CELESTE FOR STATE MINERAL!
A SABBATICAL PROJECT

Fifteen years ago, a faculty colleague contemplated his upcoming sabbatical—and decided that he would vanish. He informed few people of his destination and made sure that every technological intrusion met with polite rebuff. To all but his closest associates, he simply disappeared one day and reappeared a year later—project completed.

The efficiency of his model was so absolute I decided to replicate it for my own sabbatical—with one exception. Can we shut off e-mail for an entire year and emerge professionally intact? In 1997 it was possible, but today? Reluctantly, I opened the gates to that one Trojan horse, but no other. I secured a corner office within the Department of Mineral Sciences at the US National Museum, whose entry demands multiple stations of identity confirmation. I pointed my chair away from the office door to dissuade the very friendly people in the department from being very friendly to me. Waves of e-mails washed across my computer screen without eliciting a response. Days passed without one ring from my office phone.

I was luxuriating in my isolation when one January morning a message appeared that raised the hairs on the back of my neck.

Mr. Heaney,

I am a 6th grade student at Commonwealth Connections Academy. I did a science paper on what would I like to have as a state mineral, and I was excited to find that there was none already listed. So, I am on a journey to get celestine named as the Pennsylvania State Mineral. I am currently in the “lobbying” step. Would you be interested in helping me?

Royce Black, Geologist-in-Training

As Paul McCartney’s lyrics to “Yesterday” played through my mind, I frantically began to consider my various avenues of plausible denialability. I could pretend that the e-mail was lost in my spam filter. It happens all the time! But Royce, whom I would come to admire as an indomitable force of nature, had blanketed the Pennsylvania mineralogical community with his request, and many of his recipients redirected their messages to me with copies to him. Rats! I could of course claim to be busy with more important matters. What, after all, are the public obligations of a professor whose governor has cut by 20% the state’s contribution to the university budget?

In the end, it was “Geologist-in-Training”—the sign-off that would grace all of Royce’s future e-mails to me—that I could not resist. Maybe, with the right encouragement at the right time, Royce would develop into a professor whose sabbatical project. Royce has hand-delivered hundreds of letters to Pennsylvania state legislators, of whom a few have expressed strong appreciation for the impact that state minerals can wield in the Pennsylvania mineralogical community. Déodat de Waldeck, one of the first discoverers of celestine, was an actor in a major scientific drama that now is largely lost to history. Celestine is economically less prominent than some state minerals, but it was an actor in a major scientific drama that now is largely lost to history. Thanks to the likes of Lavoisier, Priestley, Davy, and Scheele, techniques in chemical analysis blossomed in the late 1700s. At that time, a budding natural philosopher could establish an international reputation through the discovery of a new element; such breakthroughs were accorded the public and professional acclaim that greets advances in fundamental particle research today. Unknown minerals were targeted as the most likely repositories of new elements, and naturalists like Schütz traveled to exotic localities across the world in hopes of finding them. Déodat de Dolomieu (of dolomite fame) had in fact reported celestine occurrences in Sicily in 1781, but he misinterpreted the mineral as barium sulfate—today’s barite. Klaproth, a true genius of analytic chemistry, inferred that Schütz’s mate-rials would be the most likely to contain barium sulfate. Fortunately, strontium was discovered as a new element in the early 1790s (from a carbonate in Strontian, Scotland). It took a few years—but only a few—for Klaproth to identify celestine as the Sr-rich analogue of barite.

Unlike my former colleague, I cannot claim to have completed this sabbatical project. Royce has hand-delivered hundreds of letters to Pennsylvania state legislators, of whom a few have expressed strong support for his proposal. A hearing in the state capitol, however, has been postponed from the summer to an indefinite date in the fall, and Royce may be learning more than he wanted to know about the legislative process. Nevertheless, those assisting his mission have gained an unexpected appreciation for the impact that state minerals can wield in educating the next generation of Earth scientists. Maybe the 30 missing states will join the charge.