

## **Scott Smith**

**Title:** From Stereoscopes to 3D landscape Visualization: 40 years of Technological Change in Field Pedology

**Abstract:** Technology has transformed the way we conduct field pedology. Key amongst these changes are the ability to accurately geo-reference field observations, to digitally sense and record all aspects of site observations and to access, while in the field, a myriad of supporting spatial data. The advent of ever more powerful GIS processing systems in lighter and more durable devices allow soil field data to be captured and merged with other landscape products like LIDAR and ortho imagery to create 3D visualizations to aid mapping and landscape characterization as never before. Technological advances in earth science have also impacted field pedology. Under the right conditions it is now possible to date in absolute terms parent geologic material deposition and to estimate the length of time of surface exposure and erosion help us better understand the time function in soil formation. Based on his own experiences, Scott will recount of how field pedology has changed over the span of his career.

**Bio:** Scott Smith is a consulting soil scientist, recently retired from the Science and Technology Branch of Agriculture and Agri-Food Canada. He holds a B.Sc. from McGill University and a M.Sc. in soil science from the University of Alberta. He has more than 40 years of experience in soil mapping, ecological classification and land evaluation in Yukon and British Columbia with an extensive record of scientific peer-reviewed publication.

Scott is a member of the Okanagan Water Stewardship Council, the Canadian Society of Soil Science and the BC Institute of Agrologists. He is the past co-chair of the Pedology sub-committee of the Canadian Society of Soil Science and was Canada's lead representative on the United Nations Global Soil Partnerships project from 2014 to 2016.