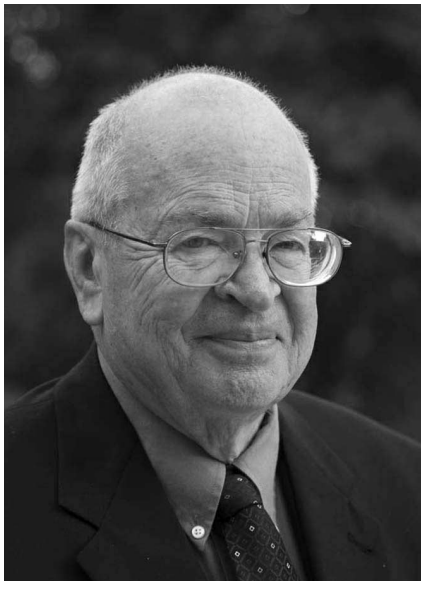
AAPG Honorees, 2009



MARLAN W. DOWNEY
Sidney Powers Memorial Award Recipient

Citation—To Marlan W. Downey, legendary oil finder, renowned and respected business leader, a man dedicated to the profession he loves, who reminded us that "geology is a science, exploration is a business," and that success begins with people.

It is with great delight that we have been asked by our dad to write his biography for the Sidney Powers Memorial Award and with even greater pride that our father has been selected to receive the highest honor bestowed upon a member of the world's largest geological association. There have been many great biographies written about Marlan from the perspective of his esteemed colleagues. However, we would like to provide the version from our eyes, each of us with over 25 years in the oil business, and an additional 25 years of daily life with our dad.

When people talk to us about our dad, they always comment about his great warmth, integrity, and no nonsense, down-to-earth style. Secondly, about what a great oil man he is and how his wisdom has influenced them.

Perhaps the source of his personal style may lie in his upbringing. As one of three children raised in rural Falls City, Nebraska during the Depression, he taught himself to read at an early age and started school at the age of four. He devoured books, and to this day, can read an entire novel with complete comprehension in an hour. By the time he was sixteen, he entered college, receiving his B.A. in chemistry from Peru State College in 1952. He served two years in the Army in Korea and the Philippines, and returned to his home state of Nebraska entering the University of Nebraska on the GI Bill. He changed his major to geology and received his B.S. in 1956 and M.S. in 1957. He has stayed very close to his roots and returns often to visit his sister, Carol Beth, and numerous other relatives.

Marlan always emphasized the importance of our reputation and our good relations. He always looked for the win-win solution in business deals, even before it was popular. I remember a story he once told me, about when he was once faced with an angry group of drunken natives in Ecuador threatening one of their land rigs with muzzle loading rifles. After his rig manager assured him that everyone was safe, his advice was to "open up the mess hall and break out the ping pong tables!" He knew that the natives didn't stand a chance against a double crew of Texas roughnecks, and if the local army were called, the natives would be shot on the spot. The next morning, the wives who had been working all day in the fields, angrily grabbed the men and drug them home by their ears.

Many people have recognized Marlan's good deal of common sense in business, as he always seems to hone in on the key issue. However, our family was a little surprised; as our recollection of our dad's common sense can be summarized in a couple of stories. Not once, but twice, did our dad drive right through the garage door (he hadn't had his coffee yet). During a camping trip when he couldn't get the campfire started, he siphoned gas from the car into a coffee cup and threw it on the fire. As he caught on fire and began rolling in the dirt, some wiseacre kid cried "quick, get the marshmallows!" Dad always did emphasize learning from our mistakes.

He began his 30-year career with Shell Oil in Tulsa, Oklahoma in 1957, and later worked assignments in Shell's field offices in Oklahoma City and Fort Smith, Arkansas. We later settled in Houston, where he was assigned to Shell's Research Lab. As project manager, he was responsible for recognizing the application of Shell's research in theoretical organic geochemistry to oil exploration. In 1967, he became Shell's youngest chief geologist, and in 1973 was named Alaska Division

exploration manager. His ascent up the corporate ladder was rapid, as he was quickly recognized as proven oil finder, not just in terms of barrels, but in profitability. He moved into Shell Oil's International Exploration and Production business in 1977 where he became vice president of Shell, then president of Shell's newly formed international subsidiary, Pecten International. During his seven years at Pecten, his team increased reserves 325% and production by 600%.

While at Shell, he never differentiated between male and female geoscientists, only on abilities. He placed the first woman geologist in charge of a Shell helicopter field crew in Alaska. He put the first woman geophysicist on a Shell seismic boat, and in Shell and later Arco, he assigned female managers to positions of leadership in foreign operations, without regard to local prejudices. This influenced my early career in the 1980s with Marathon Oil, as I took it for granted that there were no boundaries to what a woman could do in this business, if you worked hard and were good at what you did.

After retiring from Shell in 1987, Dad formed our small, family oil company, Roxanna Oil, a name taken from Shell's earliest US companies. During this time, Roxanna and their associates held nearly three million acres in Syria and the Philippines.

However, the challenge of impacting the performance of a major oil company called when ARCO asked him to take over as senior vice president of exploration for ARCO International in 1990. A year later, he was named president of Arco International and senior vice president and executive advisor for ARCO. During his seven years at ARCO, he built a world class exploration team by bringing in the best talent from all over ARCO. When he stepped down in 1995, he received a plaque that credited he and his team with discovering 800 MMBOE (net to ARCO), cutting finding costs more than half, and doubling daily production.

Although he retired from ARCO in 1995, he did not retire from his passion of geology and devotion to the industry. He entered academia, oversaw the activities of Roxanna Oil as chairman, and continued his involvement in AAPG.

On the academic side, he joined the University of Oklahoma as a Bartell Professor of Geology and Chief Scientist of the Starkey's Energy Center until retiring in 2000. He also serves as Senior Fellow at the Institute for Study of Earth and Man at Southern Methodist University. As a guest lecturer at SMU, he has had the pleasure of having my youngest brother, Nick, in his geology class.

In 2000, Marlan become interested in the productive possibilities of mature gas and oil shales. Roxanna began a series of consulting projects for several major oil companies and began leasing in prospective shale gas plays with partners. Roxanna Oil currently has an interest in over 500,000 acres in unconventional resource plays in the United States.

Marlan has been a member of AAPG for over 50 years. He served as AAPG President during 2000–2001, is a Foundation Trustee, has served on the Executive and Advisory Councils, chaired numerous committees, and twice selected as Distinguished Lecturer.

Besides publishing scores of articles and several book, he organized and chaired the first Hedberg Conference on "Seals for Hydrocarbons", the first Hedberg Conference on "Understanding Risk in E&P with Pete Rose and Ed Capen, fifth Conference on "Unconventional Methods of Exploration", the Pratt Conference on "Future Petroleum Provinces", and the first AAPG conference on "A National Energy Policy". He was selected to provide the article on "Exploration for Oil and Gas" for the Encyclopedia of Energy.

He has been recognized for his impact on the petroleum industry in a variety of honors and awards throughout his career. In 1986, he was the first businessman to be knighted by President Biya of Cameroon for his services to that country. In 1988, Peru College honored Marlan with their Distinguished Alumni Award and in 1995, the University of Nebraska recognized Marlan as a Distinguished Alumni of the Geology Department. He was elected a Fellow of the American Association for the Advancement of Science and a fellow of the Geological Society of the United Kingdom. Most recently, AAPG awarded him the Robert H. Dott, Sr. Memorial Award for best geologic publication. In 2002, he received the Hedberg Medal for outstanding scientific achievements and in 2007 was made an Honorary Member of AAPG. He has been honored by the Houston Geological Society as "a Living Legend in the oil and gas business, and in 2005, was honored as a "Legendary Oil Finder" by the Petroleum History Foundation.

These days, he stays busy with his involvement in several industry and university boards, or developing new thoughts on tight sands or geothermal and unconventional resources, or simply working on his

latest blacksmithing project up at his ranch. However, his best moments are spent with the family, his wife of over 30 years, Marea, and his six children, Donald, Julie, Karen, Justin, Alex, and Nick, and four grandkids. You will often find us sitting around the fire, with maps and logs strewn out across the living room floor while we discuss our latest project. With one hand over his tummy, he'll sit back and say, "Kid, I think you got it just right."

Julie Downey Garvin
Donald W. Downey

Response

I should like to begin my response by thanking my marvelous wife, Marea, and my six wonderful children, Donald, Julie, Karen, Justin, Alex, and Nick. My family has been the stable foundation and the ongoing joy of my life.

I can think of few special qualities that I possess beyond that of an active curiosity and voracious reader; in my own abilities I have much to be modest about.

My friends, my associates, have provided the real basis for any successes in my professional career. I have benefited constantly from my friends, who have allowed me to watch, to listen, to absorb their deep and particular knowledge through my interchanges with them.

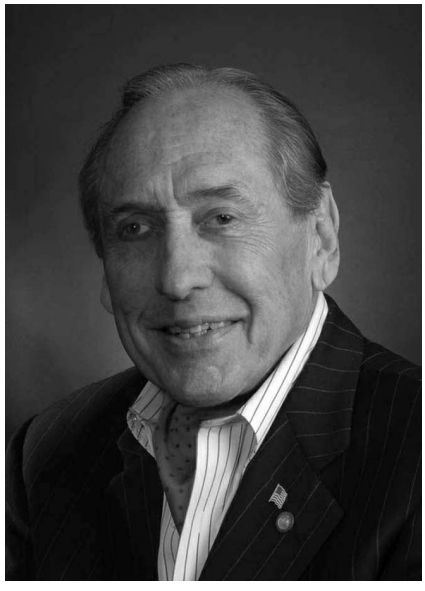
As a geologist, as a manager, as a teacher, I find myself strongly attracted to areas of ignorance or misunderstanding in the exploration process. These interests have focused me towards a deeper understanding of the uses of organic geochemistry, geopressuring, of seals, of effective team building, competitive bidding theory, and the business of petroleum exploration.

I recognize that each of my friends knows things that I do not, can do things that I cannot; my growth, my fifty year development as a geologist and manager is based on my striving to be as knowledgeable and wise … as my many friends.

Family; Friends; you fully share in this honor which the AAPG has devolved to me.

Thank you.

Marlan W. Downey



M. RAY THOMASSON
Michel T. Halbouty Outstanding Leadership Award

Citation—To M. Ray Thomasson, the quintessential explorationist, enthusiastic leader, contributing visionary and mentor who has dedicated his professional life to furthering petroleum geosciences.

With an infectious enthusiasm, Ray Thomasson has dedicated his professional life to teaching petroleum geology and advancing energy exploration. No one has given more to the geosciences than Ray. He is a born leader, a visionary, and of course, an extremely successful explorationist. Ray is a fitting recipient of the American Association of Petroleum Geologists (AAPG) Michael T. Halbouty Outstanding Leadership Award.

Ray's early life was spent in Columbia, Missouri, where he attended public school and later the University of Missouri, earning a B.A. degree in geology in 1952 and an M.A. in geology in 1953. After two years as a U.S. Air Force intelligence officer, he continued his graduate education at the University of Wisconsin, where he earned a Ph.D. in geology in 1959. (Both alma maters have honored him with an Outstanding Alumnus Award.) Following graduation, Ray decided that the challenges of the business world would enhance his education before he returned to the world of academia. He chose to work for the Shell Oil Company in Midland, Texas as a junior geologist.

I first noticed Ray at the AAPG convention in Denver in 1972. Ray spoke authoritatively and knowledgably concerning the future of the Division of Professional Affairs. I thought he was a bright, good-looking, and a rather important sort of a person. He had an entourage of people following his every move. I was not surprised to later find out he was an up–and–coming executive with the Shell Oil Company. At that time, I considered Shell to be the foremost company in the field of innovative geological technology. Ray had much to do with this distinction. He was instrumental in the development of the team concept – the integration of geology, geophysics and petrophysics, geochemistry and engineering in

the exploration for large accumulations of oil and gas. The application of the multi-disciplinary team approach has become a productive part of Ray's life as an explorationist.

The evolution of Ray's career with Shell is a classic story of the ascent of a capable person in a dynamic environment. After gaining a solid foundation in exploration geology and geophysics in Midland, he began a natural climb up the Shell ladder, upgrading from one management position to another every few years, including in succession manager of geologic research, manager of exploration economics, and manager of the Texas, Louisiana, and Atlantic Off-Shore Division. His next advancement took him to Houston, where he served for two years as manager of forecasting, planning, and economics and then to London as head of strategic planning for Shell International Petroleum. Afterward, he was appointed chief geologist for Shell Oil USA. It was just the kind of career I would have expected of the man I first saw in Denver in 1972.

A man of Ray's ability and temperament almost always succumbs to the urge to seek his fortune as an independent. That is what Ray Thomasson did in 1977 when he left Shell to become vice president of McCormick Oil and Gas. Three years later he formed Spectrum Oil as president and in 1983 took the position of president of Pend Orielle Oil and Gas.

During his long career with Shell, Ray moved 12 times in 17 years. In each new location he became active in the local geological society. On the national level of AAPG he served as a member or as the chair of no fewer than 14 AAPG committees, including the Public Information, Energy Minerals, Education, Visiting Petroleum Geologist, Geophysics, Resource Evaluation, Corporate Liaison, Research, Technical Program Publications, and Committee on Committees. He also has been a delegate to the House of Delegates and a member of the Advisory Council, and in 1993 he was co-convener of the Archie Conference on Visualization. He served as AAPG Associate Editor and founded columns in two publications: the "Geophysical Corner" in the AAPG *Explorer* and "The Geologic Column" for *The Leading Edge*, an SEG publication. Ray's professional activity has deservedly earned him the Distinguished Service Award and Honorary Membership in AAPG.

Ray was the President of AAPG in 1999–2000 – our millennium president. During his tenure as the Association's president, he felt that our organization was in need of revitalization. Shortly after taking office, Ray named Rick Fritz director of AAPG and together the two, along with the Executive Committee, actively worked to invigorate and strengthen the Association. As part of this revitalization, Ray undertook extensive travel, lecturing both inside and outside the United States. During this period, he arranged for the acquisition of Datapages, authored twelve "Presidential Pages" in the *Explorer* detailing his philosophy of oil and gas exploration, and worked diligently to developed closer ties with the SEG and SPE.

Ray has also been actively involved in the American Geological Institute (AGI) for a number of years. He is a past president of AGI, past chairman of AGI's Foundation Board of Trustees, and a current AGI board member. Working with AGI, he initiated an educational film series that became *The Faces of Earth* to promote greater awareness of geoscience among the general public and government officials. Ray is also responsible for developing a cooperative program between local AGI societies and the National Park Service and for initiating AGI's involvement in the five volume series by Michael Collier called *An Aerial View of Geology*. In recognition of his contributions, the AGI Foundation awarded Ray its Distinguished Service Award in 2004 and the William B. Heroy Award for Distinguished Service in 2006.

For the AAPG he has been a Distinguished Lecturer, a short course lecturer, Visiting Petroleum Geologist, not only in the United States but at the University of China in Beijing. He has presented papers and organized technical sessions at regional and national meetings for which he has received two Best Paper awards and the A. I. Leverson Memorial Award. Ray taught an AAPG course on "Stratigraphic Geophysics in Carbonate Exploration" and has presented many papers at national GSA, AAPG, and AAAS conventions. He has authored and presented over 100 technical papers on such diverse subjects as limestone turbidites and stratigraphy in West Texas to the stratigraphy, structure and sedimentation in the western United States. Most recently he co-authored papers on exploration opportunities in the Rockies, giant oil and gas fields of the Rockies and the mechanics of basin-centered gas deposits. Ray has lectured concerning domestic and international energy forecasts, including presentations to the

executive committees of General Motors, Ford, and Chrysler as well as many other business groups across the country. Ray has also testified before the Senate and House Energy Committees in Washington D.C. where he warned of the forthcoming energy crisis.

In the late 1980s, Ray undertook a study of all geological provinces in the United States and concluded that the Rocky Mountains, with their vast areas of available acreage offered great unexplored potential and were suitable for the employment of modern technology. Based upon these findings, Ray, together with his wife, Merrill Shields, a colleague and successful attorney in her own right, conceptualized and organized their present company, Thomasson Partner Associates (TPA) in 1991. Once again Ray employed the team concept by gathering 12 individuals, including geological specialists, geophysicists, petrophysists, geochemists, and engineers, to work as a synergistic exploration team. Ray would provide the workplace, the tools, a land and sales force, and oversight. The team's motivations, other than professional, were the overrides that came with successes and the life sustaining profit sharing. Each individual receives the majority of the override and profit on each of their projects, but the remainder is placed in a pool for everyone's benefit. What a wonderful opportunity for world class scientists to utilize the knowledge of their passion while benefiting financially. Several of these people had recently become independents because their companies had closed their Denver offices and moved elsewhere. Many had reached retirement age but were still uniquely qualified to be active explorationists. Today the team includes 30 men and women who have been extremely successful in discovering many major accumulations of oil and gas, including the giant Cave Gulch Field in the Wind River Basin of Wyoming. The experience has been most gratifying to Ray and Merrill.

Ray's four daughters and four grandchildren lovingly know that his life both as a father and as a visionary explorationist, has been exciting and successful. If he ever does retire, he and Merrill will have the satisfaction of a job well done. Merrill and Ray have experienced life together as a team of one, enjoying everything from travel, opera, skiing, and study groups, to planting daffodils at their beautiful retreat in the Smoky Mountains of North Carolina.

To know him fully, one must see him in North Carolina in the beauty and grace that he and Merrill have created. The mountainside is covered with the flowers of their labor. The more you know Ray, the more you respect him.

No one could be more deserving of the Michael T. Halbouty Outstanding Leadership Award than M. Ray Thomasson.

Bob Gunn

Response

Mike Halbouty started me on the path to this award when he appointed me to my first AAPG committee. Mike Halbouty was a recognized leader and he significantly influenced the direction of AAPG. A leader needs to serve as a guide, to direct thought and action, but, as Mike demonstrated through his career, a leader also must have knowledge of his field and technical expertise. I am honored and humbled to be recognized with this award.

My thanks go to the Advisory and Executive committees along with others who have had a hand in selecting me for this high honor. To my biographer, Bob Gunn, I am exceedingly grateful for performing this task. Bob has extended encouragement over the years, and with his wife Carol, a special friendship. He is from the handshake business school and there is no one I respect more. I am also deeply indebted to Bob Weimer, Jack Parker, Bill Fisher, Merrill Hass and Grover Murray for initiating and stimulating my early career with AAPG. To Charles Weiner goes a very special thanks for always being there when needed. My daughters Julie, Laura, Mary Justice and Tito have shown great support and love. Most of all, I thank my loving wife Merrill for her enthusiastic support for my extracurricular activities.

My life has been blessed in many, many ways. I grew up in Columbia, Missouri. I am the third son of a college administrator father who stressed that I always have technical competence and a mother, who ran many boards and organizations, showed me how to lead through action. They drilled into me solid midwest values for which I am very grateful.

My first taste of leadership was as high school student body president. I learned early on delegation, decision by consensus, and (Truman was president at the time) "The buck stops here."

At 17, as a laborer prospecting the Phosphoria Formation in Idaho I was under the direction of a geologist, who periodically appeared out of the trees on horseback to direct our work. This inspired me to take Principles of Geology from Dr. M. G. Mehl,

a founding member of AAPG and a dynamic teacher. The next summer working with United Geophysical Company in east Texas hustling jugs and assisting surveying, recording and picking records sparked my interest in geophysics.

I didn't plan to be a Petroleum Geologist; I planned to teach at a university. At Wisconsin University I spent two summers in the field under Dr. Lowell Laudon. Although I was offered a position teaching at Illinois University, I accepted a job with Shell Oil. I told the recruiter, "I want to work for an oil company for 5 years and then go back and teach." I loved teaching but felt I should know its practical application.

"Shell University" taught me the fundamentals of how to create a petroleum play, how to build a drillable prospect, and the basics of seismic acquisition, processing and interpretation. Most importantly I learned the importance of integrating all the disciplines —geology, petrophysics, geophysics and engineering—into a technically sound project. In my first assignment in Midland, Texas I honed both my technical and leadership skills. I also did field work in the Delaware basin and in the Marathon area on weekends. With Alan Thomson, this led to the first publications in the United States on limestone turbidites.

Ron McAdams, the V.P. of Exploration at Shell was a tremendous mentor and oversaw my career. He sent me to middle and senior management courses.

As manager of Forecasting, Planning and Economics during early 1973, I gave presentations on the U.S. energy situation to the U.S. government, automobile companies, and to business groups. Shell created a film of my lecture and distributed it widely to business and government leaders. Our message 35 years ago was the desperate need then for a national energy policy encouraging the development of domestic coal, oil (including oil shale), gas, nuclear, wind and solar resources. We also developed a comprehensive conservation policy. We emphasized the need to reduce the national security and economic risk of importing oil. Few were willing to listen then or now. But we geologists must provide expertise on energy including testifying before local and federal governments.

In the mid-eighties I decided the Rockies would become a major gas and oil province so I moved to Denver. We started Thomasson Partner Associates, Inc. (TPA) in 1991 by banding together a group of outstanding professionals – geologists, geophysicists, petrophysicists, engineers, etc. My Shell exploration training was to first find thick, rich mature source rocks and the Rockies have these in abundance. In 1990 I was asked by Bob Gunn to chair an AAPG task force to make an evaluation of the resource potential of the Rocky Mountain Province. With 53 experts on the Rockies we were able to provide substance for a Rocky Mountain Resource Evaluation.

In 1994 TPA was instrumental in the discovery of a new field in the Wind River Basin (Cave Gulch Field), which appears to be in the giant category. TPA currently has partners on several more potential giant projects. TPA has allowed a group of us to continue to do what we love – integrate all the geoscience and engineering disciplines into a thorough technically analyzed package ready to drill.

We moved 12 times in 17 years with Shell. I decided early on to work not only with the local societies (WTGS, NGS, NOGS, RMAG) but also with regional sections and the national AAPG. I have been allowed to serve on many national AAPG committees, and chaired several. In each case I received more than I gave.

One of the areas where I believed AAPG could do a better job was working with our sister societies. In 1995 Roger Slatt and I organized the first workshop on visualization as an Archie Conference in cooperation with SPE, SEG and SPWLA.

As president of AAPG I was able to work with an outstanding and talented executive committee and we joined our sister societies in several projects. We had to make some tough decisions but we did it by consensus. As the keynote speaker at several international meetings and in other meetings I had opportunities to share my exploration philosophy.

In the early 1980s Howard Gould and Bill Heroy asked me to help start a Foundation for the American Geological Institute. I was flattered to chair an outstanding group of successful academics and business leaders (1984–1986). This Foundation under a series of great leaders has raised substantial monies for AGI.

In an attempt to give something back to Missouri University, in 1981 three of us formed a committee and started the Development Board which, under Dr. Tom Freeman's leadership became the poster child for other M.U. development boards.

I have been fortunate to scratch the teaching itch. In my fourth year with Shell I was able to teach two geology courses at Tulane University. In addition,

participating in the AAPG Visiting Geologist Program and presenting technical papers at GSA, AAPG and AAAS meetings has helped.

Another technical interest of mine has been seismic resolution of carbonate reservoir qualities. When asked by AAPG to give a distinguished lecture tour on "Stratigraphic Geophysics in Carbonate Exploration" by Toby Carleton I jumped at the chance.

I have had many stimulating jobs pursuing exploration and research over the years. However, opportunities to share my knowledge through teaching, publication, and mentoring has been equally satisfying. I have tried to maintain my technical skills with presentations at national, regional, and local meetings. I continue to get pleasure from publishing in technical journals. Each new subject is a learning experience.

Most recently I especially enjoyed co-authoring with Dr. Lawrence D. Meckel "Pervasive Tight Gas Sandstone Reservoirs: An Overview", AAPG Hedberg Series No. 3, 2008 and with Fred F. Meissner, "Exploration Opportunities in the Greater Rocky Mountain Region, Central Western, U.S.A.", in AAPG Bulletin, v. 83, no. 12, 1999.

What brings me the greatest joy and happiness is working closely with the brilliant and creative minds in our profession. At Shell, Spectrum, Thomasson Partner Associates, Inc. and AAPG I have been able to work with and learn from the cream of the crop. I have learned so much from so many people and I am very thankful for each experience. Every day presents a new exciting set of challenges and opportunities.

My passion in life is being part of groups creating giant exploration opportunities in both mature and frontier areas. I have tasted great success as head of Shell's offshore exploration and great failure with Spectrum. But I can say, through it all, I have followed my bliss. At lunch six months before he died at age 84, my Shell mentor Ron McAdams turned to me, banged his fist on the table and said "Damn, I wish I had 20 more years to do what we do!" That's the way I feel.

M. Ray Thomasson

ELIZABETH B. CAMPEN
Honorary Member Award

Citation—To Betsy Campen, effervescent, determined, and persistent, she jumped into the oil patch 20 years late and never turned back. Steep learning curves were the norm for Betsy and her success was not only personal but richly rewarded AAPG and the Montana Geological Society.

Betsy embraced geology from the moment she heard the definition when she was a student in Massachusetts. A woman ahead of her times, she wasn't able to work in her career for twenty years after her Smith College degree was granted, as she unfortunately believed her advisors who said "girls don't work in geology." She moved to the west, helped to run a ranch in Montana, and raised three children in the interim. Then finally, she looked around and said, "Oh yes I can!"

In 1977 she attended an AAPG meeting in Billings, Montana, and past president Bruno Hansen took her under his wing, gave her encouragement and mentoring as he did with many, and helped her to start her own her most rewarding career path. She had a steep learning curve. She did it all. She worked hard with the Montana Geological Society, taking all of their continuing education courses and then found work on well sites, in exploration and as a consultant. She served on many MGS committees and became an officer and eventually the MGS president. She didn't stop there. She chaired or co-chaired the AAPG Section meeting in Billings twice.

Bruno appointed her to the AAPG Public Outreach committee and she didn't look back. She has been an active Delegate, a leader in the Energy Minerals Division, has served on the Membership, Reservoir Development, Geophysical Integration, Public Outreach, Computer Applications, GIS Publications, and chaired the Youth Educational Activities committees. She also served as AAPG Secretary in 1998–1999 and was on the Advisory Council, as well as serving as executive secretary to the DPA and EMD.

Let's backtrack for a minute. Can you imagine the fortitude it took for a ranch wife, born in 1936, twenty years out of touch with this rapidly evolving profession, to acquire the computer expertise to serve on the Computer Applications committee and to integrate modern computer skills into her later life career? We all know more renowned geologists who have been daunted by this, but not Betsy.

Betsy loves to share geology with children and has years of devotion to Billings' Science Fair, school programs, and the Billings Gem and Mineral show.

In 1986 Betsy married Ted Campen, a petroleum engineer, and they started Campen Consultants, which seems to preclude retirement for both of them, as they continue their 24-year partnership in oil and gas and most recently coal-bed methane exploration.

Today we worry about the petroleum geology workforce and recruiting young geologists in a world where fewer and fewer young people major in our science. Betsy (Elizabeth) Campen is an important model for AAPG and our profession to embrace, as she can inspire many women to return to the field, to contribute greatly, and succeed with a dusted-off degree. She is irrepressibly determined and admirably successful.

Robbie Rice Gries

Response

Surprise and humility were the two emotions I felt when Scott Tinker called to say that I had been nominated for an AAPG honorary award. I am truly honored to join the ranks of my heroes and mentors. I want to thank the Advisory Council and the Executive Committee for this honor. I especially want to thank my old-time and good friend Robbie Gries for writing my citation and biography. Associations and friendships such as this are one of the huge benefits of being part of the AAPG family.

Thanks to my first boss, Duane Estelle, I immediately became a member of AAPG after entering the oil and gas industry in 1978. This membership has helped me in innumerable ways: connections, mentors, continuing educations, and wonderful warm and lasting friendships. It gave me a great leap into national connections and perceptions that I could have never gotten working for a small company in Billings, MT. Past AAPG president, now deceased, Bruno Hanson got me on Susan Landon's Public Affairs committee and I soon realized the importance of giving to the AAPG membership. As with the rest of life, the more we give, the more we receive. AAPG has certainly demonstrated this principal, and I continually urge young geologists to join and contribute to AAPG.

I am so grateful for the wonderful life I have had as a geologist. My first day working as a geotech made me realize I would never want to do anything else. Exploration geology has got to be the most intriguing and exciting profession that exists; the combination of discovery, learning, field work, teaching, and lots of hard work is the best!

I especially want to thank my petroleum engineer husband, Ted Campen, for our 20 years together in our family business, Campen Consultants, Inc. I have learned about Archie and Darcy, Rws and Sws, pressure tests, and we have had a wonderful time combining our skills in both old and new techniques. We never run out of dinner conversation, and we never take a vacation that doesn't include some geology: all the way from cleaning up old well sites in the boonies to the Tucson Gem Show.

Eddie David used to say, "Be the best that you can be". I want to thank my AAPG friends for helping me in my efforts to do this. I have loved every one of my 30 years as an AAPG member and petroleum geologist. Life has been good to me and I thank you all for your friendship and support.

Elizabeth (Betsy) Campen

JOHN KALDI
Honorary Member Award

Citation—To John Kaldi, a great practitioner of the geosciences and supporter of the AAPG for his tireless efforts and valued contributions in research, education, public outreach and professional leadership.

John Kaldi's Honorary Member award reflects the range of his contributions in the fields of research, education, public outreach and professional leadership. As Marlan Downey recently communicated "One way to greatly improve our geology profession would be to clone John Kaldi." John has always brought his special blend of energy, enthusiasm, humor, organizational skill and sound counsel to a range of initiatives in a career that has taken him and his family to live and work in Europe, North America, Asia and Australasia.

John was born in Hungary, and his family emigrated to Great Britain when he was very young. John's academics began with his studies towards the bachelor's and master's degrees (Queens College, City University of New York, 1976), and his research skills were more finely honed when he received his Ph.D. at Cambridge University; his 1980 dissertation was titled "Sedimentology of Zechstein Carbonates of North East England." John's work on carbonates continued with the Geological Survey of Saskatchewan in Regina, Canada where he met his bride, Paula, an English radiographer, in Canada for what was ostensibly a one-year assignment. They moved to Calgary in 1982 where John was a senior research geologist for Shell. Next stop was Plano, Texas in 1987 as a senior reservoir geologist for ARCO working Alaskan, Gulf Coast, North Sea and Indonesian projects. This was followed by a move to Jakarta with ARCO in 1991. It was in this general timeframe that John began his pioneering work on quantifying reservoir and seal potential using capillary pressure analysis with his friend and mentor Bob Sneider. This applied research resulted in his organizing Hedberg conferences on seals in (1993 and 2002), being a Distinguished Visiting Lecturer for the Petroleum Exploration Society of Australia, PESA, (1995), a Distinguished Educator for the Indonesian Petroleum Association, IPA, receiving an AAPG Special Commendation Award (1997), and becoming an AAPG Distinguished Lecturer (2002–2003, and 2009–2010).

John has won a deserved reputation in the field of education. He took over as director of the National Centre for Petroleum Geology and Geophysics (NCPGG) at Adelaide University in 1998. Under his leadership the NCPGG merged with the new Petroleum Engineering Department to become the Australian School of Petroleum (2002). This is the largest petroleum school in the Southern Hemisphere with strong master's and Ph.D. programs, as well as an impressive outreach program that includes industry short courses. John is now Chief Scientist for the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC) in Australia, remaining at the university as full professor and Chair of Geosequestration. John continues to teach industry short courses around globe; his subject matter includes development geology, evaluation of reservoirs and seals, and CO_2 sequestration. John's work in spanning the educational spectrum between university and industry has been recognized with best paper and Distinguished Lecturer tours for organizations as geographically diverse as the Indonesian Petroleum Association and the European Association of Geoscientists and Engineers (EAGE) in 2005.

John is the consummate public "out-reacher". In the field of CO_2 sequestration he has been on the radio (Australia, New Zealand, the BBC and the German "Deutsche Welle"), on TV (including a sizeable segment on the USA's Discovery Channel), and has been quoted dozens of times in various newspapers in Australia and New Zealand. John has addressed senators and members of Parliament, and has even led them on a visit to a CO_2 injection site. He has debated with Greenpeace and Friends of Earth in public forums, spoken to countless community groups (from schools, to techno-oldies, to professional societies, to government ministers and ambassadors). In addition he has given keynote technical addresses to the AAPG, South East Asia Petroleum Exploration Society (SEAPEX), IPA, PESA and the SPE. He is chairing a Hedberg on CO_2 sequestration in 2009 and has co-chaired two SPE Advanced Technology Workshops on this topic.

John was part of the AAPG Asia/Pacific "brain trust" and played a key role in setting up that region by serving as Secretary, President, Advisory Council representative and HoD delegate and committee member. He played a lead role in organizing the Bali 2000 IPA/AAPG International Convention and was also Technical Program Co-chair for the PESA/AAPG Perth 2006 International Convention; both events having extremely successful outcomes technically and financially. He has traveled extensively for AAPG as a Distinguished Lecturer and Visiting Geoscientist. He has also done extensive committee work. He is a past chair of the International Regions Committee,

and now leads the Visiting Geoscientist program, an initiative he has been closely involved with for many years. He has been extremely active with affiliates in the Asia Pacific region (such as PESA and the Association of Petroleum Geologists in India). John can always be relied upon for his special blend of energy, enthusiasm, humor and sound counsel.

The Kaldis have maintained a love affair with the Far East that started when they moved to Jakarta in 1991. There, they learned to enjoy and appreciate the fabulous range of cultures and the great diversity in the arts of that fascinating region. Eleven years ago they moved to South Australia, loved the lifestyle, and took Australian citizenship. Paula, very much at home in Adelaide, does a great deal of volunteer work, daughter Ana finished a law degree at Adelaide University and and is heading to ANU for a Masters in international law and diplomacy, and son Ben is in his third year of university studies in the field of computer graphics. They enjoy the outdoor life, and being close to nature, while John is also an accomplished squash player. His track record in truly "walking the talk" with regards to integrating the geosciences and engineering, making it a thoroughly practical and worthwhile exercise, and attracting and developing young minds into the profession, is an inspiration for us all.

Peter Lloyd

Response

I am deeply honored and extremely humbled to be awarded the Honorary Membership by the AAPG. There is nothing quite as gratifying as recognition by one's peers as it suggests an insider's knowledge of that which is recognized - an appreciation of the challenges as well as the successes! I thank Peter Lloyd, a close friend and colleague for writing the very complimentary biography about me. As Peter outlined, my career has been an extremely rich tapestry woven around life in the petroleum industry. I am very fortunate to have had the opportunity to live and work in five different countries (six if we count Texas….) including the U.S., Canada, UK, Indonesia and Australia). I have come to appreciate some of the differences, but more important, the similarities of my fellow petroleum geoscientists and engineers in these locales. The common thread in the myriad of experiences of my varied duties and locations has been my involvement in professional societies. As many geoscientists who have experienced the ups and downs of our industry in the past few decades understand, in this business we may have a range of employers over a career, but our professional "allegiance" is often likely to be to our professional society, and no society is better and has higher distinction than AAPG!

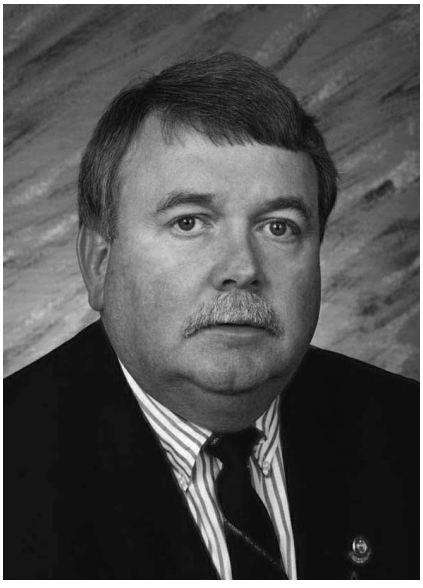
There is probably nothing that I have done to deserve this award that is very different from what I see so many of my colleagues at AAPG doing as well. We "give back" to our profession as a way of saying thank you for the benefits we have derived from it. I tell my students at the University of Adelaide, right from their very first lecture, about how small our profession actually is; how they are about to join an extended family than just "get a job". And like in any family, we need to be good to one another….some of them even listen! I remember attending my first AAPG meeting as a student back in 1976, and how I was totally intimidated by being in this huge convention centre, surrounded by all those "suits"…with no idea of who most of them were. That was when my human dynamo of a supervisor, Charlotte Schreiber, literally dragged me around, the conventioncenter, introducing me to the "big names" of our industry who turned out to be very human and accepting and actually interested in me. Thirty odd years later and I am one of "the suits" (though I try not to wear one too often!), and very conscious of my responsibility to those same students and young professionals who we can all reflect back on once having been. I teach a lot of courses around the world and work with good people like Edith Wilson, Chuck Caughey and Peter Lloyd on the VGP program in order to introduce these same young people to how satisfying, rewarding, and just plain fun our profession is!

Several individuals have had a significant impact on my professional and personal development and I would like to take this opportunity to acknowledge a few of them here: Patrick Brock, at Queens College, to whom I will always be grateful for teaching me to look at the rocks; Charlotte Schreiber for her infectious enthusiasm; my fellow Ph.D. students at Cambridge: David Macdonald, Jim Lorsong, Rhodri Johns and Nick Wright; reprobates at the time and now all upstanding professionals…(well, maybe) but still friends and colleagues after all these years); my former colleagues at Arco: Stephen Scott, Chuck Vavra, Mark Scheihing, Jim Ebanks, Chris Atkinson and Roger Slatt:

I learned lots from you all! I am fortunate to have worked with Bob Sneider and Marlan Downey: brilliant mentors, true gentlemen, and ultimate professionals! Through various AAPG Committee work I met and was influenced and encouraged by Robbie Gries, Randi Martinson, Pete Rose, and Andrew Hurst to name but a few, I thank you sincerely for the wisdom of your counsel and the joy of your friendship. The AsiaPacific "brain trust" (Ian Collins, Joe Lambiase, Herman Darman, Chuck Caughey, Peter Lloyd, Richard Lorenz, Peter Baillie, Mick McWalter and Jeff Aldrich) helped make internationalization of AAPG a reality! More recently, I thank Peter Cook and my colleagues at CO2CRC and the Australian School of Petroleum for accepting, supporting, and encouraging my "extra" activities. Finally, I would like to thank Paula, Ana and Ben, who have had to put up with their absentee husband and father for all these years.

It is a great honor to be given this prestigious award and I will try to live up to the standards of the giants of our profession who have received Honorary Membership before me. I am proud to have served our profession and AAPG in various capacities, and I will continue, for as long as I can to do as I counsel my kids, my students (and anyone else who will listen) to do: work hard, do some good, and most important, have fun! Thank you AAPG for allowing me to be doing just that!

John Kaldi



J. MICHAEL PARTY
Honorary Member Award

Citation—To James Michael Party, proven oil finder, beloved father, and husband, true-blue friend, and tireless volunteer who never fails to give the best of himself with equanimity and a smile.

If you ask Mike Party about his most fulfilling experiences with AAPG, he won't tell you about being elected to the Executive Committee as its secretary. Or about the Distinguished Service and Distinguished Member of the House Awards he received a few years ago. Nope. How about his term as president of the Division of Professional Affairs? Wrong again. Instead, Mike will tell you how much fun he's had through his many years of service to AAPG. He'll tell you about the lifelong friendships he's made in the course of volunteering not only for AAPG, but for local and regional geological societies as well. He'll tell you that someone else did all the work. That's the greatness and genius of J. Michael Party—it's all about the living and the giving, and never about Mike.

James Michael Party—only child, Missouri-born and bred. Unrepentant child fossil collector, University of Missouri Rolla graduate, rabid KISS fan, longtime Midland, Texas, resident and geologist and geophysicist for Wagner and Brown, Ltd, husband to Cathie and father of three kids, Lauren, Michael, and Robby (his greatest source of pride). Despite his commitments as an employee, spouse, and dad, Mike finds ways to volunteer his time, energy, and good humor to many organizations such as the Permian Basin Section SEPM, West Texas Geological Society and Foundation, Southwest Section AAPG, Permian Basin Geophysical Society, Midland youth sports, UMR alumni activities, Petroleum Club of Midland, and, of course, AAPG. Mike doesn't just serve as a professional society volunteer: his peers demonstrate their confidence and support in his abilities by electing him to increasingly important leadership positions, the most recent being secretary to the AAPG Executive Committee, a two-year international office.

In case it sounds as if Mike's perfect, he's not—every once in a while he confuses one word with another. Don't even ask if he can spell. The tales of a few St. Patrick's Day celebrations will remain unwritten. And oh, yeah—he's probably drilled a dry hole or two. During the 2009 AAPG Annual Convention in Denver, where he will receive his Honorary Member award, Mike will undoubtedly thank everyone for what their friendship has meant to him, and for how grateful he is for the opportunities he's been given. But there's one thing no one will ever

hear him say because it's simply not true, and that's that his election to any office, or the receipt of any one award, is the crowning achievement of his life or career. That honor is reserved for friendships, and for memories, and for fine children sent out into the world.

So, Mike, it's never about you—except that right here, right now, it is. Sit back and enjoy it for a minute.

Congratulations on your Honorary Member Award. AAPG has never bestowed its second-highest honor on a truer friend.

Brenda K. Cunningham

Response

I would like to thank all the people that submitted my name and support data for my nomination for this award, and the members on the Advisory Council and Executive Committee for selecting me for Honorary Life Member. I would also like to thank Brenda Cunningham for agreeing to be my biographer. Brenda is a very dear friend, who I admire and respect very much. (I have still to win an election against her!)

I would also like to express my gratitude to Wagner & Brown for the 27 years that they have allowed me to practice my profession. They have been supportive of my involvement within the geological community and AAPG. Most importantly none of this would have been possible without the support and understand of my wife, Cathie, and our three children, Lauren, Michael, and Robby.

I am deeply honored and to use an expression from a skit on *Saturday Night Live*, "I am not worthy". My involvement with AAPG through the years has been very rewarding, not only on a person level, but also in helping develop my career. I have had the pleasure of getting to know colleagues on a personal and professional level; people that I would never have meet otherwise, people I consider very close friends. I have gained immensely from these contacts.

This award was made extra special by having Scott Tinker call and inform me of my selection. Scott and I go back a few years and he has always been there when I needed him. I cannot tell you how many times I have called Scott when a speaker had to cancel and he has always stepped up and helped. It is the dedication of people like Scott that makes it easy for people like me to be involved.

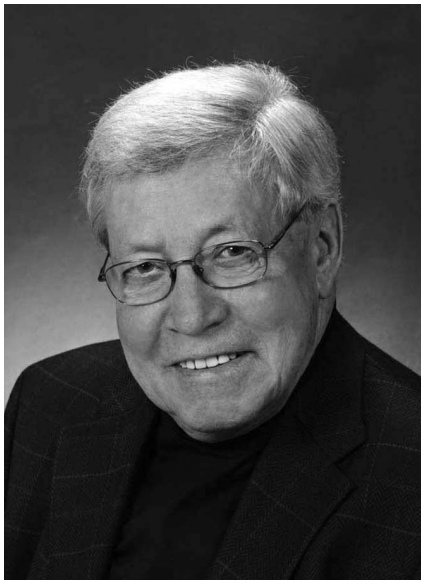
After Scott called, I had that preverbal trip down memory lane, and thought back to the day when I was a child growing up in a small town, Belle, Missouri. As a kid I collected, or as my dad used to say, "picked up" rocks everywhere I went. On a trip to the Texas Gulf Coast, when I was about 10 years old, I decided to collect seashells. After that collecting trip my Dad encouraged me to pick up rocks. It went like this; I gathered up about 30-40 seashells and put them in the trunk of our car. The hermit crabs (which I did not know were in the shells) did not like the heat in the trunk, so before they died and started stinking up the entire car, they crawled out of the bag and got into every small place in the trunk that they could find.

While serving the AAPG I remember a lot of fun evenings. Like the time in Tulsa at Leadership Day, sitting around listening to stories about events that occurred at field camps, or being in Galveston and telling the story about the night the lights when out in Georgia, I mean Midland. John Hogg, how does that song go? At one point, after a jam session in Tulsa, during leadership weekend, I considered going into the music industry. Accompanying Rick Fritz and John Hogg on guitar and Clint Moore on bongos, the Traveling Dingle Berries Band was formed. We still may put out an album someday. It has been fun.

One of the most important aspects of being a geologist in the oil and gas industry is access to data. AAPG offers opportunities that allow people to NETWORK. Those weekends that were spent on AAPG retreats allow me to develop professional contacts. People that I can call and discuss drilling activity with, find out what rumors that they have heard on certain plays, or discuss deals that they have for sell or deals that we are trying to sell. These contacts are valuable assets to me as I conduct the day-to-day business of trying to find oil and gas.

Once again, I would like to thank everyone responsible for me receiving The Honorary Life Award, and I am very much looking forward to Denver and receiving this award.

J. Michael Party



PETER A. ZIEGLER
Honorary Member Award

Citation—To Peter Ziegler, in recognition of his pioneering leadership and contributions to integrated basin analysis, resulting in new insights into plate tectonic controls on the evolution and hydrocarbon potential of sedimentary basins.

Peter Ziegler's exceptional career consisted of 33 years with the Petroleum Industry, of which 30 with Shell, and 20 years of involvement in international research projects and university teaching.

Peter was born 1928 in Winterthur, Switzerland, and grew up in a medical doctor's family. Holidays were mostly spent in the Jura Mountains where Peter met John Haller (famous Greenland Haller). John, being a few years older, fired up Peter's geological interests. This was contagious and both his brothers went also for geology, eventually joining the petroleum industry.

In 1955 Peter obtained his Ph.D. from the University of Zürich and hired on with a subsidiary of Husky Oil for well site and fieldwork in Israel. Having seen the Holy Land and experienced its land mines, he joined French companies as field geologist in Madagascar and the Algerian Sahara. Yet, Algerian rebels got too close to him and he decided to follow his older brother to Canada. February 1958 saw Peter walking shivering through Calgary filing job applications with several oil companies until he ended up in Shell's offices, meeting Alberto Bally his Zürich study mate. The next day he was a Shell employee! Off he went for helicopter supported field mapping to the Northwest Territories, having a whale of a time. In fall 1959 Peter returned for holidays to Switzerland and met Yvonne. Long are the tales of bush pilots flying letters to and from field camps! In the fall of 1960, Peter and Yvonne were married.

When she arrived in Edmonton, Yvonne was flabbergasted by the endless and very cold winters. Yet, happy and comfortable in their bungalow, together with their sons Markus and Christian, Peter realized that long summer fieldwork was not conducive to family life. Grudgingly he converted to subsurface geology, started to smell oil and got the hang of it. From now on exploration success was all that counted.

At the end of 1969, Shell Canada seconded the Zieglers for two years to Shell International in the Netherlands. After some comparative basin studies, Peter headed a task force addressing the newly established North Sea oil patch, duped prior to Phillip's Ekofisk discovery a billion dollar graveyard. In 1971 Peter permanently transferred to Shell International and instead of two years, the Zieglers stayed 18 1/2 years in the Netherlands, having a very good time. In the following years the North Sea success story unfolded with Shell and its partners chalking up major discoveries such as Brent, Statfjord and Troll. Peter's responsibilities as exploration adviser expanded stepwise to all Shell companies in Europe, then South America and ultimately Worldwide.

Parallel to his operational responsibilities, Peter began to compile regional palaeogeographic and paleotectonic maps of Europe and the North Atlantic to gain a better understanding of their evolution and the distribution of viable petroleum systems. Non-confidential parts of his findings were published and he was frequently invited to conferences. In 1982 his Geological Atlas of Western and Central Europe was issued and in 1986–1987 he toured the United States and Canada as an AAPG distinguished lecturer speaking on the Evolution of the Arctic-North Atlantic and Western Tethys. This became the title of his 1988 AAPG Memoir 43 that brought him the Robert H. Dott, Sr. Memorial Award. Peter's publications found wide international recognition. In 1983 he was elected to the Royal Netherlands Academy of Arts and Sciences, became the 1985 Honorary Member of the Geological Society, London and in 1987 was awarded the van Waterschot van der Gracht Medal (co-founder of the AAPG). In 1985 the International Lithosphere Program invited Peter to head a working group on Intraplate Tectonics.

In late 1988 Peter retired from Shell at the age of 60. In his farewell speech Roel Murris mentioned that Shell realized it lived in a symbiosis with Peter. Shell got out of him what it wanted and he got out of Shell what he wanted! Peter and Yvonne returned to

Switzerland with Shell permitting him to take along the extensive files he had assembled and asked him to prepare the 2nd Edition of his Geological Atlas of Western and Central Europe for publication in 1990 during Shell's 100 years of exploration anniversary.

This got Peter over his post-retirement syndrome. Moreover, he started to lecture at the University of Basel and the Vrije Universiteit Amsterdam, carried out consulting work and engaged in international research endeavours. More medals and Honorary Memberships followed, including the Polish Geological Society, the Polish Academy of Arts and Sciences and the Russian Academy of Natural Sciences. By 1992 the University Basel appointed Peter as Honorary Lecturer and by 1996 as Titular Professor.

In 1995 Peter received the AAPG Special Commendation Award, in 1997 a Honorary Doctor's Degree from the Moscow State University and in 2001 another one from the Technical University Delft. A whole generation of Ph.D. students of the Netherlands Research School of Sedimentary Geology remembers with admiration his "dentist" visits during which he reminded students working on basin models of the need to validate models with an array of geological geophysical data. In 1998, on the occasion of his 70th birthday *Tectonophysics* published a special volume, dedicated to Peter Ziegler as father of modern basin analysis.

Peter has published over 50 single and almost as many joint-author papers, dealing with tectonic processes controlling the evolution of intraplate domains. He has been a highly successful explorer and greatly contributed to Geosciences. He always kept an open mind, critically evaluating data at hand and was never guided by models. He instilled on students and collaborators "to carefully listen to the patient before jumping to conclusions," something he learned from his highly successful M.D. father.

Peter has contributed enormously to narrowing the gap between academia and industry. Personally I have learned a lot from this unique man that greatly influenced my career and the direction of my research. He has been, and still is, a continuous source of inspiration, both scientifically and personally.

Sierd Cloetingh

Response

I thank the Executive Committee, Advisory Council, and all those who supported my selection for AAPG Honorary Membership. This is indeed a very great honour that I highly appreciate and value even more after having looked through the list of AAPG Honorary Members. Special thanks go to Sierd Cloetingh, my biographer, long-time academic collaborator and friend.

I am grateful to be able to look back on a varied, long, and successful career that was only possible thanks to a sequence of happy coincidences and having ever so often been at the right time at the right place or having met the right people.

Whilst at high school, my father noticed my interest in geology. He accepted it, though he would have preferred I followed his medical footsteps. He was such a successful M.D. that I only could step out of his shadow by choosing a different profession. At the University of Zürich Prof. W. Leupold introduced me to petroleum geology and the idea of seeing the world. Six and a half years later, including one and a half years of military service, and Ph.D. in hand, I jumped at the first job opportunity. The following three years in Israel, Madagascar and the Algerian Sahara were more on the adventure side than acquiring a deeper understanding of petroleum exploration. Nevertheless, I got my first taste of drilling rigs, seismic crews, rifts, passive margins and basin inversion.

Fortunately I arrived in Calgary just after Shell had chalked up its first successes in the Alberta foothills and expanded exploration activities northward into British Columbia and the McKenzie Mountains. Helicopter supported mapping in geologically virgin territory was more than I had hoped for. Alberto Bally was a marvelous instructor who taught me the ins and outs of thrust belt tectonics and seismic interpretation.

My next lucky stroke was to meet Yvonne during Swiss holidays and to get married to her the following year. Ever since she is the joy of my life and my all-important support system that underlies the achievements I/we can look back to.

Third lucky stroke: after having learned the trade of an explorer in Canada, our transfer to the Netherlands put me into a key position in Shell's North Sea exploration ventures. Successes in the Viking and Central graben stimulated activity on Europe's Atlantic shelves, the 1973 oil crisis boosted on-shore exploration. Broadening responsibilities exposed me to an ever-widening spectrum of sedimentary basins and fold belts in South America, Africa, Australia, and Asia.

To better understand the geological evolution of Europe and the Atlantic domain, I dove on a side line into compilation efforts, a good part of which was carried out in my spare time at home during the grey

and rainy Dutch winters. Yvonne realized that the bug of geological curiosity had bitten me again and suffered through it. Essentially, I had realized that the Petroleum Industry gathered in the course of its exploration activities vast amounts of data in areas that were virtually *Terra Incognita* to Academia. Moreover, part of this data was archived and hardly ever used again. Some of this data could be published, at least in digested form, without harming industry interests. By releasing non-confidential data, the dialogue between industrial and academic Earth scientists could be promoted on basin-forming and -deforming mechanisms, much to their mutual benefit. Under these auspices contacts were established with several universities. In this context Sierd Cloetingh introduced me to basin modelling concepts and taught me to think not only in terms of basin geometry but also of lithospheric and mantle dynamics and the effects of intraplate stress changes. He prepared me for my future academic career, my fourth lucky stroke.

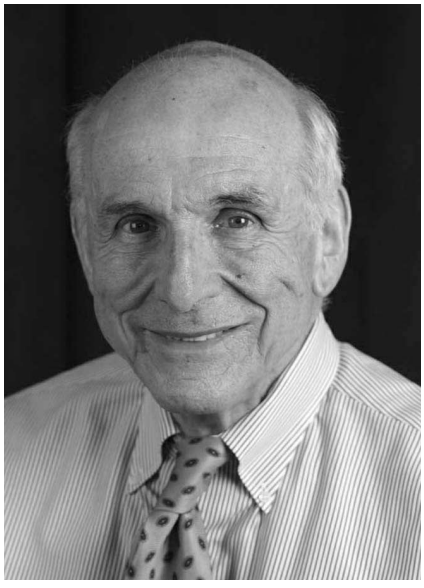
In fall 1988 retirement from Shell became brutal reality. In a way Yvonne and I were sad to leave the Netherlands where we had made so many friends, had spent some of our best times and where I had learned so much. On the other hand, after having spent together 28 years abroad, we now could settle at the place of Yvonne's choice, her hometown in Switzerland.

As we left the Netherlands, Sierd Cloetingh was appointed to the chair of Tectonics at the Vrije Universiteit Amsterdam. During the following years, our collaboration led to the development of ever more refined numerical models on the evolution of a wide range of sedimentary basin-types. Moreover, Sierd and I launched a sequence of important national and international projects. These impacted on my academic career that was mainly devoted to passing on experience to students at the Universities of Basel and Amsterdam and to bring it to bear in international research programs. In doing so, I learned a lot from the different project participants. Special thanks to all of them; they were my fifth lucky stroke! Let me mention but a few who really motivated me not to retire too soon for a second time. David Gee, the EUROPROBE man, Marjorie Wilson, the intraplate magmatic guru, Stefan Schmid, the Alpine wizard, Anatoly Nikishin, my Russian conscience, William Cavazza, the initiator of the Peri-Tethys Rift and TRANSMED projects, plate moving Gerard Stampfli, and the entire EUCOR-URGENT Rhine Graben research crew.

These activities, involving travel all over Europe and particularly to its newly accessible eastern parts, were a never-ending process that kept me going, forgetting that the years flew relentlessly by. Now, at the age of 80 years, I am grateful to all colleagues in the Petroleum Industry and Academia who have tolerated me, shared their time and experience with me and thus contributed to my career. Thanks to the honorary AAPG membership I will not loose contacts with the Petroleum Industry, basically my origin.

Neither of our sons became a geologist, probably for the very same reason that I did not become a M.D. Markus, the older is a successful architect; Christian, the younger an equally successful business administrator. I guess everyone has to find his own way!

Peter A. Ziegler



MICHAEL S. JOHNSON
Outstanding Explorer Award

Citation—Michael S. Johnson, for your contributions to the discovery of Parshall Field in North Dakota along with an outstanding career that has demonstrated the value of intelligent and tenacious effort combined with exemplary character, you are given the Outstanding Explorer Award for 2009 by the American Association of Petroleum Geologists.

Michael S. Johnson was born in 1926 in Maryville, Missouri. A few years later, his family moved to Tulsa, Oklahoma where he spent his childhood years. His first year in college was at the University of Tulsa and from there to the University of Texas. He finished college in 1949 at The Ohio State University with a B.Sc. and M.S. degrees in geology.

He was offered employment by the Amerada Petroleum Corporation, which he accepted in May, 1949, and was assigned to their Billings, Montana office. Amerada was a seismically-oriented company. In the 1920s, under

the leadership of president Everette DeGolyer and chief geologist Sidney Powers, they had perfected the use of seismic and were the first company to use seismic as an exploration tool.

In order to fully understand the lessons of successful legacy explorers, one needs to understand how Johnson got involved in the discovery of Parshall field, a major oil field, in North Dakota. Early in his career, Johnson learned about the complexity of oil traps. In Montana, using seismic, Amerada had just completed the discovery well at Melstone Field (T10N-R29E) in Musselshell County, the first Tyler Sandstone producer for the Rockies. Seismic had shown the trap as a simple anticlinal feature. However, from development drilling it soon became apparent that the Tyler was a stratigraphic-type trap a condition that exists to present.

In another instance, when he was transferred to the Casper office in 1950, he was put in charge of a shallow drill rig operating in the northeastern Powder River Basin targeting the Newcastle (Muddy) Sandstone. Amerada had subdivided this reservoir into four zones that totaled 125 feet in thickness. Each had an identifiable log character and depositional setting. One tight hole had been drilled that had very excellent oil shows in the basal zone, a fluvial facies that led to the leasing of a huge acreage block. However, the project failed because no trap was present. Using the drill rig, a series of confidential holes were drilled in an updip direction tracing this fluvial facies towards the outcrop. At the same time, Johnson traced the outcrop of the Muddy for over 15 miles and found the targeted facies exposed over an area of about 1000 feet. This exposure was connected with the subsurface fluvial facies and the project was terminated.

In August, 1950, the Korean War broke out and in September he was drafted into the U.S. Army. At Fort Belvoir, Virginia he taught interpretation of aerial photographs. His unit also participated in preparing the topographic maps used for the Inchon Invasion.

In the summer of 1951, he received orders to report to a special unit that became one of the highlights of his entire professional career. He had been assigned to the Armed Forces Special Weapons Project at the Nevada Test Site. He witnessed the detonation and effects of several 20-kiloton atomic bombs. He and Don Hibbard, a Cal Tech graduate geologist, who was responsible for getting him this assignment, studied the anisotropic character and geology of the valley-fill deposits where ground zero would be located. Later, they published a report on the bedrock geology of Yucca and Frenchman Flats (USGS Bulletin 1021K).

His military service ended in January, 1953 and Amerada assigned him to their new, very-active Williston, North Dakota office. During his absence, in April, 1951, Amerada had made the Williston Basin oil discovery (for the U.S.) at the No.1 Iverson well, a Silurian Interlake producer, a very historic event. This discovery is well-documented and is the subject of his 2001 publication (RMAG *Mountain Geologist*, v.38, no.4).

In 1954, he was transferred to the Tulsa headquarters office as an assistant to the Rocky Mountain exploration manager where he assisted in the development of the Nesson Anticline fields. The main pay zone of these fields is the Rival Sub-Interval of the Madison Limestone (Mississippian) a low permeability reservoir. Because of the unusually-high productivity of this reservoir, it is where he first learned of the importance of fracture porosity as a major contributor to reservoir quality. Two years later, in 1956, he was promoted to district geologist for the Wyoming district in Casper.

In 1958, he resigned from Amerada and accepted the position of Rocky Mountain exploration manager for Apache Oil Company, a newly-formed drilling fund. It was a great challenge because drilling funds were funded by investors who participated in yearly drilling programs and expected favorable results at the end of each calendar year. That was a hard task to accomplish in the Rockies then as well as now. Apache concentrated on the Piceance Basin of western Colorado, where huge gas fields now exist, but success at that time was thwarted by lack of pipeline outlets and low gas price. Apache closed their Denver office in 1963 and placed him on a part-time retainer.

In 1968, Johnson went on a full-time retainer with Wessely Energy and Headington Oil. The second prospect drilled was the discovery well for South Bishop Ranch Field (T48N-R69W) in Campbell County Wyoming, which became a sizeable Minnelusa reservoir. Income from this field enabled Johnson to meet business expenses and to go on to further ventures.

In addition to domestic plays, Johnson worked for clients in Central America, the eastern Mediterranean and the North Sea. However, his main endeavor always was the Williston Basin. During the years of his career he accumulated oil income from some 12 oil fields

in North Dakota and from several more fields in other states. However, his crowning achievement was at Parshall Field in North Dakota. This is where all of his diverse experience in the geology of the Williston Basin and in aerial-photo interpretation coalesced.

In the early 2000s, success in drilling horizontal laterals had been achieved at Elm Coulee Field in Montana. With knowledge gained from this field, Johnson located two dry holes, drilled prior to 1983, in Mountrail County, North Dakota where the Bakken section was petrophysically similar to wells at Elm Coulee. Free Bakken oil recoveries, favorable lineament features and interesting geochemistry were also present. Using these ideas, his partner, Henry Gordon, president of Strata Resources, together with the financial help of Tulsa geologist Bob Berry, leased 44,000 acres surrounding these two wells. Later, following the sub-leasing of this acreage, EOG Resources drilled horizontal Bakken offsets to these same two wells and both were Bakken discoveries (Ross and Parshall Fields).

By the fall of 2008, some 10 horizontal Bakken completions had been drilled at Ross Field and development was continuing. As for Parshall it has exceeded expectations. It now extends over one million acres. The main operator is EOG Resources. Parshall is a new-type, unconventional, complex, stratigraphic trap productive from the middle member of the Bakken. In the fall of 2008, daily oil production was over 30 MBO, and there were 15 rigs actively developing the field. Initial potential of some wells exceeds 3000 BOPD. When fully-developed, the field could have over 2000 northwest-trending 640 acre-spaced, single lateral wells. Reserve estimates, based on 350 MBO per well, which is less than reserve figures made public by operators, are 700 MMBO. This does not account for downspacing, additional laterals to be drilled, secondary recovery or potential of the Three Forks, a newly-found reservoir less than 75 feet below the Bakken. Ultimate attainable oil reserves for Parshall and its extensions could be one million barrels, something that has not happened in the Rockies for a long long time.

Johnson says of his life, "I have had an interesting and enjoyable career. Financial success has been important but so has the hunt and challenge of finding oil and gas, looking at logs, drill stem tests, cores, mapping oil prospects, well-sitting, selling your deals to the industry and the thrill of drilling and finding oil along with the disappointment of many dry holes.

"I am fascinated with petroleum geology and have willingly competed in the ups and downs we have encountered in our industry. I admire honesty and intelligence. In the high risk nature of our industry perseverance is a needed quality. It sometimes is rewarding as in my case. An unusually friendly relationship exists between petroleum geologists in Denver and I have benefited by that along with being a member of The Geologic Study Group (there are two).

"I have been happily married to my wife Katherine, have two wonderful children and daughter-in-law and two grandchildren that are a joy. I have experienced the American dream. My parents came penniless to America in 1921 from Greece, struggled frugally through the depression years but managed to see their three children graduate from college and succeed in their chosen professions. How fortunate we all are to live in a country as great as ours and to be blessed with working in an industry such as ours."

Walter E. Johnson

Response

There are times in our professional careers that stand out and make us proud of our accomplishments, such as promotion or election to high office, or discovering a commercial oil and gas field. Such a time came for me last September when AAPG president Scott Tinker called and told me that I would receive the 2009 Outstanding Explorer Award.

It is the highest professional award that I have ever received and I am deeply grateful. I want to thank all of those who spoke on my behalf. This award is for my contribution to the discovery of Parshall Field in North Dakota with recoverable reserves of several hundred million barrels. Parshall is a new-type, complex, stratigraphic trap, one of many unconventional resource plays that, thanks to horizontal drilling, have transformed the oil exploration effort in all of North America.

I started working on the Parshall Prospect in 2004. Success had been attained at Elm Coulee Field in Richland County, Montana in drilling long, horizontal laterals in the Bakken. Today this field has over 550 horizontal Bakken producers, producible reserves of about 350 MMBO and daily production of 45 MBO. Using this field as an analog, I found two deep wells, drilled before 1983, in eastern Mountrail County, North Dakota,

some 110 miles eastward, that had log characteristics similar to those at Elm Coulee. Also, a few vertically-drilled, sub-commercial Bakken producers had been completed and two or three attempts to drill and complete Bakken horizontal laterals had failed. Lineament features and interesting geochemistry were also present.

A nagging question was that nearly all of the acreage had not been leased for many years. The decision was made to proceed. Henry Gordon, president of Strata Resources and my partner in this venture, together with financial help from Tulsa geologist Bob Berry, leased 5,500 acre and 38,000 acre blocks surrounding these two key wells. Later, after these blocks were subleased, EOG Resources drilled direct offsets to these wells. Both were Bakken discoveries (Ross and Parshall Fields).

By the Fall of 2008, some sixty 640 acre-spaced, single lateral producers had been completed at Parshall with daily production of approximately 30 MBO. Full development of the field, which has exceeded everyone's expectations, is proceeding. Field size could exceed one million acres. Downspacing, new extensions, secondary recovery, and the added potential of the Three Forks Formation, a newly-found reservoir less than 50 feet below the Bakken, will further increase oil reserves and field size. Estimated attainable, producible oil reserves are one billion barrels.

I have been an AAPG member for over 60 years. I have had an interesting and fulfilled career. Together with financial success I have most enjoyed the hunt and challenge of prospecting for oil and gas. This means looking at logs, PI cards, drill stem tests, cores, mapping oil and gas prospects, selling deals to industry and the thrill of success and the disappointment of many dry holes. I am fascinated with petroleum geology and have willingly tried to compete in the ups and downs we have encountered in our industry. I admire honesty and intelligence. If there is a message that I can give it is that because of the high risk nature of our industry, perseverance and tenacity are a needed quality. Never believe that you cannot succeed regardless of the circumstances.

There is an adage in the oil business that goes "those that take the biggest risk get the biggest reward". That was the case for EOG Resources: here they took on a risky prospect at a drilling and acreage cost of many millions of dollars and found a major oil field. EOG geologist Jim Peterson is to be commended for his efforts in convincing EOG management to go forward which resulted in extending the Bakken play many miles eastward to its eastern maturity boundary.

I have enjoyed giving talks to various groups on the Bakken and Parshall Field. I have met with other geologists individually and in group meetings and discussed the complexity of these subjects and I have benefited by their counsel. They are Bob Coskey, Lee Gerhard, Mike Hendricks, Dan Jarvie, Walter Johnson, Julie Lefever, Jim Peterson, and John Robinson.

What an asset my wife Katherine and family have been with her encouragement, love, and understanding. My daughter, Alicia, is also my office assistant.

Again, I want to thank all of the AAPG members who selected me for this prestigious award. I hope that more Parshall-type traps will be discovered elsewhere and lead to the much-needed domestic reserves that our country requires.

Michael S. Johnson

BRADFORD E. PRATHER
Robert R. Berg Outstanding Research Award

Citation—To Bradford E. Prather, for major advances in our understanding of the sedimentology, stratigraphy and reservoir characteristics of turbidite depositional systems.

The Robert R. Berg Outstanding Research Award is given in recognition of a singular achievement in petroleum geoscience research. Brad is a recognized expert in sedimentology, seismic stratigraphy, reservoir architecture of slope and base-of-slope depositional systems, turbidite rock properties, stratigraphy and reservoir characteristics of carbonate depositional systems, and the use of geochemistry for interpreting carbonate diagenesis.

One could therefore imagine the difficulty an awards committee might have in choosing which of his contributions to geology most merited this honor.

Brad was born in Waupaca, Wisconsin in 1956 to a loving family whose core values, strong work ethic, and the treatment of others developed and defined the person. His father, a veterinarian, shared his keen interest in geology by giving Brad his first rock hammer at age nine. Prather family dinner conversations often revolved around evolution and earth history, encouraging the pursuit of a geology merit badge as part of Brad's Scouting career. While most high-school English students were tackling assigned novels and plays, Brad somehow convinced his teacher that his advanced reading list should include historical geology textbooks. Participation in high school football provided a lasting memory of his coach's wisdom: "Talk is cheap; what matters is what you do, and you had better do it well." Brad's career is evidence that he listened well.

At the University of Kansas Brad studied under Professors Bill Merrill and Mike Brady, who encouraged his interest in stratigraphy and sedimentology. Summer internships at Cities Service led to a master's thesis under the guidance of Professor Bill Ward at the University of New Orleans on Pennsylvanian shallow-water carbonate sequences in Nebraska. His subsurface research demonstrated the sea-level control on lateral facies distributions, and documented controls on porosity distribution. After joining Shell in 1981 he enhanced this learning, using trace elements and stable isotopes to interpret diagenetic patterns in the Smackover Formation, and to assess the prospectivity of reservoir-seal pairs as they tongued-out into coastal sabkha deposits. This work remains a benchmark achievement in Gulf Coast geology.

Further assignments in Shell expanded Brad's role to team leader, then division geologist for the Gulf of Mexico and the Atlantic continental margin. By the early 1990s his work became increasingly focused on deep-water settings, and resulted in many technical advances in turbidite reservoir prediction and characterization. His responsibilities expanded to include consulting for deep-water plays across the Royal Dutch Shell Group.

While leading interdisciplinary research teams for Royal Dutch Shell, Brad was the principal developer of an innovative geologic model of slope and base-of slope turbidite systems. This model has been used widely in our industry for calibrating seismic facies to reservoir stratigraphy including net/gross distributions, geometry and quality of stratigraphic traps, and reservoir performance expectations. The concepts have proven their powerful utility as quantitative risk-appraisal tools, and are now being honored by this award.

Earlier, non-proprietary elements of Brad's work were shown at the 2000 AAPG meeting, where they earned the best poster award. A more comprehensive version in the open literature became the fourth-most-downloaded paper from the *Marine and Petroleum Geology* website in 2003. It remains on the top-25 list of most-downloaded papers to this day, five years after publication.

Brad Prather's 27-year career as a geologist, teacher, and leader has been characterized by an interdisciplinary and collaborative style of working that offers a role model to younger scientists entering our profession. Always cognizant of the need to calibrate his interpretations, he has consistently demonstrated a keen appetite for the value of personal observations of outcrops, cores, cuttings, and thin-sections. He has become a thought leader by venturing outside his geological comfort zone, quickly developing expertise in new areas while testing and sharing what he has learned, and remaining open to new ideas. These traits aptly reflect the character of the man for whom this award is named.

Brad has been an AAPG Distinguished Lecturer, has chaired many international symposia, and has been a keynote speaker at EU-UNESCO and Hedberg research conferences. His professional honors include having been named among the Erasmus Haworth Most Distinguished Alumni by the University of Kansas, and the AAPG's Jules Braunstein Award. His work on the Smackover Formation and the Baltimore Canyon won him Cam Sproule Memorial Awards for best paper, the only person in the 25-year history of the award to have won it twice.

Brad serves as a geological advisor for Shell International E&P.

John Barwis

Response

I am grateful to be honored with the Robert R. Berg Award for Outstanding Research. I sincerely thank the Advisory Council and Executive Committee for selecting me for this award. The knowledge that there are many of my colleagues who have the qualifications for this

award, and to have received this award in this its year of inception, humbles me. Although I never met Bob Berg I certainly know of his contributions to the science and am aware of his many friends in the community of geologists. I can only hope I can live up to the high standards set by the awards namesake.

I'd like to thank my friend John Barwis for acting as my biographer. For those of you who know John, you will not be surprised that in addition to writing two biographies he also offered editorial suggestions for improvement of my curriculum vitae.

What John knows but didn't have room to include in my biography is that my interest in geology, like many of my colleagues, was ignited by family trips to the four-corners area of the United States. It was in these magical landscapes that my father's curiosity about geology rubbed-off on me. Although he did tire now and then of all rocks and fossils I'd try to pack home.

I attended the University of Kansas thinking I would study engineering mostly because I didn't know one could get a decent job as a geologist. My interest in engineering lasted no longer than freshman orientation. I knew geology was the only thing for me and I re-enrolled in the college of Liberal Arts and Sciences as a geology major as soon as I returned to campus at the beginning of my freshman year. During my time at KU I earned spending money making thin sections for the department of geology graduate students and faculty. I also found additional focus on soft-rock geology through sedimentology courses taught by Mike Brady and Tony Walton and a stratigraphy course taught by Bill Merrill.

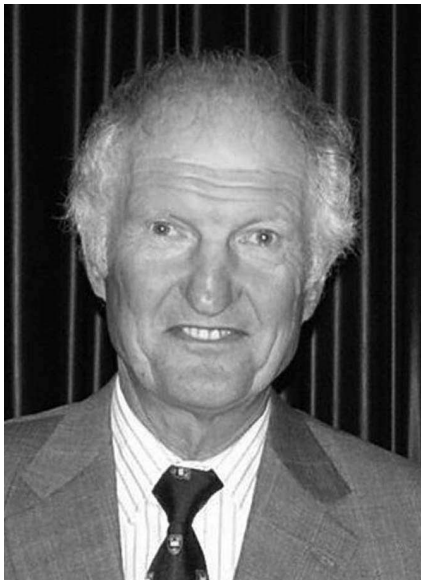
As a graduate student at the University of New Orleans I took on a research project in the subsurface of western Nebraska after having worked the same area as a summer intern for Cities Service. Bill Ward, my thesis advisor was kind enough to indulge me after all his area of research focus was the Yucatan Peninsula. Bill Ward had a strong influence on shaping my geologic mind by never giving me a straightforward answer to any of my questions. In this way he forced me to think on my own.

Following graduate school I joined Shell in New Orleans. These early days of my career focused on exploration in the Smackover Formation of the southern-eastern Gulf Coast. As time moved along Shell began to move me around the continental shelves of North America with focus initially on Mesozoic petroleum systems followed by exploration of Tertiary systems of the Gulf of Mexico. During this episode of my career I first ventured into the deepwater province of the Gulf of Mexico where co-workers and I developed seismic facies analysis methodologies, establishing techniques for quantifying the lithologic composition of Cenozoic deep-water systems in the Gulf of Mexico, focusing primarily on evaluation of reservoir, seal and direct hydrocarbon indicators.

The move to Holland with Shell in 1995 was a **seminal** event in my career as it gave me exposure to the varied geology at a global scale and provided me with invaluable experience, allowing me to see new geology while testing some of the concepts we derived from the GoM. I tried to learn as much as I could where these concepts failed to adequately explain reservoir distribution. Because of this exposure my preconceived notions of how continental slope systems work changed. The syntheses of these lessons led to a board-based conceptual geologic model for characterizing slope and base-of-slope systems and a workflow for calibration of deep-water seismic facies.

When Gary Steffens and I teamed up, with the support of our management, to build Shell's multidisciplinary Turbidites Research Team I had no idea of the significance it would play in my career. The TRT is clearly the best team I have ever been a part. Each member lent their varied talents through constructive challenge of ideas and shared common objectives. I express my appreciation to my colleagues from the TRT for creating an environment conducive to excellence. I am a product of this environment and benefitted from collaboration with them and to this extent they share this award with me. They made me a better geologist. Our collaboration continues to this day and although some of our roles have changed we remain a team.

Bradford E. Prather



ALISTAIR R. BROWN
Distinguished Service Award

Citation—To Alistair R. Brown, for his professional expertise in communicating the geologic interpretation of three-dimensional seismic data to geologists and geophysicists worldwide by distinguished lectures, numerous articles and AAPG Memoir 42.

Alistair R. Brown is an internationally recognized geoscientist best known as the author of AAPG Memoir 42 *Interpretation of Three-Dimensional Seismic Data*. This publication is the definitive, and now classic, text on integrated geologic and geophysical interpretation of 3-D seismic data. Now in a sixth edition following its initial publication in 1986, the book has recently surpassed 22,000 copies in worldwide sales.

Alistair is a consulting reservoir geophysicist working out of Dallas, Texas and has over 40 years of industry experience. He is a masterful interpreter of three-dimensional seismic data using the latest techniques on interactive workstations combined with keen geologic insight and knowledge. His specialties include stratigraphic interpretation, seismic reservoir identification and evaluation, and the expert use of workstation color displays to reveal and illuminate the meaning of seismic amplitude.

He spends much of his time teaching interpretation methods and advising on interpretation problems worldwide. His enthusiasm and clever wit make him an enjoyable, encouraging and experienced teacher. More than 8000 geoscientists have taken his courses.

Alistair was born and raised in Carlisle, northernmost England and graduated from Oxford University in England, having attended The Queen's College. He met his future wife Mary, another Oxford graduate, in 1963 and they have three children. He subsequently received his geologic training at the Australian National University in Canberra, Australia, and was employed at the Australian Bureau of Mineral Resources for several years. He returned to England in 1972 to work for Geophysical Service International (GSI) where he was involved in experimental seismic interpretation. Alistair was asked to interpret the first commercial 3-D seismic survey in 1975 and later transferred to GSI worldwide headquarters in Dallas where he became deeply involved in developing techniques for viewing and interpreting 3-D seismic surveys.

He is credited with the idea for the first seismic horizon slice in 1979, which forever changed the interpreter's view point from looking at seismic cross sections to looking at seismic reflections as patterns along horizon bedding planes. A "flat-earth" perspective is uniquely valuable for geologists who are trained to recognize depositional patterns of rock layers. This horizontal perspective has become one of the most powerful techniques for recognizing geologic properties of reservoirs as well as mapping channels and reefs which are often hidden within the data volume.

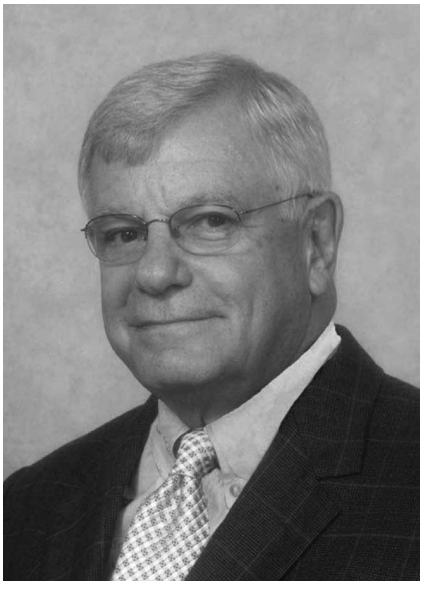
Alistair has made numerous contributions to AAPG, SEG, and other professional societies. He was an instructor for an AAPG/SEG continuing education course titled "Seismic Interpretation for Detailed Exploration, Development and Production' in 1984–1987, and subsequently became the chairman of the Editorial Board of *The Leading Edge*, an SEG publication, from 1986–1988. He was an AAPG Distinguished Lecturer in 1988 and many geologists saw his interpretation techniques presented in the "Geophysical Corner" as part of the monthly issues of the AAPG *Explorer* magazine during 2004–2005.

Alistair's exceptional skill as a communicator led to his service as the inaugural Joint AAPG/SEG Distinguished Lecturer in 1999–2000. He visited AAPG and SEG audiences around the globe spreading new ideas and techniques which could be used by both geologists and geophysicists. In 2006 Alistair was presented SEG Honorary Membership in recognition of his many contributions.

Alistair has taught many courses, presented and published numerous papers, and continually updates his book. This dedicated, lifelong effort to improve the science of geologic interpretation of seismic is an inspiration to his colleagues. It is not an exaggeration to say that Alistair has probably had more

influence on how we interpret modern seismic data than any other single person. It is principally for his unique expertise and contributions that AAPG honors him.

R. Randy Ray



LARRY L. JONES
Distinguished Service Award

Citation—To Larry L. Jones for his unlimited passion in all things AAPG but most especially his work as House of Delegates chairman during a very challenging time. His professionalism and sense of fairness was enjoyed and respected during his tenure as HoD chair.

The Distinguished Service Award was established 38 years ago to recognize AAPG members who have stood out from their peers in their service, and most importantly in the responsibilities handed to them in the form of a special AAPG position.

Since 1994, Larry has been first a delegate and then an influential voice in the House of Delegates. As past Foreman of the Houston Delegation, Larry has represented the AAPG's largest body of members during a time when the House of Delegates was tasked with providing decisions and leadership on several tradition changing proposals. In his involvement with the House of Delegates, Larry held the positions of chairman of the Rules and Procedures Committee and the Honors and Awards Committee. With those responsibilities Larry provided the necessary leadership and advice needed.

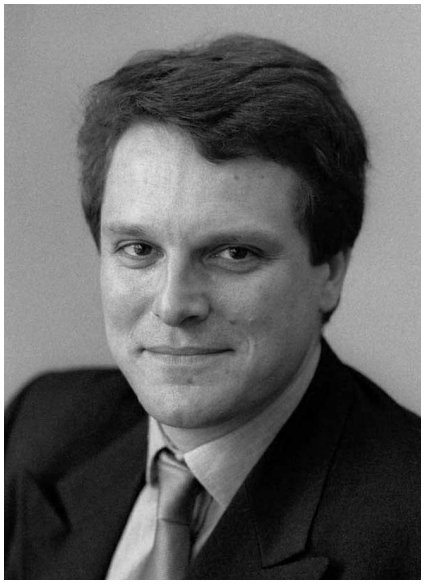
His election as HOD chairman-elect at the Annual Meeting in Calgary in 2005 was followed by his serving as vice-chairman of the Ad Hoc Committee for Graduated Dues at a time when the newly proposed Graduated Dues program required new rules and procedures to be adopted. His decision to begin his term as HOD chairman and member of the Executive Committee came after he overcame a severe medical occurrence. The discipline required to combat this life-threatening medical issue was a result of his dedication to basic moral principles and because of this strength of character, Larry was able to successfully complete his tenure as chairman.

Larry left the plains of Nebraska with a B.S. and M.S. from the University of Nebraska to begin his career in the Gulf Coast. His love of Nebraska did not end when he left Lincoln. Larry has provided his Alma Mater with many hours of advice and service in his role as a member of the Geoscience Advisory Board and in his position as a Trustee of the University Foundation. In these roles, he was able to assist in the implementation of several necessary programs, and more importantly Larry was able to encourage University Freshman to consider the Geosciences as a career.

Since being a member of the 1955 Orange Bowl team, Larry has attended many games in Lincoln. He makes a special attempt to attend the OU-Nebraska game, as many of his peers will attest. His commitment to Nebraska, not unlike his commitment to the AAPG, is but one example of the principals Larry has demonstrated throughout his career: those of dedication, commitment, discipline, and support of a cause that he believes in.

I am very pleased to have played a small part in the awarding of Larry L. Jones with the Distinguished Service Award for his service to the AAPG and for his lifelong commitment to the AAPG.

Gary S. Grinsfelder



MIKE J. LAKIN
Distinguished Service Award

Citation—To Michael John Lakin, pre-eminent for his drive and determination to ensure that APPEX, London became a success within the European Region, but also for his considerable contribution to the European Region Council.

Mike Lakin is a born leader. Mike was elected to the European Region Council in 2004 as vice-president, serving with Sigrunn Johnsen and myself. At about the same time Mike recognized that the early stage AAPG concept of a fair, at which oil industry deals could be made, along the lines of NAPE, but specifically international in nature, could have very considerable success being centered in London, his involvement and with his specific skills have proved invaluable.

Over the past six years Mike has been very involved on the APPEX Committee, was deputy in 2007 and now chairman in 2008 and 2009, and a key to help making the event a very considerable profit-making success. APPEX is now recognized as "the" international deal fair and it has become an integral annual meeting in the European Region calendar, and furthermore more of a key "industry event" involving as it does not only leaders from the oil and gas industry, but financiers and lawyers as well.

Bringing together geoscientists with representatives of the legal and financial professions has led to very considerable benefits in that each has begun to understand and respect the others' views and even the others' terminology. In the oil and gas business, the standing of the AAPG in the industry can only be enhanced by the growing reputation of the APPEX brand, which has grown to be so well regarded under Mike's recent leadership and his dedicated British team.

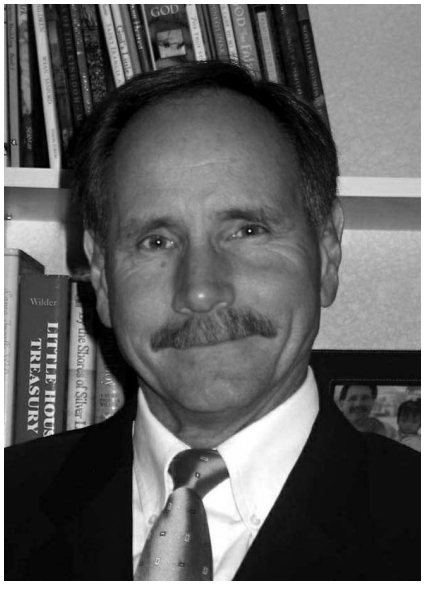
Mike graduated from University College, Cardiff, in 1984 in geology and started his career as a geologist with Superior Oil, then with Carless, Capel and Leonard, which successfully explored and exploited some of the oil and gas fields onshore southern England before transitioning through Kelt, acquiring them in 1998, and before moving to join Petresearch and the development of his deal making activities and experience. Mike formed his own company, ENVOI Limited, in 1999.

He became an active member of AAPG in 1993, and he is also a Fellow of the Geological Society, and a member of the Energy Institute, the Association of International Petroleum Negotiators, and the Petroleum Exploration Society of Great Britain.

Mike has always brought a passion and dedication to whatever he turns his attention and in so doing is an inspiration to his colleagues. His time as vice-president of the European Region Council and his assumption of the chair of APPEX showed his leadership qualities.

It is rare for an individual to make so influential an impact in our business and with AAPG in so short a time, but this Mike has done, and so the recommendation of the Distinguished Service Award is most thoroughly deserved.

John R. V. Brooks



DALTON F. LOCKMAN
Distinguished Service Award

Citation—To Dalton F. Lockman, recognizing his distinguished leadership, enthusiastic service and exceptional organizational and technical skills for the benefit of the Pacific Section and all of AAPG.

Dalton Lockman is an exceptional choice to receive the Distinguished Service Award from AAPG. His list of accomplishments, and service to the society, is at the highest level. He is a unique individual who views obstacles as challenges, and especially where AAPG interests are concerned, is eager to step forward.

Dalton was born in Kennewick, Washington and raised in the San Francisco Bay area of Northern California. He proclaims his wife Lisa and two children, Ethan and Lily, are gifts from God and receive much of his attention in this current season. Dalton began his geologic career as an undergraduate at Whittier College. After graduation in 1979, he left the west coast for a short while to obtain his master's degree from Wright State University in Ohio. There he met the renowned fracture expert, Byron Kulander, who became his advisor. Dalton learned his lessons well, and brought a passion for fracture studies to the oil industry when in 1981 he joined Exxon Company, USA, in their production office in Century City, California. After a short stint studying Prudhoe Bay, he was soon describing fractures in cores from the Lisburne Formation. He led fracture seminars for the Exxon staff, breaking glass rods and teaching about twist hackles and arrest lines. He worked closely with Dick George and the late Mike Hayes of Exxon Production Research Company devising techniques to quantify levels of fracturing in core. AAPG Pacific Section Miscellaneous Publication 44 documents some of the fracture characterization techniques Dalton helped develop at Exxon.

Exxon's office moved to Thousand Oaks, California in 1983, and Dalton logged 15 years there, working fields onshore and offshore California, and Alaska. He was particularly instrumental in the start-up of production from the offshore Santa Ynez Unit expansion, functioning as the production and operations geologist for the Heritage Platform developing Pescado Field, and then assuming the role of operations coordinator for all of the Santa Ynez Unit. He also played a key role in technical analysis of the Monterey Formation, presenting papers at Pacific Section and national AAPG meetings on the reservoirs and fractures.

He began his involvement with local geologic societies during this time, first serving as president and vice-president of the Coast Geological Society, and then taking on the General Chairmanship of the 1994 AAPG Pacific Section convention in Ventura, California. In relatively small societies such as the Pacific Section, the burdens of leadership and coordination often fall to a core group, and Dalton accepted that role with enthusiasm. He served as Pacific Section President in 1997–1998, and was involved with multiple executive committees as president elect and past president and served as the General Vice Chair of the Pacific Section convention in 1998.

1998 brought an opportunity for professional challenge when he accepted an assignment in Anchorage, Alaska, overseeing Exxon's geologic interests on the North Slope. Once again, he looked for opportunities to advance the local societies. Dalton served for three years as treasurer of the Alaska Geological Society, and was an important liaison helping to bring the AAPG Pacific Section convention to Anchorage in 2001.

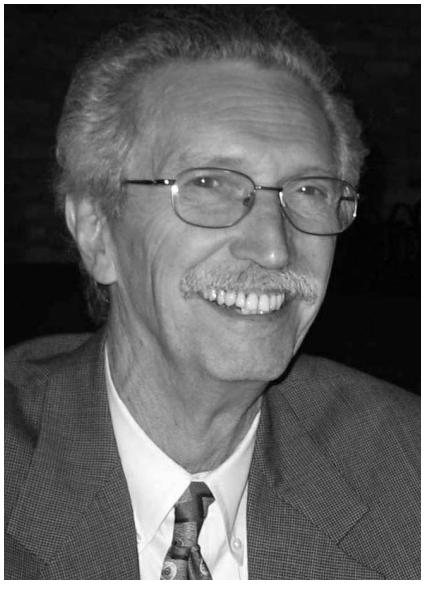
Although the Lockman family enjoyed their Alaskan adventure, in 2001 southern California again beckoned, and Dalton left ExxonMobil for a position with Stocker Resources (now Plains Exploration & Production) in Los Angeles. The Inglewood Field was the focus of his attention, and he helped revitalize this well-worn oil field. He led the way in the amazing feat of acquiring a 21 square mile 3D seismic survey in the midst of Los Angeles, and the seismic data opened new drilling opportunities and production from many deeper targets.

This presented the opportunity for participating in yet another Pacific Section Society. In 2001, Dalton won election as president of the Los Angeles Basin Geological Society, serving in that position for four years. He actively recruited new members and officers, and encouraged participation from students of the geoscience departments of local colleges and universities. In 2003, he took on the task of General Chairman for AAPG at the joint Pacific Section meeting with SPE Western Region in Long Beach. 2003 also saw Dalton elected as an AAPG Delegate from the Los Angeles Basin Geological Society. Not content to rest on those laurels, Dalton served as General Chairman for the 2007 AAPG Annual Convention held in Long Beach. The meeting was a resounding success and a tribute to his organizational skills and leadership. After the AAPG Annual Meeting in Long Beach, Dalton volunteered his service to be the General Vice Chair for the Pacific Section Meeting in 2009. A reorganization by Plains in 2006 moved Dalton and his family to Bakersfield California, where they currently reside.

Dalton's previous AAPG recognitions include the A.I. Levorsen Award for best paper at the 2000 Pacific Section Meeting, Pacific Section Distinguished Service Award (2003), Pacific Section Honorary Lifetime Membership (2006), and AAPG Certificate of Merit for his work on the 2007 Long Beach Convention. Dalton's accomplishments are certainly extraordinary, and I am

excited that AAPG has chosen to recognize them with this Distinguished Service Award. I have had the opportunity to witness many of these efforts over the past quarter century, and I am continually impressed and inspired by his work. We are very fortunate to have him as an active member of our society, and I look forward to his future contributions as a geoscientist and AAPG representative.

Jon Schwalbach



KENNETH M. MALLON
Distinguished Service Award

Citation—To Ken Mallon, in recognition of his distinguished and long record of dedication and achievement in intersociety initiatives for AAPG concerning reserves and resources definitions and classifications.

Kenneth Mark Mallon was born in Jersey City, NJ, on August 6, 1942. He attended high school in North Jersey where his fascination for geology evolved from rocks collected from the Ramapo Mountains.

In 1964, he received a B.S. degree from Tulane, and then attended New Mexico Tech where he studied polymetamorphics under Professor Ed Bingler. Ken still recalls Ed's lessons in how to capture detailed observations, for they produce the clues needed to reconstruct rock and basin histories. After receiving his M.S. degree in 1966, Ken began his petroleum geology career with Gulf Oil. After one month, he was called to active military duty, and served from 1966 to 1968 as an officer aboard a U.S. Navy destroyer off North Vietnam's coast. Upon his return to Gulf Oil in Houston, he worked three years in exploration, then transferred to the Kilgore, Texas, production office where he was fortunate to work under another talented mentor, Bill Smylie. Under Bill's supervision, Ken learned the fundamentals and complexities of development geology and the values of serving one's profession and community. The Kilgore posting resulted in one of Ken's significant development geological successes, a mid-1970s redevelopment of Fannett Salt Dome.

In Ken's next adventure he was selected to lead the production geology program for Gulf Oil in Hobbs, New Mexico. Ken mentored an integrated team of geologists, engineers and support staff, and developed an interdisciplinary program that was marked by unprecedented internal and external collaborations. His leadership and strategy resulted in significant increases in drilling, halted production declines, added reserves, and increased staff development and morale. It was during this period that a certain lucky geologist (me) was chosen to pilot an exploration-development geology cross-training program, co-designed and hosted by his team. The posting afforded unprecedented opportunities to cross-train, learn and appreciate the challenges that make development geology so fascinating and rewarding. The professional and personal growth and enjoyment that many of us on the team gained under Ken's spotlight probably had roots in the mentors who nurtured his thrill for the profession.

In 1986, Ken joined a private venture to develop PC-based software for integrated field studies. Later he managed a Landmark Graphics technical team working with Chinese geoscientists in China. During the Tiananmen Square event in Beijing in 1989, the team was evacuated, but returned to continue the cooperative effort until July 1990. Since then, Ken's expertise and knowledge has benefited various companies on exploration and development projects and reserve evaluations throughout the world.

In 1996, AAPG solicited Ken as their first liaison to SPE's Oil and Gas Reserves Committee. He worked with an intersociety team revising and updating SPE's 1987 reserves definitions. The work enhanced communication and cooperation between societies. Ken has served as the AAPG liaison/observer to the OGRC and has represented AAPG on the drafting of all reserves and resources documents originating from the OGRC since 1996. His influence was realized in the publication of several *Explorer* articles documenting OGRC activities, and of the March 2007 SPE/WPC/AAPG/SPEE Petroleum Resource Management System. During 2006–2007, Ken represented AAPG on the United Nations Ad Hoc Group of Experts for the Harmonization of Fossil Energy and Mineral Resources

Terminology, which supports the UN Framework Classification. This international initiative is developing a reserves and resources classification system that integrates different reporting systems from around the globe.

Ken is a member of AAPG's Committee on Resource Evaluation, and served on the Reservoir Development Committee for 17 years. His mentorship of young and seasoned geoscientists and his untiring service to AAPG and the profession are validated by students who have worked with him, and/or made use of development geology literature that he has donated to university research programs. Many will also find him at conventions engaging students at poster sessions, and serving as a session judge. He is a licensed geologist in Texas and is a member of DPA, SPE, HGS, SIPES and Roswell Geological Society.

Those exciting days and late nights beneath the SE New Mexico desert sky, where we learned to unravel the secrets of Morrow gas fields, were a look into Ken's leadership, passion, and technical abilities as evidenced by several publications he co-authored on the Morrow. For those of us who have had the fortune to work with him, his lessons still grace us, and inspire us to pass along our fascination, knowledge and service to others.

His personnel and professional career exemplifies a lifetime of distinguished service. On behalf of the many "Mallon alumni", friends and colleagues, it is with great pleasure to learn that the AAPG has recognized Ken Mallon for the 2009 Distinguished Service Award.

Robert Casavant

RANDI S. MARTINSEN
Distinguished Service Award

Citation—To Randi Martinsen, passionate in everything. She created a petroleum curriculum that for decades has produced superior explorationists, she insists on students taking field experience into their industry careers, she fires up their creativity, and she single-handedly established the Rocky Mountain Rendezvous.

Randi Martinsen is the very definition of passion in everything she does. Her single-handed establishment of the Rocky Mountain Rendezvous student job fair at the University of Wyoming exemplifies the kinds of successes she has created during her professional career.

Leaving her very satisfying position as exploration geologist with Cities Service in Denver in 1979, she was faced with building a new career in academia when she married geology Professor Jim Steidtmann at the University of Wyoming. Undaunted by the lack of a Ph.D., she built a petroleum geoscience curriculum and supervised graduate student research on petroleum-oriented theses, served on graduate student committees, and advised many students of the earth sciences.

Randi was born and raised in Queens, New York, and acquired her B.S. in geology at S.U.N.Y at Stony Brook. Her lifelong commitment to and enjoyment of the great American west began with her move to Northern Arizona University in 1972 were she did her Master's thesis on the East Verde River Canyon in Arizona. She worked with Cities Service Company after grad school, immediately making a name for herself with talks and publications on Hartzog Draw Field in Wyoming…for which she was awarded the A. I. Levorsen Award in 1979. She has recently received the Frank A. Morgan award from the Wyoming Geological Association, their highest award.

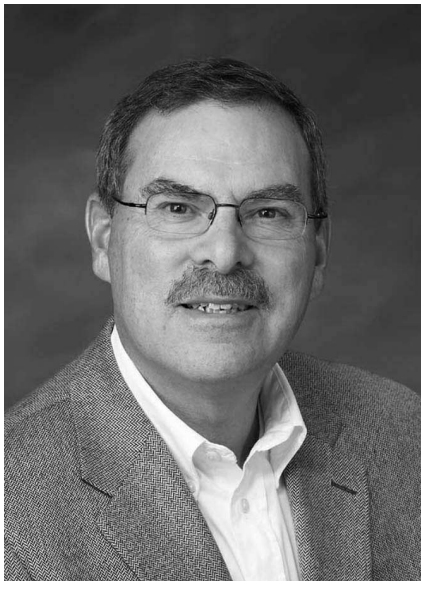
Randi created the Rocky Mountain Rendezvous at the UW for students who could not attend the Houston-based AAPG Student Expo. It has been successful for seven consecutive years in attracting students from all over the United States and recruiters from more than 25 companies.

Randi's contributions to AAPG include a recent two-year term as treasurer, chairing the Rocky Mountain Section meeting in 2000, Technical Program chair for the 1994 Annual Meeting in Denver, and chairing or serving on the Audit Review, Budget and Finance, Investment, Group Insurance, Prowess, Student Expo, GeoTours, Membership, Publications, Public Outreach, Distinguished Lecture, and Membership committees. She has been an Associate Editor and has joined the PTTC BOD.

Her teaching and consulting skills have been sought after around the

world, which takes her away, all too often, from her husband, horses, and wonderful mini-ranch outside of Laramie. But these travels fulfill one of her other lifetime dreams of enjoying people and cultures globally. Not inconsiderable has been the time and effort she has dedicated to home and hearth. She and Jim raised a family and Randi has placed her most profound attention to the needs and interests of daughter, Dana, and son, Matthew.

Robbie R. Gries



ROBERT C. MUMMERY
Distinguished Service Award

Citation—To Robert C. "Bob" Mummery in recognition of his leadership, mentorship and long term service to the members of the AAPG and the Canada Region.

Robert C. (Bob) Mummery was born and raised in small towns near Chatham Ontario Canada. Bob stayed close to home to complete his undergraduate studies and received his Hons. B.Sc. (geology) in 1968 from the University of Western Ontario in London and pursued graduate studies at McMaster University in Hamilton, Ontario where he was awarded his Ph.D. (geology) in 1973.

After lecturing at the University of Waterloo, Bob moved to Calgary to join Amoco Canada Petroleum Co. Ltd. in 1973 beginning a career which has now spanned over 35 years involving broad geological and geophysical experience in interpretation, play generation, regional studies, management and development of exploration strategies worldwide. Bob has worked for a variety of large and small independent oil and gas exploration companies (Home Oil, Canadian Hunter Exploration and Wascana Energy). None exist today, but that should not be a reflection on Bob's contributions! During that period Bob also worked several years (1982–89) with a pioneering seismic inversion processing and interpretation company (Teknica Resource Development Co.) based in Calgary.

Over much of his career, Bob has been involved with the integration of geological and geophysical data utilizing both forward and inverse modeling. Since 1980, Bob has had the good fortune of working in more than 50 different sedimentary basins located in 30+ countries on every continent, all while remaining based in Calgary. Bob used these experiences to establish a Calgary-based independent geological consultancy (Almandine Resources) which has operated since 1997 and has interests in producing oil and gas wells in the Western Canada Sedimentary Basin. Over the years, he has worked with 23 different clients ranging from large multi-national integrated corporations to small independent explorers. He also found time to help found a private junior oil and gas exploration company and participate on the board of directors of two publicly traded junior exploration companies.

Bob joined the AAPG in 1981 and has served four terms on the House of Delegates since 1984. He was chairman of the Calgary Delegates from 1986 to 1988 and was instrumental in recruitment, mentoring, and reviving Canadian involvement in the House of Delegates and Canadian representation in AAPG. In 1989 Bob was nominated to run for chair of the House. Bob has served two terms (1989–1992 and 2007–2009) as the Canada Region representative on the Advisory Council. He has served on several AAPG Committees including Distinguished Lecture, HoD Honors and Awards, Environmental Geology, International Regions and Ad Hoc Graduated Dues. Bob has been an AAPG Mentor. He has previously received an AAPG Certificate of Merit.

In addition to his service with AAPG, Bob has been active in local societies and served in executive capacity as VP Technical for the Canadian Society of Exploration Geophysicists (CSEG) and Treasurer for the Canadian Society of Geologists (CSPG). He also has been very active in committee work with these societies especially in the areas of Outreach and Continuing Education. Bob has also been active with the Canadian Geoscience Council (CGC) initially serving as CSEG representative then as finance director and finally becoming the executive officer. He was influential in the industry's re-involvement with this organization and its rebirth as the Canadian Federation of Earth Sciences (CFES). For four years, he served as member and

co-chair of the MNABES (Minister's (NRCAN) National Advisory Board for Earth Science) a Canadian Federal government committee and during the last two years he was also a member of MACST (Minister's (NRCAN) Advisory Council for Science & Technology).

Bob has been happily married to Janis since 1970 and is proud of his three sons Christopher (1975), Michael (1977) and Mark (1979) and their wives and fiancée. His pastimes include reading, Sudoku, hiking, golf, cross-country skiing and travel. Bob has also been very active in the Anglican Church (Episcopal in the USA) at both local and regional levels encouraging Lay ministries.

Marty Hewitt

JOHN E. RITTER
Distinguished Service Award

Citation—To John Ritter, for his enthusiasm, dedication, and leadership in promoting global standards in the assessment, classification, and reporting of petroleum reserves and resources.

The Distinguished Service Award is bestowed on AAPG members in recognition of their beneficial long-term service to the organization. John Ritter not only brought credit to the AAPG through his prior and ongoing service on the Committee on Resource Evaluation (CORE) but also promulgating AAPG-endorsed petroleum resource assessment and classification standards through joint ventures with other organizations.

It is recognized that the assessment of in-place and potentially recoverable petroleum requires the coordination of geoscientists, engineers, and economic analysts with diverse areas of expertise. Moreover, achieving global consistency in the process requires ongoing interaction beyond the international petroleum industry with government agencies, academia, and related industries. Through the efforts of John Ritter, the AAPG has been well represented in these negotiations.

John chaired the Society of Petroleum Engineers (SPE) Oil and Gas Reserves Committee (OGRC) from 2004 through 2007; it was under his guidance that the Petroleum Resources Management System (PRMS) project, co-sponsored by the AAPG, was completed. This document provides the industry best-practice guidelines for assessment of, and the international reporting standard for, petroleum reserves and resources.

John also represented the SPE OGRC on the governing bureau of the Ad Hoc Group of Experts on the Harmonization of Fossil Energy and Mineral Resources Terminology (AHGE) charged with updating of the United Nations Framework Classification (UNFC), working hand–in-hand with AAPG representatives. He directed discussions with the Committee for Mineral Reserves International Reporting Standards (CRIRSCO), leading to a detailed mapping of petroleum and minerals resource classification systems and the subsequent interface with the International Accounting Standards Board (IASB) project that will ultimately lead to revised global financial reporting standards for the extractive industries.

John was also heavily involved in two key activities that promoted AAPG's position at the national political level. The first was the AAPG/SPE Interdisciplinary Conference held in Washington, D.C., June 2007. This conference helped provide insights on the implications of reserves and resource reporting to a wide spectrum of industry and political participants. Further, John participated as a member of the AAPG SEC Comment Committee, providing input to the Securities Exchange Commission on their proposed reserves disclosure.

He is widely respected by both geoscience and engineering professionals and is an outstanding candidate for recognition through the APPG Distinguished Award.

John R. Etherington

STEPHEN L. SHAW
Distinguished Service Award

Citation—To Stephen L. Shaw, in recognition of his exemplary and distinguished service to both the AAPG and the profession of geology.

Stephen L. Shaw is a native West Texan who was born in San Angelo, Texas to a pioneer ranching family. He grew up in Mertzon, a small town located 30 miles southwest of San Angelo. Steve attended the University of Texas at Austin, receiving a B.S. degree in geology in 1971. Originally a math major, Steve soon saw the error of his ways and changed his major to geology after taking only a few classes. He continued his education at the University of Texas and received his M.A. degree in geology. It was there at UT that Steve met and married his wife, Nancy. They have two children. Daughter Katherine Cox now resides in College Station with her husband, Sean, and two children. Son, Will and his wife Kristen, live in Austin, Texas.

After graduation in 1974, Steve began working for William F. Guyton & Associates in Austin, Texas as a ground-water hydrologist. William F. Guyton & Associates consulted on projects throughout North America, though much of their consulting work was in Texas. As a result, Steve did a lot of traveling. It was on one of these consulting jobs in Texas (for the electric power plant at Monahans) that Steve came face to face with all the activity in the oil field. He realized that working as a petroleum geologist was a possibility and began to think about changing professions. What clinched it for Steve was when he went to the Wall Street post office in Midland, Texas: There was map tube hole at the post office drop box! He knew then that Midland was a town made for geologists.

In 1979, after five years as a hydrologist, Steve began working for the Superior Oil Company as an exploration geologist. Superior realized that though Steve's previous work experience was as a ground water hydrologist, many of the basic concepts of hydrology were applicable to petroleum geology. Thus began a series of jobs with Buckeye Energy and Conquest Exploration that culminated with Steve working for Meridian Oil. Steve retired from Burlington Resources (Meridian) in 2005 and started his own company, Firstview Resources. During his career, he has drilled many discovery wells in the Permian Basin. Steve also taught as an adjunct professor at the University of Texas at the Permian Basin at different times.

Steve began his association with the AAPG in 1974. During his extremely successful and busy career, Steve has repeatedly found the time to volunteer for the AAPG. In 1990, he became a delegate representing the West Texas Geological Society at the House of Delegates. He has served four terms as a delegate. This isn't always a sought after position, but Steve willingly volunteers for it knowing that the House of Delegates is an important part of the AAPG. During that time he served as vice-chairman of the House and was on the nominating committee three times. He also was a candidate for the chair-elect.

Steve didn't stop there with his involvement with the AAPG. The House of Delegates just gave him a taste of what AAPG is like. He became active in the Division of Environmental Geology, first as a charter member and then working on the liaison committee as a member and the chairman of that committee. Steve served the Southwest Section as a member of the Advisory Board of the Division of Professional Affairs. Steve served a three year term on the AAPG Advisory Council representing the Southwest Section. He just completed a term as Secretary of the Southwest Section. Steve was also a candidate for treasurer of AAPG in 1998. He is also an AAPG Foundation Trustee Associate.

At the same time as Steve was volunteering for all this AAPG work, he was also active in his local society serving as treasurer, vice-president and president of the West Texas Geological Society. He has served on numerous committees for the WTGS for which he received WTGS' Dedicated Service Award and the Honorary Life Membership Award. Steve also served as a director of the West Texas Geology Foundation for over ten years, also serving as the Treasurer of the Foundation. He is also on the building committee of the Midland Energy Library. In addition Steve has served on the

Advisory Council for the Geology Foundation for the Jackson School of Geosciences at the University of Texas at Austin.

As you can tell from the above, Steve is a man who believes in giving back to his profession. His willingness to serve and volunteer his time make Steve a exemplary recipient of the Distinguished Service Award.

Debra Osborne

JACK H. WEST
Distinguished Service Award

Citation—To Jack H. West, consummate geologist to the discovery and development of oil and gas, for his exemplary and long-term service to AAPG and the Pacific Section.

A defining moment in Jack's early history in geology took place in July 1959 during a mapping program in Alaska. Jack was a summer intern with a field party of geologists from Standard Oil Company of California (SOCAL and now Chevron Corp) mapping portions of the Brooks Range in the North Slope region of Alaska. He and his partner, Larry Kuenzi, were examining outcrops of the carbonate Lisburn formation when a storm moved in and lightning struck in the area of Jack and Larry. Both were knocked unconscious. Larry recovered first and then threw himself across Jack who was thrashing around and might have slid down a steep talus slope. After recovery they made their way to the base of the hill and were picked up by the party's helicopter. They were flown back to camp and then to Fairbanks where a doctor examined them. After a time in Fairbanks, they returned to the field to continue the summer mapping program.

Even after this horrific experience, Jack decided that geology was his continued choice of study which he vigorously applied to the oil and gas industry over the next 45 plus years.

Jack Henry West was born April 7, 1934 in Washington DC where his father was an attorney for the government and his mother a homemaker. After living in Oregon and Ohio, the family settled in Portland, Oregon in 1947. Jack graduated from high school in 1952 and enrolled in Portland State College. He discovered that geology was his field of major study after attending a physical science survey class that covered geology, astronomy, chemistry and physics. He transferred to the University of Oregon in Eugene and completed his Bachelor of Science degree in geology in December 1956. During the summer of 1956 Jack did his first internship with SOCAL doing geologic field mapping in central Oregon.

Jack's pursuit of working as a geologist was interrupted by a military obligation and he served honorably in the United States Marine Corps during 1957 and 1958. Following his discharge from the Corps, he returned to the University of Oregon and received his Master of Science degree in geology in 1961. While in graduate school Jack worked for the USGS in Portland. He also had an interview with Texaco and following graduation accepted a position as a petroleum geologist in their Bakersfield office.

A very significant other-happening occurred while Jack was in graduate school when he met his wife-to-be, Bonnie, in 1959. They were married in 1961 and have their home in Bakersfield, CA. They have two sons, Trent and Todd, and are also blessed with two grandchildren.

Jack's work experience as a petroleum geologist has spanned over 45 years. He was with Texaco for 17 years in a number of increasingly responsible positions involving oil and gas exploration and development in California and Alaska. Since 1978 he has worked for and as a consultant to a number of companies in California in matters related to the oil and gas potential of onshore and offshore basins within the State.

Jack West has been a member of the Association since 1962. Over the past four decades his contributions to the geologic profession through service and dedication at all levels of AAPG are most noteworthy.

He was president of the Pacific Section in 1988–1989 when the annual meeting was held in May 1989 outside the "oil patch" in Palm Springs, CA. It was a time of high unemployment of geologists in the petroleum sector and the meeting emphasized opportunities in the environmental area. The local media also focused attention on

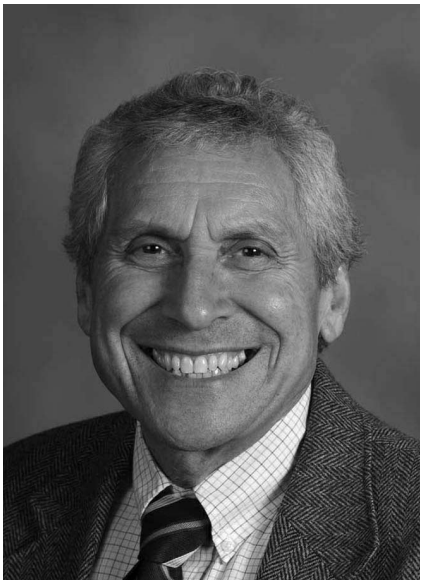
the meeting because of the Alaska Valdez oil spill in March 1989. Jack's propitious efforts in addressing both of these concerns during the meeting were exceptional.

He was the Pacific Section representative to the AAPG Advisory Council (AC) from 1991–1994. During his term he sought and obtained AC recommendations for Section members in both AAPG honors and awards and officer nominations. Jack also ably presented the Section's views on matters of importance to the Association as well as his own thoughtful and intuitive comments on other issues addressed by the AC.

Jack has been recognized for his service to AAPG. He received the Pacific Section's highest award, Honorary Life Member, in 1997 and AAPG awarded him Certificates of Merit in1989 and 1994. The Division of Professional Affairs (DPA) presented Jack their Distinguished Service Award in 1989 and a Certificate of Merit in 2003 for his "distinguished and dedicated service" on the Board of Certification.

The guidelines for the Distinguished Service Award emphasize "long term, meaningful service to AAPG and the activity be specific." Jack West fulfills these guidelines and justly deserves this prestigious Award.

Bob Lindblom



J. FREDERICK READ
Grover E. Murray Memorial Distinguished Educator Award

Citation—To J. Fred Read, in recognition of his outstanding achievements as an educator and researcher, whose enthusiasm and insight are an inspiration to students and colleagues.

Fred Read received his undergraduate and graduate education at the University of Western Australia, in Perth. During his Honors year he and two other students had the opportunity to work in the Carnavon Basin on the well exposed Paleozoic carbonates. His honors project was a joint mapping project along the basin margin, followed by a study of the Carboniferous mixed carbonate and clastic rocks under Brian Logan with the support of West Australian Petroleum (WAPET) and Murray Johnstone.

Fred then joined Brian Logan's Marine Geology group (affectionately known in the department as the "Pirates"), in their studies of Shark Bay, one of the classic modern carbonate environments (published as AAPG Memoirs 13 and 22). The Shark Bay studies focused on defining the sedimentary environments, and vertical and lateral facies successions. As a result by 1970, Shark Bay was one of the most completely vibro-cored modern carbonate environments. It contains the world's largest sea grass banks, and the famous Shark Bay stromatolites, and is now a World Heritage site. The Shark Bay Group included the likes of Graham Davies, Lindsay Collins, Dave Johnson, and Mark Hagan, to name a few, and was supplemented by Paul Hoffman who joined Brian to study the stromatolites. Fred's project in Shark Bay consisted of doing the hydrography, surface sediment samples and vibro-coring the Edel Province, western Shark Bay, a terrain of drowned Pleistocene eolianite complexes with long embayments within the interdune depressions. These embayments turned out to be microcosms of Shark Bay evolution, in that they developed seagrass banks across the baymouths, which led to successive restriction and hypersalinity in the bay-heads. As side projects, he also studied the superb pisolitic caliches developed on the Pleistocene carbonates, the Pleistocene stratigraphic succession and was involved in vibro-coring the Hamelin Basin tidal flats.

From 1970 to 1972, he did post-doctoral research funded by a grant to Brian Logan from WAPET, on the cyclic back-reef facies of the classic Devonian reef complex, Canning Basin, Western Australia. By working in the cyclic back-reef, Fred avoided the controversy that developed over the structural versus depositional origin of the Devonian margin. These cyclic carbonates sparked his long-standing interest in

the origins of cyclic deposition on carbonate platforms. This work was published in the *Bulletin of Canadian Petroleum Geology*.

Fred went to Virginia Tech in 1973 where he is a full professor. The Appalachians provided a superb natural laboratory of passive margin and foreland basin carbonates many thousands of feet thick, literally in his back door. He and his students have worked on evolution of passive carbonates in the U.S. Cambro-Ordovician (Jim Markello, John Bova, Bill Koerschner, Russ Pfeil, Roger Barnaby, Bill Mussman, Dave Osleger), the Triassic of Hungary (Anna Balog), the Tertiary of the eastern United States (Brian Coffey and Jenny LaGesse) and the Early Proterozoic of Canada (John Grotzinger). They have studied foreland basin carbonates in the Middle/Late Ordovician (George Grover, Mike Pope), the Silurian and Devonian and the Mississippian in the Appalachians, Illinois Basin and the western United States (Maya Elrick, Taury Smith, Aus Al-Tawil, Steve Dorobek, Amy Khetani, Thomas Wynn, Ali Spengler). He is the author of the 1985 AAPG paper which provided the first comprehensive classification of carbonate platforms and which was the topic for an AAPG Short Course for several years. The group has been involved in computer stratigraphic modeling, cyclostratigraphy, and documenting the sequence stratigraphic signature of global ice-house, transitional and greenhouse worlds and its implications for reservoirs (published as an SEPM Short Course). Robley Matthews comment in his undergraduate stratigraphy textbook *Dynamic Stratigraphy* that many ancient cyclic carbonates are fundamentally different to the Pleistocene and Holocene struck a responsive chord, and led to Bill Koerschner, John Bova, John Grotzinger and him realizing (with the prompting of Al Fischer's classic work coupled with cross fertilization from Lawrie Hardie's group at John Hopkins), that the meter-scale highly cyclic successions such as the Pillara, the Appalachian Cambro-Ordovician and the Early Proterozoic Wopmay carbonates were the result of greenhouse global climates, and that they likely bore the imprint of Milankovitch climate forcing. Maya Elrick and Fred (and Andy Horbury in England), then realized that many carbonates appear to have formed under conditions that are neither classic greenhouse nor icehouse, but instead developed under moderate sea level fluctuations driven by intermediate sized ice sheets. His students, Aus Al-Tawil, Brian Coffey, and Thomas Wynn, refined using well cuttings to develop high resolution sequence stratigraphic frameworks in subsurface carbonate rocks.

Fred's group (George Grover, Steve Dorobek, Jim Neimann, Anthony Nelson) also studied regional calcite cementation in shallow aquifer to deep burial settings in Paleozoic carbonates using cathodoluminescence to map calcite (and dolomite) cement zones after the pioneering work of Bill Meyers. They also developed models for early dolomitization in peritidal settings and documented the intense resetting of the chemistry of early dolomites by burial processes (Isabel Montanez, Roger Barnaby, and Anna Balog).

Fred was an AAPG Distinguished Lecturer 1989–1990 on Carbonate Platform Facies Models, and has taught numerous short courses and led field trips for AAPG, SEPM, GSA and industry groups. He and his students have twice received the Outstanding Paper Award, *Journal of Sedimentary Research*. He received the Pettijohn Medal for Excellence in Sedimentology in 2007. The focus of much of their present work with ex-postdoctoral student Antun Husinec, Saudi students in the Virginia Tech "Al-Carbonate Lab" and a multi-university and industry group, involves defining high resolution sequence stratigraphy and reservoirs in Mesozoic and Tertiary rocks in Croatia and Saudi Arabia, using outcrop, core and well data, and tying this to global climate. He and his students have had generous National Science Foundation, petroleum industry and PRF-ACI support for their research over the last 35 years.

Thomas Wynn

Response

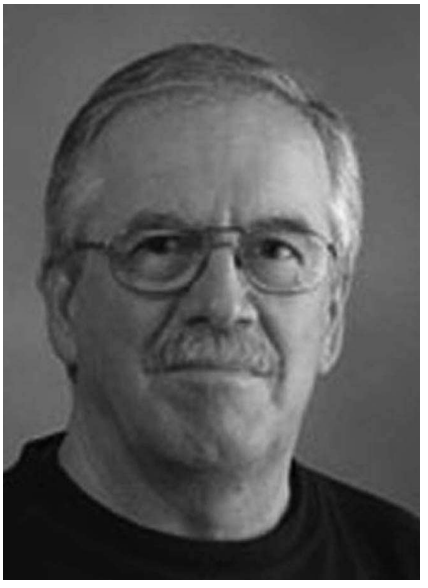
I am thrilled to receive this award for teaching, which came completely out of the blue for me, and I would like to especially thank Thomas Wynn for agreeing to be my biographer. I would like to dedicate this award to my father and mother and to my advisor Brian Logan, all of whom passed away recently. My mother and father provided the means and environment that allowed me to get to University. They were a tireless example of dedicated hard work, which they broke up with professional ballroom dancing and teaching at night. They showed unlimited energy and I sit back today and fail to understand how they could maintain such a blistering pace.

My graduate school advisor Brian W. Logan gave me the opportunity to enter the Honors program at the University of Western Australia, to map and study the carbonates of the Carnarvon Basin, Western Australia, my first real exposure to research. I knew at once that this was what I wanted to do. Brian then brought me into the Shark Bay Marine Geology program, largely on the basis of my unrestrained enthusiasm. I could not think of a better way of spending several years than on a boat in the bay, studying modern and Pleistocene carbonates. I remember I made a drawing of the boat (with a keg on the bow, of course) and hung it in my college room to give me added impetus to get through the honors year. Shark Bay was just the finest learning experience I could have wished. It was a wonderland of different carbonate rocks in the making from eolianites, stromatolites to sea grass banks, to muddy lagoons, and a sediment starved embayment plain. Fantastic! Brian treated us like colleagues and co-P.I.s, and made sure we were adequately funded through A.P.I. He motivated all of us with his enthusiasm for earth science and for asking the important questions. I have tried to follow Brian's example in my dealings with my graduate students, and I think that has been something that they all have appreciated, even when times were tough and we were between grants. Brian also gave me the opportunity to work on the classic Devonian cyclic carbonates in the Canning Basin, Western Australia that had been studied so well by Phil Playford and Dave Lowry, and I thank what was then WAPET for providing funding for this marvelous introduction to cyclic carbonate sedimentation, about which I was totally ignorant. I can hear Bruce Wilkinson saying with a grin, things have not changed much, Fred).

Of course, this award is really about my graduate students. I have been very fortunate to have attracted just a marvelous bunch of men and women students to Virginia Tech. What has been nice, is that they all have had a sense of humor, which has been essential in dealing with knocked back grants, bad reviews, and the day to day stuff that goes on in the field. All of my students have gone on to be very successful in their own right. I feel a bit humbled with how well they have done. I knew they were pretty good when we were working together in the lab and field, but never in my wildest imagination did I realize just how good they really were. Gerry Gibbs, our crystal structures guru at Tech, always told me that he expected his graduate students to teach him, otherwise he had failed as a professor. This has truly been my experience, with every one of my students opening up a new vista for me, ranging from evolution of carbonate platforms to computer modeling to diagenesis and geochemistry, in carbonates ranging in age from the Early Proterozoic to the Miocene. Their infectious enthusiasm, drive, and youthful energy has been priceless, and has been the fuel that has kept us all going through good times and bad. It has been very rewarding to come to AAPG or GSA meetings and see my ex-students up there doing great stuff as professionals. They are like surrogate sons and daughters – in fact, I probably spent as much time with them as with my own family so it is to be expected. In this light, when I was in the field checking into a cheap motel with my student Aus Al-Tawil, the lady said to him "You and your father can have the room at the back". I am not sure whether this gave me honorary Arab citizenship or made Aus an Australian. Although I think it was Chris Kendall who first nicknamed me "Moomaw". I would like to thank my wife Pauline and daughter Stephanie for being so patient and understanding over the last 20 years in allowing me to devote so much of my time to geology.

I have been one of the truly lucky people in this world falling into a job that I loved. It has not felt like work, and field work, although physically tough sometimes, is like a vacation other people pay thousands for, taking me to marvelous locations all over the world. And to cap it all off, I have had a great bunch of folks to share the adventure. I thank you all.

J. Frederick Read



FINN SURLYK
Grover E. Murray Memorial Distinguished Educator Award

Citation—To Finn Surlyk, in recognition of his infectious passion for geology and his unwavering support and dedication to his students. He has been more than just a teacher to so many students for whom he has been the inspiration and role model for a life in geology.

Finn Surlyk is that special breed of teacher who comes along only rarely. He is on the one hand a world-renowned and highly respected researcher, having published over 170 peer-reviewed papers, and on the other hand, arguably more importantly, he has been a teacher and a mentor to many young students and made a huge difference in so many lives. He has supervised about 80 postgraduate students over the years and has taught his students the meaning of doing a job right and not accepting short cuts or half-baked answers. And he has taught them the meaning and value of loyalty, in each instance not with words, but by his actions and deeds. It is not often that a teacher comes along of whom his students speak with such respect, reverence, and love.

The stories of Finn's loyalty to his students coupled with a demanding drive for excellence are legendary. One former student tells the story of how Finn filled up a bus with her fellow students and drove for three hours to a reception in recognition of her first job. He said that "it was an obligation to go and make it a happy day!" Another former student observed that "even though he at first seems to be a very strict professor, we all know that he is the most lovely and warm-hearted mentor you could wish for. He cares for us and always points out our most positive attributes to other colleagues." Finn's attempts at a stern exterior are simply a transparent mask to a kind and caring person; the stern exterior never endures long. After examining a first-year student, Finn approached the student with her grade. He looked very angry and said: "You almost gave me a heart attack. You had better speak in half-speed next time!" Clearly his tough external demeanor is an act that everyone sees through in a heartbeat! Finn has always expected much of his students. To a female Ph.D. student he once said "Babies are not a problem; you are allowed to think while they are asleep." Finn has always managed to strike a balance between being demanding and being compassionate and caring, the hallmark of an inspirational mentor.

Finn is a Dane through and through. Born and raised in Copenhagen, he obtained his academic degrees there during the turbulent years of the 1960s and 1970s. His research started in the chalk of Denmark and then shifted to deep-water deposits in Greenland before coming full circle back to the chalk in recent years. Through the years, he has published on the esoteric – lungfish aestivation – to the mainstream – Jurassic submarine fan sedimentation. It is this breadth of interests and knowledge that has served him so well through the years, and engendered the respect of his students.

Finn has always spoken of his children and his academic children. He often comingled both his families whether at home in Copenhagen or out in the field in Greenland. He and his wife, geology professor Nanna Noe-Nygaard, would routinely entertain students in their home, regaling them with good food and jazz. In the field, it was not uncommon to see his children side by side with his academic children scouring the rocks from sunup to sundown. His students describe Finn as inspiring, generous, outspoken, busy, demanding, with a keen interest in music (especially jazz), a love of birds, and a terrifying memory! As his students have said, "he has an impressive memory for information published during the past 50 years and for persons he has met. He has an incredible memory and knows *everything!* You can discuss any subject with him and he can tell you who wrote what and where to find it."

Finn's teaching extends from classroom to field. In addition to well-known excellence in the classroom, where his courses are always in great demand, he is also a legendary field geologist, with a discerning and inquisitive eye that rarely misses anything. Already as a senior/postgraduate student he arranged courses and seminars for

his fellow students in upcoming disciplines. In addition to his university teaching he has given numerous courses, mainly in sedimentology to the oil industry. With his children and academic children in tow, he has tirelessly compiled a tremendous body of work on the Jurassic of Greenland, which culminated in publication of the landmark *The Jurassic of Denmark and Greenland*, a product of his and his many students' work. But his field experiences have involved more than just research, but lessons about how to live life, having led him to form a lifelong bond with many of his students. To this day, they lovingly tell stories of how Finn transcended his role as teacher and became a true hero and role model to his group when stressful situations arose.

Clearly Finn is a teacher who embodies the very essence of what it means to be a teacher whose mission is to train bright young people; wise, loyal, demanding, inspiring – a true role model. Through his years at the Geological Survey of Greenland and at the University of Copenhagen, he has created an atmosphere of dedicated learning and has instilled a great love for the science of sedimentology. I can think of very few teachers as deserving of this award as Finn is; he is truly the type section!

Henry W. Posamentier

Response

I am greatly honoured to receive the Grover E. Murray Distinguished Educator Award from the AAPG and thank the Advisory Council and Executive committee and those who have proposed and supported my election. When I got a phone call from AAPG President Scott W. Tinker informing me about the award, I was immensely surprised thinking "why?", and "why me?", and "who on Earth has suggested me?" Most awards are based on a good paper, talk or poster, or perhaps life-long excellence in science, or service to an organisation, but to receive an award for being an educator is something else and in my mind a very special kind of recognition.

I have always loved teaching and started out by holding weekly seminars for my fellow students mainly on clastic sedimentology. I still remember the enormous enthusiasm we all felt when dynamic sedimentology and facies analysis were the great new thing in geology. Throughout the 1970s, I and my Ph.D. student and later colleague Lars Clemmensen stuffed a couple of minibuses with students every Friday morning and drove to gravel or limestone pits near Copenhagen, normally without any planning or previous knowledge of the locality. Though underappreciated, Pleistocene outwash gravels and sands represent some of the most dynamic sedimentary environments, commonly with spectacular sedimentary structures. The discussions on the origins of the enigmatic facies were extremely lively even in deep cold in the winter months with frozen fingers and noses. The period focusing on facies analysis was followed up by weekly seminars on plate tectonics and sedimentation – an extremely difficult subject for us, coming from a tectonically rather peaceful part of the European craton far from any active margin with subduction zones and volcanic arcs.

The focus in sedimentology and stratigraphy at the University of Copenhagen was on field work, ranging from minute observations on structures to very large-scale architectural studies in the wonderful outcrops in the rift basins of East Greenland. My M.Sc. and Ph.D. theses dealt with the Maastrichtian chalk of the Danish Basin starting out in 1965 before the first North Sea oil was found in the Danish North Sea. My work dealt with biostratigraphy, palaeoecology, and sedimentology of the chalk and the group I worked with, led by the late Professor Tove Birkelund, was soon to be contacted by oil companies wanting to know more about this strange and poorly understood reservoir rock. In those days around 1970 when the Danish university world was Marxist-dominated and very much anti-industry, it was simply impossible, however, for a university person to work with or be supported by oil companies so we missed some great opportunities for setting up major research projects financed by the industry. This gradually changed over the years and personally I have had close contacts with companies based in Norway, Great Britain, United States, and France since my early chalk days. I have received support for research projects, Ph.D. stipends, and I have also given many courses especially in the sedimentology of deep-water deposits and clastic sedimentology in general and have taken a great many field parties to East Greenland to study well exposed analogues to deeply buried, contemporaneous reservoirs.

Much of my professional life has been connected with the study of the well-exposed sedimentary basins in East and North Greenland, starting with working on the Jurassic of East Greenland in 1968. This was followed up by work on the Upper Permian, the

Triassic–Jurassic boundary and Cretaceous of this region and on the Lower Palaeozoic continental margin succession of the Franklinian Basin in North Greenland. This work has involved so many good friends and colleagues that it would take too much space to mention them here. In recent years I have returned to working on the Upper Cretaceous – Danian Chalk Group of Northwest Europe, this time to a large extent based on reflection seismic data and scientific boreholes. The work is taking place under the auspices of the Cretaceous Research Centre funded by the Danish Natural Science Research Council. The centre is based at the University of Copenhagen and includes numerous M.Sc. and Ph.D. students, post-docs and colleagues at all levels. We study all aspects of the Chalk Group carbonates in the region, covering subjects such as the effects of strong bottom currents based on seismic data, ecology and sedimentology of bryozoan mounds, reconstruction of a rocky shore ecosystem, nannofossil biostratigraphy and productivity, Milankovitch cycles and their influence on benthic ecology, and long time series of stable isotopes recording changes in water temperature and productivity.

Lastly I wish to extend my thanks to a much better teacher, Henry Posamentier, for the Citation and to my wife and co-worker Nanna Noe-Nygaard, who is also a professor in geology, and our three sons, Karsten, Jakob, and Peter. Nanna and I have worked together on many projects but she was not always fond of my long periods of field work in Greenland when the children were small. However, the whole family managed to work together in East Greenland in three summers in the early 1990s supported by Norsk Hydro. We studied the wonderful sandstone injectite complex of the Upper Jurassic Hareelv Formation – published in a recent AAPG Memoir – and the equally impressive high-angle clinoform beds of the Upper Jurassic Raukelv Formation. Karsten and Peter now work in the IT world, whereas Jakob is a petrophysicist with Maersk Oil & Gas. I gratefully accept this award on behalf of all my past, present and future students.

Finn Surlyk

ALEXEY E. KONTOROVICH
Special Award

Citation—To Alexey Kontorovich for outstanding fundamental researches in oil and gas generation, his contribution to scientific substantiation and discovery of petroleum provinces in West and East Siberia, to the Russian oil and gas industry development, and training petroleum geologists.

Alexey (Emilievich) Kontorovich, RAS full member, Ph.D. in geology and mineralogy, professor, was born January 1934 in Kharkov, Ukraine.

After his graduation from the State University of Tomsk, Alexey worked in SNIIGG&MS (Research Institute for geoscience and mineral resources within the authority of Ministry of Geology, USSR) for more than 30 years, where he became science deputy director. In 1989 he was offered a job with Institute of Petroleum Geology, SB RAS, of which he later became head from 1997 till 2006. In 2006 the Institute was reorganized into Trofimuk Institute of Petroleum Geology and Geophysics SB RAS, and Alexey has been serving as its scientific advisor since 2007.

Being a distinguished scholar in geosciences, Alexey is a world known authority in theoretical and applied issues in petroleum geology, organic geochemistry, and mathematical geology. He brought into being several fundamental works on zonation and evolution of oil generating formations, theoretical and practical quantitative prediction of petroleum reserves, exploration and mapping techniques for oil producing formations, scientific substantiation and discovery of oil and gas fields, and elaboration of simulation modeling methods applicable in the sphere of predicting the potential and forecasting probable risks in exploration works. He authored and co-authored more than 800 scientific publications, including more than 40 monographs, four inventions, and 4 patents.

A special place in Alexey's works is occupied by the studies given to the naphthidogenesis theory and to geochemistry of HC—biomarkers. The studies deal also with the global regularities in distribution of

proved in-place oil, gas and bitumen reserves through the key stratigraphic series from Riphean through Neogene.

Currently, Alexey is associate professor in the Universities of Tomsk and Novosibirsk cities. He has trained more than 70 Ph.Ds and more than 20 disciples have become professors. Alexey is the honored professor at the China Petroleum University, Academy of Social Sciences of Heillongjiang Province (China), VNIGRI (St. Petersburg, Russia), and a number of other academies. In 2005 he was chosen to be the president of Northeast Asian Gas and Pipeline Forum.

Alexey served as a member of the Bureau of Geology, Geophysics, Geochemistry and Mine Sciences from 1992 to 2002. He's been a member of the SB RAS Presidium since 1997, and a member of the Bureau of the Earth Sciences Department since 2002, was chairman of RAS Scientific Council on the problems of geology and oil and gas field development (2002), and member of many other scientific councils and commissions, and editorial boards of Russian and foreign scientific journals. He is the editor-in-chief of the journal "Geology, Geophysics and Development of Oil and Gas Fields."

Sergey Bakhturov

Response

First of all I'd like to express my gratitude for the honor of being selected as a recipient of the 2009 Special Award. It's already over 50 years that I've been working in petroleum geology, and over this time I've met so many remarkable both Russian and foreign including American geologists. Our institute that I headed for a long ten years and now work as Scientific Advisor for, has participated in research studies for major Russian oil companies and those world-famous, like ExxonMobil, Shell, ConocoPhillips and has cooperated with many other international scientific centers and universities. In my opinion, geologists from all the over the world make one big family, whose main responsibility is the future of all mankind, of which providing it with mineral resources is the vital for its survival.

Mr. Scott W. Tinker, now AAPG President, wrote in his letter to me that the AAPG "family" of geologists comprises more than 34,000 people, which I'm proud to be a member of. Over such a long time of my belonging to the breed of petroleum geologists I've enjoyed many titles and honors, that came both from the state and non-government organizations and societies. However, being a token of international recognition of my knowledge and expertise, the AAPG award is very special to me. I do appreciate it and would very much like to thank AAPG Executive Committee for the high estimation of my performances, which I can't imagine without my colleagues, most of whom have been working with me for decades and have become my closest friends, always there for me ready to help and support, and my active life would be impossible without them. I especially appreciate the contribution made into all this by my family, my wife Ekaterina and two sons, that has provided the foundation of all my life, and with my feet standing firmly on it, I've been able to work, and dive deep and earn for life, which has never been all rosy.

I was born on January, 28 1934 in the city of Kharkov, as one would say now in the Ukraine. In 1941 World War II broke out and our family moved to a small city of Prokopievsk in Siberia. And my life has been attached to that region ever since. During and after the war I lived in that city, where I went to school, which I finished in 1951 and entered Physics Department of Tomsk State University (TSU). In 1956 after graduating university with majoring in physics, I began to work as assistant lecturer at Experimental Physics Chair with the Physics Department, TSU. However, it happened so that after my employment with the University of Tomsk I worked as a high school teacher in a village school, teaching physics.

In 1958 when I moved to Novosibirsk with my young family (I married my wife Ekaterina a year before), a new period in my life was given start to, and from that day on my life has been closely connected with Siberia. My career commenced with my joining Siberian Research Institute for Geology, Geophysics and Mineral Resources (SNIIGGiMS), in a position of engineer and I ended up as Science Deputy Director over the next thirty years to follow. My practical experience was built up on petroleum geology, and, eventually, grew to be my first priority focus.

Some years later, in 1962 I was assigned to take the lead of the laboratory for oils and bitumens. It came to be my staple activities, which were shaped into the focal theme of regional geology and geochemistry of Siberian platform areas – West Siberian plate and Siberian craton.

The most intense efforts and attention, however, were given to the elaboration of diagnostic

techniques and mapping for source-beds and quantitative projection for oil-and-gas content in them. The researches, we participated in, on geochemistry of sedimentary rocks, oils and gases, as well the studies given to oil and gas fields origination prove very meaningful for geological science and its practical application. The developed in the 1960s geochemical criteria for oil and-gas-genetic nature diagnostics were amply used in quantitative estimates for petroleum potential of West Siberian basin. The notion of the main zone of oil and gas generation, which later was called by American geologists "oil window", was considered to be a breakthrough at that time.

In the 1970–1990s I participated in the development of the governmental integrated programs for geological exploration works for oil and gas search in West and East Siberia, and Sakha Republic (Yakutia). I happened to have taken part in the exploration and discoveries of quite a number of oil fields in West Siberia and Paleozoic and Pre-Cambrian oil in East Siberia. The government awarded the team of Siberian scientists I'd taken the lead of with the RF State Prize in 1994. Three years earlier I had been selected to be RAS Academician.

In May 1989 the management of Siberian Branch of Russian Academy of Sciences offered me a position of Deputy Director with the Institute of Geology and Geophysics SB RAS. So, yet another new stage in my life began.

In the 1990s I was leading the fundamental studies on zonation and evolution of oil and gas generation, and another theme we focused on at that time was making projections for global tendencies in the development of oil and gas industrial complex in Siberia and altogether Russia. It was when that the nonlinear theory of naphthidogenesis as a process of self-organization of hydrocarbon substance in sedimentary basins got its further development, and basic features of naphthidogenesis evolution were described. There were also studied global regularities in initially in-place oil, gas and bitumen resources distribution through basic stratigraphical complexes, from Riphean through Neogene, as well was shown their irregularity in terms of distribution through stratigraphical systems, and the relatedness of stages of intensified oil generation to oil accumulations according to Wilson's cycles.

The results of these studies have been published in many scientific articles and monographs, of which quite many were used as themes for presentations and talks in various scientific conferences. Moreover, I had a great pleasure lecturing on problems in petroleum geology at universities and in companies from many countries (the United States, Great Britain, France, Switzerland, Australia, China, Japan, and Chez Republic and Slovakia).

Seeing how vital it is for things to be taken up by successors I spare no time or efforts to share the experience accumulated over decades with a younger generation of geologists taking advantage of being a professor with Novosibirsk State University. It's a great joy to see how many of the disciples have become Ph.D. and Doctors in sciences. Both my sons, Andrey (1958) and Vladimir (1962) have followed in my wake: Andrey is Deputy Director General at "Krasnoyarskgeophysica", while Vladimir, RAS Corresponding member, heads the seismic modeling laboratory for oil-and-gas bearing complexes with IPGG SB RAS. It is very uplifting, to have the three of us minded for the same business and the mother of the family so encouraging and supportive, which does give me strength to keep going. It should be noted that our institute, Trofimuk Institute of Petroleum Geology and Geophysics is one of the leading institutes not only in the Siberian Branch of the Russian Academy of Sciences but altogether in our country as well. At least, hardly any governmental decision related to the oil and gas industry is taken without our counseling.

Recently, a lot of attention has been paid to the development of scenario for social-economic development of the areas of Siberia in connection with the development of the fuel and energy complex. As a result, this kind of work prepared by me and my colleagues was later adopted by the RF government as the "Russia's energy strategy until 2030" and "Strategy for economic development of Siberia", as well some other white papers derived from them. In addition to what has been done, substantiations of the route for the ESPO (East Siberia – Pacific Ocean) pipeline were also approved as the basis for the project. The future persists to be challenging. There's still a lot to discover in petroleum geology and a lot to do for our country's development.

Alexey E. Kontorovich

AKIF A. NARIMANOV
Special Award

Citation—To Akif Narimanov, in recognition of his significant contributions to the science of petroleum geology, his dedicated leadership to the AAPG and Azerbaijan Society of Petroleum Geologists (ASPG) and his special role in education of young geoscientists.

Akif Ali oglu Narimanov was born on October 10, 1946 in the town of Ganja, the Republic of Azerbaijan. He received B.S and M.S degrees in geology from the Azerbaijan Institute of Oil and Chemistry after M. Azizbayov (Azerbaijan State Oil Academy).

Akif began his career as a geo-technician in the Trust of Offshore Exploration and progressed through his career to his present position of chief geologist and deputy director general of AzNeft Production Unit, State Oil Company of the Azerbaijan Republic. During his career Akif was directly involved in the discovery of many offshore fields in Azerbaijan, including the famous Azeri-Chirag-Gunashli oil field.

Akif successfully defended his doctorate thesis in Baku and Moscow in 1989–1990. His thesis proposed a concept for the migration and accumulation of hydrocarbons in the reservoirs of the South Caspian Basin. Akif has been editor of numerous geologic maps in the Caspian Sea region, most recently as a co-author for the 2008 Geological Map of Azerbaijan. He is the author of some 100 research papers, studies, inventions, patents and teaching aids, many of which have been published outside Azerbaijan. Over the years he has served on the editorial staff of four journals, including *Marine and Petroleum Geologists*. As a result of his extensive contributions to scientific research in petroleum geology Akif was elected in 2004 to the Russian Academy of Natural Sciences and also to the International Academy of Sciences in Austria.

Akif has always had a great desire to pass on his learning and experience to younger generations. He has done this through both his role as a professor at the Azerbaijan State Oil Academy as well as in his founding and leading role in the ASPG. Akif founded the ASPG in 1993 and since then has been its driving force. Numerous international conferences have been organized in Baku jointly with the AAPG and EAGE. Training of young geoscientists is conducted through seminars, the School of Young Geologists, the ASPG Library and the Students Technical Conference. Akif established the journal of the ASPG (The Azerbaijan Geologist) published in Azeri, Russian and English.

Akif has also shown great leadership in preserving the geological and industrial heritage of Azerbaijan. Akif launched a campaign to preserve the Kirmaki Valley for future generation of petroleum geologists and interested tourists. The Kirmaki Valley outcrop belt contains excellent exposures of the Productive Series Reservoirs and also numerous hand dug wells that record the early oil industry in Azerbaijan. Akif worked with major international petroleum companies, the Ministry of Energy of Azerbaijan, the EAGE and a number of other organizations to gain support in preserving this unique piece of Azerbaijan's heritage. As a result, the Cabinet of Ministers of Azerbaijan has decided to give the Kirmaki Valley the status of a geological park. Akif Narimanov can take full credit for this achievement. Akif is also working on the establishment of a museum at the place where the world's first well was drilled; this museum is expected to reflect the entire history of Azerbaijan's petroleum industry.

Akif has worked extensively with the International Petroleum Industry, resulting in opportunities for the exchange of experience and knowledge. He initiated the establishment of several successful joint ventures and new subdivisions within the AzNeft PU. One of them is the Reservoir Modeling Center, which is successfully serving the oil industry in the Caspian Region. Realizing the immense importance of correct organization and storage of the enormous amount of data which has accumulated over decades, Akif Narimanov is currently working on the establishment of the National Database of the State Oil Company of the Azerbaijan Republic (SOCAR).

Akif has shown an incredible ability and desire to move forward

no matter the obstacles. He is an outstanding organizer and motivator of people; he can easily mobilize people to accomplish great things in the face of adversity. His contributions have received recognition from the head of the State, President of Azerbaijan Ilham Aliyev: he was conferred the title of Honorary Engineer of the Republic in September 2006.

I am very pleased that Akif Narimanov has received the AAPG Special Award and I wish him further successes in his professional, public and personal life.

Gregory W. Riley

Response

I would like to start by saying that I was very surprised but at the same time, very pleased when I received a letter from AAPG President Dr. Scott W. Tinker informing me that I had being selected by the AAPG Executive Committee to receive the 2009 Special Award, as my fellow professionals are aware I am not one of the most famous geologist in the region, as Azerbaijan has several World famous geologists (coryphaeus) whose experience and discoveries have being used throughout the world to educate the next generation of geologists.

Following my graduation from the University of Oil and Chemistry in Baku, I worked in the "Azneft" Production Union offshore oil producing department mainly focusing on the drilling of wells and geological research, after several years I started to carry-out research on South Caspian geology and also started studying at the Academy of Sciences for preparation of a soviet system Ph.D. (candidate thesis) to gain the scientific title "Candidate of Science". It was during my studies that I realised that even the most famous of geologists of that time did not have a clear understanding of the many problems associated with oil and gas formation and also their migration and accumulation in process of traps formation. Following this realisation I decided to start systematically studying every complex question relating to oil and gas formation in the huge South Caspian Basin, as a result of my research, spanning 20 plus years I discovered a new conception of oil and gas congestions in the South Caspian Basin.

Further, more detailed studies of parts of this conception, especially those relating to the geochemical research of rock samples and identification of oil from different deposits were made by engaging in joint scientific research works with many leading scientific researchers including Michael Abrams and the late Giofranco Rinaldi and various oil companies such as Unocal, Amoco, Mobil, Exxon, Statoil, and Texaco.

During the period of these joint scientific research works it became possible to answer various outstanding questions such as the geological age of most reservoirs and their formations (genesis) and to identify temporary phases of mass hydrocarbon migration and their mechanism plus the time of formation of Middle Pliocene traps which contained more than 95% of all discovered oil reserves. During this period it also became possible to determine the possibilities of locating liquid hydrocarbons in depths of 8-9 km plus numerous other minor accompanying questions.

At the 1984 World Congress in Moscow, after my presentation on the hypothesis of oil deposit formations in the South Caspian Basin at depths of 6-9 km, American scientists led by Michael Xellutty reacted sceptically to my optimism of finding such reserves in the South Caspian Basin even though my scientific work was carried-out under the guidance of the leading USSR academician Sh. Mehtiyev. However, my scientific work that was presented in Moscow was later recognised as one of the best studies carried-out within the USSR Academy of Sciences.

Whilst working in the oil industry I was always thinking about the practical results of my research. In 1985, during the beginning of my career I remember with great pleasure the news I received regarding an oil fountain from an exploration well that I had previously suggested drilling but had great difficulty in convincing my superiors of the benefits, however the well was drilled and the well produced 300 ton of oil per day from a depth of 5,100 meters. I also took great pleasure in participating in the exploration and development of all of the biggest Azerbaijani Oil & Gas fields located on the Caspian shelf such as Gunashli, Chirag, Azeri and Kyapaz. I am also proud of my prognosis for opening the giant gas condensate field "Shakh-deniz" (published in 1987) with gas reserves of more than 1 trillion m3 proving my 1987 prognosis correct. However in that time this idea was like a fantasy for a young scientist like myself but later became reality as did my other "fantasies".

My public work for earth sciences development, young specialists and scientists preparation was a very successful and rewarding part of my career.

From 1990, during my spare evenings, I began teaching as a

professor at the Oil University. From 1993 I started active work as the president of the newly created Azerbaijan Society of Petroleum Geologists (ASPG) where, during this time ASPG organised eight International Conferences and Symposiums, two of which were been held jointly with AAPG, and three of which were held jointly with EAGE. Fifteen annual student conferences and many regional conferences dedicated to the memory of famous Azerbaijani scientists were also organised by ASPG.

I would also like to mention some of my personal initiatives, one being the creation of a special museum situated at the location of the world's first drilled oil well in 1847. We are pleased that the State Oil Company of Azerbaijan Republic will realise this project in a more expanded variant.

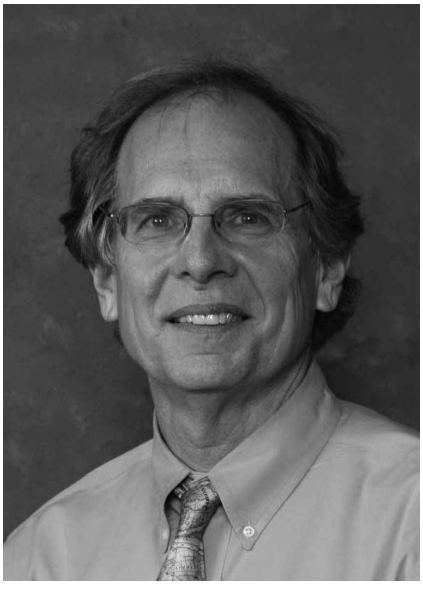
Other important and partly realised projects that I consider part of my personal initiatives are the creation of a National Geological Park at Kirmaky Valley which has numerous deep dig oil wells and excellent exposures of rock that every year becomes objects of study and research for specialists and students from many different countries.

Having other initiatives and realisation of these initiatives will take a great deal of time and energy, such as searching deeper stratigraphic zones of oil and gas genesis, searching sleeve-shaped channels of ancient rivers and other types of oil reserves, increasing oil production from old fields using tertiary methods of influence, the creation of a handbook for geological site visits within Azerbaijan, the creation of a Regional Coordination Committee for the geological, geophysical and production areas around the Caspian Sea.

Receiving this high award will, of course be a good stimulator for future projects and achievements. All my achievements would not be possible without the teams and people within those teams that support me and will hopefully continue to support me in achieving further successes.

Finally I would like to state how honoured I am to receive such a prestigious award and would like to thank my family, friends and all the people that have supported me throughout my career.

Akif Narimanov



OWEN R. HOPKINS
Public Service Award

Citation—Honoring exploration geologist Owen R. Hopkins, whose enthusiasm for "planting the seeds of geologic curiosity" led him to initiate a plan for placing geologic maps in thousands of elementary schools nationwide.

Owen Hopkins was born June 23, 1947, in Shawnee, Oklahoma. His father was a fighter pilot in the United States Air Force, and the family moved often. "I'd lived in eighteen houses in fourteen states by the time I was 22," Owen says.

Owen enrolled in the University of Oklahoma after he graduated from high school in 1965. He had a rocky second semester. "In fact, I almost flunked out," he says, "so I sought out a guidance counselor. The first one was not encouraging, but the second counselor advised me to just take a variety of classes to find out where my true interests lie."

Among the diverse classes in the eighteen hours he took that semester was a geology class. Owen says, "It was a fairly random decision, but that class changed my life. I made my first college A in geology, and I called my mother and said, 'Mom, I'm going to be a geologist!'"

After earning his Bachelor of Science degree in geology at O.U., Owen took a job with Chevron Oil Company, first in Lafayette, Louisiana, and later in New Orleans where, in 1977, he earned a master's in geology from Tulane University. Later that year, he moved to Corpus Christi, Texas, where he worked for Holly Energy, Sexton Oil, and Harkins & Company. In 1990, he helped form Suemaur Exploration and Production, LLC, working as a geologist initially, then chief geologist, and finally to VP Exploration until February 2005, when he retired from active management. He remains a partner with the company.

A self-described "observer," Owen might be considered introverted—unless the subject turns to geology. When it does, Owen's eyes light up, his color rises, and his enthusiasm spills over. He's a natural teacher; he gravitates to kids, and they to him. For years,

from the time his son Geoffrey was in second grade, Owen had been volunteering to talk about geology in the schools because, as he says, "Kids love rocks."

When he became president of the Corpus Christi Geological Society in 2006, Owen began thinking about what he wanted his project as president to be, and he naturally gravitated toward something in education. "I wanted to help plant seeds of scientific and geologic curiosity," he says. "If students can have their interest piqued when they're young, who knows where that could lead?"

His desire to interest students in science led Owen to devise an education plan for the CCGS. The first stage—"Maps in School"—is well underway. He explains, "Our original goal was to have a U.S. Geological Survey Time and Terrain Map of the United States mounted prominently and permanently in all the elementary schools in the Coastal Bend. The maps would be laminated, framed, and hung at kids' eye level in a hall or cafeteria where kids could study them and talk about them for years to come."

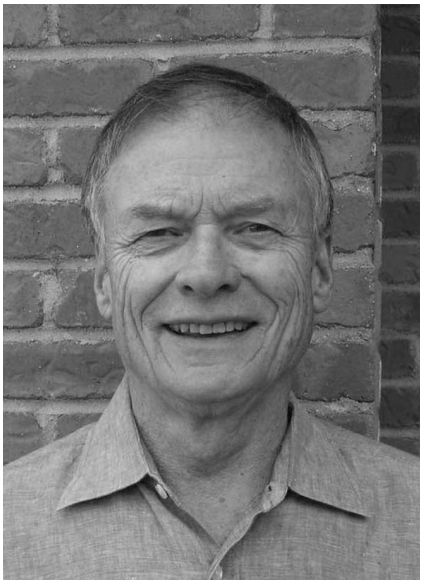
Hopkins wanted the maps to be presented to upper elementary students by professional geologists who bring rock samples and show students how to read the maps. "I tell them that maps can talk," he says. "I show them the legend at the right of the map, and tell them that light colors are young-age rocks. I don't lecture. I move around a lot and try to draw the students in."

The map project quickly expanded beyond the Coastal Bend as other geologists picked up on the idea and pursued it across the country. Today, maps have been placed in schools throughout Corpus Christi, but also in Austin, San Antonio, Midland, Witchita Falls, and Houston, as well as in elementary schools in Louisiana, Alabama, Oklahoma, South Carolina, Ohio, Connecticut, Arizona, and California.

Owen's educational initiatives will keep him busy through 2010. The Maps in Schools project is only the first of three phases. Phase Two, Bones in Schools, involves exposing students to extinct mammal bones found in the area around Corpus Christi. Phase Three would bring sedimentary, igneous, and metamorphic boulders to schools, to be incorporated into the landscapes where students gather.

In order to ascertain what students are learning from his presentations, Owen requests that children write follow-up notes. One recent message from a fifth-grade girl read, in part, "I really appreciate your donating a map to the fifth graders. I think it is really cool that you are a geologist. My dad is only a doctor."

Jan Williams



JAMES D. LOWELL
Pioneer Award

Citation—To James D. Lowell for establishing the concept of structural styles in petroleum exploration and placing them in a plate tectonic framework and for educating countless explorationists across the globe in the application of structural geology to exploration and production.

After receiving a B.Sc. at the University of Nebraska, James Lowell received a Ph.D. under Marshall Kay at Columbia University in 1958. The first 18 years of his career were with three companies: He began with Amoseas, a joint venture of Chevron and Texaco, in Libya, The Netherlands, and Spitsbergen; he then worked for Exxon in both research and exploration out of Houston and Denver; he went on to be manager of geology with Northwest Exploration in Denver. It was while setting up the first schools in structural geology for Exxon with Tod Harding that he and Harding collaborated in developing the structural styles concept.

His early company assignments gave him a broad exposure to worldwide geology. This period happened to coincide with the plate tectonic revolution and he was an early adopter. He saw clearly how geologists could benefit from considering geologic structures in a plate tectonic context. Google him with structural styles, wrench faults, thrust belts, basin inversion, Red Sea, Spitsbergen etc., and you will find a substantial publication record.

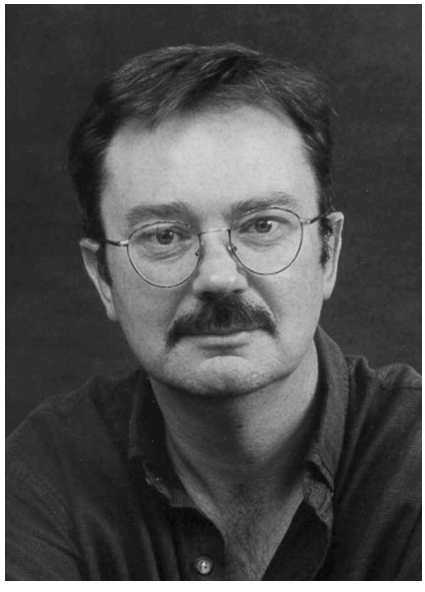
Between Amoseas and Exxon, Jim spent a year teaching at Washington and Lee University (1965–1966). Although he didn't continue in the academic world, he did continue teaching, since 1976 as a consulting geologist instructing in nearly 200 hundred popular classroom and field courses for OGCI and for many different companies, as a visiting professor at Massachusetts Institute of Technology and the University of Nebraska, and as an Esso Australia Distinguished Lecturer. Topics included exploration, seismic interpretation of structure, and especially structural geology for which he wrote a well regarded textbook, "Structural styles in petroleum exploration."

He has also consulted for more than 40 clients, including several national oil companies, on exploration problems on every continent except Antarctica; time consulting and exploring has actually far exceeded time spent teaching. He has worked in and visited some 125 countries during his career.

Along with these rent-paying activities, he has served the RMAG and the AAPG in holding office and in committee assignments and distinguished lectureships. He also served on the safety panel of the Ocean Drilling Program. His expertise and winning personality have led to a very successful career.

Jim and Suzanne live in Denver. They have four daughters and seven grandchildren. As befits a Pioneer, they have forged, over 50+ years, a very strong, loving family bond.

Dave MacKenzie



JOSEPH A. CARTWRIGHT
Wallace E. Pratt Memorial Award

MADS HUUSE
Wallace E. Pratt Memorial Award

ANDREW APLIN
Wallace E. Pratt Memorial Award

Seal Bypass Systems is a comprehensive review of a diverse set of geological structures that breach sealing sequences and allow fluids to flow vertically or subvertically across a seal, potentially negating predictions of sealing capacity based exclusively on flow

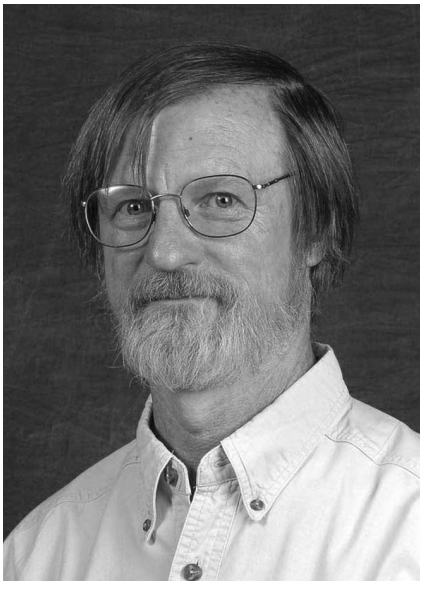
properties. These structures are classified into three main groups based on seismic interpretational criteria: (1) fault related, (2) intrusion-related, and (3) pipe-related. The paper explores the ways in which each group exhibits different modes of behavior with different scaling relationships between flux and dimensions, and discusses how these can have different short and long-term impacts on seal behavior. Examples are presented that show direct evidence of highly focused vertical or sub-vertical fluid flow from subsurface reservoirs up through the seal sequence with leakage internally at higher levels or to the surface as seeps. Failure to recognize these features and risk them appropriately can lead to costly errors in exploration.

Joe Cartwright has been a research professor at Cardiff University since 1999. He worked for Shell International as an exploration geophysicist from 1980–1984, and was involved in exploration campaigns in Denmark and Brunei. He was at Imperial College as a senior lecturer until 1999, and was appointed Honorary Professor of the Institut Francais du Petrole in 1998. He is the founding director of the 3-D Lab in Cardiff, which specializes in doctoral training of seismic interpreters for careers in industry or academia. He has supervised more than 30 doctoral students to successful completion and gainful employment. His research interests focus on the application of 3-D seismic interpretation to basin analysis. He has published widely on the propagation of normal faults, the genesis of polygonal fault systems, sandstone and igneous intrusions, submarine slides, and other forms of soft sediment deformation. His current interests embrace the seismic characterization of mudrocks as seals, and the seismic analysis of diagenetic reactions. He was Editor of *Basin Research* from 2001–2007.

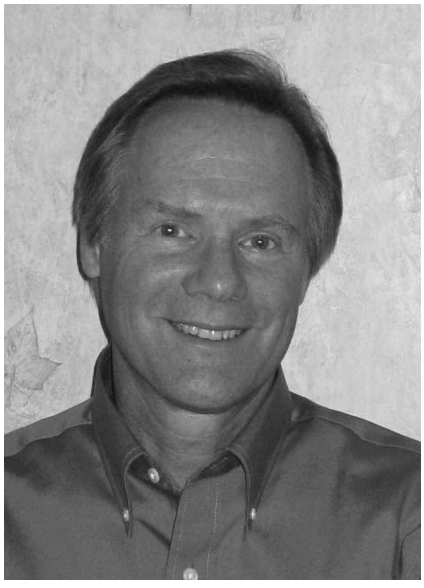
Mads Huuse was recently (April 2009) appointed reader in geophysics at the University of Manchester, following positions as lecturer and senior lecturer in geophysics at the School of Geosciences, University of Aberdeen (UoA). Before joining UoA in 2005, he completed a Ph.D. in geology and geophysics from the University of Aarhus (1999) followed by post doctoral positions at LDEO-Columbia, Aarhus, UoA, and Cardiff. His research interests span the geological interpretation of reflection seismic data, applied to fluid flow phenomena and sediment remobilization, continental margin evolution, glaciogenic environments, cool-water carbonates, and volcanics.

Andrew Aplin is professor of petroleum geoscience at Newcastle University in the UK. He has a B.S. in environmental science from the University of East Anglia and a Ph.D. in marine geochemistry from Imperial College. Andrew was a Royal Society European Research Fellow at the Centre de Recherche Pétrographique et Géochimique in Nancy before spending six years with BP Research, working mainly on reservoir quality issues. He was seconded part-time to BP as a "Professor in Practice" in 2007–2008. Since joining Newcastle University in 1990, his main research focus has been on the physical properties of shales in the context of sealing, leakage and shale gas. He has published more than 90 peer-reviewed publications, is an associate editor of marine and petroleum geology and has served on grant awarding bodies in both Norway and the United Arab Emirates. Andrew teaches M.S. classes in both Newcastle and Heriot Watt Universities, and also short courses to industrial audiences around the world.

TOR H. NILSEN
Robert H. Dott Sr. Memorial Award (Posthumously)



ROGER D. SHEW
Robert H. Dott Sr. Memorial Award



GARY S. STEFFENS
Robert H. Dott Sr. Memorial Award

JOSEPH R. J. STUDLICK
Robert H. Dott Sr. Memorial Award

Atlas of Deep-Water Outcrops, edited by T. H. Nilsen, R. D. Shew, G. S. Steffens, and J. R. J. Studlick assembles the first collection of quantitative architectural data on deep-water outcrops geared for ease of use in reservoir characterization and modeling. It contains 154 papers, and is a collection of both qualitative and quantitative data on deep-water outcrops from around the world that includes all 7 continents and 21 countries.

The Atlas is comprised of a hardcopy and CD-ROM. The hardcopy contains papers with summary information, illustrations, and quantitative data on 103 outcrops. It also contains overview papers on selected topics that summarize the types of deep-water deposits, seismic modeling of outcrops, current outcrop study techniques, and use of outcrop data in reservoir modeling. The companion CD-ROM includes 38 journal-style articles on the overview papers from the hardcopy and more detailed reviews of selected outcrops.

The goal of the publication is not to repeat but to build upon previous work on deep-water fields and reservoirs, outcrops, and on modern submarine analogs. By providing new and consistent data that more fully describe the various architectures present in deep-water outcrops, the Atlas provides important information for developing models and for comparing various depositional settings.

Tor H. Nilsen (posthumous) held a B.S. in geology from City College of New York, and an M.S. and Ph.D. in geology from the University of Wisconsin at Madison. His principal expertise was in depositional systems analysis, stratigraphic analysis, and the relationships among tectonics, eustasy, and sedimentation. He began his industry career as a research geologist with the Shell Development Company, and went on to work as a research geologist for the U.S. Geological Survey. Tor then became president of RPI Pacific Inc., and then founded and became president and CEO of Applied Earth Technology Inc. In his later years, Tor was an independent consulting geologist. Tor was an active member of AAPG and taught numerous short courses and field seminars for the petroleum and mining industries as well as publishing more than 300 geological papers, books, and abstracts, including a reclassification of strike-slip basins and an extensive treatise and guidebook for the giant Midway-Sunset Field in California. Although Tor began and contributed significantly to the efforts on the Atlas of Deep-Water Outcrops, he passed away before the Atlas reached its final stages of publication. His career and his life touched many people deeply, and he is fondly remembered.

Roger Shew currently teaches in the Departments of Geology and Environmental Science at the University of North Carolina at Wilmington. His research interests include sedimentologic and reservoir characterization of deep-water and coastal depositional settings. He is also involved in earth and environmental education curriculum and outreach programs. Roger's industry experience includes 20 years with Shell Oil Company, where his work included development geology and exploration and production research at Shell's Bellaire Research Center. Reservoir characterization of various depositional systems, with deep-water systems as a primary focus, included extensive outcrop, seismic, well, and core studies. Roger also spent five years as the geology instructor for Shell's Training Department. Roger continues to do consulting work for the oil industry leading field

seminars and conducting short courses. Roger received his undergraduate degree in earth sciences from UNC-Wilmington, a M.S. in geology from UNC-Chapel Hill, and an M.Sc.Ed. from the University of Houston.

Gary Scott Steffens is a geological advisor with Shell Exploration & Production Company. His 29 years of industry experience ranges from basin-scale frontier play generation to detailed prospect and field-scale reservoir analyses. He also conducted research in seismic and sequence stratigraphy, deep-water depositional systems, turbidite reservoir architecture, Pleistocene geology, and Circum-Arctic tectonics. Gary's E & P assignments include the Gulf of Mexico, Alaska, West Africa, Indonesia, Philippines, Australia, Siberia, Egypt, and Brazil. Over the past 4 years, Gary directed a global geology program in Shell International E & P research. Recently, he assumed the position of regional geology exploration manager of the Gulf of Mexico. Gary has been an active member of AAPG since 1978, an AAPG co-distinguished lecturer in 1998, and was the AAPG poster chairman for the 2006 AAPG Houston Convention. He published numerous papers and abstracts on the Gulf of Mexico, Philippines, sequence stratigraphy, deep-water depositional systems, and near-seafloor deep-water analogs. Gary also co-edited and authored a *Marine and Petroleum Geology* special 2002 thematic edition on Turbidite Systems with E. Mutti, C. Pirmez, M. Orlando, and D. Roberts.

Joe Studlick is COO of Dynamic Global Advisors, a Houston-based E&P consultancy supporting governments, NOCs, and investors. Much of his work during the last 30 years includes appraisal and development of deep-water fields and reservoir characterization.

Joe's industry experience includes 19 years in Shell Oil's Exploration and Production with assignments in petrophysics, development geology, management, head office, and research in New Orleans and Houston. Since working at Shell, he has had stints at Unocal and Burlington Resources in their deep-water Gulf of Mexico (GoM) efforts, as director of operations at Maersk Oil America Inc., and on the E&P service side as the geoscience manager at Baker Atlas and president of a consulting firm. His experience includes extensive work in the offshore and onshore GOM with more than 10 years in deep-water and more recently in many worldwide basins. He also has done business development and management, especially in solving complex problems and managing large, multidisciplinary projects from opportunity access through exploration and appraisal to development.

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 "Architectural Elements in a Ponded Submarine Fan, Ross Sandstone, Ireland."

The goal of the paper was to describe the stratigraphic architecture of ponded submarine fan strata in order to aid in the interpretation of subsurface data in ponded strata of structurally confined submarine fans. To address this goal the paper focused on defining the architectural elements that fill the Carboniferous Ross Sandstone, which is an ancient submarine fan that filled a structurally confined basin of similar shape and size to northern Gulf of Mexico minibasins. Four architectural building blocks are defined in the formations: channels, lobes, slumps, and mudstone sheets.

Channels and their genetically related lobes are documented to stack in a hierarchical manner. Together these channel-lobe elements filled the basin in an aggradational pattern. The paper also focused on the axis-to-margin facies associations for each element as well as dimensional data for each. The paper further defined unique attributes of architectural elements that allow them to be distinguished using one-dimensional data, including core, gamma-ray, and dip-magnitude.

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 deep-water reservoirs around the world and to use these data to develop empirical rules for how basins fill in response to various boundary conditions.

MARK KNACKSTEDT
George C. Matson Memorial Award

The George C. Matson Memorial Award for the best paper presented during an AAPG oral technical session is presented to Mark Knackstedt for "Carbonate Petrophysical Parameters Derived from 3-D Images."

Mark Knackstedt was awarded a B.S. in 1985 from Columbia University and a Ph.D. in chemical engineering from Rice University in 1990. He is professor and head of the Department of Applied Mathematics at the Australian National University (ANU) and a visiting professor at the School of Petroleum Engineering at the University of NSW (UNSW).

His research has focused on development of 3-D tomographic imaging analysis methods and modeling transport, elastic, and multiphase flow properties of complex materials. His recent focus has been on coupling this 3-D analysis method to conventional rock typing descriptors used by geologists and petrophysicists.

In 1999, Mark initiated a large collaborative effort between the two Australian Universities. The research program had three focus areas; first, the development of a leading edge experimental micro-CT facility for imaging of materials in 3-D; and secondly, the establishment of a research group focused on the development of optimised algorithms for handling large-scale 3-D data and analyzing the structural and textural features of rock in 3-D. The third focus was the development of numerical simulators for predicting key geophysical and petrophysical properties from 3-D image data. Based on this foundational work, in 2005 the ANU/UNSW group initiated the Digital Core Consortium. The consortium members include ExxonMobil, Chevron, BP, Shell, Total, Saudi Aramco, Schlumberger, Baker Hughes, BHP Billiton, Japan Oil and Gas, ADCO, Petronas, and Maersk Oil and Gas. The ongoing research program currently encompasses more than 25 staff and students.

He was a Distinguished Speaker for the SPWLA (2007–2008) and awarded the SPWLA Annual Logging Symposium Best Paper in 2004.

George C. Matson Memorial Award Top 10 Oral Presenters

Mark Knackstedt
Mahyar Madadi
Christop Arns
Gregor Baechle
Gregor Eberli

Richard Kilby
Fred Diegel
Michael Styzen

James L. Coleman
Christopher Swezey

Robert T. Ryder
Robert C. Milici

Gabor Tari
Jabour Haddou

Ernest Franke
Michael Rigney
William C. Stone
Marcus O. Gary

Dante S. Lauretta

Peter Schultz

William C. Dawson
Bill Almon
Kelly Dempster
Sally Sutton

Nigel Banks
Bernard Cooper
Steven Jenkins
Edmond Razafindrakoto

Stan Teerman
Bo Cribbs
Scott Turner
Narade Suwatcharapanit
John Bretches
Russ Kaufman

TIM DOOLEY
Jules Braunstein Memorial Award

MICHAEL HUDEC
Jules Braunstein Memorial Award

MARTIN JACKSON
Jules Braunstein Memorial Award

The Jules Braunstein Memorial Award for the best AAPG poster presentation is presented to Tim Dooley, Michael Hudec, and Martin Jackson for *Dismembered Sutures Formed During Asymmetric Salt-sheet Collision*.

The poster presentation summarized some 25 scaled physical models on salt-sheet advance and suturing conducted over the past 3 years by the lead author. The authors focused on salt-sheet suturing because this topic had been largely ignored in physical modeling laboratories, and because imaging problems tend to obscure suture trails within salt sheets. Sutures between salt sheets document the collision between salt bodies sourced from different feeders and thus elucidate sub-salt structure. Some suture trails are also drilling hazards, so applying this research can help mitigate drilling risk.

Initial models, run in 2005, focused on symmetric, direct, collision between salt bodies. The authors tested modeling techniques, such as passive markers embedded within the salt analog to track internal flow. A mixture of brittle modeling materials allowed roof densities not to exceed those of salt, which would be unrealistic for the shallow burial depths of advancing salt sheets. Once modeling techniques were optimized, we experimented with variable roof thicknesses, asymmetric advance, 3-D salt flow, and diachronous suturing. In asymmetrically advancing sheets, suture trails are formed from the roof of the overridden salt sheet. Furthermore, suture trails do not necessarily connect back to the original point of collision because trails can be torn and translated great distances as one salt sheet overrides another. Geometries in the models are similar to those on seismic data, so appear to offer a realistic explanation for suture genesis and evolution.

Tim Dooley received his Ph.D. from the University of London in

1994 and spent the next nine years with the Fault Dynamics Research Group at Royal Holloway University of London. He has conducted experiments studying structural processes since 1988. Tim joined the Applied Geodynamics Laboratory (AGL), a research group on salt tectonics, at the University of Texas at Austin in 2003, where he manages the physical modeling laboratories. Since joining the AGL, his focus has been on salt tectonics using innovative modeling, analytical, and graphical techniques. Current research interests include the growth, advance, and coalescence of salt sheets; salt-stock canopy systems; strike-slip deformation above salt; and the effects of shortening on salt diapirs.

Mike Hudec received his Ph.D. from the University of Wyoming in 1990, and spent the next eight years at Exxon Production Research, where he specialized in salt tectonics, extensional tectonics, and seismic interpretation. He moved to Baylor University in 1997 as an assistant professor in structural geology. In 2000, Mike moved to the Bureau of Economic Geology. He is co-director of the Applied Geodynamics Laboratory, an industry-funded research consortium studying salt tectonics. His current research interests include advance mechanisms for salt sheets, processes in minibasin initiation, configuration of the Louann salt basin in the deep-water Gulf of Mexico, and construction of a digital atlas of salt tectonics.

Martin Jackson established and co-leads the Applied Geodynamics Laboratory, a research group on salt tectonics at the University of Texas at Austin. Honors include AAPG's Sproule Award, Matson Award, and Dott Award. His early career interests include lunar structures, mineral exploration, and Precambrian geology. His current research blends 3-D seismic interpretation, modeling, and field work focusing on allochthonous salt sheet advance in the Gulf of Mexico, folded evaporite canopies in the Canadian High Arctic, intra-salt Messinian shortening in the eastern Mediterranean, salt tectonics on Mars, and plate-kinematic reconstruction of terrestrial salt basins.

Jules Braunstein Memorial Award
Top 10 Poster Presenters

Tim Dooley
Michael Hudec
Martin Jackson

John Comer

David Contreras
Paul Mann
Alejandro Escalona
Miguel Nunez

David Connolly
Carlos Selva
Fred Aminzadeh

Jose de Vera
Ken McClay

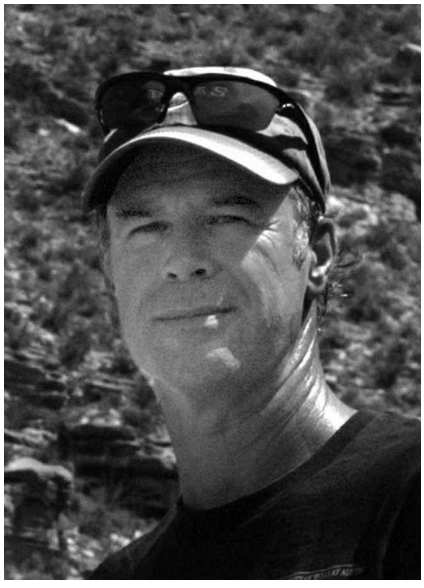
Holly Stein
Hannah Judith

Eve Berger
Dante Lauretta

Robert Klimentides
Joann Welton

Xiangyun Jiang
Paul Mann
Alejandro Escalona

Paul Pijush
Mark Zoback
Peter Hennings

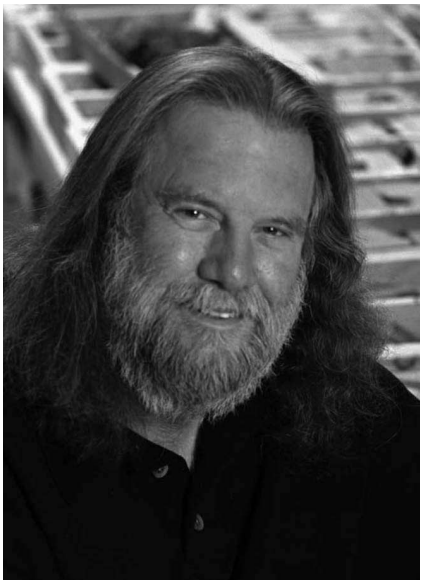


CHARLES KERANS
Gabriel Dengo Memorial Award

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 Charles Kerans for "Carbonate Grainstone Geobody Occurrence and Organizations."

Carbonate grainstones are a critical producing facies of many carbonate reservoirs. The 4-D distribution of grainstone bodies adds greatly to permeability heterogeneity of reservoir systems. This paper provided a survey of the geometric parameters of Permian, Pennsylvanian, Jurassic, and Cretaceous grainstones. The focus is on ramp systems where grainstones can be divided into foreshore-shoreface, barrier-inlet-lagoon, and sharp-based shoreface systems. Each has characteristic geometries and the synthesis provided suggests that their distribution may be predictable within a sequence/systems tract framework.

Charlie Kerans is currently Goldhammer chair of carbonate geology at the Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin. From 1985–2005, Charlie was a senior research scientist at the Bureau of Economic Geology at UT where he developed and co-led the Carbonate Reservoir Characterization Research Laboratory. His areas of focus are in carbonate sequence stratigraphy and reservoir characterization, with an emphasis on integrating outcrop analog information for improved understanding of the subsurface. Charlie has been both a domestic and international AAPG Distinguished Lecturer. He also won the Pratt award from AAPG for best paper in the AAPG Bulletin in 1994 (first author) and in 2005 (second author). He is currently engaged in study of carbonate reservoir analysis in the Middle East, West Texas, and in South America, and supervises research on carbonate stratigraphy and sedimentology.



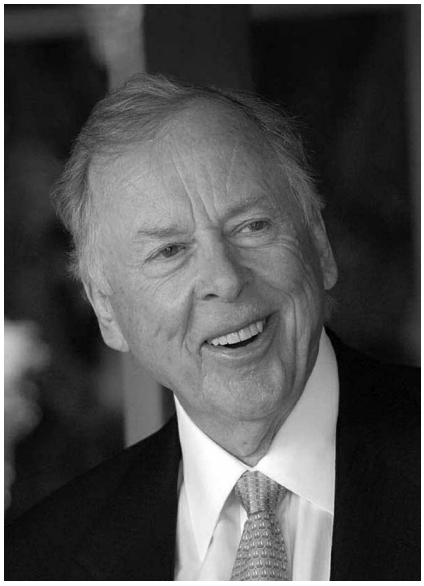
S. GEORGE PEMBERTON
Ziad Beydoun Memorial Award

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 S. George Pemberton for his poster presentation "The Role of Bioturbation in Low Permeability Gas-charged Reservoirs." His co-authors were Murray Gingras of the University of Alberta's Department of Earth & Atmospheric Sciences, and James MacEachern of Simon Fraser University's Earth Sciences department.

In the past, trace fossil research in hydrocarbon reservoir rocks was almost exclusively restricted to exploration geology; however, recent research shows that ichnology has significant applications in production geology as well. Overlooking the potential impact of heterogeneities caused by burrowing can lead to inaccurate assessment of the flow characteristics of a reservoir, and misidentification of permeability streaks. This is especially important in gas-prone reservoirs, where slight variations in permeability can affect storativity, reserve calculations, and resource deliverability. An understanding of how burrow-associated heterogeneities control fluid flow within sedimentary units is necessary, if production from bioturbated reservoirs is to be optimized.

George Pemberton received his Ph.D. degree from McMaster University, Hamilton, Ontario, in 1979. He is currently a Canada Research Chair in Petroleum Geology in the Department of Earth and Atmospheric Sciences at the University of Alberta. The main thrust of his research pertains to the application of ichnology (animal-sediment relationships) to petroleum exploration and exploitation and its use in sequence stratigraphy. Recent work has been done on the application of ichnology to the flow of fluids through the reservoir in both clastic and carbonate settings. His work has been recognized by a number of awards including: the Past President's Medal (1994), Geological Association of Canada; he was elected a Fellow of the Royal Society of Canada in 2001; he was awarded the 2003 R. C. Moore Medal for Excellence in Paleontology, presented by the Society for Sedimentary Research; and was the recipient of the 2008 Grover Murray Distinguished Educator Award presented by AAPG. He has actively worked on major hydrocarbon bearing units in Australia, Taiwan, China, Brunei, Indonesia, Malaysia, Gulf of Mexico, Japan, Argentina, Brazil, Peru, Venezuela, Columbia, Trinidad, New Zealand, Papua New Guinea, the United States and Alaska, the

North Sea, Algeria, Qatar, Egypt, Saudi Arabia, Russia, Angola, India, and Nigeria. This work has been done in conjunction with most of the largest multi-national and national oil companies in the world.



T. BOONE PICKENS
L. Austin Weeks Memorial Medal

The L. Austin Weeks Memorial Medal is given in recognition of extraordinary philanthropy and service directed to advance the mission of the AAPG Foundation. The premier award honors the late L. Austin Weeks, whose philanthropic legacy set an exemplary standard. The award was established in 2008 and is the Foundation's highest award. The 2009 recipient is T. Boone Pickens.

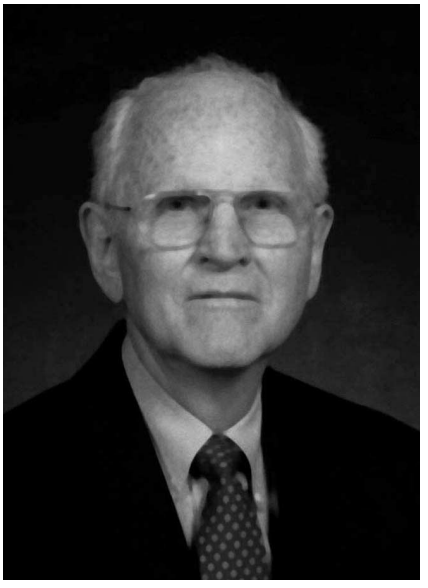
T. Boone Pickens, founder and chairman of BP Capital Management, is responsible for the formulation of the energy futures investment strategy of the BP Capital Commodity Fund and the BP Capital Equity Fund. Mr. Pickens also aggressively pursues a wide range of other business interests from water marketing to renewable energy resources. In July 2008, Mr. Pickens launched a national energy campaign—The Pickens Plan—in an effort to help reduce America's dependency on foreign oil. The Pickens Plan is a bridge to the future—a blueprint to reduce foreign oil dependence by harnessing domestic energy alternatives, and to buy us time to develop even greater new technologies. Building new wind generation facilities, conserving energy and better utilizing our natural gas resources can replace more than one-third of our foreign oil imports in 10 years.

Founder of Mesa Petroleum in its various forms beginning in 1956, Mr. Pickens' career at Mesa spanned four decades. Under his leadership, Mesa grew to become one of the largest and most well-known independent exploration and production companies in the United States. Mesa Power (founded by Mr. Pickens in 2008) is planning the world's largest wind farm in the Texas Panhandle.

Mr. Pickens earned a degree in geology from Oklahoma A&M (now Oklahoma State University) in 1951. He has served on numerous boards and industry associations throughout his long and distinguished career, including being a board member for the Horatio Alger Association of Distinguished Americans Inc., a member of AAPG since 1954, an AAPG Foundation Trustee Associate since 1979, a member of the All-American Wildcatters Association, and service on the U.S. Department of the Interior's National Petroleum Council in 1971.

Throughout his professional life, Mr. Pickens has been a generous philanthropist, giving away more than $700 million. Mr. Pickens formed the T. Boone Pickens Foundation in late 2006. The Pickens Foundation is focused on improving lives through grants supporting educational programs, medical research, athletics and corporate wellness, at-risk youths, the entrepreneurial process, and conservation and wildlife initiatives.

The Horatio Alger Association of Distinguished Americans Inc. selected Mr. Pickens as a recipient of the 2006 Horatio Alger Award, which epitomizes those who overcome adversity and humble beginnings to achieve success. It is but one of many honors awarded to Mr. Pickens for his achievements, including *Financial World* CEO of the Year, 1978; Washington Institute for Policy Studies' Columbia Free Enterprise Award, 1987; Earth Day Award, 1993; *Oil and Gas Investor* Hart Publication list of 100 Most Influential People of the Petroleum Century, 2000; and U.S. Department of Energy Clean Cities National Partner Award, ENRG, 2002.



JOHN SHELTON
Chairman's Award

The Chairman's Award is given to recognize extraordinary contributions (either monetary or service) to the AAPG Foundation, and also to call attention to the role and value of the Foundation. The 2009 recipient is John Shelton.

John Shelton graduated from Baylor University in 1949, with a major in mathematics and minor in geology. He received his M.S. (1951) and Ph.D. (1953) degrees from the University of Illinois before beginning employment with Shell Oil Company. With Shell for a total of 10 years, he worked in the Rocky Mountains and the Gulf Coast area, as well as at Shell Development Company in Houston.

John became a faculty member at Oklahoma State University in 1963. He left OSU in 1980 to work as a consultant with ERICO, Inc., a private company, owned by Paul McDaniel, that prepared research reports for the North Sea, Mediterranean, and other regions. In 1990 Shelton became a full-time consultant with Masera Corporation, another research company owned by McDaniel and where Rick Fritz was COO.

Digitization of AAPG Publications became a major project of Datapages, Inc., a company spun off of Masera. It was managed by Shelton until it was sold to AAPG in 1999. In 1996, initiation of a GIS project, begun by Datapages and Peter Wigley, Lynx Information Systems, was the beginning of the AAPG GIS-UDRIL project. In 1997, Shelton, along with Ted Beaumont and Ron Hart, as a service of Datapages, began posting articles on what became the AAPG Search and Discovery site, an online journal dedicated to advancing petroleum science.

From 2000 to the end of 2008, John was a volunteer at Datapages, with particular emphasis on Search and Discovery and GIS-UDRIL. For nine years, he worked more than 40 hours per week on AAPG's digital products. As a result of his vision, leadership, and tireless efforts he is considered the father of AAPG's digital publication program.

Shelton was AAPG editor from 1975 to 1979 and AAPG vice president in 1988–1989. He received AAPG's Distinguished Service Award in 1980 and Honorary Membership in 1990.

John and Doris Smith were married in 1949, and they have a daughter, Maura, and son, Kyle, and four granddaughters.

TY SCOTT ROBINSON
Teacher of the Year Award

The Teacher of the Year Award, given for excellence in the teaching of natural resources in the earth sciences, K-12, is presented to Ty Scott Robinson.

Ty Scott Robinson was born in Provo, Utah, grew up in Sevier County, and graduated from South Sevier High School in 1977. He and his wife, Jamie, are the parents of four daughters and two sons and are grandparents to two. Ty enjoys baseball, anything associated with geology, cooking, and being with his family.

Graduating from Brigham Young University with his B.S. in earth space science in 1987, Ty later earned his M.S. in geology also from BYU in 2002.

Ty has been associated with the public school system for 21 years. He taught for 10 years at Spanish Fork Junior High, 3 years at BYU as an adjunct professor in the David O. McKay School of Education, and the past 8 years at Provo High School. He currently teaches geology, earth system science,

AP environmental science, and an academic unified studies course.

In addition, he is currently serving as the past president of Utah Science Teachers Association (USTA) and has served on the board for 10 years. He has enjoyed his association with the USTA because it provides training and experiences to enhance teachers' skills and knowledge. He has been involved with writing curriculum and state criterion tests for Utah and currently he is working with WGBH in Boston where he will be teaching workshops for their Teacher's Domain Internet program.

Ty has previously been honored with the Presidential Award for Excellence in Science and Mathematics Teaching, the Huntsman Awards for Excellence in Education, the Governors Medal for Science and Technology, Outstanding Earth Science Teacher, and Utah Water Educator of the Year.

As a teacher who is very enthused and knowledgeable about science, Ty enjoys teenagers, and enjoys the friendships with them. Teaching allows him to continue scientific research and to involve his students in research. He loves being a scientist and truly enjoys sharing what he's learned with his students. His greatest reward as a teacher is to see students become turned on to science and learning. Ty has the desire to make a difference in the lives of his students.