Workshop for the Virginia Keck Project: CENOZOIC LANDSCAPE EVOLUTION IN THE SOUTHERN SHENANDOAH VALLEY, VIRGINIA

January 29 - February 1 in Lexington Virginia

David J. Harbor

Department of Geology, Washington and Lee University, Lexington VA 24450

Given that the Virginia Keck Project was brought together to explore a single research thread with several types of studies, we came back together to propose abstracts for a national science meeting where we could present our group results. We expected that there would be considerable support for hypotheses across basins and between students using different research methods. What we discovered over three days is that there was enough material for two papers. In addition, each mapping group digitized the terrace maps for their river reaches, and have thus taken the next step towards having a digitally-ready map to present to the Virginia Division of Mineral Resources. Copies of the maps and samples of the digital products will be available at the symposium.

Through interaction, individual progress was made through many one-on-one and group discussions. Several new hypotheses were floated and some minor errors were caught. We made more progress toward understanding

the results as a whole during that time than we would have with email contact over many months.

The preliminary paper titles and their authors are,

Harbor, D., Erickson, P., Rittenhouse, D., Carlson, M, Ries, J., Easthouse, D, Gardner, T., Merritts, D., in prep 1998, Rapid incision of the upper James River, Virginia; conceptual model and evidence of late erosional history, planned for submission to Geomorphology.

Harbor, D., Elliott, C, Chow, B., Dodoye-Alai, B, Linney, D, Gardner, T., Merritts, D., in prep 1998, Weathering and soil development in terraces of the upper James River, Valley and Ridge, Virginia, planned for submission to Southeastern Geology.

Terraces were mapped on the following 7.5 minute quadrangles:

South River

Lexington, Cornwall, Brownsburg, Vesuvius

Maury River

Glasgow, Buena Vista, Lexington, Brownsburg, Rockbridge Baths

James River

Glasgow, Arnolds Valley, Natural Bridge, Buchanan, Salisbury, Eagle Rock, Clifton Forge

Symposium schedule:

Thursday pm. Arrive in Lexington

Friday a.m. Individual reports on progress and discussion
Friday p.m. Continued reporting and presentations by visitors
Saturday a.m. Brainstorming about paper topics, digitizing

Saturday p.m. Outlining the papers, a hike, and digitizing that continued all night.

Sunday am last minute discussions and wrap-up

Ferric Iron in Rock Forming Minerals

Faculty

Peter Crowley, Amherst College, Director M.Darby Dyar, West Chester University Richard Nevle, Menlo Park, CA

Students

Zoë Brown, State University of New York at Buffalo Mary Beth Cheversia, College of Wooster Rachel Graham, Union College Heidi Guetschow, Carleton College Ethan Gutmann, Williams College Daniel Harrington, Amherst College Sue Young Jin, , Whitman College Anna Monders, Whitman College Halle Morrison, College of Wooster Rebecca Stamski, Amherst College

Visitors

Jeremy Delaney, Rutgers University Grace Shea, Brookhaven National Lab Frank Spear, R.P.I.