

Friends of Mineralogy Pennsylvania Chapter 2009 Fall Symposium Pennsylvania Mineralogy

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Hackman Physical Sciences Laboratories
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York Building Stone Quarry

Photo courtesy of Skip Colflesh

Ron Sloto

ABSTRACT

Classic Mineral Localities of Chester County, Pennsylvania

Chester County's varied geology provides an abundance of mineral deposits. Production from the county's mineral deposits began during colonial times and continues today. These deposits have yielded many fine mineral specimens. Two of the mines – the Phoenixville District mines and the French Creek mines – have produced world-class mineral specimens that are on display in many prominent museums and grace many university and private collections. Other notable mineral localities that have produced high-quality specimens include General Trimble's mine, the Keystone Trap Rock quarry in Cornog, the Poor house quarry, Corundum Hill, Beryl Hill, the Pocopson amethyst localities, and Parksburg rutile localities. In addition, Chester County is the type locality for two minerals, wheatleyite from the Wheatley mine and clinocllore from Brinton's quarry.

BIOGRAPHY

Ron Sloto is a senior hydrogeologist with the U.S. Geological Survey in Exton, Pennsylvania. During the past 35 years, he has worked on a wide variety of water-resource issues in Pennsylvania and the surrounding states. His experience includes ground-water and surface-water modeling, characterization of contaminant transport at Superfund sites, application of borehole geophysics to hydrogeologic investigations, radionuclides in ground water, and development of computer programs for hydrologic analysis. He has published over 70 reports, papers, abstracts, and journal articles on water resources, geophysics, geology, and mineralogy. He has been a mineral collector since the age of 5 and has a keen interest in mining and mineral history.

Carter Rich

Bridgewater Titanites

Carter Rich has two degrees in engineering. He retired after a 35 year career in the Aerospace and Defense Sector. He has been a mineral collector for 40 years. He was for about 10 years a part-time dealer in micro-minerals, and for the last 19 years a full time dealer of fine mineral specimens. His personal collection consists of specimens from Delaware County, where he resided for 25 years.

The first known Pennsylvania titanites were found in Mullen's Quarry, near Bridgewater Station, Delaware County, in 1876. Although the titanites found would not create great excitement today, they aroused the collecting interest of an incredible circle of people in their own day, and were widely reported in the United States and in Europe. Most of them still exist in various museum collections. Their story leads us to gamesmanship, chicanery, and even to Emperor Dom Pedro.

Joe Dague

An Informal Mineralogy of South Mountain

Biography

Earth science and mineral collecting especially have been my main avocational interest since my early teens over 50 years ago. For the past 42 years, my wife, Jeanne, and I have collected minerals across North America. We've mainly concentrated on the minerals of Pennsylvania and the Crystalline Appalachians. I started in the business of dealing mineral specimens over 20 years ago, and have been a member of Friends of Mineralogy, PA Chapter for nearly as long.

Some Fluorescent Minerals in Pennsylvania

David C. Glick

Pennsylvania may not be well known for its fluorescent minerals, but they are out there. Literature searches, personal collecting and contacts with other collectors have provided information on localities and species. This program will present the results; color photographs will be used throughout.

Calcite exhibiting fluorescence in a variety of colors is found in a number of locations through Pennsylvania's carbonate regions. Many of these calcites are strongly phosphorescent as well. Strontianite may also be found at some of these carbonate localities, and very nice fluorescent specimens have recently come from Mt. Pleasant Mills and Oak Hall.

Fluorescent uranium minerals have come from Jim Thorpe and other areas of Carbon, Sullivan and Lycoming Counties, as well as the C.K. Williams quarry at Easton and some Delaware County pegmatite localities. Delaware County and adjacent areas also provide some non-uranium fluorescents; zircon, feldspars, and apatite are among the more common. Various igneous, metamorphic and hydrothermal environments across the southeastern counties produce other fluorescent species. Well-known localities such as Kibblehouse, Dyer, Teeter, Wheatley, the State Line district, Cedar Hill, and Silver Hill, not usually thought of for fluorescent specimens, do indeed produce them.

Biography:

Dave's parents report that he started collecting rocks on family vacations at age 3. As a teenager, he got an ultraviolet lamp, and begged his long-suffering mother to write a check for his membership in the newly formed Fluorescent Mineral Society. He is now one of their few remaining charter members. He earned degrees in geology from Virginia Tech and Penn State, and then worked with coal petrology and the Penn State Coal Sample Bank and Database for almost 15 years. While he was working with geology all day he favored other interests outside of work, but when he left that job in 1999, he returned to mineral collecting as a hobby. His principal interests are Pennsylvania minerals and fluorescent minerals. He has been Bulletin Editor for the Nittany Mineralogical Society in State College for nine years and is currently also serving as President and webmaster.

John Way
FM PRESENTATION

Unearthing Pennsylvania's Geologic Time Capsules

For most of us, there is an intriguing fascination with hidden treasure. We rise to that challenge by hunting for minerals or fossils, panning for gold, sweeping a metal detector over parklands or simply walking along a shoreline all-the-while keeping a vigilant eye out for any serendipitous flotsam or jetsam.

“Geo-historians,” aka archaeologists, geologists, glaciologists, oceanographers, paleobiologists, among other scientists, doggedly and aggressively search for keys to unlock nature's treasure caches as well. Throughout geologic time, multiple geologic processes have generated valuable and marvelously interesting settings around the globe. Volcanic, metamorphic, and sedimentary terrains, whether on the continent or lying at depth beneath an oceanic water column, host countless undiscovered treasures just waiting to be unearthed.

Here in Pennsylvania, our rich and varied geology provides both the professional and the weekend warrior with countless opportunities to explore and discover its many hidden secrets as well. Rocks, minerals, fossils, strata, rock structures, caves, pore fluids, and the occasional meteorite, all serving as examples of geologic time capsules, yield valuable scientific information and allow us to document the history of our continent, our planet, the solar system, and, by extension, the universe.

By asking key questions, we'll identify and examine some of those time capsules that have proved critical in the compilation of the geologic history of this part of North America. Our adventure takes us from the southeastern

Piedmont to the northwestern Central Lowlands, from the Proterozoic through the Phanerozoic, and from the crystallines to the unconsolidated surficial sediments; an account more than two centuries in the making. The story is compelling, its mysteries intriguing, and the rewards gratifying.

And perhaps some will be tempted to follow the call--

“Go my sons, buy stout shoes, climb the mountains, search the valleys, the deserts, the sea shores, and the deep recesses of the earth. Mark well the various kinds of minerals, note their properties, and their mode of origin.”

(Petrus Severinus, 1571)

Jeri Jones

Biography

Jeri Jones, a native of York, Pa, holds a degree in Geoarchaeology from Catawba College in North Carolina. He works for York County Parks as a geologist and also operates Jones Geological Services where he conducts educational geologic programs and consults. He loves to talk about York

County geology, its mineral resources and mining history. Jeri has co-authored or authored four books, narrated a 3-part education video on York

County geology as written articles for various publications. He teaches Continuing Education courses at Harrisburg Area Community College and senior citizens at the OLLI program through Penn State. Recently, Jeri has been involved in the investigation of the Dillsburg earthquake swarm.

Combining his love of auto racing and geology, Jeri has consults on the use of clays at several different speedways.

Abstract

Some Interesting Minerals of York County

York County has a diverse geology including all three rock classes ranging in age from the Proterozoic to Jurassic. With this geology comes some unique mineral localities. Several classic sites including the York Stone and Supply Company's (now York Building Products) golden calcite, the Rossville azurite and malachite road cut and limonite pseudomorphs are well documented. Sites including an interesting sulfide vein at Codorus Stone & Supply Company in Emigsville, datolite at the Dillsburg magnetite deposit, a new copper sulfide occurrence near Davidsburg, quartz crystals in the Hellam Hills and the preservation of a large mining operation will be highlighted.

"Pennsylvania's Early Oil Pioneers"

Dr. William Brice, Professor Emeritus,
University of Pittsburgh
Johnstown, PA

We often speak of oil and gas deposits being part of the "mineral" wealth of the Commonwealth, even though liquids are not, by definition, actually minerals. However, in 1919 the Supreme Court of the United States declared that petroleum is a mineral, at least in the legal sense. So it is appropriate that the oil be part of any discussion of minerals, and the modern oil and gas industry was launched by events that occurred in western Pennsylvania in 1859. There were many people behind these events, but some of these early pioneers stand out more than others, such as Samuel Kier (the only native Pennsylvanian), George Bissell, Francis Brewer, and, of course, Edwin Drake. Each of these men played a pivotal role in creating the foundation for our current oil and gas industry which has made our lives safer and easier than ever before. This presentation will focus on Samuel Kier, George Bissell and Edwin Drake and how they all came together during the mid-1850s to launch one of the most successful industries the world has even known.