AAPG Honorees, 2010

L. FRANK BROWN, JR.
Sidney Powers Memorial Award

Citation—To L. Frank Brown, Jr., innovative and determined leader and author in establishment of the fundamentals of siliciclastic depositional systems; recognition and practical applications of the concepts of seismic and sequence stratigraphy; contributions to coastal management; and teacher and mentor to three generations of geoscientists globally.

Dr. L. Frank Brown, Jr. is well known to geoscientists worldwide for his seminal contributions in siliciclastic depositional systems: not only formulating the initial concepts, but also applying them to seismic stratigraphy, sequence stratigraphy, and coastal studies management. During his five-decade career, Frank has had global influence as a researcher, consultant, and mentor. Frank made these contributions while working at the Bureau of Economic Geology (BEG) in Austin (1957-1960, 1966-1989, 1998-present), with a faculty appointment at UT-Austin (1966-1989). He also taught at Baylor University (1960-1969), and worked as a full-time consultant from 1989 to 1996. The Powers Medal recognizes his scientific contributions during all these phases of his career, as well as his extensive teaching and mentoring throughout industry and academia.

Frank is the product of the Oklahoma oil patch—he was born in eastern Oklahoma in 1928 shortly after the peak oil boom days of the 1920s, where his father worked in the Gulf Oil production department. Possibly, his love for Upper Paleozoic stratigraphy began when he attended school in Drumright, Oklahoma, a little hilly, dirty oil boomtown of 3,000 souls built on exhumed Virgilian channel-mouth bars near the Pennsylvanian-Permian boundary. After high school, Frank financed his college education by working summers as a roustabout and sometimes roughneck. As expected, Frank finished a four-year premedical program at Baylor University in 1950 with a major in chemistry and biology. But rather than attending medical school, he finally answered the call of the oil field and completed a BS degree in geology at Baylor in 1951. He entered the University of Wisconsin at Madison in 1951, received an MS degree in 1953, and a Ph.D. degree in geological and geophysical sciences in 1955. His graduate work, supervised by Drs. Lewis Cline and Lowell Laudon, involved ammonoid biostratigraphy, x-ray mineralogy of clays within Pennsylvanian cyclothems and distribution of smaller (arenaceous) foraminifers within cyclothemic shales.

Frank accepted a job with Standard of Texas (Texas Chevron subsidiary) in Amarillo, Texas, where he was assigned to the Palo Duro Basin and the Amarillo Uplift team. In early 1957, Frank accepted a position of research scientist at the Texas Bureau of Economic Geology in Austin. His assignment focused on stratigraphic studies of Pennsylvanian strata on the Eastern Shelf of the West Texas Basin. This assignment involved field work and subsurface studies. As part of the field work, he also was assigned to begin mapping the Abilene sheet, and later also worked on Brownwood and Wichita Falls Lawton, Corpus Christi, Kingsville and Brownsville-Harlingen 1 x 2 BEG atlas sheets.

In 1960, Frank became an assistant professor in geology at Baylor University. There he taught many undergraduate and graduate courses and directed the Baylor Student Geological Society, established and edited the bi-annual Baylor Geological Studies bulletins, and supervised Baylor students who were researching the stratigraphy of Pennsylvanian rocks in north-central Texas. Frank continued fieldwork during the hot summers of 1961-1963 for the Bureau of Economic Geology in North-Central Texas.

In 1966, Frank returned to the University of Texas full-time as a research scientist, where he

continued studying the Eastern Pennsylvanian Shelf of the Midland Basin. Frank also began a long-term research initiative on ancient deltas and other siliciclastic systems with Dr. William Fisher. Their work led to the concept of "depositional systems" (mostly Bill Fisher's innovation), which was presented to several hundred industry geologists at a University of Texas research symposium in August 1969.

The published monograph, titled "Delta systems in the exploration for oil and gas," became the key publication of its time. The field of stratigraphy had changed little since the 1930's, largely due to the Depression and WWII; but this paper challenged those "classic" stratigraphic concepts with new evidence. Because the classic ideas of stratigraphy had become entrenched in the literature, including the Code of Stratigraphic Nomenclature, Frank and his colleagues fought an uphill battle for many years with many "judicial stratigraphers" before the new concepts were accepted. These days, many crucial concepts from Frank's work are now routinely taught and used in industry and academia, including the term he coined, "systems tracts."

In 1969, Frank was assigned to direct the Bureau's Gulf Coastal Environmental Geology project. Frank also showed breadth in his field by working on modern depositional systems and environmental geology. During the 1970's, this work resulted in a six-volume environmental series covering the entire Texas coastal zone, comprising multicolor geologic maps of the Texas coastal Pleistocene and Holocene as well as many derivative environmental maps emphasizing the impact of coastal processes and planning. Frank was also assigned to manage the Bureau's long-term nuclear waste isolation study of the Palo Duro Basin (1977-1985) for DOE and later managed the superconductor-supercollider project for the State of Texas.

In 1972, Frank and Bill Fisher began a joint consulting venture with the Brazilian national oil company, Petrobras. For 10 years, Bill and Frank brought Petrobras geologists and geophysicists to Austin for several months of intensive analysis of an offshore Brazilian basin. It was during their Brazilian studies that they developed seismic stratigraphic interpretations of the passive and rifted Brazilian basins, which led to their memorable contribution to AAPG Memoir 26 (1977) on seismic stratigraphy. Frank articulated his ideas from a direct principle basis, and logically extended the concepts of depositional systems into their 2-D seismic stratigraphic signature. Because of his involvement in the AAPG Memoir, Frank taught in the AAPG Seismic Stratigraphy School during its 10–year life (1977-1987).

In mid-career, Frank recognized that some of his approaches to stratigraphic interpretation needed modification. This change happened when Frank worked closely with three groups of geoscientists from Soekor, then the state oil company of South Africa, in 1987-1989. They were doing regional exploration on three offshore basins, and eventually this work was published in the 1996 AAPG Studies in Geology No. 41. This atlas remains one of the best publications illustrating how to do regional sequence stratigraphy and basin analysis by integrating different data sets.

In 1989, Frank retired from the University of Texas to undertake full time geologic consulting. He and Soekor staff members consulted internationally for many companies. Frank took a break from consulting in 1996, and three years later, was invited to return to the Bureau of Economic Geology as a Senior Research Fellow – the position that Frank holds today. At the Bureau, Frank has contributed to studies in Venezuela, in the Mexican offshore, and to Texas Gulf Coast Tertiary (Frio) sequence studies, recently published in the AAPG Bulletin, GCAGS, and Gulf Coast-SEPM transactions. His observations on growth faults in the Frio have become classics in their own right.

Frank's most important mission has always been to disseminate fundamental stratigraphic concepts to our profession-- originally in depositional systems, later in seismic stratigraphy, and finally in sequence stratigraphy. Frank has taught extensively in industry for the past four decades for many companies, including short courses and global lecture programs in more than 40 countries! Starting in 1972, Frank presented a record number of AAPG Distinguished Lecture tours, combining his Pennsylvanian research and the Bureau's Gulf Coastal environmental studies. He presented to 65 societies and geology departments, a record number for AAPG. Even the Ivy-League schools booked the tour because of the environmental lecture! The Petroleum Exploration Society of Australia hosted Frank as its 1986 distinguished lecturer. Later, he served as an AAPG International Distinguished Lecturer in Africa and the Middle East (1994-1995). In addition, Frank has been an outstanding professor, teacher and mentor for countless geoscientists. While at UT-Austin, Frank supervised and

served on many student thesis committees, including my own.

Several societies have already acknowledged Frank's lifetime contributions. For example, Frank was awarded the first honorary membership of the Permian Basin SEPM for leading a field trip for the section in 1960. In 1990, he was awarded the Monroe Cheney award for contributions to the petroleum geology of the Southwest by the AAPG Southwest Section. He received the 2007 Gulf Coast Section SEPM Doris M. Curtis Award, a career award recognizing his lifetime contributions in sedimentary geology. In 2008 he received the AAPG Pioneer Award.

Like many people in our profession, I've been inspired by Frank as well. I was first introduced to Frank's work in the late 1970's while studying depositional systems. A few years later, I devoured AAPG Memoir 26 and Frank's and Bill Fisher's important paper. I first met Frank in May 1983 at a short course, and deluged him with questions, which he patiently answered. Later, when I was a PhD student at University of Texas, we developed a scientific dialog in earnest about many topics. He always served as a patient listener and sounding board, and has generously shared his wealth of global knowledge. Frank was essential in helping me establish my teaching and research program. When I write a paper, I always ask myself-- have I been as thorough in my analyses as Frank would be with this data set? Acting as the citationist for Frank is a singular pleasure, privilege and honor.

In summary, many of the stratigraphic concepts now taken for granted and used daily by exploration and development geoscientists grew from Frank's career contributions. It is altogether fitting that the AAPG recognizes him this year for his lifetime contributions.

Paul Weimer

Response

My citationist, Professor Paul Weimer, flatters me, although I do appreciate his kind words about my geological career. And yet whatever I may have accomplished has been the result of perseverance and not outstanding talent. I have simply learned to organize and attack my goals systematically.

I have been fortunate to have been involved in research at the Texas Bureau of Economic Geology, where one can experiment with ideas, no matter how radical, with full support of the organization. I was also fortunate to have had the opportunity to work with Bill Fisher early in my association with the Bureau. Bill's ground-breaking work on Gulf Coast Basin Eocene siliciclastics helped me undertake similar studies of upper Paleozoic rocks on the Eastern Shelf of the West Texas Basin. This experience enabled me to expand my interest into many global basins, and eventually into seismic and sequence analysis.

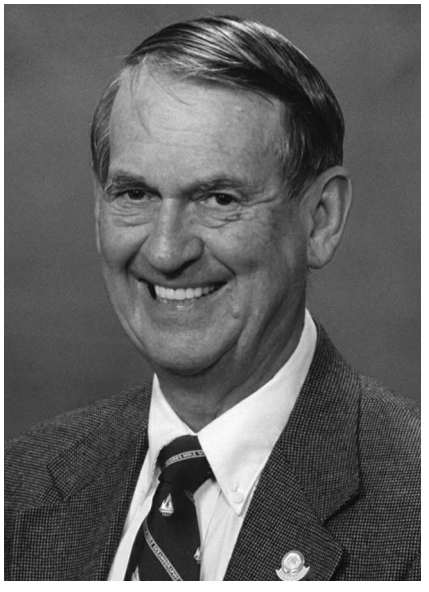
I benefited enormously from several dedicated high school teachers in a small school system in Oklahoma. Without their dedicated mentoring, I would have never succeeded in higher education. My parents also expected no less than my best efforts in education, even though they had never had an opportunity themselves to continue beyond rural public schools. This combination of parents' expectations and dedicated public school teachers guaranteed my chances in higher education. An effort and a desire to succeed in some branch of science gave me the momentum to focus on academic success, which allowed me the opportunity to spend my life doing work that was not only fascinating but challenging. And I must acknowledge my mentors at the University of Wisconsin at Madison from 1951 through 1955:? the late Lewis Cline and Lowell Laudon taught me, above all, discipline and patience.

I cannot overlook the opportunities afforded by my membership in the AAPG. Not only since I joined in 1967 has the Society provided a monthly publication featuring the latest in petroleum and basic geology research, but it has also provided annual meetings at which myriad papers have been presented on all facets of petroleum science. My first annual meeting was in St. Louis in 1953. As my own research began to draw interest, the Society provided a way for me to communicate my work to those who worked on similar issues. Teaching AAPG courses for decades gave me the unusual opportunity to interface with many working geologists who provided feedback on my ideas. Consequently, AAPG has also given me a lifetime opportunity to continue my education beyond formal university options. For such opportunities, I owe much to the Society for helping me reach the level of the Powers Medal. Thanks to you, AAPG, and to all my lifelong mentors, as well as academic and company associates, who helped me along in petroleum geology research. This medal actually should be divided up among all of you who helped me throughout

the 60 years I've spent in this exciting and challenging profession.

Before ending this response, I must also acknowledge the loving and unselfish support of my wife, Linda, who has kept me working even after I reached the age of 80. Linda, you have put up with an opinionated old man far beyond what you bargained for. Thank you for your undying support. Your driving an old, half-blind codger two round trips a total of 65 miles to work and back every day has kept me young, even though listening to me rant about some professional issue or another time and again must have been horrific. I thank God for you, Linda, at this stage of my life.

L. Frank Brown, Jr.



PATRICK J. F. GRATTON
Michel T. Halbouty Outstanding Leadership Award

Citation—To Patrick J. F. Gratton, Independent Petroleum Geologist, selfless supporter of his profession, pragmatic visionary, courageous leader, effective executive, sage counselor, and loyal friend, who has been instrumental in guiding AAPG to its pre-eminent global status as a professional association that is indispensable to energy geoscientists and responsible to its members.

Service to his profession is manifest in Pat Gratton's character—it simply goes with being a professional petroleum geologist. Wherever he has been and whenever he was there, Pat has sensed what needed to be done on behalf of the geological profession, taken the initiative to meet the goal, and set a superb example for other colleagues to follow.

No one has done more to advance AAPG to its present high position as the world's leading professional geoscience association, now serving more than 34,000 energy geoscientists around the world, carrying out pertinent missions that are defined and overseen by officers who are elected by its membership. Pat has always trusted the membership. He has been instrumental in setting up organizational and procedural frameworks that have encouraged and consolidated continuing progress, as conceived and directed by AAPG's own members. He has laid the groundwork for progress that will last.

There are two kinds of volunteer leaders: "Occupants" and "Activists". Pat has been an Activist, a constructive change-agent in most of his work with professional associations such as AAPG. He has an intuitive and practical sense for how volunteer organizations operate, which has been acquired and honed through many years of service. His skill at using parliamentary procedure is legendary. He has been adept at identifying structural changes that needed to be made, and accomplishing and making permanent such changes within organizations, even when faced with substantial resistance and opposition. For his success in helping the Association become much more democratic, efficient, and responsive, he deserves the gratitude of all AAPG members. He has also identified, encouraged and mentored many younger members in becoming future AAPG leaders.

Patrick J. F. Gratton exemplifies outstanding leadership, and is fully qualified to join the ranks of the extraordinary and dedicated individuals who have received this award since it was established four years ago: John Amoruso (2006), Jim Gibbs (2007), and Ray Thomasson (2008).

Pat is a native of the American Southwest. He grew up in Roswell, New Mexico, where he graduated from high school in 1951. His father, who was head of the English Department at New Mexico Military Institute, imparted a lasting dedication to precise language, sound syntax, and correct grammar, attributes that all of Pat's associates have had frequent occasion to observe—and experience, second-hand—over the years.

In 1951, Pat was appointed to the U. S. Coast Guard Academy. After two years, he transferred to the University of New Mexico (UNM), from which he graduated in 1955 and 1958 with B.S. and M.S. degrees in geology. The late Sherman Wengerd (AAPG President 1971–1972) was an early important influence on Pat's geological career.

It was at UNM that Pat met and married his life partner, the lovely and intelligent Jean Marie

McKinney. She has provided continuing love, counsel, inspiration—as well as the occasional well-deserved swift kick—for more than 50 years along their life journey together. They raised four children: Sara, Vivian, Lizabeth (deceased), and Patrick, and are proud grandparents of Vivian's two children. God only knows how many covered-dish suppers and get-togethers Jean Marie Gratton has sponsored, and how many meetings she has attended, in support of Pat's professional activities, but in any case, she is fully entitled to at least half of this award!

After graduate school, Pat joined Shell Oil Company in 1957, working in New Mexico, West Texas, and East Texas as an exploration geologist. In 1962, he began the familiar career path leading to independent oil and gas producer—short tours with Delhi-Taylor and Eugene Nearburg, then striking out on his own in 1970. He has now drilled more than 300 wells, of which 200 are still producing.

His interest in science, higher education, and the geological profession are expressed through his involvement in a multitude of other organizations, but his primary contributions have been to AAPG, the Society of Independent Professional Earth Scientists (SIPES), the Dallas Geological Society (DGS), and UNM.

Pat has been a member of AAPG since 1960, serving on 20 committees, seven as Chair. He was president of AAPG's Division of Professional Affairs (DPA) in 1989–1990, where he was instrumental in getting four other professional geoscience societies to work together in formulating a model bill for state licensure of geoscientists working in the public domain, and exempting private-industry geoscientists, most of whom worked in the resource sector. He also helped guide DPA's evolving activities in Governmental Affairs during the 1990s and 2000s. He was honored with DPA Life Membership in 1993.

In 1978, Pat was elected to represent the DGS in AAPG's House of Delegates (HoD), and has been actively involved in HoD affairs ever since. After serving on three HoD committees, he was elected Chairman of the House, where he was instrumental in (1) restructuring HoD offices and duties to improve continuity, communication, and effectiveness; (2) creation of three new standing committees; (3) re-establishing the HoD's newsletter, now *The Delegates Voice*, to facilitate ongoing communication among Delegates and other branches of AAPG; (4) encouraging a compilation of the HoD's history; and (5) initiating and endorsing recommendations from the ad hoc Campaign Practices Committee to facilitate more visible and communicative officer-election campaigns for the benefit of the membership. As an officer of the HoD, and later, as unofficial mentor to subsequent HoD leaders, Pat's vision and wisdom were essential to the emergence of the HoD, from 1996 to 2000, as the primary authority in AAPG governance, speaking on behalf of the membership. Pat was honored by being named the first recipient of the HoD Honorary Member Award in 2000.

Pat ran unsuccessfully for AAPG president-elect in 1998–1999, after which he returned to an active role in AAPG's Visiting Petroleum Geologist Committee, eventually chairing that committee in 2000–2003. He ran again for president-elect, was elected in 2003, and served as AAPG President in 2004–2005. During his presidency, Pat oversaw the approval and establishment of AAPG's Washington office, GEO-DC, which has proved to be a resounding success, offering AAPG and its members effective ways by which government officials can be provided with sound and objective information on energy policy, legislation, and regulation. He also oversaw the establishment of the Tactical Operations Committee, charged with conducting performance audits of AAPG's operating directorates on behalf of the membership, making recommendations for improvements with AAPG staff, and reporting their findings to the AAPG Executive Committee and Executive Director. He continued development and refinement of AAPG's Long-range Plan.

As Chair of AAPG's Advisory Council, Pat initiated a tradition whereby councilors (rather than past-presidents) took leadership roles in the officer-nomination process. He also was a strong supporter of proposals to strengthen international membership, through expanded elected leadership and graduated dues, as Chairman—and later, member—of the Advisory Council.

Pat's contributions to his local geological society, the DGS, have been similarly august, chairing several committees. The DGS honored him with their Public Service Award (1985), Professional Service Award (1992), and Honorary Membership (1998). His interest in higher education, science, and the geological profession are expressed through his involvement in a multitude of other organizations.

Pat has also been extensively involved with SIPES, where he has served as editor, vice president, president, director, and vice president of the SIPES Foundation. He received their Outstanding Service Award in 1990, and Honorary Membership in 1998.

Repaying his intellectual debt to his alma mater, Pat has long provided support to UNM. In 1989 the university honored him as the Centennial Distinguished Alumnus in Geology, and in1992, he was elected to the Board of Governors of the UNM Foundation. Pat is also a director of the Caswell Silver Foundation, which supports the Earth and Planetary Science Department at UNM.

In 2004–2005, I had the great good fortune to learn the ropes, as Pat Gratton's president-elect, and he was of great help to me the following year, when he was chair of the Advisory Council. We share very pleasant memories of those two years.

Pat is ordinarily tactful and diplomatic, as befits an industry statesman. One of his stellar qualities is loyalty to his friends, which has been known to overrule his sense of circumspection, propelling him occasionally into situations that were not politic. He does not suffer fools gladly, sometimes being disconcertingly direct, even cantankerous, and has been known to call people on their stuff—especially when they don't agree with him! Pat has little patience for "Occupants"—elected leaders who display a lack of vision or visceral wherewithal. But he is otherwise a compassionate and convivial man, who loves a lively gathering of friends, enlivened by good food, good wine, and the Caledonian Water of Life. But don't try to keep up with him!

Pat Gratton now continues his 53-year professional career as a highly successful independent oil and gas geologist and producer. Somehow, all along the way, he has made time to serve his profession and industry through countless volunteer acts of vision, courage, and notable significance. All practitioners of the earth science profession should applaud him for his many lasting contributions to the geoscience community, which have been important, positive, and lasting.

Peter R. Rose

Response

I owe thanks to the Advisory Council (AC) for recommending and to the Executive Committee (EC) for approving me for this Outstanding Leadership Award. Thanks are also due Dr. Peter R. Rose, my colleague of several dimensions, for initiating the selection process and then agreeing to be my very able citationist/biographer. Unknown others lent their support and for that and them I am grateful.

When President John Lorenz called to notify me of my selection I was expletively surprised—not because I thought myself unqualified, but because I was aware of many other worthy members who could have been chosen.

Leadership generally comes after considerable incubation and mentoring, moving from baby steps and stumbles to longer and faster strides. Often it is only sharpening the point of spears carried by others. Frequently exercised in regimented entities such as military units, government and large corporations, it is profoundly more difficult where discipline can not be imposed. So, leading large volunteer organizations is natively more challenging, but generally bearing less responsibility, than being captain of a warship, governor of a state or CEO of a Fortune 500 company. When the volunteer organization is made up of a conglomerate of free thinking, intelligent individualists the task of leading often becomes even more difficult.

My experience has included a number of successes in leadership, but there have been quite a few failures. Learning from the failures has reduced, but not eliminated mistakes and I offer the results of some lessons learned in hopes that serious prospective Association leaders may benefit. There are at least 9 ingredients and a 10th is conditional.

1. Vision—without the ability to visualize a future potential goal, leadership doesn't happen.
2. Listen—in order to learn the needs and desires of followers. This could occur through many contacts, and in larger organizations such as AAPG, through surveys and discussions with opinion leaders. The tri-annual All-Member Surveys initiated by Clint Moore have proved useful gauges of members' likes and dislikes allowing focus on subjects requiring attention. Also, such surveys can provide leaders cover for initiatives. However, the identification of solutions often requires insight.
3. Project/Collect—Demonstrate reasonable assertiveness, build relationships, coalitions and good will (be willing to buy a few drinks, too!)
4. Communicate—Speak, illustrate and write well (get help/training if deficient

because this ingredient is absolutely necessary!)

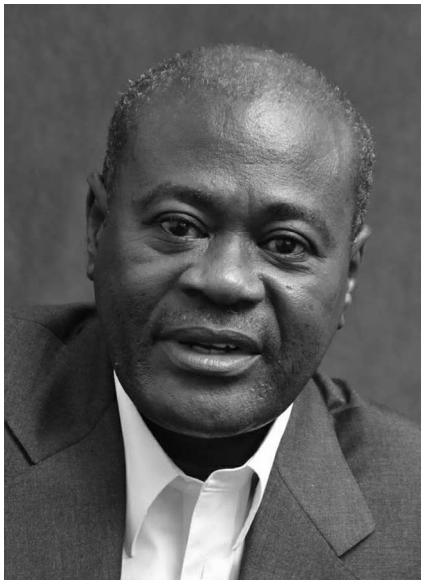
5. "Transportation"—Find the most effective vehicles to carry the idea, theme or proposal to accomplishment, e.g., media and personal or recruited contact followed by committee, board, council or HoD discussion and action in the case of AAPG.
6. Plan/Risk—Usually tentatively developed earlier, but should be finalized by this step. Develop multiple plans of action so that if one is blocked, another can be implemented. Evaluate risk, especially if one is working on several objectives so that action can be taken to avoid conflict or fallout (try not to make enemies).
7. Work—Commonly change takes a lot of energy, so have the stamina for the occasional long haul.
8. Stay Cool!—Losing cool and confidence frequently kills the initiative carried by the leader(s).
9. Achieve—Upon success credit ALL help, supporters in general and offer olive branches to the opposition.
10. Compromise—Only when necessary, but identify that necessity as early as possible.

I take this opportunity to acknowledge those who have helped me in AAPG activities (omission is a fault and not deliberate). Don Hook and Don Gifford got me started in Association committees. Then Vice President Jerry Ingels was instrumental in my nomination for DPA president-elect. Bob Gunn inspired me with his initiative to have AAPG involved in Washington, D.C. Dapper Dan Smith proved a very supportive player in HoD and prospectively for the EC and AC. Valary Schulz worked hard to get me nominated for offices and awards. John Hogg provided plenty of stimulus! Tom Mairs was always ready to take on daunting missions and Will Green's co-operation and long-ago mentoring made a big difference. Sherm Wengerd's enthusiastic teaching, Jim Gibbs' multifaceted assistance, John Amoruso's loyalty, Ray Thomasson's remarkable style, Lee Harvard's support, Lowell Lisher's constantcy, Fred Meissner's insight, Clint Moore's passion, Gerry Rolf's understanding and Norm Foster's diplomacy helped me navigate and get into port! Cherokee brother Rick Fritz found a way to get things done when the path wasn't clear. Pete Rose, Celtic warrior, proved repeatedly a strong and effective ally and occasionally Father confessor. To these and the many other helpful members not specifically identified, mil gracias!

To my artistic mother, Lorene, and my intellectual father, Patrick, thank you for all the love, support and encouragement you gave me.

Finally, to Jean Marie McKinney Gratton, Elementary Education major from Iowa who, while attending summer school at the University of New Mexico enrolled in Wengerd's class and proceeded to challenge me as the top student in Physical Geology...thank you for getting my competitive attention! Who became my beloved, married and by teaching 6th grade put me through graduate school, then bore four children, dealt with the challenge of a husband trying to be effectively self-employed, went back to school and took Historical Geology in order to better understand the geoscientist she lived with, worked as receptionist, secretary, production clerk, bookkeeper and organizer of child office labor. (the list goes on)...THANK YOU!!!!!!!

Patrick J. F. Gratton



ADEBAYO O. AKINPELU
Honorary Member Award

Citation—To Adebayo Akinpelu, mentor, leader and consummate professional, for his dedication to the advancement of earth science education and for his services to AAPG.

Bayo Akinpelu was born in Lagos Nigeria on April 11, 1946. He obtained a B.Sc (Hons) degree in geology from the University of Ibadan, in 1973.

Upon graduation, he joined the legacy Gulf Oil Company as trainee geologist and held positions of increasing responsibilities thereafter in Nigeria and the United States. He advanced into management positions in 1988 when he was appointed development geology manager, a position he held until 1991 when

he was transferred to San Ramon, California as geological consultant. He joined the Exploration Evaluation Group in San Ramon and developed new skills on the economic evaluation of upstream businesses and exploration value creation process. He gained considerable knowledge of strategic and fiscal planning. He returned to Nigeria in 1994 as manager of exploration planning in which position he was responsible for the business planning and economic optimization of the exploration portfolio. Regional geology, which had always been his passion, was part of his portfolio. He started, funded, and mentored a new integrated, multidisciplinary modeling approach to regional geology that employed abundant geological, geophysical and basin geochemical data in modeling the processes, structural, and stratigraphic styles of the Niger Delta. The result of these studies is published in AAPG Memoir 73 as "Petroleum Systems of the Niger Delta" by Haack et al.

In January 1996, he was promoted to exploration manager responsible for the company's shelf, deepwater, and inland basin exploration portfolios. In this capacity, he was responsible for the formulation, recommendation, and implementation of Chevron's short and long term exploration and delineation programs for the Company's Nigeria SBU leases.

In 1975, he was a founding member of the highly successful Nigerian Association of Petroleum Explorationists (NAPE) and held many positions including secretary, chairman of the Continuing Education Committee, and editor (he published the first edition of the society's bulletin and conference proceedings). He was elected the president of NAPE in 1985 and in 1994 was elected Fellow of NAPE.

He has been active in AAPG, which he joined in 1980. He is a Certified Petroleum Geologist of the Department of Professional Affairs (DPA) of the Association. He became active in the AAPG leadership and organization when he joined the Nigeria Service Team of the association in 1994. He was elected a member of the AAPG House of Delegates in 1999 for a three-year term. In 2001, he was elected president of the AAPG Africa Region and Vice Chairman of the International Regions Committee (IRC) of the association. He also serves on AAPG committees including the Grants In Aid Committee. In his AAPG leadership role, he led the efforts for the holding of the first West Africa Deepwater Regional Conference held in Abuja Nigeria in November 2004.

He is equally active in the Nigerian Mining and Geosciences Society (NMGS) which he joined in 1980 as a corporate member. He served as member of the Local Organizing Committee of the 1988 conference of the society held in Lagos. In March 2002, the Nigerian Mining and Geosciences Society (NMGS) elected him Fellow of this foremost earth science and mining organization in Nigeria. He was elected member of the NMGS Council in March 2003 for a three-year term. In 2005, he was elected vice president of NMGS. He has served in several NMGS study groups and was instrumental in the establishment of a ChevronTexaco NMGS award. In 2008, he was honored with the Right Honorable (Dr) Nnamdi Azikiwe award for consistently supporting the teaching of earth sciences in Nigerian universities.

He is registered and certified by the Council of Mining Engineers and Geoscientists (COMEG), the government agency responsible for the regulation of mining and geoscientific practices and professions in Nigeria. In 2005, he was appointed a member of the board of COMEG by the Federal Government of Nigeria for a four-year term.

Bayo Akinpelu is foremost an exploration thinker and a process-oriented oil finder/developer. He was responsible for or actively participated in the development of several Chevron producing fields in Nigeria over his 32-year career.

In the last decade of his career, his professional interest shifted to the business side of exploration—value creation, portfolio management, and strategic planning. He is a strong advocate of maximum technological application to exploration thinking and investigations. During this same period, he devoted considerable efforts into tutoring and mentoring the next generation, making sure their knowledge, skills, and exposures are enough to equip them for the challenges of finding the hydrocarbons of the future.

He has spent considerable energy on creating or supporting knowledge management and enhancement processes, In this regard, he created and sustains processes that help in capturing knowledge, making them accessible to others in a structured format. This minimizes reworking and waste.

Bayo has been contributing to the sustenance of the teaching of geological sciences in Nigeria's tertiary institutions. This had been achieved primarily through donation of books, teaching and research aids to the various

universities both in his personal capacity and in his official role. He has assisted several universities in teaching and lecturing on desired topics mostly by making his staff available to the universities seeking this help. He has endowed a modest university post-graduate scholarship scheme.

He has made several technical and business presentations at many company, professional and international events. One of his significant contributions is the 1983 paper titled "On the feasibility of marginal field development in Nigeria". This paper set the stage for the development of marginal field as one of the portfolio of opportunities in the Nigeria petroleum industry. He is also a contributor to current national and international issues including political and good governance commentaries.

Toyin Akinosho

Response

I am highly honored and humbled to receive this great recognition from AAPG. I have been on "cloud nine" since President Lorenz brought the great news. I want to thank the EC and the AC for judging me worthy of this honor. For 30 years, people around me know that AAPG is my brand and being a member has defined my attitude to professional development and my basis for urging others to join.

I want to thank Mr. Toyin Akinosho, my biographer for readily accepting that role from me anytime I have needed a biographer. He is a friend and colleague for many years and a prolific writer and artist of repute. There are others in the Nigeria service team and the Africa Region who do all the work and make me feel like I do it. These include Prince Kunle Adesida–past president of AAPG African Region and former AAPG Office Candidate, Mrs. Doja Ojelabi who champions Africa Region IBA organizing and other events, and Mr. Femi Esan–Africa Region Coordinator of Students activities, to mention a few. I sincerely thank them all. I want to particularly thank those who nominated me for this award.

I also wish to recognize my bosses, friends, and colleagues in Chevron and its legacy companies including Phil Reed, the late Nick Cengiz, Don Lewis, and Nahum Schneidermann among others who, by their examples, encouraged me to associate with professional associations and colleagues. They added considerable value and stature to my person. I recall, Don literarily drafting me into the Grants-In-Aid Committee so I can mentor Nigerian graduate students who apply for grants to properly describe their projects and better position themselves to compete for these grants. Needless to say the result was phenomenal. I am planning to continue the mentoring process.

There are others whose friendship has inspired me and others in the Africa Region especially past president Robbie Gries. The phenomenal growth in AAPG membership in Nigeria and Africa is attributable to her disposition to this region. I recall her first visit to Abuja, Nigeria when we made time for her to address the students at the end of a day's session. What she did not know was that we were nervous there might not be enough students interested in listening to the president of AAPG. We were wrong! Over 200 students turned up and almost everyone wanted to ask a question because they found a pair of listening ears! We literarily had to yank her from the "bombardment"! Many years later, President Scot Tinker experienced the same enthusiasm and yearning for AAPG inclusion.

I will like to acknowledge the disposition of Chevron Corporation and the legacy Gulf Oil Corporation to professional development of its staff. I recognized early in my career that I had some "freedom to act" in my activities in co-starting and nurturing a new professional association, the Nigerian Association of Petroleum Explorationists (NAPE). It was late in my career that I realized that I took a lot for granted! It is not a given that management extends such leeway to employees. I thank all my superiors who paved this path for me and gave valuable suggestions for the survival of the young association. Today, NAPE is an affiliated society to AAPG.

All my life in the oil and gas industry, I have never been without friends. Indeed I have had a privileged career and I can attribute most of the decisions I made in life to sound mentoring, good camaraderie, and committed mentorees at every stage of my career. To me, being awarded the AAPG Honorary membership is the summation of my privileged professional growth.

In the beginning, I stumbled on the degree program in geology at the University of Ibadan and felt it was worth pursuing especially as I was told it has to do with oil exploration. The budding Nigerian oil industry then was getting a lot

of public mention and press. However, up till my registration for the first year courses, I did not fully understand what I was in for. Today it has been a fun-filled 40 years with no regrets whatsoever. Of course there have been frustrating times. I recall some of my experiences as exploration manager in getting higher decision makers to play the odds in an exploration campaigns. It was easy for us to declare failure before a play has been tested fully. The notion then was that exploration only has to be endured to fulfill all contractual righteousness. I could not prevail on management to think otherwise. Another paradigm that stood against exploration in my time was the right value metrics for measuring contribution of incremental exploration to the overall value of the organization in a maturing basin. It was common to hear highly placed opinion that incremental exploration/appraisal activities destroy the organization's NPV. Of course it does if the development economics is handled as if it is a standalone project. Not only must we expand our outlook of development scenarios for these in-between field prospects we must understand the level and value of their contribution to the overall organization roles. The processes of extracting value from these prospects and sub-plays in a maturing basin should interest organizations like AAPG to resolve their roles in the value chain.

To all men and women that also worked in the same teams that I worked in throughout my career, I want to express my appreciation for your roles, and patience. Thank you all!

Adebayo O. Akinpelu

JOHN R. HOGG
Honorary Member Award

Citation—To John R. Hogg, a leader in petroleum exploration and within AAPG, whose initiatives coupled with keen judgment and fairness led to many accomplishments benefiting the Association and bringing honor upon himself.

Few recipients of Honorary Membership of the Association meet ALL the guidelines better than John Hogg. He has notably distinguished himself in service to petroleum geology and AAPG. He has made substantial contributions to the science and profession being particularly successful in discovery thinking, application, exploration leadership, etc. In doing so he has brought much favorable reflection on the geological profession and the Association in particular.

Indeed, this is a remarkable achievement for a man who insisted three times to me personally that all he ever wanted to be in AAPG was recording secretary of the House of Delegates (which he achieved in 1994). I will take some credit for his march up the ranks of AAPG since as Chair of the HoD I engineered the disappearance of the position of recording secretary shortly after John's term.

Hogg went on to build a very long AAPG resume in the decade following his initial HoD office. During this period he was elected Chair of HoD, served on the Advisory Council, was General Chair of the 2005 Annual Convention in Calgary, was Canada Region President and was the first person to be elected international Regions Vice President. During this time he served on over 30 AAPG committees and boards (chairing about half of them), was Division of Professional Affairs (DPA) councilor and was President of the Canadian Society of Petroleum Geologists (CSPG). Looks like there are only two or three more things that John can do for AAPG or that the Association can do for John!

Busy as this record documents, John Hogg was even more involved in his geoprofession focusing on high-risk exploration in Atlantic Canada and the Canadian Arctic. Over a 29-year period he effectively motivated his co-workers through his enthusiastic approach to exploration which under John's leadership lead to the discovery of over 2 trillion cubic feet of gas.

As good at exploration as John is, his commitment to conservation has now become well known and eventually may achieve legendary status. During a recent Southwest Section meeting in Midland, Texas over 200 celebrants at a hanger shindig didn't quite appreciate his energy saving efforts when he cut the power for the main lights. Unfortunately, that flip of the big switch shut down large slow-warming lamps which

reduced lighting to WWII methods of bringing up cars with headlights to illuminate the party. For a while John acquired the nickname, "Flippen", and co-workers were issued OSHA-mandated flashlights.

Underlying these (mostly) accomplishments is a person of intellect obviously, but particularly a person of good will, generosity and kindness. John, by example, has reminded me several times of the right way to accomplish objectives and how to make integrity and courage key ingredients in all actions. This epitomizes the broader meaning of honorable and I believe many inside and outside AAPG have benefited from John's outstanding character.

John has contributed much to the good relations between AAPG and the Regions. His early work in HoD was to make AAPG more responsive internationally to the point of realizing a GLOBAL association. An equal goal was to cause AAPG to become more open and democratic and to a very large degree this has happened. Of course, no one person does this—it takes a clan plan and action. But John played an integral part so that today the Advisory Council is made up of only elected members and past presidents have voluntarily reduced their influence to conform with the spirit of independence and minimal outside influence. The establishment of Regions and Sections Vice Presidents lead by then President Pete Rose owes much to Hogg initiatives.

Finally, John Hogg has honorably advanced the profession and the Association in ways not fully appreciated by many of us at the beginning of the change. Yes, John is a change artist, accomplished through a leadership characterized by intellectual and personal persuasion. Not bad for a Canadian kid who only wanted to be Recording Secretary!

Patrick J. F. Gratton

Response

I am both humbled and grateful to be an Honorary Member of our Association. I sincerely thank both my Canadian colleagues for the nomination and the Advisory Council and the Executive Committee for this prestigious award.

As Pat Gratton, my citationist, has told me, and anyone else who is willing to listen, "John, AAPG is not just an association of geologists, it is a Clan". The word Clan is derived from Scottish Gaelic, Clann, and from Old Irish, Cland. The meaning of Clan is "a social group of common descent; a collection of animals, plants, or lifeless things; a body of persons with a common interest." Geologists fall into two areas of the definition; first, we are interested in lifeless things, rocks, and second, we are a body of persons with a common interest, petroleum geology.

As a university student, I remember seeing my first AAPG Bulletin in the autumn of 1979 in the Science Library at McMaster University in Hamilton, Ontario, and reading my first scientific papers on sedimentology, stratigraphy, and hydrocarbons, encouraged by professors Gerry Middleton and Roger Walker. After graduation, I joined Gulf Canada Resources in 1981 and became a member of AAPG.

My very first volunteer role in AAPG, at the AAPG Annual Meeting in Calgary in 1982, was to move the clothes pins outside the oral session rooms to the current talk, in three session's rooms, at the same time! It was then I joined the Clan.

My first Annual meeting outside of Canada was the 1983 Dallas meeting, "Big 'D' in '83," which was a wonderful experience. I learned two things: geologists like to socialize, and in those days the Annual Convention icebreaker was an open bar for 90 minutes! And second, that geologists I considered legends were actually quite human. At that meeting, I met legends Arnold Bouma and Mike Halbouty and my longtime friend Valery Schultz, all of whom were friendly and welcoming of a new young Canadian geologist into the clan. Since 1983 I have missed only a couple of AAPG Annual meetings—it's a highlight of the year.

Being an explorationist is the greatest job in the world. For the first two decades of my career I was able to work some of Canada's most interesting Frontier Basins—the Sverdrup and Mackenzie/Beaufort in the Canadian Arctic, and the Scotian and Jeanne d'Arc Basins in the North Atlantic. I was able to work with great geoscientists, including Ashton Embry, Ross Lennox, Jim Dixon, Hugh Backwill, Tony Tankard, John Weissenberger, Michael Enachescu, Hugh Wishart, Dave Brown, Neil Driscoll, Gary Karner, Mark Cooper, and many others. This time allowed me to develop exploration skills, generate prospects, and, most importantly, have them drilled. Spudding a well on a prospect is still one of the most exciting days of the year and with every prospect comes the question of whether the exploration work will result in a discovery; most times the answer is no.

My volunteerism in AAPG has been both extensive and rewarding.

I have served almost continuously in the House of Delegates since being elected a delegate in 1986. This has taught me a great deal about Roberts Rules of Order, running business meetings, and reading contracts. I now chair the Constitution and Bylaws committee that recently examined the corporate structure of AAPG as we continue to develop globally. Equally enjoyable was working on the AAPG annual conventions in Calgary in 1992, under Chairman George Eynon and Vice Chair Gerry Macey, and then being asked to chair the 2005 Calgary meeting, with my friend and mentor Marty Hewitt as General Vice Chair.

From a leadership point of view, my two terms on the Executive Committee, first as Chairman of the House in 1999–2000, under President Thomasson, and then in 2007–2009 under Presidents Green and Tinker, as the first International Region Vice President, helped me to grow personally as a manager and mentor and to help grow AAPG internationally.

AAPG friendships over the past 28 years have helped me to grow on a personal basis. Each of my mentors has influenced my direction both in AAPG and in my personal life. Pat Gratton, Pete Rose, Ray Thomasson, Dan Smith, Will Green, Tom Mairs, and Carl Smith all provided me with early guidance that will remain with me through my volunteer, scientific, and business careers.

Colleagues that I have grown up with in the AAPG clan, including Terry Hollrah, Mike Party, Clint Moore, John Kaldi, Rick Fritz, Debra Sacrey, Gretchen Gillis, Neil Hurley, and Steve Sonnenberg, have all had many roles in AAPG through the years. This has created the ability for all of us to build on what I call "pyramids of service." Sometimes we form the base of the pyramid, working to ensure projects are completed; sometimes we are on the top as leaders and directors. In the end, we are all learners of new skills that help our professional careers move forward while also helping AAPG.

Over the years, the AAPG staff has also become my friends. Donna Riggs, Vicki Beighle, Larry Nation, Vern Stefanic, Janet Brister, Jim and Randa Reeder Briggs, Kim Van Delft, Dana Patterson Free, and Ron Hart, all longtime employees, part of the engine that makes us what we are, have been there to help me in my volunteer positions and have watched me grow from that Canadian kid to an Honorary Member of the association. I thank them for all their help over the twenty plus years!

Finally, none of this would have been possible without the support and understanding of my wife of 27 years, Amy. Many AAPG trips, phone calls, and evenings on the computer took time away from the family. Fortunately, our children, Sarah and Logan, have never had me miss a birthday or graduation, with very few AAPG events at the end of January or the middle of June. So on behalf of them, I accept this award and look forward to the future, working with my colleagues and friends in the clan of AAPG.

John R. Hogg

PINAR O. YILMAZ
Honorary Member Award

Citation—To Pinar O. Yilmaz for unflagging and accomplished dedication to building global bridges between cultures, governments, companies and universities and, by so doing, serving her profession and the world.

Honorary Membership in AAPG is limited to those very few who have so distinguished themselves in vision, science, and service that they honor the association by committing to a lifelong affiliation. Said differently, it is the AAPG that benefits and is honored by connection with such unique individuals. Dr. Pinar O. Yilmaz, by any measure, so honors the AAPG and it is altogether fitting that the AAPG bestow upon her lifelong Honorary Membership.

Pinar Yilmaz is a woman of the world. As such, her vision transects international borders and geopolitical boundaries. I have spoken and written of metaphorical bridges for several years, and Dr. Yilmaz personifies the bridges I envision. She works tirelessly and without reciprocal expectation to

link people—companies, governments, universities—across the globe. Her tireless drive towards excellence, in all aspects of the profession, is unparalleled.

Pinar is a native of Turkey, where she still maintains close personal and professional ties. She earned a B.A. from Kirkland College (now Hamilton College) in 1976, an M.A. in geology from Bryn Mawr College in 1978, and a Ph.D. in geology from the great University of Texas at Austin in 1981! Dr. Yilmaz' professional interest is regional geology and hydrocarbon systems, with particular focus on the geology and tectonic evolution of the Tethyan system in the Alpine-Himalayan belt. She has published research on Tethyan regional geology and was co-editor of AAPG Studies in Geology 55, *Oil and Gas of the Greater Caspian Area*.

Pinar began her career in 1980 with Mobil Exploration and Production Services in Dallas, Texas, where she was part of the Special Exploration Project team. In 1982, she moved to the Mid-Continent Production Division in Denver. In 1984, she joined Exxon Production Research Company (EPR) in the Hydrocarbon Systems Division, working in the Basin Analysis team on a World Regional Mapping and Fault Seal Project. Little did she know at that time that many years later, Exxon and Mobil would merge and she would arrive where she began.

In 1988, Pinar made a temporary shift in career direction when she became assistant to the geoscience vice president as recruiting coordinator to recruit geoscience researchers for EPR focusing on global centers. Two years later she was back on the Basin Analysis Regional Studies team looking at Europe, the Mediterranean, and China. In 1995 she moved to Exxon Exploration Company as part of the Global Studies Project group.

In 1997, Dr. Yilmaz moved into the role of External Technology Coordinator in the Technical Organization of Exxon Exploration Company. Two years later she became the external technology manager for the Geoscience Technology Development in the Technical Organization, and very recently she became the external collaboration advisor in the Planning Organization for ExxonMobil Exploration Company. In these roles Pinar is responsible for coordinating external activity with universities and research center projects in geosciences globally. Pinar also manages interfaces between professional societies and ExxonMobil. Societies like the AAPG!

Pinar's contacts are extensive and deep, cutting across geopolitical boundaries, cultures, and scientific disciplines. Pinar has friends around the world, and not just on a superficial level; she knows their families as well. When I spoke with Pinar recently, she emphasized how much she appreciates and learns from her friends. I have heard Pinar say many times, "I think I have the best job in the world!" and she is always quick to recognize her senior management for providing her access at all levels and extensive global support.

Pinar serves her profession broadly as a member of many professional societies, including AAPG , Society of Exploration Geophysicists, Geological Society of America, European Association of Geologists & Engineers (EAGE), American Geophysical Union, Houston Geological Society, Society of Petroleum Engineers, Association for Women Geoscientists, Houston Geophysical Society, and the Geological Societies of London, Brazil, Turkey, and Nigeria. She also sits on the Cambridge University CASP Consortium Scientific Advisory Board and on advisory boards for the Women's Global Energy Leadership Conference and the National Science Foundation's project, 'On the Cutting Edge.'

Pinar's service does not end at membership alone. She rolls up her sleeves and participates at the committee level. For AAPG, she served as chair of the Technical Advisory Committee and the International Liaison Committee, and she has been Technical Program Chair or Co-Chair for countless international meetings and Management Forums. She is also a member of AAPG's Publication Pipeline, Distinguished Lecture Committee, and Committee on Committees. In addition to her service to AAPG, Pinar also has served on important committees for the Society of Exploration Geophysicists, the Geological Society of America, the GEO conference in the Middle East, the International Petroleum Technology Conferences in the Middle East and Asia, the EAGE and the Society of Petroleum Engineers annual conferences.

Dr. Yilmaz has often been honored for her work and service. She received the Hamilton College Science Medal, the President's "Coin" for General Interest from ExxonMobil Exploration Company, the Nigerian Association of Petroleum Explorationists' Certificate of Appreciation, three GSA Certificates of Appreciation, the Houston Geological Society

President's Award, and an award from the La Sociedad Venezolana de Geólogos. Her list of previous AAPG recognition is deep and well earned, including an AAPG Distinguished Service Award, an AAPG European Region Special Award, five Certificates of Appreciation, and four Certificates of Merit!

Pinar, you are a friend, colleague, mentor, and visionary, and I was honored when you asked me to serve as your biographer. On behalf of the AAPG and our profession, thank you for your lifelong commitment to tearing down walls and helping to connect the world. Generations that follow will benefit from your good works.

Scott W. Tinker, Ph.D.

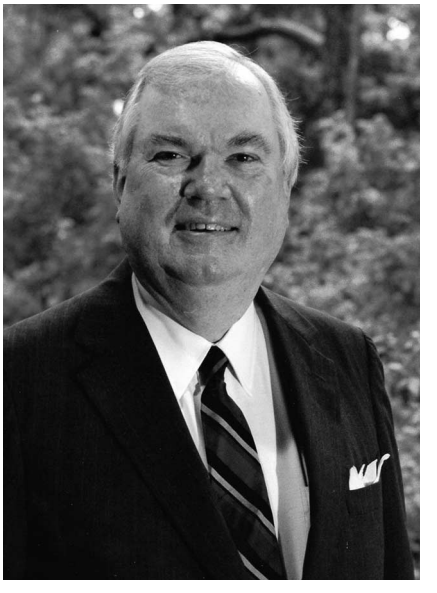
Response

It is a pleasure to be receiving AAPG's 2010 Honorary Member award. It is described as "Honorary Member is bestowed upon persons who have distinguished themselves by their service and devotion to the science and profession of petroleum geology and to the Association." I learned early that in order to make anything happen, you had to get the right people together—-whether it was AAPG staff or the global volunteers—we learned along the way from each other and there are so many worthy volunteers who give so much to AAPG. Through AAPG, I kept meeting interesting people from diverse backgrounds who were willing to volunteer their time and effort to a professional society around the globe. We learned, we observed and we shared our mutual interest in geoscience education, technology transfer and networking, and we kept going. I remember the 1985 AAPG meeting where I worked on the technical program. It was fun and what a beautiful place to hold a meeting.

There have been so many meetings in great locations, so many committees, so many acquaintances and worldwide networks, some developed into lifelong friends. With some we continued to volunteer in order to give something back to the profession. Building technical program for conferences is one of my favorite activities—you learn so much about ongoing technical and scientific work and people who make it happen. Another aspect is bringing people together across the industry as well as international boundaries, cultures and languages. I also enjoy being involved in student events and their enthusiasm and delight at AAPG events, including training, publications access, and building contacts across the world. Their delight makes our job as volunteers easy. AAPG is diverse because its membership is diverse, and a smile and a handshake is all it takes to make a friend. That is why I enjoy being a volunteer at AAPG. Thank you very much for this award.

Pinar O Yilmaz

JOHN AMORUSO
Outstanding Explorer Award



J. DENNY BARTELL
Outstanding Explorer Award

LARRY BARTELL
Outstanding Explorer Award

Citation—To John J. Amoruso, for thinking beyond mappable data, for asking the critical questions, for seeing earth history that others did not see, for the wisdom learned from his exceptionally talented partners, for giving us a career to emulate of exploration thinking, professional conduct and sharing with his fellow explorers.

The AAPG Explorer of the Year award recognizes "distinguished and outstanding achievement in exploration for petroleum or mineral resources." Among several types of achievement, the award distinguishes and includes recognition for the absolute size of discovery in an immature basin and the relative size of discovery in a mature basin. John Amoruso, Denny Bartell and Larry Bartell are being recognized for that most rare event: finding a major field in a very mature basin.

The Amoruso Field is a conventional Bossier gas sand stratigraphic trap in the East Texas Basin, which, after discovery in 2005, is still being developed. The recoverable reserves were estimated in 2007 to be 2.4 Tcf of gas; 500 Bcf has been produced to date. Take a moment to appreciate the accomplishment: finding a giant gas field in a basin that has been explored for over 80 years with the best technology, by some of the world's best explorers, and some of the world's best companies.

Recognizing the accomplishment obviously leads to the question of how. This is something that has challenged the best minds in our business and made Wallace Pratt's 'Oil is first found in the mind' as famous as it is accurate. Every field is first seen as a result of looking at data and every now and then, someone sees beyond what can be mapped and realizes the hidden inferences and implications. Such insight is the core of exploration excellence and the reason John Amoruso earned the AAPG Outstanding Explorer Award for 2010.

The geology of Amoruso Field is still not public but as the facts slowly emerge, all explorers will appreciate the insights and judgment required to see the pre-drill concept with so few data. With a little reflection, there are lessons for each of us. For me, it is a marvelous example of unraveling more of the geologic history from the facts that do not fit the current model. Even if we cannot explain the misfiting data, it is telling us something. In this case, it was the clue to a giant gas field.

All of us understand and appreciate the thrill of discovery. But to spend a career requires more than the infrequent thrill—it requires a daily thrill of "doing geology" with the spice of an occasional discovery. In the end, great explorers love exploring geologic history; the discovery is just the excuse to do geology. John Amoruso enjoys exploring and that is perhaps how he discovered Amoruso Field.

No one, however, accomplishes such things alone. His partners, and co-recipients, Denny Bartell and Larry Bartell recognized John's insight and were essential to bringing it to fruition. John brought the geological interpretation, Denny and Larry brought implementation of the concept.

These three fellows are partners through and through…but they too, had help. Guma Aguiar of Leor Energy was not encumbered by traditional thinking of geology and was captivated by John's original concept to which he brought financial support. Yet while it would be easy for these four to say "live by our example," they, like all great explorers, recognize the significance that coincidence played in their success: timing of finance, timing of acreage acquisition, forming their special partnership.

Great accomplishments, of course, do not occur by luck but are the result of great preparation, discipline, hard work and quite commonly courage. Perhaps these Puritan characteristics come naturally to someone born and raised in Portsmouth, New Hampshire for John Amoruso is their champion. He began his formal education with a bachelor's degree from Tufts University in Medford, Massachusetts but interrupted his studies in 1952 to serve three years as an officer in the U.S. Navy. Upon completion of service, he returned to school and earned his M.S. degree in geology from the University of Michigan in 1957. As was to become a pattern in his life, John also served on the

Geoscience Alumni Advisory Committee for many years including 1987–88 as chair.

John's first taste of the petroleum industry came in 1956 when he held a summer job with Stanolind Oil and Gas (subsequently Pan American, then Amoco, now BP) in Oklahoma City. After graduation, he joined the company with his first assignment in Salt Lake City. During the following 12 years, John enjoyed several promotions and transfers but most importantly, had the chance to develop prospects by working regional geology. John spent three years in Farmington, two years in Fort Worth, two years in Tyler and four years in the Houston office. These assignments introduced John to the skills of integrating regional to prospect scale geology which was the foundation for his career as an independent which has run from 1969 to today.

In addition to the focus on the Gulf Coast, John has also developed plays in Arkansas, Colorado, Wyoming, Nebraska, Louisiana and West Texas. The geology ranges in age from Cambrian to Miocene and plays ranged from purely stratigraphic to structural to complex combinations of structure and stratigraphy such as the Amoruso Field.

To start his career as an independent, John established a consulting firm, the Amoruso Group which did stratigraphic analyses on the several COST (Continental Offshore Stratigraphic Test) wells drilled on the Atlantic shelf. Subsequently in 1977 John formed Amoruso Petroleum Company and became its sole owner in 1986. In addition, since 2004 John has been a partner with Denny Bartell and Larry Bartell and has served as vice president for Legends Exploration, L.P. which focuses on large gas prospects in the Gulf Coast.

But it is also not an exaggeration to say we have come to expect substantial and lasting accomplishments from John. In addition to his exploration activities, John earned early recognition as a regional geologist for his widely presented papers focusing on the Jurassic of the Gulf Coast. He has twice received the A.I. Levorsen Award and served as an AAPG Distinguished Lecturer during 1973–1974. Later, the GCAGS recognized John's cumulative contributions with its highest honor, the Don R. Boyd Medal for Excellence in 2005. John has also gone beyond regional geology and presented a paper on "Petroleum Geology in the 21st Century" and chaired the AAPG 21st Century Committee twice.

Beyond John's many professional successes, his leadership in our profession is simply legendary and has been recognized by AAPG naming him as the first recipient of the Michel T. Halbouty Leadership Award in 2007. His list of presidencies includes not only the international organization AAPG (1983-1984) the national organizations AGI (1994) and SIPES (1980–1981), the regional organization GCAGS (1981–1982), and the "local" Houston Geological Society (1972–1973). And those were probably the easy jobs. Beyond these positions, John has served as editor, program chair, director, chaired special committees and served on many special committees. For AAPG alone he has served in over 30 capacities including President-Elect, Secretary, vice chairman of the House of Delegates, chair of the 21st Century Committee, Chair of the Advisory Council, Chair of Honors and Awards, and Chair of the Nominating Committee.

Beyond AAPG, John's energy and judgment have been in demand by our profession in numerous other capacities. Other organizations he has served include the International Geological Congress (chair of the Society Participation Committee), the National Academy (Board on Earth Sciences and Resources), the National Research Council (several committees on resource assessment), and the U.S. Congress (Office of Technology Assessment advisory panel on oil imports and U.S. oil replacement). It is no wonder that John is not only a recipient of the Heritage Award (2009) but also been recognized with Honorary Membership in AAPG, GCAGS, SIPES, and the HGS.

Throughout his career, John has benefitted greatly from all the pleasures of a loving family. His life partner, Camille has been a practicing pharmacist and understands well the demands of a full professional life coupled with a busy home life. That is only one of many reasons John attempted (but was outvoted) to name the field after her.

John and Camille found love at first sight and over 50 years later are the proud parents of Jim and Mike and the proud grandparents of three grandsons, Christopher, David, and Andrew and a brand new granddaughter, Camille.

John Amoruso has dedicated much of his life to giving to his profession but perhaps his greatest gift is his example. There is no guarantee of finding a giant field for any explorer but there are many rewards each of us can receive simply by emulating a

career like John's: be generous, do outstanding science, practice professionalism in all matters and have the good fortune to be married to someone like Camille, the love of his life.

Richard S. Bishop

Response

Most of us in AAPG are involved in the search for oil and gas reserves so it is a particularly high honor to be selected for the Outstanding Explorer Award. On behalf of myself and my co-recipients, J. Denny Bartell and Larry D. Bartell, I extend my heartfelt thanks to all those instrumental in selecting us for this high recognition.

I also thank Richard S. Bishop for serving as my biographer and for his generous remarks. Dick, a long time friend, is a former president of AAPG (1998–1999) and is exceptionally well qualified to evaluate exploration plays and prospects. Before his retirement from ExxonMobil, he was involved in the worldwide review and appraisal of the company's plays and prospects. Since that time, he has been an international consultant, now chief geologist and girector of RSK, Ltd., heavily engaged in international exploration. His comments are particularly appreciated. Thank you, Dick.

Denny, Larry and I, all geologists, are partners in Legends Exploration, L.P., a partnership primarily dedicated to exploring for large prospects, particularly large gas prospects. We are all independent and energetic thinkers but function happily and successfully together, just the right mix for generating prospects and getting them drilled.

The first of these prospects was the result of a Bossier Sandstone Project in East Texas. Anadarko's successful Bossier Sandstone exploration at Dew and Mimms Creek Field had led to very heavy Bossier Sandstone drilling, progressively moving southward along the trend of the stratigraphically lower Cotton Valley Limestone shelf. Dew and Mimms Creek Fields have estimated reserves of over 1 TGF of gas. At that time although Bossier sand drilling was very strong, there seemed to be little interest in looking for the Bossier in the deeper areas off the shelf.

The Bossier sandstone project identified a major channel disrupting the relatively smooth strike of the Cotton Valley Limestone shelf edge. It was interpreted that Bossier sands transported across the shelf area would most likely be concentrated into the channel and be a primary source for a large turbidite sand deposit in the deeper water off the shelf.

The play was mostly conceptual, with little factual data. Very few wells had been drilled in the area around where the turbidite deposit was believed to be, so the prospect was a true wildcat one. In the wells that were drilled off the shelf much of the information they might have provided was still being held confidential. The lack of real data made the prospect quite risky. A close friend, a former president of a major oil company, told me that that I could never have sold the prospect to him. Having been raising money and selling prospects for many years, we were well aware of that problem.

We began leasing with our own limited financial resources while trying to acquire financial support, primarily from financial organizations. We had to be very careful to whom we exposed the idea so we were somewhat limited in the number of organizations to whom we could show the prospect. There is always a concern that someone either directly or indirectly could cause competition in the prospect area. Everyone that saw the prospect was intrigued by it, but not so much as to be willing to finance what they thought was a high risk prospect on such a large scale. Then, without expecting it and with great good fortune, we met Guma Aguiar, a very personable, likeable and energetic young man.

Guma and his uncle, Tom Kaplan, had invested in oil and gas prospects in a small way and wanted to get more active in exploration for larger reserves. Guma immediately saw the potential of our prospect and in true wildcatter spirit agreed to finance our concept in concert with Tom. They provided the money which was necessary to lease a large block covering the prospect. With the financial resources, time, and patience we were able to build a large lease block in excess of 40,000 acres. Guma and Tom monitored our progress as we proceeded with leasing and provided money as needed. They were the key factors in enabling us to pursue the prospect. Furthermore, they left us free to do what we knew how to do.

Guma and Tom formed Leor Energy in the process of supporting the prospect efforts and drilled an obligatory well on acreage burdened with a drilling commitment. The well was successfully drilled to total depth and cased, waiting on completion. At this point EnCana bought a 30% interest in the prospect, agreed to complete the well, and drill eight additional Bossier sand

wells, at various locations to help define the depositional framework of the sands. Subsequently, EnCana bought an additional 20% interest and eventually acquired all the working interest in the field from Leor. EnCana has been a vigorous operator and at one point had 14 wells drilling at the same time. At this writing, the field has over 100 producing wells and is producing at a curtailed rate of over 400 million cubit feet of gas per day. EnCana had estimated the field to contain 2.4 trillion cubic feet of recoverable gas.

As with the fabled "perfect storm" described in a book and movie, this prospect was a "perfect prospect" for us. The idea was timely, finances were available, with patience and persistence, a large acreage block could be assembled, sands were present throughout the block, all the sands were full of high pressured gas with no free water, pipeline access to market was immediately available, and an aggressive capable company was operator of the field. It truly was a "perfect prospect" for us.

Guma and Tom told me that, with EnCana's approval, they were naming the field in my honor. This gesture was very much appreciated, but I thought the field should be named after a nearby geographical location. Even though flattered, I argued against the name, not wanting to be involved in an ego trip. However, when I realized how determined Guma and Tom were to name the field Amoruso Field, I acquiesced. I have to confess that I now consider it the greatest honor of my exploration career.

I have been continuously involved in exploration from my first summer job with Stanolind Oil & Gas in 1956. The following 12 years of permanent employment with Pan American Petroleum Corp. (successor to Stanolind, later Amoco, and now British Petroleum) were instrumental in giving me the foundation to be a well-rounded geologist. I had plenty of exposure to exploration for oil and gas in a number of different basins. Tours of duty in Salt Lake City, Utah; Farmington, New Mexico; Fort Worth, Texas; Tyler, Texas; and finally, Houston insured wide experience with many challenges and a lot of responsibility. The company's large energetic exploration programs encouraged innovative prospecting and my assignments were always interesting.

In 1969, I opened offices in Houston as an independent geologist and have been generating and selling prospects and serving as a consultant on several major projects ever since. The change from a major company to an independent geologist took some adjustment, but nevertheless, was accomplished with a minimum of difficulty. My heartfelt thanks goes to my fellow independents who were always willing to share their experience with a new man to help him avoid some of the pitfalls.

A particular highlight of my career has been my partnership with Denny Bartell and Larry Bartell in Legends Exploration. They are not only close personal friends, but also energetic and enthusiastic explorationists with extensive and diverse experience in searching for oil and gas. We work very well together with a common purpose. This total cooperation and support between partners was essential in bringing the Bossier sand project into fruition as Amoruso Field. I am proud to be co-recipient of the Outstanding Explorer Area with them.

My career as an independent geologist and being actively involved in professional activities has made for a very happy life. I thank all those who have extended their friendships to me all these years and made my life even more enjoyable. Especially, I thank my wife, Camille, and our sons Jim and Mike. Business and professional activities frequently impacted their lives. Camille, the love of my life, enthusiastically encouraged my professional activities and, after our sons grew up, was involved in many of them. Camille is a pharmacist, and in that capacity has functioned as an unofficial pharmaceutical advisor to many of our members curious about their medications. Many times it seemed that members were more interested in talking with her than with me.

I thank all those involved in our selection for this high award and thank all my friends whom I prize so highly. I am truly a lucky man.

John J. Amoruso

Response

Our partner in Legends Exploration, John Amoruso, has just given you a brief review of our recent exploration history so there is no need for me to repeat to you any part of that.

Instead I would like to thank the Association for its consideration of all the explorationists who were carefully screened for the Explorer of the Year Award. On behalf of John, Larry, and myself, I would like to say thank you very much for our selection. There is no recognition to a professional that is more important than the recognition of his peers.

Thank each and every one of you for this award!

J. Denny Bartell

Response

To the Awards Committee and Membership of the AAPG I thank you for this honor and distinguished award.

Wallace Pratt is credited with saying, "Oil is found in the minds of men", and it could not be truer than for the Amoruso Field in Robertson County, Texas. John Amoruso, and rightfully so, is credited with this discovery and he did it without any seismic. He held on to the concept of the down dip slope deposits of the Bossier sand through decades of working various trends in East Texas.

What more does an explorationist desire from peers but to be recognized as being "Explorer of the Year." I have been fortunate to work with two distinguished Geologists, John Amoruso and J. Denny Bartell. I have benefited immeasurably from both of them!

Thank you again for this honor and recognition.

Larry D. Bartell

MARTIN P. A. JACKSON
Robert R. Berg Outstanding Research Award

Citation—To Martin Jackson for leading a revolution in salt tectonics by melding teams of first-class researchers with a large data-rich industrial consortium.

Martin Jackson 's contribution to salt tectonics is particularly remarkable because he spent the first decade of his career researching some of the oldest and hardest rocks in southern Africa.

Martin Jackson and his brothers were born as white Africans into a family of physicians and scientists and were educated in what was then Southern Rhodesia. Their father grew up in India and Canada before becoming one of the first exploration geologists on the Central African Copperbelt in the 1920s and then an army medical officer on India's (now Pakistan's) restive Northwest Frontier. He inculcated a scientific viewpoint to his sons and a thirst for exploration. Martin began his undergraduate education in biology but was lured to geology by the big game and even larger fossils of Cretaceous dinosaurs collected on geological field trips to the Zambezi rift valley. His studies culminated in an honors thesis on lunar geology as Apollo 11 landed.

After two years as an exploration geologist in South Africa and Namibia, Martin moved to the University of Cape Town for a PhD, sorting out the complex tectonic history of 10,000 km^2 of previously unexplored Precambrian gneisses in the Namib Desert. He then taught structural and metamorphic geology at the University of Natal for four years, before turning in 1980 from a promising academic career studying Precambrian hard rocks (funded by mining companies) to the Bureau of Economic Geology (BEG) to assess regional tectonics and salt diapirism in East Texas for the suitability of salt domes as nuclear-waste repositories.

The gamble taken by Martin and his family and by Bill Fisher at the BEG in hiring a geologist who had published mostly on Archaean charnockites, granulites and migmatites paid off handsomely.

With Steve Seni, he learned how to read the history of salt diapirs in East Texas from the stratigraphy of the surrounding sediments. He then undertook a remote-sensing study of the most spectacularly clustered salt diapirs on Earth, those in the Great Kavir of central Iran. This involved traveling to Europe to pick the minds of Augusto Gansser and Jovan Stöcklin who had studied these diapirs in the field decades earlier.

Taught that science stands on three legs: observation, theory, and experiment, he brought Department of Energy funding to the tectonic laboratory at Uppsala University (which I had just inherited and named after Hans Ramberg who had built it). Together we centrifuged upbuilding and downbuilding of a diapiric salt canopy through a ductile cover sequences like those in the Great Kavir. While reviewing fluid salt-tectonic theory together, Martin worried that the overburden in central Iran was unusually fluid compared with the faulted overburdens in most seismic profiles.

I learned what nagged him over the next decade when the sand-over-silicone modelling technique pioneered at Rennes University by Bruno Vendeville and colleagues swept us into the "Brittle Era". Model after model clearly demonstrated that many diapirs are triggered where their stiff overburdens are thinned by normal faults.

Recognizing that most of the data needed to advance salt tectonics was generated by oil exploration, Martin, with help from BEG Associate Director Marcus Milling, assembled a consortium of 13 Industrial Associates (a number that soon doubled) to support the Applied Geodynamics Laboratory (AGL).

Judging from afar, the AGL appears to be a powerhouse running on almost continuous modelling and interpretation of salt tectonics while interacting closely with industrial and academic visitors. The success of applying academic research to conceptual problems raised by the search for hydrocarbons can be followed in the new terms Martin and collaborators invented for new or existing but under-appreciated concepts. These include salt canopies, salt welds, reactive diapirs, falling diapirs, cryptic extension, raft tectonics, and accretionary thrust advance of salt sheets.

Together with representatives of much of the world's oil industry, AGL research has wrung fundamental science out of hydrocarbon exploration in many of the ~120 basins incorporating deformed salt sequences. Martin and colleagues have also begun to recognize the megabreccias left after complete dissolution of deformed Precambrian salt sequences. His search for pastures new have also taken him to Triton (one of Neptune's moons) and Mars, where he helped recognize a new form of planetary tectonics, apparently driven by salt loss, that implies that part of the largest valley system known is underlain by an even larger weld after salt.

Christopher J. Talbot

Response

My grateful thanks go to those who nominated me and to AAPG for the signal honor of an award in memory of Robert R. Berg, a scientist of towering reputation. I am by no means a petroleum geologist, so to receive an award of this stature is a particular privilege. The honor is shared with all the mentors, colleagues, and friends who've added so much to my career.

At the root of most careers are parents. My mother inspired me to write well and although having little affinity to science, she was a role model in countless ways. My father crisscrossed the barriers of science, engineering, medicine, and the military, and tirelessly encouraged his three sons to excel professionally even where the raw material seemed unpromising.

My first exposure to geology was not auspicious. The scene opens in central Africa on two small boys in thick dry grass that closed over their heads, plodding behind their father who carried a stick to fend off cobras, his geological hammer in his belt, and a Geiger counter borrowed from the Geological Survey of Rhodesia. Our destination was one of the abandoned small workings for gold in Archean ironstone ranges. Our father's weekend hobby took us on the trail of the 1950s uranium boom, but all we found in the dark adits were bats exploding from their roosts, dripping water, and the claustrophic dread of roof collapse.

Despite this early introduction, during undergraduate years, I was drawn away from marine biology towards geology. At the University College of Rhodesia we were taught by two sterling professors. With a bottomless reservoir of eclectic anecdotes, Geoff Bond inspired an appreciation of stratigraphy, paleontology, and paleoclimates. Jim Wilson had an equally infectious passion for layered intrusions and was a consummate professional.

In the early 1970s adventure followed in spades for a young field geologist in the bushveld, mountains, and deserts of southern Africa, first in mineral exploration, then as a Ph.D. student at the University of Cape Town, where instead of course work, we were expected to find papers and read voraciously. With the Precambrian Research Unit, I had license to roam a wilderness of inselbergs and dunes in the Namib Desert, including the Sperrgebiet, a buffer zone for the diamond beaches on the Skeleton Coast.

Wishing to avoid any more mines, I became a lecturer in the Department of Geology at the University of Natal at Pietermaritzburg, headed by Don Hunter. He showed how to balance administration and research and how to build professional bridges across oceans. A generous friend and colleague from Natal, Dave Hobday, was responsible for attracting our family to Texas in 1980, which triggered a momentous career change.

As a result my greatest professional debt is to the Bureau of Economic Geology, which has been a scientific home for 30 years. This research unit is personified by its directors, Bill Fisher and Scott Tinker, who gave unstinting support when it was needed, and a hands-off approach when it wasn't-an ideal setting where independent scientists can flourish. When I joined the Bureau Steve Seni, a young dynamo, inspired me to look beyond a myopic strain analysis of salt core and decipher

the history of diapirism from the surrounding sediments in the East Texas Basin. Although federal funds poured into many institutions to establish whether salt could safely store high-level nuclear waste, the future of research on diapirism looked bleak. An NSF program director assured me in 1981 that they would never waste funds on such a dead topic as diapirism. Others were more perspicacious. Bert Bally was my tectonic mentor. He emphasized that there is more to salt tectonics than diapirism and that the world of salt is larger than East Texas. He showed what a structural geologist can do with reflection seismic data and stressed the importance of hewing your own path.

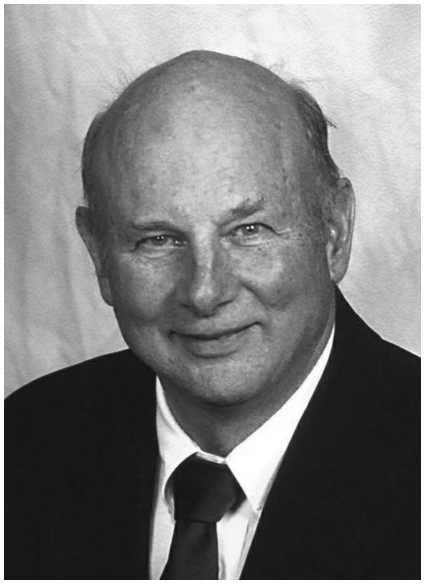
Hewing his own path comes naturally to Chris Talbot. He has influenced my career in salt tectonics more than any other person, so I'm delighted he agreed to write the preceding biography. In the early 1980s he alone was advancing the frontiers of salt tectonics. His strikingly original research on the salt glaciers of Iran used analytical tools developed for high-grade gneisses. We began to exchange ideas and data for a year or more: I would send humdrum data about my neck of the woods, and he would send a cornucopia of artistic drawings and novel concepts. We finally met in 1984 when I arrived for a two-month sabbatical at Uppsala University to carry out centrifuge modeling together in his laboratory and benefitted from the warm hospitality of the Talbot home. This was the first of several memorable and stimulating visits to Uppsala, capped by a field trip to Iran led by him in 2004.

Back in Austin Bruno Vendeville and Dan Schultz-Ela helped launch the Applied Geodynamics Laboratory in 1988. Both have a rigorous mechanical approach and a talent for innovation, and they laid a foundation for decades of exciting research. More recently Mike Hudec, the co-leader of the laboratory, brought the experience of a petroleum geologist and essential qualities of every scientist: an urge to overturn dogma and an eye for anomalous clues.

Away from the laboratory another adventure beckoned when Chris Harrison invited me to join a unique expedition to the High Arctic of Canada in 2004, where we mapped Sverdrup diapirs exposed in the mountains and fiords of Axel Heiberg Island, where ice glaciers grind over partly exposed salt glaciers. It was a privilege to join a renowned field geologist and learn outcrop-scale tectonostratigraphy.

My greatest debt is to my wife Jo, for her loving support while she lived a prospector's life isolated in the bush, endured the poverty of graduate school, spent many months and countries apart, and twice met the challenge of emigrating. She and my delightful daughters, brothers, and our extended family are the stable anchor of my career.

Martin P. A. Jackson



MARTIN M. CASSIDY
Distinguished Service Award

Citation—To Martin M. Cassidy, in recognition of his innovation, dedication and leadership in developing the AAPG Publications Pipeline which sends publications overseas to universities that lack them.

Martin's tireless donation of time and energy to professional societies has continued for years. He is an AAPG delegate and over the years he has been a member of various AAPG committees. He has been chairman of the Houston Geological Society international group and currently is serving as treasurer. Martin is on the organizing committee for the bi-annual conventions of the joint Petroleum Exploration Society of Great Britain and Houston Geological Society. Wherever he has worked, Martin has joined local geological societies and visited local academic communities. Such contact aids in understanding local field conditions and can be mutually beneficial in providing support for universities in regard to field sampling expeditions.

During work with overseas universities Martin noticed that libraries were often short of publications. References for study and research were not available. Yet in recent years in the United States many personal and company libraries have become surplus and available as geologists and geophysicists retire, companies downsize and periodicals become available in digital databases. A surplus exists in the U.S., while a need exists overseas. Companies working overseas can sometimes be persuaded to fund shipments of pallets of publications to universities in need, to the benefit of both parties.

The collection of donations of publications started in 1999, and a formal request to become affiliated with the AAPG was made in October, 2000. The first meeting of the AAPG Publication Pipeline committee took place on Oct. 11, 2002. It has been increasingly successful from then to the present.

Martin's interest in geology began when, as a child, he visited the "Petrified Gardens" in Saratoga, New York. He stood on a polished surface of white stone "cabbages" (actually, a glacial floor cut in stromatolitic limestone), and wondered why! From such a simple seed grew a lifelong career!

In 1955 he graduated from Harvard, married Jo Reeser, who graduated from Wellesley, and was commissioned as an officer in the Air Force, all in one week!

After three years in the military, a Masters of Science from the University of Oklahoma and two years of Ph.D. study at Harvard (all but the dissertation), he, Jo and three children moved to Corpus Christi, Texas in 1962, where he joined Pan American Oil Co.

After seven years of geological work in southern Texas, Martin was transferred to Amoco International for assignment as chief geologist for Pan American Libya Oil Co. In 1973, after Ghadafi's revolution, Martin and family moved to Chicago, where he worked on international new ventures in the corporate offices. These projects involved travel throughout the Middle East, the Far East and, especially, Indonesia and Europe. Subsequently, Martin spent four years in London, where he rose to be the exploration manager for Amoco U.K.

In 1994, as Amoco prepared to be purchased by BP, Martin took early retirement. He and Jo decided to stay in Houston and enjoy the children and five grandchildren. Jo continues to be active in Braille transcribing for the blind. Meanwhile, Martin earned a Ph.D. degree from the University of Houston. The dissertation was entitled, "Occurrence and Origin of Free Carbon Dioxide Gas Deposits in the Earth's Continental Crust".

Martin has limitless passion for all branches of earth science. He thrives on challenges of the least understood phenomena and events as evidenced, for example, by his important work on CO_2 in the subsurface and subaerial basins below sea level. He keeps fully involved in researching, writing and lecturing.

Martin has authored or co-authored 20 publications between 1962 and 2009. The vast range of subjects of these papers, include coal geochemistry, reefs, noble gases, CO_2 origins and stratigraphy.

Currently, Martin is pursuing all aspects of CO_2, occurrences, geochemistry, effects, uses and related issues, throughout the world as a research scientist for the University of Houston and as a consultant to energy related industries. In addition, he continues to advise and publish on the subject of exploration for oil and gas, especially sub-aerial basins below sea level and, of course, participates in the work of the AAPG Publication Pipeline.

Donald C. Rusk

REBECCA L. DODGE
Distinguished Service Award

Citation—To Rebecca L. Dodge, for excellence and success in the Petroleum Industry, timeless service through professional organizations, promotion of Remote-Sensing Technology and environmental applications, and unwavering and creative dedication to student education.

Not many people know what they want to do in life at a very young age, but Rebecca knew from the time she was in the seventh grade. She went on a field trip with her father, Charles Dodge, and a group of his university students,

and at the end of the day, she announced that she was going to be a geologist. She has never looked back! During this same time she volunteered, teaching arts and crafts to children with special needs. Her dedication to her profession and to her volunteer interests has shaped her life.

Her first association with AAPG was in 1973, when she became a student member and attended the national convention in San Antonio, Texas. She received her B.S. in geology from the University of Texas at Arlington in 1975, having studied for four years under her father. From 1975 to 1982 she attended Colorado School of Mines, receiving her M.S. in geology in 1978, followed by her Ph.D. in geology in 1982. She was one of the first women to receive a Ph.D. from CSM. During her years as a student in Colorado, she worked for the U.S. Geological Survey in Denver.

After completing her studies at CSM, she began her work with Exxon Production Research in Houston. From 1982 to 1989 she was a research specialist for several divisions, including satellite imagery, gravity and magnetics, and regional studies. She served as a United Way loaned executive for Exxon in 1987. During these seven years, she began working with the Girl Scouts and visiting public schools to give presentations on geology. Rebecca moved to Dallas in May 1989 to work with Cal Miller for Hunt Overseas Oil Company. While with Hunt she developed a close professional relationship with Cal that lasted for the remaining 25 years of his life. She became active in the Dallas Geological Society, serving as chairman of the Youth Activities Committee from 1989 to 1991 and as President 1992–1993. Her activities in the DGS enabled her to work closely with Stan Pittman and Pat Gratton, whose mentorship she has appreciated and valued. She became a member of the Visiting Geologist Committee in 1991, and to date has visited more than 20 colleges and universities.

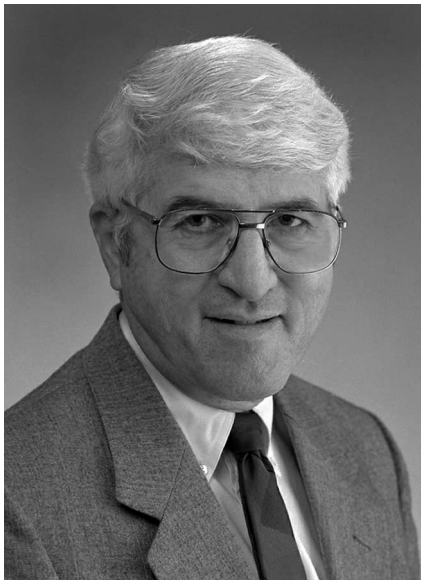
From 1992 to 1996 Rebecca was an independent geologist, forming the photogeology-focused Aral Interpretation Services and working with her father in Eastward Oil Company, with a special focus on Chinese oil exploration. During this time, she developed a working relationship with Professor Li Desheng of RIPED in Beijing. She formed Sinotech, Inc. in 1994 to continue her involvement in China. In 1996 and 1997 she received the Certificate of Merit from Energy Minerals Division of AAPG and was on the convention coordination committee as vice-chairman for EMD in 1997. From 1995 to 2003, she worked with The Geosat Committee, Inc., serving at one time or another as chairman, research coordinator, and director.

In 1996 Rebecca became a research specialist for the Pan-American Center for Earth and Environmental Studies at the University of Texas El Paso. She became director of research and training of the Geosat Committee and formed a partnership with the GLOBE environmental science K-12 teacher training program. She was chairman of the Educational Outreach Committee for the El Paso Geological Society. She also worked with the Girl Scouts in El Paso and with public schools.

In 1999 she moved to Carrollton, Georgia, where she served as associate professor on the faculty of the Geosciences Department of the University of West Georgia. She established another GLOBE teacher training partnership at the university and worked closely with the College of Education on expanding science education for pre-service teachers. From 1999 to 2006 she supervised more than 12 student research projects. She was a founding member of AmericaView, a nationwide group of universities and agencies that specialize in satellite imagery applications, and director of the GeorgiaView Consortium. She served on the Board of Directors for AmericaView and was interim director from 2006 to 2008; she currently serves as an advisor to the Board and as chairman of the Public Outreach committee. She remained very active on the national level of AAPG, serving on numerous committees and as president of the Energy Minerals Division 2002–2003.

In August of 2008, Rebecca moved to Wichita Falls as associate professor in the Department of Geosciences at Midwestern State University, where she teaches geology and environmental science. She is currently past president as well as chairman of the Annual Meeting Committee for the Division of Environmental Geosciences and has recently been appointed to AAPG's Public Outreach Committee. In honoring Rebecca with the Distinguished Service Award, AAPG acknowledges that she embodies the spirit of dedication and service that makes AAPG a vital force for our profession.

Charlyne Dodge
Deborah Dodge Pardue



BOB A. HARDAGE
Distinguished Service Award

Citation—To Bob A. Hardage, in recognition of his leadership and contributions to the transfer of geophysical technology as manifested by numerous publications and Editorship of the Geophysical Corner.

Bob Hardage has successfully pursued three careers: first as a geophysicist for an oil company, then as a geophysicist for a contractor, and now as a researcher and educator at a university.

Bob began his career by joining Phillips Petroleum Company in 1966 after earning a Ph.D. in physics from Oklahoma State. At Phillips, he started as a research geophysicist and, after promotions though successive positions as worldwide director of Seismic Stratigraphy and chief geophysicist for Europe and Asia, he became exploration manager for Asia and Latin America. In 1988 he moved to Western Atlas where he helped create a new business division which provided downhole seismic services. In 1991 Bob joined the Bureau of Economic Geology at the University of Texas at Austin, as a senior research scientist, where he launched a new career in the public domain as a researcher and educator. To this task he brought the perspectives of both a petroleum company and a seismic contractor. He currently holds the position of senior research scientist at the Bureau.

At Phillips, he focused on research in wavelet processing, seismic stratigraphy, and vertical seismic profiling (VSP). While conducting research in VSP technology, he developed a working association with Dr. E. I. Galperin, a Soviet scientist and the world's leading authority on VSP at that time. Stimulated by this association and by the results of his VSP research, Bob emerged as a giant in his own right in the field of VSP. He published the first English language textbook about VSP in 1983, describing the technology and the role it plays as a sort of "Rosetta Stone" in the interpretation and integration of geophysical data. Over 5000 copies of three editions have been purchased by explorationists. This work effort was followed up by other book–Seismic Straigraphy (1987) and Crosswell Seismology and Reverse VSP (1991).

VSP has evolved into a very sophisticated technology and its use has become pervasive throughout the exploration industry. VSP has become the key to the integration of geological and geophysical data. Bob was, to my knowledge, more than any other one individual, responsible for launching VSP technology on an industry-wide scale.

Bob's contributions have been legion and range from his roles as teacher, author, and lecturer to one involving participation in organizational and technical tasks associated with the earth science industry. Over the last three decades, he has published more than 125 papers and abstracts in various earth science journals, created course materials, and taught continuing education courses on numerous topics.

All of this activity grew out of efforts in several areas of research with a particular focus on the use of the seismic vector-wavefield to image complex reservoirs. In recent years he has launched a successful program in a new and exciting area of investigation–the identification and mapping accumulations of gas hydrates.

Bob founded the Exploration Geophysics Laboratory at the Bureau in 1997. The objective was to focus on creating new technologies, particularly multicomponent seismic systems. In addition, the laboratory was designed to serve as a vehicle for transferring new research applications to potential users, especially independent producers, through a variety of programs. In support of these goals, he developed an industry sponsored consortium to pursue methods for imaging reservoirs using multicomponent technology.

The vigorous demands of his job not withstanding, Bob has generously undertaken numerous tasks in the professional affairs of the SEG (Society of Exploration Geophysicists), the AAPG, and related geoscience societies.

Bob was a member of the AAPG Geophysical Committee for 19 years. A gifted writer, he has been the editor of the Geophysical Corner column in the AAPG *Explorer* for the past three years. From 1992 to 1995, he was assistant editor and then editor of the SEG

publication, *Geophysics*. Bob was the technical program chairman for two SEG annual meetings. In 2008–2009, is was the first vice-president of the SEG Executive Committee. The list of contributions and awards goes on and on.

He has received numerous awards, including three from the AAPG—the EMD President's Certificate of Excellence, the AAPG Certificate of Merit, and the A. I. Levorsen award. For his contributions, particularly in the realm of geoscience research, Bob richly deserves to be recognized with the "Distinguished Service Award".

Bob is a creative scientist, a great gentleman, and about as friendly a person as you will ever meet. I have been fortunate to have been associated with him throughout our careers, as a client, a competitor, a colleague, and a friend.

Robert J. Graebner

DWIGHT "CLINT" MOORE
Distinguished Service Award

Citation—To Dwight "Clint" Moore, whose passionate, long, steady important service and outstanding leadership brought substantial improvements in the Association, benefits to geoscientists worldwide, and distinction to himself.

Clint's commitment to serve his fellow members has been exemplary, and his success at broadly improving AAPG is significant. He is an outstanding example of this award, which "is presented to members who have distinguished themselves in singular and beneficial long-term service to AAPG".

Few members have had more impact during the last 20 years than Clint, on the improvement in fairness and clarity of AAPG Bylaws, and the House of Delegates recognized him for his many contributions with its Distinguished Member of the House Award (2001). As DPA Governmental Affairs Committee chairman (1995–2000), Clint led the creation, development, and approval of over 15 AAPG position papers, where we had none before, and DPA has recognized him for these contributions with its Distinguished Service Award (2001).

In 1994-1995, Clint served our largest affiliated society, the Houston Geological Society, as its youngest president. HGS awarded him Honorary Membership, Distinguished Service, and its President's Award. Additionally, Clint has been elected and served for over 20 years as an HGS delegate to the HoD.

However, his longtime, broader, distinguished service to the membership of AAPG is what we recognize him for now.

In 1997, as HoD Chairman, I appointed Clint as one of the key designers of the international member representation structure, which he, John Hogg, Charlie Dodge, and George Eynon brought forward as a committee for eventual adoption. Today's region structure is a result of their efforts, and Clint contributed substantially in that process, and he received two AAPG Certificates of Merit (1997 and 1999) for this historic work.

Clint was elected by the GCAGS membership to serve as their first member-elected representative on the AAPG Advisory Council (1999–2002), and advanced a "10-point Member Retention Plan" during his term. Many of these retention recommendations are part of AAPG today, including the establishment of an AAPG-staffed Governmental Affairs office in Washington DC, a tri-annual All-Member Survey, and a Career Skill and Experience Registry. As chairman of an ad hoc predecessor of our Career Services Committee, he received his third AAPG Certificate of Merit (2004) for his early pioneering work in this area.

In 2004, Clint was elected treasurer of AAPG, as the first officer in AAPG history nominated and elected through our petition procedures. As a member of the Executive Committee during my term as president, Clint made many valuable contributions separate and distinct from his "job" as treasurer. During his two-year term as AAPG Treasurer, Clint introduced financial changes and advances to the organization through his proposal and leadership of zero-based budgeting, and cost vs. benefit analysis. Clint helped to develop procedures to more accurately allocate overhead costs, and provided oversight and guidance on the implementation of our new financial accounting and management information system.

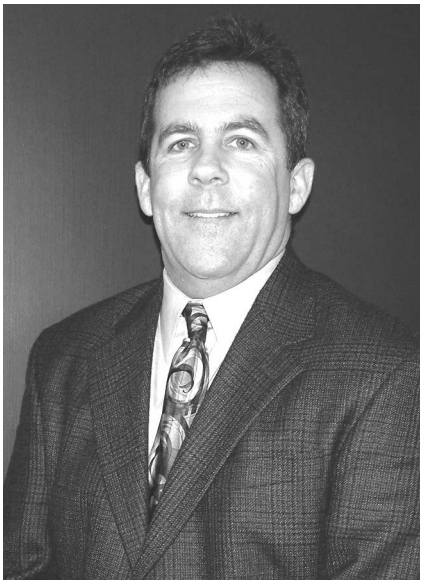
He proposed AAPG's first ever Audit Review Committee and wrote its charter, as well as served as it first chairman. He received his fourth AAPG Certificate of Merit (2006) for his important work in this area. In addition, he was very helpful to me as president (2004–2005), in overseeing the quarterly financials and advising me on how to keep my year in the black!

For the last several years, Clint has served with exceptional vision, drive, and determination as chairman of the Career Services Committee, which has just recently launched AAPG's first Career Center, with key elements of a job posting service, resumé posting service, consultants' job and resumé service, and the member skill and experience registry service. Over 100 employers are registered to post jobs on this service, and many anecdotal accounts have been told of member hirings from these services.

AAPG's final purpose, as contained in our Constitution is "to advance the professional well-being of its members." Clint's vision, dedication, commitment, passion, and energy clearly exemplify that purpose. He literally lives and champions the goal of AAPG being every member's "Career Partner for Life". Many of Clint's contributions to AAPG will have lasting impact. All of our members' lives have been enriched by his service, and those who come after us will benefit.

On a personal and professional basis, Clint has traits coveted by many. His honesty, integrity, generosity, loyalty, and passion are fundamental in his service to our members.

Patrick J. F. Gratton



TERENCE G. O'HARE
Distinguished Service Award

Citation—To Terence G. O'Hare, in recognition of his dedication, leadership and timeless service to AAPG, local societies and his profession.

Terence G. "Terry" O'Hare's life began in Manhattan, New York, followed by a move to Huntington, Long Island, New York, where he attended public school. Terry continued his education at the University of Kentucky, earning a B.S. degree in geology. Following graduation in 1980, Terry sought opportunities in Midland, Texas where he started developing his exploration skills while working for Desana Corporation. In 1983, with a growing passion for the oil business, Terry chose to sharpen his trade as an independent and consultant geologist. He was an advisor for several independents in Midland, Houston, and eventually Dallas. In 2000, he formed Emerald Energy, LLC, located in Dallas, Texas, where he serves as president and owner. His exploration spirit continues to grow daily and his love for geology and the hunt for oil and gas are unwavering.

In addition to his commitment as a husband and father of three (two sons and a daughter), Terry finds ways to devote time, energy, and leadership to several organizations such as the Southwest Section of the AAPG, Dallas Geological Society (secretary, second VP, treasurer, president-elect, president and Honorary Life Member), Society of Professional Earth Scientists (Dallas Chapter vice chairman and chairman), founder of Lake Highlands Lacrosse Association and youth sports, Petroleum Club of Dallas, and AAPG.

Terry has distinguished himself among his AAPG colleagues for many years. His most significant contribution came in 2004 when he chaired the AAPG Annual Convention in Dallas, Texas for which he received two certificates of merit. Terry's tenacity while planning the 2004 Convention set a new record for sponsorship funding and became the mark for future host cities.

A certificate of merit was also awarded to Terry for chairing the Annual Conference and Exhibits "ACE" Committee for 2004–2006. When Hurricane Katrina caused the displacement of key committee members planning the 2008 meeting in New Orleans, Terry's leadership on ACE helped transition the event site from New Orleans and encouraged the South Texas Geological Society in San Antonio to host the meeting.

Terry's longtime service includes the Committee on Executive Session in 2005 and the Committee on Executive Order in 2006. He accepted an invitation to run for secretary of the AAPG in 2006; the Newsletter Committee in 2007–08; vice-chair of the Tactical Operation

Committee in 2008; and mostly recently in 2009, Terry accepted an invitation to run for chairman of the House of Delegates.

He currently serves in the House of Delegates and is the committee manager for both the Global Development and Membership Survey Committees. He has served on the Investment Committee since 1999.

The Distinguished Service Award is presented to AAPG members who have distinguished themselves in singular and beneficial long-term service to AAPG. Terry's attitude, dedication, and unwavering service to AAPG epitomize the Distinguished Service Award. His "can do" attitude and "never say no" disposition makes him a dedicated servant to his profession and worthy of such an award.

J. Sirman Hollabaugh

CRAIG W. REYNOLDS
Distinguished Service Award

Citation—To Craig W. Reynolds in recognition of his passionate dedication and consummate leadership to AAPG, the Southwest Section, and the North Texas Geological Society.

While studying architecture at University of Texas at Austin, Craig took an elective physical geology course from Robert L. Folk. Captivated by Folk's lecturing style and under the advice of geologist F.T Johnson, Craig changed majors to geology. Receiving his geology degree in 1982 on a Saturday evening, the following Monday found him in the field as the liaison for Gunn Oil Company on a Conoco operated project exploring the Ouachita Overthrust. The project had been generated by Robert D. Gunn and Midwestern State University Geology Chair, David E. Gee (who insisted Craig join AAPG and instilled the values of volunteerism towards his profession). Luck landed him in a logging trailer with Conoco mineralogist W. Richard Hahman who trained Craig to identify the variety and complex mineralogy the Ouachita facies. Over the course of the next two years, Craig evaluated over 200,000 feet of cuttings for the project.

In 1984 he was hired by Wichita Falls geologist Stanley Rugeley and partner Gordon West. Rugeley trained him in 2D seismic interpretation and the art of exploring for oil and gas. Joining Bridwell Oil Company in 1990, Craig convinced Bridwell to shoot the first 3D seismic survey in North Texas on the Bridwell River Ranch. Teaming with consultant Jerry Hickman and a rented Landmark workstation, the interpretation turned a lone Strawn Sand producer into a twenty well multi-pay field. While reviewing a prospect in New Orleans, Craig met geophysicist Luis Batista who educated him on how to analyze AVO anomalies, leading to Birdwell's first gas production in Louisiana.

Longtime friend Jeff Dillard asked Craig to join Cobra Oil and Gas Company in December 1996. Through Cobra, he met former Texaco geologist Sam Peppiatt. He and Peppiatt enjoyed a synergy that resulted in the successful development of Yegua and Cook Mountain prospects, but more importantly, resulted in Reynolds mastering the complexities of Gulf Coast depositional sequences and the near salt-dome faulting styles within the inter-domal plays of the Houston Salt Embayment. After attending a Barnett Shale symposium in Fort Worth in October 2000, Cobra founder A. R. "Bud" Dillard urged Craig to identify where Cobra should begin leasing acreage. By that night, Craig found himself in Robert Cluff's Denver office receiving an education on the TOC of the Fort Worth Basin. Cobra's land team was assembled and leasing within the week, a play in which they would have considerable success with sales of production and leasehold.

Cobra's unselfish support of Craig's efforts in the SWS and AAPG has enabled him to volunteer on behalf of these organizations. Today, Reynolds serves as the exploration manager for Cobra Oil & Gas Corporation. He attributes much of his success to his employers and colleagues who have helped train and guide him throughout his career.

Craig has been a primary force in the Southwest Section where his leadership and organizational skills are second to none. He has chaired conventions in 1990 and 1998, and played a principal roll in the very successful 2007 convention. He has been a Society Delegate, served on

both the Finance and Awards Committees and as chair of the Scholarship Committee. He has also served as secretary, vice president, and president (for which he received the AAPG Certificate of Merit Award in 2006). In acknowledgment of the depth of his contributions, the Southwest Section awarded Craig their highest honor in 2009, the John Emory Adams Distinguished Service Award.

Nationally, Craig serves in the AAPG House of Delegates (2003–2012) on the HOD Resolutions Committee and the Honors and Awards Committee. He currently serves as the vice-chair of the Sections Committee and previously on the AAPG Ethics Committee and AAPG Advisory Council (2007). Active in DPA, he has served as DPA secretary (2006–2007), DPA membership chair and on the DPA Advisory Council.

As the heart and soul of his hometown's North Texas Geological Society, Craig has been a champion for our small, but active organization and has served in every elected capacity, including president in 1988. He has served as past-president of the Oil Information Library in Wichita Falls, two-time chair of the Oil and Gas Division of the United Way campaign, member of the Board of the Wichita Falls Museum and Art Center and the North Texas Rehabilitation Center, and as entertainment chair for the American Cancer Society-Cattle Baron Ball from 1992–2006.

A locally noted pianist and fervent music fan, he has performed for hundreds of charitable functions in Wichita Falls during his lifetime and is a former city tennis champion. Craig has an energetic passion for life which he shares with the equally vibrant "love of his life" Sheila Dinnin Reynolds. They have two wonderful children, Ben, age 15, and Gracie, age 11.

Bill Stephens

JOHN W. ROBINSON
Distinguished Service Award

Citation—To John W. Robinson, for his extraordinary commitment and dedication to service, collaborative leadership, and contagious affection for the geology of the Rocky Mountain region.

Since 1975, John has contributed seemingly endless time and talent to advance the geological knowledge of the Rockies. His contributions have enriched countless AAPG meetings, publications, and committees. He has brought thoughtful analysis to virtually every important issue and has helped guide numerous groups with gentle and respectful leadership.

An AAPG member since 1979, John served on the organizing committees for AAPG national or sectional meetings in 1990, 1994, 1997, 2004, and 2008. His many volunteer positions have included AAPG Delegate, Associate Editor for the *AAPG Bulletin*, RMS-AAPG president, DPA Advisory Council, DPA Board of Certification, SEPM Foundation Trustee and Council member, RMAG president, and RMAG Foundation Trustee. He is a two-time recipient of the Wallace Pratt Award for the best paper published in the *AAPG Bulletin*. He is also a member of GSA, SPE, WGA, and SEPM. Elected a GSA Fellow in 2003, he is an AAPG Certified Petroleum Geologist and a registered professional geologist in the state of Wyoming.

John received B.S. (1973) and M.S. (1975) degrees in geology from San Diego State University and a Ph.D. (1994) in geology from Colorado School of Mines. He has published many papers on non-marine fluvial systems, low-permeability reservoirs, and Jonah Field. He has chaired several RMAG symposia, authored guidebooks, and is a frequent luncheon speaker. His technical presentations are popular for their scientific insight and his relaxed and friendly demeanor.

John's career spans 35 years in the energy industry including work for PEMEX, Amoco, Forest Oil, US Geological Survey, Snyder Oil, McMurry Energy and Colorado School of Mines. John began his career with Amoco where he was attracted to their exceptional training program and the opportunity to work on Alaska's North Slope. In 1979, Forest Oil recruited John to work on projects in the northern Rockies that subsequently led to exploration success. More recently, John is recognized for his contributions at

McMurry Energy that guided the early development of the giant Jonah Gas Field in Wyoming. At every post, John's friendships and professional stature have grown in tandem.

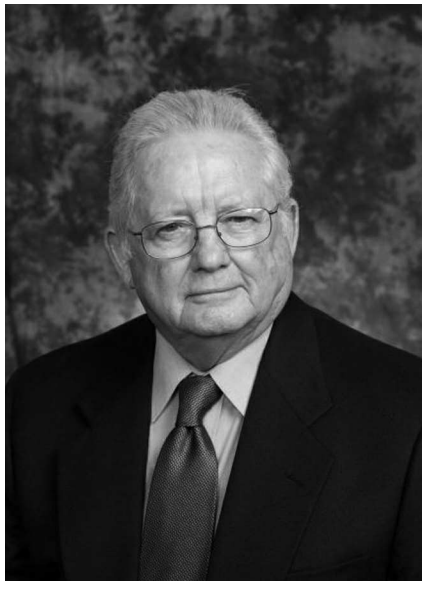
As a youth, John leaned toward a degree in history, but when he enrolled in a geology class offered at the local community college and taught by Bob Southwick, a light switched on. Blending his love of the outdoors, history and science, he pursued geology with a passion. He returned to the classroom at Colorado School of Mines for a Ph.D. in 1989 where he was mentored by Peter McCabe, John Warme, Eric Nelson, and Bob Weimer.

John was born in Riverside, California. His parents owned a citrus and avocado ranch where John learned to work hard and maintain a steady spirit. He recalls a particularly bad season for the family when the packing house calculated the year's profits, "When it was all said and done the packing house sent my folks a bill instead of a check. I spent the following summer on the wrong end of a chain saw cutting down 1500 tangerine trees and replanting the area with grapefruit."

John married his gorgeous high school girlfriend, Diane Dubree, on March 15, 1975 at his family's ranch house. Their daughter Sara was born in Denver in 1980 and son Dan was born in 1983. John found time away from his career to teach Sara and Dan to be exceptional skiers and golfers. He coached baseball, led youth geology field trips, organized volleyball teams and passed on to his children his love of the outdoors and the West. As a youth in California, John enjoyed boating on Lake Mead. John and Diane began regular family houseboating trips to Lake Powell in 1989 and this led them to a second home in St. George, Utah. They have successfully weathered the good and bad seasons that are known alike to farmers and energy explorers. John says it well, "Despite my early attempt to avoid a life style dictated by Mother Nature, I guess I'm just a gas farmer."

John's peers know him as a tireless and superb scientist. Mostly, they seek his counsel because he is an amazing listener, an insightful contributor, and has a contagious love of geology. He is an outstanding colleague. For all these accomplishments, he is awarded the AAPG's Distinguished Service Award.

Brian E. Richter



WAYNE A. AHR

Grover E. Murray Memorial Distinguished Educator Award

Citation—To Wayne M. Ahr for outstanding achievements as a distinguished educator of petroleum geoscientists and innovative researcher of carbonate depositional and post-depositional processes.

Wayne M. Ahr earned a B.S. degree in geology from the University of Texas-El Paso (Texas Western College) in 1960, an M.S. degree in oceanography from Texas A&M University in 1965, and a Ph.D. degree in geology from Rice University in 1967. He worked as a petroleum exploration geologist for Shell Exploration Company in Houston from 1967–1970 and joined the Department of Geology at Texas A&M University as an assistant professor in 1970. He currently holds a joint appointment as Professor of Geology & Geophysics and Professor of Petroleum Engineering at Texas A&M University. He has been the Mollie B. and Richard A. Williford Professor of Petroleum Geology and Geophysics.

Wayne has taught undergraduate and graduate students at Texas A&M University for 40 years. He has conducted numerous short courses and technology workshops and has given invited lectures for the industry, universities, and professional societies throughout the world. He has supervised 60 M.S. theses and Ph.D. dissertations and taught 10 different undergraduate courses and 8 different graduate courses, including an integrated reservoir description course for petroleum engineers and geologists. He is one of the first educators in the geosciences to recognize the value of teaching integrated courses that serve to enhance the learning experience and to provide students with an opportunity to apply what they are learning. Wayne places a high value on continued education after graduation. In this regard, he authored an AAPG publication on carbonate

reservoirs in an educational series designed to provide guidance to professionals interested in learning the basics on a particular subject. Wayne has contributed to the education of geoscientists by serving on editorial boards for the *AAPG Bulletin* and the *Geological Journal*. His superior classroom teaching and major contributions in the education and training of geologists and engineers is widely recognized, and Wayne has received the following prestigious awards in recognition of his contributions: Fulbright Research Scholar Award (Belgium), Texas A&M Distinguished Achievement Award (College), Universite de Louvain Professeur Invite (Belgium), and University of Leicester Visiting Scholar (Great Britain). In 2008, he was awarded the Outstanding Educator Award by the Gulf Coast Association of Geological Societies for his exceptional teaching and research achievements.

When he first arrived at the university, there was no program in carbonate rocks nor any courses or research specifically in carbonates in the department. Wayne, therefore, was encouraged to develop a program in carbonates and what an outstanding program he has built. As a product of Wayne's program, I can state that I received an outstanding education on the stratigraphy, sedimentology and geochemistry of carbonates that has served as my research foundation for these many years. He was an excellent mentor for all of us. Today, aspiring carbonate specialists around the world come to Texas A&M to study with Wayne. Texas A&M has gone from not having a program in carbonates to having an internationally recognized and highly regarded program in the subject as a result of Wayne's commitment and dedication to his students, the department and the science of carbonate rocks.

His research accomplishments are many and significant in the areas of carbonate sedimentology, carbonate geochemistry, and the characterization of the petrophysical properties of carbonate reservoirs. Wayne has published some 60 papers, 83 abstracts, and 9 technical reports on these important topics. His book on the geology of carbonate rocks captures a lifetime of work on the identification, description, and characterization of hydrocarbon carbonate reservoirs. He has consistently presented his research results at regional, national and international meetings and conferences. He has led field excursions and chaired technical session on these subjects. Wayne's research has contributed greatly to further our understanding of carbonate stratigraphy, sedimentology, diagenesis, and reservoirs. His major research contributions are in the areas of: carbonate depositional models (carbonate ramp); diagenesis and petrophysics of Jurassic and Paleozoic carbonate reservoirs; depositional facies of the Cotton Valley Limestone; and the origin of microbial buildups, including the Waulsortian reefs. Wayne's early work in carbonate depositional systems, published in 1973 in the Gulf Coast Association of Geological Societies Transactions, resulted in his recognition of the carbonate ramp depositional model. This model resulted in a change in the exploration strategy for searching for high-energy carbonate reservoir facies. The resulting strategy is now used by industry worldwide in the exploration for potential carbonate reservoirs. Wayne has received international, national and regional acclaim for his research achievements. These awards include the Research Award by the Ministry of Education and Science in Spain and Best Paper Awards by AAPG, Gulf Coast Association of Geological Societies, and the West Texas Geological Society.

Clearly, Wayne M. Ahr is most deserving of the Distinguished Educator Award. He has dedicated his career to teaching and truly has achieved excellence.

Ernest A. Mancini

Response

When AAPG President John Lorenz phoned to tell me I had been selected to receive the 2010 Distinguished Educator Award I literally jumped out of my chair. A student in my office at the time must have thought I was nuts. Far from it. I was thrilled beyond words. What a great honor to be recognized by colleagues and especially by students. I've been lucky to have had 60 exceptional graduate students–to date–all of whom have gone on to become leaders in their fields. I have also taught hundreds of undergraduates and other graduate students in my 40 years as a college teacher. Even some non-geology alumni surprised me with congratulatory messages after the award was announced. Receiving this prestigious award and reading the flattering biography by Professor E.A. Mancini, has truly humbled me and made me reflect on the special teachers and mentors who showed me the way forward. First, though, I thank Ernie Mancini for the superlative biography and for his support and collaboration in research over many years. He is a

prime example of the super-achievers we are so proud to claim as alumni.

Some special people influenced my attitudes about education, pathways I would follow to get it, and about the idea that education doesn't stop when one gets his highest university degree. My education started rather inauspiciously in a small South Texas high school with 18 graduating seniors in my class. Our science teacher was the football coach whose teaching method was to have us outline chapters in our textbook while he sketched football plays. We didn't have other science courses and our math program consisted of algebra I and II. It was my paternal grandmother and my parents' attitudes about reading, learning, and formal education that gave me the courage to enroll in a community college. There I took a geology course with John O. Gibson who later encouraged me to go 600 miles to El Paso for my B.S. in geology at what is now University of Texas at El Paso. The professors at Texas Western were consummate teachers. In particular, Howard Quinn, Bill Strain, and Lloyd Nelson taught me the skills that served me well in graduate school. I learned about research, grant money, and publications when I started my M.S. in oceanography at Texas A&M with Brian Logan. As one of the Campeche Bank project members, I learned about carbonate rocks and sediments. Some giants in the profession visited A&M for progress reports: Lloyd Pray, Gerry Friedman, John Emery Adams, and Gordon Rittenhouse, among them. Lloyd has been an inspiration to learn more about carbonates since then. Gordon Rittenhouse would become a mentor whose suggestions sent me on previously unexpected career directions. As I enrolled in the Ph.D. program at Rice, I found myself without an expected research assistantship. I went to see Gordon Rittenhouse about a job at Shell Oil. During an informal interview, he handed me a piece of borehole core and asked me about it. Falling back on my Texas Western education, I told him I thought the core was from an alluvial fan. He just smiled. As I left, he gave me a copy of "There is a Reason"–his Presidential Address to SEPM–in which he speaks of that core sample. I was in a minority, according to the paper, who interpreted "alluvial fan." Soon afterward, I was working part time at the Shell Lab, thanks to his help. He asked about my future plans and I said I was interested in college teaching. He thought for a minute and said "What are you going to teach when you finish talking about your Ph.D.?"

At Rice, I was planning to work on Belize carbonates with Ed Purdy but he left Rice and soon after, James Lee Wilson came in. Jim became my Ph.D. adviser and mentor (I argue with W.C. "Bill" Ward about which of us is Jim's first graduate student). Jim taught me so much about stratigraphy, sedimentary facies, cyclicity in the rock record, paleontology, and more. He was a master teacher. His knowledge of global geology and geography and his way of teaching it in an understandable fashion were remarkable. Another man at Rice had a strong influence on me, too—The Chancellor, Carey Croneis. With him believing in me, I finished my Ph.D. with external funding to boot. Some of the funding covered new tuition fees that had gone overnight from a free education to tuition of more than $1,000.

After my Ph.D. I started working at Shell Oil Co. where I continued to learn from some of the giants in geology: Rufus LeBlanc, Bob Sneider, Tom Bay, Archie Hood, Bob Dunham, and H.A. Bernard, to name a few. Rufus, Tom, Bob, and Archie took special interest in me and motivated me to learn about terrigenous sandstones, source rocks, and about carbonates as reservoir rocks. After a few years, my desire to do research and teaching found me applying for a job at Texas A&M. When the department head phoned for references about me, two of them turned out to be Rufus LeBlanc and Gordon Rittenhouse. Soon I began my 39 consecutive years at TAMU, starting some of my research with 48,000 pounds of borehole core that Shell Development Co. sent to A&M to help.

My take-home message is that special teachers and special mentors influence lives in many ways. Standing on the shoulders of those giants in geology and what they did to help me reminds me that some students may look to me in ways I looked to my teachers. The Grover E. Murray Distinguished Educator award humbles me, reminds me of the teachers who helped me, and it encourages me to give back by being a good teacher and mentor. I am highly honored and very grateful for this special award.

Wayne M. Ahr

ERIC A. ERSLEV
Grover E. Murray Memorial Distinguished Educator Award

Citation—To Eric A. Erslev, in recognition of his outstanding achievements as an educator, whose enthusiasm is an inspiration to all his students in the field and in the classroom.

Eric graduated with a B.A. from Wesleyan University in 1976 and a Ph.D. in geology from Harvard University in 1981. His first teaching position was at Lafayette College and in 1983 he accepted a position at Colorado State University (CSU) in Fort Collins, CO. Currently Eric is an emeritus professor at CSU, having retired only to join the Department of Geology and Geophysics at the University of Wyoming (UWyo) where he continues his graduate student and research programs as an adjunct professor. At UWyo, he teaches advanced structural geology and various seminars while co-leading department field trips.

Throughout his career, Eric has specialized in structural geology, including Laramide tectonics, fault-related folding, spatial and fabric analysis, cleavage development, and Precambrian geology and tectonics. Research funding from the National Science Foundation, Petroleum Research Fund, United States Geological Survey, and the petroleum industry allowed him to support the M.S. and Ph.D. research of 37 CSU graduate students and 2 new students at UWyo.

Eric has shared the results of his research group by authoring and co-authoring a multitude of papers published in scientific journals. He also served as the Structure Series editor of the *Mountain Geologist* from 1987 through 1995; president of the Colorado Scientific Society in 1998; co-editor of the 1993 GSA Special Paper 280 on Laramide Basement Deformation; co-chair of the annual GSA meeting field trip programs in 2002 and 2004; lead co-convener of the RMAG 2007 Structural Geology Symposium; and chair of the GSA Structure and Tectonics Division in 2007–2008. Eric's efforts in teaching and research have been recognized with several honors and awards, including the Rocky Mountain Association of Geologists Scientist of the Year Award in 2008.

Field trips and scientific meetings have always excited Eric and his enthusiasm was contagious to us as his students. As a coordinator of the Department Field trip at CSU in the mid-1980s, he planned the trip to end at the GSA meeting in Flagstaff, Arizona. After a night of tequila under the stars on the rim of the Rio Grande canyon near Taos, New Mexico, he led us on a mad dash south in vans for a sweaty day of hiking through the Proterozoic thrust belt exposed in the Mazatzal Mountains followed by another mad dash north for a short night sleeping on the ground. The next (frosty) morning, Eric, positively beaming with delight, led his rag-tag band of exhausted, unwashed and slightly hung over graduate students proudly into the GSA structural geology session.

Eric's excitement and energy are not only for things geological. He lives life open to any opportunity presented in whatever situation he finds himself. Late one afternoon, his geology field party climbed up a snowfield adjacent to the Forellen fault in the northern Tetons of Wyoming. When Eric reached the top, he paused briefly before disappearing over the edge as if he had lost his footing. When the rest of the group got to the top, he was climbing back up the other side, grinning ear to ear, with his nicely formed S-turns in the snowfield below us. He had simply seen an excellent opportunity for a fun glissade and took the opportunity without hesitation.

Many of Eric's students had the opportunity to help plan and lead one of our many field trips. Eric always emphasized leaving enough time for participants to examine outcrops for themselves, which is a key reason his trips have been so successful. Nothing would upset Eric more than being forced to stand in front of an outcrop and endure lectures from other field trip leaders and then not have the chance to examine the outcrop itself.

A topic always stressed by Eric in teaching situations in the classroom or in the field is the application of the scientific method and the importance of multiple working hypotheses to the science of geology. An initial "explanation" from Eric, more often than not, left more questions than answers; however, his detailed follow up provided insight into the

development of current thinking of various geologic topics–always stressing the fact that, with new information, established theories are often tweaked to conform, or when necessary completely revised.

Eric allowed his graduate students to determine how much involvement he had with their work. This gave students ownership of their work, although nothing escaped without his stamp of approval, which was often not easily given. During one of his student's internship with BP, one of the geologists asked with whom he was working and the student replied, "Eric Erslev". He said, "I know of him, I'm sure he is putting you through the wringer." As a student, it is good to know that others realize how demanding Eric can be–but once through the wringer, the advancement in your geological knowledge and overall scholarship was truly rewarding.

Reportedly, Eric has mellowed a bit during the later years of his career and has ceased initiating field trip snowball fights that, in his early years, ended up with him under a big pile of snow. All kidding aside, throughout his career, Eric has always managed to give time to his students for instruction, advice and mentoring. These are the hallmarks of a good educator.

James Rogers
Cyrus Gillet
Steven Holloway

Response

I am truly honored, and more than a little surprised, to be a recipient of the Grover E. Murray Distinguished Educator Award. My life has been enriched by collaborations with countless students–to me, it is they who deserve recognition. Undergraduate students from Lafayette College, Colorado State University, and the University of Wyoming have shown great patience with my often overly ambitious expectations. My first graduate students helped catalyze my transition from petrogenetic studies of Precambrian crystalline rocks to unraveling thin-and thick-skinned thrust belt processes. They showed me that every student is an individual needing a unique approach—optimally, my role has been to help them access their own imagination and enthusiasm. In the 1990s, my students and I roamed the Rockies, collecting thousands of minor fault measurements. One colleague jokingly referred to us as "the dark hordes from CSU." My more recent graduate students helped refine new GIS and balancing methods while introducing me to some amazing tools from the petroleum industry.

My development as a teacher had early roots in my family upbringing. My father, Allan Erslev, a hematology researcher, exemplified both scientific rigor and humility, frequently reminding me that "medicine is still an art, not a science." Is that not partially true of the geosciences as well? My mother, Betsy Erslev, showed me that rigor without compassion was wasted effort. John Haller (Harvard University), Lary Burns (CSU), Henry Charlesworth (University of Alberta), and Ron Frost (UWyo) reinforced that lesson, providing me with role models for teaching with gentle concern for students.

I inherited my father's goal, to be a scientist in the grandest sense of the word, yet I never really studied science until a senior seminar during my first year of teaching at Lafayette College. Stan Schumm (CSU) continued that education, helping me see the diversity of scientific approaches and their commonalities. Other colleagues have illustrated this diversity, with some (like me) aspiring to take impartial diagnostic (or multiple working hypotheses) approaches and others taking more directed advocate approaches. Involvement in some rather intense conflicts taught me that some advocate scientists just don't appreciate my spewing of alternatives to their cherished hypothesis! After one conflict drove a student into therapy, I realized that explicit teaching of differences in scientific approaches has distinct survival benefits, and added this topic to all my courses.

These lessons were amplified by my sons. Pete advised me on my mapping from age 5, illustrating the power of an open, curious mind. Brett, an eager field companion from 14 months on, showed that falling face first in the mud and learning the art of mooning from field camp student can result in an exceptional outdoorsman. Out of hundreds of classes, from elementary to graduate student levels, which I subjected to a "black box" exercise, it was Brett's 4th grade class that showed the most inspiring scientific problem-solving ability and imagination.

I have always enjoyed bouncing from rock to rock, and thus emphasized field studies and trips as a way of bringing earth processes to life. My field and mountain inclinations were enhanced as an undergraduate by Jim Gutmann (Wesleyan University), a gentle giant with a broad grin and a maddeningly long stride going down hills. During my graduate student years, Jim Thompson (Harvard University) showed me how theory and field applications can mesh in perfect synergism, and that fascination with geology can replace the need for

socks. Dick Berg (Montana Tech) showed me the wisdom and humility acquired by long field seasons in the Rockies. And when I joined CSU, Tommy Thompson and Lary Burns revealed the true art of field mapping.

In the end, the Rockies and their admirers have been my greatest teachers. When I arrived for my CSU interview, my host asked if I wanted to catch a talk by Donald Blackstone Jr., who was visiting from the University of Wyoming. Don started his presentation by striding up to the lectern and declaring that he needed to set three things straight. Even though he was obviously approaching retirement, he proclaimed that he was not a candidate for the (soon to be my) structural geology position. Don then leveled a boney finger at a professor who had done his graduate work at UWyo, and proclaimed "____, you are getting fat–get out in the field". Finally, he surveyed us all, and stated that the northeastern Front Range was the type locality for vertical tectonics, and since vertical tectonics didn't work anywhere else in the Rockies, we needed to get off our duffs and figure out what was going on. My students and I took that challenge, helping show that Don was right and that horizontal shortening dominated both local and regional Laramide tectonics.

I have always felt that my work in education has been as a collaborator: with the students themselves, with academic colleagues like Jerry Magloughlin, Malcolm McCallum, and Sven Egenhoff whose different perspectives enriched my students, with U.S.G.S. colleagues like Jack Reed and Karl Kellogg who shared their grounded observations and support, and with industry colleagues who provided financial support and a market for my completed students. While I have tried to model professional conduct, it has been during industry internships that students really learned how to be professionals. Over the last 10 years, Peter Hennings (ConocoPhillips), Andy Lydyard (Comet Ridge), Bryan Richter (Noble Energy), Gary Gray (ExxonMobil), Dean DuBois (EnCana), Robbie Gries, Ed Warner, and many others supported both my students' and my own development as geoscientists. I plan to continue trying to bridge the academia-industry gap as I bring my graduate and research programs to my new adjunct position at the University of Wyoming. I appreciate the enthusiastic welcome of my new colleagues into the niche left by one of my first Rocky Mountain mentors, Donald Blackstone Jr.

Eric A. Erslev

MURRAY K. GINGRAS
Grover E. Murray Memorial Distinguished Educator Award

Citation—To Murray K. Gingras in recognition of your dedication and passion for the teaching of geology; you personify the true meaning of what it is to be a professor.

Not many professors get the opportunity to observe the evolution of one of their students from a bright undergraduate to an innovative and gifted graduate student to a remarkable teacher, researcher, and trusted colleague. I have had that privilege watching the development of Dr. Murray K. Gingras who has been selected as the Grover Murray Distinguished Educator for 2010. I cannot tell you how proud I am to be writing this biography. I first met Murray when he enrolled in my third year stratigraphy course at the University of Alberta. Murray who hails from the small northern Alberta town of Valleyview had already finished a drafting program at the local technical college and after working for a while decided to go back and do a geology degree. In the stratigraphy class he was head and shoulders the best student and I quickly moved to try to convince him to do graduate work in my lab. In fourth year he took my basin analysis class and again out performed everyone. I convinced him to start a master's program but after the first field session I quickly upgraded it to a Ph.D. Murray was one of those individuals that professors are always looking for and he completed an innovative Ph.D. in 1999. Murray then went on to do a Post-Doctoral Fellowship at the University of Turku in Finland in 2000 and started his academic career as an assistant professor at the University of New Brunswick from 2001 to 2003. We were then lucky enough to attract Murray back to the University of Alberta where he has attained the rank of full professor.

Murray Gingras represents a near ideal fusion of teacher, researcher, and professional geologist and stands as the perfect role model for the students who have been lucky enough to have been taught by him. I would describe Murray first as a superb scientist but he is also a gifted and exceptional teacher and a person who inspires the deepest respect and love from his students. Murray is one of those rare individuals who can make a subject come alive for his audience. He possesses all the attributes of an outstanding teacher; he is well spoken and animated, knowledgeable and well prepared, and patient and understanding. He is a superb lecturer; his lectures are beautifully prepared, thorough, and well balanced. He represents a true mentor to the many undergraduate and graduate students that he has come into contact with. Murray Gingras is noted for his humanity, integrity, enthusiasm, and accessibility. His students know him as a dynamic and colorful lecturer and a compassionate counselor. During his tenure as a professor at the University of Alberta the work of his students has resulted not only in quality theses but also in outstanding publications. Murray's pool of graduate students and postdoctoral fellows is just one part of his extensive, high quality network of professional geoscientists. Via his teaching, training, research and consulting work Murray has grown a community of friends, firm supporters and collaborators. He has been able to run a series of outstanding field trips to both Willapa Bay Washington and the McMurray Oil Sands outlining both ancient and modern marginal marine environments. These field trips have attracted a wide range of industry participants and as a result Murray has influenced many companies. He knows what companies require and he has been very successful in delivering results. As a consequence of this he has a superb reputation in the industry and is highly respected by the petroleum community.

The quality of Murray's research can be summed up in one word—SUPERB! He displays all the outstanding attributes of a research scientist. He is careful and critical in his observations, accurate and meticulous in his descriptions, and perceptive in his interpretations. His publications are widely cited and his work is highly respected on the international scene. He is a skilled sedimentologist, sequence stratigrapher, and ichnologist. During the course of his career he has worked in both carbonate and clastic depositional systems. His work in clastics was mainly directed toward the recognition of marginal marine depositional environments. In carbonate systems his expertise centers on the effects of bioturbation on porosity-permeability trends. Murray has also conducted research on the development of burrow-associated textural heterogeneity in carbonate deposits and establishing how such textural elements affect diagenetic processes. Furthermore, dispersivity and permeability experiments show that burrow-mottled flow media constitutes a dual-permeability/-porosity system and is conceptually similar to that represented by fractured media.

Aside from his numerous academic scholarships his research has been recognized by a number of awards. He was awarded the Best Core Presentation at the 1999 Canadian Society of Petroleum Geologists Annual Meeting, the Outstanding Ph.D. Thesis Award by the Canadian Society of Petroleum Geologists; the SEPM Outstanding Oral Presentation at the annual 2001 SEPM/AAPG Meeting in Denver; a co-recipient of the 2006 Medal of Merit awarded by the Canadian Society of Petroleum Geologists; a co-recipient of the 2007 Outstanding Geological Paper Award, Canadian Society of Petroleum Geologists Annual Convention for 2007, Calgary; a co-recipient of the 2008 Ziad Beydoun Memorial Award for Best International Poster at the American Association of Petroleum Geologists International Conference in Cape Town, South Africa.; and the 2009 University of Alberta Faculty of Science Research Award. Murray works diligently and is always available for lending assistance to all who come to him. Over the years I have come to respect him very much for his personal integrity, ethics, knowledge, and his passion for geology. Murray has also been blessed with the love of his wife Vivien who has supported him in every way. A professor always wants his students to surpass him and I am happy to say that Murray has done just that. Although I am proud to have been his teacher, supervisor, and colleague, I am prouder to call him my dear friend. He continues to pass this legacy on to generations of students. Perhaps more importantly he has done it with enthusiasm, generosity, compassion, and high principles.

S. George Pemberton

Response

I was surprised to hear that I had even been nominated for the Grover E. Murray Distinguished Educator Award. Many of the highly

accomplished geoscience educators who have received this recognition are literally heroes to me. In fact, when I look at the list of previous awardees, I am humbled. This honor is unexpected and thrilling.

It is clear that I have enjoyed a fortunate, even a blessed, career. I know that I owe a nod to my family. My mom and dad (Garry and Sharron Gingras) actively encouraged my scientific inquiries from an early age. My Christmas presents were mostly of the "101-experiments in a box" variety, and even though my folks were not university types, they had an innate understanding of the value of knowledge. I became a goescience enthusiast quite early, because in the 1960s and1970s my grandma worked as a cook on the rigs, and she would always talk the wellsite geologist into preparing bags of cuttings for me and to give me core that had "fallen out" of the coring tool. I still have the samples and locations if anyone needs them back.

My interest in education was instilled as an undergraduate where I enjoyed the excellent instruction of professors Tom Chacko, Brian Chatterton, Robert Creaser, Philippe Erdmer, Mark Fenton, Richard Fox, Robert Luth, Hans Machel, Roger Morton, Tom Mozlow, Karl Mendoza, Karlis Muehlenbachs, George Pemberton, and Nat Rutter. Yes, that is a long list, but each of these educators taught with passion and competence and they literally changed my life. By the third year of my studies, I knew I wanted to be one of these professional researcher/educators and I received the support and mentorship to go for it. Just as important to a young student was the enthusiastic support and education I received from the U of Alberta graduate students of the day. These included Paul Blanchon, Richard Evoy, James Farquar, Bjari Gautafson, Mike Geier, Harold Hubscher, James MacEachern, Jeff Peterson, Mike Ranger, Tom Saunders, and Jen Vezina. All passionate researchers who have gone on to great success in industry, research and academe. I would not be stretching the truth to say that all played a role in spurring me forward just by showing me how *fun* geology is.

My graduate student days were dominated by the mentorship of S. George Pemberton and the students in his practically infamous Ichnology Research Group. In George, I could not have found a better mentor. A man who really saw the science of geology the way I wanted to. That is, a fascinating historical drama with great twists and turns. A story that is as fun to teach as to learn. And, wow, George did both so very well. While learning as a graduate student, I was able to add professors Larry Heaman and Ben Rostrun to my list of mentors and, with my graduate-student colleagues—Astrid Arts, Kevin Brett, Mike Caldwell, Karen Fallas, Jason Frank, Eric Hansen, Bo Henk, Stephen Hubbard, Jason Lavigne, Demian Robbins, Glenn Schmitt, and JP Zonneveld—proceeded to build a philosophy of scientific interrogation based on first principles and field-based observations. This naturally led to a passion for teaching in the field and focusing on real-world examples as learning and teaching materials. When Ed Clifton stepped in to help me with my Ph.D. field work, this attitude was completely reinforced. There is a fellow who can open your eyes. At that time, Ed was contemplating his retirement, but he was so enthusiastic in the field, that you could just tell he loved learning (and teaching) more than anything. It had never worn off. That's what I would like for me.

More field-based studies followed in my post-doc, when I worked with the inestimably wise and kind Professor Matti Rasanen. He too believed in hands-on learning and through his meticulous eyes, I began to see and learn things I had not seen before. My academic career became a reality at the University of New Brunswick where I was given the opportunity to teach in a range of delightful topics—including field schools. There I befriended yet another important mentor, Professor Ron Pickerill. Ron is a great ichnologist, and he saw the field from a different perspective than I did. Ron "let me in" to that point of view. At UNB, I started my graduate student program, and had the privilege of having Ian Armitage, Barton Blakney, Shahin Dashtgard, Robert Grover, and Lidia Zabcic work under my supervision. They have all moved on to better things and I treasure those early days. One of them, Shahin Dashtgard, is an assistant professor already, and what could bring me more joy than that?

Since then, I have returned to the University of Alberta, and have a great list of graduate students to thank for their support and effort. Since I returned to the University of Alberta 6 years ago, no less than 30 members of the Ichnology Research Group, whom professors Pemberton, Zonneveld and I supervise, have given me the pleasure of helping direct their research. At the U of A, I have also been given the opportunity to teach a range of courses and to be intimately involved with field

school. I would like to think that all of these mentoring and teaching opportunities have made me a better person and a wiser man. But, we would have to ask others about that.

I would be remiss to not acknowledge the outstanding support I have received from the hydrocarbon industry. It has funded aspects of my research, encouraged me to engage in field-based training for professional geoscientists, and consistently provided me with thought-provoking research queries. The many field trips that I have conducted for industry, have led me to other friends and mentors outside of academe, this include Thomas Demchuck, David Dolph, Richard Evoy, Craig Lamb, Dale Leckie, Terry Lukie, Dennis Meloche, Gerry Reinson, John Suter, and Stuart Tye. So now, many of my good friends work in the industry and I feel fortunate to have access to the great amount of knowledge that is available therein.

Saving the best for last, I thank Kerrie Bann, Shahin Dashtgard, James MacEachern, George Pemberton, JP Zonneveld, and many phenomenal colleagues at the University of Alberta for their ongoing support and friendship. These are all the type of people everyone should get to work with: dynamic, clever and inspired. I also thank my wife, Vivienne Robertson for putting up with an absentee husband during field-work season, and for being sweet and supportive. She is one of the few people I know outside of my field, who "get it". Her approval of my geological passions is the one thing I could not live without.

So, to the awards committee and my nominators, thank you from the bottom of my heart. You have bestowed on me a recognition I may never feel has been earned, and which can only be owed to the many people who have shaped my career. It is an honor that I will always treasure.

Murray K. Gingras

ROBERT W. ALLEN
Special Award

Citation — To Robert W. Allen, gentleman, mentor, motivator, visionary, and consummate professional geologist for sharing your untiring passion for geology with people of all walks of life. You have created a legacy that will be utilized for generations to come.

April 16, 1923 saw Robert W. "Bob" Allen enter this world in Oklahoma City, Oklahoma, the second of three sons to Dr. and Mrs. Edward P. Allen. The three boys were each four years apart and were expected to get an education and follow with a medical degree. Each did receive a degree, but not in medicine. Bob's brothers attended military prep school, and Bob stayed in Oklahoma City and graduated from Classen High School with the class of 1941.

Bob attend the Virginia Military Institute, in Lexington Virginia. Upon the entrance of the United States into WWII Bob and his classmates were advised to stay in school at V.M.I. On December 8, 1941 Bob joined the Enlisted Reserve Corp. In May, 1943, Robert was called for active duty and reported at Ft. Sill, Oklahoma. Following basic training, he was sent to ASTP at the University of Pennsylvania, still pre-med with just fair grades. After this he attended a second basic training with the 138th Engineer Combat Battalion at Fort Jackson, South Carolina. The 138th went to France, Belgium, and Germany. Years later Bob would meet another of the "Greatest Generation", Fred Jones Jr., fellow geologist who has maintained an office down the hall from Bob for many years. One of those planes flying over Bob's head, while on his way to crossing the Rhine in Germany, was being flown by Fred.

June, 1946, Bob found himself enrolled the University of Oklahoma, what a change from a foot soldier in Germany to the campus in Norman! He was continuing with his pre-med degree. Grades were not the best. Competition was strong. It was time to buckle down. In the spring of 1948 he received a B.S. degree in zoology. Medical school was full, and there were few options, his friend Jim Kite suggested taking geology. One year and two summers later Bob had his degree in geology from OU.

Bob and the beautiful Barbara Smith were married in

August 1948. She was also a member of the Classen High School class of 1941, and a member of the OU class of 1946. In 1950 he had an interview with C.M. "Buck" Harris with the Globe Oil and Refining Company in Oklahoma City. At the end of the interview he was given the keys to the company car and told to go to South Palacine and "pick the Loco lime." At this first location Bob met Tom Baker, Virgil Roan, and R. P. "Lux" Wilkinson, W.R. "Dick" Cook, and other geologists from Ardmore and Duncan, that eventually became lifetime friends. Fifty- two wells later Bob finally got home to Oklahoma City.

In August 1954 Bob became employed by the Continental Oil Company in their Ardmore southern Oklahoma Division. Bob, Barbara, and the children, Kathy, Robert Jr., and Diane moved to Ardmore. Barbara taught school, and Bob had his first office job. There were 168 geologists and 17 major companies located in Ardmore. The foundations of petroleum geology; maps, cross-sections, and sample descriptions found the barrels needed to fuel country's economic expansion of the 1950s. Bob had mastered the profession so well that he became division geologist for Continental. By 1962 the boom was over. All major company offices in Ardmore closed. Bob declined the offer to transfer from Ardmore and elected to stay and establish his business as an independent geologist. Forty-seven years later he can still be found in his office, making maps, cross-sections, describing samples, selling deals and evaluating prospects for investors and independent petroleum companies.

Bob was able to withstand the ups and downs of the petroleum business, and a try at copper mining, doing what he loved to do, and was able to raise a fine family. As a result he has six grandchildren that he enjoys spending time with and watching them grow into adulthood. Bob lost the love of his life, Barbara, in January of 2007. Since then he has traveled and visited friends and relatives and has spent as much time as possible in his office.

His is not just a sixty-one year career in the petroleum industry, in one of the most complex basins of the world, but a history of dedication and support to the science of geology and the education of people of all walks of life to the geology of southern Oklahoma. Bob has nurtured the geological education of many people, whether they are junior high and high school students, college geology majors, and young professionals, lay leaders of the community, petroleum engineers, landmen or retirees. Robert led many southern Oklahoma geology field trips for the "lay" people of the area with the help of Mary Golloway and chemistry professor, Dr. Bob Neiman, of Ada, Oklahoma. Bob is an active member of the OU Alumni Association, and an avid Sooner fan. He is on the Advisory Council of the School of Geology and Geophysics of University of Oklahoma. He has worked tirelessly with the Goddard Youth Camp and their efforts to educate young people, and is always willing to share his knowledge with anyone who asks about southern Oklahoma geology.

For the Ardmore Geological Society he has served several terms as president, vice president, program chairman, and represented Ardmore in the AAPG House of Delegates. Publications he co-authored with his friend B. W. "Bronc" James and others include a set of sample description of type sections for the entire geologic section of the Ardmore Basin, Ardmore and "Southern Oklahoma Regional Cross Sections" both published by the Ardmore Geological Society. These are invaluable to anyone working in the Ardmore Basin. Other publications include "Stratigraphy, Mountain Building and Complex Geological Structures of the Ardmore, Basin" in *Shale Shaker*, vol. 51, Nos. 1-3 (Dec, 2000); "A History of Lake Murray," *Oklahoma Geology Notes*, v.56, No.3 (June 1996); and "A Geological Tourist Guide along the Arbuckle Mountains of South Central Oklahoma," self published. When Dr. C.W. Tomlinson's library needed a new home Bob Allen and John Hoard purchased Dr. Tomlinson's log library and set up a local log library available to the local geologic community. When the Ardmore Sample Cut and Library was in jeopardy, Bob lead the effort to form a nonprofit corporation and raised the funds to purchase the cut from Elbert King, and supervised the sample cut for the petroleum industry. Without his foresight, leadership and dedication these data sets would not be available to industry and academia. No geologist has done any work in southern Oklahoma in the last several years without the help of Bob Allen, whether that geologist is aware of it or not.

Outside of the geology profession, Bob has served on many boards including the First Presbyterian Church, the Ardmore Higher Education Center; the Southern Oklahoma Blood

Institute. He is also active in Rotary Club. Bob has dedicated his life, passion and time to God, family, country, community, and profession, and we all benefit from his commitment.

Thomas W. Olsen

Response

What a life. Thanks to my wonderful wife Barbara with whom we shared 58 years, my three children, Kathy Carr, Bob Jr., and Diane Fuller and their families for the help they have provided. Thanks are also in order for Waylan and Sandra Morris and Mary Lou Fisher for their continuing support. Many friends have helped me to share with the community the outstanding geology of south-central Oklahoma. People on this list include Mary Golloway who organized two field trips a year for 25 years for Murray State College, Tishomingo, Oklahoma; R. L. Neman who attended each trip and was behind several more; M. D. and Mary Allison and Tom Olsen for keeping the Ardmore Geological Society active through both the high and the low times; Chuck Price, an Ardmore geologist, who could be called on at any time for anything. I have had the privilege of working with outstanding geologists. Many helped to spread the word that the study of geology is not only interesting for ourselves but should be extended to our neighbors and friends.

Tom Olsen, M. D. and Mary Allison, and R. L. Neman are members of the Ardmore Geological Society and the Mid-Continent section of AAPG. These wonderful people submitted my name for this Special Award. They contacted many AAPG members and letters on my behalf were submitted. I have not seen the names of this group, but I would like to thank each of them. When Dr. John C. Lorenz, president of AAPG, called and informed me of this award, I was in total shock. I have read the list of those who have received this Special Award. Their accomplishments are many. It is an honor for me to join the group.

My study in geology began following two years at the Virginia Military Institute, two semesters at the University of Pennsylvania, three years during World War II in the U.S. Army in Europe. This included England, France, Belgium and Germany. My return to the United States was a change from carrying a loaded M-1 Rifle to the campus at the University of Oklahoma. In the spring of 1948, 1 received a B.S. degree in zoology. This was not for me. One of my friends told me I should take geology. My question, how do you spell it? In the spring of 1950, I received a degree in geology from O.U. This was a great thing for me. My initiation came by watching two rigs in one field and a third some 50 miles away. What an experience. To bring this story to a conclusion, I feel that I have never worked a day in my life. Geology is too much fun. My desire is to tell students about the romance and the fun of this science.

Geology is an intriguing science. The more you study, the more there is to learn. To be a part of being able to help a student at any stage of his or her education is a privilege. People have been to my office asking about fossils, others want rocks identified, several talking about caves or underground water. Often people want to know where they should drill a water well. Others ask about a well that was drilled years ago near a small town in this area. It takes time to figure out the location of the well in question. In doing this I have found another friend. Maybe, just maybe, I can teach them the township and range system of Oklahoma.

Please, family and friends, share with me the honor that the AAPG is giving to me. All of you have helped make this event happen.

Thank you,

Robert W. Allen

GEORGE P. MITCHELL
Special Award

Citation—To George P. Mitchell, for his distinguished 60-year career in oil and gas exploration, culminating in the production of gas from his Barnett Shale discovery.

George P. Mitchell is the former chairman and chief executive officer of Mitchell Energy & Development Corp., a *Fortune* 500 company, which was listed on the New York Stock Exchange prior to its merger in 2002 with Devon Energy Corporation.

Mitchell was born in 1919 in Galveston, Texas, the third son of Greek immigrants. His mother died when he was 13 years old, and times were financially rough for the family. As a teenager, he worked part-time at a local pier for a meager salary and a portion of the fish he caught. Mitchell studied diligently and graduated near the top of his high school class. He enrolled at Texas A&M University, but the first two years were extremely difficult from a monetary standpoint. He later referred to his college years as one of the greatest experiences in his life, but it required perseverance and entrepreneurial skills, ranging from waiting tables and building bookcases to selling candy and marketing embossed stationery to lovesick Aggies, in order to make ends meet and cover the tuition. He eventually became the top student in his major. He was chosen captain of the tennis team and achieved the rank of cadet major in the Corps of Cadets. In 1940, he received a B.S. in petroleum engineering, with additional emphasis in geology, becoming one of A&M's most distinguished graduates.

Following stateside service as a captain in the U.S. Army Corps of Engineers during World War II, he joined a newly formed wildcatting company, first as a consulting geologist and engineering, and later as a partner. He was named president in 1959, and under his dynamic leadership the company rapidly grew and evolved into one of the nation's largest independent oil and gas producers. In 1952, the company developed the Boonesville gas field in north Texas, which supplied the Chicago area with about 10 percent of its natural gas. During his career, Mitchell participated in approximately 12,000 wells, including more than 1,500 wildcats. He and his company found upwards of 200 oil and 350 gas discoveries. One of the highlights of his distinguished career was his intense involvement in the Barnett Shale and the remarkable discoveries that followed. The Barnett Shale generated global interest and provided phenomenal wildcatting opportunities for independents, as its full potential and size are still undefined. He's proud of the fact that the enormous amount of available shale offers a viable solution for solving America's energy needs. He frequently discusses the importance of keeping the independent operators active, as many have been responsible for outstanding discoveries and contributions to our nation's prosperity.

In the 1960s, Mitchell envisioned a real estate project on a grand scale never before seen in the booming Houston area—a master-planned new city. The Woodlands, a 25,000-acre development located 27 miles north of downtown Houston, opened in October 1974. When sold in 1997 to the partnership of Crescent Real Estate Equities Co. and Morgan Stanley Real Estate Fund II, it had a population of 48,000, led Houston's market in new home sales for seven consecutive years, and was the state's new home sales leader. Today the acreage totals 28,000 and the population is 90,000.

Mitchell was instrumental in founding the Houston Advanced Research Center (HARC), a contract and grant research institution headquartered in The Woodlands' Research Forest. HARC consists of collaborative universities, including the original members: Texas A&M University, the University of Texas at Austin, Rice University, and the University of Houston.

One of Mitchell's distinct traits is his unabashed love for Galveston, his hometown. In an effort to preserve the island city's unique history and improve its dismal economy, he and his wife, Cynthia, assumed leading roles in the rejuvenation of the historic Strand District by purchasing and restoring 20 commercial buildings to their former grandeur. Later, the Mitchells bought and painstakingly restored the elegant 1911 beachfront Hotel Galvez. In 1985, as part of the festivities to officially open The Tremont House, a European-style luxury hotel, the Mitchells revived the Mardi Gras celebration in Galveston, which now draws approximately 500,000 visitors annually. When Hurricane Ike dealt horrific damage to all their properties in 2008, he immediately began extensive restoration plans for each beloved structure, including the hotels.

Over the years, Mitchell was an advisor to Project Independence, a member of the National Petroleum Council, AAPG, and the All-American Wildcatters. He served three terms as president and two terms as chairman of TIPRO, and was a director of the Gas Research Institute. In 1989, he was named a member of the President's Circle of the National Academy of Sciences. Mitchell also served as a member of Texas' Select Committee on Higher Education and the Texas Governor's Science and Technology Council. He was a trustee of the Universities Research Association and a member of the World Resources Institute Council.

Honors accorded Mitchell include Texas A&M's Distinguished Alumni Award, Texas A&M's Aggie of the Year, Texas A&M Geosciences and Earth Resources Advisory Council's Medal for Achievement, The Nature Conservancy of Texas' Lifetime Achievement Award, the American Society of Mechanical Engineers' first Award for Distinguished Service in the Petroleum Industry, the Texas Alliance of Energy Producers' Legends Medal, and honorary doctoral degrees from the University of Houston and Texas A&M University at Galveston. In addition, he received the Texas Business Hall of Fame Award, the Horatio Alger Award, and the Global Tomorrow Coalition's Lorax Award for contributions to the environment.

One of Mitchell's recent projects at his alma mater combined his fascination with science and his strong belief in the value of a good education. He commissioned architect Michael Graves to design two buildings for the College of Science, which he and Cynthia funded. They also endowed the Mitchell Institute for Fundamental Physics, which sponsors an annual conference between A&M and Cambridge University involving renowned physicist, Stephen Hawking.

Although most individuals would be content to rest after achieving these goals, Mitchell just smiles and comments that there are still a lot of things left to do.

Linda Bomke

Response

I want to take this opportunity to thank AAPG for selecting me as the recipient of their 2010 Special Award. I'm honored to have been chosen from among so many skilled and intelligent individuals within this dynamic organization. Working with fellow members over the years has been quite a rewarding experience. I'm proud to be an independent, as many of our country's significant energy discoveries were made by independents.

My own company, Mitchell Energy & Development Corp., began on a very small scale in 1946 as an oil and gas wildcatter. Over the next 50 plus years, it grew into one of the nation's largest independent producers: natural gas and natural gas liquids, and, to a lesser extent, oil. The firm evolved and its name changed several times until it became Mitchell Energy & Development Corp. in 1972 and was listed as a public company on the American Stock Exchange. Years later, it joined the elite *Fortune 500*, and ultimately traded on the New York Stock Exchange until its merger with Devon Energy Corporation in 2002.

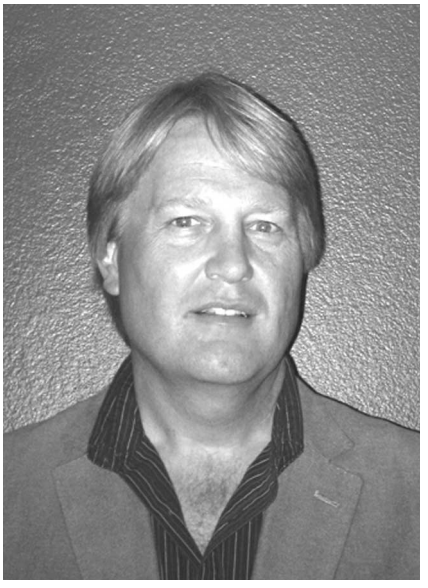
Although those decades saw periods of adversity and uncertainty within the industry, I was fortunate to have led a strong, capable team of talented, dedicated, and innovative individuals. I felt that together we effectively met the challenges and played an important role in contributing to the economic stability and well-being of Texas and the nation, as well as improving the quality of life for our employees.

When I was growing up, my mother's dream was for me to study medicine and become a doctor. Following high school graduation, I was accepted at Rice University in Houston and planned to study pre-med. However, after working that summer in Louisiana as a roustabout with my older brother, Johnny, I became absolutely intrigued with oil fields and read everything I could get my hands on about the oil and gas industry. Two of my favorite publications were *Petroleum Engineer* and *Oil Weekly*. As I was quite good at math and thoroughly enjoyed field operations, that fall I enrolled at Texas A&M to take petroleum engineering and geology courses, as the university had one of the best reputations in the country. I managed to squeeze five years of courses into four, and received my B.S. degree in 1940. And, as they say, the rest is history.

I often think how fortunate I am to live in the United States and possess so many incredible freedoms. As a youngster growing up in Galveston, I never imagined the number of blessings God would bestow on me. I was probably more intent on catching big fish, studying, and improving my tennis game. However, as an adult, I realized the importance of sharing my abundance, mentoring, and giving back to the community so other lives would be enriched as well.

It seems we take so much for granted these days, but America continues to provide phenomenal opportunities for all of us. By utilizing one's education, resources, enthusiasm, ideas, hard work, and perseverance, there are countless means to achieve amazing success along any career path. I also believe that being recognized and saluted by your industry peers is one of

George P. Mitchell



THOMAS C. BERGEON
Public Service Award

Citation—To Thomas C. Bergeon, in recognition of his outstanding contributions in promoting earth science education in schools in the New Orleans metropolitan area.

Since 1995 Tom has been visiting schools in the New Orleans area lecturing in science classes on aspects of geology, paleontology, and oil exploration. In this year he began in earnest building a collection of fossils for classroom display and discussion. This collection includes fossils from all eras, and particularly dinosaur fossils and casts. Every year he personally makes about 20 to 30 school presentations. Through his encouragement, other NOGS volunteers also participate in the program, which brings total number of school presentations to an average of 60 per school year.

Tom was instrumental in organizing the first Super Science Saturday event at the Louisiana Children's Museum in 1999. These events have proven to be hugely successful, and more importantly teach elementary and middle school students that "science is fun" and that there are interesting careers in the geosciences. Attendance for this event has ranged from 600 to 1200 participants. Tom coordinates and sets up these events with 20 or more stations ranging from hands on dinosaur fossils, an earthquake seismograph recording array, paleontology, and the ever-popular oil finder game. Tom also displays some of his own personal dinosaur collection during these events and will be providing a long term loan of an exhibit of a full size bronze T-Rex skull to the museum this year. Tom has even appeared on WWL-TV's Morning Show with fossils in tow. Of course, the 2006 Super Science Saturday was canceled due to Hurricane Katrina, as the museum had not reopened for the spring event. It is not uncommon for Tom to have at least 30 to 40 NOGS volunteers and geology students from four local universities assisting in this major event.

For many years Shell Offshore Inc. provided convenient storage for the ever-growing collection of fossils, rocks and minerals. Unfortunately, space became a problem, so the collection is now housed at Tom's home, actually, in his garage where he has constructed shelving, making it essentially into a 'fossil library.'

As the collection grew, Tom, with his dedicated helpers Bob Simon, Brian O'Neill, and Bernie Regel, organized the collection into "teaching kits" and constructed or purchased containers for easy transport to schools by volunteer teachers. Many fossils were donated, especially by Tom and Bob Simon who is now a career dinosaur excavator in Wyoming. However, a significant number of fossils were purchased by NOGS in support of the ever-increasing school outreach effort.

Tom's volunteering doesn't stop with the School Outreach Committee. In 2002–2003, Tom served NOGS as president where he and the board approved and supported the technically and financially successful South Louisiana Onshore Petroleum Exploration Symposium. In 1998–1999 he was NOGS treasurer. For his work on the School Outreach Committee, he received the Outstanding Member Award twice, in 1998–1999, and again in 2003–2004. Most recently, Bergeon served the GCAGS as its president in 2004–2005, the unfortunate year that Hurricane Katrina scuttled the annual convention planned for New Orleans.

Tom was born in Champagne, Illinois, on October 30, 1960. His family lived in several states before returning home to Michigan in 1971. During their residence in Rockville, Maryland, when Tom was 8-10 years old, he visited the Smithsonian Natural History Museum on a regular basis where he took a keen interest in fossils and especially dinosaurs. He also was drawn to geology from many scouting adventures in the nearby Appalachian Mountains.

Tom attended Michigan State University where he majored in geology and geophysics in 1984. The glacial terrain in Michigan yielded few outcrops, and summer field camp with the University of Michigan in 1983 began a long interest in stratigraphy, structural geology and a love for the grand vistas of the Rocky Mountains. After a summer job in Dallas with

Mobil Exploration, Tom attended Colorado School of Mines in 1985. Working under Tom Davis and Bob Weimer, the Mines environment allowed exploratory interaction from well core level to nearby outcrop and subsurface seismic data.

Tom moved to New Orleans in 1986, and worked with Chevron in various Gulf of Mexico exploration and development assignments, including the Genesis Field, Chevron's first deep water discovery. After 11 years at Chevron, Tom went to work at Shell Exploration where he specialized in subsalt exploration and deepwater stratigraphy. After nine years at Shell, Tom joined Century Exploration New Orleans in 2006, working onshore and offshore Louisiana. Tom has published a number of papers, presented talks at various conferences, and his personal and professional career exemplifies a lifetime of distinguished service.

Tom saw a strong need in the New Orleans area for enhanced science education. Having enjoyed his travels to museums as a child, he effectively created a traveling Smithsonian to reach area school children. His greatest reward is when a teacher informs him of a student who has turned their focus and studies around after a school presentation.

Tom is a single father of two and active in his local Christian church. His home is graced with not only dinosaurs, but a variety of musical instruments as he and his son, Patrick, play upright bass in a jazz setting. Tom has traveled extensively, and climbs 14,000-ft peaks in Colorado, and hopes to one day have climbed all 54.

Tom's enthusiasm is contagious, and rather than seek the limelight, prefers to influence others a classroom at a time. Having worked with Tom on many successful Super Science Saturday events, it is a pleasure to see him recognized for this Public Service Award.

Edward B. Picou, Jr.

AHMED N. EL BARKOOKY
Public Service Award

Citation—To Ahmed N. El-Barkooky, for his passion for geology, his students and preservation of rich geological and archeological sites in Egypt. Ahmed is a gifted teacher, passionate AAPG member and petroleum geologist who has contributed to establishing the World Heritage Whale Valley, championed conservation of the Fayoum basin archeology and geology and instilled in his AAPG student chapters a zest for learning and international outreach.

It is with great pleasure that I have been given this opportunity to write Ahmed N. El-Barkooky's biography for his AAPG Public Service award. I have known Ahmed as a professional colleague and friend since my arrival in Egypt as an expatriate with Amoco in 1994. He is a passionate teacher, field geologist, and AAPG member who has also dedicated his life to teaching and preservation of his country's rich archeological and geological treasures.

Ahmed was born in 1958, in Cairo, Egypt, the only son of parents Kharry and Amina. He shares his life with his wife Noha and his daughter Sarah and two sons, Youssef and Abdullah. From an early age he was interested in geology, frequently visiting the Cairo Geological Museum and gazing with fascination at its rich collection of fossils and minerals. These trips ignited a passion for understanding the origin of life and things like earthquakes and volcanoes.

After graduating from high school, he joined the police academy, like many young men of his time, looking for some serious adventure and exploring his many options in life. He quickly found, however, that his real passion still lay in geology. He began to dream of a career as a geologist and soon found that his passion for science was stronger than his passion for police work.

He applied to the geology department at Cairo University in 1976, he discovered to his dismay that it was fully booked with more than 260 students in the freshman class alone. Undaunted, he pushed the faculty to accept him as the last man to enter the class. It was fortunate for the department that they recognized his keen intellect and zeal for his new profession. He rewarded their faith in him by placing in the first rank in the final exams for all four years, graduating in 1980 with honors.

Ahmed then looked westward to the United States, enrolling in a joint research effort between MIT and Cairo University of Egypt's petroleum strategy and economics. He worked as a teaching assistant at MIT in 1981, where it reimmersed himself in local museums and got used to American food and culture. He returned to Egypt and finished his M.Sc. at Cairo University in 1985 with a specialty in sedimentary geology, stratigraphy, tectonics and basin studies. He was awarded a scholarship to the Technical University of Berlin, where he studied for three years, learned German, toured Europe, and then completed a PhD. from Cairo University in 1994 on the Paleozoic and Mesozoic clastics of the Sinai margin.

After returning to Cairo University to teach, he joined Shell Egypt as a consultant in 1995. It was about this time that I met Ahmed and began to take excursions with him on weekends to the Fayoum and Whale Valley depressions south of Cairo. We enjoyed many weekends together finding Eocene whale and Sirenian fossils, hunting for fossil termite nests in the huge petrified forests above Qasr El Saga and marveling at the rich archeological heritage of the area. We became increasingly alarmed at the theft of rare fossils and artifacts from Greco-Roman and Pharonic cities and temples that lay abandoned around the fringe of ancient Lake Moeris (now Lake Fayoum). We were fortunate to discover equally passionate fellow expats and UNESCO and Italian Government workers who had joined with the Egyptian Environmental Affairs Association to try to protect these areas with World Heritage status.

Ahmed threw himself enthusiastically into the conservation efforts, making numerous local presentations to mayors, community and government groups, and to the department of antiquities to plead for formal protection of these rare and important sites. We jointly developed a field guide to the geology, archeology and eco-tourism of the area and ran hundreds of people through field trips for AAPG member, UNESCO staff, and local Egyptians. The effort drew increasing support and in 2005 the Whale Valley site received official World Heritage status, with the guidebook and Ahmed's efforts sited as a key piece of technical supporting documentation.

Ahmed, however, was not done. Phase 2 had started, which involved protection of the greater Fayoum area to the north, particularly the rich Eocene/Oligocene vertebrate fossils, the oldest man-made road in the world, ancient basalt quarries dating to Neolithic time and the Greco-Roman city of Demay and Pharonic Qasr-El Saga temple. Modern quarry activity was unknowingly destroying not only the pristine beauty of the area, but mining two of the ancient quarries. Through hard work and multiple community presentations, he helped convince the Egyptian government to name a second protected area, relocate the quarry operations, and move one step closer to establishment of a second World Heritage site, something still under consideration.

Last April, I revisited the area for the first time since 2002. I was stunned first by the quiet and then by the sheer beauty of the area, now untouched by the noise of trucks and heavy quarrying equipment. In the place of random tracks across the desert were single dirt roads clearly marked and roped off by the Egyptian government, complete with signage. The area is protected now and the chances for a second World Heritage site greatly increased.

Ahmed also involves his students in his passions, bringing them to this rich field site and helping to form four AAPG student chapters in Cairo, with several others planned. He has linked his work with numerous other universities in the UK, Australia, Michigan, Texas, Columbia, and Germany, giving his students a true exposure to global geology.

His zest for geology, his love for his country, and his passion for preservation and teaching make Ahmed specially deserving of this award.

John Dolson

WILLIAM B. HARRISON III
Public Service Award

Citation—To William B. Harrison III, full-time professor, initially trained

as a paleontologist, worked 30 years to develop and organize Michigan's only large core repository serving education, research and industry.

Bill grew up in northern Kentucky, where his parents often took him fossil hunting at nearby world-famous outcrops of the Cincinnati Arch. Those early experiences sparked an enduring love for geology that led Bill to study paleontology at the University of Cincinnati, where I first met him. Bill was friendly and hard-working, studying bivalves with Dr. Kenneth E. Caster.

After receiving his Ph.D., Bill joined the Department of Geosciences faculty at Western Michigan University where he became interested in sedimentology and petroleum geology. In his 30-plus-year career, Bill has been an outstanding educator and researcher, teaching 18 courses, advising on 59 M.S. and Ph.D. committees, publishing 31 papers, and playing key roles in 65 workshops on Michigan geology.

He also brought into existence and obtained funding for the Michigan Geological Repository for Research and Education (MGRRE). The only large repository of its kind in Michigan, the facility archives more than 400,000 feet of core from Michigan wells and impressive collections of geologic and subsurface maps, drillers' reports, electrical/mechanical logs, mudlogs, porosity and permeability analyses, and related well data.

Most of these essential data would otherwise have been lost, or, at best, scattered throughout the state and elsewhere. The Repository serves the entire public domain—students, petroleum and mining professionals, members of governmental agencies, and the general public.

Bringing all these data together in one place was only a dream in 1982 when Bill Harrison was on sabbatical conducting research. He searched through many governmental agencies and private collections then to find the cores and data he needed. It was like navigating a spider web—one connection led to another. There was no easy way to find out where samples and data were located.

When he asked industry friends if he could examine their core and well records, they happily obliged and often offered to give them to him. Bill soon learned that precious data were lost or discarded as new research and new leases were acquired.

Early on, he recognized that cores are raw data that not only address current issues, but also answer questions we can't even ask now. So he founded the Core Lab (now MGRRE) to preserve and use them.

The university gave Bill some basement space. He patched and painted the walls using personal funds and brought cores in through the narrow windows. He just kept asking for these materials. He wore out three pick-up trucks bringing them home.

He did this single handedly until 1993 when his wife, Linda, joined in the work. She hired a team of work-study students to organize the mass of data and samples. As the online databases grew and more collections arrived, the Core Lab's reputation grew too. Additional faculty and research partners joined the Lab in 2002. Together they secured large joint applied research grants working with industry to develop horizontal drilling and other techniques for this mature basin.

The Core Lab spread through the old building until even the halls were filled with cores—a new facility was urgently needed. Two attempts to find a new facility came close to success but failed at the last minute. Any normal person would simply have given up. Bill just kept working.

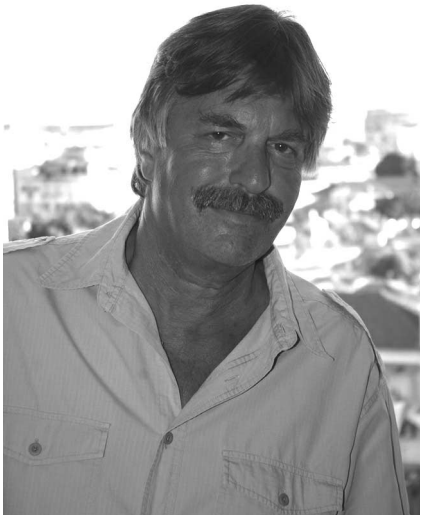
In 2002, Bill asked the Michigan Oil and Gas Association for help. In gratitude for Bill's unstinting service to the industry and in recognition of the collections' significance, MOGA members raised a million dollars in four years. Those gifts, along with generous university support and federal funding, enabled the Lab to move in 2006 to a modern facility with space for a laboratory, core examination, library, seminars, and a warehouse large enough for its existing collections and five times more.

Industry members and researchers from other states and Canada are now frequent visitors. In 2008, MGRRE welcomed some 66,500 online users and hundreds of onsite visitors including university and K-12 students and professionals.

Bill's work to help others extends beyond the United States. He was awarded an honorary Ph.D. from the University of Latvia in appreciation of his pro bono work there. He secured donations of textbooks, laboratory equipment, and introduced them to Western style lectures, rapidly modernizing their department as it emerged from the former Soviet Union.

Through Dr. Harrison's pioneering development of this repository and through his unending willingness to help students and professionals alike, he has shown that he is indeed an outstanding "citizen of geology," who richly deserves the AAPG's Public Service Award.

Dr. Paul E. Potter



TAKO KONING
Public Service Award

Citation—To Tako Koning, In recognition of many years of tireless and dedicated public service to the geologic profession and various humanitarian projects.

Tako Koning was born in Holland in 1949 and his family immigrated to Edmonton, Alberta, Canada in 1954. At age 17 he enrolled in geology at the University of Alberta. He spent the first two summers fighting forest fires and working in the saw mills in northern British Columbia to pay for his tuition. He then worked the next three summers for mining companies prospecting for minerals throughout northern Canada. He graduated in 1971 with a B.Sc. in geology and in 1981 via evening studies he obtained a B.A. in economics from the University of Calgary.

He joined Continental Laboratories in 1971 and worked for two years as a mudlogger on the Grand Banks, offshore Newfoundland and in the Canadian high arctic. Tako joined Texaco in 1973 and subsequently worked for Texaco for the following 30 years in technical and management positions in Canada, Indonesia, Nigeria and Angola.

In 1984 Tako wrote his first geological paper and presented it at a conference in Jakarta, Indonesia. In the past 25 years he has written and presented over 70 papers on various subjects at conferences worldwide. He does this because he is keen on "information sharing" and finds the conferences excellent opportunities for learning, networking, and socializing.

Tako became involved with volunteer work early on in his career. For seven years in the l980s and early 1990s, he was fund-raising chairman and on the board of directors of Sonshine Centre, a Calgary-based interdenominational funded home for abused women and their families. He was successful at obtaining expanded financial support for the Sonshine Centre from Calgary's business community, especially from the oil sector. From 1998 to 1992 he initiated and helped run the Visiting Petroleum Geologist program of the Canadian Society of Petroleum Geologists.

Tako has spent the last 17 years in West Africa consisting of 3 years in Nigeria and 14 years in Angola. He lived in Lagos, Nigeria from 1992 to 1995 and volunteered to give lectures on petroleum geology and economics at Nigerian universities. He also organized a series of major shipments from Calgary and Houston of used geological and geophysical books and journals for various universities in Nigeria and Angola whose libraries he had noticed were almost devoid of books. The Nigerian Association of Petroleum Explorationists (NAPE) recognized his efforts and awarded him with Honorary Life Membership in NAPE. He was one of the first expatriates to be given this award. The books and journals program has subsequently been duplicated by the AAPG's Publications Pipeline Committee which in the past six years has shipped many technical books and journals to universities in developing countries worldwide.

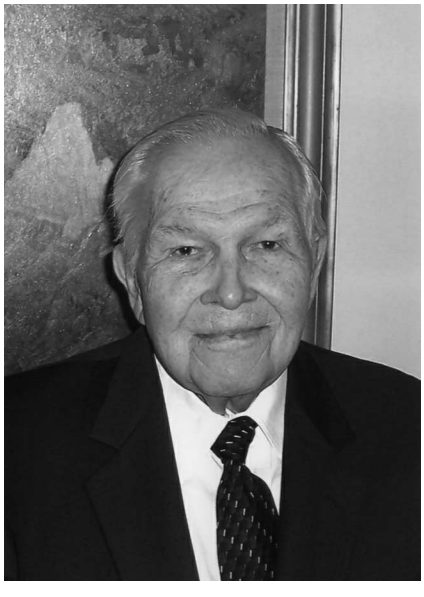
In 2001, Tako initiated the Angola Mosquito Nets Project and with a group of volunteers they have raised sufficient funds to buy and distribute 20,000 nets to poor Angolans to help them combat malaria. Numerous oil companies and oil service companies have supported this project as well as individual donors in Angola and overseas. In 2003, he and his wife Henrietta formed the Angola Field Group. Thereby he has led numerous geological field trips outside of Luanda for geologists and the public-at-large.

Tako opted for retirement but stayed in Angola when Chevron merged with Texaco in 2002. He wanted to be involved with the post-civil war reconstruction of Angola. For the past seven years he has divided his time between Tullow Oil in Angola and a Norwegian humanitarian organization called Yme Foundation. Tako is responsible for Tullow's community development obligation which is rehabilitating boys and girls dormitories and a secondary school in an area of central Angola which suffered extensive damage during Angola's long civil war. Yme Foundation drills water wells for clean drinking water in rural Cabinda province. Tako works for Yme as a volunteer and is mainly focused on government, public and donor relations. He has also helped run

the Angola section of the Society of Petroleum Engineers for the past ten years as a board member (program chairman).

His wife Henrietta has always been supportive of his activities and has lived with him through the many years of overseas locations. Her specialty is teaching English and she is also involved with volunteer work. Their two children, John Paul and Robin Maria, lived overseas much of the time but are now adults and living in Toronto, Canada. In summary, Tako's career as a geologist has given him an outstanding opportunity to live and work in some interesting and challenging countries which I think has enabled him to "make a difference" in those countries.

David A. Scott



THOMAS D. BARROW
Pioneer Award

Citation—To Thomas D. Barrow, son of geologists, legendary oil finder, dynamic and perceptive industry leader, dedicated member of his community, respected and accomplished scientist, wise counselor, and generous supporter of the institutions of which he has been and is about, and a stalwart in the profession of geology.

Tom Barrow is a pioneer in any sense of the word, having been at the forefront in exploration, with principal leadership of three large international corporations, for a good part of the 20th century.

Tom's mother and father were both accomplished geologists, and his maternal grandfather was a gold prospector in the Mojave. Many summer vacations were little more than geologic field trips following geologic maps, taking photographs and collecting samples. His genes are geologic.

Tom earned a B.S. in petroleum engineering and an M.S. in geology, both at the University of Texas, and a doctorate under A. I. Levorsen at Stanford. His bite into exploration came early on. Tom's dissertation on the geology of the East Texas Basin produced concepts of long-distance migration into the Woodbine, which, coupled with a weak geophysical anomaly, led to a prospect he later convinced Humble to drill. It resulted in the Neches field, a 100-million-barrel discovery.

Tom Barrow began his career with Humble in California in 1951 and while there was involved in the discovery of the Wild Goose field, the state's first commercial gas discovery east of the Sacramento Valley. Tom and some former Stanford classmates, with early scuba gear and compasses, mapped the offshore Ventura Basin for Humble. Without the benefit of seismic data, Tom defined a submarine structure that Humble, with SOCAL, later leased and on which they logged a giant discovery. He later transferred to New Orleans as regional exploration geologist with the newly formed Southeast Region (Louisiana-Florida). Morgan Davis, another giant in the business, cautioned Tom to not lease in water deeper than 200 feet in consideration of platform production costs. But soon Tom, with a keen and early understanding of directional drilling, was exploring a mile beyond that limit.

After New Orleans, Tom became executive vice president of the newly formed Esso Exploration in New York and was immediately involved in global exploration. His initial success was in the Bass Strait, Australia's first offshore discovery, and later with the first major discovery in Malaysia. He was early involved in the British North Sea with one of the best discoveries in the early history of that basin and was to replicate that success with some of the first discoveries in Norwegian waters.

Within a year, Tom Barrow was in Houston as senior vice president and director of Humble and quickly was involved in persuading Humble's partner ARCO to drill the Prudhoe Bay discovery well. ARCO was set to drill in the foothills, while Tom was pushing for the coastal plain location on the basis of his knowledge of the Naval Petroleum Reserve to the west. After ARCO's initial failure, they reluctantly agreed to Tom's approach, and the largest field in North America was discovered. A field the size of Prudhoe Bay has a lot of claimants, but it must be said that Tom Barrow's role was crucial.

In 1972 Tom went back to New York and to the board of the newly named Exxon Corporation as director and senior vice president of exploration. That was the beginning of Exxon's truly global

exploration mission with Tom leading the company into Russia, China, and other prospective areas where Exxon and other U.S. companies had never before been active.

Tom Barrow retired from Exxon in 1978 and shortly thereafter was recruited as chairman of the board and CEO of Kennecott Copper Corporation, meeting the challenge of going from an oil executive to running a major metal mining company. He was successful in saving the corporation from bankruptcy and selling it to Standard of Ohio. Finally, set to retire again, he was persuaded to assume the role of vice chairman of SOHIO—but on the condition that he live in Houston.

In 1985 Tom retired again, but still unsuited to inactivity, he immediately became an independent explorationist and entrepreneur. In his final major discovery as an independent he drew on his nearly 50-year old dissertation in East Texas to acquire the lease block that became the giant deep Bossier Savell Field. Final retirement from the oil business came in 2004, at age 80, 53 years after entering the oil patch.

Tom Barrow has served as director or trustee of 30 different organizations, including chairman of Tobin International, GX Technology Corporation, and the Houston Grand Opera, and vice chairman of the board of trustees of Baylor College of Medicine. He is a member of the National Academy of Engineering, serving on several commissions and committees of the Academy. Dr. Barrow has received just about all the awards given by the University of Texas and is a long-standing member of the Advisory Council of the Geology Foundation, formerly its chairman and now an honorary life member.

The Pioneer Award is given to members who have contributed to the Association and who have made meaningful and significant contributions to the science of geology. In presenting this award to Thomas D. Barrow, we not only recognize one of the world's preeminent petroleum geologists and industry leaders, but, importantly, we as an association credit ourselves.

William L. Fisher
and Kenneth T.Barrow

DAVID R. PYLES
Wallace E. Pratt Memorial Award

"Multiscale stratigraphic analysis of a structurally confined submarine fan: Carboniferous Ross Sandstone, Ireland" *(AAPG Bulletin, v. 92, p. 557–587)* focuses on the Ross Sandstone of western Ireland. The Ross contains some of the most laterally continuous exposures of turbidites in the world and is an excellent outcrop analog for sand-rich deepwater hydrocarbon reservoirs deposited in structurally confined basins.

This article uses measurements of stratigraphic architecture from these exceptional exposures and younger strata in the basin-fill succession to develop a model that proposes that each formation in the shallowing-upward succession reflects its own depositional system related to an evolving landscape, and each was sourced from a different direction. Furthermore, this study quantifies vertical trends in stratigraphic architecture of the Ross Sandstone and analyzes them in a statistical manner against regional stacking patterns to test the significance of external controls on reservoir heterogeneity.

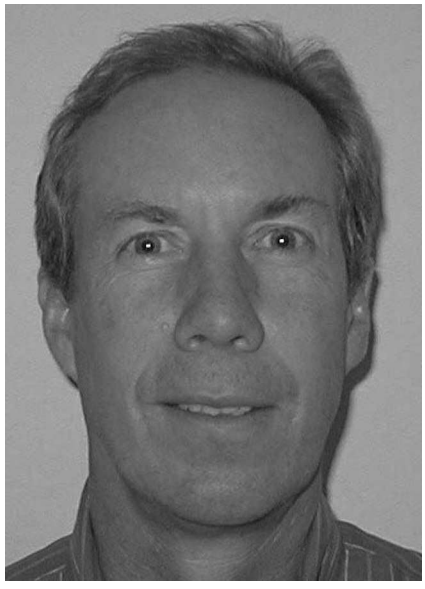
The analysis reveals that sediment supply, source area, and depositional area are statistically related to local stratigraphic architecture of submarine fan strata including diversity of architectural elements and percent sandstone. These results are interpreted to suggest that large fans have more architectural diversity and reservoir heterogeneity than their smaller counter parts. Several physical similarities exist between submarine fan strata in the Ross Sandstone and ponded strata in northern Gulf of Mexico mini-basins. They include size and shape of architectural elements, percent sandstone, regional stacking patterns, and size and shape of the overall submarine fan.

Based on these similarities, the Ross Sandstone is interpreted as an excellent outcrop analog for ponded strata in structurally confined submarine fans including those in northern Gulf of Mexico.

David Pyles is the technical research project manager for the

Chevron Center of Research Excellence (CoRE) and a research professor in the Department of Geology and Geological Engineering at the Colorado School of Mines. David is working together with his colleagues to improve the understanding of structure/stratigraphy interactions in deep-water settings. To address this goal, they are studying outcrops of several deep-water systems around the world. The studied basins range in size from small (5-km diameter) basins to large (>200-km diameter) basins with tectonic growth rates that range from high to low. His goal is to collect data from basins that span the natural variability that exists in deepwater reservoirs around the world and to use these data to develop empirical rules for how basins fill in response to various boundary conditions.

Pyles earned his Ph.D. from the University of Colorado at Boulder, an M.S. from Colorado School of Mines, a B.S. from California State University, Chico, and an A.S. from Riverside Community College.



STEPHEN P. CUMELLA
Robert H. Dott, Sr. Memorial Award

KEITH W. SHANLEY
Robert H. Dott, Sr. Memorial Award

WAYNE K. CAMP
Robert H. Dott, Sr. Memorial Award

Understanding, Exploring, and Developing Tight Gas Sands, AAPG Hedberg Series, No. 3, contains a selection of solicited papers as an outgrowth of an AAPG Hedberg Conference held April 24–29, 2005 at Vail, Colorado. The desire for a Hedberg Conference for tight (low-permeability) gas sandstones was proposed by the Unconventional Gas Research Group AAPG Research Subcommittee (UGR) during the 2003 AAPG Annual Conference in Salt Lake City, Utah, following publication of the special AAPG Bulletin theme issue on unconventional petroleum systems (Law and Curtis, 2002), which was also initiated by the UGR.

Natural gas production from "unconventional" sources (tight gas sands, coalbed methane, shale gas and deep gas) reached 43% of the total U.S. domestic gas production in 2003, and is projected to exceed 50% by 2006. Tight gas sands comprise the largest share of the unconventional gas production, reaching 18.6% in 2003.

Stephen Paul Cumella got his bachelor's and master's degrees in geology at University of Texas at Austin. He spent his first nine years as a petroleum geologist with Chevron. Steve has worked 28 years as a petroleum geologist, both domestically and internationally. Steve has worked the Piceance Basin at Barrett Resources, Williams, Bill Barrett Corporation for the last 10 years.

Wayne K. Camp is senior geological advisor for Anadarko Petroleum Corporation, in

The Woodlands, Texas, where he has been employed since 1980 working various domestic and international exploration and development projects. Prior to working with Anadarko, Wayne was employed for two years by Phillips Petroleum Company. Wayne received a B.A. in geology with honors from the State University College at Oneonta, New York, and a M.S. in geology from Colorado State University, Fort Collins, Colorado. Wayne's expertise includes identifying and evaluating new exploration play opportunities and prospect generation. Wayne has supervised various geological and geophysical exploration and development teams at Anadarko from 1986–2004. His experience includes thrust belt, coalbed methane, tight-gas sand and shale gas plays in various U.S. onshore basins; subsalt and deepwater plays in the Gulf of Mexico; and international experience in Algeria, India, China and Indonesia. Wayne's most recent experience with tight-gas sand plays was as exploration supervisor during 2000–2004 responsible for exploration activities on Anadarko's 7.5 million acre land grant acquired from Union Pacific Resources in 2000. Wayne and his wife, Joanne, recently returned to the U.S. From Jakarta, Indonesia, where he was working exploration projects in the onshore South Sumatra and offshore east Kalimantan basins for Anadarko Indonesia Company.

Keith W. Shanley is a consulting geologist aligned with the Discovery Group in Denver, Colorado, with more than 25 years of experience in petroleum exploration, development, and research. Keith was born in The Hague, The Netherlands, and moved to the United States to attend university. He received his B.A. degree in geology from Rice University in Houston, Texas, in 1978 and his M.S. (1983) and Ph.D. (1991) degrees in geology and geophysics from the Colorado School of Mines in Golden, Colorado. Keith's industry experience includes both major and independent oil and gas companies. Upon receipt of his degree from Rice University he worked as an exploration geologist for Southern Natural Gas in Houston. After completing his M.S., Keith worked for Tenneco before resuming his Ph.D. studies. Upon receiving his PhD, Keith has worked for Shell Development Company and Amoco/BP's Upstream Technology Groups.

DAVID R. PYLES
J. C. "Cam" Sproule Memorial Award

The J. C. "Cam" Sproule Memorial Award, presented to the AAPG member 35 years old or younger at the time of submittal who authors the best paper published during the year by the association or any affiliated society, division, or section, is awarded to David R. Pyles for "Multiscale Stratigraphic Analysis of a Structurally Confined Submarine Fan: Carboniferous Ross Sandstone, Ireland" (*AAPG Bulletin*, v. 92, p. 557–587).

This article uses measurements of stratigraphic architecture from these exceptional exposures and younger strata in the basin-fill succession to develop a model that proposes that each formation in the shallowing-upward succession reflects its own depositional system related to an evolving landscape, and each was sourced from a different direction. Furthermore, this study quantifies vertical trends in stratigraphic architecture of the Ross Sandstone and analyzes them in a statistical manner against regional stacking patterns to test

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David Pyles is the technical research project manager for the Chevron Center of Research Excellence (CoRE) and a research professor in the Department of Geology and Geological Engineering at the Colorado School of Mines. David is working together with his colleagues to improve the understanding of structure/stratigraphy interactions in deep-water settings. To address this goal, they are studying outcrops of several deep-water systems around the world. The studied basins range in size from small (5-km diameter) basins to large (>200-km diameter) basins with tectonic growth rates that range from high to low. His goal is to collect data from basins that span the natural variability that exists in deepwater reservoirs around the world and to use these data to develop empirical rules for how basins fill in response to various boundary conditions.

Pyles earned his Ph.D. from the University of Colorado at Boulder, an M.S. from Colorado School of Mines, a B.S. from California State University, Chico, and an A.S.

PAUL M. (MITCH) HARRIS
John W. Shelton Search and Discovery Award

Paul M. (Mitch) Harris, a Senior Research Consultant and Chevron Fellow with Chevron Energy Technology Company in San Ramon, California, performs carbonate research, technical service projects, consulting, and training for the various operating units of Chevron.

His career's work has centered on facies-related, stratigraphic, and diagenetic problems that pertain to carbonate reservoirs and exploration plays in most carbonate basins worldwide.

Mitch earned his B.S. and M.S. degrees from West Virginia University and his Ph.D. from the University of Miami, Florida. He has published numerous papers, edited several books, and is active in AAPG and SEPM. He has been a Distinguished Lecturer and International Distinguished Lecturer for AAPG, received the Wallace E. Pratt Memorial Award for best original article published in the *AAPG Bulletin* in 1998, received the Robert H. Dott, Sr. Memorial Award twice for best memoirs published by AAPG in 2004 and again in 2006, was awarded honorary membership from SEPM in 2002. Mitch is currently president of SEPM and also adjunct faculty at the University of Miami and Rice University.

BARBARA J. TILLEY
George C. Matson Award

The George C. Matson Memorial Award for the best paper presented during an AAPG oral technical session is presented to Barbara Tilley for Isotopic Evidence for Fault- Induced Gas Mixing in Sweep Spots of the Sukunka Gas Field, Western Canadian Foothills. The co-authors were Pradeep Bhatnagar, Scott McLellan,

Bob Quartero, Bryan Veilleux, and Karlis Muehlenbachs.

This paper was an outcome of Barbara's ongoing study (with Dr. Karlis Muehlenbachs) of natural gases in the WCSB. Over the past 10-15 years, they have accumulated a huge database of carbon isotope analyses of gases in the WCSB including surface casing vent flows, soil gases, free gases in domestic water wells, drilling mud gases, and production gases from conventional gas, heavy oil, CBM, and shale gas wells.

Our carbon isotope analyses help solve various environmental and production problems, such as determining the leak depth of surface gases from production and abandoned wells and the origin of hydrocarbon gases in domestic water wells, in addition to production allocation and compartmentalization questions, and more basic research questions such as the origin, maturity, and degree of gas migration and mixing.

In 2003, Talisman began submitting gas samples to us from their Sukunka gas field. From the start, we realized that these gases were unique in that the relative sequence of carbon isotope ratios for methane and ethane were reversed to what is expected for thermogenic gases. It was only after contacting Talisman, further sampling, and discussions between ourselves and with our coauthors at Talisman, that we began to gain an understanding of the relationship between these isotopically reversed gases, the unique tectonic setting at the very westernmost edge of the basin, faultpropagation folds, and the sweet spots in gas production.

This work clearly shows the success possible when Industry and Academia share samples, ideas and technologies.

Since 2000, Barbara has worked as a research associate with Dr. Karlis Muehlenbachs in the Department of Earth and Atmospheric Sciences at the University of Alberta. Before that, she worked as a Research Metallurgist for WESTAIM, an initiative to develop advanced industrial materials. Before and during work on her graduate degrees, Barbara spent seven years doing sedimentological research on the Alberta oil sands with the Alberta Geological Survey. While Barbara was an undergraduate, she did three summers of field work with the Geological Survey of Canada studying Precambrian sediments in the Canadian Arctic.

George C. Matson Memorial Award Top 10 Oral Presenters at the Annual Meeting in Denver, CO

Barbara Tilley
Pradeep Bhatnagar
Scott McLellan
Bob Quartero
Byron Veilleux
Karlis Muehlenbachs

Charles Bartberger
Ira Pasternack

Michael Johnson

Michael Pinnell

Louis Liro
Rome Lytton
Steve Holdaway
Thomas Carlson
Daniel Loera
Tyler Hannah

Brian Richter
Scott A. Haberman

Gary Parker
Jorge D. Abad
Octavio Sequeiros
Benoit Spinewine
Marcelo Garcia

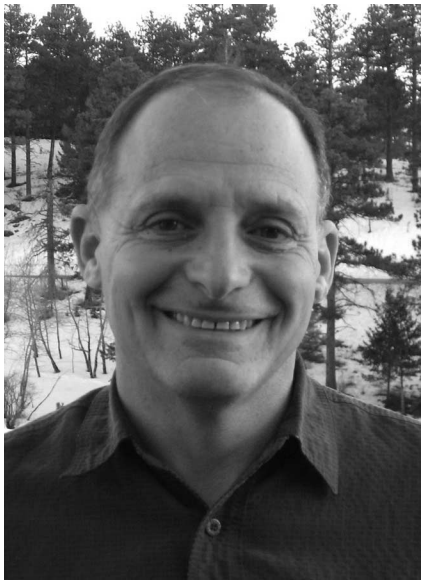
Eric Erslev

Peter Hennings
Jason McLennan
Tricia Allwardt

William Soroka
Christian J. Strohmenger
Taha Al-Dayyani

Nigel Cross
Alan Cunningham
Robert J. Cook
Amal Taha
Eslam Esmaie
Nasar El Swidan

NIKKI THERESA HEMMESCH
Jules Braunstein Memorial Award (posthumously)



NICHOLAS B. HARRIS
Jules Braunstein Memorial Award

The Jules Braunstein Memorial Award for the best AAPG poster presentation is presented to Nikki T. Hemmesch and Nicholas B. Harris, Colorado School of Mines, for their poster "Sequence Stratigraphic Architecture for the late Devonian Woodford Shale, Southern Permian Basin, West Texas."

The poster presented the results of a detailed core- and log-based investigation of the sedimentology and stratigraphy of a classic black shale, the Upper Devonian Woodford Shale of the Permian Basin. Our aim in this research was to test whether the stratigraphic sequence approach that works well on continental margins can also be applied to deep basinal shales. Three long cores, spanning most of the Woodford section, provided the key data for the study.

Five distinct lithofacies were identified in most of the Woodford section. In addition to the finely laminated black organic-rich shale that is generally thought to characterize these formations, two types of carbonate beds and two types of siliciclastic beds are also present. The key insight was that these "exotic" lithologies have a cyclic organization, with a massive carbonate at the base of each cycle, overlain by a thick black shale interval, overlain in turn by an interbedded sequence of laminated carbonate, siliciclastic beds and thin black shales.

We interpret these cycles to represent third and fourth-order sea-level cycles. The presence of the exotic lithologies and shelf-derived bioclasts also demonstrates that active sedimentation processes transported shallow-water sediment tens of kilometers into the deep basin.

Second-order sea-level cycles are represented by larger-scale variability in lithofacies: increasing abundance of the exotic beds upward and bioturbated mudstone, green mudstone and novaculite at the top of the Upper Woodford section. This evolution of rock type is interpreted to represent a long term fall in sea level. It is particularly noteworthy that organic-rich black shale can be deposited during a long-term sea-level regression.

Nikki Hemmesch grew up in central Minnesota the oldest of three children and daughter of Frank and Patricia Hemmesch. Nikki's determination and intellect led to a love of education (through teaching, presenting and working with colleagues in the field). Early in her undergraduate work, she discovered a passion for geology, which guided her to many inspiring people and places filled with learning opportunities (all across the U.S., Italy, France, Ireland, the Bahamas and Kazakhstan). Nikki's excitement with the sciences did not stop there. Over the last nine years, Nikki also worked with numerous Emergency Medical groups as a nationally registered EMT.

Nikki graduated with a B.A. from the College of St. Benedict in 2001, where a paleontology course with Prof. Larry Davis led her to geology. She earned a M.S. degree in 2004 from Boise State University, completing a study of the ammonoid Uraloceras for her thesis research under the direction of Prof. Claude Spinosa. She worked as a museum curator at the Rocky Mountain Dinosaur Resource Center in Colorado and an adjunct faculty member at Regis University and Pikes Peak Community College in Colorado Springs.

In January, 2007, she enrolled as a Ph.D. student at the Colorado School of Mines and, in the fall of 2007, began her dissertation research on the Woodford Shale in the Permian Basin, West Texas. She immediately impressed everyone in the Mines community—students, faculty and visiting professional geologists—with her energy, focus and drive. One expert on the Woodford Shale described her as "relentless"; everyone who knew her understood that.

On July 10th, 2009, Nikki's family, friends, the geological and academic communities suffered an unbelievable loss when Nikki died while returning from a Mines field trip to Kazakhstan. Nikki would have been honored and motivated to learn that her Woodford Shale poster won the Jules Braunstein Memorial Award for Best Poster at the AAPG 2009 Annual Convention. We hope Nikki's inspiring passion and spirit live on thru the contributions of those who knew and loved her.

Nick Harris received his Ph.D. from Stanford University in 1980 and took his first permanent job as a minerals research geologist for Conoco Inc. That path closed three years later, and he started a career in petroleum geology, first taking on projects in clastic diagenesis, then in clastic sedimentology.

He left Conoco in 1994 to take a position as an academic researcher, the first 10 years at the Pennsylvania State University, then from 2004 to 2009 at the Colorado School of Mines. Nick began to focus his research on depositional models for organic-rich shales while at Penn State, initially with studies of lacustrine source rocks in the West African rift basins. After moving to Mines, he and his Ph.D. student Nikki Hemmesch established the Woodford Shale Consortium, building a research program that integrated sedimentology, geochemistry and petrophysics and has, to date, supported four graduate students.

Nick's research interests also include sandstone diagenesis, reservoir quality and gas geochemistry in tight gas sand reservoirs. Past honors include the SEPM Award for Excellence in Oral Presentation and the AAPG Eastern Section Levorsen Award. Nick recently moved to the University of Alberta to teach in the Department of Earth and Atmospheric Sciences.

Jules Braunstein Memorial Award Top 10 Poster Presenters at the Annual Meeting in Denver, CO

Nikki Hemmesch
Nickolas Harris

Peter Schwans
Theordore C. Lukas
Martin Cohen
Kim Zauderer
Martin Jackson
Michael R. Hudec
Charles Kluth
Jason Lillegraven
Arthur Snoke
Edward Sterne

Matthew Corbett
Christopher Fielding

Satinder Chopra
Kurt J. Marfurt

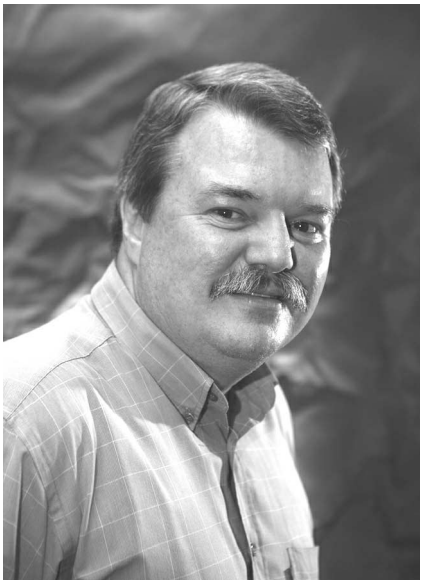
R. Arnott
Zishann Khan
Lilian Navarro

Edyta Frankowicz
Ken McClay

David Moy
Jonathan Imber
David Ellis
Joseph W. Gallagher

Charles Smith
John C. Brinska
Sandeep Ramakrishna

Paul Weimer
Chunju Huang
Benjamin Herber
Roger Barton
Shu Jiang
Stan Hammon



PEDRO V. ZALAN
Gabriel Dengo Memorial Award

The Gabriel Dengo Memorial Award is given each year in recognition of the best AAPG paper presented at the previous year's international conference. This year, the award is presented to Pedro V. Zalan and his co-authors, Maria do Carmo Garcia Severino, João Alberto Bach de Oliveira, Luciano P. Magnavita, Webster U. Mohriak, Rogerio Cardoso Gontijo, Adriano R. Viana and Peter Szatmari, for the paper "Stretching and Thinning of the Upper Lithosphere and Continental-Oceanic Crustal Transition in Southeastern Brazil."

Interpretation of deep (down to 25 km) PSDM seismic reflection lines in the Santos, Campos and Espírito Santo basins, controlled with gravity and magnetic modeling, allowed for the first time a direct visualization of the extension and thinning modes of the uppermost lithosphere and of the different ways through which continental crust passes into oceanic crust in this

segment of the South Atlantic passive margin.

Features described in the modern concepts developed for the evolution of hyper-extended deep rifted margins related to stretching, thinning, exhumation, oceanization and oceanic spreading phases were recognized, as well as other non-accounted features. Extension seen on those lines is clearly depth-dependent with major thinning taking place in the ductile lower crust.

Stretching (brittle deformation via highangle planar rotational faults) is broadly distributed in the upper crust. Thinning of the continental crust is taken up mostly by the ductile lower crust by decoupling from the upper crust and upper mantle through multiple major decollement zones. Exhumation of the mantle seems to be the rule throughout the 3 basins; thus, marking the continental-oceanic transition. The crustal zonation thus obtained will allow for better evaluation of the petroleum potential of exploratory blocks in future bids.

Pedro Victor Zalán, internal senior geological consultant at Petrobras, Rio de Janeiro, Brazil, began his work in the industry with Petrobras in Belém in 1978. His technical interests are mainly structural geology, tectonics, architecture of rifts and ruptured continental margins, exploration in deep and ultra-deep waters, seismic interpretation and mapping, and integration of regional data in order to evaluate the economic potential of major petroleum systems. Zalán has been wellsite geologist, interpretation geologist, explorationist, coordinator of technical teams and exploration manager for several basins in Brazil (interior basins) and worldwide, notably for the North Sea, Gulf of Mexico, West Africa and South America.

As an internal consultant for both domestic and international exploration, he got acquainted with the most diverse basins in time (from Cenozoic to Proterozoic), space (from onshore to ultra-deep water) and distribution (from Cuba to East Siberia, from the North Sea to Antarctica). Zalán has produced several numerous publications and has given presented at conferences internationally.

He is also a short-course instructor in structural geology for Petrobras, in congresses and for NOCs worldwide. Zalán received a bachelor's degree in geology from the Federal University of Rio de Janeiro, and M.S. and Ph.D. degrees in geology from the Colorado School of Mines, Golden. He was awarded the Orville Derby Medal in 2005 by the Sociedade Brasileira de Geologia in recognition of his contribution towards the improvement of the geological knowledge of the Brazilian territory.

Zalán was born in 1956 in Rio de Janeiro. He and his wife, Lucia, a corporate governance manager for EBX in Rio, have four children.

Maria do Carmo Garcia Severino was born in 1960 in Porto Alegre, Brazil, and is presently an internal technical consultant at Petrobras in Rio de Janeiro. She graduated as a geologist from the Federal University of Rio Grande do Sul, where she later received a M.S. in geology (stratigraphy).

Carmo was hired by Petrobras in 1987 as a geophysicist, having worked as a geophysical interpreter of regional data in projects aiming to evaluate the economic potential of petroleum systems and to rank exploratory areas available on the bids related to the Brazilian marginal basins. She is experienced in the sedimentary basins of the Equatorial Margin, East Margin (Jacuípe, Sergipe, Alagoas and Pernambuco-Paraíba) and Southeastern Margin (Santos, Campos and Espírito Santo).

Her technical interests are mainly seismic interpretation and integration of regional data, architecture of rifts and ruptured continental margins, as well as carbonate systems.

João Alberto Bach de Oliveira was born in Porto Alegre in 1961. He received a bachelor's degree in geology from the Federal University of Rio Grande do Sul in 1986 and has been working for Petrobras since then. He is expert in the interpretation of regional geophysical data, mostly gravity and magnetics.

His experience includes many Brazilian onshore and offshore basins, several South American, East and West African marginal basins, as well as the Black Sea and the GOM. In the last years, João Bach has focused his work on the crustal structure of the marginal basins modeling aiming to better understand the evolution of the break-up process of large continents and, consequently, the evolution of the associated petroleum systems.

He and his wife Carla, a geochemist who works at Petrobras R&D Center -CENPES, have one daughter.

Luciano Magnavita received a degree in geology from Brasília University, Brazil, in 1976. He joined Petrobras in 1978 and obtained a Ph.D. in structural geology in 1992 from Oxford University, UK.

After working with several Brazilian basins, he had an assignment with Petrobras America in Houston, Texas, where he

worked in the exploration of the Gulf of Mexico. More recently he has been working with regional structural mapping of the pre-salt of Campos and Santos basins. His main interests are tectonics and sedimentation in extensional basins, salt tectonics and the evolution of passive margins.

Webster Mohriak graduated in geology at Universidade de São Paulo (São Paulo, Brazil) in 1977, and received his Ph.D. in geology at Oxford University in 1988. Now senior explorationist at Petrobras, he has been conducting regional basin analysis projects since 1982, with special emphasis on petroleum geology and tectonic evolution of the South Atlantic passive margin sedimentary basins, including ultradeep water new frontier regions and the northeastern Brazil interior rifts.

He has several publications on the Eastern Brazilian margin, West African margin and the Gulf of Mexico. His presentation at the 1993 AAPG Convention in New Orleans, "Contrasts and similarities in the geologic evolution of the Campos and Santos basins, offshore Brazil: the Cabo Frio frontier region", was included in the 10 selected papers presented at the SEG conference in Washington, D.C. He was the main editor of the book *Atlantic Rifts and Continental Margins*.

He is a member of the Brazilian Society of Geology, Brazilian Society of Geophysics, AAPG, American Geophysical Union, Geological Society of America, Geological Society of London, and Brazilian Society of Petroleum Geologists, where he was also the second technical editor.

He has been teaching several in-house short courses at Petrobras since 1989, as well as in several Brazilian universities as invited and visiting professor. He was a lecturer at the 1998 International AAPG Conference lecturer on the Geology of the Eastern Brazilian basins (with C. Cainelli). He was the main editor of the book *Sal: Geologia e Tectônica*, published by Petrobras – Editora Beca in 2008. He is also a professor at UERJ, where he presents master's level courses on extensional tectonics, salt tectonics, and basin analysis. His main interests are petroleum geology, salt tectonics, and the deep structures of sedimentary basins.

Rogerio Gontijo obtained his bachelor's in geology from UNESP-São Paulo, Brazil in 1984, a master's degree in sequence stratigraphy from UFRGS-Rio Grande do Sul in 1996 and specialization sensu strictus in structural seology from UFOP-Minas Gerais in 2006.

He started his professional career as a geophysicist for Petrobras in 1985 working at Exploration Department, mainly in Brazilian offshore basins. He has interested in basement reactivation in passive continental margins sedimentary basins and its role over the petroleum systems. Currently he is Senior Consultant acting at exploratory area.

Dr. Adriano Viana has performed frontier studies on deep-water sedimentation since the mid-1980s. His main interest is to understand the processes responsible for the accumulation of sands in deep-water environments and their geological record. His studies promoted a better understanding of the role of oceanic currents in transporting sediments along the Brazilian Atlantic margin, and provoked a shift in the classical concepts of contourites by recognizing the importance of surface boundary currents in shaping the slope seafloor and accumulating large sedimentary deposits.

Also, the studies performed along the southeastern Brazilian margin with 3-D seismic, piston cores, sea-floor imaging and flume simulations provided a new comprehension on the modern submarine physiography and the sedimentological processes taking part in such a depositional realm. He was the first scientist to document the presence of living deepwater corals in slope settings along the eastern Brazilian margin and to associate those forms to the bottom circulation regime.

He was involved on the discovery of the pre-salt supergiant oil fields in Santos Basin and presently conducts a program on Exploratory Frontiers at Petrobras Research Center involving Brazilian and international academic institutions to promote academic studies dealing with continental margin structure and evolution, unconventional gas accumulations and revisiting Brazilian Paleozoic/ Proterozoic Basins.

Adriano earned his bachelor's degree in geology in 1982 from Universidade Federal do Rio Grande do Sul, Brasil as well as a Ph.D. in marine geology and sedimentology in 1998 from Université Bordeaux 1, France.

Peter Szatmari, internal senior geological consultant at Petrobras, was born in Hungary, studied at the Eotvos University in Budapest and received his Ph.D. degree from the University of Edinburgh, UK. He worked first as an independent consultant and subsequently as an internal consultant for Petrobras, ministering courses on evaporite sedimentation and tectonics.

Szatmari oriented a Petrobras research group that described the

Paleozoic evaporites of the Amazon-Solimões Basin in Brazil and discovered a Hecynian structure crossing that basin; the first well drilled into that structure discovered the Jurua hydrocarbon field beneath Carboniferous evaporites. He gave internal courses on tectonics at Petrobras and post-graduate courses on tectonics at associated Brazilian universities, orienting dozens of M.S. theses.

He installed a physical modeling laboratory at Petrobras and coordinated it for 15 years. Szatmari authored papers on the South Atlantic rifting process in international publications and made quantitative predictions on petroleum potential of basins along the South Atlantic which have been verified.

In 2008 he published a book on *Salt: Geology and Tectonics* with co-editors Webster Mohriak and Sylvia M. Couto Anjos. In 2009 he and Webster Mohriak gave a course on evaporites for the AAPG-ICE in Rio.

Szatmari studied geology from 1955 to 1961 at Eotvos Lorand University; received a diploma equivalent to M.Sc. in 1961; studied from 1969 to 1972 at University of Edinburgh, Grant Institute of Geology; and received a Ph.D. in 1972.

PAUL MARKWICK
Ziad Beydoun Memorial Award

LAUREN K. RAYNHAM
Ziad Beydoun Memorial Award

M. CHAKER RADDADI
Ziad Beydoun Memorial Award

STEVE TOMLINSON
Ziad Beydoun Memorial Award

EMMA V. EDGECOMBE
Ziad Beydoun Memorial Award

ROBERT G. J. BAILIFF
Ziad Beydoun Memorial Award

NEIL EDWARD WROBEL
Ziad Beydoun Memorial Award

DENNIS ROWLAN
Ziad Beydoun Memorial Award

AMANDA M. J. GALSWORTHY
Ziad Beydoun Memorial Award

The Ziad Beydoun Memorial Award is given each year in recognition of the best AAPG poster presented at the previous year's international conference. This year, the award is presented to Paul Markwick and his co-authors for the poster "The Evolution of the South Atlantic Hinterlands from the Late Jurassic to Recent: Mapping Stage Level Changes in Source-to-Sink Relationships."

This study examines the evolution of clastic source to sink relationships in the South Atlantic by reconstructing the tectonic framework, palaeoenvironments, palaeolandscape and palaeodrainage of both African and South American Atlantic margins through time. This is part of a larger project to reconstruct global palaeogeography at stage level from the late Proterozoic to recent.

Paul Markwick has a B.A. in geology from St. Edmund Hall, University of Oxford, and Ph.D. in geophysical sciences from The University of Chicago. He worked for two years at BP's Research

Centre in Sunbury-on-Thames before moving to the University of Chicago, where Paul studied with Professor Fred Ziegler's oil-industry sponsored Paleogeographic Atlas Project, reconstructing the geographic and climatic evolution of the Earth over the last 120 million years.

This was followed by a post doctorate at the University of Reading researching the exploration significance of the palaeoclimatic and drainage evolution of Southern Africa using computer based climate models. He then moved to Roberston Reseach International Limited, now part of Fugro, as a staff petroleum geologist, where he developed global predictive lithofacies models for source and reservoir facies, before moving to GETECH in 2004.

In 2006 Paul took over the management of GETECH's Petroleum Systems Evaluation Group, and in 2008 joined the GETECH Board as Geological Director. Paul has published over 30 papers and abstracts and is a Research Fellow at the Universities of Leeds and Bristol.

M. Chaker Raddadi holds a Ph.D. in sedimentary geology and sequence stratigraphy applied to oil and gas exploration, and an engineering degree in reservoir geology. He has large academic and industry experience in exploration geology, basin analyses, carbonate reservoirs studies and petroleum systems evaluation. Before joining the GETECH Group, he used to work as exploration geologist and carbonates specialist for a major oil company and was involved in exploration projects in the Middle East and Africa.

In 2006, he joined GETECH as senior sedimentologist. Dr. Raddadi is now leading the sedimentology/stratigraphy team in GETECH and managing a number of studies in Africa and South America.

Lauren Raynham graduated from the University of Leeds in 2006 with a degree in environmental geology and a final year dissertation covering the paleoenvironmental and tectonic effects on sediment deposition in the Megara Basin and Gulf of Alkyonides in central Greece. This was followed by a master's degree in engineering geology in 2007, with a dissertation on remediation design for a contaminated site in South Wales using CLEA and cost benefit analysis.

She joined the Petroleum Systems Evaluation Group at GETECH in 2007 and during this time has performed a multi-disciplinary role involving; integrating palaeogeographical mapping, sedimentology, structural geology and palaeoclimatology, focusing on the South Atlantic and Circum-Arctic regions. More recently she has worked as part of the European regional team developing a new plate model for the region together with mapping the European and Mediterranean geographic evolution through the 32 stages of the Cretaceous and Tertiary.

Steve Tomlinson is a mature student currently completing the final year of his bachelor's degree in geological sciences at University of Leeds. He spent last year doing an industrial placement at GETECH, where he worked on the palaeogeography project. Steve also works part-time to fund his University education. His spare time is reserved for his wife and daughter.

Emma V. Edgecombe is an undergraduate student at the University of Leeds reading for her final year of B.S. in earth systems science, as well as working with GETECH on the Global Palaeogeography project during a thoroughly enjoyable year in industry with them. She plays saxophone and enjoys reading, arts and crafts, cycling and walking, as well as getting away to the countryside to do a bit of conservation work.

Dennis A. D. Rowland is a third-year undergraduate student studying for a bachelor's degree in geological sciences at University of Leeds. As part of a year in industry with Getech Plc I had the privilege of being involved in the Global Palaeogeography Project. In my spare time I enjoy reading, long walks, cycling and a general love of the countryside.

Rob Bailiff graduated from the University of Leeds with a degree in geological sciences. Since joining the Petroleum Systems Evolution Group at GETECH in 2007, he has performed multi-disciplinary role encompassing palaeogeographic mapping, structural geology and palaeoclimatology. More recently, Rob has been an integral member of GETECH's Global Palaeogeography mapping team, responsible for mapping the palaeogeographies of 32 stages in the Cretaceous and Tertiary, with a specific focus on North Africa.

Amanda Galsworthy originally worked with show jumping horses until she studied environmental geology at the University of Leeds. Her final year dissertation concentrated on the correlation of species gradients across Peru with soil nutrient gradients, using diffusive equilibration in thin film (DET) and diffusive gradient in thin film (DGT).

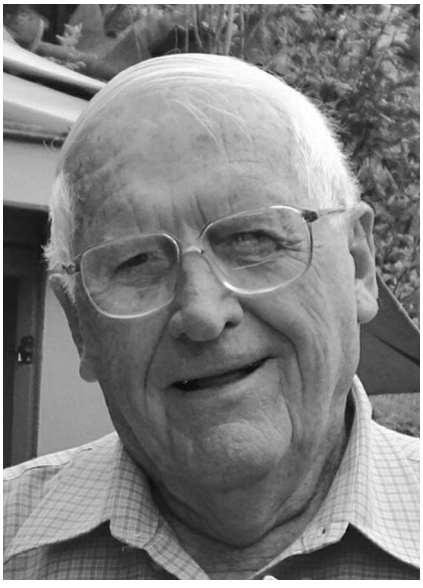
Continuing with these methods, she started a part-time Ph.D. in

2007 to define redox reactions in aquatic sediments and examine the mobility and reactions of trace metals. She joined the Petroleum Systems Evaluation Group at GETECH as a geologist, and has worked on a wide range of studies in areas including the South America, South East China, and Africa. Her role is multi-disciplinary and has includes palaeogeographical mapping, sedimentology, structural geology, palaeoclimate and petroleum systems.

Recently she has been working with the Global Palaeogeography team, focusing on mapping Africa and the Mediterranean through 32 stages of the Cretaceous and Tertiary.

Neil Wrobel is a GIS specialist, geographer and geoscientist. He graduated from the University of Manchester in 2001 with a B.Sc. in environmental and resource geology. After graduating, Neil became an independent IT contractor, working mainly for large banking and insurance companies. In 2003, he was hired by a local government authority as a GIS geographer for his strong IT and geographical skills. Neil remained in the public sector for four years, implementing and populating land and property asset management systems, as part of the e-government initiative.

In 2007, Neil joined GETECH as a technical assistant, but was soon promoted to GIS geoscientist and is now the principal GIS specialist for many of GETECH's regional and global studies. Neil is often referred to as a "production GIS specialist" as he has a flair for designing much of GETECH's hardcopy products such as posters, maps and enclosures.



LAWRENCE W. FUNKHOUSER
Foundation Weeks Medal Award

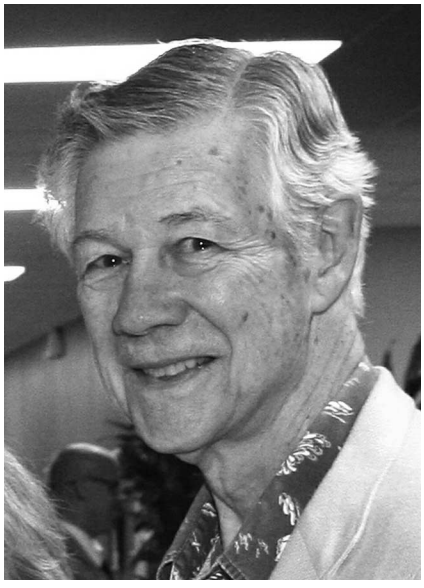
Lawrence (Larry) Funkhouser is a petroleum geologist, internationally recognized for his contributions to finding new sources of oil and gas, an achievement to which he has dedicated over a half century of his life. Thirty-eight of those years were spent with Chevron Corporation, where his major goal was the integration of all relevant fields of study—geology, geophysics, geochemistry, paleontology—into a cohesive whole. Born in Napoleon, Ohio in 1921, the young Funkhouser's interest in geology was sparked by the rock and fossil collection of his older brother, Harold.

This early interest culminated in geologic degrees from Oberlin College in 1943 and from Stanford in 1948. Funkhouser was also granted an Honorary Doctor of Science degree by Oberlin in 1990. Larry joined Chevron in its New Orleans office in 1948 and rapidly moved through the ranks before being named Chevron's vice-president of exploration in 1969. He was elected a Chevron director in 1973 and continued as vice-president exploration and production until his retirement in 1986.

Interestingly, some of Funkhouser's success may stem from an old-fashioned sibling rivalry; his brother joined Gulf Oil Corporation in 1938, eventually becoming the U.S. exploration manager for that organization, while Larry was responsible for similar activities at Chevron. Larry's career was also boosted by the tutelage of A. I. Levorsen at Stanford. Funkhouser acknowledges Levorsen's "passion for finding new reserves" which instilled in him the sense that "exploration was a fascinating treasure hunt, one that could lead to discovery of new energy sources as well as a rewarding and unusually interesting life's work.

After retiring from Chevron, Funkhouser was elected president of AAPG in 1987–1988. He later served as the chairman of the AAPG Foundation from 1990 to 2000. He was awarded the Powers Medal, AAPG's highest honor, in 2004. He has been a Foundation Trustee Associate since 1987, a Member of the Corporation since 1988, and a Trustee from 1989. The Foundation first honored Larry in 2004 with the Chairman's Award recognizing his extraordinary contributions which called attention to the role and value of the Foundation.

Over the past 10 years, Larry has financially supported the Foundation's Grants-in-Aid Program through the establishment of 5 memorial grants. In 2009, Larry and his wife, Jean, established the Roger W. Stoneburner Memorial Grant-in-Aid to benefit geosciences graduate students in memory of Jean's late husband.



DAVID "SCOTTY" HOLLAND
2010 Foundation Chairman's Award

David "Scotty" Holland has distinguished himself as an athlete, received his B.S. degree in geology from the University of Texas at Austin in 1957, and received an Honorary Doctorate degree from Hardin Simmons University in 1990. Holland went to work for Marathon Oil in Midland before joining Pennzoil in the mid–1960s as a senior exploration geologist He became president and chief executive officer of the Pennzoil Exploration and Production and served as group senior vice president of the Pennzoil Company until his retirement in 1990. In retirement, Holland is current chairman of the board of directors of Trend Exploration 1, L.L.C.

Presently, he is president of Holland Holding Inc., Holland Energy Inc. and Post Oak Petroleum, while also serving on the boards of the Houston Museum of Natural Science and the Geology Foundation of the University of Texas (Austin). An active member of AAPG since 1960, Holland served on various committees and boards, in 1988 he joined the AAPG Foundation Trustee Associates, serving as vice chairman in 1993 and chairman in 1998, and a Member of the Corporation since 1996.

Holland and his wife, Jacque, have established the Endowed Holland Geology Scholarship Fund; they funded the major endowment for the Hardin-Simmons University School of Sciences and Mathematics; in addition they were instrumental in funding the $3.9 million Holland Health Science Building, the location of a "first of its kind" high school, named Holland Medical High School, a health sciences magnet school built and maintained by Hardin-Simmons University.

Most recently the Hollands established the AAPG/Holland Award of Excellence at Hardin-Simmons University through the AAPG Foundation to honor faculty members at the Holland School of Sciences and Mathematics at HSU. The award for "professional development and enrichment" is intended to "make the best classroom better at the Holland School of Sciences and Mathematics."

Scotty and his wife Jacque have two sons, Terry and David, Jr., and three grandchildren.

L. STEF PARAMOURE
Teacher of the Year Award

Stef Paramoure is an outstanding 8th grade science teacher at Oak Run Middle School in New Braunfels ISD, New Braunfels, Texas. Her passion for turning kids onto science has driven her to deploy a wealth of instructional strategies that engage students both physically and mentally. Whether it is songs, mnemonics, hand motions, or technology, Stef is always searching for ways to make her lessons more memorable, exciting, and relevant to her students. Her motto is "Knowledge is power—give some, get some."

A former Navy nuclear weapons technician, Stef Paramoure became a science teacher in 2002 after completing her certification at Texas Lutheran University. Her love of knowledge led her to seek a Masters in curriculum and technology in 2007. Stef constantly strives to better her teaching practices and does so as both a Science Teacher Mentor and Instructional Team Member of the Central Texas Regional Collaborative for Excellence in

Science Teaching through ESC Region XIII in Austin, TX.

One of the things that makes Stef unique is her use of innovative technology through podcasting. Stef has created her own podcast series called "Science Alive." Some of the podcasts document lab activities so that students who miss a hands-on lab can still access the content and experiences through technology. Other podcasts help students to review content covered in class. Most importantly, the podcasts bring relevancy to the science content covered in class. Stef's most recent work focuses on a series of podcasts specifically related to the geosciences with video and still footage of geological features and formations that her students can recognize from their local environment and beyond. Stef also brings humor into her podcasts through the inclusion of her co-host, Albert Einstein, in the form of a twelve-inch Einstein doll. These funny, engaging, and relevant podcast episodes provide students with experiences that match the way they interact with the world as digital natives.

Stef is constantly exploring ways to improve not only her own skills and content knowledge but to share what she has learned with others in her profession. She has been a Science Teacher Mentor through the Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching (TRC) program since 2005. In this capacity, she is required to complete at least 105 contact hours of science professional development each year and to mentor colleagues in her district and across Central Texas using the knowledge and skills she acquires through this program. She has also worked with the NASA High School Aerospace Scholars program for four years and has been named a semi-finalist for the HEB Excellence in Education Award numerous times. She has presented teacher workshops at the Texas state science teachers conference, the TRC Annual Meeting, the National Science Teachers Association Conference, Comal ISD district training, and shared her considerable enthusiasm at many other events for teachers and students.

Stef has a deep love of geology, which has led her to participate in G-Camp 2009, a summer field program for teachers; visits to the Canyon Lake Gorge; the Offshore Energy Center; and a mineral collecting trip to mines in New Mexico. Stef also stays active in professional organizations by presenting at both state and national conferences.

A perfect example of Stef's infectious enthusiasm and can-do spirit was on display at the TRC Annual Meeting in the summer of 2008. Dr. Matthew McGlone presented his research on stereotype threat and the impact it can have on achievement in science and mathematics, particularly for women and minorities. His presentation was well received by all in attendance with many teacher leaders and professional development providers asking him to come to their respective regions across the state to share his findings. Stef went even further. By the end of the presentation, she had already sketched out a lesson plan to present this information to her students and within a view months had written and recorded an entire podcast series with Matt to bring his research to an even larger educator audience worldwide. She is now serving as a consultant for an NSF grant with Matt to implement strategies for countering stereotype threat in science classrooms.

In short, Stef Paramoure works tirelessly to analyze her instruction, improve her skills, and contribute to teaching as a profession. She constantly challenges her students to "show what they know" and places a great deal of emphasis on building a nurturing, supportive and stimulating classroom climate that helps students to master science content as well as gives them the confidence they need to be successful outside of her classroom. From Parent Science Nights where students can "show off" what they have learned, to Super Science Saturday TAKS tutoring, to Science Fair, or engaging multimedia presentations, Stef Paramour is always going above and beyond for her students and her profession.