

## My Earth science educator story – Beverly Ross What I did, why I did it and what happened



There were two things that I hated when I was in high school – school in general, and science in particular. How I ended up in a profession involving both required a steep climb up the learning curve and a great deal of luck.

I graduated in 1970 from a high school in Colorado (US). I loved the beautiful Colorado Rockies and spent a great deal of time basking in their magnificent presence. However, these were tumultuous years in the United States (Vietnam War era). I was disillusioned by our government and I discovered Canada, which shone like a beacon of peace in those crazy days. I immigrated to Alberta in Canada with a setting very much like Colorado but the Canadian Rockies were now at my doorstep. Part of my new life involved setting a challenging goal for myself and I decided to conquer science. The only interesting science course from high school was Geology. I loved nature and the mountains, I didn't hate Geology, and I needed to get a job when I graduated from university. Getting a Geology degree made sense and it didn't hurt that I was the only young woman in a class of 30 young men.



Mt. Elbert in Colorado (above) and Mt. Yamnuska in Alberta, Canada (below). Two of the main reasons I went into Geology.

There is something incredibly holistic about the study of Geology. It is often not thought of as a pure science, but I quickly realized that it was the key to seeing the “big picture” of what science really is all about. In my Geology classes, I was learning by integrating all of the pure sciences, as well as art and storytelling.

The end result was not only a love of Geology, but also of Biology, Chemistry and Physics because they were beautifully and naturally connected through nature. It finally all made sense!

Upon graduation I worked in the oil industry which involved exploring for petroleum plays from offshore Labrador to Saskatchewan. I wasn't a big fan of the office but loved getting out in the field and I thought that my future path as a

geologist was set. However, life has a way of presenting a fork in the path. In my case, that fork was the birth of my first child. Would I return to work or would I become a full time mom? I was very lucky and was able to reach a compromise where I worked three days a week and was then home with now three children. This was a hectic but wonderful time in my life.

As can happen, Alberta's boom suddenly turned to a severe economic bust, as the price of oil plummeted worldwide in the early 1980s. My husband, also a geologist, was laid off and we resolved that one of us had to get out of Geology and find a profession that would have more security. I had hated school and had no desire to ever step foot inside such an institution again – until my own children walked into them and I followed. In a revelation similar to my discovery of a love for Geology and science, I now found myself absolutely in awe of what a teacher does to change the lives of children. The decision was made and I returned to school to complete my education degree.

Most of my teaching career has been spent teaching junior high at Rundle College which is an independent K-12 school. One would think I would teach high school with a science degree. However, there was something endearing about those hormone-imbalanced, authority-hating, moody junior high students and it is where I have stayed. Focusing on Earth Science education has allowed me to pass on my “big picture” approach to science integration. Geology intertwines bio, chem and physics into an inspirational explanation of nature. Our planet is the great connector.

I loved teaching Geology to my students but the teachers that I worked with did not share my enthusiasm. When I delved more deeply into why, I discovered that very few of them had actually had a Geology course and were insecure about teaching it. Bio, chem and physics were no problem since they had learned that

content in school. The science of our planet – our home, our ship in the cosmos – had not been emphasized.



My school's crest and Mt. Rundle whom we are named after. I tried to explain that their mountain emblem was backwards (thrust fault dip side to the east rather than to the west) but they just didn't get it. They need a good Geology course!

Through membership of an organization called the *Calgary Science Network*, I met Godfrey Nowlan, a research scientist and education advocate for the Geological Survey of Canada. Together, we started putting on workshops for teachers to alleviate their fears about teaching Geology and get them excited about how much fun it is. Godfrey eloquently led them through the history of the Earth and the importance of Geology to society, while I shared hands-on activities that would engage students as they mastered the concepts. This partnership between scientist and educator resonated with teachers who appreciated the perspectives of both as they developed their own competency with Geology. This

confidence is critically important for a teacher before standing up in front of a class full of students.

I am nearing retirement now, after having spent 10 years as a geologist and 25 years as a teacher. I would highly recommend a life with two distinct careers, particularly if they both enable you to pursue your true passion as your life evolves. Earth Science has allowed me to hang onto my “geologist” persona and teaching about our amazing planet -

getting others to think about the gift that humanity has been given – has been what I am most proud of in my professional life.

As you create your own story, combine all that you love and all that you have to offer in your quest to teach others about the value and the wonder of nature. It may be the most valuable lesson they will ever learn.

*Beverly Ross, Age 64, Calgary, Alberta, Canada, [beverlyross@shaw.ca](mailto:beverlyross@shaw.ca)*