

SOCIETY RECORDS AND ACTIVITIES SEPM 2006 ANNUAL MEETINGS

ANNUAL REPORT OF THE SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY) FOR THE YEAR ENDING AT THE EIGHTIETH ANNUAL MEETING

Annual Meeting

SEPM held its Annual Meeting in Houston, Texas, jointly with A.A.P.G. Bill Morgan turned the gavel over to the new President, Bob Dalrymple. Under the leadership of SEPM Vice-Chair John Snedden and his committee, SEPM sole and joint sessions accounted for 57% of the overall oral and poster program. The SEPM Research Symposium for 2006 was "Significance of mass transport deposits in deep water environments" convened by C. Shipp, P. Weimer and H. Posamentier. At the business luncheon, Gary Parker gave his insights into "Deepwater Turbidity Current Dynamics". Then at the outgoing President's Reception Bill honored the society's 2006 medalists and the best journal papers, best poster, best oral presentation and student awardees.

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: Applied Ichnology: The Use of Trace Fossils in Sequence Stratigraphy, Exploration and Production Geology
- SEPM Short Course: Quaternary Reefs and Platforms: Bridging the Gap between the Ancient and the Modern
- SEPM/AAPG Core Workshop: Giant Hydrocarbon Reservoirs of the World: From Rocks to Reservoir Characterization and Modeling
- SEPM Trip: Quaternary Depositional Systems of the East Texas Coast and Shelf
- SEPM Trip: Carbonate Reservoir Heterogeneity Styles within a Sequence Stratigraphic Framework: Albian (Cretaceous), Pecos River Canyon
- AAPG /SEPM Student Trip: Quaternary Depositional Systems of the East Texas Coast and Shelf

Journals

Both of our journals continued having excellent years. The *Journal of Sedimentary Research* continues publishing top-quality papers under the co-editors, Colin North (University of Aberdeen) and Kitty Milliken (University of Texas, Austin). *PALAIOS* under the new editorship of Steve Hasiotis and Edie Taylor at University of Kansas made some significant changes, which included going to online only submission. With both journals have online submission and standalone websites at Highwire Press the current issues and entire archives are available to SEPM members and libraries. In 2006 the online version became the official copy of record and includes

significantly more color figures than the printed version. The online access of both journals is now well established with *PALAIOS* being part of the BioOne, Datapages, JSTOR and GSW online aggregates and *JSR* being part of the Datapages and GSW online offerings.

SEPM continued to play an important role, along with AAPG, GSA, MSA, GSL and AGI, as a founder and current board member of the geoscience online journal aggregate, GeoScienceWorld (GSW), which launched in February, 2005 and had an exceptionally successful first year.

Special Publications

Under the coeditorship of Laura Crossey and Don McNeill, special publications of SEPM continue to produce top of the line products. In 2006, a total of three new publications published by year end. This year's publications include SEPM's first major works published in original digital format, SP #84 and Atlas #2. Previously SEPM had always printed the first edition and then would produce a reprint in digital format after selling out of the printed copies.

- SP #84 *Facies Models Revisited*,
Edited by: Henry Posamentier and Roger Walker
- SP #85 *Incised Valley in Time and Space*,
Edited by: Robert Dalrymple, Dale Leckie and Roderick Tillman
- Atlas Series #2 *Bedforms and Cross-Bedding in Animation*
By: David M. Rubin and Carissa L. Carter

Research Conferences

In 2006, SEPM sponsored two research conferences, which were both very successful and summaries can be seen on the SEPM website (www.sepm.org). Both conferences are planning publications.

- **EXTERNAL CONTROLS ON DEEP WATER DEPOSITIONAL SYSTEMS: CLIMATE, SEA-LEVEL, AND SEDIMENT FLUX**, a 3-day joint research conference with the Geological Society of London, March 27-29 in London, UK.
- **THE APPLICATION OF EARTH SYSTEM MODELING TO EXPLORATION**, a 3-day joint conference with the Geological Society of London, May 11-13, Snowbird, Utah, USA.

Collaborations (AAPG, GSL and GSA)

In 2006, 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 of the Local Convention Committee. We cosponsored a student field trip with AAPG and also cosponsored a core workshop. Both of our research conferences were co-sponsored with GSL (Geological Society of London),

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Collaborations (*continued*)

one held in London at GSL headquarters and one in Snowbird, Utah. SEPM also has joint publication arrangements with GSL and GSA on upcoming volumes from previous research conferences. We also attempted to co-sponsor another research conference jointly with GSA and GSL but the timeline requested by the conveners was too short for any of the societies to become involved.

Foundation Items

The SEPM Foundation, Inc. continues to award student grants to those pursuing research in sedimentary geology. To date over \$250,000 has been dispensed from the foundation. In 2005, the foundation supported 15 student presenters with travel grants to the Annual Meeting as well as six graduate student research grants.

Robert and Ruth Weimer Fund

- **Owen Anfinson** - Washington State University
- **Kelsey Bitting** - Rutgers University
- **David Cleveland** - Baylor University
- **Douglas Edmonds** - Pennsylvania State University
- **Paul Harnik** - University of Chicago

Gerald Friedman Fund

- **Stephanie Thomas** - Southern Methodist University

John Sanders Fund

- **Andrea Hawkes** - University of Pennsylvania
- **Krystal Chan** - Washington State University
- **Owen Anfinson** - Washington State University

Mobil Foundation Fund

Section Awardees

NAMS Section: **M. A. Esparza Alvarez** - Oceanologia, Ecologia Marina, CICESE, Ensenada, Mexico

Latin American: **M. D. Herrera** - Universidad de Los Andes, Venezuela

Annual Meeting Poster Award Travel Grants

- **H. Peters** - Bremen University Research Center for Ocean Margins - Germany
- **T. P. Gerber** - Duke University
- **B. Fernandes** - University of Adelaide, Australia
- **L. Ma** - University of Houston
- **P. Woodman** - University of Manchester
- **D. L. Greene** - University of Alabama
- **I. A. Moffat** - University of Adelaide, Australia



Gail Ashley, left, accepts the award of Honorary Membership from President William Morgan.

Honorary Membership

For contributions to sedimentary geology and to SEPM
Gail M. Ashley

Gail Ashley received her B.Sc. and M.Sc. degrees from the University of Massachusetts and her Ph.D. degree from the University of British Columbia. Since 1977 she has been on the faculty in the Department of Geological Sciences at Rutgers, the State University of New Jersey, where she is now a distinguished full professor, as well as the director of the Quaternary Studies Graduate program and a Fellow of Douglass College.

Gail's scientific work has spanned an impressive range of fields: glacial sedimentology, fluvial sedimentology, coastal sedimentology, sequence stratigraphy, and, most recently, East Africa field studies in environmental paleoanthropology. Over the years, she has authored over seventy refereed publications.

It would take more than this brief biographical sketch to describe all of the things Gail has done for SEPM. Through the years she has worked tirelessly on numerous committees, fifteen by last count. In her capacity as a long-standing member, and for four years, chair, of the Committee on Hydrogeology and Environmental Geology, from 1986 to 2000, she worked especially hard to make those fields a more central concern of SEPM. She served as an Associate Editor of the *Journal of Sedimentary Petrology* for several years, and as Editor of the *Journal of Sedimentary Research* from 1996 to 2000. In her capacity as President-Elect, President, and Editor of *JSR*, she served on SEPM Council for a total of six years.

For her tireless devotion to the well-being of SEPM, Gail Ashley is richly deserving of Honorary membership in SEPM.

Biographer: John Southard

Citation:

In recognition of outstanding research and education in the geosciences and of her long-standing service to SEPM.

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Rod Tillman, left, accepts the award for Distinguished Service from President William Morgan.

Distinguished Service Award R. W. Tillman

When I think of Rod Tillman as a scientist, what first comes to mind are turbidites in California and Arkansas, and Cretaceous shelf sandstones in the Western Interior. We would have been much poorer as sedimentologists were it not for all of Rod's pioneering work on the dynamics, sedimentology and reservoir characterization of these depositional systems. Not only has Rod exemplified the rigorous, dispassionate use of the scientific method in the study of marine sedimentary rocks, but he also has shared his approach and insights with innumerable students and colleagues through a life-long teaching engagement, even though he never served in a formal college teaching position. Instead, Rod used SEPM as a vehicle to be a driving force behind industrial engagement in outreach education. Rod's many SEPM special publications and short course notes have been the classics of the educational outreach community for a long time.

Rod Tillman is a native mid-westerner, and even though he has traveled the world his roots, family and love of 'Tulsa Ragtime' has kept him there. He ventured to the University of Colorado for his Ph.D., Conoco Exploration Co., Midland, TX for his first job, and then to Tulsa, first with Sinclair Oil and subsequently for a long and productive career at Cities Service Oil Company, at their modern research laboratory there. Following Cities' absorption into Occidental in 1985, Rod has maintained a highly successful consulting research practice out of Tulsa.

Rod Tillman's contributions to SEPM are legion. A member since 1962, and now an Honorary Member, Rod has served on nearly all SEPM committees at one time or another since the early 80s, and was President of SEPM in 1990-91. He also served as Vice-President during the challenging year of 1986-87 at which time SEPM established formal independence from AAPG. His longest service has been on the headquarters and business and investment committees; being the chair of the latter for the past 11 years! The Society and its members have benefited enormously from Rod's steady hand on its financial rudder; he was not one to jump on the 'new economy' bandwagon in the late 90s, nor did he lose his cool when that market turned south in the early 2000s.

Biographer: Dag Nummedal

Reply from R. W. Tillman

My thanks to SEPM for the little expected Distinguished Service Award. My tenure in SEPM has been most enjoyable. Since the time of my first elected office (SEPM Treasurer) to my SEPM Presidency, and beyond, I had the good fortune to work with many of the most distinguished stratigraphers, sedimentologists and paleontologists in the world. The hard work of my colleagues contributed greatly to my enjoyment of my volunteer efforts in SEPM.

I am also one of the very few members who served on committees or as an officer under all seven of the SEPM executive directors to date; Ruth Tener, Doris Woofert, Joseph Huffstetler, Robin Dixon, Frank Wantland, Cathleen Williams and Howard Harper. I, along with the rest of the membership, adapted to the philosophies of all these folks over the last 40 years. Our goal was to make SEPM the best possible society.

The privilege of being involved with scientists who are at the cutting edge of their science has resulted from my continuing volunteer efforts. I recommend being involved with SEPM to all young scientists. Volunteering becomes easier and more rewarding the more you do it.



Lynn Soreghan, left, accepts the James Lee Wilson Award from President William Morgan.

James Lee Wilson Award For Excellence in Sedimentary Geology Research by a Young Scientist Dr. Lynn Soreghan

Dr. Lynn Soreghan is a worthy recipient of this award. She is indeed a leading young scientist in the area of stratigraphy and its relation to paleoclimatology. Her early research as a student at the University of Arizona focused on both carbonate and clastic stratigraphy, which, after graduation, led her down the path of exploring the late Paleozoic 'icehouse earth', with implications for future natural climate change. Her recognition that Paleozoic loessite is a major, unexplored archive of high-resolution climate change has opened the door to the possibility of low-latitude, relatively low elevation glaciation during the late Paleozoic, associated with the tectonic evolution of the Ancestral Rocky Mountains. This breakthrough research forces

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the scientific community to re-think what comprises other parts of the Paleozoic rock record, and why. As is the case with many frontier ideas, her research has not gone unchallenged. Thus, she and her students have patiently and meticulously gathered scientific information leading to publication in prestigious journals and presentation and debate before prestigious audiences.

Her passion for paleoclimatological research has also placed her into a leadership role in the National Science Foundation's Deep-Time GeoSystems initiative. This interdisciplinary, scientific study is aimed at understanding Earth's climate system through focused examination of the pre-Quaternary geologic record. She has co-organized GeoSystems workshops, organized scientific sessions at conventions, manages the GeoSystems website, and has developed the *GeoSystems News* biannual newsletter. At the University of Oklahoma, she initiated and co-teaches a popular course which encompasses modern and ancient climates.

On the wall outside Dr. Soreghan's office is a quote by the famous naturalist John Muir: "*When we try to pick out anything by itself, we find it hitched to everything else in the universe*". This quote encapsulates her approach to research and why she is so successful in the pursuit of this critical and fascinating aspect of the physical sciences.

Biographer: Roger M. Slatt

Citation:

In recognition of her many accomplishments in unraveling the complexities of paleoclimates through integration of stratigraphy, tectonics, eustasy, and climatology, in educating students to the wonders of scientific pursuit and discovery, and by providing leadership and encouragement to the scientific community through publication, presentation, organization, and commitment.

Reply from Dr. Lynn Soreghan

I thank Roger Slatt, for his kind words and efforts on my behalf, and SEPM President Bill Morgan and the SEPM selection committee, for this honor.

As pleasantly surprising as it is to receive an award bearing the word "young" in its title, what delights me more is the association with sedimentary geology and with the pre-eminent James Lee Wilson. I love what I do. Sediments archive the history of plate boundaries, sea levels, evolution and extinction and, the ultimate interface among our planet's systems, Earth's climate. It is a blessing to be able to pursue teaching and research in such fascinating topics, and truly rewarding to occasionally spark a new synapse in a student's brain, or my own. I am thankful for the tutelage of many who used sediments to paint amazing pictures of the Earth, thereby hooking me early on. Notably UCLA's Ray Ingersoll, who first ignited my interests in soft rocks (at a time when I was veering dangerously toward metamorphic petrology), Bill Dickinson, who demonstrated the fine art of arm-waving, and so many others, from my fellow graduate students at the University of Arizona, to my colleagues at various institutions to, now, my own students, who teach me by stumping me on a daily basis. I count among my informal mentors Jim Wilson, who I first met as a truly young and very

intimidated graduate student. My intimidation dissolved the moment he and Dell answered the door to welcome me, a complete stranger, into their home. Since that first meeting, I have had the pleasure of accompanying Jim on field excursions in New and Old Mexico, where he passed along his vast knowledge of geology, culture, botany, and Hill Country lore. Jim's many contributions to sedimentary geology are well known, but what I have always found especially inspiring and endearing is his manner of listening: he makes one - everyone - feel important.

I am blessed with the love of a large family; my parents, Gerald and Susan taught me curiosity and perseverance and my numerous siblings taught me survival. My spouse, closest colleague and best friend Michael lends boundless support and inspiration, and our three children bestow the unconditional love that helps to ground me. I thank you all for your many roles in this award.



Allison "Pete" Palmer, left, accepts the Raymond C. Moore Medal from President William Morgan.

Raymond C. Moore Medal For Sustained Excellence in Paleontology Allison "Pete" Palmer

In an extraordinary career, Allison R. ("Pete") Palmer laid much of the foundation for our current understanding of the Cambrian world, coordinated a landmark synthesis of North American geology, and raised scientific and public awareness of the issue of sustainability of global ecosystems.

Pete Palmer received a B.S. degree from Penn State in 1946, and a Ph.D. from the University of Minnesota in 1950. Afterward, he served for 16 years as the Cambrian paleontologist-stratigrapher for the U.S. Geological Survey. In that time, he developed or clarified the Cambrian fossil and stratigraphic record of much of North America. The results of that work, plus Pete's unique blend of intellect and optimism provided much of the impetus for modern biostratigraphic correlation of the Cambrian globally, and for making sense of trilobite biogeographic and evolutionary patterns. The evolutionary concept of biomes, or iterative episodes of diversification that were abruptly interrupted by extinction events, is one of his most familiar contributions from the USGS years. Upon joining the

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faculty of SUNY Stony Brook in 1966, Pete honed his teaching and mentorship skills.

In 1980, Pete accepted a new and monumental challenge: Centennial Science Program Coordinator for the Geological Society of America. As editor of the *Decade of North American Geology* (DNAG) series, Pete's combination of hard work, management ability, and infectious enthusiasm brought to fruition the daunting task of publishing the only truly comprehensive treatment of the geological history of North America.

Pete retired from GSA and founded the Institute for Cambrian Studies in 1991. In this role he has continued to actively guide younger generations of Cambrian scientists, to help refine Cambrian correlations, and to actively educate ordinary citizens on the role of geology in everyday life and the issue of sustainability of global ecosystems. From the public's perspective, this may be his most important role: few scientists have so directly and deftly articulated the important relationships linking geoscientists, human society, and the future of our planet.

Pete Palmer remains an active, vital member of the scientific community. He continues to publish important, challenging, and thought-provoking studies that guide the way to a more complete understanding of the Cambrian. There is perhaps no living person who has had a greater or more lasting influence on Cambrian geology than Pete Palmer. That legacy will continue not only in his monumental publications, but also through his leadership in the community and his mentorship of younger scientists.

Biographer: Loren Babcock

Citation:

In recognition of his many important and sustained accomplishments in: 1, Cambrian stratigraphy and paleontology; 2, trilobite biostratigraphy, evolution, and biogeography; 3, scientific leadership in synthesizing the geological evolution of North America; and 4, education of diverse people on the role of geology in public policy and in ecosystem sustainability.

Reply from Pete Palmer

Good evening. I feel truly honored to have been chosen for this medal and to find myself in the company of so many distinguished present and former colleagues.

What to say? The Cambrian system and its trilobites have been the focus of my professional paleontologic activities for most of the past 60 years. It's been a good life.

Trilobites were, for me, the tools to be used to unravel Cambrian history. They also demonstrated to me the opposite of Al Shaw's lament about paleontology being the handmaiden of geology. It's really the other way around - geologists are dependent on paleontologists to sort out their rock sequences, whether in structurally complex mountain systems, or in the subsurface, where assumed stratigraphic calls based only on lithologies have so often been proven wrong. Many exotic terranes would not have found their correct homes without fossils.

Complex facies patterns and paleogeography would be very difficult without the time control provided by fossils. I've been privileged to have had a hand in many facets of this.

There are still some fascinating unresolved regional Cambrian problems. Regarding the southern margin of Cambrian Laurentia, Middle and Upper Cambrian limestone boulders in the Pennsylvanian Haymond conglomerate and the Ordovician Woods Hollow shale of the Marathon Region, respectively, represent faunas typical of the seaward margin of a broad carbonate belt to the south that no longer exists. Where is it? Cambrian faunas from the western Brooks Range and elsewhere in western Alaska are entirely Siberian. What's the connection? There is still a great deal to be learned from integrating the Cambrian faunas and rocks of the Canadian Arctic Islands into the Laurentian story. And then, there's the next level of resolution.

Establishment of the lithostratigraphic and biostratigraphic framework for the Laurentian Cambrian using trilobites, has opened up the possibilities for paleobiologic studies of non-trilobite groups and their context, which is the focus for much current research. So, it's a good time to move on.

For much of the past decade, I've become increasingly involved with the more immediate issues of educating folks about the challenge of a sustainable future for their grandchildren. Geologists hold the key ideas of deep time and the significance of the fossil record for defining the human context that should belong to all educated citizens. Unfortunately, we have failed to communicate these effectively and the result is reflected in many aspects of current national policy. So that's my present mission.

Thank you, again, for the privilege of being one of the Moore Medal honorees.



Michael Sarnthein, left, accepts the Francis P. Shepard Medal from President William Morgan.

Francis P. Shepard Medal For Sustained Excellence in Marine Geology Michael Sarnthein

Michael Sarnthein, born in Vienna, began his geological career in the Austrian Alps in the early 1960's. In 1966 he accepted a life-changing invitation from Eugene Seibold to come to the University of Kiel in northern Germany. From the Triassic carbonates of the Alps his research shifted to modern analogs of alpine Molasse sediments in the Persian Gulf. Nearer to Kiel he

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investigated the sediments and molluscan faunas of the Baltic. He then turned his attention to the deep-sea sediments of the eastern Atlantic.

By the mid-1970's he recognized that dune sands and dust in the sediments off northwestern Africa provided a unique record of the history of changing climatic conditions in the Saharan region that extended back at least 25 million years. For these and subsequent studies, Michael eagerly used samples from cores taken by German research vessels and by the RV Marion Dufresne, Glomar Challenger, and JOIDES Resolution.

In the 1980's he began to use geochemical tools to explore the relations between biological productivity and carbon dioxide in the ocean and atmosphere. He became one of the pioneers in turning paleoceanography from a descriptive to a system science. He turned his attention to the northern North Atlantic with its more direct record of the effects of glaciation.

In the 1990's he led the way in unraveling the history of melt-water discharges into the northern oceans and exploring their effects on climate. He devoted much effort to developing new proxy methods for interpreting paleotemperatures, salinities, watermass ages, and ocean circulation patterns in the northern North Atlantic and the global ocean.

Recently much of his effort has been directed toward understanding the history of the northern Pacific and South China Sea during the Quaternary, and to exploring the effect of closure and opening of oceanic gateways to the evolution of climate during the Neogene.

Biographer: William Hay

Citation:

In recognition of his pioneering accomplishments in interrelating continental and oceanic paleoclimatology, in the development of the science of paleoceanography, and for his outstanding contributions to understanding the effects of glacial meltwater pulses and of the opening and closing of interocean gateways on the circulation of the ocean.

**Francis J. Pettijohn Medal
For Sustained Excellence in Sedimentology
Daniel Bernoulli**

With Daniel Bernoulli, SEPM honors a geologist of exceptional breadth and depth, a man who throughout his career has built bridges between different branches of our science - between the geology of mountain belts and of extant oceans, between the fields of sedimentology/stratigraphy and tectonics. Bernoulli was among the first who viewed the sediment record of the Alpine mountain belts of Europe in a plate-tectonic framework. This work culminated in several milestone papers. In 1972 he convincingly matched Mesozoic rocks recovered by the Deep Sea Drilling Project in the central Atlantic with coeval formations in the Alps and the Apennines. This accomplishment settled the century-long debate on whether mountain belts indeed contain genuine deep-sea deposits. Subsequent work with Hugh Jenkyns stands out as one of the early victories of paleoceanog-



Daniel Bernoulli, left, accepts the Francis J. Pettijohn Medal from President William Morgan.

raphy. In a comprehensive comparison of the Mesozoic rocks of Alpine Europe and the central Atlantic, Bernoulli and Jenkyns reconstructed the oceanographic evolution of western Tethys.

The success of this approach demonstrated that the techniques of paleoceanography - originally developed to reconstruct past conditions of extant ocean basins - could be used to reconstruct "lost oceans" from their vestiges in mountain belts.

In subsequent studies, Bernoulli examined the transition between oceanic and continental crust, and explained the origin of the pelagic sediments overlying the oceanic crust and the exhumed mantle. With his characteristic sharp perception - equally impressive in the field as with the microscope - he made important contributions on redeposition in the pelagic realm, on ophiolite-carbonate mixtures and the diagenesis of pelagic sediments. With his students he used the comparative approach for studies of the transition of the oceanic to continental crust by constructing synthetic seismic profiles of the exhumed transition in the Swiss Alps as a framework for interpreting this transition in the modern Iberia margin.

Carbonate platforms of passive ocean margins are another focus of Bernoulli's work. He used these sensitive recorders of climate and sea level to test the concepts of sequence stratigraphy in mountain-size outcrops of the Apennines, elucidate the role of tectonics in platform drowning and the influence of paleoceanographic changes on neritic biota.

Dozens of students have joined him in these endeavors and benefited from his thoughtful approach towards the evolving Earth.

Biographers: Wolfgang Schlager and Gregor P. Eberli

Citation:

For fundamental work on continental margins, pelagic sediments and carbonate platforms and for stimulating research by acting as messenger among disciplines - between sedimentology and tectonics, and between marine geology and the field geology of mountain belts.

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Reply from Daniel Bernoulli

Dear friends and colleagues. My feelings at this moment are those of great gratitude. I'm grateful to SEPM and its Pettijohn Medal Committee for awarding me with the Pettijohn Medal, an unexpected great honor, for the nice (and flattering) citation and to all who have been involved in my nomination.

There is obviously a great amount of luck involved in this honor: By much chance, I often happened to be at the right place at the right moment. During my early professional life, my steps were usually not guided much by foresight, rather by motivation and my love for field geology—in cases, also by stubbornness. I recall that when I wanted to start with a doctoral thesis, I refused all themes proposed by my professor until after half year of disobedience he let me do a thesis in the Alps—at my own risk and without much help from his side. What I luckily found in 1963 was one of the most prominent rift basins of the Tethyan margins—avant la lettre. Later it turned out that my field area included all the Tethyan sediments that were to be found by the Deep Sea Drilling Project in the central Atlantic. The lesson I then learned was that comparisons of apparently distant and at first sight disparate worlds could provide unconventional and surprising insights. However, all my activities would not have been possible without the inspiration, advice and help I received from my teachers, colleagues and friends, too many to be mentioned individually, who shaped and shared my ways across the mountains and seas of the ancient Tethys ocean. Of all who enriched my life and work I should like to thank particularly my younger companions and doctoral students, some of them present here, with whom during the last twenty years I shared so many happy days in the Alps and Apennines and who now carry on some of our joint work.

and Atmospheric Sciences of the University of Miami, the University of Colorado and University of Kiel in Germany. He has been Guest Professor at the Hebrew University (Jerusalem), the Universities of Munich, Utrecht, Vienna, and Greifswald and Research Fellow of University College (London). He served the scientific community through his many publications and leadership, and always found time for the more than 35 graduate students he mentored during his career.

Bill started as a micropaleontologist working first on ostracods under Harold Scott at the University of Illinois, and then on planktonic foraminifera under Hans Thalmann at Stanford. In 1960 he realized that calcareous nannofossils could be valuable stratigraphic indicators. In 1963 he stopped over in Miami while on a trip to the Lerner Marine Laboratory on Bimini, where he was studying shallow water organisms and sediments. He met Cesare Emiliani, who introduced him to samples taken using ocean drill rigs. Bill was hooked, and subsequently went to sea and served on many JOIDES Panels and Committees for the DSDP and ODP. His interests changed from taxonomy and stratigraphy to ocean history.

Through the years his interests broadened to investigating how Earth's climate has responded to plate tectonics and orogeny, changing greenhouse gas concentrations, ocean salinity, and the spread of C4 plants. Most recently he has suggested that during most of Earth history the ocean may have had a structure very different from that of the Neogene and today.

Bill's generosity is famous; from memorable dinner parties with students to his sharing of ideas with colleagues on his travels, expeditions, and at meetings.

Biographer: Christopher N. Wold

Citation:

In recognition of his many contributions to Sedimentary Geology, including: taxonomy, stratigraphy, ocean and climate history, his service to and leadership within the DSDP and ODP, his enthusiasm for education and love of teaching students, and his creative way of looking at old problems with new insights.

Reply from William W. Hay

I am highly honored to have been selected by the Society for Sedimentary Geology to receive the Twenhofel Medal. I would like to thank Chris Wold for his kind words in the Biography and Citation.

Perhaps this is a good time to recall some of those who helped me along in my career. On the way to my Ph.D. I learned historical geology from Richard Dehm at the University of Munich (who, as a heretic at that time, actually believed that Wegener could be right!), stratigraphy from Rudi Trumphy and micropaleontology from Wolf Leupold at the ETH in Zurich, then about ostracods from Harold Scott at the University of Illinois, and about foraminifera from Hans Thalmann at Stanford. George White at the University of Illinois was enormously supportive over the years, encouraging me to look at the world in new ways.

One afternoon at Stanford Milton Bramlette explained to me how to look for calcareous nannofossils, and in 1959 Hans



William Hay, left, accepts the William F. Twenhofel Medal from President William Morgan.

William F. Twenhofel Medal For a Career of Outstanding Contributions in Sedimentary Geology William W. Hay

William W. (Bill) Hay has always loved to travel and see new places and meet new friends. He has been a professor at the University of Illinois (Urbana), the Rosenstiel School of Marine

Schaub, subsequently Director of the Natural History Museum in Basel, Switzerland, provided samples that literally overnight convinced both of us of the stratigraphic value of coccoliths and discoasters. Hans led me on memorable collecting trips through France and Spain in the early 1960's.

Cesare Emiliani taught me never to trust conventional wisdom, and brought me into contact with efforts to recover long cores from the deep sea, changing my career from being a micropaleontologist to becoming a paleoceanographer. After I moved to the University of Miami's Rosenstiel School, it was Eric Kraus and Claes Rooth who introduced me to the mysteries of both modern and ancient climate and oceans.

Earle Kaufmann lured me to the University of Colorado where we spent many happy hours trying to figure out why the Cretaceous was so strange. Then from 1990, Joern Thiede invited me to GEOMAR in Kiel and colleagues there made it possible for me to devote more than a decade strictly to research and teaching.

Throughout my career I have been fortunate to have had a series of graduate students (most much smarter than I) who figured out how to solve the problems I was interested in. It was often the case that often the solution to the problems lay in a field in which I was initially a novice, giving real meaning to the expression "a life-long learning experience."

Today is very special for me as I share being honored by the Society along with a student comrade from Basel, Danny Bernoulli, and a recent faculty colleague from Kiel, Michael Sarnthein. SEPM has always been a very special organization in that it is more a community of friends and colleagues that strictly a "professional society" (whatever that is). SEPM has always been a source of encouragement as well as an exciting place to exchange ideas. I am deeply grateful for the honor that this Society, which means so much to me, has bestowed upon me.



Robert Goldstein, Anita Csoma, and William Morgan.

Other Awardees

2005 Excellence of Oral Presentation:

Robert W. Dalrymple and D. I. Cummings, The offshore transport of mud: why it doesn't happen and the stratigraphic implications

2005 Excellence of Oral Presentation - Honorable Mention:

Ron Boyd and K. Ruming, High Resolution imaging of a continental margin sediment dispersal system

2005 Excellence of Poster Presentation

J. Camillo Goyenche and R. M. Slatt, Outcrop characterization, 3-D geological modeling, "reservoir" simulation and upscaling of Jackfork Group turbidites in Hollywood Quarry, Arkansas

2005 Excellence of Poster Presentation - Honorable Mention

Stephen M. Hubbard and M. J. de Ruig, Deep-water axial channel deposition in foreland basins, Cretaceous Magallanes Basin, Chile and Oligo-Miocene Molasse Basin, Austria

2005 Excellence of Poster Presentation - Honorable Mention

D. H. McNeil, J. R. Dietrich, D. R. Issler, L. D. Stasiuk, N. Wilson, and J. Dixon, Hydrocarbon-related diagenetic effects preserved in microfossils (Foraminifera) in a gas chimney penetrated by the Immiugak A-06 well, Beaufort-Mackenzie, Basin

2004 Outstanding Paper in the Journal of Sedimentary Research

Anita E. Csoma, Robert H. Goldstein, Andrea Mindszenty, and Lucia Simone, Diagenetic Salinity Cycles and Sea Level Along a Major Unconformity, Monte Composauo, Italy



M. A. Esparza Alvarez, NAMS Student Travel Grant Awardee and William Morgan.

SOCIETY RECORDS AND ACTIVITIES



Thank you to Loren Babcock, Steven Leslie, and Marilyn Wegweiser for serving as the first Sedimentary Record Editors.
Pictured: Loren Babcock and William Morgan.



SEPM 2006-2007 Council
Back Row: Colin North, Steve Hasiotis, Kitty Milliken, Don McNeill and Tim Carr. Front Row: Mary Kraus, Robert Dalrymple and John Robinson.

2004 Outstanding Paper in Journal of Sedimentary Research - Honorable Mention

P. Clari, S. Cavagna, L. Martire, and J. Hunziker, A Miocene mud volcano and its plumbing system: a chaotic complex revisited

2004 Outstanding Paper in Journal of Sedimentary Research - Honorable Mention

Linda C. Ivany, Bruce H. Wilkinson, Kyger C. Lohmann, Emily R. Johnson, Brandon J. McElroy, and Gregory J. Cohen, Intra-annual isotopic variation in Venericardia bivalves: Implications for early Eocene temperature, seasonality, and salinity on the US Gulf Coast

2004 Outstanding Paper in Journal of Sedimentary Research - Honorable Mention

Wan Yang, S. J. Mazzullo, and Chellie S. Teal, Sediments, facies tracts, and variations in sedimentation rates of Holocene platform carbonate sediments and associated deposits, northern Belize - Implications for "representative" sedimentation rates

2004 Outstanding Paper in PALAIOS

Thomas D. Olszewski, Modeling the Influence of Taphonomic Destruction, Reworking, and Burial on Time-Averaging in Fossil Accumulations

2004 Outstanding Paper in PALAIOS - Honorable Mention

Dianne Edwards and Lindsay Axe, Anatomical evidence in the detection of the earliest wildfires

2004 Outstanding Paper in PALAIOS - Honorable Mention

Robert A. Gastaldo, The relationship between bedform and log orientation in a Paleogene fluvial channel, Weißelster Basin, Germany: implications for the use of coarse woody debris for paleocurrent analysis

2004 Outstanding Paper in PALAIOS - Honorable Mention

Adolf Seilacher and Rolf B. Hauff, Constructional morphology of pelagic crinoids

TABLE 1.—Membership Statistics

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
SEPM MEMBERSHIP											
Members	5,153	5,067	4,804	4,706	4,625	4,597	4,299	4,156	3,790	3,521	3,504
Nondues Paying Members	237	236	239	296	261	200	192	265	205	332	345
	5,390	5,303	5,043	5,002	4,886	4,797	4,491	4,421	3,995	3,853	3,849
PALAIOS MAILING LIST											
SEPM Members & Honorary (Regular)	1,196	1,049	1,034	1,040	992	937	906	810	812	807	848
SEPM Members (Students)	188	43	175	187	148	169	149	109	138	142	481
Subscribers	435	424	432	440	447	430	456	494	509	435	386
	1,819	1,516	1,641	1,667	1,587	1,536	1,511	1,413	1,459	1,384	1,715
Journal of Sedimentary Research MAILING LIST											
SEPM Members & Honorary (Regular)	3,696	3,265	3,180	3,170	2,959	2,859	2,569	2,107	2,175	2,112	2,261
SEPM Members (Students)	520	505	479	482	397	422	268	253	298	277	587
Subscribers	1,319	1,340	1,298	1,310	1,204	1,176	1,176	1,122	1,073	1,022	988
	5,535	5,110	4,957	4,962	4,560	4,457	4,013	3,482	3,546	3,411	3,836
NEW MEMBER INFORMATION											
Applications Completed	435	348	349	335	198	236	181	229	296	294	320
Reinstatements	10	18	21	19	16	15	12	10	8	20	25
Transfers	-	-	-	-	-	-	-	-	-	-	-
Resigned	69	36	45	31	34	29	14	15	45	30	15
Deceased	10	8	21	17	15	16	5	4	5	15	7
Dropped for non-payment of dues	378	625	346	288	281	236	306	713	294	336	387

SOCIETY RECORDS AND ACTIVITIES



EMMONS, HARTOG & SWARTHOUT, P.C.

CERTIFIED PUBLIC ACCOUNTANTS

1560 East 21st Street, Suite 300 • Tulsa, OK 74114-1302
Phone: 918-743-2581 • Fax: 918-742-9057 • Internet: www.ehswb.comPaul P. Hartog, Ext. 116
Lee R. Swarthout, Ext. 120

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, 2005 and 2004, 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, 2005 and 2004, 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
March 9, 2006

SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

STATEMENTS OF FINANCIAL POSITION
December 31, 2005 and 2004

ASSETS	2005	2004
Current Assets		
Cash and cash equivalents	\$ 434,550	\$ 405,406
Accounts receivable	205	10,146
Inventories	204,408	254,227
Prepaid expenses	58,062	74,649
Total current assets	697,225	744,428
Non-Current Assets		
Furniture and equipment, less accumulated depreciation	22,997	19,838
Long-term investments, including board-designated funds of \$681,700 and \$628,282	1,566,465	1,449,126
	\$ 2,286,687	\$ 2,213,392
LIABILITIES AND NET ASSETS		
Current Liabilities		
Accounts payable and accrued liabilities	\$ 25,992	\$ 52,005
Deferred income	454,379	508,315
Total current liabilities	480,371	560,320
Net Assets - Unrestricted	1,806,316	1,653,072
	\$ 2,286,687	\$ 2,213,392

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See Accompanying Summary of Accounting Policies and Notes to Financial Statements.

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

STATEMENTS OF ACTIVITIES

Years Ended December 31, 2005 and 2004

CHANGES IN UNRESTRICTED NET ASSETS	2005	2004
Revenues, Gains and Other Support		
Dues	\$ 100,365	\$ 90,610
Publications	231,559	293,601
Journal of Sedimentary Petrology - subscriptions, royalties and other	430,137	364,504
Palaos - subscriptions, royalties and other	136,639	132,941
Continuing education	82,574	38,873
Meetings, conferences and field trips	242,767	96,749
Membership activities	25,790	24,911
Net realized and unrealized gain on investments	28,089	121,681
Investment income	88,198	44,215
Total revenues, gains and other support	1,366,118	1,208,085
Expenses		
Publishing costs - Journal of Sedimentary Petrology	227,147	228,744
Publishing costs - Palaos	111,131	127,432
Publications	162,546	162,916
Continuing education	50,763	26,244
Meetings, conferences and field trips	171,049	53,143
Membership activities	104,043	74,193
General and administrative	386,195	405,266
Total expenses	1,212,874	1,077,938
Change In Unrestricted Net Assets	153,244	130,147
Net Assets - Beginning of Year	1,653,072	1,522,925
Net Assets - End of Year	\$ 1,806,316	\$ 1,653,072

See Accompanying Summary of Accounting Policies and Notes to Financial Statements

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

STATEMENTS OF CASH FLOWS

Years Ended December 31, 2005 and 2004

	2005	2004
Cash Flows from Operating Activities		
Change in unrestricted net assets	\$ 153,244	\$ 130,147
Adjustments to reconcile decrease in unrestricted net assets to net cash provided by operating activities:		
Depreciation	7,967	10,616
Net realized and unrealized (gain) on investments	(28,089)	(121,681)
(Increase) decrease in:		
Accounts receivable	9,941	(8,145)
Inventory	49,819	24,631
Prepaid expenses	16,587	(24,248)
Increase (decrease) in:		
Accounts payable and accrued expenses	(10,051)	(14,442)
Deferred income	(53,936)	105,712
Due to affiliate	(15,962)	20,390
Net cash provided by operating activities	129,520	122,980
Cash Flows from Investing Activities		
Payments for purchase of equipment	(11,126)	(7,655)
Purchase of investments	(337,834)	(269,245)
Proceeds from maturations and sales of investments	248,584	250,883
Net cash (used in) investing activities	(100,376)	(26,017)
Net Increase (Decrease) in Cash	29,144	96,963
Cash and Cash Equivalents - Beginning of Year	405,406	308,443
Cash and Cash Equivalents - End of Year	\$ 434,550	\$ 405,406
Supplemental Cash Flows Information		
Interest paid	-	-
Income taxes paid	-	-

See Accompanying Summary of Accounting Policies and Notes to Financial Statements.

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SOCIETY RECORDS AND ACTIVITIES

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. Resulting inventory write-downs were as follows:

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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, 2005 and 2004.

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

SUMMARY OF ACCOUNTING POLICIES

	2005	2004
Publications	\$ 34,927	\$ 12,593
Continuing education	-	2,958
	<u>\$ 34,927</u>	<u>\$ 15,551</u>

Inventory consists of the following:

	2005	2004
Publications	\$ 178,856	\$ 227,224
Continuing education materials	22,222	21,573
Work in process	3,330	5,430
	<u>\$ 204,408</u>	<u>\$ 254,227</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)

NOTES TO FINANCIAL STATEMENTS

Note 1. Furniture and Equipment

Included under this caption are the following:

	2005	2004
Furniture and equipment	\$ 148,373	\$ 140,817
Less accumulated depreciation	125,376	120,979
Net furniture and equipment	<u>\$ 22,997</u>	<u>\$ 19,838</u>

Note 2. Pension Plans

Until December 31, 2004, the Society maintained a defined contribution pension plan. Qualified employees who had attained the age of 21 and completed one year of service were eligible to participate. The Society contributed a minimum of 7.5% of an employee's qualified salary. Pension expense for 2005 and 2004 amounted to \$0 and \$12,235, respectively. The Society also maintained a Simplified Employee Pension Plan. Qualified employees who had attained the age of 21 and completed one year of service were eligible to participate. Contributions by the Society were discretionary. The Society did not contribute to this plan in 2005 or 2004. Participants were allowed to make elective contributions not to exceed \$12,000 in a plan year (adjusted for increases in cost of living). Effective December 31, 2004, the Society dissolved both retirement plans and plan assets were transferred to participants' individual retirement accounts.

Note 3. Investments

Investments at December 31, 2005 and 2004, consist of the following:

	Historical Cost	Market (Carrying Amount)
December 31, 2005		
General Investments		
Growth and capital appreciation funds	\$452,637	\$483,737
Bond and balanced funds	246,082	227,286
International funds	137,218	173,742
Total general investments	<u>835,937</u>	<u>884,765</u>

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SOCIETY RECORDS AND ACTIVITIES

SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

NOTES TO FINANCIAL STATEMENTS

Note 3. Investments (Continued)

	Historical Cost	Market (Carrying Amount)
December 31, 2005 (Continued)		
New Frontiers Fund		
U.S. Government and agency obligations	\$ 44,144	\$ 50,317
Cash and cash equivalents	21,005	21,005
Growth and capital appreciation funds	347,694	451,940
Bond and balanced funds	155,203	158,438
Total New Frontiers Fund	568,046	681,700
Total Investments	\$ 1,403,983	\$ 1,566,465

	Historical Cost	Market (Carrying Amount)
December 31, 2004		
General Investments		
Growth and capital appreciation funds	\$386,097	\$406,403
Bond and balanced funds	215,866	199,890
International funds	180,596	214,551
Total general investments	782,559	820,844
New Frontiers Fund		
U.S. Government and agency obligations	41,164	47,199
Cash and cash equivalents	716	716
Growth and capital appreciation funds	391,344	490,257
Bond and balanced funds	84,299	90,110
Total New Frontiers Fund	517,523	628,282
Total Investments	\$ 1,300,082	\$ 1,449,126

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

NOTES TO FINANCIAL STATEMENTS

Note 3. Investments (Continued)

Realized and unrealized gains and losses were as follows:

	2005	2004
Unrealized Gains	\$ 13,439	\$ 114,892
Realized Gains	14,650	6,789
Total realized and unrealized gains and losses	\$ 28,089	\$ 121,681

Note 4. Deferred Income

Deferred income consisted of the following:

	2005	2004
Dues	\$ 52,013	\$ 58,060
Subscriptions	348,294	364,368
Publications in process and other	54,072	85,887
Total	\$ 454,379	\$ 508,315

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:

December 31,	
2006	\$33,370
2007	31,727
2008	10,302

Rent expense was \$38,230 and \$37,702 in 2005 and 2004, respectively.

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SEPM (SOCIETY FOR SEDIMENTARY GEOLOGY)

NOTES TO FINANCIAL STATEMENTS

Note 6. Unrestricted Net Assets

Unrestricted net assets consist of the following:

	2005	2004
General Fund	\$ 1,124,616	\$ 1,024,790
New Frontiers Fund	681,700	628,282
	\$ 1,806,316	\$ 1,653,072

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, 2005 and 2004, the New Frontiers Fund consisted of the following:

	2005	2004
Investments	\$ 681,700	\$ 628,281
Total Investments	\$ 681,700	\$ 628,281

Note 7. Related Party Transactions

The Society received \$8,002 and \$8,000 for the years ended December 31, 2005 and 2004, respectively, from the SEPM Foundation, Inc. (an affiliated non-profit entity) for management fees.

The Society had receivables from (payables to) the SEPM Foundation, Inc. of (\$3,549) and \$800 at December 31, 2005 and 2004 respectively.

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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