

## Fumbling Toward Earth Science Education

C.W. Gross

*Sandstone Prehistoric Safaris – Calgary*

### Summary

2021 Calgary Public Library / Heritage Calgary Historian-in-Residence C.W. Gross shares his background, methods, and challenges in developing multidisciplinary public Earth Science education and geotourism in the gig economy and writing his book *The Ice Age in Western Canada*.

### Setting

Calgary, Alberta, Canada is the third largest city in Canada with a population of 1.7 million. It is widely considered the centre of Canada's oil and gas industry. Major museum and heritage institutions in the city include Glenbow Museum, Calgary Zoo, Heritage Park Historical Village, Fort Calgary National Historic Site, The Military Museums, The Hangar Flight Museum, and Contemporary Calgary (art gallery). Notably absent from this list are natural history museums. One of the biggest challenges to the development of an earth science or natural history museum in Calgary are the major provincial government-funded Royal Tyrell Museum of Palaeontology in Drumheller (~1 hour from Calgary) and the Royal Alberta Museum in Edmonton (~3 hours from Calgary).

### Education and Early Career

C.W. Gross was born and raised in Alberta, Canada, studied geology at (then) Mount Royal College in Calgary, received his BA in Leisure, Tourism, and Society with minor in Museum and Heritage Studies from the University of Calgary, and received a Masters of Theological Studies from Lutheran Theological Seminary, Saskatoon. He has worked as an education specialist in the museum and heritage field for ~25 years (~12 full time).

His geology background won him positions as an educator at both the Glenbow Museum from 2009 to 2020 and the Calgary Zoo from 2010 to 2020. Work at the Glenbow Museum included teaching earth science programs in the Treasures of the Mineral World exhibit. He was initially hired by the Calgary Zoo as an interpreter for the Dinosaurs Alive! (2010) animatronic exhibit.

C.W. Gross has also been a longstanding member of the Alberta Palaeontological Society and currently serves the society as president and public outreach coordinator. Part of his mandate as president has been to build relationships with other organizations to further the society's education goals. One of its longest successes has been participation in the Chinook Country Historical Society's Historic Calgary Week with a geotour of Calgary's Nose Hill Park.

### Writing *The Ice Age in Western Canada*

Participation in Historic Calgary Week led C.W. Gross to being invited to write a chapter on the city's Pleistocene prehistory for the Chinook Country Historical Society's book *In the Footsteps of*

*Giants: Events and Personalities from Calgary's Early History for Young Readers*. This, in turn, led to his independent project *The Ice Age in Western Canada*. This book blends palaeontology, geology, archaeology, ecology, climatology, conservation, and Indigenous history into a compelling narrative about how the modern provinces of British Columbia, Alberta, and Saskatchewan were shaped by the last 2.6 million years of climate change, geologic processes, and biological evolution. One challenge in writing this book was to balance its use as a geotourism guide while not revealing locations of potentially sensitive palaeontological and archaeological sites.

## **Covid and Developing Independent Earth Science Education**

*The Ice Age in Western Canada* was published in early March 2020. By the middle of the month, Covid closures had begun. C.W. Gross was laid off from the Glenbow in summer of 2020 and from the Calgary Zoo in spring of 2021. Glenbow Museum has begun its organizational restructuring and multi-year remodeling of the building to serve exclusively as an art gallery. The Calgary Zoo has long-range plans to demolish the Prehistoric Park and rebrand itself primarily as a conservation organization.

In response, C.W. Gross created his sole proprietorship Sandstone Prehistoric Safaris Calgary to deliver natural and cultural history tours and programs developed specifically for the Calgary, Rocky Mountain, and Southern Alberta region, with the goal to entertain and excite participants about Western Canada's ancient past through dynamic presentations and hands-on experiences.

This all led to C.W. Gross' acceptance as the Historian in Residence for 2021. The Historian in Residence program is a six-month residency co-sponsored by Heritage Calgary and the Calgary Public Library. His project was on the intersections of natural and cultural history: how our geology, palaeontology, resources, and landscape shaped aspects of Calgary's Indigenous, settler, and immigrant cultures. Duties during the residency included consultation, public lectures, an Historic Calgary Week tour, blog posts, and a final exhibit at Calgary's Central Library. This exhibit was titled "Calgary's prehiStory" (a play on the library's "Calgary's Story" local history collection) and ran from September 2021 to March 2022 when the 2022 Historian in Residence began their tenure.

## **The Future and Challenges**

In addition to starting his own retail business in 2022, C.W. Gross has begun working with other tour and geotourism organizations, is looking forward to expanding Sandstone Prehistoric Safari's reach and program offerings, and writing a second edition of *The Ice Age in Western Canada*. His greatest ambition is to develop an earth science museum and learning centre in Calgary, which has numerous financial and logistical challenges. However, it is equally challenging to sell earth science programs as an independent educator without institutional backing, especially in a cultural ecosystem that places limited value on education and which has many professional and retired geologists volunteering their time. There are also many business challenges for neuro-divergent individuals.