out that only human-driven changes in a living community are sufficient to create significant live-dead discordance -- not simple natural variability in environmental conditions nor natural postmortem bias. This is a sobering discovery for ecologists but a reassuring one for deep-time analysts. My hope is that, in another ten years, we will have a much better grasp of how mixed layers evolve
geologically into permanent records, and that young fossil records will have become a standard part of the toolkit of ecologists and environmental managers.

I’ve had the advantage of inspiring and generous colleagues and wonderful students –Steve was one of the first, as was Charlie Winker, whom many of you may know. You really do learn more by working with students, especially if you let them choose their topic and take you far outside your comfort zone. Don Rhoads and Bob Berner were early inspirations in their unhesitating embrace of biologically complicated systems; Al Fischer for his all-in approach and endless energy – that it was totally OK to be scientifically passionate --; and Donn Gorsline for setting, by example, such a high standard for generosity. Jeremy Jackson, another passionate type, changed my life about 20 years ago, reorienting my focus toward human stressors, and my prolific collaborator Adam Tomasovych more recently transformed everything, bringing powerful modeling tools to take perfectly acceptable conceptual models over the proverbial coals. Don’t get me started on Dave Raup, a man of few but powerful words… when I’m in a tight spot, I still channel no-nonsense Dave and what he would do. And then there’s my husband, another Dave, who has always believed in me. I cannot imagine making it to this point without having met him, nor without having the powerful gifts of my mom’s toughness and my dad’s utter and complete belief that I could succeed at absolutely anything, propelling me into the rewards of a professional life.

Thank you again for this wonderful honor.

Stephan A. Graham is awarded the Francis J. Pettijohn Medal

Francis J. Pettijohn Medal  
For Sustained Excellence in Sedimentology  
Stephan A. Graham

Stephan Alan Graham began his fascination with the stratigraphic record in southern Indiana as a boy collecting fossils. His formal geologic education began at Indiana University, where he completed a senior thesis on Cambrian islands of Montana, under the supervision of Lee Suttner. Under the guidance of Bill Dickinson at Stanford, where Steve received MS and PhD degrees, he began making fundamental contributions in the field of sedimentation and tectonics, most notably proposing the concept of remnant ocean basins, as personified by the Ouachita flysch of Arkansas and Oklahoma. His dissertation was a seminal contribution to our understanding of sedimentation related to the San Andreas transform system of central California. Following a few years working for Exxon and Chevron, Steve joined the faculty at Stanford, where he continues to supervise a distinguished group of graduate students.

Beginning with his first publication in 1974 on remanent magnetism of San Francisco Bay mud, Steve has published well over 200 papers on topics ranging from large-scale plate-tectonic models for the evolution of sedimentary basins to sedimentary constraints on offsets along the San Andreas fault system to detailed facies analyses of both modern and ancient submarine fans to the use of sandstone petrofacies and detrital zircons in provenance studies to controls on hydrocarbon occurrences in diverse sedimentary basins to analyses of foreland-basin conglomerate and sandstone in order to determine unroofing histories to regional geology of Asia, especially Tibet and Mongolia to ………

A quick perusal of his publication list should impress any reader with the diverse nature of Steve’s research. The recurring theme is utilization of all available tools for complete, precise and accurate basin analysis, always in the context of the big picture. Steve is equally adept at precise careful analyses of hand samples, thin sections, mineral separates, cores, electrical logs, remote sensing, seismic sections ……

Not only are Steve’s methods diverse, his field areas are equally diverse: The marine realm, California, Montana, Oklahoma, Arkansas, Alabama, NW China, Mongolia, Tibet, Patagonia, Peru, Austria……

Most of Steve’s publications are coauthored by his graduate students, who have been expertly trained through Steve’s rigorous, yet supportive advising. Steve’s former graduate students and postdocs populate positions in academia, industry and government around the world.

The majority of Steve’s most-cited publications relate to western China, Mongolia, the US Cordillera, the Himalayan-Bengal system as analog for the Appalachian-Ouachita system and provenance of the Ouachita-Black Warrior system. His papers on basins related to the San Andreas system are required reading for research on fault history, basin analysis and the search for hydrocarbons. Steve’s more recent work on detrital-zircon studies of the Great Valley Group and Songpan-Ganzi complex,
paleogeography and uplift history of the Sierra Nevada, and foreland-basin evolution in Patagonia and Austria are cited regularly. His students, coworkers and he are advancing many aspects of global basin analysis.

In summary, Professor Stephan A. Graham is eminently qualified to receive the Francis J. Pettijohn Medal based on a life time of distinguished contributions to sedimentary geology, basin analysis, regional tectonics and related fields.

Biographer: Raymond V. Ingersoll

Citation: In recognition of a distinguished career in research, mentoring, teaching and service to the sedimentary geology community. Francis J. Pettijohn would be proud to have his name associated with Stephan A. Graham.

Reply from Stephan A. Graham

I am truly honored to receive the Pettijohn Medal and to join the list of prior recipients, which includes giants in sedimentary geology I’ve long admired. I thank those who nominated me for the Pettijohn Medal; my citationist, Ray Ingersoll; and the SEPM selection committee. I joined SEPM during my first year of graduate school, and I’ve had the privilege of serving as Counselor of Sedimentology, annual meeting Technical Program Chairman, and Pacific Section Vice-President and President.

I’ve been fortunate to have had many wonderful mentors along the way. My professional journey began at Indiana University, advised by Judson Mead, where my first research experience was guided by Lee Suttner. In graduate school at Stanford University, I had the tremendous good fortune to work with Bill Dickinson and Jim Ingle, and to share an office with my life-long friend and frequent collaborator, Ray Ingersoll. Bill Dickinson, in particular, profoundly influenced my life. Ray and I serendipitously were at Stanford while Bill was shaping the way sedimentary geologists view sedimentary basins in plate tectonic context. It was a truly exhilarating time!

After grad school, I spent five years in the petroleum industry at Exxon Production Research Company, mentored by Don Seely, and Chevron, mentored by Don Ziegler. Thereafter, another amazing bit of luck befell me: Bill Dickinson made a mid-career move to the University of Arizona, and I quite unexpectedly found myself on the faculty at Stanford. In his move to Arizona, Bill had helped me yet again! My 37 years on the Stanford faculty have gone by in the blink of an eye. Several of my faculty colleagues deserve special mention: Allan Cox, the dean who hired me; Bob Coleman and Juhn Liou, who invited me to China and Mongolia in the late 1980s; Page Chamberlain, who introduced me to light stable isotopes in paleoclimate and basin studies. Undoubtedly, I’ve learned most from friend and long-time collaborator in the Stanford Project on Deepwater Depositional Systems, Don Lowe. But mostly, I want to acknowledge the nearly 100 mentors who have been and are my graduate and post-doctoral student advisees. It’s no more possible to single any of them out for special mention than it is to pick a favorite among one’s children! They are simply the best. I have learned at least as much from them as they have from me, as we’ve pursued sedimentary basins from Patagonia to Alaska, and around the globe from China westward back to New Zealand, with more adventures together still to come.

Over my career, I’ve seen sedimentary geology expand in wonderful ways. When I began, sedimentary geologists tended to work in isolation relative to other scientific disciplines and geologic subdisciplines. This has changed in very important ways. Today, our science has become highly collaborative, and we now more than ever partner with physicists, computational modelers, statisticians, chemists and biologists, resulting in powerful new insights into how complicated earth systems work. I look forward to participating in this unfolding trend in sedimentary geology as the years roll forward.

All of the wonderful years I’ve spent studying sedimentary basins are set against a background of the incredible love and support I’ve received from my family— my parents, my first mentors; my uncle, Arthur Fritz, a wildcatter in the Illinois basin who first introduced me to geology when I was eight years old; and my wife, Jan, and my late wife Sara, and my kids, Nate and Shea, who grew up with geology ever-present in their lives.

My most sincere thanks go to all of these wonderful people who have been my mentors through science and life.
Judith A. McKenzie has been a pivotal force in transforming the field of sedimentary geology by being among the first to define the bridges between sedimentology, geochemistry and microbiology. She has been tireless in her promotion of young scientists, a legacy reflected in the large number of industry and academic scientists worldwide who consider her a mentor. Her outstanding service to the professional community has further impacted students and professionals internationally.

Judith’s early research in the coastal sabkha environments of Abu Dhabi, UAE documented, for the first time, the formation of modern dolomite at Earth surface conditions. This work, published in a SEPM ‘red volume’ (SP 28), *Concepts and Models of Dolomitization*, was a fundamental contribution to our understanding of the origin of modern and ancient dolomites. With Crisogono Vasconcelos she revisited the origin of low-temperature dolomite in the coastal lagoons of Brazil and documented through the integration of field, geochemical, and laboratory experimental studies that dolomite can form in Earth surface environments through bacterial mediation. Their success in precipitating dolomite in the laboratory at low temperature has refined geochemical fractionation equations by incorporating the role of biology in mineralization. This research has established her group as a pioneering laboratory in microbial-mineral interactions.

Additionally, Judith’s cross-disciplinary studies of marine and lacustrine systems have elucidated the complex biogeochemical linkages in these environments and remain key references for studies of lake and ocean systems and the impact on them of natural and human-induced climate and environmental change. Her impressive body of research has been published in over 200 papers and her impact on the field has been acknowledged by numerous awards including fellowship in several American and European societies and the Jean Baptiste Lamarck and Gustav Steinmann Medals and the Émile Argand Award.

Professor McKenzie has been a pioneer in research and mentoring, establishing a legacy reflected by all those whom she has influenced over a long and rich career.

Biographer: Isabel Patricia Montañez

Citation: Judith A. McKenzie has been a pivotal force in promoting and transforming the field of sedimentary geology through influential cross-disciplinary studies and scientific leadership. To many, she is a beacon of inspiration and a role model for a life rich in intellectual accomplishments, culture, and joie de vivre.

Reply from Judith A. McKenzie

I feel truly honored to receive the 2017 Twenhofel Medal of SEPM Society for Sedimentary Geology. When I peruse the list of distinguished past recipients, I find the names of many outstanding sedimentary geologists, who have directly or indirectly influenced my own career as mentors or colleagues, or through their publications or textbooks. In the field of carbonates, Robert N. Ginsberg, the 1985 recipient, particularly deserves mentioning for his enduring interest in my work and for always posing challenging questions. Preceding Bob’s name is that of Kenneth J. Hsu, the 1984 recipient, my “Doktorvater” during my studies at the ETH-Zurich. Ken introduced me to the wonders of hypersaline sabkhas in Abu Dhabi and, most importantly, to a topic that has continued to follow me throughout my career, that is, modern dolomite precipitation and the infamous “Dolomite Problem”. He also helped to initiate my involvement in various ocean drilling programs. Throughout my career, ocean drilling participation has enabled me to interact with an international network of interdisciplinary scientists, who have greatly influenced the direction of my research and with whom I remain actively involved until today.

As with any successful career of 40 years, one’s achievements are not made in a vacuum. Beginning with Robert Garrels at Scripp’s Institution of Oceanography, I have had numerous mentors, who introduced me, originally trained as an inorganic/physical chemist, to the fabulous world of sediments and sedimentary rocks. Among these mentors, I count some well-respected female colleagues, such as Maria Bianca Cita, Miriam Kastner and Charlotte Schreiber. Although it is impossible to mention the names of all who have influenced the various directions of my career, in particular the many students who continue to be close friends and inspire me with their own careers, I would like to especially remember my deceased colleague Kerry Kelts. Together with Kerry and the lake research team at the ETH-Zurich, we approached the study of lakes as small mini-ocean basins in which to investigate sedimentary processes successfully applying the same tools used in marine research. More recently, among many others, I would like to especially acknowledge Crisogono Vasconcelos, who introduced me to a different dolomite-precipitating environment, the fabulous hypersaline coastal lagoons near Rio de Janeiro, where we have applied an experimental approach utilizing the marvelous revolutionizing techniques emanating from the field of molecular biology. Together with the advanced analytical capabilities of modern nano-technology and intensive field work, we have been able to open a new geomicrobiological perspective into that long-standing enigma, the Dolomite Problem.

Finally, I would like to thank those who have supported my nomination for the 2017 Twenhofel Medal and enabled me to receive this wonderful honor. They are Peter Homewood, Fred Read, Eugene Shinn, Peter Swart, and Crisogono Vasconcelos and, in particular, the person who initiated the nomination, Isabel Montañez.
2017 ACE OUTSTANDING PRESENTATION AWARDS

**Top Oral Presentation:**
Marsha W. French, Richard Worden
*Porosity Preservation in Deep, Hot Sandstone Reservoirs*

**Top Poster Presentation:**
Eugene C. Rankey, Tion Uriam
*Equatorial Atolls of Republic of Kiribati (Equatorial Pacific): Impact of Physical and Chemical Oceanographic Processes on Sedimentology and Geomorphology*

**Top Research Symposium Oral Presentation:**
Victorien Paumard, Julien Bourget, Tobi Payenberg, Bruce Ainsworth, Simon Lang, Henry W. Posamentier, Annette George
*Stratigraphic Evolution of the Barrow Group (Northern Carnarvon Basin, North West Shelf, Australia): Controls on the Architecture of a Shelf-Margin During a Syn-Rift to Post-Rift Transition*

Gregor Eberli
*Carbonate Sequence Stratigraphy – First Principles Accommodate the Unruly Carbonate System*

**Top Research Symposium Poster Presentation:**
Lisa R. Goggin, Tao Sun, Anne Dutranois, Ashley D. Harris
*Volumetric Interpretation – Advancing the Way We Interpret Seismic Stratigraphy and Geomorphology*

2017 Outstanding Paper in the Journal of Sedimentary Research

Gary J. Hampson, Robert A. Duller, Andrew L. Petter, Ruth A.J. Robinson, and Philip A. Allen

Ted E. Playton and Charles Kerans
*2015, Late Devonian Carbonate Margins and Foreslopes of the Lennard Shelf, Canning Basin, Western Australia, Parts A and B: JSR 85:11.*

2017 Outstanding Paper in Palaios

Miguel Iniesto, Celia Laguna, Maximo Florin, M. Carmen Guerrero, Alvaro Chicote, Angela D. Buscalioni, and Ana I. Lopez-Archilla
*2015, The Impact of Microbial Mats and their Microenvironmental Conditions in Early Decay of Fish: PAL 30:11.*

2017 Outstanding Paper in Palaios Honorable Mention

Howard J. Falcon-Lang, Conrad Labandeira, and Ruth Kirk
*2015, Herbivorous and Detritivorous Arthropod Trace Fossils Associated with Subhumid Vegetation in the Middle Pennsylvanian of Southern Britain: PAL 30:3.*

Daniel G. Dick
*2015, An Ichthyosaur Carcass-Fall Community from the Posidonia Shale (Toarcian) of Germany: PAL 30:5.*

SEPM FOUNDATION ANNOUNCES NEW BOUMA ENDOWED FUND

The Bouma Family, in memory of their father and mother, has made a very generous donation of $250,000, to the SEPM Foundation. The Arnold and Lieneke Bouma Endowment Fund is designated to support student and early career participation at a named Bouma Conference. Special preference will be given to participants that are U.S. Veterans or Gold Star Family members. SEPM will be establishing a recurring series of conferences - named the Bouma Conferences on the topic of Deep-Water Geoscience. Additionally, the Bouma Family has allocated $25,000 to be used as Matching Funds to non-family donations to the Bouma Fund.
INDEPENDENT AUDITOR'S REPORT

To the Council
SEPM (Society for Sedimentary Geology)

Report on the Financial Statements

We have audited the accompanying financial statements of SEPM (Society for Sedimentary Geology) (a non-
for-profit organization), which comprise the statements of financial position as of December 31, 2016 and
2015, and the related statements of activities and cash flows for the years then ended, and the related notes to
the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance
with accounting principles generally accepted in the United States of America; this includes the design, imple-
mentation, and maintenance of internal control relevant to the preparation and fair presentation of financial
statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

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 involves performing procedures to obtain audit evidence about the amounts and disclosures in the
financial statements. The procedures selected depend on the auditor's judgment, including the assessment of
risks of material misstatement and whether internal control over financial reporting was effective as a whole.
In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair
presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances.
However, an audit also includes evaluating the appropriateness of accounting policies used and the reasonableness
of significant accounting estimates made by management, as well as evaluating the overall presentation of the
financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our
audit opinion.

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, 2016 and 2015, and the changes in
the net assets and in cash flows for the years then ended in accordance with accounting principles generally
accepted in the United States of America.

Hogan Taylor,
Tulsa, Oklahoma
August 10, 2017

SEPM (Society for Sedimentary Geology)
STATEMENTS OF FINANCIAL POSITION
December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
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<tbody>
<tr>
<td><strong>Assets</strong></td>
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<tr>
<td>Cash and cash equiv.</td>
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<tr>
<td>Accounts receivable</td>
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<td>Receivable from affiliates</td>
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<td>1,802,639</td>
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<td>Furniture and equipment, net</td>
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<td>Investments</td>
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<tr>
<td><strong>Total assets</strong></td>
<td>$4,607,704</td>
<td>$4,250,938</td>
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</tbody>
</table>

| **Liabilities and Net Assets** | | |
| Current liabilities: | | |
| Accounts payable and accrued liabilities | $62,583 | $65,765 |
| Deferred income      | 665,965 | 372,844   |
| **Total current liabilities** | 528,548 | 446,609   |
| Unrestricted net assets: | | |
| Unrestricted           | 2,974,428 | 2,677,812 |
| Board designated      | 1,106,798 | 1,104,417 |
| **Total net assets**   | 4,097,216 | 3,804,229 |
| **Total liabilities and net assets** | | |
| **Total assets**       | $4,607,704 | $4,250,938 |

SEPM (Society for Sedimentary Geology)
STATEMENTS OF ACTIVITIES
Years ended December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
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<tr>
<td><strong>Revenue, Gains and Other Support</strong></td>
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<tr>
<td>Donations</td>
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<td>Publications</td>
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<tr>
<td>Journal of Sedimentary Research - subscriptions, royalties and other</td>
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<td>Patents - subscriptions, royalties and other</td>
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<td>Continuing education</td>
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<td>Membership activities</td>
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<td>Net realized and unrealized gain (loss) on investments</td>
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<td>Investment income</td>
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</tr>
<tr>
<td><strong>Total revenue, gains and other support</strong></td>
<td>1,836,332</td>
<td>1,326,563</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publishing costs - Journal of Sedimentary Research</td>
<td>169,723</td>
<td>175,580</td>
</tr>
<tr>
<td>Publishing costs - Patents</td>
<td>103,832</td>
<td>121,310</td>
</tr>
<tr>
<td>Publications</td>
<td>141,677</td>
<td>135,775</td>
</tr>
<tr>
<td>Continuing education</td>
<td>15,310</td>
<td>42,790</td>
</tr>
<tr>
<td>Meetings, conferences and field trips</td>
<td>82,114</td>
<td>49,056</td>
</tr>
<tr>
<td>Membership activities</td>
<td>185,062</td>
<td>223,553</td>
</tr>
<tr>
<td>Grant owed to SEPM Foundation, Inc.</td>
<td>155,756</td>
<td>-</td>
</tr>
<tr>
<td>General and administrative</td>
<td>557,048</td>
<td>515,472</td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>1,563,455</td>
<td>1,263,536</td>
</tr>
<tr>
<td><strong>Change in net assets</strong></td>
<td>272,900</td>
<td>63,027</td>
</tr>
<tr>
<td><strong>Net assets, beginning of year</strong></td>
<td>3,806,229</td>
<td>3,743,202</td>
</tr>
<tr>
<td><strong>Net assets, end of year</strong></td>
<td>$4,079,126</td>
<td>$3,806,229</td>
</tr>
</tbody>
</table>

See notes to financial statements.

SEPM (Society for Sedimentary Geology)
STATEMENTS OF CASH FLOWS
Years ended December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash Flows from Operating Activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in net assets</td>
<td>$272,900</td>
<td>$63,027</td>
</tr>
<tr>
<td>Adjustments to reconcile change in net assets to cash provided by operating activities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>8,252</td>
<td>6,573</td>
</tr>
<tr>
<td>Net realized and unrealized gain (loss) on investments</td>
<td>(170,967)</td>
<td>174,501</td>
</tr>
<tr>
<td>Change in operating assets and liabilities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>(40,996)</td>
<td>7,736</td>
</tr>
<tr>
<td>Receivable from affiliate</td>
<td>(69,946)</td>
<td>(62,034)</td>
</tr>
<tr>
<td>Inventory</td>
<td>30,015</td>
<td>49,496</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>1,458</td>
<td>6,189</td>
</tr>
<tr>
<td>Accounts payable and accrued liabilities</td>
<td>(3,182)</td>
<td>13,425</td>
</tr>
<tr>
<td><strong>Deferred income</strong></td>
<td>87,112</td>
<td>(137,921)</td>
</tr>
<tr>
<td><strong>Net cash provided by operating activities</strong></td>
<td>141,722</td>
<td>136,764</td>
</tr>
<tr>
<td><strong>Cash Flows from Investing Activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase of furniture and equipment</td>
<td>(14,012)</td>
<td>(9,611)</td>
</tr>
<tr>
<td>Purchase of investments</td>
<td>(704,410)</td>
<td>(191,948)</td>
</tr>
<tr>
<td>Proceeds from sales of investments</td>
<td>659,211</td>
<td>304,626</td>
</tr>
<tr>
<td><strong>Net cash provided by (used in) investing activities</strong></td>
<td>(59,041)</td>
<td>100,847</td>
</tr>
<tr>
<td><strong>Net change in cash and cash equivalents</strong></td>
<td>82,681</td>
<td>233,841</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents, beginning of year</strong></td>
<td>1,355,062</td>
<td>1,119,231</td>
</tr>
<tr>
<td><strong>Cash and cash equivalents, end of year</strong></td>
<td>$1,435,743</td>
<td>$1,355,062</td>
</tr>
</tbody>
</table>

See notes to financial statements.
NOTES TO FINANCIAL STATEMENTS
December 31, 2016 and 2015

Note 1—Nature of Operations and Summary of Significant Accounting Policies

Nature of operations
On September 27, 1987, the Society of Economic Paleontologists and Mineralogists (the 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 vest to the benefit of any member. In 1989, the Society changed its name to SEPM (Society for Sedimentary Geology).

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

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.

Inventories
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 included in inventory.

Special publications are valued at cost (specific identification) in the year of publication and the 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.

Furniture and equipment
Furniture and equipment are valued at cost. Depreciation is provided using the straight-line method over useful lives of three to seven years.

Revenue recognition
The Society recognizes income and expense on the accrual basis in accordance with the accounting principles generally accepted in the United States of America.

Note 2—Inventory

Inventory consists of the following at December 31:

<table>
<thead>
<tr>
<th>Description</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications</td>
<td>$ 79,025</td>
<td>$ 112,004</td>
</tr>
<tr>
<td>Continuing education costs</td>
<td>5,923</td>
<td>6,679</td>
</tr>
<tr>
<td>Work in process</td>
<td>6,520</td>
<td>5,320</td>
</tr>
<tr>
<td>Total inventory</td>
<td>$ 82,278</td>
<td>$ 122,313</td>
</tr>
</tbody>
</table>

Inventory write-downs were $119,979 and $19,032 for the years ended December 31, 2016 and 2015, respectively.

Note 3—Furniture and Equipment

A summary of furniture and equipment at December 31 is as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furniture and equipment</td>
<td>$ 167,810</td>
<td>$ 256,224</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>(144,500)</td>
<td>(238,773)</td>
</tr>
<tr>
<td>Total</td>
<td>$ 23,310</td>
<td>$ 17,451</td>
</tr>
</tbody>
</table>

Note 4—Investments

The fair value measurement standards establish a consistent framework for measuring fair value and a fair value hierarchy based on the observability of inputs used to measure fair value. These inputs are summarized in three broad levels:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

There were no investment transfers due to changes in the observability of significant inputs between Level 1, Level 2 and Level 3 assets during the years ended December 31, 2016 and 2015.

Investments measured at fair value on a recurring basis consisted of the following:

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 2016</th>
<th>December 31, 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair Value Measurements as of December 31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Mutual funds</td>
<td>$ 2,066,594</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Fair Value Measurements as of December 31</td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Mutual funds</td>
<td>$ 2,630,098</td>
<td>-</td>
</tr>
</tbody>
</table>
The Sedimentary Record, v. 15, n. 4, Appendix A


Realized and unrealized gains (losses) for the years ended December 31, 2016 and 2015, were as follows:

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrealized gains (losses)</td>
<td>$140,856</td>
<td>$(197,091)</td>
</tr>
<tr>
<td>Realized gains</td>
<td>50,051</td>
<td>21,450</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$190,907</strong></td>
<td><strong>$178,541</strong></td>
</tr>
</tbody>
</table>

Note 5 – Deferred Income

Deferred income consists of the following at December 31:

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donations</td>
<td>$81,877</td>
<td>$78,882</td>
</tr>
<tr>
<td>Subscriptions</td>
<td>233,830</td>
<td>203,810</td>
</tr>
<tr>
<td>Publications in process and other</td>
<td>456,250</td>
<td>96,152</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$465,965</strong></td>
<td><strong>$378,844</strong></td>
</tr>
</tbody>
</table>

Note 6 – Commitments

The Society leases its office and warehouse under operating leases having expiration dates through August 2018. Minimum annual rental commitments are as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$46,896</td>
</tr>
<tr>
<td>2018</td>
<td>27,997</td>
</tr>
</tbody>
</table>

Rent expense was $94,165 and $95,846 for the years ended December 31, 2016 and 2015, respectively.

Note 7 – Unrestricted Net Assets

Unrestricted net assets consist of the following at December 31:

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Fund</td>
<td>$2,974,428</td>
<td>$2,657,812</td>
</tr>
<tr>
<td>Board designated:</td>
<td>971,876</td>
<td>1,086,760</td>
</tr>
<tr>
<td>New Frontier Fund</td>
<td>132,423</td>
<td>81,625</td>
</tr>
<tr>
<td>Other</td>
<td>132,423</td>
<td>81,625</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$4,079,216</strong></td>
<td><strong>$3,806,229</strong></td>
</tr>
</tbody>
</table>