

My Earth science educator story – John Clague What I did, why I did it and what happened



It is a common theme in geology – my passion for Earth was seeded by a mentor. I was a mathematics major during my early undergraduate years at Occidental College (Oxy), a small liberal arts college near Los Angeles, California. Although I was good at math, I quickly realized I would not be happy making a career of it. During my second year at Oxy, I took an introductory geology course as an elective; as is often said, ‘the rest was history’. Dr. Joseph Birman, the instructor of that course, had a huge impact on me, and that experience taught me a key life lesson – one of the greatest gifts an educator has, is an opportunity, with passion, to change someone’s life. Not the life of every student of course, but the possibility of connecting with another person in such a way that their life is altered, and for the better.

Geology offered me another important life lesson, that each of us has only a short time on our small planet, so we had better make the most of it. The human lifetime is but a nanosecond in the 4.5 billion years of our planet’s existence. The realization that our years fly by all too quickly drove me to work hard and try to excel and, most importantly, to try to help others not as fortunate as I. This geology lesson resonated with my deep commitment to philanthropy, which is rooted in how my mother and father raised me.

I worked hard through my formative educational years – the long (10-year) path from BSc through MSc (University of California at Berkeley) to PhD (University of British Columbia). However, it didn’t seem like work, as I greatly enjoyed what I was doing and I met and became friends with the most wonderful people. And there were more educational mentors along the way, my MSc supervisor, Dr. Clyde Warhaftig, and my PhD supervisor, Dr. Bill Mathews.

My early career

During the first half of my career (1974-1998), I worked as a research scientist with the Geological Survey of Canada in Vancouver, Canada. And what a job it was – the Government of Canada actually paid me to do what I loved! I was given assignments that fed my passion for geology. Over the last half of this period, I studied the earthquake hazard on Canada’s west coast, which led to public engagements and a vast expansion of my professional and personal network. Earthquake science resonated with me because of my desire to contribute to geoscience issues of societal importance.

Early during that period, I had the good fortune to meet Dr. Ward Neale, an icon on the Canadian geoscience education scene. He became an important mentor for me and brought me into the fold of the Canadian Geoscience Education Network (CGEN), a grassroots organization dedicated to raising awareness of earth science among children and adults. I can never thank him enough.

Also during this period, I established a strong working relationship with Bob Turner, another GSC geologist. He was a mineral deposit geologist and I was a Quaternary geologist, but we discovered a strong mutual interest in earth science education, which led to a burst of energy

and creativity centered on the 'geoscape' concept. We provided students and the public with information about their home place in the form of posters, new types of maps, and books. One of our products, a popular book on the geology of Vancouver, sold nearly 10,000 copies, making it a 'Canadian best seller'. Our collaboration led later to my involvement on the editorial team of a book, written for the public, on the geology of Canada, titled '*Four Billion Years and Counting*'; after more than ten years in the making, it was published in 2014.



Ignoring all advice that this was not a particularly good idea, John wallows through the mud to collect a sample from a section along the Nooksack River in Washington State, 2007. (Mauri McSaveney).

Jumping ship for academia

In 1998, I had the good fortune to secure a job as a teacher and researcher at Simon Fraser University (SFU), a mid-size public university in Burnaby, which is a suburb of Vancouver. In hindsight, I have to 'pinch myself' to have had this opportunity, as it allowed me to bring my passion for earth science to university students. I was fortunate to have served as the senior supervisor for over 30 MSc and PhD students, and have taught countless enthusiastic undergraduate students. Along the way, I helped many students, one-on-one, to achieve their professional goals. Hopefully, I have had the same influence on these students as my academic mentors have had on me.

I retired from SFU in May 2016, although 'retirement' is not really the correct word. I am simply am no longer compensated by the university. I continue my geologic research, which feeds my soul, and pursue philanthropic activities, while seeking to help young people, again one-on-one. I suppose I am destined to die with 'my boots on'.

John Clague, aged 70, West Vancouver, Canada, May 2016, jclague@sfu.ca



Simon Fraser University students at Frenchman's Coulee on the Columbia Plateau, Washington State; Miocene Columbia River basalts in the background. John is sixth from the right, April 2016. (James Irwin).