

My Earth science educator story – Nick Eyles

What I did, why I did it and what happened



I was raised in London, England. Both my parents were cockneys (born within the sound of Bow Bells in St. Mary-le-Bow on Cheapside, known as the Londoners' Church), and so were completely surrounded by history. At 16, I was attending Dartford Grammar School, then famous for rock; music that is, as Mick Jagger was an old boy. But I discovered hard rock in the guise of a new geology teacher (Richard Priestley) with a brand new degree from Leicester University and full of the startlingly new ideas of the Canadian Tuzo Wilson about how the Earth worked. I was entranced. Geology rocked! During the summer of 1968, I was an exchange student and lived in Sweden. I also bought an ancient motorcycle that required much care and attention and the combination of rocks, travel and motorcycling has stuck with me to today, allowing me to escape London and make my own history.



I applied to Leicester University and started my academic geologic journey in 1971; I was the first generation of my family to attend university and not have to go to foreign climes to serve the monarch; all thanks to the post-war explosion of university places in Britain. My first dalliance post-graduation, was with paleontology, and I worked briefly at the Natural History Museum in South Kensington. But I found my true love in Norway when working in the summer of 1974 on Austerdalsbreen, one of the biggest outlet glaciers of Norway's Vatnajokull Ice Cap, with a friend, Terry Douglas. I was hooked. But what next?

Quite by chance one of the professors at Leicester had told me that Memorial University of Newfoundland in Canada was looking for graduate students so I thought, what the hell, and sent off an application. I remember to this day opening what was to be the acceptance letter. My two years there as a Masters student with Bob Rogerson and Roger Slatt, with those wonderful Newfoundlanders and their beautiful island, then in the forefront of plate tectonic theory, was exhilarating. I remember too, that that time was one of concern for global cooling so all of a sudden, glaciers were the next big thing. Bob taught me how to think and Roger how to write. We got funds to study Berendon Glacier nestled up against the Alaska border near Stewart in British Columbia. My job was to determine its mass balance, since the Granduc copper mine had its concentrator right by the glacier's terminus. It was my glacier! The first time I saw it I was frankly scared; it was physically intimidating but I had a good field assistant, Charlie Auger, a young local student (now a geologist) and we climbed all over the glacier and the surrounding mountains, measuring and probing, drilling stakes, collecting samples and even surviving a grizzly bear attack. I

look back at what we did as one of my most significant achievements and learned a valuable lesson in the process; nothing is too big or daunting to not succeed, something I keep telling my own students.

In 1976 I returned to UK to work in the lab of one of glacial geology's most admired practitioners: Geoffrey Boulton at the University of East Anglia. I finished my PhD in the record time of 18 months after a gruelling field season working in Iceland, and the Alps, and a monk-like existence 'writing up.' But I also found real love there because I met my to-be-wife Carolyn. I'd always wanted to hitch hike across the States and on our second date I asked her if she'd like to come along and she immediately agreed; it took four weeks to make it from San Francisco to New York (via Toronto and Montreal) and we made many friends along the way and saw a lot of geology.

Our next stop was Newcastle-upon-Tyne where I became an academic, teaching glacial and engineering geology under the watchful eye of Bill Dearman; he too drilled me into how to distil all that geology stuff into words. In 1980, I realised my ultimate dream of returning to Canada, newly married, and we set up in Toronto where we've been ever since, raising two kids (now adults). Carolyn has her own career as an award-winning teacher and researcher at McMaster University in Hamilton at the other end of Lake Ontario. As of 2016, I've been at the University of Toronto in the very same department as Tuzo Wilson for 34 years, and it's been a fantastic place to work and live. I think I have been a successful scientist and learned much from my colleagues especially John Westgate and Andrew Miall; I've written several hundred papers in glacial geology which I'd like to think make a difference, but papers quickly fade. The real legacy is left in the form of ex-students now making their own way in whatever career they have chosen.

I've written a series of very successful books that I call the 'Rocks' series; *Toronto Rocks* (1998, with the help of

Laura Clinton), *Ontario Rocks* (2002), *Canada Rocks* (2007 with Andrew Miall, now to be reprinted), *Canadian Shield: The Rocks that made Canada* (2011), and *Road Rocks Ontario* (2013; a field guide). A new book *Georgian Bay* about the natural history of a very special place where we have spent much time as a family over several summers, will appear early in 2017. I still have a book or two left in me.



Rock stories in the field.

I also work on TV documentaries notably with David Suzuki's well-known series *The Nature of Things* for the Canadian Broadcasting Company (CBC). I was on the road for seven months in 2009-10 as host of the five-part series, *Geologic Journey-World*. 'Tectonic Europe', 'Along the African Rift', 'Pacific Rim West', 'Pacific Rim: The Americas' and 'Asia: Collision Zone' aired in late October 2010. The series was based on shooting in 23 different countries and I am very proud to say that it has been one of the most watched CBC documentaries to date: a re-

airing of 'Pacific Rim West' in the wake of the March 2011 Tohoku Earthquake in Japan had more than 1 million viewers. The series was nominated for 3 Gemini awards and, according to the Geological Association of Canada, '*No other single Canadian Earth Science outreach effort has ever reached as many people, or has had as great an impact as the Geologic Journey series.*' It was the culmination of much work under the leadership of Michael Alder, then executive producer of the Nature of Things, and was a life-altering experience for me and many of those who worked on it. A new documentary on the Californian drought 'Running on Empty' aired on CBC's Nature of Things in October 2016.

In the course of my career I have been fortunate to receive many awards both for my research and public outreach activities. But most important to me is that I have a first-year class at Toronto that I teach twice yearly which has about 2000 students enrolled, one of the largest on our campus. *Planet Earth* is an introduction to how our wonderful planet works for anyone that's interested, regardless of their program of study. Many of the young enquiring minds switch programs to take more geoscience courses as a result of sitting in my class. I call this 'giving back' and it reminds me of all those people that helped me along the way either by words or actions. The subliminal message of the course is that life is short and there's a big planet out there to explore. Just do it.

What I have learned is, if you can't communicate with real people inside and

outside the classroom about what you do in simple language, you aren't a real scientist no matter how much research money or publications you produce; your students are the ultimate judges. As academics, we live off the public purse and our students have the right to be part of the conversation about science. Ability, passion and the ability to talk to other people ('over the fence', on the train or in the pub) about what you do are the essential skills of an educator. Personally, I don't like the term, nor that of 'instructor' since both imply a 'one way' relationship to the student; I prefer the word 'guide' remembering the famous words of the mountaineer Conrad Kain upon reaching almost the top of summit of Mount Athabasca in 1909 (the first ascent) "Gentlemen I can take you no further." His clients thought that they had failed to reach the top but Kain had simply left the last few steps to them to finish. In other words, I can show you the way and how to get there but the rest is up to you.



Nick in the pub with his son.

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