The Art of Soil
Justine J. Owen

Editor’s note: As a University of California-Berkeley Ph.D. student and postdoc, soil scientist Justine Owen has done plenty of writing and authoring of articles. But the writing project she recently undertook with her mother, an accomplished artist, was something else entirely. Here, Owen explains how their book of poetry about soil, Twelve Orders/Twelve Verses, came to be. It will be on display in a show of book art and poetry on the University of Puget Sound campus in Tacoma, WA from Aug. 6 through Dec. 30, 2015.

I grew up in an artistic and outdoorsy household, which included lots of drawing and hiking. As a soil scientist, I enjoy the opportunities I have to use that background: exploring study sites, sketching in my field notebooks, making figures for scientific articles, and drawing on the board when I teach. However, it wasn’t until earlier this year that instead of using art to make science, I used science to make art.

This came about because my mother, Jan Owen, is a professional book artist and calligrapher. In March, she learned of a call for a book arts and poetry exhibit called "Dirt? Scientists, Book Artists, and Poets Reflect on Soil and Our Environment," to be held at the University of Puget Sound, in Tacoma, WA, in honor of the UN International Year of the Soil.

She emailed me and said, “Let’s do it!!!! Tell me about dirt. Write a poem about dirt.” The prospect of collaborating and combining our talents was exciting and a little daunting—I hadn’t tried writing poetry since college. But I did what my mother told me to do and got writing.

The show has ambitious goals: communicate the importance, diversity, and vulnerability of soils. I wanted to highlight their ubiquity and evolving nature, so I suggested we make a book with 12 poems, one for each soil order, organized in order of degree of development.

Having seen the soil profiles preserved in the hallways of Hilgard Hall on the UC-Berkeley campus where I work, my mother envisioned a tall book mimicking a soil core. As I wrote poems, I also wrote short descriptions to help my mother choose colors for the paper, but these grew to become an integral part of the text. I couldn’t resist using some beautiful soil science words in the poems, words like “illuviation,” which I love for sounding like “lluvia,” the Spanish word for rain.

To our delight, our book Twelve Orders/Twelve Verses was accepted into the University of Puget Sound show. Several colleagues plan to use the book’s text as supplemental reading for their soils courses and I hope more educators and professors will do the same. I’ve posted the text on my website and it is freely available for download.

The poems are evocative and interesting for anyone, but some use scientific terms and describe processes that require more explanation to understand. The scientific descriptions by themselves are simple, and maybe a little dry, but when read...
with the motivation of understanding the poems the information gains importance.

The combination of the poems with the scientific descriptions of the soil orders is a unique way of communicating the diversity of soils and critical issues surrounding them. These are the kinds of collaborations and outreach materials that can increase the visibility of soil science; I plan to continue not only to use art to make science, but also to use science to make art.