

## A NOTE ON GEOPHILOSOPHY

*By Sarah Andrews*

Huh?

Geophilosophy addresses the philosophy of the science of geology. It is important to know that science involves not just the collection of facts, but also a variety of logics and reasonings, some of which vary from one division of science to another. I am tempted to broach a discussion of the art of science, but I'd probably get drawn and quartered by my colleagues if I did. It is nevertheless important to look at how a science is performed, and if you didn't know that not all branches of science are performed the same way, I rest my case. A good paper to peruse on the differences between geology and other sciences is:

Robert Frodeman, 1995, "Geological reasoning: Geology as an interpretive and historical science," *GSA Bulletin*, v. 107, No. 8; p. 960-968.

I agree with Frodeman that geology diverges from other sciences in the extent to which it is historical. I'll probably get criticized by many of my colleagues for adding that I think it also differs in the degree to which interpretation is accomplished by means of qualitative—as compared with quantitative—measurement and comparison of data.

Geologists typically employ finely developed intuitive skills, a high-speed variety of logic which compares and contrasts patterns of data. This skill matures continually with use.