SEPM (Society for Sedimentary Geology)

2023 PRESIDENT'S AWARDS CEREMONY

Pittsburgh Convention Center
Room 413-415
6:00 p.m. ET
October 17, 2023


2024
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INTERNATIONAL SEDIMENTARY
GEOSCIENCES CONGRESS
5-8 MAY 2024 | FLAGSTAFF, AZ USA

BE THERE

James Lee Wilson Award

For Excellence in Sedimentary Geology Research by a Young Scientist

Emily Beverly

Soils and paleosols (ancient or fossil soils) are the interface between the soils parent material, the climate conditions that exist when a soil forms, the composition and structure of the biota living on and within the soil, the landscape on which the soil forms, the duration and intensity of weathering the soil experiences, and all of the soil-water-air-biotic interactions that take place within a soil. Thus, the study of soils and paleosols can provide us with vital information needed to understand the evolution of terrestrial environments through Earth history. Despite their utility, paleosols have often been neglected in paleoenvironmental research. However, scholars like Dr. Emily Beverly are rapidly changing this. Dr. Beverly's research focuses on using tools of paleopedology, sedimentology and stratigraphy, and geochemistry to understanding ancient records archived in the Critical Zone, which is the interface between rock, soil, air, water, and biota. This work has provided novel insights on ancient environments, climates, and ecosystems ranging from the Eocene of North America to the Neogene and Quaternary of eastern Africa. Emily is a consummate field geologist who has collected data over months of fieldwork around the world. She's also a talented lab scientist who has successful blended lab work and field geology to make important conclusions about terrestrial ecosystems today and in the past. Further, Emily collaborates with scientists from a wide range of fields from geology to archeology to anthropology to paleobiology demonstrating that her research crosscuts disciplines in exciting and important ways.

Some of Emily's exciting contributions are related to understanding the ancient climates and environments of our human ancestors in eastern Africa. Her research has helped to reconstruct the Pleistocene climate of the Lake Victoria basin, documenting conditions considerably drier than the present when the lake was likely completely dried up, to model the past and potential future of Lake Victoria under different climate conditions, and to establish connections between habitat and ecosystem variability and human evolution in eastern Africa through the Pleistocene. Another important area of Emily's work is focused on developing and applying geochemical proxies of climate than can be applied to paleosols and other terrestrial deposits. This cutting-edge research on clumped isotopes, triple oxygen isotopes, and plant waxes offer new and innovate ways to reconstruct ancient environments using paleosol archives. Emily's research in these diverse avenues have made her a leader in paleopedology and sedimentary geology.

Emily is not just a terrific scientist; she has also made an impact on the fields of paleopedology and sedimentary geology through her leadership at the society level and mentoring of a new generation of scientists. Emily has been the Chair of the Soil and Soil Processes Division of the Geological Society of America, been an On to the Future Mentor for the Geological Society of America, and has mentored and advised numerous graduate and undergraduates in field and laboratory research during her time as a graduate student, postdoc, and faculty member.

In sum, Emily has made impressive contributions to the field of sedimentary geology, and particularly, paleopedology, through her research products, her field and laboratory science, her society leadership, and her mentorship of the next generation of geoscientists. Dr. Emily Beverly has done so much as a young scientist, and it is exciting to watch her career continue to grow as she expands her leadership in the field of sedimentary geology and paleopedology.

Citation

Dr. Emily J. Beverly is recognized with the 2023 SEPM James Lee Wilson Award for her significant contributions to understanding modern and ancient Earth surface (Critical Zone) records through the study of paleosols and the development of new tools and approaches of paleosol analysis.

William R. Dickinson Award

For Excellence in Sedimentary Geology Research by a Mid-Career Scientist

Cornel Olariu

Cornel Olariu has been an intellectual leader on the architecture and stratigraphy of silciclastic sedimentary strata in paralic to marine basins and in lacustrine basins. His focus has been not only on facies detail (e.g., his insightful work on the Panther Tongue strata, his detail of Neslen fluvio-tidal channels or on the careful recognition of subaqueous compound dunes in the Baronia tidal seaway) but also on larger-scale basinal controls that happen at different time scales, i.e., short (eustatic & climatic) vs long (tectonic) and how these are detected from the stratigraphic responses (e.g., his papers on why lacustrine deltas are thin or missing, on the significance of Carpathian clastic wedges, or on the tectonic pre-conditioning of large canyon incisions in GOM).

After his PhD work in 2005 Cornel has been a Research Associate then Research Scientist in the Department of Geological Sciences, The University of Texas at Austin. Although a Research Scientist, he has persistently taught undergraduate and graduate classes and led countless field trips. Cornel has also supervised or co-supervised 23 MS and PhD graduate students at UT Austin. On the Science side he has 83 scientific papers published or in press in mainstream journals, giving him an honorable mid-career h-index of 22, and proof that his work is well read and cited.

Cornel has remained on the cutting edge of international sedimentology research with his publications from Spain (detecting evidence of coast-parallel and coast orthogonal tidal systems), Northwest China (Junggar Basin lacustrine systems), Argentina (Early and mid-Jurassic shelf margins), Saudi Arabia (syn-rift Red Sea deposits) and from Romania (work on the origin of Danube River, the character of the Danube Delta and on associated Carpathian basins). He was awarded the Gheorghe Munteanu-Murgoci Prize from the Romanian Academy of Sciences for his work on Carpathian tectonics and basins.

Over his career so far, Cornel Olariu and his students have made very significant advances into new emergent themes in sedimentology and basin analysis. Cornel's work illustrates well that careful outcrop documentation (extended greatly with drone-collected data) and extended even further with the use of subsurface datasets lead to influential innovative results in sedimentology and basin analysis.

Biographer: Ron Steel

Citation: In recognition of Cornel Olariu's innovative field research in Sedimentology that continues to provide new insights on how surface river, wave, tidal and gravity processes, under the longer term controls of climate, tectonic, sea-level changes, shape margin architecture and infill sedimentary basins.

Raymond C. Moore Medal

For Sustained Excellence in Paleontology

James MacEachern

To say that James is highly admired and respected by his colleagues and mentees would be an understatement. He embodies the epitome of a scholar and teacher, possessing exceptional qualities that set him apart. James generously shares his views and scientific knowledge, enriching his collaborators with his wisdom and patience. His ability to effectively communicate the significance of observational detail is unmatched. In every sense, Dr. MacEachern is a polymath and a scholar who exemplifies the classical tradition of geoscience: he is a rare gem in today's world.

Some of James' earliest work, which was conducted in the 1990s, focussed on the integration of the Glossifungites Ichnofacies into sequence stratigraphy. This work was very influential in inspiring a flurry of research activity aimed at identifying the occurrence of substrate-specific ichnofacies for the enhanced recognition of omission surfaces in the stratigraphic record. This work laid the foundation for incorporating ichnological datasets into broader geological frameworks.

Also during his early research, Dr. MacEachern established an integrated ichnological and sedimentological framework for identifying and characterizing estuary deposits in the rock record. By combining these two disciplines, he offered a comprehensive understanding of estuarine processes and facies associations, substantially increasing our knowledge of these crucial environments.
Dr. MacEachern's pioneering work heavily contributed to our understanding of shoreface deposits in the rock record. He developed the first facies model that deeply integrated ichnological and sedimentological criteria, providing a comprehensive framework for interpreting shoreface settings throughout the Phanerozoic. Today, this work remains foundational to our understanding of shoreface environments.

In the 2000s, Dr. MacEachern advanced the field of facies analysis in deltaic deposits by incorporating vital sedimentological data. By considering factors such as fluid mud beds, phytodetrital pulses, and variable ichnological distributions, he improved sedimentological models for identifying, classifying, and interpreting delta deposits and delta asymmetry. His research led to the recognition and establishment of two new ichnofacies associated with deltaic strata: the Rosselia-Ichnofacies and the Phycosiphon-Ichnofacies.

Beyond his groundbreaking research, Dr. MacEachern actively contributes to the scientific community. Currently serving as an associate editor for two esteemed journals, the Journal of Sedimentary Research and Ichnos, he demonstrates his dedication to maintaining high academic standards. James also served as the co-editor of the Journal of Sedimentary Research from 2012 to 2016, contributing to its impact. Throughout his career, Dr. MacEachern has been an invaluable member of various geological society committees, including notable roles in the Continuing Education Committee and the Research Committee for SEPM. Additionally, he acts as a liaison to the American Association of Petroleum Geologists (AAPG) and the Canadian Society of Petroleum Geologists (CSPG) for his department, fostering collaboration and knowledge exchange.

Dr. James MacEachern's unwavering commitment to advancing sedimentary geoscience through integration, attention to detail, and meticulous observations has revolutionized the field. His groundbreaking research and dedication to scholarly excellence have rightfully earned him the SEPM Moore Medal and solidified his status as a leading figure in sedimentary geoscience.

Citation: Dr. James MacEachern has made profound and substantial contributions to our understanding of the relationships between ichnofacies, sedimentary facies, and facies models. As a cornerstone of North American Sedimentary Geoscience, Dr. MacEachern's work in integrating ichnology with sequence stratigraphy, sedimentary facies analyses, and the development of integrated facies models has had a profound impact in sedimentary geoscience.

Francis J. Pettijohn Medal

For Sustained Excellence in Sedimentology

Janok Bhattacharya

Dr. Janok P. Bhattacharya is the Susan Cunningham Research Chair in Geology in the School of Earth, Environment and Society at McMaster University, Hamilton, Ontario, Canada. Among his many accolades, he was the recipient of the AAPG Grover E. Murray Memorial Distinguished Educator Award (2007), the Gulf Coast Association of Geological Societies Outstanding Educator Award (2010), and is an AAPG Charles H. Taylor Fellow (2013).

Janok was born in Coventry, England in 1960, moved to St. John's, Newfoundland in 1968 and started as a Physics/Math major at Memorial University in 1976. He took physics, math and a few geology courses during the first 2 years and then, being a highly accomplished drummer, switched into music school in his 3rd year. The music industry's loss was our gain, when Janok decided to switch to geology for his last 2 years, graduating with a BSc Honours in 1981.

Janok was recruited by Esso Resources Calgary in 1981 and began honing his subsurface and stratigraphic skills over the next three years, before electing to return to academia. He enrolled in a PhD program at McMaster University, and completed his dissertation in 1989 under the supervision of Roger G. Walker. He undertook a post-doctoral project at the Alberta Research Council in Edmonton Alberta, before taking on the role of Research Associate at the Bureau of Economic Geology in 1995. He returned to the hydrocarbon industry in 1997, where he was a Senior Research Geologist for ARCO Exploration and Production Technology in Plano, Texas. He accepted an Associate Professor position at the University of Texas, Dallas in 1998, where he was promoted to Professor. In 2005, he moved to University of Houston as the Robert Sheriff Professor of Sequence Stratigraphy. He served as the Associate Chair and Chairman in the Department of Earth and Atmospheric Sciences at the University of Houston from 2012-2013. In 2013, he was offered the Susan Cunningham Research Chair in Geology as his old alma mater at McMaster University which he continues to hold. Janok has also served in senior administrative roles at McMaster as the Acting Director of the School of Geography and Earth Sciences (2017-2018) and as Associate Director of Graduate Studies (2019-2019) of the School of Earth, Environment and Society.

Janok's research focus has been on fluvial and deltaic sedimentology, shale and thin-bed facies successions, sequence stratigraphy, and source-to-sink studies using the rocks of the Western Interior of the USA and Canada as his natural laboratory. He integrates this rock-based analysis with remote sensing techniques and quantitative methods to refine facies modeling and stratigraphic correlation. Modern datasets are also utilized to discern scale-appropriate analogues to ancient successions. At a time when deltaic successions had been relegated largely to the sedimentological backwater, Janok's doctoral work on the Upper Cretaceous Dunvegan Formation in 1989 resurrected their high-resolution study, identifying both their unique facies characteristics and their complex spatial and lateral variability. Vast amounts of core and subsurface well log data were employed to erect a discontinuity-based stratigraphy, ultimately serving as the framework for the unit's sequence stratigraphic evaluation, a framework has since stood the test of time. He followed with analysis of the Ivishak Fm of Prudhoe Bay, Alaska, before focusing on the outcrop and subsurface expressions of the Frontier Formation of Wyoming and the Ferron Sandstone of Utah. Employing these units, he has fundamentally contributed to our understanding of deltaic successions, their lowstand characteristics, and their relationships to adjacent shallow-marine and associated fluvial and tidal-fluvial strata. His paper in 2003 with Liviu Giosan on delta asymmetry likewise provided an important new model for understanding the interplay of river and wave influence on the spatial distribution of sedimentary facies. Janok's ongoing research continues to make unparalleled strides in the characterization and sequence stratigraphic assessment of shallow-marine and paralic successions.

A highly prolific author, Janok has more than 100 peer-reviewed published manuscripts and book chapters, with copious papers in press, accepted, or in review. In addition, he has numerous field trip guidebooks, short course volumes and research reports to his credit. During his career, Janok has successfully supervised or co-supervised 17 PhD students, 43 MSc students and 21 BSc students, and maintains an active program of graduate student research.

Finally, Janok is well known for his superlative service to academic and scientific communities. He is a member of 6 learned societies, including SEPM, and contributes his time and energy to their management. He served as an Associate Editor for AAPG Bulletin (2005-2017) and JSR (2002-present). He has also served on panel reviews for NSF, American Chemical Society, and Natural Science and Engineering Research Council (NSERC) of Canada. He has been the session chair or co-chair of oral and poster presentations at more than 30 national or international conferences and has run some 50 short courses and field excursions for geoscience societies and the industry. He served as the SEPM Theme Chair for the AAPG ACE meeting (2010-2011), the L.L. Sloss Award Committee for GSA (2009-2014), the AAPG Education Committee co-chair (2008-2011), and the AAPG Distinguished Lecturer Committee (2007-present). He has co-convened or co-chaired elements of 29 conferences. He was the President Elect, President, and Past-President of the Gulf Coast Section of SEPM from 2007-2009. He was elected as Sedimentology Councilor of SEPM from 2011-2013 and served as the President of SEPM from 2015-2016.

This unwavering dedication to outstanding research, his conscientious mentoring of students, and the generous donation of his time and expertise in the service of the scientific community marks Janok P. Bhattacharya as a truly iconic professor. His contributions to sedimentology and stratigraphy are far reaching and set the stage for future generations.

Citation: For his sustained outstanding contributions to our understanding of fluvio-deltaic depositional systems, unwavering service to the scientific community, and tireless devotion to the training of young scientists, Dr. Janok P. Bhattacharya is a paragon who embodies the spirit of the Francis J. Pettijohn Medal.

Francis P. Shepard Medal

For Sustained Excellence in Marine Geology

Philip Barnes

Philip Barnes is a Principal Scientist in the National Institute of Water and Atmospheric Research (NIWA), based in Wellington, New Zealand. Phil joined the New Zealand Oceanographic Institute in 1987, continuing through its transition into NIWA since 1992. He graduated with BSc (1982) and MSc (1986) from Victoria University of Wellington and PhD from the University of Canterbury in 1994.

The emergent landmass of New Zealand is but a small part of the largely submerged "Zealandia" continental block, which is in turn bisected by the obliquely convergent Australia-Pacific Plate Boundary. For more than 35 years Phil's research has focused on the marine sectors of this active plate boundary zone, spanning the fields of submarine tectonic and structural deformation, subduction systems, plate margin geohazards and associated sedimentary systems. Within this context he has published extensively across a diverse range of topics, including tectonic deformation in thrust, strike-slip and extensional settings, earthquake potential, paleoseismology, seismic hazard, fluid systems and gas hydrates in subduction margins, as well as active margin basin evolution, sedimentation and erosion processes and sequence stratigraphy.

Phil has a tremendous skill in interpreting and integrating modern seafloor mapping and high-quality seismic reflection data to document active tectonic and sedimentary processes along the New Zealand plate boundary zone. Through his research and science leadership he has developed numerous highly productive research collaborations which have resulted in new fundamental insights into subduction zone processes. He has specialist expertise in the highly detailed analysis of submarine neotectonic deformation which has led to the crucial provision of submarine earthquake source information into the NZ Seismic Hazard model. Over the last decade Phil led the marine geoscience surveys in the immediate wake of the Canterbury and Kaikoura earthquakes. Both earthquake events resulted in multi-fault rupture relays extending from onshore into the offshore network of faults. Phil's deep knowledge of the marine sector of the plate boundary zone, and the opportunity to combine earlier surveys with newly acquired post-earthquake data has provided essential constraints with respect to seismic and tsunami hazard analyses and modelling.

Phil also has extensive experience in applying marine geological skills and knowledge to a variety of coastal engineering projects with Government agencies and the private sector. He is a former member of NIWA's Hazards and Oceans Centre Management Teams, a former NIWA research programme and science leader, and was a technical advisor (1996-2006) and New Zealand delegate (2006-2008) to the United Nations Commission on the Limits of the Legal Continental Shelf under UNCLOS Article 76. Over the last five years Philip was Co-Chief Scientist of IODP Expeditions 372/375 focused on investigating slow slip fault processes along the northern Hikurangi subduction zone.

Phil has always been deeply committed to ensuring his research is shared and communicated through reporting and formal publication, frequent presentations at national and international conferences, as well as to the general public via the various media, politicians, government agencies and organizations. Phil has previously been recognized in 1999 by the Geoscience Society of NZ with the McKay Hammer Award and in 2019 he was elected a Fellow of the Royal Society of New Zealand Te Apārangi (FRSNZ). He is a most worthy recipient of the 2023 Francis P. Shepard Medal for sustained excellence in marine geology.

Citation:
For inspirational and far-reaching research and leadership focused on active convergent plate boundary tectonic and sedimentary processes, resulting in new fundamental insights into subduction zone processes and their associated marine geohazards of crucial importance to our communities.

Honorary Membership

For contributions to the science and SEPM

Lesli Wood

Honorary membership is awarded to Evan K. Franseen, for his many contributions as a researcher in stratigraphy and sedimentology of carbonates, his effective mentorship of students, and his sustained leadership of SEPM.

Evan K. Franseen grew up in a rural area of northern Illinois, not really the best place for rocks, so it is no surprise that his start was not in geology. After exploring the many facets of accounting and welding supply, Evan happened upon an introductory geology course at the University of Wisconsin, taught by the famous carbonate geologist, Lloyd C. Pray (Twenhofel medalist). After a semester of Lloyd Pray's exciting and well-illustrated approach to the science, Evan was hooked – Geology was what he wanted to do. After receiving the B.S. in geology at the University of Wisconsin (1981), Evan elected to stay with Pray, who had a masters project for the mountain goat willing and able to brave the cliff of the west face of the Guadalupe Mountains, working on the Grayburg Formation, and its erosion surface. There, Evan developed his love for field geology, and challenging projects. He continued on to his Ph.D., after Pray and Mateu Esteban introduced him to an area of exceptional 3-D exposures of Miocene carbonates in SE Spain. That area worked out well for Evan – it allowed him to do the fundamental work to develop SE Spain into one of the classic areas to study carbonates in 3-D exposures, and he met his wife, Michele, there while doing field work.

After finishing his Ph.D. (1989), Evan started his professional career at the Kansas Geological Survey (KGS) where he became chief of stratigraphic research and senior scientific fellow. He joined the Department of Geology at the University of Kansas as Professor in 2007. Evan has made outstanding contributions to the field of carbonate sedimentology and stratigraphy. Notably, his work on the Miocene of Spain resulted in landmark contributions to quantification of controls on sequence architecture, including paleoslope, accumulation rate, paleoclimate, rate and amplitude of sea level change, as well as the pinning point technique for quantifying relative sea level history. This work extended later to Caribbean and Mississippian carbonates, where upwelling had an impact. His work on the Paleozoic in Kansas has been extensive, including work on the Arbuckle Group, and the development of the build-and-fill approach to sequence stratigraphy of the Pennsylvanian. Evan's research interests naturally spilled into his teaching, leading inspired field trip courses to classic carbonate provinces, including his two favorites, the Guadalupe Mountains and the Miocene of Spain.

Evan Franseen's relationship as a trusted leader for SEPM was established early. In 1994, he took over lead editorship of SEPM Concepts in Sedimentology and Paleontology Series 5, after the original editor gave up. Despite the difficult situation with the previous editor, and the resultant grumpy authors, Evan got this important project over the finish line for SEPM as a high-quality research product. Since then, SEPM has leaned on Evan heavily and repeatedly. In addition to his many SEPM committee memberships and associate editor positions, he served as Chair of the SEPM Headquarters and Business Committee, JSR Outstanding Paper Award Committee, Pettijohn Award Committee, Sedimentary Record Editor Search Committee, Shepard Medal Committee, Twenhofel Medal Committee, and Officer Candidate Selection Committee. He was elected President of the Midcontinent Section (1996-1997), SEPM Councilor of Sedimentology (2009-2011) and SEPM President (2013-2014).

Biographer: Robert H. Goldstein

Citation: For an inspiring career of trusted leadership in SEPM, seminal research contributions to carbonate sedimentology and stratigraphy, and for championing field geology as fundamental for students' learning and our understanding of carbonates.

William F. Twenhofel Medal

For a Career of Outstanding Contributions in Sedimentary Geology

Gail Ashley

A Massachusetts native, Gail M. Ashley earned her B.S. and M.S. from the University of Massachusetts, moved west for her PhD from the University of British Columbia and ultimately returned east to the Department of Earth and Planetary Sciences at Rutgers University. Gail recently retired from Rutgers, where she served as a professor for an illustrious 42 years, the first 23 of those as the department's sole tenured female faculty member and thus was the only woman to serve in any number of service and mentoring roles. During her time at Rutgers, Gail mentored nearly 40 graduate students, published over 100 papers, and edited six volumes.

Gail's research uses earth surface processes (sedimentology, hydrology, geomorphology) to interpret paleoenvironments and paleoclimate of the Plio-Pleistocene, and— as a field-based geologist— she has wandered literally across the globe, from pole to equator to pole. Oh, and New Jersey.

Her PhD research at the University of British Columbia pulled her into the realm of tidal fluid mechanics and sediment transport in a field-based study of the Fraser River-Pitt River-Pitt Lake system. Early work with bedforms led to deep dives on coastal zone sedimentology and fluid dynamics research in collaboration with John Southard, once again leading to a number of highly cited publications, including Gail's 1990 work on classification of large-scale bedforms, now cited well over a thousand times. Gail also spent nearly a decade working on eskers in Ireland.

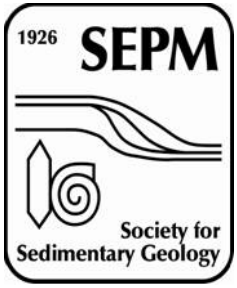
Akin to a snowbird tracking the Sun's trajectory, Gail shifted from a polar to equatorial focus with her more recent research in freshwater wetlands of the East African Rift Valley. She recognized the critical importance of groundwater and springs in human evolution, and out-of-Africa migrations. Here, she blended techniques and collaborations that span disciplines of both

geosciences and archeology to illuminate how environment and climate have shaped and guided human evolution and paleodiasporas. This work inspired her to introduce the concept and indeed coin the term “Critical Zone” (BROES Report, 2001)— an apt moniker for that part of the planet that hosts life.

While maintaining her impressive and wide-ranging research efforts, Gail also assumed a number of leadership and service roles in the broader geoscience community, as well as amongst sedimentary geologists generally, and in support of women in geoscience particularly. She served as President of SEPM, GSA, and AGI, demonstrating time and again that a woman can be president. She’s chaired, co-chaired, and participated in numerous blue-ribbon panels and National Research Council committees, given a number of keynote presentations, and garnered multiple awards (e.g. Fellow of GSA, the U.S. Navy’s Antarctic Service Medal (1991), the Association of Women Geoscientists’ Outstanding Educator Award (2002), the PNAS Cozzarelli Prize (2012), and GSA’s Laurence L. Sloss Award (2012)).

After a career spent advocating for and mentoring women in geoscience, Gail has once again paved the way by shattering the glass case surrounding the Pettijohn Medal. This simply reinforces Gail’s other virtues: grace, patience, and perseverance.

Citation:
For her tireless, rigorous, and enduring contributions to analysis and interpretation of sedimentary systems ranging from glacial to shallow marine to springs and wetlands, her groundbreaking research informing the interconnectedness of human evolution and environments, and for serving as an inspiring maverick for current and future generations of geoscientists, Gail M. Ashley embodies excellence in sedimentary geology.



The SEPM Society was formed in 1926 to promote the science of sedimentary geology through encouraging scientific research in and disseminating educational information about paleontology, sedimentary petrology and allied disciplines; and for charitable, educational and scientific purposes.

SEPM (Society for Sedimentary Geology)
&
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