

Professor Eric W. Mountjoy, PhD, F.R.S.C. (1931-2010): A Tribute

Mountjoy Conferences rightly honour Eric Mountjoy and his students' outstanding contributions to carbonate sedimentology and diagenesis, particularly those on the Devonian reef systems exposed in the Alberta Rocky Mountains. Less well known are Eric's demonstrated abilities in regional geology and tectonics, fields that he might well have chosen as his major subjects of study. The Geological Survey of Canada (GSC), having supported his PhD thesis-mapping project in the Rockies, hired him in 1960 as a structural geologist based on the excellence of his PhD work.

Eric was a distinguished Canadian geologist who was a leader, university teacher and mentor of exceptional talent whom I was privileged to know since 1956, his first year as a graduate student in the Geology Department at the University of Toronto. Eric arrived at U of T with a Geological Engineering B.Sc. degree from UBC Vancouver, and was a Demonstrator in several courses I took as a Geological Sciences undergraduate. Born and raised in Calgary, he was new to Eastern Canada. U of T Geology Professor Francis W. "Frank" Beales (1919-2004), a highly valued student advisor revered for his enthusiasm and wise counsel, became Eric's mentor and PhD thesis supervisor. Frank arranged for Eric to meet Bob Douglas and Digby McLaren, two outstanding GSC Ottawa geologists who were instrumental in suggesting the Miette map-area on the edge of Jasper National Park, Canadian Rockies and Foothills, as a fine PhD thesis subject. Eric agreed, having already had five field seasons of experience in Rockies geology as a field assistant in southernmost Alberta/B.C., and Banff-Jasper, using horses for remote area access. As a field assistant Eric had acquired considerable skill in geological mapping and stratigraphic studies as well as horsemanship, the latter a requirement of the time for remote area field studies. Geological mapping and regional tectonics remained a continuing interest throughout Eric's career. His last *curriculum vita* lists 23 research projects: although many are carbonate projects, five involved regional structure and tectonics studies.

In 1958, the second year of Eric's Miette area thesis project, Walter Nassichuk, Peter Nicholson and I were his field assistants. This was among the last of the classic

field parties using horses. By the early 1960s helicopter support of fieldwork in remote areas had proved much more effective, although much more expensive than horse transport. We three 1958 field assistants had *no* experience in Rockies geology or in using horses in fieldwork: Eric excelled in both. With endless patience, care and enthusiasm, Eric introduced us to Rockies geology over the first weeks of field work, taught us how to do the work with the use of horses, and was always cheerful and enthusiastic no matter what the weather or problem. During that ~four month field season the party had 27 horses to manage and, with the excellent help of two packers and a cook, the seven-man camp moved about ten times, essential to map the area's geology. The work was hard and the hours were long, but we were all young, fit, and eager to learn. *What a field season we had, and what an introduction to Rockies geology!* In later years Eric referred to this as his "most successful ever" field season. The Miette "A" series coloured geological map was published recently (Mountjoy, 2010), replacing a much earlier uncoloured, preliminary series map.

On completing his PhD thesis, which won the 1960 Best Thesis award from the Alberta (now Canadian) Society of Petroleum Geologists, Eric accepted a permanent GSC position. He was assigned four double 1:50,000 scale map sheets in the Jasper region to map geologically. Three horse-party based field seasons there enabled Eric to become familiar with the older, more deformed parts of the stratigraphic column occurring to the west but not present in the Miette sheet. These field studies led Eric to construct one of the first southern Canadian Rocky Mountains geological cross-sections, stretching from the eastern edge of the Foothills to the Rocky Mountain Trench in British Columbia (Mountjoy, 1980). This work helped establish Eric's stellar geological reputation with the Alberta-based petroleum community as well as National Parks wardens and guides, and Jasper residents. With the support of a financial bequest by Eric and Anita Mountjoy to the Jasper-Yellowhead Museum and Archives, acclaimed geologist/naturalist Ben Gadd, author of the iconic "Handbook of the Canadian Rockies" (Gadd, 2009) is now (2017) working on a project to publicize local Jasper geology, honouring Eric's Jasper area geological legacy. Ben's recent book "Canadian Rockies Geology Road Tours" (Gadd, 2008) has this dedication: "To Eric

Mountjoy, who has done so much for all of us who love the geology of the Canadian Rockies.”

By the early 1960s Eric appreciated the importance of training and shaping young minds to provide future earth scientists, partly through teaching and mentoring his field party assistants: interacting with students was very appealing to him. When offered an assistant professorship at McGill University in 1963, Eric accepted, thus beginning a long, productive McGill career. Eric’s competence in Rockies geology meant that he could continue his association with the Geological Survey of Canada. This included acting as co-leader of “Operation Bow-Athabasca” (with project originator, renowned Rockies tectonics expert Ray Price, a valued friend and colleague of Eric’s), a geological mapping exercise that included stratigraphic and paleontological studies in the ~60 1:50,000 scale map sheets between Bow and Athabasca Rivers. Major helicopter-supported fieldwork took place in 1965-67; coloured GSC “A” series geological maps appeared over many following years (Gadd, 2012, provides details). As a Bow-Athabasca project stratigrapher, I studied Carboniferous rocks. It was a successful and enjoyable venture, as Ray Price noted recently (*in* Gadd, 2012), with exemplary leadership by Ray and Eric.

Eric’s carbonate sedimentology and diagenesis studies, often co-authored with his ~50 graduate students or with colleagues over many years, form the major part of his scientific legacy. His interest in Devonian carbonates began with 1958 (and later) study of the Miette reef complex, a classic succession that includes well-exposed, instructive reef/off-reef exposures. This work led to studies of other Rockies Devonian reef complexes and ultimately to subsurface core- and drill cuttings-based studies by Eric and a number of his graduate students. Subsurface research studies focused on how dolomitization and other diagenetic processes influence reservoir quality, a continuing theme of the Mountjoy Conferences. Eric and his students became welcome contributors to the 1960s and later, growing community of international carbonate workers, including Robin Bathurst, Wolfgang Krebs, Lloyd Pray and others. A number of Eric’s former Masters and PhD students are valued members of the current carbonate research community, including Noel James, Hans Machel, Ian McIntyre and Hairuo Qing, to name but a few.

Eric had many well-deserved honours and awards for his career accomplishments. These include Fellowship in the Royal Society of Canada; several Canadian Society of Petroleum Geologists awards including an Honorary Membership, the Douglas Medal, and three Medals of Merit for publications; the Logan Medal of the Geological Association of Canada; and the Francis J. Pettijohn Medal of the Society for Sedimentary Geology (SEPM). Eric also won the David Thompson Award for graduate teaching, Faculty of Graduate Studies, McGill University.

As worthy as they are, these accomplishments only partly reveal Eric, the man: what is it that made him so special? For me, it's his unique legacy: the significant influence that he had on so many people, geologists in particular and students, colleagues and friends, indeed all who came to know him, often in partnership with his soul mate and life partner Anita, his cherished wife.



Eric and Anita Mountjoy, 2003 (Photo courtesy of Bill Martindale)

Eric was a rare blend – a teacher, leader and mentor of exceptional ability: kind, tolerant, humble, generous, respectful of others perhaps with differing views, ready and

able to offer advice or knowledge to others, and always eager to learn and to share. Eric also was a gentleman, and a gentle man. These attributes made him a first class human being as well as an ideal university teacher and researcher. Although Anita and Eric did not have children, they had something wonderful instead – a large, devoted family of former students, scientific colleagues, and friends from lands near and far. I am a member of this enduring family, and am grateful to have known, worked with and learned from Eric. The life Eric led and the standard he set serves as a superb and lasting example for all of us, young and old. What we revere Eric for is what he taught, not what he learned; his character, not what he accomplished; and his legacy, not just his success. The William Shakespeare quote included with the three memorial celebrations of his life in 2010 (in Montreal, Toronto, and Calgary) perhaps says it best: *“His life was gentle, and the elements So mixed up in him that Nature might stand up And say to all the world, ‘This was a man!’”*

References

- Gadd, Ben, 2008: Canadian Rockies Geology Road Tours; Corax Press, Jasper, Alberta, 576 p.
- _____, 2009: Handbook of the Canadian Rockies, 2nd Edition; Corax Press, Jasper, Alberta, 832 p.
- _____, 2012: Operation Bow-Athabasca – The Geological Survey of Canada Takes on the Rockies, Historical summary and exhibit catalogue; Canmore Museum and Geoscience Centre, Canmore, Alberta, 73 p.
- Mountjoy, E.W., 1980: Geology, Mount Robson, West of the Sixth Meridian, Alberta-British Columbia; Geological Survey of Canada “A” Series Map 1499A, 1:250,000 scale, including structure cross-sections.
- _____, 2010: Geology, Miette, Alberta; Geological Survey of Canada “A” Series Map 2158A, 1:50,000 scale.

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