

Division 4. The Role of Soils in Sustaining Society and the Environment

Commission 4.5 - History, Philosophy, and Sociology of Soil Science

Description of Commission 4.5

This commission deals with our past; it links the study of what has happened in history and how soils can be used to help explain the past changes. This commission is not just a record of the history but the use and understanding of soils information and its relationship to human development and history.

During the 2015 International Year of Soils, the IUSS Division 4 will illustrate its main topics through articles written by Division 4 officers or their colleagues. These will each be highlighted every week from October to December 2015.

For this seventh week, we are displaying an article from Susan Y. Demas and Eileen Miller from NRCS, with a presentation by Thomas Sauer, the currently Commission 4.5 chair.

Soil Treasure Unearthed¹

Susan Y. Demas* and Eileen Miller**

Natural Resources Conservation Service (NRCS), USA * Major Land Resource Area, NRCS and ** New Jersey NRCS.

With a presentation by

Thomas Sauer

National Laboratory for Agriculture and the Environment, United States Department of Agriculture (USDA), Agricultural Research Service (ARS), USA.

This article was sent to me by Susan Demas and, as Chair of Commission 4.5, I felt that it was an excellent contribution for the IUSS participation in the IYS. It tells a story of discovery and of an appreciation for soils that is now almost 100 years old.

Thomas Sauer

¹ An earlier version of this article, prior to the donation to NAL appeared in Pedologue, the Newsletter of the Mid-Atlantic Association of Professional Soil Scientists, Summer or Spring/Summer (it is listed in both ways) 2015 issue. Link to the MAPSS website and Pedologue <http://www.midatlanticsoilscientists.org/pedologue/>

Recently it was given to one of us (Eileen Miller) by a local science teacher, Jill Guenther, an unusual collection which just so happens to be soil collected one hundred years ago (Photo 1).



Photo 1. Photograph of the 1916 U.S. soil collection and publication, “Important Soils of the United States”, United States Department of Agriculture, Bureau of Soils, December 1, 1916.

Jill, a teacher for the past 28 years, was given the collection by another teacher who came across it in one of her classroom cabinets. Ms. Guenther has been using the collection ever since to teach students about weathering and erosion. Ms. Guenther also noted that the bulletin accompanying the collection made mention that the kits were made for schools. Worried that the soil samples could be lost or broken she decided that the collection kits should have a suitable home and reached out to Eileen, who shares her love of soils.

One of us (Susan) contacted Dr. Del Fanning, Emeritus Professor of the University of Maryland, for assistance in trying to find a permanent home for the collection. Del contacted several institutions and individuals including Dr. Edward Landa of the Environmental Science and Technology Department at the University of Maryland and Dr. Dennis Merkel, Professor in the School of Biological Sciences at Lake Superior State University. Dr. Merkel was of the opinion that the publication no doubt was abstracted from:

“Soils of the United States” (Edition, 1913.), United States Department of Agriculture, U.S. Bureau of Soils, Bulletin 96, 1913 by Curtis F. Marbut, Hugh H. Bennett, Jessie Erwin (J.E.) Lapham, and Macy (M. H.) Lapham.

According to Dr. Landa:

“I think the term ‘physical geography’ in the subtitle of the bulletin is reflective of Curtis Marbut's influence. He had long standing, strong ties to the physical geography community from his days at University of Missouri and extending to his career at the Bureau of Soils.”

The collection represents a crucial link to the past by representing soil science knowledge and theory at the time the collection was made and demonstrates how soil information was conveyed during early efforts of the national U.S soil survey that was started in the USDA Bureau of Soils in 1899. The map (photo 2) with 13 soil regions was the second U.S. national soil map (Brevik and Hartemink, 2013). The 13 subdivisions were based on physiography and are no longer used, but many of the soil series names that appeared in the 1913 classification are still in use today.

PHOTO 2 HERE

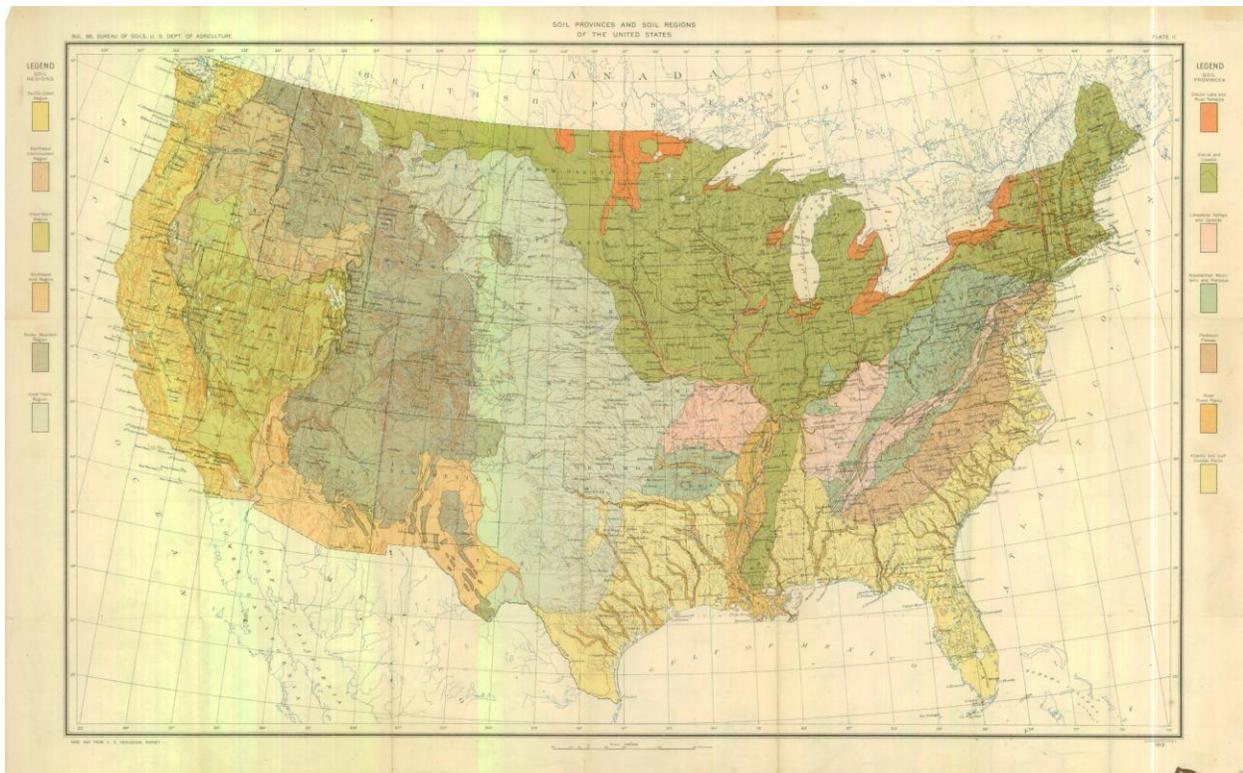


Photo 2. Map of the United States by Region showing 13 regions taken from “Soils of the United States”. (Edition, 1913.), United States Department of Agriculture, U.S. Bureau of Soils, Bulletin 96, 1913. Photo courtesy of Dr. Dennis Merkel.

Susan also contacted Dr. Douglas Helms, retired historian, USDA NRCS who thought that the National Agricultural Library (NAL) would be the best fit for the collection and also provided a contact for the “Special Collections” section with the NAL. After evaluating all options, it appeared that the best fit for the collection would be the NAL.

On August 19, 2015, approximately fifty people including staff from the University of Maryland, Rutgers University, NRCS, USDA Agricultural Research Service (ARS), NAL, and members of the Mid-Atlantic Association of Professional Soil Scientists (MAPSS) gathered at the NAL for a ceremony to convey the historic 1916 U.S. soils collection to the NAL. After a welcome from Acting NAL Director Stan Kosecki and opening remarks from ARS National Program Leader Sally M Schneider, NRCS Assistant Chief Kirk Hanlin, and Deputy Chief for Soil Science and Resource Assessment, David Smith each shared their insights on the importance of soil education in the past, present and future and their enthusiasm for this donation (photo 3). Jill Guenther also spoke and was then presented with a certificate commemorating her donation.



Photo 3. NAL Supervisory Librarian Susan Fugate, ARS National Program Leader Sally Schneider, Acting NAL Director Stan Kosecki, Vineland teacher Jill Guenther, NRCS Assistant Chief Kirk Hanlin, NRCS SSRA Deputy Chief David Smith

This 1916 collection ending up in the special collections of NAL for the centennial of its beginning is a fitting end to a “soil treasure”, indeed, may it help spur our current continuing soil science education efforts. The soil science community is grateful for the insight and generosity of Jill Guenther in preserving this unique piece of soil science history. It is especially fitting that this event occurred during the International Year of Soils, helping us to celebrate the contributions of early pioneers in our profession.

Reference:

Brevik, Eric C. and Alfred E. Hartemink. 2013. Soil maps of the United States of America. *Soil Sci. Soc. Am. J.* 77: 1117-1132.