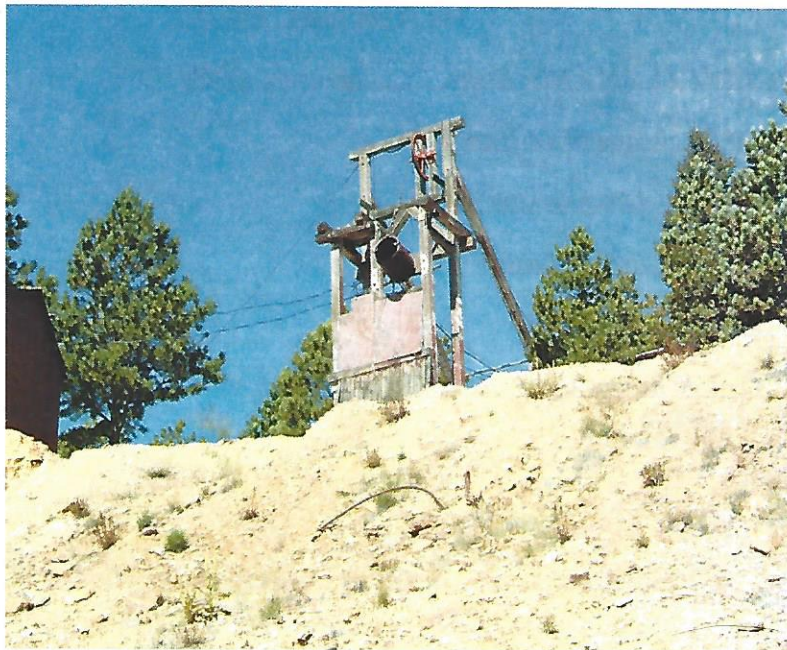


# Friends of Mineralogy Pennsylvania Chapter Inc.

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*Fall Symposium 2006*

*Mines and Minerals*



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**Presented at the Delaware County Institute of  
Science  
Media, Pennsylvania**

# Program Events

8:00 -9:00 AM      Registration      Coffee and Donuts for your enjoyment

9:00-9:15 AM      Welcome and Opening Remarks

9:15- 10:00 AM      Mike Skebo : Lengenbach Quarry Switzerland

10:00 -10:15 AM      Coffee Break

10:15 – 11:00 AM Johnny Johnsson: Vermont's Elizabeth Copper Mine,  
The Tyson Years 1880-1902

11:00-11:45 AM      Mike Skebo:      Minerals of Italy

11:45 11:50 End silent Auction

11:50-1:15 Lunch on your own

1:15 – 2:30 Benefit Auction

2:30-2:45 Coffee Break

2:45- 3:30 Arnold Mogel Tellurides of the Cash Mine Boulder Country, Colorado

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**"Vermont's Elizabeth Copper Mine,  
The Tyson Years,  
1880-1902"**

**Abstract:**

The Elizabeth Copper Mine in South Strafford, Vermont has an interesting history among the Vermont copper mines beginning with the initial discovery of the sulfide ore body in 1793 through its final closing in 1958. The stories of early smelting in the 1830's as well as more recent mining operations dating to the 1940's have been researched and published. Nevertheless, a little-recognized period of operations occurred from about 1880 to 1902, as the Tyson family and their associates attempted to develop the mine into a significant producer. Through narrative and slides, we will examine some of the problems and successes encountered in developing the mine and smelting the difficult pyrrhotite ore, including the utilization of water-jacketed furnaces with chromite-refractory hearth linings. The copper mines at Ely-Copperfield and Pike Hill will also be briefly discussed in historical context.

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## ARNOLD R. MOGEL

Retired from the Telephone company Arnold has collected minerals since he was a young lad "getting to Phoenixville or Mill Grove any way I could."

He has been a member of both the Colorado Chapter and the Pennsylvania Chapter of the Friends of Mineralogy. He has been on the FM PA. Board since 1980, holding the offices of President ,Treasure and at present is the Vice- President. He has been active in Colorado mining and mineral collecting since the 1980's

### Tellurides and the Cash Mine of Gold Hill Mining District Boulder Country Colorado

Gold Hill Mining District has been noted since 1872 for its Telluride Mineralogy. This District has been studied by Mineralogist and Geologist for the last 148 years. The Boulder Country Telluride Belt covers about a 50 square mile area at the northeast end of the Front Range Mineral Belt. The center of the belt is the Gold Hill Mining District. This District covers about 12 square miles of the Telluride Belt. The Cash Mine lies within the Gold Hill Mining District, and is the only operating mine in the District. The Cash Mine produces Gold and Silver from the ores of the Freiburg and Cash veins .The District is classed as an epithermal deposit. Sixty-seven vein minerals have been identified as well as 25 Telluride minerals. Only three of the Telluride minerals account for the majority of gold and silver Production.

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## **Johnny Johnson**

Employed in the crushed stone industry in environmental permitting, Johnny Johnson received his B.S. in mining engineering from Virginia Tech in 1985 and later earned an M.B.A. at the University of Baltimore. The collecting of minerals at a young age in his native Maryland led not only to a related career, but has served as a foundation for a growing interest in mining history. Particular areas of interest include the history of the mining and manufacture of chromium, copper and iron related to the Tysons and their associates in the East. He has published several articles and presents slide programs and interpretive mining history hikes about historic mines and districts in the Mid-Atlantic area.

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# MIKE SKEBO

## Mike Skebo

- BA degree in Physical Geography from the University of Windsor, 1965
- 33 years of secondary school teaching
- taught geography, history and occasionally geology when there was student demand
- President of CMMA for 15 years
- Vice-President of CCFMS on Ontario
- member of Gruppo Orobico Minerali of Bergamo, Italy
- micro mineral collector for over 20 years

## Lengenbach Quarry

A visit to the world famous sulfosalt deposit the Lengenbach Quarry in Imfeld, Switzerland. The program will deal with location, some geology, tourism and how hydrothermal solutions containing As, Cu, Ag, Tl, Sb, etc. united with the S to create the famous minerals of this locality.

## Italy

A whirlwind tour of the minerals of Lazio, Isola D'Elba, Liguria, Val D'Aosta, and Lombardy. Many mineral photos will be shown to illustrate the variety of the species in these area. A few tourism photos will also be shown.