

# NEWSLETTER

Summer, 1999

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## CHAPTER NEWS

### **Welcome to a Fall Symposium on "Zeolites," Nov. 5, 6, and 7, for Everyone Interested in Minerals**

The Board of Directors urges collectors, from newcomers to professionals, to gather together during our annual Symposium in order to share our fascination with minerals. The program has been planned to be of interest to all, with a talk on the Zeolite Group of minerals, and others on collecting localities associated with zeolites and their history, as well as the opportunity to socialize, pick out some giveaways, and vie for some great auction material.

#### **The Symposium Program**

George Rambo reports that the group will gather at the Delaware Geological Survey, in Newark, Delaware, on Friday night for the annual "What's New" get-together, which features giveaways and delicious refreshments. Saturday, at the Brandywine Terrace, Claymont, Delaware, very near I 95, a luncheon has been arranged during the noon break from the talks there on zeolites and associated collecting localities. The afternoon will be rounded off with a short annual business meeting and the auction.

Again this year, Maria Luisa Crawford, Chapter member and professor of geology at Bryn Mawr College, has offered X-ray identification of specimens for auction bids (she warns that it may take awhile, since she is a busy teacher and field geologist). This is an opportunity to both contribute to the Memorial Fund and find out more about that mystery mineral.

Donated by members and friends, specimens, as well as mining stock certificates, maps, books, photographs, and almost anything pertaining to mineralogy and geology will be available at the auction. In 1998, a suite of Cornwall minerals donated by Paul Lazar was one of the highlights of the successful event to benefit the Memorial Grant Fund, which aids students of mineralogy.

#### **In Memoriam**

The Chapter and the mineralogical community have lost a great friend, Bill Yocom, of West Chester, who died this spring of heart trouble. Our sympathy goes out to his widow, Betty, two daughters, Susan and Wilma, and their families. A Life Member of the Chapter, Bill was Curator of Minerals at West Chester University and a former president of the Mineralogical Society of Pennsylvania. Known for his warmth, humor, generosity, and enthusiasm, Bill was an avid fly fisherman, a great cook, and a talented jewelry designer. Many friends spoke of his important place in their lives at his funeral in West Chester. He is buried in the cemetery of the historic Birmingham Meeting House, in the Chester County countryside he loved.



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## CHAPTER NEWS

### David Saja's Successful Dissertation Defense

The *Keystone Newsletter* of the Mineralogical Society of Pennsylvania reported in May, 1999, that David Saja, a member of the F.M. Board and new editor of the *Keystone Newsletter*, recently successfully defended his doctoral dissertation, titled "Structural and Strain Analysis of the Metasediments in Pacheco Pass, California," at the University of Pennsylvania. Congratulations!

A graduate of West Chester University, where he was active in curating the mineral collection, David has been studying the plate tectonics of California by mapping and analyzing the structures in the Franciscan Formation metasediments, which formed an accretionary prism back in the Cretaceous Period. He investigated the way horizontal layers of sedimentary rock deposited on the floor of the Pacific ocean were folded and faulted as they were subducted 35 kilometers underneath the North American Continent. At this depth, the metamorphic conditions turned albite into jadeite and calcite into aragonite, forming a unique high-pressure, low-temperature mineral assemblage, which was uplifted and eroded into view.

### Robert Kulp's G.S.A. Paper on Olivine in Pa. Triassic Diabase

According to the *Keystone Newsletter* of the Mineralogical Society of Pennsylvania (May, 1999), Bob Kulp, a Chapter member, co-authored with Richard Hughes, of Montebello, California, a paper on olivine zones in the Triassic diabase of eastern Pennsylvania, and delivered it at the 1999 meeting of the Northeastern Section of the Geological Society of America. The abstract, from the *Abstracts and Programs* of the meeting, follows:

"Ever since Lewis first reported an olivine zone in the Palisades Sill of N. J. and N.Y. in 1908, geologists have searched for similar olivine zones with little success in the Mesozoic diabase intrusions found in the rift basins of eastern North America. New field studies of various igneous intrusions exposed in southeastern Pennsylvania indicate an undescribed mafic to ultra-mafic olivine-bearing zone in at least seven different diabase units. The olivine-bearing zone has been found at the following localities in Pennsylvania: (1) Monocacy Hill Diabase, Berks Co.; (2) Rattlesnake Hill Intrusion, Berks Co.; (3) Zeigler Diabase Sheet, Montgomery Co.; (4) Haycock Sheet of the Quakertown intrusion, Bucks Co.; (5) Coffman Hill Intrusion, Bucks Co.; (6) Morgantown Diabase Intrusion, Berks Co.; and (7) Gettysburg Sill, York Co.

The average thickness of the olivine zone in the intrusions is 8 meters, but at a few locations, such as the Coffman Hill locality, the zone approaches 60 meters. The thicker zones gradually decrease in olivine content upwards, whereas the thin zones lose the olivine abruptly. where the zone is sparse in olivine content (5%), the diabase is generally coarser grained, whereas the rock is much finer-grained where the olivine occurs in the largest amounts (35-30%). The olivine-rich zones are often found in occurrence with an extensive orthopyroxene cumulate zone, where the amounts of pyroxene range as high as 65%.

In hand sample, a small number of large olivine phenocrysts are visible, which can reach a maximum diameter of 2 to 3 mm. In thin section, the olivine appears as small subhedral grains, mostly enclosed by calcic plagioclase. In the absence of fractures, only a small amount of the olivine has been altered to serpentine, and these grains are generally seen up-section rather than near the base."



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## CHAPTER NEWS

### A New Mineral from St. Hilaire, Quebec, Named for Two Chapter Members

"Weberite" is already the name of a mineral, so what do you name a hydrous manganese carbonate plus water discovered by a married couple named Weber, amateur mineralogists from Guilford, Connecticut, and experts on the minerals of the locality, the DeMix Quarry, Mont St. Hilaire, Rouville County, Quebec, Canada? If their names are Charles and Marcelle Weber, you name it "charmarite," as reported in the March-April issue (p. 156, vol. 30, no. 2) of the *Mineralogical Record*. Congratulations to both of you! Next time Marcelle shows slides of Mt. St. Hilaire minerals at a Pa. Chapter Symposium, we will hope to see a photo of their namesake. At the Rochester Symposium in April, they may join another Chapter member, Marge Matula, for whom matulaite is named, in the annual group photo of attendees who have been recognized by having a mineral named for each one (or two) of them.

G.Y. Chao and R.A. Gault described and named the new mineral and several others, in 1997 paper on "Quintinite-3T, Quintinite 2-H, Charmarite-2H, Charmarite-3T, and Caresite-37:32 AM, a New Group of Carbonate Minerals Related to the Hydrotalcite-Manasseite Group," in the *Canadian Mineralogist* (vol. 35, p. 1541-1549). Found in cavities and in pegmatite bodies within the nepheline syenite of the DeMix Quarry, charmarite occurs as tabular hexagonal crystals (up to 0.5 mm across), commonly in tiny aggregates. In color it ranges from orange-brown to brown to pale blue or colorless.

### FRENCH CREEK MINES MINERAL IDENTIFICATION

Anyone who has visited the Geology Department at Bryn Mawr College has seen the hall case, one of thirty-two, of mine-run specimens from the French Creek Mines, St. Peter's, Chester County, acquired by George Vaux, II, whose collection was given to the College by his sons, George and Henry, in the early 1960's. The display features plates a foot across of apophyllite crystals; large specimens of chalcopyrite freed from the calcite; two-inch crystals of apophyllite green with inclusions of actinolite, variety byssolite; masses of byssolite needles, incredibly light; and other specimens, such as leonhardite (altered laumontite) and elongated crystals of pyrite. What a contrast to specimens from the dumps available to modern collectors.

When Ron Sloto, a collector, Chapter member, and hydrogeologist with the U.S.G.S., who now lives in St. Peter's, very close to the Mines, came to the College to look at French Creek specimens, he noted that laumontite, seen in the hall case, was not on Samuel Gordon's *Mineralogy of Pennsylvania* (1922, p. 178-179) list for French Creek, although Gordon mentions apophyllite, stilbite, and heulandite. Ron asked for samples of some French Creek minerals in the College collections, so that he could X-ray them at his alma mater, West Chester University.

A letter to the associate curator (Juliet Reed), dated July 6, 1988, enclosed several X-ray powder diffraction printouts. Ron wrote that the patterns are a fairly good match, including a very good one for fluorite (labelled "chabazite"), new for the Mines. Laumontite was confirmed, as was meionite (synonym "werenerite"), a Scapolite Group mineral, while mesolite, from a stilbite specimen in Hall Case 7, is also a new mineral for the locality.

Ron reported these finds in his article on "The French Creek Mine, St. Peter's, Chester County, Pennsylvania," in *The Mineralogical Record*, vol. 25, no. 2, March-April, 1994.



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**COMING EVENTS**

- Oct. 2:** **Autumn Mineralfest** (minerals, fossils, and gems) of the Pa. Earth Sciences Assoc.; Macungie Memorial Park, Macungie, Pa.; 9 a.m. to 3 p.m.
- Oct. 9-10** **Earth Treasures Show** of the Mineralogical Society of Pennsylvania; Lancaster Co. Exhibit and Convention Center, Leola, Pa. (4 miles east of Rt. 30 Bypass on Rt. 23 at the Meadowbrook Farmer's Market).
- Oct. 30** **Ultraviolation, the Fluorescent Mineral Only Show-Swap-Sell** of the Rock and Mineral Club of Lower Bucks County; 1st Methodist Church, 840 Tranton Rd., Yardley, Pa., 9 a.m. -4 p.m.; tables available (contact Ralph Thomas, (215) 295-9730)
- Nov. 6 and 7** **Gemarama Show** of the Tuscarora Lapidary Society, Founders Pavilion, Church Farm School, Exton, Pa.
- Nov. 5,6 and 7** **Symposium** of the Friends of Mineralogy, Pa. Chapter; Friday night "What's and New" at the Delaware Geological Survey, Newark, Del.; Saturday talks, luncheon, business meeting and auction at the Brandywine Terrace, Claymont, Del., just off I 95. For information, contact George Rambo P.O. Box 126, Claymont, DE 19703-0126.

**MINING AT NOTTINGHAM PARK, CHESTER COUNTY**

In the *Delaware Mineralogical Society Newsletter*, September, 1999, Diana Volchek related how much she enjoyed industrial Heritage Day at Nottingham County Park, off Route 1 in southernmost Chester County, Pa., on August 28 of this year. She went on to say that the guides on the hayride tour told about the history of the park, the importance of the feldspar quarries, the placer chromite source, the plant rarities, and endangered life forms of the serpentine barren. She panned for chromite in one area by a "buddle" or open trough where sand was washed away from the heavier chromite (4.6 specific gravity). Ruins of a chromite mill from World War I are nearby, next to a scale model of the equipment used in this mill. Living history vignettes showed how the miners lived, and that they had to provide their own shovels and carts to get a job. There was an ox cart ride and the chance to play bocce ball, displays of Chester and Lancaster County minerals, a feldspar tent, singing entertainers, and food. The Nature Conservancy had slide shows and talks. Diana noted that this is a nice annual occasion for families, and was a pleasant 2 1/2 hours.

**Editor's Note:** Look for a review of the new Pennsylvania Topographic and Geologic Survey publication, *Geology of Nottingham County Park* (Open File Report 98-12, 1998), by Robert C. Smith, II and John H. Barnes, in the Fall issue of the *F.M., Pa. Chapter, Newsletter*. Copies of the well-illustrated and interesting report are currently on sale at the Park for \$2.00.