



FRIENDS OF MINERALOGY

Pennsylvania Chapter

NEWSLETTER

Vol. 17, No. 2, Spring, 1990

Page 1

18 1

PRESIDENT'S MESSAGE

The Board of Directors recently held a meeting at which the Symposium on April 20-22 was the main focus of attention. We also set aside September 22, 1990, for the Swap and Sell in West Chester. Hopefully the weather won't bring in a Hugo this year.

The Symposium will be held at Schmucker Hall on the West Chester University Campus. The theme is "Pennsylvania Mineralogy: the Eighties Revisited." Please pre-register, as it helps us plan and it will save you a dollar (a form is enclosed with a schedule of the symposium activities). You may sign up for the Sunday field trip when you check in. All registrants for the Symposium will receive an illustrated field trip guide to the history and geology of the Chester County graphite localities we will visit (it will also be available by mail for several dollars).

If you can't make the Symposium, sign up for the banquet (no Symposium registration is required). You will find Bob Middleton's illustrated lecture on James Dana's 19th-century tour of Australia both enlightening and entertaining.

Please bring your giveaways to share with friends and guests during Social Hour on Friday night or breaks on Saturday and specimens for the Saturday auction. See you there.

Arnold Mogel
(717)-366-3871

MEMBERSHIP INFORMATION

DUES: Please send in your dues for 1989 and 1990 (\$7.00 or \$5.00 for members over 62 or students) immediately, if you have not done so, to Marge and Vince Matula, 1031 Honeysuckle Drive, Walnutport, PA 18088.

ADDRESS CHANGE: Gregory Ferdock, 350 W. Dove Creek Place, Elko, NV 89801.

EDITOR: Juliet C. Reed, 336 Rockland Rd., Wayne, PA 19087.

FLUORESCENT MINERALS AVAILABLE

Al Bliss, Rutgers University, reports a new find of fluorescent fluorite and calcite at the Kirkstone Quarry, Kirkstone, N.J. Al would be willing to share with collectors through their clubs. You may reach him at home by mail (5 Smith's Branch Rd., Whitehorse Station, NJ 08889) or by phone (201-539-6382).

FRIENDS OF MINERALOGY, PA. CHAPTER, INC.

ANNUAL FINANCIAL REPORT

December 31, 1988 through December 31, 1989

BALANCE Dec 31, 1988 \$5990.78

INCOME

Dues	\$676.00
Sale of publications	70.00
Table fees at swap event	18.00
Interest*	<u>231.58</u>
	\$995.58

TOTAL FUNDS AVAILABLE \$6986.36

EXPENDITURES

National dues**	\$501.00
Newsletter and postage	647.22
Grant to W. Chester Univ.	1000.00
Bank charges	<u>11.60</u>
	\$2159.82

BALANCE Dec 31, 1989 \$4826.54

LOCATION OF FUNDS

Continental Bank checking account	\$1826.54
" " CDs (3 and 6 mos)	3000.00

ALLOCATION OF FUNDS

General Fund	\$1998.23
Grant Fund	2828.31

* Not including approx \$38 accrued on CDs

** Includes \$171 of 1988 dues which cleared 1989

Arthur Dorne, Treas.

LOCAL EVENTS

- April 7-8 York Rock and Mineral Club Gem and Mineral Show, Emigsville Fire Hall, Emigsville, Pa. (10 a.m. - 7 p.m., Saturday and 10 a.m. - 5 p.m., Sunday).
- April 20-22 F.M. Spring Symposium, Schmucker Hall, West Chester.
- May 19 Lehigh University Symposium, "The Character and Origin of the Franklin-Sterling Hill Orebodies."
- June 9 P.E.S.A. Mineral Fest Swap and Sell, Macungie, Pa. (Bill Lorah, 431 W. South St., Slatingsdon, PA 19080.
- June 16-17 Berks Mineralogical Society 2nd Swap and Sell, Appalachian Campsite, Shartlesville, Pa. (215) 929-9332.

AHEYLITE AND PLANERITE

The mineral species aheylite has been named by Eugene Foord and Joseph Taggart for Chapter Life Member Allan V. Heyl, an Allentown, Pa., native who recently retired as a geologist with the U.S. Geological Survey in Denver. Found in Bolivia, the hydrous iron, zinc, aluminum phosphate was first described in a lengthy abstract of a talk, "Reassessment of the Turquoise Group: Redefinition of Planerite and Aheylite, a New Member of the Group," given at the 14th Annual Meeting of the International Mineralogical Association in 1986. Aheylite is defined as the ferrous-iron-dominant (A site) member of the Turquoise Group. The mineral occurs associated with cassiterite, pyrite, quartz, sphalerite, variscite type L (Lucian), variscite type M, wavellite, and vivianite in ore samples from the Mira Flores vein system, District Huanuni, Dept. of Oruro, Bolivia. Individual spheres of acicular aheylite are as much as 2 mm. across and are very pale blue-green to light blue-green. The botryoidal spheres are made up of euhedral radiating and concentric aggregates of crystals as much as several microns in maximum dimension. Cell unit data are given in the abstract. The mineral appears in Fleischer's 1987 "Glossary of Mineral Species" (1987).

Planerite, was first described from Siberian specimens in 1862. Foord and Taggart's extensive research on the turquoise group revealed that there was no ferrous iron at all in planerite, as originally thought, and that the A site in the unit cell is vacant or nearly so. What little iron was present in specimens from the original locality is ferric and not ferrous. "Coeruleolactite" from the General Trimble Mine, East Whiteland, Chester County, Pa. is a planerite-turquoise with the A site nearly half-filled with Cu and minor Zn. Compilation of available superior analyses for members of the turquoise group indicate the continuous solid-solution series between the various end-members. Only a small amount of what is currently termed turquoise actually contains Cu as the principal constituent of the A site.

In a letter to the editor, Allen Heyl and Gene Foord report that the type specimen of aheylite from which the data came has been sent to the National Museum in Washington, D.C. In addition, Dr. Heyl gave the museum his own fine specimen of the very rare mineral. Research on the Turquoise Group continues.

Editor's Note: The York Rock and Mineral Club published an interesting article on the Whim Shaft of the "new" Perkiomen Mine, Audubon, Montgomery County, Pa., by F.M. member Larry Eisenberger, in the October, 1989, issue of the "Geoinformer."

Below is part of the article, the descriptions of the minerals (mostly micro) Larry collected over a period of several years until the area was closed for a housing development in 1988. This sort of collector data is invaluable to any one who has minerals from the Whim Shaft or the Ecton Mine dumps. Larry credits Martin Anne and Don Schmerling with help in identifying this extensive list.

WHIM SHAFT: MY FAVORITE PLACE TO COLLECT MINERALS

Larry Eisenberger
25 Filbert St.
Hanover, Pa. 17331

Descriptions of Minerals

Copper: Native copper is very rare and has been found only a few times in recent years. At the site, copper minerals comprise the largest group of species and give the widest range of colors.

Malachite: This is the most common copper mineral found here. It can be found as fibrous mats, sprays of beautiful terminated lustrous crystals, velvety botryoidal masses, and are as short stalactitic growths.

Pseudomalachite: The nicest specimens are compact groups of dark green crystals on pale bluish chalcedony. When these groups are broken, an interesting fracture is exposed showing concentric banding. It is also found as velvety botryoidal groups.

Chrysocolla: A fairly common mineral found most often as massive areas in the limonite matrix. Occasional finds of velvety coating the best representation of the species. the massive material varies from light to dark blue and even some green was found.

Azurite: A relatively rare mineral here. Blue minerals abound, but the deep blue of azurite is seldom seen. It is found as tiny vitreous blades.

Cuprite: This mineral is more scarce than azurite. I found only one specimen of the red cuboctahedral crystals.

Brochantite: Another scarce mineral similar to malachite at first glance, but a definitely different shade of green. The crystals are short and randomly oriented. Malachite seems to prefer acicular or parallel grouping.

Posnakite: This mineral I found on only two occasions. Transparent medium blue and glass; not crystals, but a kind of long tapering icicle. This was on chalcopyrite.

Langite: These crystals are a mixture of changes. Color changes from clear medium blue to an opaque turquoise. The form is prismatic and it has a vitreous luster. **Chalcopyrite:** Crystals are not common and unaltered ones are nearly non-existent. They are nearly always altered on the surface with probably chalcocite. Crystal form is the tetrahedron and always either striated or distorted. A few have altered completely to goethite.

MINERALS OF THE WHIM SHAFT (cont'd)

Chalcocite: The black or bluish-black material coating chalcopyrite, both crystal and massive, is probably chalcopyrite.

Covellite: This mineral is found as minute bluish-purple crystals and coatings, usually with galena.

Pyromorphite: This was the main ore the miners wanted. I haven't seen any massive material. They must have "cobbed" the ore very carefully, saving every last bit for shipment. Pyromorphite exhibits a wide range of color and crystal form. Color varies from deep opaque green to pale translucent green. Some of are colorless, some are whitish green, and the calcian variety is white. Mimetite: Found rarely as crystals exhibiting the color variations sometimes seen on pyromorphite. They resemble a mixed stack of cents and dimes giving irregular color changes to the "barrel" crystals. The color is brown. It is also found as an acicular crystal with a greenish-yellow color.

Cerussite: These crystals can't seem to decide how to form. I have found single crystals, twinned crystals, and phantoms. The crystal are all prismatic and have a vitreous or silky luster. Just a few were found showing the rhombic form with multiple phantoms and irregular growth on the edge.

Wulfenite: Clear tabular, faintly orange crystals are rarely found. More commonly found are the bi-pyramidal type in a yellowish waxy color. Yellow crystals with an orangish tint were found having a rhombic form. Some brown wulfenite was found, too. Nearly always found with pyromorphite.

Anglesite: Tiny crystals with a yellowish tint were found on galena. They have many crystal forms.

Galena: Massive material could be found with diligent searching, but crystals were truly rare. Only a few distorted crystals could be found. They had an alteration product on the surface and none were lustrous.

Linarite: Probably the most common blue mineral to be found in crystal form. Medium blue aggregates of bladed crystals,; vitreous and transparent. Sphalerite: Zinc-bearing minerals make up the smallest group of secondaries. Massive material of sphalerite is nearly impossible to find. Only a few distorted crystals were found. All but one had surface alteration. They look very much like galena crystals until you break one.

Smithsonite: Forms from the alteration of sphalerite. Found only as pale greenish crusts. Quite rare.

Hemimorphite: Not nearly as common as barite, with which it is difficult to separate. Found only a few times as bladed, radiating, whitish crystal aggregates. Not the normal, sharp terminations seen on Arizona specimens.

Descloizite: Bright orange crystals on pyrite. Also found as pale yellow crystals.

Serpierite: Early reports of aurichalcite were most likely serpierite. I don't know of anyone finding aurichalcite. The crystals are light blue with feathery edges. It's easy to see why people thought they had aurichalcite.

Hematite: Not an easy mineral to find. Small amounts of scaly red hematite were found with a few examples of black, lustrous crystal plates.

MINERALS OF THE WHIM SHAFT (cont'd)

Pyrite: Pyrite is uncommon. By far the most crystals seen are pyritohedrons. Usually seen sitting on quartz. Only one cube of pyrite, sitting on massive chalcopyrite, was found.

Ferroan Dolomite: A scarce mineral here. Usually found somewhat deteriorated. The better examples are steep rhombic in form and a dark reddish color. The altered material is a nice brown color. Some have altered completely to goethite. These are a bright tan color.

Limonite ps. Pyrite: A rich, lustrous, rusty brown color in the pyritohedral form.

Goethite: A person could make a study of the goethite alone! It's the second most common mineral, after quartz. So many variations of form and color to study. The forms include crystals in tiny balls, needles, stalactitic, botryoidal, mammillary, plumose, dendritic, earthy, and radial cleavages. The color is just as varied. You could find any shade of brown, tan, or yellow, and, of course, black. The surface varied from earthy to dull, to metallic, and even iridescent. In addition, goethite has replaced chalcopyrite and dolomite, as velvety rich brown examples and as bright tan sharp crystals, respectively.

Quartz: This is the most common mineral and is the matrix for a lot of other minerals. Breaking the large chunks often revealed vugs containing crystals of all kinds. Quartz is generally iron-stained from pale yellow to dark brown. Sometimes it is clean and clear colorless. No unusual crystals have been seen except for occasional phantoms. A small amount of quartz was found with chlorite (?) inclusions. Probably the most unusual material was "strings" of quartz crystals stretching across the vugs. The variety chalcedony is present as botryoidal masses.

Barite: A lot of crystal variations to study, mostly clear and colorless, and generally tabular. A few crystals of prismatic form, and a few of divergent lamellar form were collected. The prismatic crystals are colorless and the lamellar type are either white or iron-stained a bright rusty orange. A lot of rhombic, colorless crystals were found, some with diamond-shaped phantoms.

Muscovite (?): The exact species has not been identified, but could be muscovite. This material was a pearly gray color on the cleavages.

Gypsum: The variety "rams-horn" selenite as delicate loops and swirls. A few steep pyramidal crystals were collected, too.

Species known to be found at this locality include: bornite, arsenopyrite, hydrozincite, silver, sulfur, susannite, leadhillite, greenockite, cyanotrichite, chalconatronite. Most species in this last group are extremely rare.

Editor's Note: Larry's article mentions that he has many unknowns. Can you add to this list? Have you found antlerite, a new mineral for Pennsylvania described from the Ecton Mine by Gene Foord and Allen Heyl in 1985 (F.M., Pa. Newsletter, vol.13, no.3, p. 6-7)? Let's hear from you. This data is not only important from the collectors point of view, but from the historical point of view. One of the purposes of F.M. is to update locality lists for eventual publication.

FRIENDS OF MINERALOGY SPRING SYMPOSIUM

Friday, April 20, 1990:

7 p.m. Social Hour, "What's New In Pennsylvania."

Saturday, April 21, 1990:

8:30 a.m. Registration, Coffee and Donuts.
 9:15 a.m. Welcome to West Chester University.
 9:25 a.m. Roland Bounds, "Fissure Minerals of Cedar Hill Quarry."
 10:15 a.m. Break.
 10:35 a.m. Marge and Vince Matula, "An Occurrence of Matulaite near Hellertown, Pa."
 11:00 a.m. Joseph Daque, "Brimstone and Blackjack, a New Occurrence of Native Sulfur Crystals Along the Bellefonte Ledge Wurtzite Occurrences in the Coal Fields of Western Pennsylvania."
 12:00 noon Lunch on your own, on Campus or in town.
 1:30 p.m. Donald Hoff, William Penn Museum, "Copper and Uranium Minerals of Lycoming and Sullivan Counties, Pa."
 2:30 p.m. Speaker to be announced.
 3:15 p.m. Announcements and Mineral Specimen Auction.
 7:00 p.m. Banquet at Lawrence Center, West Chester University; illustrated lecture by Bob Middleton, Academy of Natural Sciences, Philadelphia, on "James Dana in Australia, 1838-1840." (Sign up below; no Symposium fee necessary for Banquet only)

Sunday, April 22, 1990

10:00 a.m. Sunday Field Trip to Two Graphite Localities in Chester County, Pa. (registration on Saturday required)

F.M., PA. CHAPTER, 1990 SPRING SYMPOSIUM

Name, Address, and Phone # -----

Need a Map? Check here.-----

Members and Friends: How Many ----- @ \$ 7.00 = -----

Senior Citizens or Students: How Many ----- @ \$ 6.00 = -----

Banquet: How Many ----- @ \$19.00 = -----

TOTAL = -----

Send check or money order made out to "F.M., Pa. Chapter" to Arnold Mogel, 2503 Village Rd., Orwigsburg, PA 17961.

