

Roger G. Walker (26 March 1939 – 14 August 2026)

Roger G. Walker was a leading Canadian sedimentologist, educator, and petroleum geology consultant. Born in London, England, Roger earned his B.A. (1961) and D.Phil. (1964) in Geology from St. John's College at Oxford University under the supervision of Harold G. Reading. Roger held a NATO Postdoctoral Fellowship at Johns Hopkins University (1964–1966) under the tutelage of Francis J. Pettijohn, where he also met his wife, Gay. In 1966, Roger joined McMaster University's Department of Geology (now the School of Earth, Environment & Society) where he taught and conducted research for more than three decades. In 1998 Roger moved to Calgary and established Roger Walker Consulting Inc. where he consulted with oil and gas companies in Calgary as well as Norsk Hydro. Through the years, he served as a visiting scientist at numerous institutions including the University of Rio Grande do Sul, Universidade Federal de Ouro Preto (Brazil), the Australian National University, Amoco Canada, and the University of Calgary.

Roger's research focused on siliciclastic depositional systems, ranging from deep-water submarine fans to shallow-marine, fluvial, alluvial and glacial environments. Early collaborations with head of geological research at Dutch Shell, J.F. Maurits De Raaf (later professor at the University of Utrecht), and Harold Reading at Oxford, resulted in their seminal 1965 paper that established the modern approach to vertical facies analysis and interpretation of sedimentary cycles. This led to his central role in developing and applying the concept of facies models—simplified genetic assemblages of lithofacies used to reconstruct depositional settings and paleogeography. It also established Roger's long term career trajectory that seamlessly integrated academic research and industrial applications.

Roger was also very focused on analysis and interpretation of sedimentary structures, including his early work on current ripples in turbidites and later recognition of hummocky cross stratification as the product of major storms. Much of Roger's early research was focussed on Paleozoic rocks, including Devonian to Carboniferous deep-to shallow water formations in Europe and eastern North America. Sections of the Carboniferous Westward Ho! Formation, measured for his PhD thesis, showed numerous repeated asymmetrical cycles comprising gradual shallowing and more rapid deepening events interpreted as resulting from sea level fluctuations, presaging modern sequence stratigraphy. Roger and his students and colleagues also managed to examine Archean formations in Ontario, and Roger had several students who worked on Quaternary to modern river deposits. Roger's interests thus spanned the entire geological time scale. Later in his time at McMaster, Roger made fundamental contributions to the understanding of stratigraphy and sedimentology of Mesozoic siliciclastic formations in the Western Canada Sedimentary basin, funded through strategic grants by the Canadian government, and was an early adopter (and healthy critic) of the 1990's revivification of sea level control as an important control on the origin of sedimentary sequences.

Roger was particularly adept at analysis of outcrops and cores and, following his mentors at Oxford and Johns Hopkins, was fundamentally a field-based geologist. Roger always seemed most at home looking at the rocks, whether in the field or in a core lab. During his three years

working with Norsk Hydro, he added significant insight to the understanding of Cretaceous prospectivity in the deepwater regions of the Norwegian Sea using Carboniferous outcrop analogs in County Clare, Ireland. Whatever the setting, he was always faithful to the importance of critical thinking and the integration of quantitative methods and physics-based approaches, especially in his collaborations with McMaster colleague Gerry Middleton. For those of us lucky enough to be at McMaster during the Gerry and Roger years, together they provided a formidable teaching environment, and especially the informal evening seminars in Roger's basement, where students truly learned critical thinking skills. Many a colleague or "wet-behind-the ears" graduate student were well roasted at evenings end, tempered with beer and peanuts and Roger's sly smile. His colleagues and former students will remember his tireless enthusiasm, his uncanny ability to propose multiple solutions when we were stuck mid-thesis, his outstanding lectures, superb editorial skills, his seemingly magical skill in drafting simple but meaningful figures, and his uniquely British sense of humor.

Roger authored or co-authored over 150 publications, including the landmark Facies Models series, published by the Geological Association of Canada, with later editions co-edited with Noel P. James at Queen's University. His work on facies models remains foundational in sedimentary geology and continues to be widely taught and applied. He has over 20,000 citations and an h-index of 58 that attest to the enormous impact of his scholarly work.

Roger's M.Sc. students include: R. B. Ainsworth, Z. S. Al-Rawahi, J. J. Bartlett, S. B. Bhattacharjee, T. D. Boreen, J. A. Burton, D. J. Cant, J. E. Casas, W. R. Costello, I. C. Davies, S. D. Davies, K. P. Downing, G. Eynon, G. S. Ferguson, S. W. Hadley, A. P. Hamblin, F. J. Hein, B. A. Johnson, D. W. Keith, S. M. Leggitt, D. J. McLean, S. A. J. Pattison, J. W. Pett, B. A. Power, J. G. Pozzobon, L. R. P. Rosenthal, R. G. Rouble, W. D. Stewart, P. G. Strong, D. R. Taylor, A. Terzuoli, C. C. Turner, J. A. Wadsworth, and T. R. Wiseman.

His Ph.D. students include J. J. Bartlett, K. M. Bergman, J. P. Bhattacharya, C. H. L. Bruhn, D. J. Cant, W. L. Duke, C. A. Gamba, F. J. Hein, R. S. Hyde, D. A. Leckie, S. A. J. Pattison, B. A. Power, and P. R. Teal.

Postdoctoral fellows include K. M. Bergman, C. H. Eyles, G. J. Orton, A. G. Plint, and A. D. Reynolds.

Many of his students went on to prominent careers in academia and the petroleum industry.

Awards and Honours: Roger received numerous major awards recognizing his research excellence and teaching

- Burdett-Coutts Prize, Oxford University (1961)
- Past Presidents' Medal (also referred to as W. W. Hutchison Medal), Geological Association of Canada (1975)
- Johns Hopkins Society of Scholars (1975)
- Distinguished Lecturer, American Association of Petroleum Geologists (1979–80)
- Fellow of the Royal Society of Canada (1981)
- Visiting Gallagher Scientist, University of Calgary (1983)
- Link Award, Canadian Society of Petroleum Geologists (1983)

- Judd A. and Cynthia S. Oualline Centennial Lecturer, University of Texas at Austin (1986)
- R. J. W. Douglas Medal, Canadian Society of Petroleum Geologists (1990)
- Honorary Member, Society of Economic Paleontologists and Mineralogists / Society for Sedimentary Geology (1991)
- Faculty Finalist Certificate / Certificate of Excellence, McMaster Students Union teaching awards (1996–1997)
- Geology Teaching Award, McMaster Geology Undergraduates (1997)
- Francis J. Pettijohn Medal, Society for Sedimentary Geology (SEPM) (1997)
- Distinguished Educator Award, American Association of Petroleum Geologists (1998)
- Logan Medal, Geological Association of Canada (1999)
- Henry Clifton Sorby Medal, International Association of Sedimentologists (2002)

Roger was a long-standing member of SEPM. Roger served as Councillor for Mineralogy (now sedimentology) from 1979-1980. He co-edited Special Publication 84: Facies Models Revisited, published in 2006, Roger was a co-author on the landmark 1975 Short Course Notes, Depositional Environments as Interpreted from Primary Sedimentary Structures and Stratification Sequences, with co-authors John Harms, John Southard, and Darwin Spearing. These were revised and updated in the 1982 Short Course Notes 9: Structures and Sequences in Clastic Rocks, co-authored with Harms and Southard, and finally the 1985 Short Course Notes 13: Shelf Sands and Sandstone reservoirs, co-authored with Roderick Tillman and Donald Swift. Roger also published over 20 papers in SEPM's flagship Journal of Sedimentary Research. Many of these were truly landmark, such as Walker, 1967, *Turbidite sedimentary structures and their relationship to proximal and distal depositional environments*, that has been cited 547 times, Jopling, and Walker, 1968. *Morphology and origin of ripple-drift cross-lamination, with examples from the Pleistocene of Massachusetts*, Cited 656 times, Walker, 1990. *Facies modeling and sequence stratigraphy: perspective* cited 285 times and several others that have over 100 citations. As noted above, in 1991 Roger was conferred as an Honorary Member of SEPM, and in 1997 Roger was awarded the SEPM Francis J. Pettijohn Medal, Society for Sedimentary Geology.

Outside geology, Roger was an accomplished model railroader. In 2013 he earned the title of Master Model Railroader from the National Model Railroad Association; his Calgary layout was based on Canadian Pacific Railway prototypes, with geologically accurate scenery, of course. Roger's many other interests included photography, classical music (especially opera), Inuit art, Okanagan wines and single malt Scotch. Roger was an avid skier, hiker, and cyclist spending much time in the mountains outside Calgary during the winter and on cycling paths in Calgary during the summer.

Roger is survived by his wife, Gay, children, Dave and Suzy, and 4 grandchildren.



Roger in Ireland in 1998.

Obituary by Janok P. Bhattacharya, with contributions from Dale Leckie, John Collinson, Henry Posamentier, Ole Martinsen, and Noel James.