



# PNWFM NEWSLETTER

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## President's Message

Greetings, mineral lovers! I'll keep my message short this time... really!

### So Many Volunteers!

I would like to thank all the volunteers who made our "Minerals of Colorado" symposium such a fun event:

- Allan Young – Speaker Recruitment, Projector Procurement
- Julian Gray – Master of Ceremonies
- Bob Meyer – Facilities Liaison, Display Coordinator, Contest Designer
- Wes Gannaway – Symposium Packets and Signs
- Bruce Kelley – Publicity, Facebook presence, Pre-Registration, Deputy Treasurer, Case Transportation, Case Loading, Master of letting things fall through the cracks...
- Karen and Gary Hinderman – Auctions, Storage Coordinator, Case loading, Picking up everything that was falling through the cracks!
- Fiona Kelley – Registration, Case Loading
- Bill and Diane Dameron – Registration
- Bob Jackson – Case Storage, Case Loading
- Anna Mendez – Case Loading
- John Meek – Case Transportation
- Al Liebetrau – Dealer Liaison
- Tom Menzel – Night Security
- And our setup/teardown crew – Roger Beck, Jim Etzwiler, Bruce Kelley, Fiona Kelley, John Kelley, Tom Menzel, Sally Wojahn, and probably half a dozen I'm forgetting...

The sheer number of volunteers and the many hours of work you each put in speak proudly of your devotion to FM. It is a pleasure to work with such a committed group. Thank you all!



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## Symposium 2015

The 2015 Symposium theme is *“Minerals of the Northeast US and Fluorescent Minerals.”* There has been some effort to word-smith this mouthful to something a little catchier, but this title really says what we want to say:

First, this symposium, like all of our events, is primarily focused on minerals, and in particular the minerals of the Northeast.

Second, there will also be a strong emphasis on fluorescent minerals this year, and this symposium will be a co-sponsored by the Fluorescent Mineral Society.

I have heard a number of rumors and comments that can be summed up thus: “2015 is nothing but fluorescent minerals. I’m not interested in that, so I’m not coming.” I would like to make it clear here that that is just not true. Here are the facts:

- There will be a number of talks that focus on fluorescence. We will also have a number of talks about general mineralogy topics in the Northeast US. The exact split and whether we can add a couple of talks to the total are still being determined, but we are working on it. All talks will be of the same high-quality, professional level that we are accustomed to.
- There will be a number of world-class fluorescent displays, hopefully filling up the Alder Room! And, will have our non-fluorescent displays set up as we always do. I hope that you, the PNWFM members will start planning now to step up and fill them with your equally world-class showcases!
- The FMS will be holding their annual meeting at the event. PNWFM will be holding our semi-annual meeting at the event.
- There will be fluorescent mineral dealers. There will be the general mineral dealers.
- There will be discussions about fluorescence in the hallways and rooms. And *maybe* there will be some really interesting cross pollination of ideas and enthusiasm with the mineralogy topics that are sure to be discussed as well!

I hope you all consider this as the interesting event that it is intended to be: A chance to learn more about minerals with two specific focuses: The Northeast US and Fluorescence. For many of us there will be an opportunity to learn something new, whether it is about the minerals from a specific region or fluorescence. For those of us who are involved in both communities, it will be an opportunity to combine those interests in one great event!

## 2016 – 2017

We have decided to get a little ahead on our scheduling this year in order to get the hotel booked and to allow other events to plan around our dates. Mark your calendars now and if your club holds events in October, please let them know what our schedule is!

- 2015: October 9–11: *“Minerals of the Northeast US and Fluorescent Minerals”*
- 2016: October 14–16: Topic TBD
- 2017: October 13–15: Topic TBD

## Member Participation: Even more ways to get involved!

1. Write an article or send in a few photos for the newsletter. Going to a show? Send us a trip report! Find a weird fuzzy green mineral you’d like to share? Send us a photo whether you can positively identify it or not; I think mysteries are as fun as scholarly certainty. Thanks to Wes Gannaway, Beth Heesacker, Karen Hinderman, Al Liebetrau, Bob Meyer, Don Newsome, Lanny Ream, Alexander Schauss, and myself for providing newsletter content so far this year.
2. Plan to attend our 2015-2017 symposia:  
October 9-11, 2015: *Minerals of the Northeast US and Fluorescent Minerals*  
October 14-16, 2016  
October 13-15, 2017
3. “Like” our official Facebook page: [facebook.com/PNWFM](https://www.facebook.com/PNWFM)
4. Visit the Rice NW Museum of Rocks and Minerals in Hillsboro, OR. PNWFM members get free admission and store discounts.
5. Send me ideas for how PNWFM can better serve you and the mineral collecting community.

Until next year, -- Bruce Kelley, President, PNWFM

## Displays at the 2014 PNWFM Symposium, Minerals of Colorado.

By Bob Meyer



**A feast for the eyes! Bill and Diana Dameron's case of superb specimens from Colorado.**

*The 40<sup>th</sup> Annual Symposium featured 10 outstanding displays*, eight of which reflected the symposium theme, *Minerals of Colorado*.

The Rice NW Museum of Rocks and Minerals submitted a superb case consisting of nine cabinet to large cabinet sized specimens from the state of Colorado. The case included an impressive specimen consisting of large bright blue-green Microcline variety Amazonite crystals with dark Smoky Quartz crystals measuring about 25 cm across from the Two Point mine, Pikes Peak region, Teller County (RM#3064). Also included in the case was a 7.23 troy ounce specimen of spongy Gold and Quartz from Breckenridge, Summit County, measuring about 10 cm across (RM#1182). The case also included a specimen with a story, a superb 22 cm wide specimen consisting of bright pink rosettes of Rhodochrosite on a white matrix (Quartz?) from the American Tunnel (Sunnyside mine group), San Juan County (RM#1518). Years ago Helen Rice related to me that this was the first real "mineral" specimen they had purchased. This, versus, what I presumed to mean Richard and Helen's interest in lapidary related materials. Helen told me they had been hesitant to cross over to minerals, but had been enticed by this piece.





The Rice NW Museum of Rocks & Minerals display.



Rhodochrosite rosettes on matrix from the American Tunnel (Sunnyside mine), San Juan Co., Colorado. 22 cm.  
Rice Museum specimen.



Al and Sue Liebetrau exhibited an impressive case consisting of 24 specimens from the State of Colorado. Particularly notable was a 25 cm specimen of pink manganoan Calcite in modified scalenohedral crystals from the Idarado mine, Ouray County (Ca 1090?); a superb 18 cm plate of 1 cm Rhodochrosite crystals on Quartz from the Cash Flow Pocket, Sweet Home Mine, Alma district, Park County (Rh 1432); a 14 cm specimen of botryoidal purple-gray Fluorite from Cañon City, Fremont County (FL 1020); a 9 cm high specimen of thick Silver wires from the Midnight mine, Aspen, Pitkin County (Si 2851); and a charming 10 cm specimen of small Quartz crystals overgrowing a hollow cast after an undisclosed species from the aptly named considering the piece, Crystal Cave, Ouray County (Qu 2813).



**Rhodochrosite with Quartz, Cash Flow Pocket, Sweet Home mine, Park County 18 cm high.**

**Al & Sue Liebetrau collection.**



**A superb example of purple-gray botryoidal Fluorite from Cañon City, Fremont County.  
14 cm high. Al & Sue Liebetrau collection.**



**A Quartz Cast after an unspecified mineral, 10 cm across, from Crystal Cave, Ouray County.  
Al & Sue Liebetrau collection.**



John Lindell brought us closer to home with his excellent display of 61 mineral specimens, four artifacts, a stock certificate, a book, and a map all relating to Butte, Montana. Most impressive was a specimen of Tennantite pseudomorphs after Enargite (John Lindell collection 3098), from the Anaconda Copper mines, in a specimen nine cm across forming a hollow in massive sulfides and suggesting the whole thing is pseudomorphous; a lovely specimen of Pyrite with Enargite (John Lindell collection 5026) five cm across from the Leonard mine—the pyrite modified in a way familiar to Leonard mine afficianados; an excellent five cm complex single crystal plate of indigo metallic Covellite (John Lindell collection 2406) from the Bostick mine; a superb 12 cm plate of iridescent Betekhtinite with Quartz, Chalcocite, and Pyrite (John Lindell collection 3874); and a stupendous 7 cm high group of sharp gray Digenite crystals (John Lindell collection 2992) up to 2 cm in size from the Anaconda Copper mines.



**John Lindell's very creative exhibit of specimens and artifacts from Butte, Silver Bow County, Montana**



**Tennantite pseudomorphs after Enargite from the Anaconda Copper mines, in a specimen nine cm across forming a hollow in massive sulfides and suggesting the whole thing is pseudomorphous**

PNWFM President Bruce Kelley put in a display consisting of 43 miniature to large cabinet-sized specimens with the theme of Blue Mineral Species, which is one of Bruce's favorite collecting specialties. There was a wide range of species in the case, all of very good quality and all in various shades of blue. Several of the specimens on display were of species one rarely sees. Some examples included a 7 cm specimen of the copper sulfate species Kröhnkite, from Chuquicamata, Antofagasta, Chile as a bright blue crystallized layer without apparent matrix (Kelley 679); a 2 cm blue crystal of Häüyne on a 5 cm matrix of white-blue marble from Ladjuar Medam, Sar-e-Sang, Afghanistan (Kelley 471); a 6 cm specimen of Phosphophyllite from Cerro de Potosí, Potosí, Bolivia with pale blue crystals of up to 1.5 cm in a fan-like group (Kelley 337); and a superb botryoidal group of bright blue Plancheite 3 cm across on a dark metallic 8 cm matrix from the Katanga Copper Crescent, Katanga, DRC (Kelley 20).





PNWFM President Bruce Kelley's impressive display of specimens of blue species.



A superb botryoidal group of bright blue Plancheteite 3 cm across on a dark metallic 8 cm matrix.  
Bruce Kelley collection.



Alex Homenuke presented the most creative display in recent memory. The case consisted of two parts, with one half of the case dedicated to the Minerals and Ores of the Colorado Mineral Belt, and the second half of the case was a recreation of the cover of the May-June 1985 issue of the *Mineralogical Record*: “Colorado,” replete with artifacts and specimens arranged as on the cover of the issue.

Noteworthy in the first half of Alex’s case were two large slabs of sowbelly amethyst, one with rich dendritic acanthite, measuring about 25 cm across each, from Creede; an 8 cm specimen of proustite, with a 1 cm crystal, and small Polybasite crystals with Quartz from the Griffith mine, Clear Creek County; and nice small wire specimens of Gold from Farncomb Hill, Breckenridge, and Silver from the Bulldog mine, Creede.

The second half of Alex’s case contained an antique gold balance in the upper left and an assay balance in the center, a set of weights, a silver antique spoon in the shape of a shovel, a miner’s compass, three old books, a surveyor’s aneroid barometer, a surveyor’s alidade, and a number of mineral specimens.



**The left half of Alex Homenuke’s very creative display. This portion of the case featured specimens of the Minerals and Ores of the Colorado Mineral Belt.**





**Two specimens of Rhodochrosite from Colorado from the collection of Alex Homenuke.**  
**The specimen on the left is 8 cm across and the one of the right is “smaller.”**



**The right half of Alex Homenuke's very creative case, featuring a recreation of the May-June 1985 "Colorado" issue of the Mineralogical Record.**



**Three specimens from Alex Homenuke's case, a Fake Gold about 12 cm across, a specimen of Barite 9 cm across from the Rock Candy Mine, and a specimen of Azurite and Malachite 18 cm high from Bisbee, Arizona.**

Bill and Diana Dameron presented a meticulously curated display consisting of 40 mineral specimens from the state of Colorado, ranging from miniature to large cabinet in size and of uniformly superb quality. Of special note was a Quartz epimorph after Anhydrite 12 cm across from the O.S. Pocket, Ouray County; Barites from Stoneham including a 10 cm high "V" shaped grouping of stout blue crystals, a statuesque grouping of parallel crystals with Calcite 8 cm high from the Leeson Pocket, and a delicate group two pale blue doubly-terminated crystals, the largest 11 cm long, roughly forming a cross with a third crystal intersecting at an angle of approximately 40 degrees; an exquisite 1.5 cm black pseudoctahedral crystal of Zircon perched on a 7 cm Quartz matrix with Riebeckite from the West Zircon Prospect, El Paso County; a charming 6 cm specimen of Quartz consisting of two partially intergrown Amethyst crystals forming a partial scepter on a crude larger crystal of Milky Quartz from Little Badger Creek, Fremont County; an exquisite specimen of Rhodochrosite with Fluorite, 7 cm in height, consisting of an offset pair of sharp, lustrous rhombohedral crystals of Rhodochrosite of an intense red-pink coloration 6 cm in size along with a few 1 cm pale lilac crystals of Fluorite on a small matrix of black Tetrahedrite from the Sweet Home Mine, Park County; and a very nice 6 cm high specimen of transparent colorless Calcite, as a single modified rhombohedron (possibly twinned) 4 cm across with a couple on smaller crystals on a bed of orange botryoidal Siderite from Billy Creek, Ouray County, collected in 1999.





**Quartz epimorph after Anhydrite 12 cm across from the O.S. Pocket, Ouray County.  
Bill and Diana Dameron collection.**



**Two partially intergrown Amethyst crystals forming a partial scepter on a crude larger crystal of Milky Quartz from Little Badger Creek, Fremont County, 6 cm high. Bill and Diana Dameron collection.**





**Modified rhombohedral (possibly twinned) crystals of Calcite on a bed of orange botryoidal Siderite, 4 cm high from Billy Creek, Ouray County. Bill and Diana Dameron collection.**



**Doubly-terminated Barite 11 cm long from Stoneham, Weld County. Bill and Diana Dameron collection.**



Michael and Debbie Ausec presented two cases, each entitled Minerals of Colorado, and each consisting of 45 specimens (90 total) of relatively uniform size ranging from thumbnails to miniatures, but mostly in the size commonly referred to as toenails. The specimens were each professionally presented on white beveled bases that fit as a group in attractive eight-sided hardwood bases. For collectors to have the ability to present 90 specimens of uniformly high quality and similar size from a single state is quite impressive, and the process of putting together such a collection must represent a very significant effort on the part of Michael and Debbie.

Among Michael and Debbie's specimens were a thumbnail-sized group of Skutterudite crystals with a fused sample from the Horace Porter Mine, Gunnison County; a 4 cm group of dark copper crystals from the Cashin Mine, Montrose County; an attractive curved wire Silver, 3 cm high from the Smuggler Mine, Pitkin County; a Chalcopyrite with discoidal Siderite 3 cm across from the Black Cloud Mine, Lake County; a 1.3 cm white lustrous Phenakite crystal on a 4 cm Smoky Quartz crystal from Mount Antero, Chaffee County; a charming complex grouping of virtually colorless Fluorite on Quartz, 4 cm across from the Camp Bird Mine, Ouray County; and a sharp doubly-terminated crystal of Phenakite, 3.5 cm across from Mount Antero, Chaffee County.



One of Michael and Debbie Ausec's cases of Colorado Minerals.





The second case of minerals of Colorado presented by Michael and Debbie Ausec.



A detail of one of Michael and Debbie Ausec's cases of Colorado minerals. Both specimens are 3 cm in size.





**An exquisite doubly-terminated crystal of Phenakite, 3.5 cm long from Mount Antero, Chaffee County.  
Michael and Debbie Ausec collection.**

Bob Meyer presented two cases, the first entitled Minerals of Colorado, consisting of 32 thumbnail to large cabinet specimens from localities in Colorado. Included in this case was a pictorial of the Cripple Creek Mining District from an 1896 edition of Harper's Weekly. The second case was entitled Minerals of the Eagle Mine, Gilman, Eagle County, Colorado and housed 26 specimens of thumbnail to large cabinet size from the Eagle Mine and a historical post card of the locality.

One half of the specimen's in Bob's first case, Minerals of Colorado, were examples of Tellurium or tellurides, mostly from the Cripple Creek district, Teller County, but also from Boulder and La Plata Counties. Of note was an excellent example of Sylvanite with crystal plates laying flat on matrix, 9 cm across, from the Cresson mine, Cripple Creek, ex: Lidstrom's, ex: Charles M. Shaw collection; a rich specimen of black Petzite, 8 cm across, from the Cresson mine, Cripple Creek, ex: Lidstrom's, ex: Charles M. Shaw collection; four specimens of Calaverite in fine crystals on matrix 3 cm, 6 cm, 7 cm, and 18 cm from the Cresson mine, Cripple Creek, ex: Charles M. Shaw collection; a crystallized Krennerite, 6 cm across from the Cresson mine, Cripple Creek, ex:

Charles M. Shaw collection; and a specimen of crystallized Petzite with Gold from the Cash Mine, Boulder County, 6 cm across, Ex: Art Eadie collection.

Other specimens of note in Bob's first case was a specimen with a single deep pink rhombohedral 1.3 cm crystal of Rhodochrosite on matrix, 8 cm high, with pale green Fluorite and Quartz from the Grizzly Bear Mine, Ouray County; a 1.5 cm rosette of pink Rhodochrosite on Quartz, 5 cm tall, from the Scotia Mine, Treasure Mountain, Animas Forks, San Juan County; an 8 cm tall group of Smoky Quartz crystals included by Hematite from the Crystal Peak area, Park & Teller Counties (collected by Paul Rhoades); a 6 cm specimen of pale pink 1 cm Rhodochrosite rhombohedrons on a dark matrix from the Sunnyside Mine, San Juan County; and a superb fan-like display of Anhydrite crystals from the Sunnyside Mine, San Juan County.

Bob's second case contained minerals from the now closed Eagle Mine, Gilman, Eagle County, almost all of which were originally in the collection of the late Paul Rhoades, although one specimen was from the Mike Groben collection and another was from the collection of Ernie Schlichter. Memorable in the case was a 12 cm wide specimen of lustrous black Sphalerite variety Marmatite with discoidal Siderite crystals; an 18 cm wide specimen of striated cubic Pyrite crystals with epitaxial Galena and Sphalerite; a 10 cm specimen of lustrous golden barite crystals to 1 cm in size; a 20 cm wide specimen of pale pink discoidal crystals of ferroan Rhodochrosite with Chalcopyrite crystals, and a superb 12 cm specimen consisting of druzy lustrous pyrite crystals forming two large balls coated in places with tiny tan discoidal crystals of Siderite and small transparent colorless crystals of Fluorapatite.



Two specimens of Rhodochrosite from the Robert O. Meyer collection.





An excellent specimen of Sylvanite, 9 cm across, from the Cresson Mine. Robert O. Meyer collection.



Two specimens from the collection of Robert O. Meyer. On the left, an 8 cm specimen of Rhodochrosite with Quartz from the Grizzly Bear Mine, and on the right a 9 cm high group of Smoky Quartz crystals from the Crystal Peak area, Park & Teller Counties.





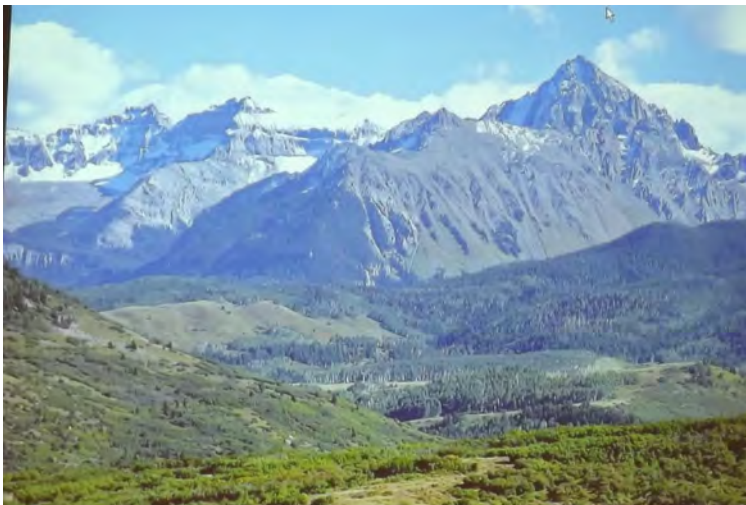
Robert O. Meyer's display of minerals from the Eagle Mine, Gilman, Eagle County Colorado



Minerals of Colorado  
**RHODOCHROSITE**  
( $\text{Mn}^{2+}, \text{Fe}^{2+}$ ) $\text{CO}_3$   
*Ferroan Rhodochrosite—analyzed specimen—with Chalcopyrite*  
*Ex: Paul Rhoades collection*  
Eagle Mine, Gilman,  
Eagle County, Colorado  
Robert O. Meyer collection

Pale pink discoidal crystals of ferroan Rhodochrosite with Chalcopyrite, 20 cm across, from the Eagle Mine, Gilman. Robert O. Meyer collection.





## PNWFM Symposium Report

### By Beth Heesacker

I will preface my report by saying this is the first time I have been able to attend the Symposium and I was VERY impressed. The quality of the whole of the event was amazing from the displays, to the dealers, to the food and accommodations, and most importantly, the speakers. All pictures taken of the slides during the presentations are used with permission.

This was the 40<sup>th</sup> annual Symposium put on by the PNWFM. The weekend started on Friday with setup of displays and dealers. The only real problem that I saw was that President Bruce Kelley was delayed in traffic and he had the registration sheets and the celebration photos, etc. The registration committee handled this very well by filling out a new list as people checked in. There were many attendees registered for the symposium and many more people stopped by to view the displays and to shop for minerals from the floor and room dealers.

Bruce kicked off the talks on Saturday with a short introduction by stating that his goal as President was to develop and make the organization really have meaning to the members. He then turned the meeting over to Julian Gray, Director of the Rice Museum, who introduced the speakers.

**Registration—Karen and Gary Hinderman**



**President—Bruce Kelley**



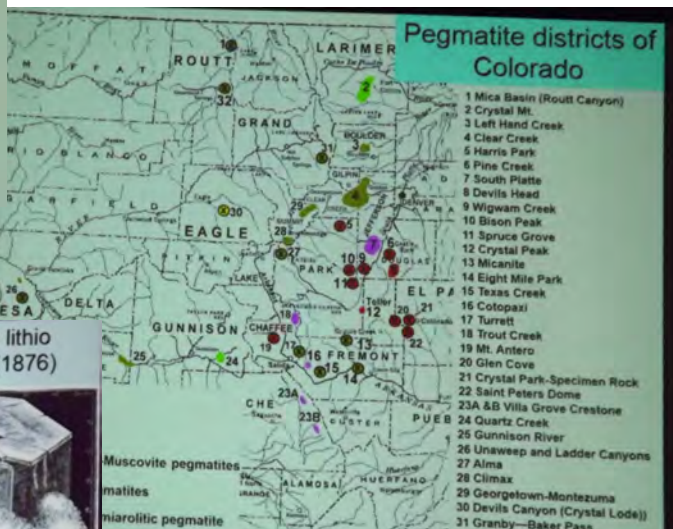
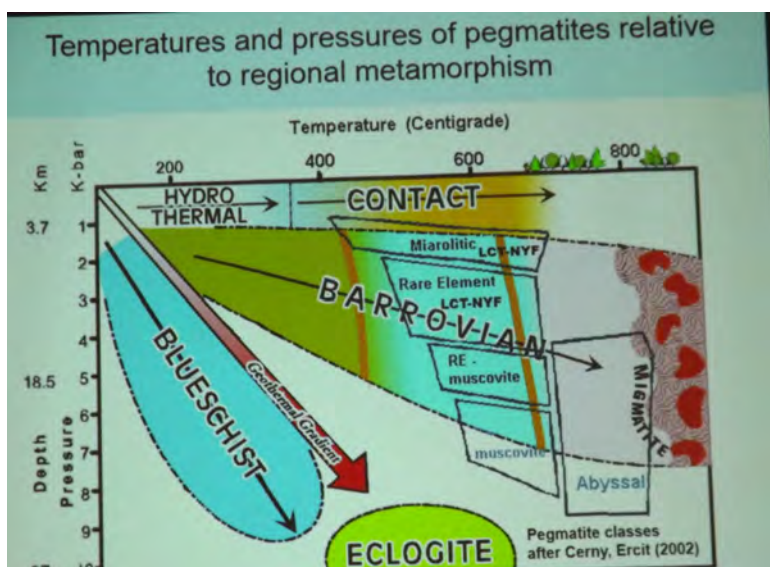
**MC—Julian Gray**

The first speaker was Mark Jacobson, retired geophysicist for Chevron and currently President of the Colorado Chapter of the Friends of Mineralogy. He spoke on the *Pegmatites of Colorado* with their great diversity of minerals. The area has a long and interesting history which he reviewed.

As with all the other speakers, he covered a bit of the geology of the area which I heard many positive comments about. There are various kinds of pegmatites in Colorado: lithium, rare earth and miarolitic. They were initially caused by intrusions due to subduction, then a granitic event followed by the Greenville event (igneous). This was followed by surface volcanism then erosion exposing the plutons.



Mark showed numerous slides of the minerals found in the various pegmatites and assures us that there are still unexplored areas in which to find new minerals.



**Crystal Peak  
Park and El Paso counties 1876**

Albert E. Foote purchased specimen 1872-75,  
possibly from Thomas F. Houghton

2014 Photograph courtesy NY State Museum, Albany



5 x 7 inches

**Chamberlain lithio  
from Foote (1876)**



**Drawing from Kunz (1890)**

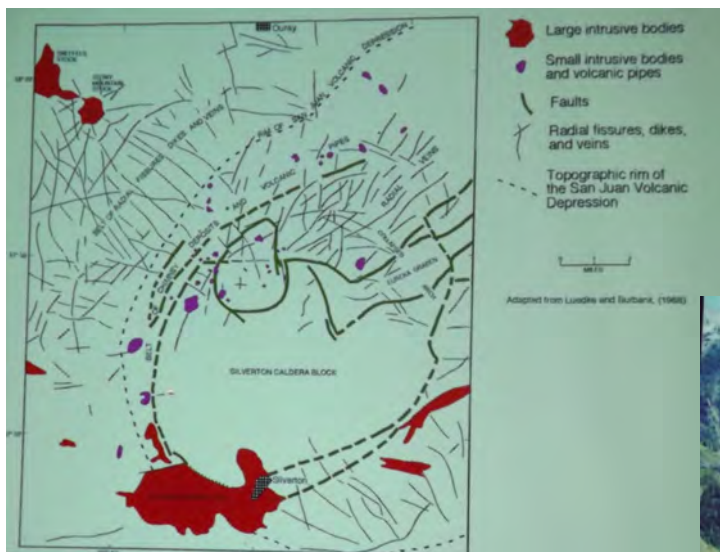






The second speaker was Don Earnest, who worked at the Idarado Mine and various others, who is a geological consultant for various US companies and heads Resource Evaluation, Inc. a consulting firm. He spoke on *Crystal Collecting at the Idarado Mine* beginning with an introduction to the geology of the area outlining the many intrusions and multiple stages of mineralization.

The Idarado Mine grew out of the consolidation of the various mines in the area and the name came from the names of the states Idaho and Colorado.

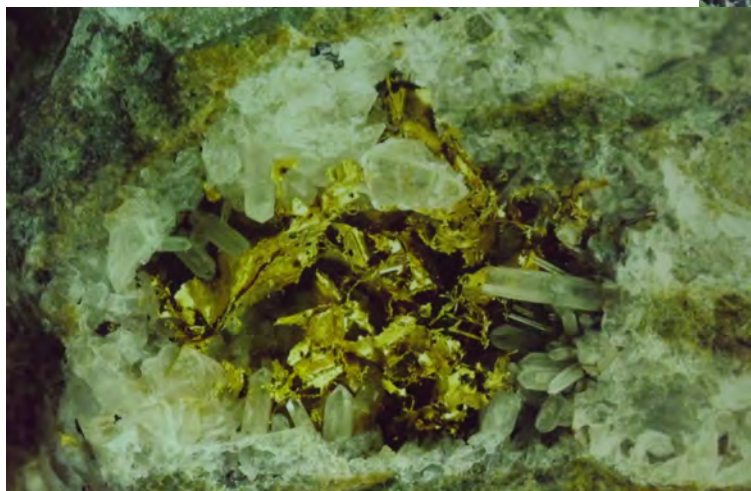


**Geology of the area.**

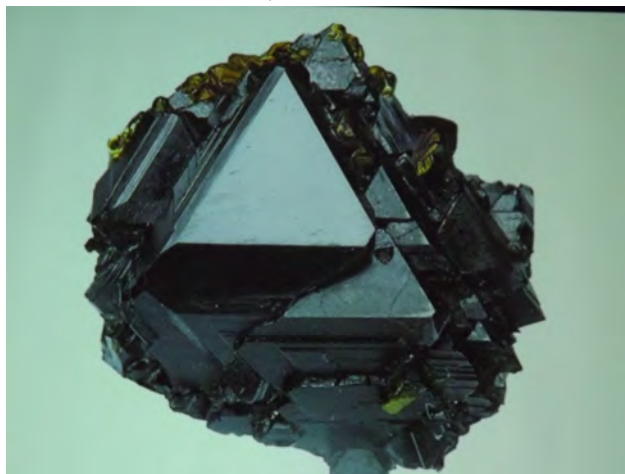
Many different minerals have come out of the combined mines.



**Idarado, Colorado area**

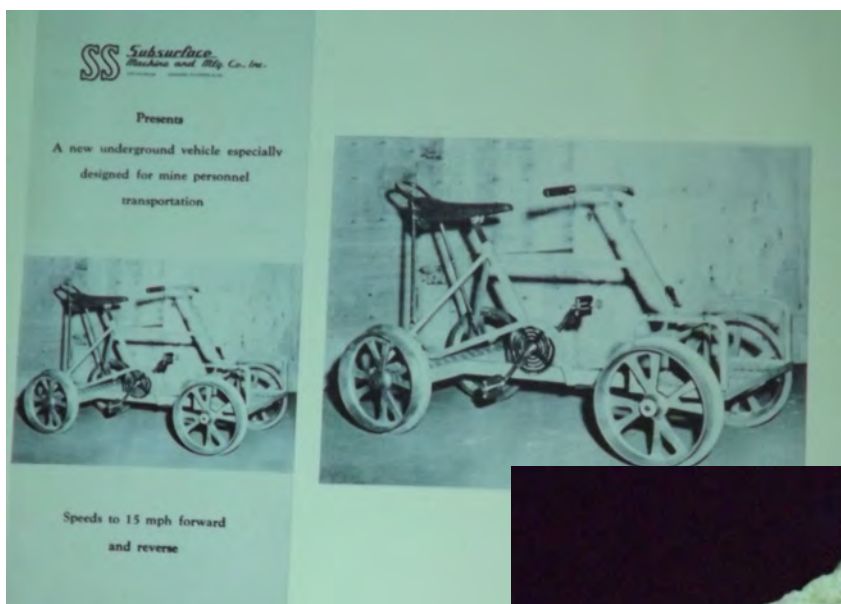


**Gold in quartz. Idarado Mine, Colorado**



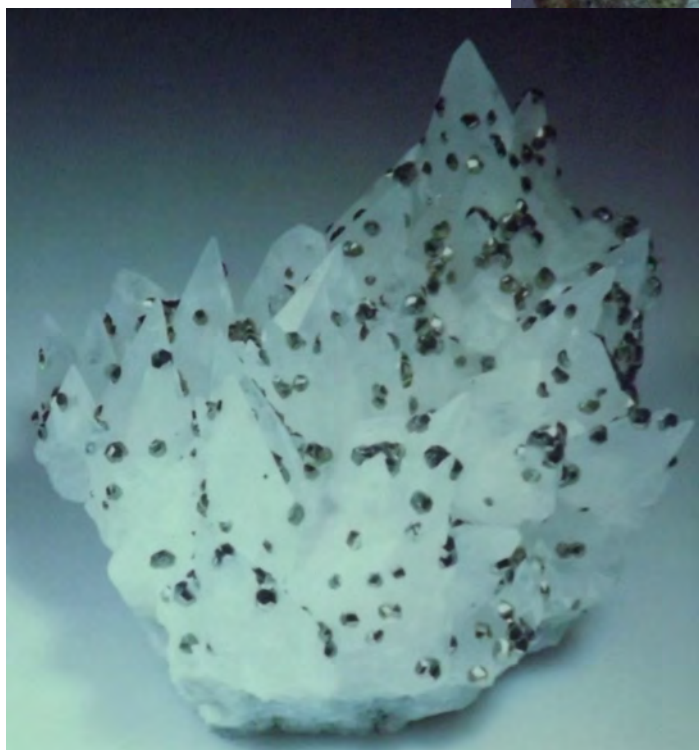
**Sphalerite. Idarado Mine, Colorado**



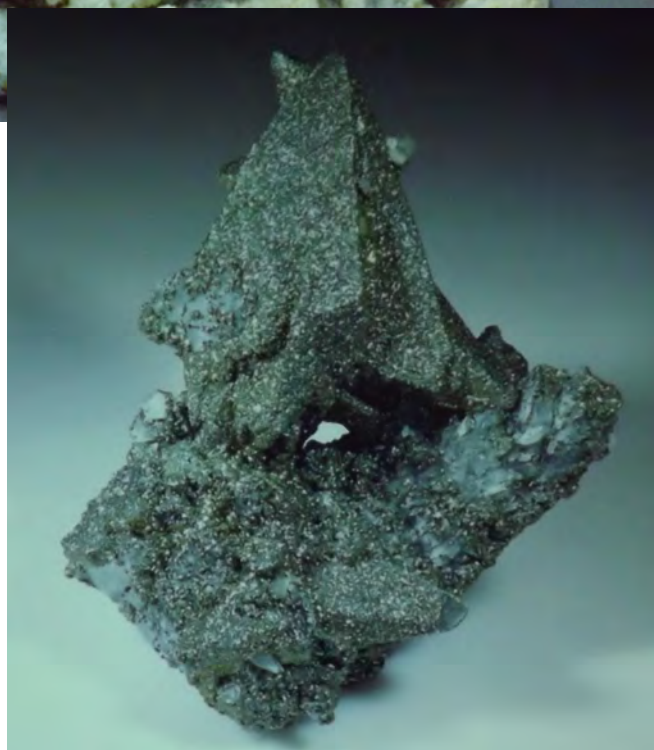


**The Death Mobile—how the miners got around in the mines.**

**Calcite and Dolomite.  
Idarado Mine, Colorado**

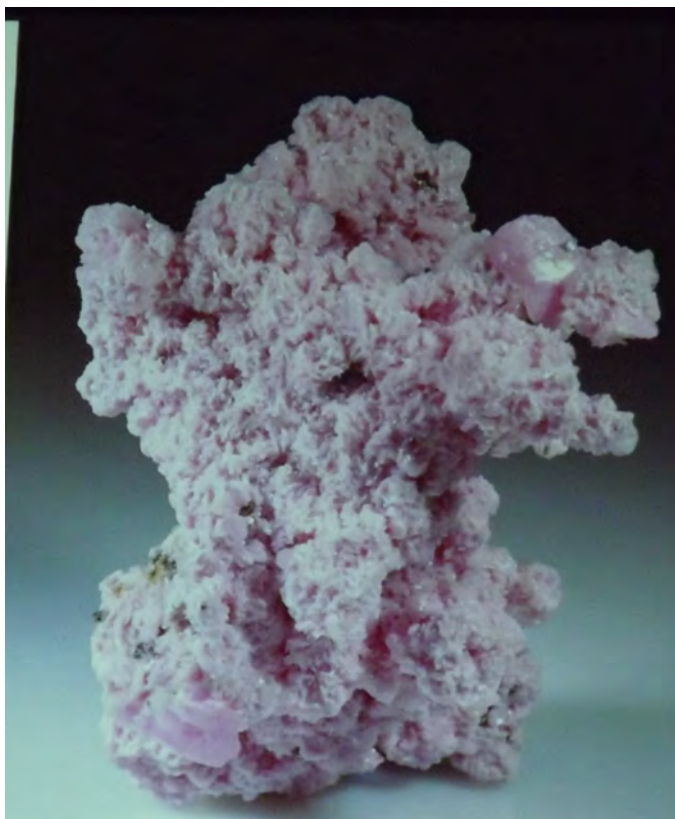


**Pyrite on Calcite. Idarado Mine, Colorado**



**Pyrite on Calcite. Idarado Mine, Colorado**

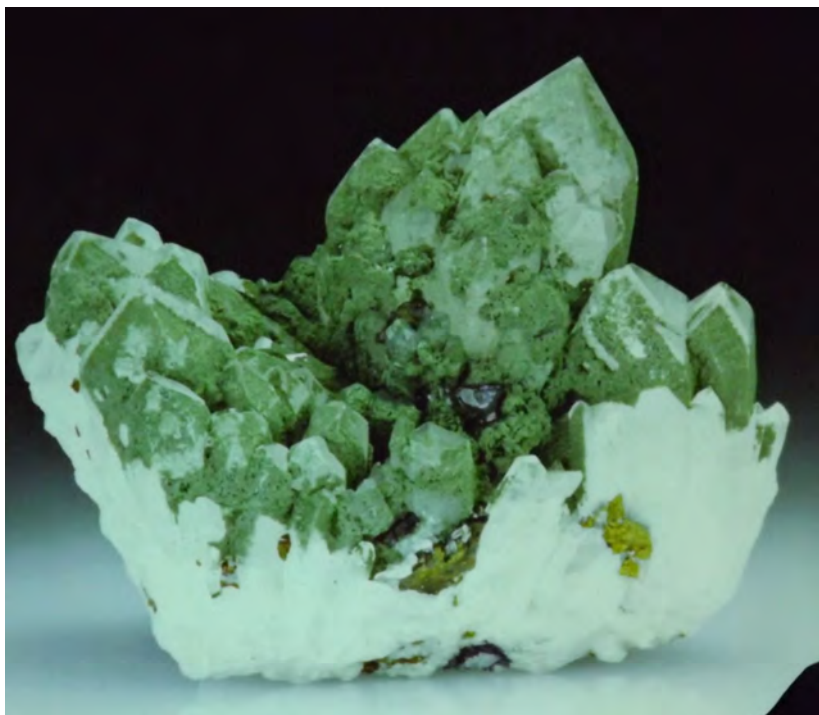




**Rhodochrosite. Idarado Mine, Colorado**



**Quartz scepter. Idarado Mine, Colorado**



**Green Chlorite coating.  
Idarado Mine, Colorado**



**Quartz casts after Fluorite.  
Idarado Mine, Colorado**

Ed Raines, using slides from Allen Young who could not be there, spoke on the *Leadville Silver Boom*. Again an overview of the geology came first which consists of replacement deposits in what is called the Leadville limestone. This limestone is slowly eroding allowing for the mineralization.

The history of the area and its growth were illustrated by more slides. First silver was mined but after the Silver Panic in the late 1800's then gold was the ore of choice. Zinc followed due to its use to coat iron (galvanization), and also its use to make brass (shell casings for bullets needed for the war effort). There were again many beautiful pictures of minerals presented.

### California Gulch, Colorado



Leadville, Colorado

The chemistry of the area.

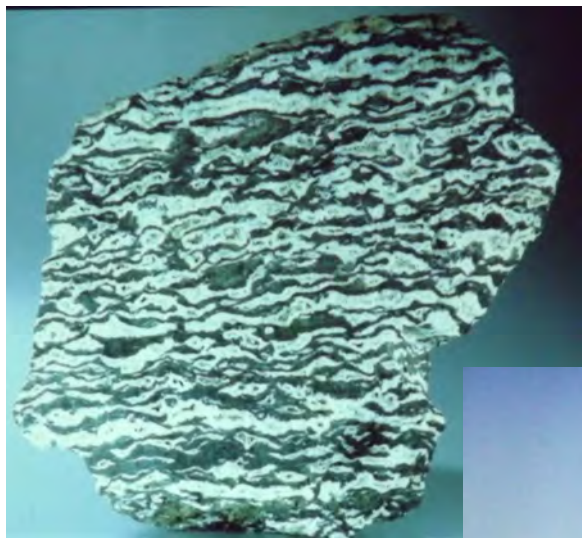
### THE REPLACEMENT REACTION OF CALCITE LIMESTONE TO DOLOMITE LIMESTONE

CALCITE -----> DOLOMITE

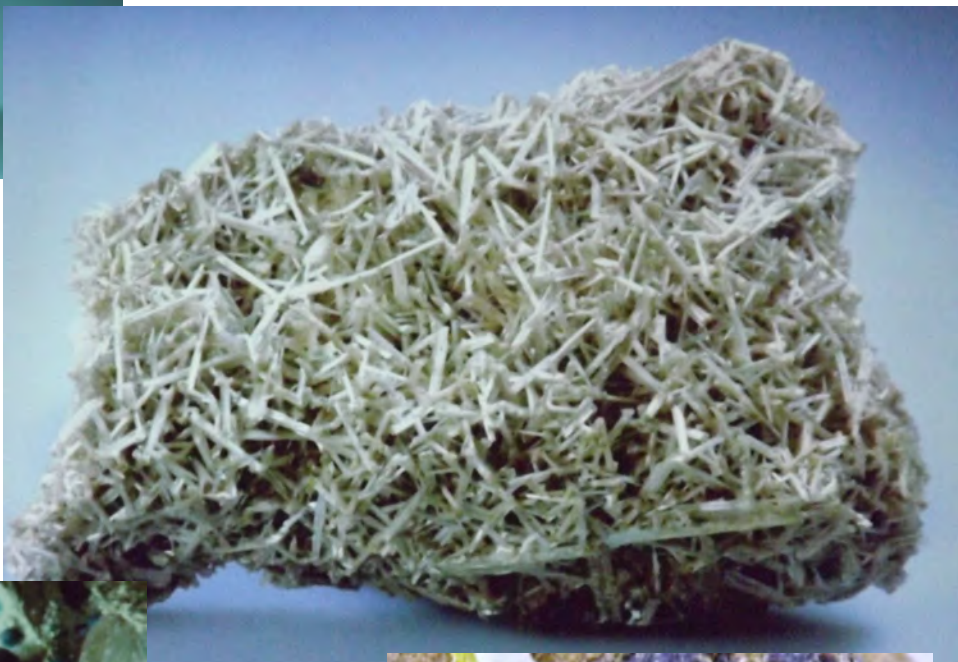


The  $\text{Mg}^{2+}$  Ion is 33.3% smaller than the  $\text{Ca}^{2+}$  Ion, so the calcite to dolomite replacement reaction creates a 12.9% decrease in the volume occupied by the mineral, thus creating a 12.9% intercrystalline porosity increase in the rock. Also, dolomitization often creates interparticle porosity during dissolution of the calcite.

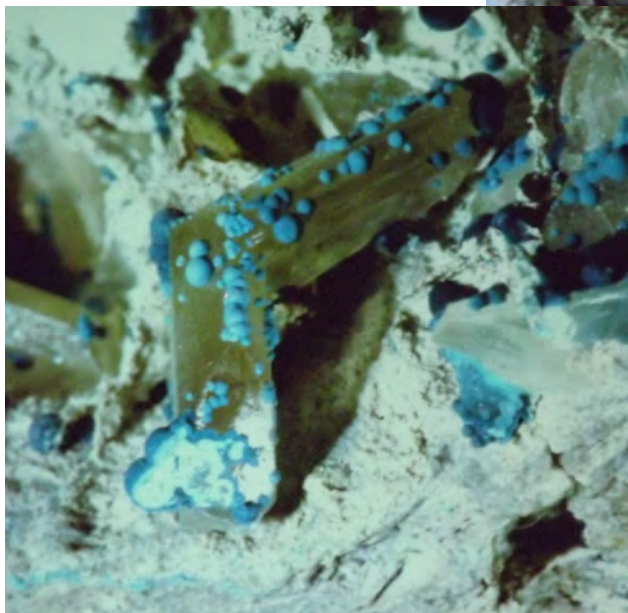




**Zebra rock—altered dolomite rock.  
Leadville, Colorado**



**Cerrusite,  
Leadville, Colorado**



**Cerrusite and  
Rosacite.  
Leadville,  
Colorado**



**Chloragyrite—90% silver  
Leadville, Colorado**





**Wire Silver**  
**Leadville, Colorado**



**Silver ingots**  
**Leadville, Colorado**



**Gold—After the silver rush**  
**came the gold rush.**  
**Leadville, Colorado**



The last two presentations on Saturday were from Dan Kile, mineral collector and Scientist Emeritus with the US Geological Survey and Adjunct Faculty at the Hooke College of Applied Sciences in Illinois. He spoke on *Collecting in Colorado* outlining his experiences over the last 42 years.

Again geology formed the foundation of the talk as he pointed out the major geological forms in each of the areas that he spoke about: Stoneham, North Table Mountain, the concretions of SE Colorado, the Pikes Peak Batholith, Mt. Antero, Ruby Mountain, Red Feathers Lake, Grand Junction, San Juan Mountains with mention of many individual mines. Lovely slides of minerals accompanied his talk.



**Stoneham, Colorado**



**Barite. Stoneham, Colorado**



**North Table Mountain,  
Colorado**

**Thomsonite  
North Table Mountain,  
Colorado**



**Thomsonite and Chabasite  
North Table Mountain,  
Colorado**



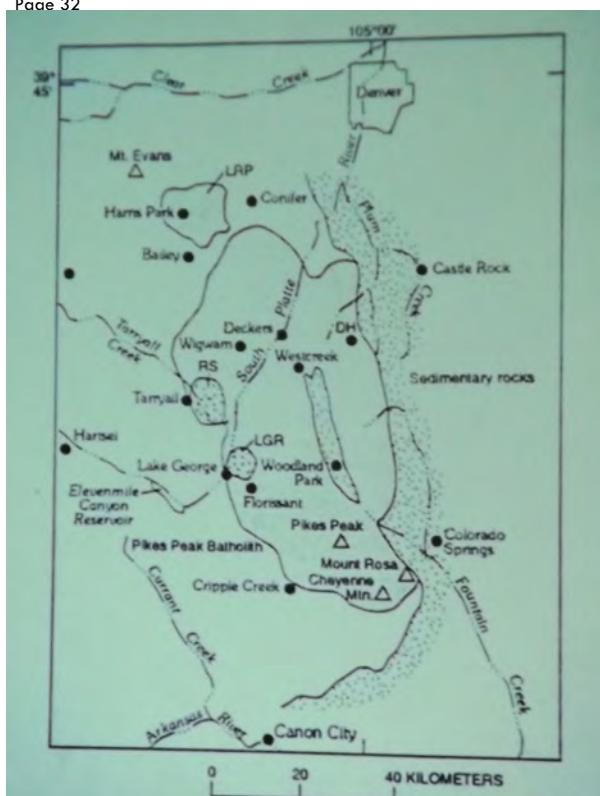


**South Eastern Colorado**

**Gypsum and Aragonite.  
South Eastern Colorado**



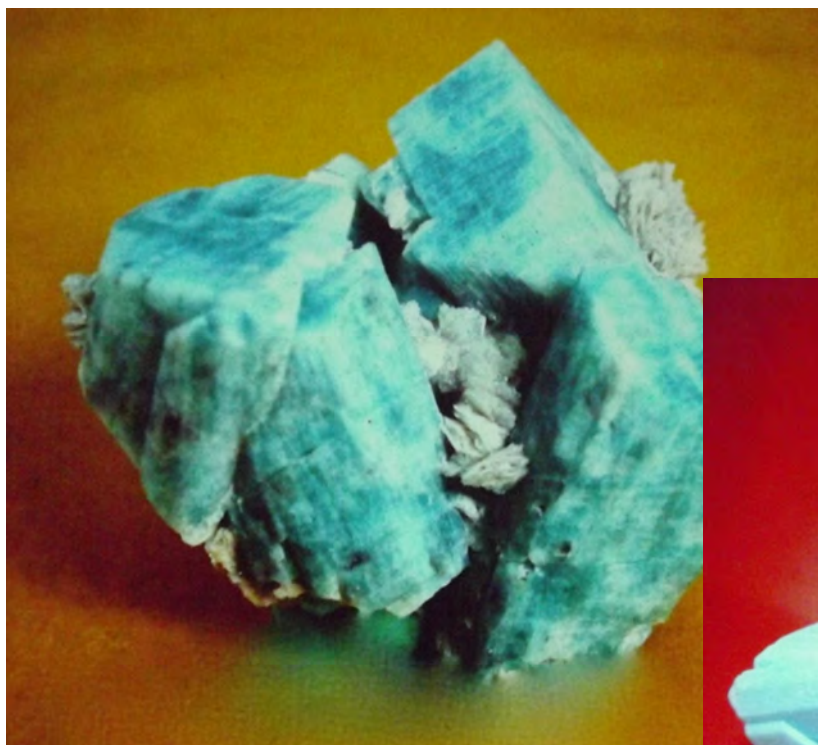
**Calcite and Barite.  
South Eastern Colorado**



### Pikes Peak Batholith, Colorado



**Smoky Quartz on Microcline  
Pikes Peak Batholith, Colorado**



**Amazonite. Pikes Peak Batholith, Colorado**



**Smoky Quartz on Amazonite.  
Pikes Peak Batholith, Colorado**





**Smoky Quartz on Fluorite.  
Pikes Peak Batholith, Colorado**



**Smoky Quartz as collected and after  
preparation. Pikes Peak Batholith, Colorado**





**Mt. Antero, Colorado**

**Topaz, Smoky Quartz and Aquamarine.  
Mt Antero, Colorado**



**Ruby Mountain/Nathrop, Colorado**

**Spessertine Garnets,  
Ruby Mountain/Nathrop, Colorado**

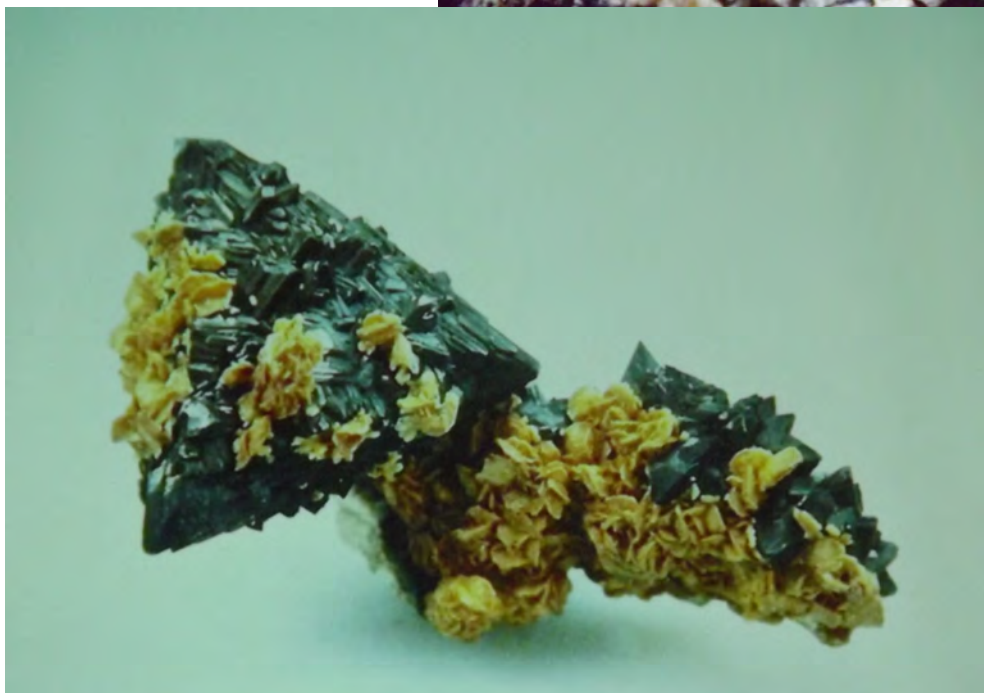






**Front Range Co.—Patch Gulch Mine, Colorado**

**Quartz. Patch Gulch  
Mine, Colorado**

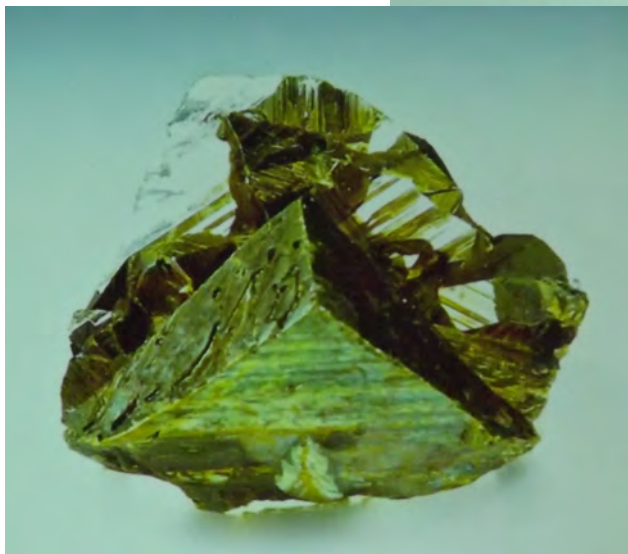


**Sphalerite and Siderite.  
Patch Gulch Mine, Colorado**



**Stamp mill at the Alice Mine,  
Colorado**

**Pyrite and Siderite.  
Alice Mine, Colorado**



**Chalcopyrite.  
Alice Mine, Colorado**





**Red Feathers Lake, Colorado, in the snow**



**Double terminated Amethyst.  
Red Feathers Lake, Colorado**



**Grand Junction, Colorado**



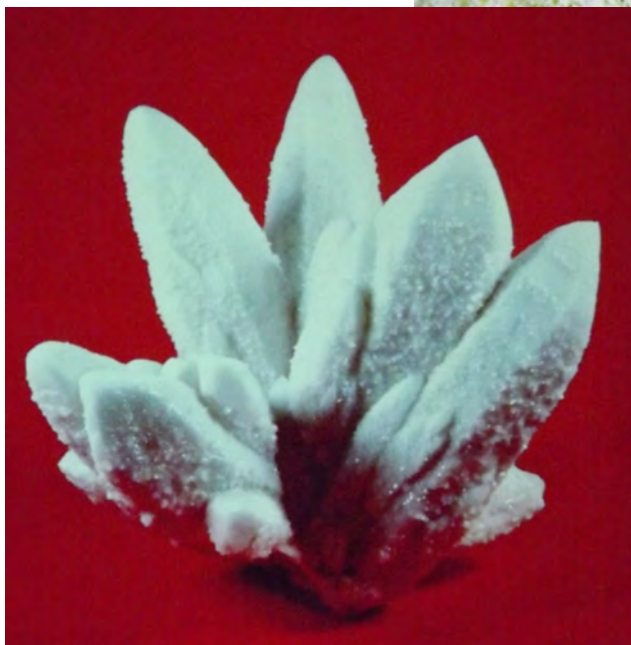
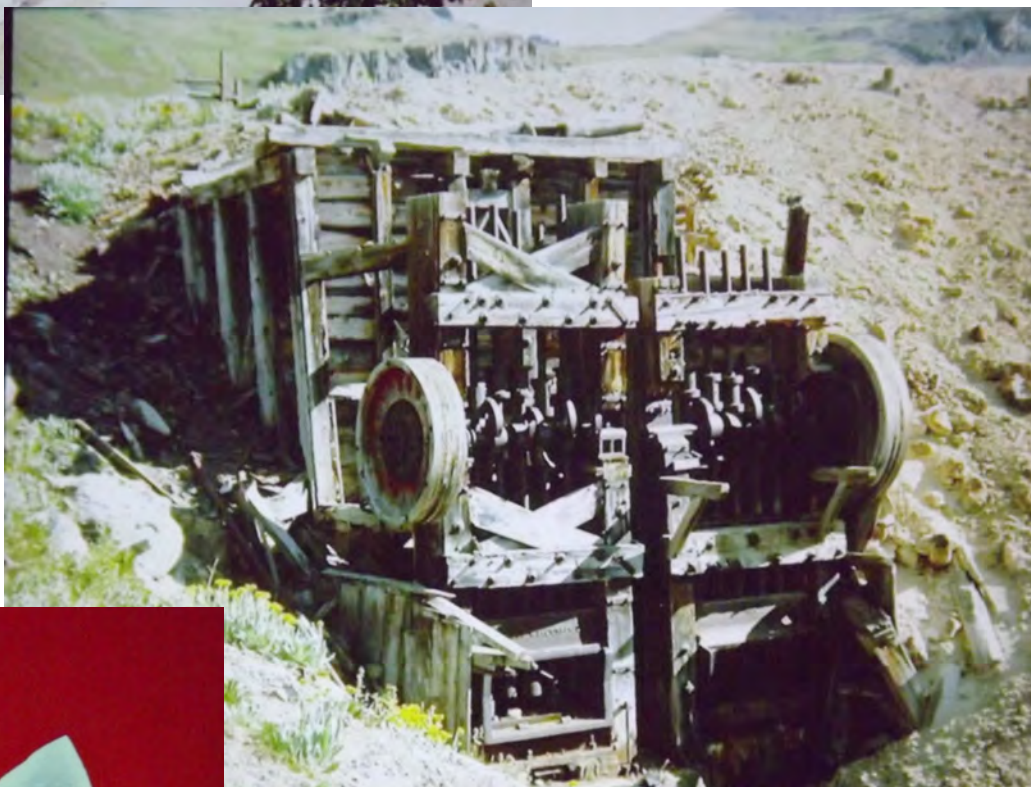
**Barite.  
Grand Junction, Colorado**





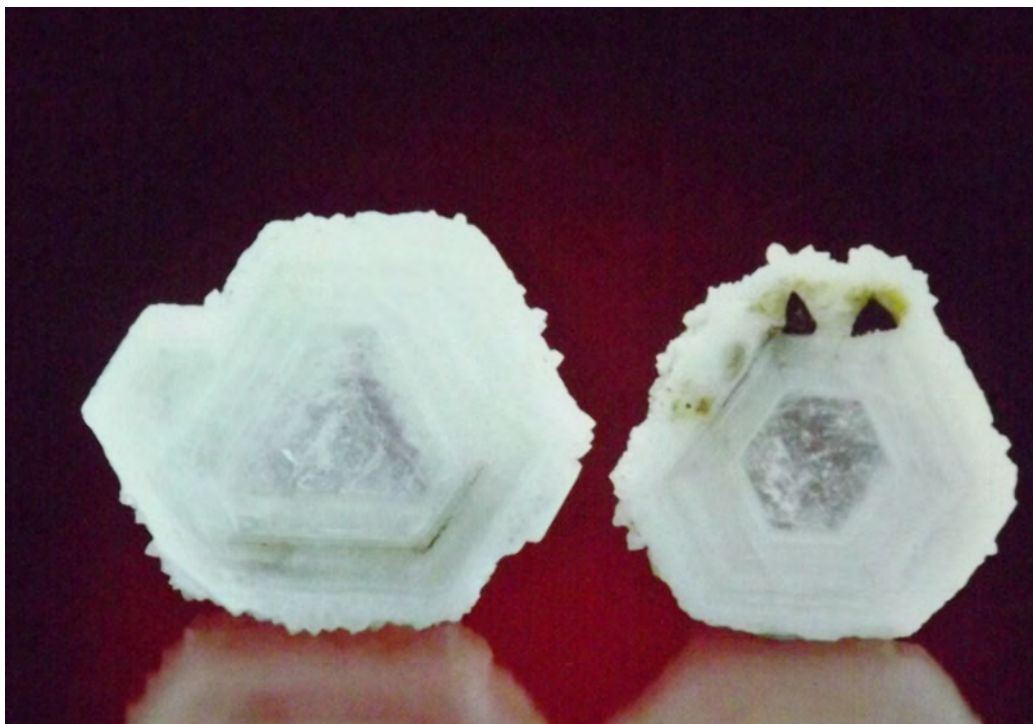
**Ouray Mine, Colorado**

**10 stamp mill,  
Ouray Mine, Colorado**



**Milky Quartz with drusy Quartz.  
Ouray Mine, Colorado**





**Cross section of  
Quartz Crystal.  
Ouray Mine, Colorado**



**National Bell Mine,  
Colorado**

**Barite.  
National Bell Mine,  
Colorado**







**Adams Mine, Colorado**

**Hubnerite.  
Adams Mine, Colorado**



**Cunningham Gulch, Colorado**

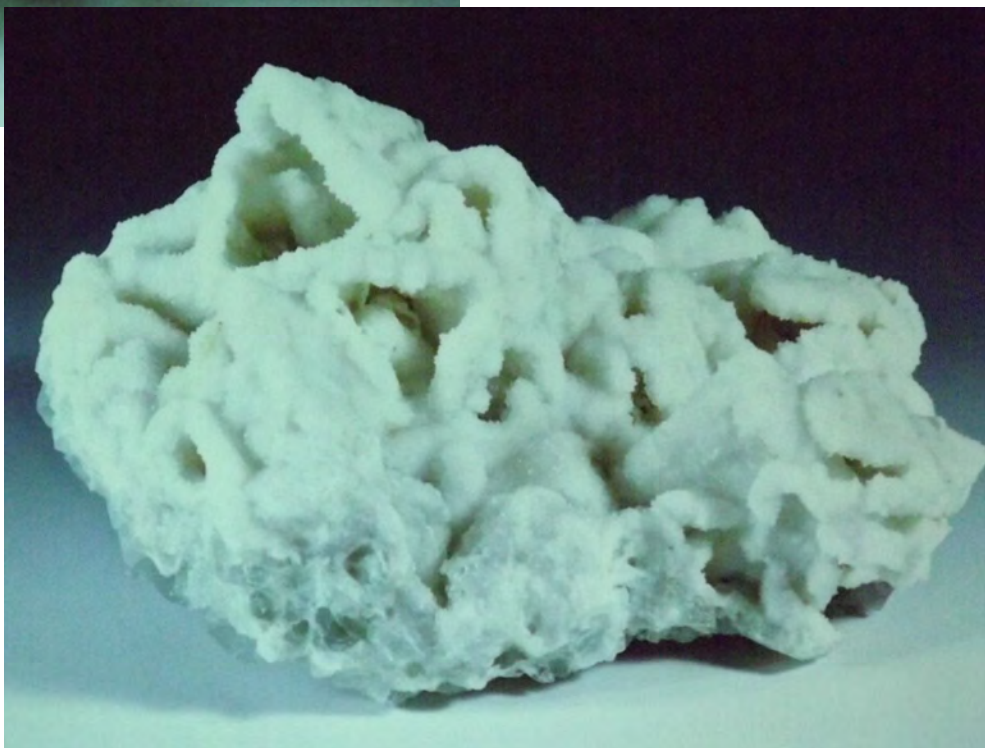
**Quartz  
Cunningham Gulch, Colorado**







**Quartz with Fluorite.  
Cunningham Gulch, Colorado**



**Quartz casts of Fluorite  
Cunningham Gulch, Colorado**



**La Garita Mine, Colorado**



**Amethyst with a smoky termination.  
La Garita Mine, Colorado**



**Leadville Mine, Colorado**



**Orthoclase.  
Leadville Mine,  
Colorado**





And that was just Saturday!

All throughout the show the silent auctions were in the capable hands of Gary and Karen Hinderman. A 30 specimen Mineral ID contest and voting on the best display were other activities that anyone could participate in. The banquet and oral auction on Saturday evening included the awarding of certificates for the winners of the contests.

Jeff Schwartz won for the Best Self Collected Macro. Randy Becker won for the Best Collected Micro. In the Mineral ID contest there were two levels awarded. Master was won by John Magnasco and Expert was won by Don Lown. My apologies but the pictures I took of the awards did not turn out well. I need to be sure people are standing still before I click the shutter . :-)

The oral auction was conducted by Karen Hindeman and Alex Homenuke with other able assistants. It was a lively affair with, at times, very active bidding.



**Alex Homenuke - Auctioneer**

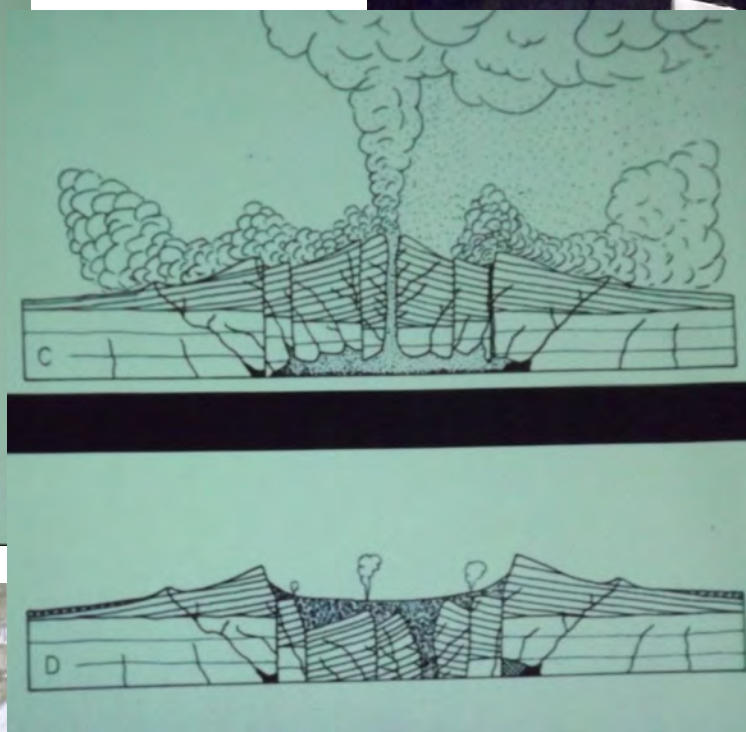
**Karen Hindeman  
- Auctioneer**



**Auction items**

On Sunday the day began with the PNWFM business meeting. I will point out just one point of interest since the minutes will also be in this issue. Please note that the 2015 Symposium will be on the second Saturday in October but beginning with 2016 we will be moving to the third Saturday so as to accommodate our Canadian members who celebrate Thanksgiving on the second Saturday and also so that we will not be coinciding with the Portland Regional show.

The first speaker on Sunday was Ed Raines who spoke on *Creede, Colorado*. This area was volcanically active and multiple calderas were formed by the collapse of those volcanoes. One of the calderas is 3 times the size as the one at Yellowstone. Each of these calderas had resurgence and more volcanic activity. Trapped water, faulting of the rock and heat allowed for lots of minerals to be picked up from the sediments and then fluids, vapors, steam, etc. laid down many different layers of minerals in the fractures. Minerals dissolved, precipitated and re-dissolved again forming crystals, breccias, banding, etching, stalactite and curtain forms in the veins. Again lots of slides showed the wonderful geological history, processes and minerals resulting from that short (only 10,000 year) bit of geological history.



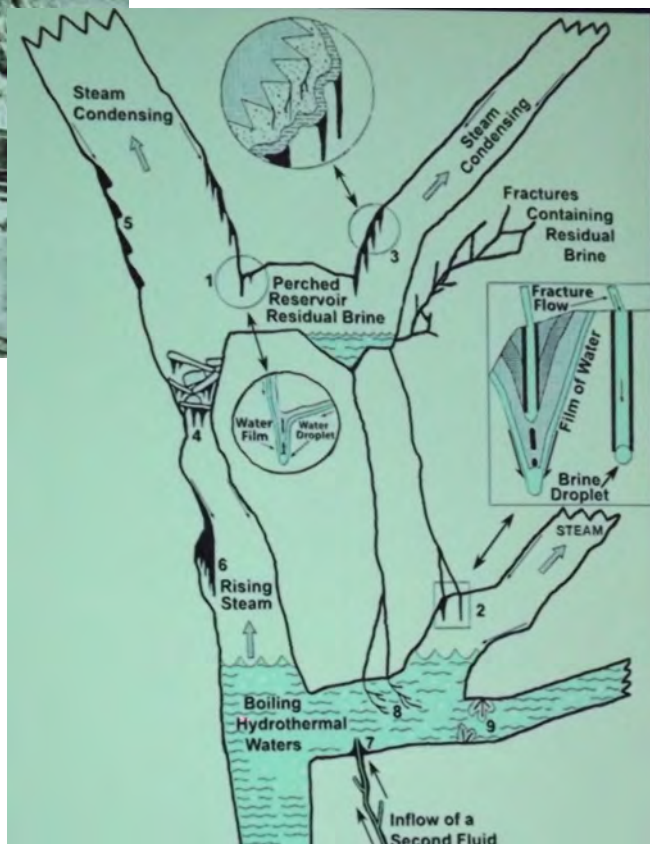
**Amethyst and Chance  
Mines, Colorado**





**Commodore Mine, Colorado**

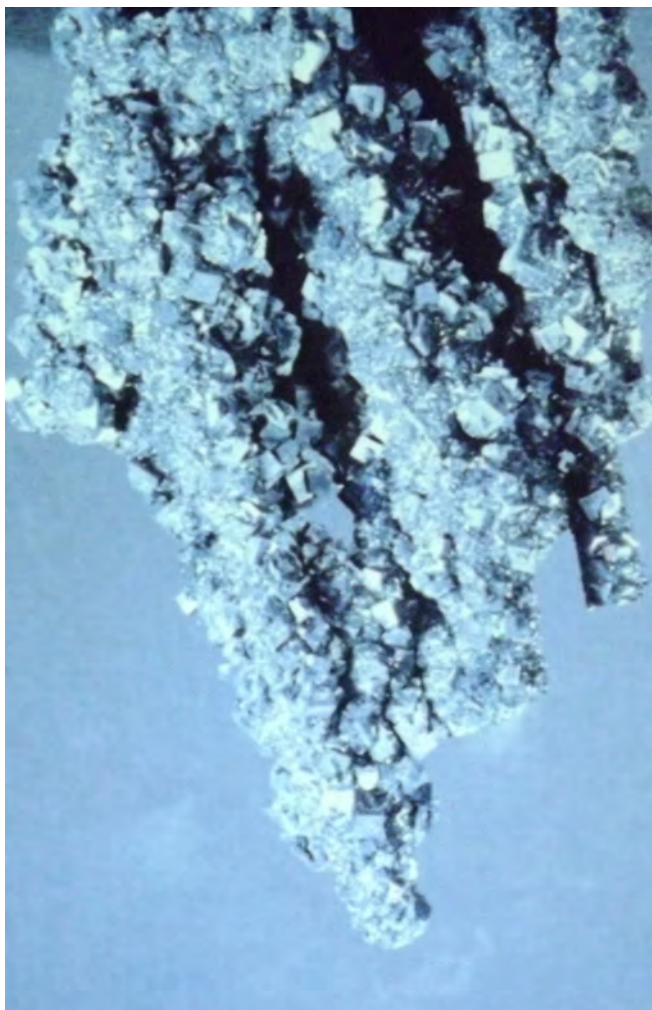
**The mineralization process**



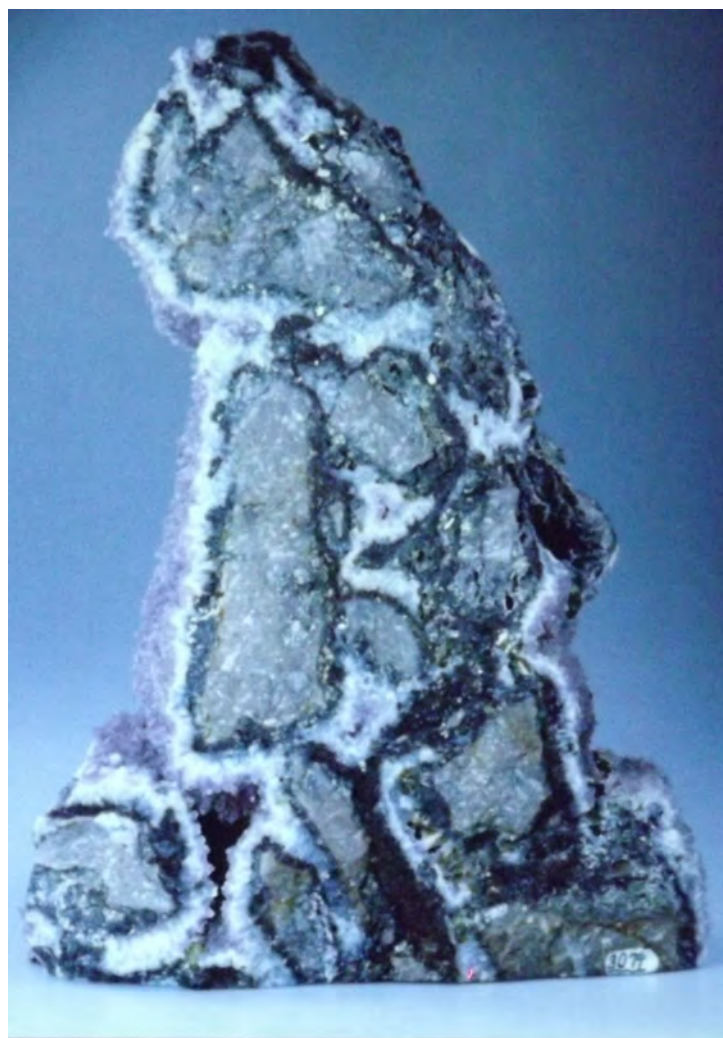
**Pyrite stalactite—soda straw.  
Commodore Mine, Colorado**

**Sphalerite stalactite.  
Commodore Mine, Colorado**



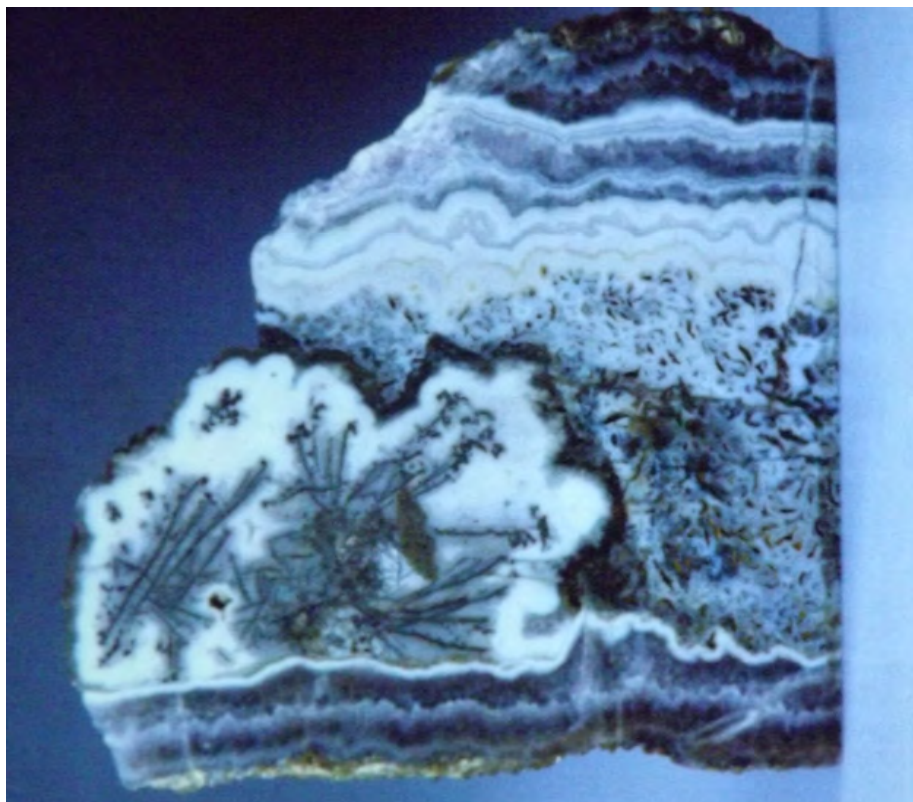


**A dripping curtain of Sphalerite and Galena.  
Commodore Mine, Colorado**

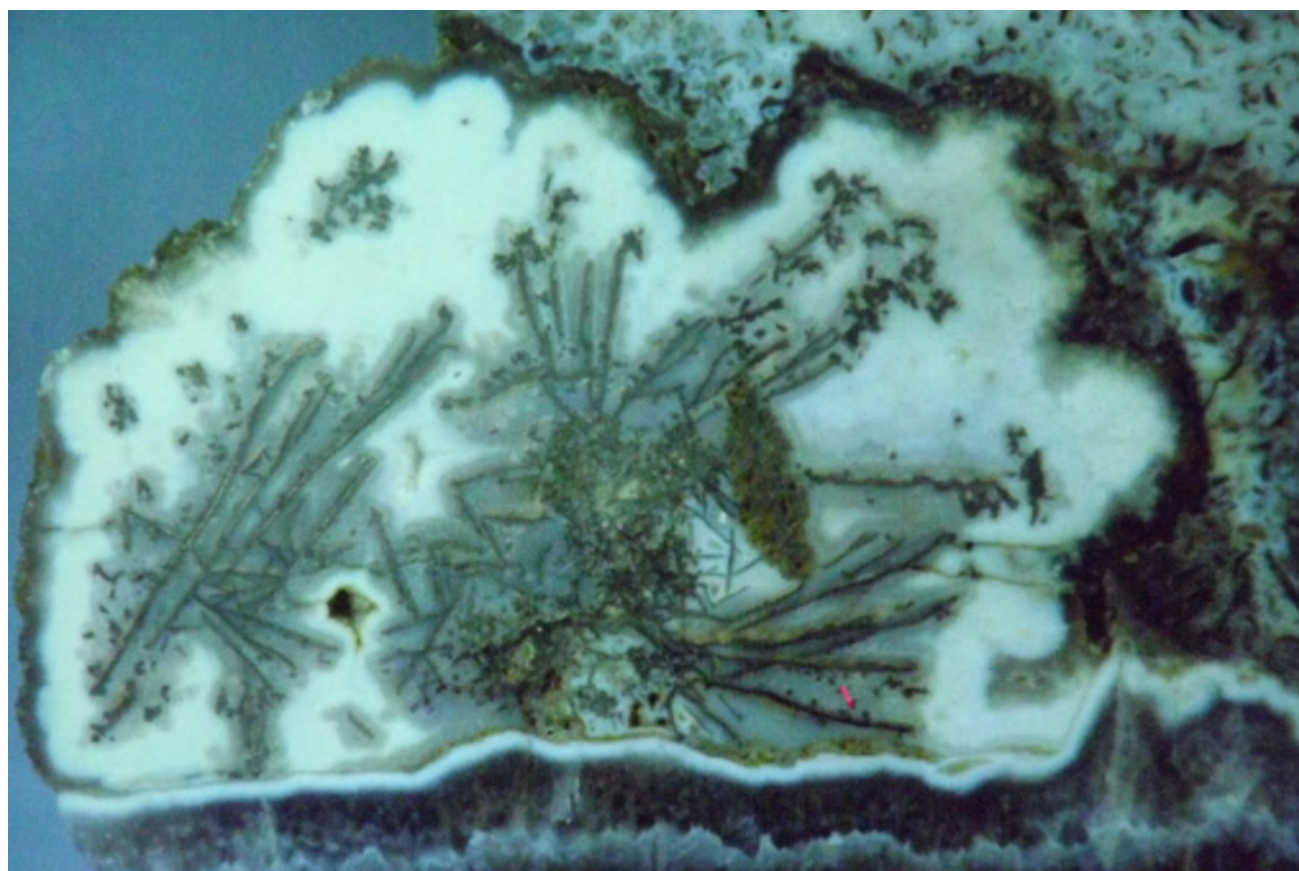


**Specimen from a brecciate area.  
Commodore Mine, Colorado**





**Sow Belly agate—chalcedony (light),  
amethyst, sulfides (dark).  
Commodore Mine, Colorado**



**Detail of Sow Belly agate. Commodore Mine, Colorado**



**Sphalerite—spinel law twins.  
Commodore Mine, Colorado**



**Zoned Barite.  
Commodore Mine, Colorado**



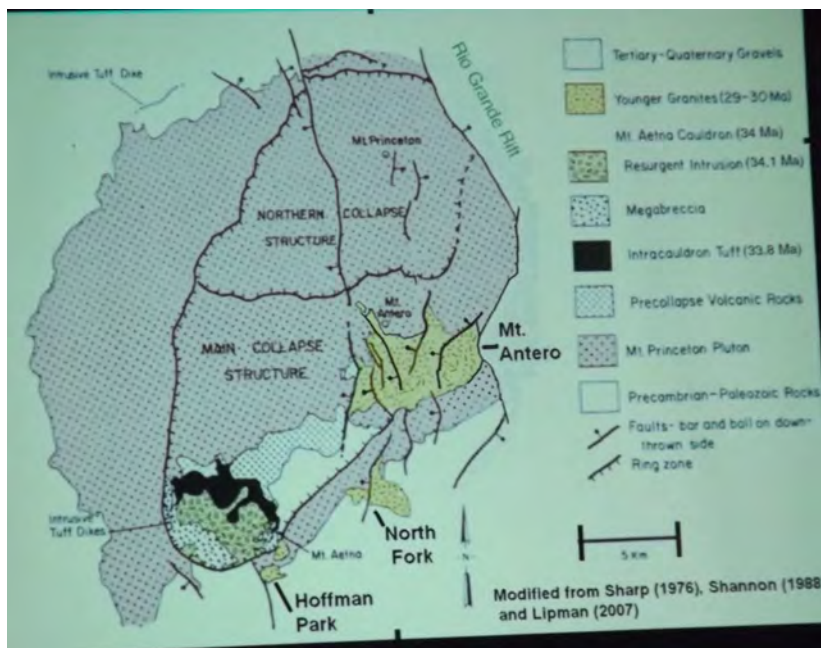
**Wire Silver.  
Commodore Mine,  
Colorado**

**Wire Silver converting to Acanthite.  
Commodore Mine, Colorado**





Mark Jacobson was the final speaker and his topic was *Mt. Antero*. Mark has written a book on the area and so was giving us an overview and updates. Mt. Antero is part of the Mt. Aetna caldera. This volcanic origin has left many miarolitic gas and liquid bubbles in which the minerals formed. Though the area was originally claimed for gold, it is more widely known for its aquamarines and amazonite especially due to the popular “reality” TV show, Prospectors. Many stories and slides of some of the old-timers and their mineral finds made for an interesting final talk.



**Mt. Aetna/ Mt. Antero,  
Colorado**

I was not able to stay for the final shutdown of the show due to a desire to at least see part of the Portland Regional Show but I want to thank everyone who worked so hard behind the scenes, and in front of them too, for the magnificent experience that I and many others had. Many thanks also to all the dealers that I purchased from using my silver pick.

## One final picture!

This was a graphic demonstration by Mark Jacobson of how to clean out a pegmatite vug (he was trying to fix the microphones).



## Business Meeting Minutes

October 12, 2014

President Bruce Kelley opened the meeting with a Wow exclamation! He thanked a long list of volunteers both present and far away for contributing to the success of this year's symposium: Bob Meyer, Allan Young, Bill and Diana Dameron, Karen and Gary Hinderman, Jim Etzwiler, Linda Smith, Al and Sue Liebetrau, Wes Gannaway, Julian Gray, John Meek, Bob Jackson, Tom Menzel, Fiona Kelley, Beth Heesacker, Roger Beck; and floor dealers Dennis Beals, John Meek, Joe George, and Yolanda and Jim McEwen (my apologies if someone is omitted). Editor: And, a huge thank you to you Bruce. Thirty members were in attendance.

Treasurer's report: current balance \$16,787.60. This does not include symposium expenses or income brought in this weekend. Although Linda has moved to Nevada, she is willing to continue as treasurer. Currently Bruce, Karen, Bob, and Linda are official signers on account. Bruce has just completed the set up for online banking and is now going to work with Linda on a pay pal account for our club. The goal is that by next year members will be able to pay symposium fees and annual dues via pay pal. Annual cost of website was discussed. Bruce and Jim will check on how to reduce costs.

Allan Young purchased a projector for the club. Several commented on the high quality of the visual presentation this year. Julian Gray will take care of storage and transport to and from annual symposium. Julian also volunteered to investigate cost of a headset to improve the audio portion of the presentations. This led to a discussion on videotaping presentations and selling DVD's. Don Newsome volunteered to assist Bruce with investigating the feasibility and legality of videotaping presentations.

Cases will now be stored at Three Rivers Storage approximately two miles from the symposium site. Rent is \$59. a month for a heated 5x10 room and will be paid annually. John Meek transported cases from Bob Jackson's this year and then transported them to the storage unit. MSP to refund John for gas.

Newsletter editor Beth Heesacker is asking for input. Please send pictures, articles, field trip reports, reviews of shows attended, etc. All contributions are welcome.

Hotel contracts have been signed for 2015, 2016, and 2017. The 2015 symposium will be October 9, 10, and 11. The 2016 and 2017 symposiums will move back to the third weekend in October.

Liners and risers are needed for our display cases. After a lot of discussion Karen volunteered to lead a group who will work together and get this project completed by the 2015 symposium. Karen will coordinate with Don Gadway, Tom Menzel and hopefully the Gannaways.

MSP for Gary Hinderman to continue as Pro-tem Vice President.



MSP to continue group membership with Rice Northwest Museum of Rocks and Minerals for a fee of \$500  
We need to update the symposium manual so that we have current documentation of all the details of organizing a successful symposium. Karen will send a copy of the manual she has to Bruce Kelley and Doug Merson. Doug will scan and make a pdf file that can be updated. Several former and current symposium committee members will be asked to contribute information.

Next year's symposium will be a joint effort by our organization, The International Fluorescent Society and NW Chapter Fluorescent Society. Don Newsome suggested the following individuals as possible speakers: Richard Bostwick, Earl Verbeek, Glenn Waychunas and John Rakovan. Al Liebetrau (via email) suggested that we invite Jeff Post to speak on the Fluorescent Gems and Jewelry in the Smithsonian Collection. A heated discussion about the focus of the symposium ensued. Members wanted to make sure that we had speakers who covered fluorescent and non-fluorescent minerals.

Good of the order:

Washington Pass – they did not know we were coming. We need to update who the contact person is for next year's outing.

Arlene Handley has a display case complete with liners to donate. She needs a member to transport the case for her.

Karen will send several get well cards to members.

Secretary,  
Karen Hinderman

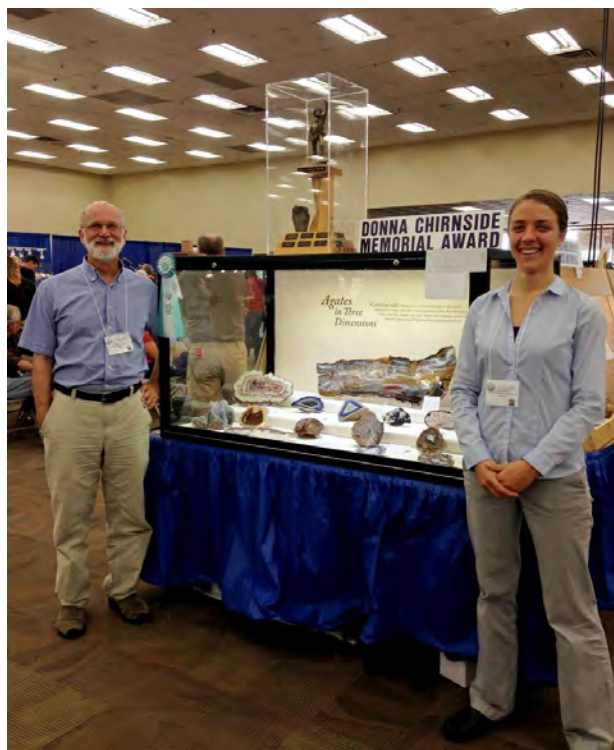
## And in Other News !

### Rice Northwest Museum of Rocks and Minerals wins two awards in Denver

Congratulations are in order for the Leslie Moclock and the Rice Northwest Museum of Rocks and Minerals, which was honored for their exhibits at the Denver Gem and Mineral Show September. The theme of this Denver year's show was near and dear to the heart of the Rice NW Museum and rock collectors in the Pacific Northwest: Agate. Agates are found in many places in the Northwest and are well represented in the Rice NW Museum's permanent exhibits. The museum's new Curator, Leslie Moclock, selected about two dozen of the best agates and thundereggs from the museum's collection for two temporary educational exhibits at the Denver show September 12-14, 2014. Taking the museum to mineral collectors in attendance at shows is part of the museum's outreach program.

Both exhibit cases were recognized for their excellence in educational content and quality of exhibition. The Denver Gem & Mineral Show Committee selected the Rice NW Museum's case on the origin of agates for the Donna Chirnside Memorial Award honoring the best display by an institution at the show. The Friends of Mineralogy, a group that promotes mineral education, awarded the Best Educational Case by an Institution Award to the Rice NW Museum case featuring thundereggs, Oregon's State Rock.

**Rice NW Museum director Julian Gray and curator Leslie Moclock with the museum's case of agates at the 2014 Denver Gem & Mineral Show. This case won the Donna Chirnside Memorial Award for best educational case by a museum. (Photo Courtesy of the Rice Museum)**



**The thunderegg case that won the Friends of Mineralogy award.**





**PACIFIC NORTHWEST  
CHAPTER  
FRIENDS OF  
MINERALOGY**

[www.PNWFM.org](http://www.PNWFM.org)

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Forest Grove, OR 97116

**PNWFM CALENDAR**

**Seattle Mineral Market — May 16-17, 2015**  
12531 28th Ave NE, directly North of the  
Lake City Seattle Public library  
Seattle, Washington

**Micro-Mineral Study Group — May 2, 2015, 9-4**  
Clark County P. U. D. Building  
1200 Fort Vancouver Way  
Vancouver, Washington

**Washington Pass Cleanup — August 2015**

**41st Annual Symposium, October 9-11, 2015**  
Minerals of the Northeast US and  
Fluorescent Minerals