2005 Salt Lake City Annual Meeting (October 16–19, 2005) Paper No. 223-7

Presentation Time: 10:05 AM-10:25 AM

HOW A MODEST REU SUPPLEMENT LED TO A PAPER IN GSA TODAY

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How did three University of Vermont undergraduates, supported by an REU supplement, end up co-authors on a GSA Today paper published less than a year after they started work? Here's the story.

People love old pictures and that's our hook for teaching geology with images (uvm.edu/perkins/landscape). For the past five years, the *Landscape Change Program*, an on-line landscape image archive, has been supported by NSF as a catalyst for both formal and informal science education. We know the program is only as interesting to people as the images it contains. More images lead to more interest, so we reasoned that bringing on a cadre of students would not only enrich their education in things geological, technical, and historic but would also enrich the archive itself. We also suspected that with thousands of images on-line, all kinds of science could be done that a smaller archive would never allow. Underneath all of this reasoning was our commitment to learning by doing and the belief that geology is best taught in the context of the human experience, in this case, human/landscape interaction.

During the steamy summer of 2004, three undergraduates worked deep in the bowels of both the State and University archives, scanning over 7000 images of Vermont as it was. They spent the off days and the early fall describing and uploading these images – a tedious, but rewarding task that honed their ability to see detail and deduce process. Each student completed an independent project using the imagery they collected as a group; one studied riparian zones, another the changes following the biggest Vermont flood in recorded history, and the last focused on erosion. A year ago, they presented their work as a poster at Denver GSA. The interest was so great that on the flight home, we melded their work into a paper submitted in December, revised in January after external review, and published in April.

Through a combination of hard work, good luck, and an efficient journal editor, the students saw the research cycle from start to finish during their senior year. They came away knowing the drudgery of data collection, the uncertainty of data analysis, the stress of preparing and presenting a poster to a national audience, and the joy of seeing their work published. Their work stands as a model and inspiration for students now working on the project.

2005 Salt Lake City Annual Meeting (October 16–19, 2005) General Information for this Meeting

Session No. 223 <u>REU at 25: Its Impact on Undergraduate Geoscience Education</u> Salt Palace Convention Center: Ballroom J 8:00 AM-12:00 PM, Wednesday, 19 October 2005

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