2005 Salt Lake City Annual Meeting (October 16-19, 2005) Paper No. 60-16

Presentation Time: 6:00 PM-8:00 PM

LEARNING VISUALLY WITH HISTORIC "GEO-IMAGES"

MASSEY, Christine A.1, BIERMAN, Paul R.2, LAVOIE, John-Paul3, MANDUCA, Cathy A.4, BERRIZBEITIA, Ines5, and HENRY, Justin5, (1) Education and Geology Departments, University of Vermont, 180 Colchester Avenue, Burlington, VT 05405–1758, christine.massey@uvm.edu, (2) Geology Department and School of Natural Resources, University of Vermont, Burlington, VT 05405, (3) Geology Department, University of Vermont, Burlington, VT 05405, (4) Science Education Resource Center, Carleton College, Northfield, MN 55057, (5) Center for Teaching and Learning, University of Vermont, Burlington, VT 05405

The NSF-funded Landscape Change Program (uvm.edu/perkins/landscape) uses historic images as one of the hooks for learning about geology at and near Earth's surface. The web-based archive of over 10,000 Vermont landscape images houses predominantly historical photographs that connect learners of all ages (K-12, undergraduate, and the general public) with local places and local geology. Many of the archive images are fascinating from a cultural, historical, or anthropological point of view, and therefore draw people in; the added benefit, of course, is that the physical landscape surrounding the objects or people is also caught on camera.

Historic images in the archive document both human-induced and natural landscape features that change over time – most common are landslides, floods, deforestation, dams, erosion, road building, and mining activities. The Vermont suite of historic landscape images is particularly suited to learning about rivers and slope processes, and we are using these images extensively in the development of new, on-line supplemental learning modules. The first two modules, Rivers and Slopes, are geared primarily for undergraduates and are part of an NSF Educational Materials Development project focusing on learning visually using images.

The Landscape Change Program uses change over time as a learning tool. Students engage in rephotography and geo-referencing activities in order to document landscape change and understand better a place they know. Students' modern images are uploaded and paired with an existing archived image. In some cases, the archive already contains multiple

temporal versions of the same landscape, and undergraduate interns add informative captions discussing change. Because most of the archive images are old, taken decades to more than a century ago, change over time is at the center of almost every image analysis. Unlike the somewhat abstract notion of deep time, the time scale of these images is human and therefore, our experience suggests, accessible to just about every student.

2005 Salt Lake City Annual Meeting (October 16-19, 2005)
General Information for this Meeting
Session No. 60--Booth# 16
It's About Time: Teaching the Temporal Aspects of Geoscience (Posters)
Salt Palace Convention Center: Hall C
6:00 PM-8:00 PM, Sunday, 16 October 2005

Geological Society of America Abstracts with Programs, Vol. 37, No. 7, p. 150