

FRIENDS OF MINERALOGY NATIONAL NEWSLETTER

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to promote. support. protect and expand the collection of mineral specimens and to further the recognition of the scientific, economic and aesthetic value of minerals and collecting mineral specimens. Inside this issue: **Tucson** meetings 3 President's mes-4 sage Denver minutes 5 Elections 6 Local Chapters 10 "Tale From The 23 Tags" Affiliates 34

> ARIZONA AWAITS Vanity photos - kristin and john lindell

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FRIENDS OF MINERALOGY'S ANNUAL MEMBERSHIP MEETING AND THE BOARD OF DIRECTORS MEETING SCHEDULED FOR TUCSON

The Friends of Mineralogy annual membership meeting will be held on Tuesday, February 10, at 4:30 pm, in the restaurant of the Hotel Tucson City Center. A social hour will follow the meeting. All Friends of Mineralogy members and prospective members are encouraged to attend.

The Board of Directors meeting will be held on Saturday, February 14 at 8:30 am in the lounge of the Hotel Tucson City Center (formerly Inn Suites). Directors and chapter representatives who are planning to attend should RSVP to Regina Aumente (<u>RAumente@aol.com</u>) by February 7 so that we can get an accurate count for breakfast.



Tucson 2015 Minerals of Western Europe

Aragonite (flos ferri); 22 cm across (21.5 cm tall). Erzberg, Eisenerz, Styria, Austria. (Hoppel Collection D0120) Mark Mauthner photo; courtesy Heritage Auctions (<u>ha.com</u>).

PRESIDENT'S MESSAGE

It's that time of year again. Tucson is almost upon us and, like many of you, I am (to say the least) anxiously anticipating the Big Event. This year's show theme is "Minerals of Western Europe," and as such I am looking forward to seeing many examples of the great, old European classics on exhibit.

On Tuesday, February 10, the Friends of Mineralogy will be holding its annual Membership Meeting in the café at the Hotel City Center at 4:30 pm. A social hour with snacks will follow the meeting. All members and prospective members are invited to attend. We need to hear what ideas you may have that will allow us to better serve our members.

The Nominating Committee has recommended a slate of candidates for the four board member positions that are required to be filled in 2015. Two of these candidates will be new to the elected board, and I am pleased that they are willing to contribute in a mean-ingful way to the future of FM. A ballot is included with this newsletter, and I encourage you to please cast your vote.

Finally, our annual board meeting on Saturday, February 14 will mark the end of my four years as President of FM. I look back on these past years with some regret, in that I didn't accomplish as much as I had hoped to. But I also feel very fortunate to have served with the many fine and dedicated individuals who have been Board members and officers for many years, and together I believe we did promote and advance the goals and objectives of FM during this time. I look forward to the prospect of serving FM in the future.

Allan Young, President



MINUTES FRIENDS OF MINERALOGY 2014 FALL MEETING Denver, Colorado September 12, 2014

The meeting was called to order by President Allan Young at 3:30 pm with a relatively small number of Board and general members in attendance. This was an informational meeting only, and no FM business was conducted.

Allan Young reviewed a number of actions taken at the annual Board meeting in Tucson. A change in National officers (Gloria Staebler to Treasurer; Alex Schauss to Vice-President) was discussed, as well as some changes to our banking and accounting procedures. Other old business included the reduction in dues that chapters pay to the National organization, donations made to help fund the re-publishing of Minerals of Ohio, the TGMS exhibit case endowment, and the continuing support of the New Mexico Mineral Symposium. The winners of the 2014 TGMS Best Article and Best Educational cases were also reviewed. It was also announced that for the second year FM was recognizing the two best educational cases at the Denver Show, and these would be announced at the Saturday evening program.

Sue Liebetrau gave a report on the upcoming Pacific Northwest FM Symposium with the theme, Minerals of Colorado. Mark Jacobson presented a summary of the activities of the Colorado Chapter, and Mike Royal of the Midwest Chapter discussed a number of issues important to that group, including MSHA requirements for quarry field trips. Julian Gray reported that the theme for the 2015 Tucson Show is 'Minerals of Western Europe' and he is looking for speakers for the annual symposium jointly hosted by the Friends of Mineralogy. Virgil Lueth gave a brief report on the progress of proposed By-Laws revisions and AGI dues investigations.

The meeting was concluded at approximately 4:00 pm.

FRIENDS OF MINERALOGY EDUCATIONAL EXHIBIT AWARDS 2014 DENVER SHOW

FRIENDS OF MINERALOGY

Best Educational Exhibit by an Individual

2014 Denver Gem and Mineral Show

Beta (β) Quartz – Colorado's Own "Nada Diamonds" Denver Gem & Mineral Guild





Allan Young

President

FRIENDS OF MINERALOGY

Best Educational Exhibit by an Institution

2014 Denver Gem and Mineral Show

Anatomy of a Thunderegg Rice Northwest Museum of Rocks and Minerals





Allan Young President

FOUR BOARD POSITIONS OPEN FOR ELECTION.

FM members elected to the board serve a three year term. Each year four positions on the twelve member board are up for election. The following members have agreed to be candidates for this years elections. It is important that all FM members exercise their right to vote . Voting instructions on the following page.

Candidates nominated by the Nomination Committee

Jim Etzwiler is an aerospace engineer by training. He has been active in collecting and studying minerals for about the last 21 years. He started out in a local study group which introduced him to the Pacific Northwest Friends of Mineralogy. Participation at several levels increased and he later was elected as president of PNWFM. At the national level he has attended most of the membership and board meetings for the last fourteen years representing PNWFM and for about the last ten years he has been maintaining the National FM web site. Jim also participates in the Society of Mineral Museum Professionals.

James (Jim) Houran, Ph.D. holds an M.A. in Clinical Psychology and a Ph.D. in Psychology. Mentors in the Central Illinois Gem & Mineral Club laid the foundation of a passion that continues to grow with Jim since his childhood. He is a member of the Mineralogical Association of Dallas (MAD) and an active member of the hobby: frequent public speaker on mineral collecting, host of the DVD series "Mineral Perspectives: Thumbnails" (BlueCap Productions), co-author of the Crater of Diamonds chapter in American Mineral Treasures, author of publications for Gems & Gemology, Rocks& Minerals, Lapis and the Mineralogical Record, and co-coordinator of many featured exhibits for the Denver Gem and Mineral Show, the Munich Show and the Tucson Gem and Mineral Show.

Suzanne (Sue) Liebetrau has been collecting minerals since she was old enough to walk on graveled driveways. With her husband Albert (Al), she has built a large collection of specimens from world-wide locations. Sue has taught (high schoolers to university graduates), and for 15 years worked as a technical editor for Battelle Memorial Institute. Now, (though supposedly in retirement) she edits occasionally for Lithographie, LLC. Since moving to the Pacific Northwest in 1981, Sue has participated in Pacific North-west Friends of Mineralogy symposiums, been active in the Lakeside Gem and Mineral Club (a Federation society based in Kennewick, Washington), and helped launch a rock club in central Oregon (Central Oregon Rock Collectors). Other interests include Native American art, Siamese fighting fish (Bettas), and anything to do with horses.

Clyde Spencer earned a B.S. in geology, with an undergraduate emphasis in geophysics. He subsequently earned an M.S. in geology with a thesis on the occurrence of PGMs in the Klamath Mountains of California. His assignment in the Army was as a geologist in the Scientific and Engineering Personnel Program, assigned to the Cold Regions Research and Engineering Laboratory in Hanover, NH. He taught geology, chemistry, and geography at Foothill College for 10 years. He spent the last 25 years of his career in the field of remote sensing, retiring from Ball Aerospace as a senior remote sensing scientist. He was issued a patent in the field of remote sensing. He is currently doing research on the optical constants of opaque minerals. He has been the president of the Midwest Chapter of Friends of Mineralogy during 2013, 2014, and continuing to the end of 2015.

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Please tak from the serve. Ba Lueth, N. NM 8780	ke the time to support Friends of Mineralog nominated candidates or by writing in cand allot votes may be sent by e-mail to Virgil Lu .M. Bureau of Geology and Mineral Resource 01-4796. Ballots must be submitted before	gy by voting. You may vote for up to four positions lidates of your choice who would be willing to ueth at vwlueth@nmt.edu or by post to: Virgil ces, New Mexico Tech, 801 Leroy Place, Socorro, the Board meeting on February 14th.
	Ballot for Friends of Mineralogy Boa Vote for up to for	ard of Directors—term 2015 –2018 our positions
	Jim Etzwiler	James Houran
	Sue Liebetrau	Clyde Spencer
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Time to Reflect and Give Thanks

Alexander Schauss, PhD Vice President

When I hear someone complain about the environmental effects of mining, I remind them that the smart phone they are using, the satellite that sends and receives their signals, the car they are driving, the microwave they used this morning, the refrigerator that keep their perishables in, and even their ring and jewelry, all were created from the mineral-rich ore that mines removed from the earth and later processed into myriad objects we rely on. Kind of puts the subject into perspective.

My interest in the field of mineralogy began when seven years old. Our family lived in a tenement apartment not far from the American Museum of Natural History (AMNH) in New York. My closet friend, Sammy, and I would roam Central Park thinking we had found gold impregnated into some incredibly hard rock that resisted our hammers, until we discovered that those shiny spots were nothing more than muscovite. This insight was provided by none other than the then-curator of the Department of Mineralogy at AMNH, Fredrick Pough, PhD, who patiently explained that we hadn't found gold, but one of thousands of mineral specimens found in nature.

During one of our return visits he showed us minerals on display that had been discovered over many decades on Manhattan and surrounding counties. Our eyes opened widely when he showed us specimens that had been extracted right in the very neighborhood we lived in exhibited in several cases in the Hall of Minerals.

So we wondered how would it be possible to dig for more such specimens if our neighborhood was covered by buildings, concrete sidewalks, and paved streets. How about looking at places on the island that were currently *being* excavated? Brilliant suggestion.

We learned that 6th Avenue (now called the Avenues of the Americas) in midtown Manhattan was being excavated on both sides of the street for nearly 8 blocks to make way for skyscrapers that would reach 40-60 stories tall. The following week we headed to one of the sites where we watched them blast hard granite to make way for the foundation of these massive structures. Curiously, we wondered where did they take all of those broken fragments of rock each day. So we asked a truck driver. One of them got out of his truck and provided directions on a piece of paper to show us the location of several sites they dumped them near the northern tip of the island. Well guess where we spent as many days as our parents would let us be that far away from home looking for specimens that we hoped Dr. Pough would add to the Manhattan case. Boy did we have fun!!

And that day did come, when just 8 years old, to our total delight, when we showed him a crystal in a rock that he asked to keep so he could study it. Not long afterward, there it was, in the Manhattan case!! From that day on, the bug bit us and our love of mineralogy began.

Over time, seeing how fascinated I was with mineral specimens, I was able to spend more and more hours volunteering in the mineral department of AMNH as I grew older. Many notable mineralogist and collectors of that era would periodically visit the museum from around the world. We were also invited to visit quarries and numerous mines in the region, gaining an appreciation for the effort and investment required to extract specimens for the museum as well as collectors and dealers.

By the time I was 16, and had graduated from the William J. O'Shea Junior High School 44, across the street from AMNH, and attended high school, I had the fortune of having handled tens of thousands of specimens, some of which were the finest in the world. In the process it instilled a knowledge of what constituted exceptional specimens.

Unfortunately, that same year, Dr. Pough accepted a position as curator for a museum in Santa Barbara, California, where he wanted to retire. This ended the open door policy that was characteristic of the trust "Fred" had for those he permitted to stop in any time and assist him on various projects going on in the department. It also allowed me to observe the important function curators (should always) perform as collection managers to preserve and protect nature's treasures for future generations to enjoy.

These experiences during my formative years laid the foundation that has kept me interested in and involved in the mineralogy community to this day.

I'm sure many FM members recall individuals who had a significant effect on them in gaining an interest in mineralogy. As we start the New Year, let's find time to reflect on the important role these individuals played, whether introduced to this fascinating hobby by a parent, relative, or friend. Thank you – you made a real difference in our lives.

FM INFO OUTREACH BOOTH

Friends of Mineralogy each year has an informational booth in the mezzanine of the main convention center show in Tucson. Nelson Shaffer, who coordinates this, needs volunteers to help staff the FM outreach booth and materials to aid this effort. FM gives away hundreds of flyers, meeting announcements, mineral information sheets, and other FM related materials at the booth. Usually it also gives away small mineral samples when available, especially to the kids. If your chapter or you as an individual can provide any informational material or hand out specimens, please contact Nelson as soon as possible. Also let Nelson know if you can do an hour or two as a volunteer in the booth and schedule a time when you are available.

Nelson R. Shaffer, Ph.D. Phone: 812-855-2687 Fax: 812-855-2862 shaffern@indiana.edu



TUCSON SPEAKER PROGRAM CANCELED THIS YEAR

The annual speakers program at the Tucson show which Friends of Mineralogy has long helped coordinate will not be held this year. Unfortunately speakers were not arranged in time to allow them to prepare. It is certain this free symposium will be greatly missed. Every effort will be made to insure that this doesn't happen in future years.

LOCAL CHAPTER NEWS:

C FIN Notes Southern California Chapter, Friends of Mineralogy • November 2014

Spring Symposium

SCFM Spring Symposium, March, 2015, will visit the Goodsprings Mining District in southern Nevada, to look at sulfide deposits along thrust faults, and compare alteration of feldspar phenocrysts in rhyolite dikes.

Fall Symposium, October 18, 2014

The SCFM fall symposium was hosted by the Mojave Water Agency in Apple Valley, CA. Forty-five attendees listened to presentations about geology and mining in Lucerne Valley.

- Geologic resources and geologic structure of Lucerne Valley - Anna Garcia, MWA:
- Geology, Mining and Fluorescent Minerals at White Knob . Quarry - Howard Brown
- Minerals in Producing Portland Cement Dinah Shumway
- Gold and Iron Minerals of the Lucerne and Johnson Valleys -Doug Shumway



Image 1: At Mojave Water Agency, CA, Howard Brown describes White Knob Quarry operations and fluorescent minerals (Shumway photo).

On Saturday afternoon we traveled by carpool to marble quar-

ries in southern Lucerne Valley, on the north flank of the San Bernardino Mountains. At the Mitsubishi Cement Cushenbury Quarry, Mine Supervisor Cole Peltier gave a very informative tour of the processes involved with classifying, beneficiating, and roasting limestone to form cement and concrete products.



Image 2: Mitsubishi Cement Cushenbury Quarry (Losson Photo).



Image 3: Mitsubishi Quarry crushing and classification system (Buchanan Photo).



Image 4: Mitsubishi limestone roasting kiln. Dark piles of recycled tires (lower left) are used for fuel (Losson Photo).



Image 5: Buckets contain additives - alu minum, iron, clay - used to make varieties of cement (Losson Photo).

In the late afternoon, Howard Brown led the group on a tour of the OMYA Quarry that produces high purity limestone.



Image 6: View from OMYA White Knob toward Rabbit Dry Lake (Reynolds Photo).



Image 7: SCFM Members and San Bernardino Valley College students, including D. Shumway, D. Fife, H. Brown, R. Daniels, T. Ririe collect fluorescent minerals on OMYA dumps (Losson Photo).



Midwest Chapter President's Message

Clyde Spencer, Midwest Chapter Friends of Mineralogy President

Our annual business meeting in Cleveland went well, with at least ten FM members present. The slate of officers was re-elected. I was also re-elected in a separate action. See the Minutes, courtesy of Ann Cook, for more details.

There have been some first's for the chapter: We had a formal presence (that's academic-speak for a table) at the Ohio Aggregate and Industrial Minerals Association's (OAIMA) annual meeting and trade show in mid-November. I want to publicly thank Randy Marsh for making this happen, and for providing some pens and mugs as test marketing items. FM members Reggie Rose, Scott Kell, and I staffed the table all day Thursday and Reggie closed things up Friday morning. We made some good contacts that I expect will lead to future new collecting opportunities.

Reggie took the opportunity to invite Dr. Tom Serenko, Director of the Ohio Geological Survey, to attend our

field trip to Graymont Dolime in Genoa the following Saturday. Tom was quite appreciative of the opportunity to view firsthand mad men climbing over boulders with hammers in hand with conditions of a light wind and temperatures in the low 20s. I'm sure he was impressed with how 'hardcore' our chapter's collectors are!

We had a good collecting trip to New Holland (Williamsport) the preceding weekend. There were some sparse pockets of calcite crystals. However, the highlight of the collecting was marcasite and pyrite(?) in the shale overburden. Tom Bolka, who was riding with me, found a 140 pound piece of marcasite that he wanted to take home. However, I didn't want to risk doing damage to my new Subaru Outback

so I balked at loading it in my car. The Chinese-style 'cabinet piece' went home with John and Jay Medici with intentions of donating it to a museum. Reggie will have pictures and a more detailed description of the outing elsewhere in this newsletter.

Plans are proceeding for a January meeting at Wittenberg University in Springfield [see the formal announcement] and the third annual mineralogical mini-symposium at Miami University (MM@MU); more details will follow as we get closer to the March date (the 'Ites' of March).

I will be attending the annual Tucson show in February. I will get there in time to attend the FM general membership meeting on Tuesday before the main show, and attend the National FM business meeting as a representative of the Midwest Chapter. I have been invited by the current FM National president (Alan Young) to accept nomination for the position of VP of National and thereby also serve on the Board of Directors. I have agreed to be on the slate of officers. If elected, it will be a long-term commitment, which I hope I live long enough to fulfill!

If you haven't already done so, it is **time to renew your membership** for 2015; you will find an application form attached to the end of this newsletter for your convenience. Also, the executive board has agreed to require members to sign a Hold Harmless agreement to attend field trips. It also can be found at the end of the newsletter. I suggest that you bring it with you to the first field trip you attend so that Reggie can witness your signature.



Field Trip Reports WILLIAMSPORT PROVIDES A FROSTY GREETING FOR FM

Old Mother Nature has been unkind to us this year. Although the 2013-14 winter was a bit nasty, at least the worst part held off until late fall. This year in central Ohio, our fall season gave us winterlike conditions by October 18. We had our first frost November 01 (late), but our first measureable snow (3") on November 2nd (early)! Goodbye fall! When I got out of my truck at the quarry I was greeted not only by 17 other collectors, but by 30 mph winds which made getting paperwork done interesting. Though the weather was cold, our quarry host and the collecting were much warmer. After a bit of a slow start, our stud FM collectors (most of the club) started finding stuff all over the place.

To mention fossils only briefly, Allen Dewitt (Richmond, IN) found a very large trilobite and horn corals up to 9" long littered the quarry everywhere. Though our newsletter editor may not have expected many photos from this trip, I would end up with quite a few. Pam Lauer (Crestline,OH) came up with a pyrite nodule the size of a cantaloupe. Mike Royal (Defiance, OH) had clear to brown calcite specimens and sphalerite; Jay Medici (Fredericktown, OH),



Clyde Spencer (Fairborn, OH) and Tom Bolka (Xenia,OH) were amongst a group who struck it big with several pockets of scalenohedral calcite with razor sharp points on the termination of the crystal. John and Joe Vasichko (Wooster, OH) discovered both rhombohedral and scalenohedral calcites, clear to honey-colored, sphalerite clusters and single crystals, marcasite, and barite on calcite. Clyde Spencer's

sulfide discoveries were outstanding. Though my photos did not do his pyrites justice, he did discover some pyrite on which I would swear I saw pyritohedral faces. His real beauty was a textbook marcasite which had a spear point termination in a field of crystals approaching a cockscomb arrangement. In addition to all these impressive finds, as I was ready to go home to go to work, Tom Bolka called me up on the pile (a long journey up and down). He beckoned to me to get a photo of their latest find. I inched my way over to where the group was and saw perhaps a historical find. It was a pyrite nodule whose approximate dimensions were 24" x 15" by 12". Being reluctant to take it home, Tom decided to let John Medici (Ostrander, OH) have it. It always humors me to see some of the things that John takes home. Remember the song about the miner "Big bad John" as sung by Jimmy Dean. I think that we have a new nickname for John Medici - that is "Big John". I can tell you that he has a minimum of weeds on his property because he leads the world in taking home huge yard rocks. This pyrite nodule has to weigh in at 150 pounds or more. The quarry operator had to take it out with a large track hoe. Though John is a serious collector, he also has a wry sense of humor. As opposed to lugging this thing around the yard, John has decided to donate it to the Orton Museum at Ohio State. Good luck to the poor recipient there, Dale Gnidovec. I am glad that I shortened my pre-work nap to get a look at one of the largest pyrite nodules ever found in Ohio, it was well worth freezing and missing sleep.



Pyrite Pam Lauer



Marcasite Clyde Spencer

GENOA: A COLD BUT FITTING FINALE

As our luck would have it, the weather was no better at Genoa than it was at Williamsport two weeks earlier. Collecting may not have been as strong here as it was in 2013, but it was still worthwhile. In all, 28 FMers made the trek to this northern Ohio bastion of minerals. The usual mineral suspects were all there in their glory: white, bladed celestine, clear to tan fluorite, yellowish and white scalenohedral calcite, and amber glassy sphalerite. What you collected here depended on a sharp eye, and a little luck. It is always good to see my fellow collectors, but it is especially gratifying to see those of you who do not make most of our trips. I know many who are strong collectors, but due to other commitments can't regularly attend. Three such people fall into that category for this trip, and this article is about their finds. One person is Mick Pinka (Belleville, OH). Mick is another FM stalwart who on any given day collects average to great specimens. Unfortunately, his collecting buddy, Lawrence Hull (Lexington, OH) was not with him as he had to work. If any of you know Lawrence, he had to miss the Clay Center trip because he took a hornet's sting right in the old eyeball. Ouch! So Mick did his best without his sidekick and found a fabulous sphalerite, amber and glassy, showing some tetrahedrons. This specimen rivaled Henry Fisher's find of a year ago at Genoa.

Two other collectors who have not been with us a whole lot this year are John Davis and Randy Marsh. John (South Bend, IN - our 2013 FM secretary) and Randy (Hamilton, OH - our present FM Program VP) had a really great day. Perhaps maybe the Mineral Gods cast a gentle smile on them, and nodded; you have not had many chances to visit a quarry this year, so this day shall be yours. They discovered several pockets in boulders with calcite, celestine and fluorite in them singly and in combination. Randy took the beauty of the day home, a 1-1/4" clear to light brown fluorite cube encrusted in celestine. For me, that one single specimen would have been worth the whole drive. It even further warmed my heart to learn that they are collecting buddies. It is good to see friendships cross state lines.

Genoa was our last field trip for 2014. All totaled this year, we had 12 collecting opportunities at which we served 186 attendees. Of the 12 collecting trips, 4 were out of our region and drew 12 members. The other 8 trips, in region, drew 174 attendees.

Thank you all for blessing my camera with your wonderful finds.



Celestine / Fluorite – Randy Marsh



John Davis & Randy Marsh – Calcite / Fluorite

Friends of Mineralogy Colorado Chapter

2014 Year in review: President's Message By Mark Jacobson

This is FM Colorado Chapter's first newsletter for 2015. As such, I'd like to sum up what the chapter has worked on and achieved during 2014.

Local members have continued to be active within the greater community of earth science enthusiasts. Officers and directors of the chapter, James Hurlbut, Lou Conti, Alan and Norma Keimig, Larry Havens, Don Bray, and Bill Chirnside, have continued to be active in assisting the annual Denver and Mineral Show in September, a major undertaking by all the Denver areas clubs and societies. Many members provided mineral displays for the show including Bill Hutchinson, Lou Conti, Jeff Self and Donna Ware. Ed Pederson, James Hurlbut, and others manned the mineral identification booth at the show. Peter Modreski (USGS), Richard Parsons (FCSMGM) were stationed at other booths. Peter Modreski also gave his traditional presentation to new collectors on "how to start a collection." Lou Conti, our treasurer, and Diana Conti exhibited their pseudomorph collection at the Denver Gem & Mineral Show[™] and received an exhibition award for *Minerals, Unlimited by Size* ("Master - Worldwide Minerals"). A portion of their pseudomorph collection was selected by the Geology Museum staff to be on display at the Colorado School of Mines Geology Museum for one year until September 2015.

Outside the show, the Colorado Chapter with the CSM Geology Museum and the Friends of the CSM Geology Museum successfully planned and executed the Ouray-Silverton San Juan Mineral Symposium in Ouray, Colorado in September. This symposium included five field trips led simultaneously across the area. A hundred and fifteen people registered and attended this symposium. From our chapter, Lou Conti, Jack Murphy, Pete Modreski, Jeff Self, Donna Ware, with overlapping society participation from Richard Parsons, Bruce Geller, Michael Dempsey, Norma Swan and Mike L. Smith were all planning committee members who made the event happen.

The special glue that made this symposium work was the active participation of the Ouray mayor, Pamela Larson, and Robert Larson, an active Ouray geologist, as well as numerous other Ouray-Silverton miners, mineralogists, historians and geologists. As a result of the symposium, FMCC gained 52 new members including 11 "free" honorary memberships for speakers and field trip leaders. We welcome you to our chapter and hope that after one year of membership, until December 2015, you will decide to continue your association with us. We welcome for inclusion in future newsletters any news items such as publications, discoveries or articles by you that you wish to submit.

As a society, we have improved our presentation equipment – we have our own portable sound system which utilizes a wired microphone, a hand-held wireless microphone and can utilize a wireless headset/lapel microphone if any member owns one. We also have our own society powerpoint presentation projector, thus we are able to make presentations anywhere we decide to hold meetings.

In February 2014, at the Tucson Gem and Mineral Show, James Hurlbut, Peter Modreski and others worked in the National Friends of Mineralogy booth on the ground floor. James Hurlbut also presented at the Tucson FM national symposium on *The Diamond Crystal Collection of Paul Seel*; the collection is part of the Denver Museum of Nature & Science collection. In addition, he traveled in July as our society representative to the joint Rocky Mountain and National Federation mineral show in Tulsa, Oklahoma where he gave a presentation on *Paul Seel's collection of quartz twins and oddities*, as well as providing an exhibit of specimens from the Denver Museum.

James Hurlbut, in September, attended the Desautels Micromount Symposium, at Baltimore and again spoke on Paul Seel's quartz collection in the Denver Museum. Peter Modreski at the FM symposium at the Tucson show presented on *The Colorado-Wyoming State Line diamond-bearing kimberlite District*. Peter Modreski and Jack Thompson also presented a paper at the November 2014 New Mexico Mineral Symposium on *The lesser known minerals of the Pikes Peak batholith*. Peter Modreski has continued to provide FACEBOOK entries for the National Society webpage at <u>https://</u> <u>www.facebook.com/pages/Friends-of-Mineralogy/156668551041854</u>. as well as continuing to be our chapter newsletter editor.

Our association with the Denver Museum of Nature and Science continues. Larry Havens, James Hurlbut, Alan and Norma Keimig, and Marcus Leiberman have continued to volunteer at the museum. After much effort over many years by volunteers, all the mineral specimens in the museum collection have been indexed, cataloged and documented. Recent discussions, with James Hagadorn, the Geology Department Curator, have emphasized the additional research opportunities the museum can provide. The department strongly encourages avocational and employed scientists who wish to use the collection for research to do so. A peer-reviewed journal has been started that allows research done using museum specimens or facilities to be published to an external audience. As stated on the museum's website

"The Denver Museum of Nature & Science Annals is an open-access, peer-reviewed scientific journal publishing original papers in the fields of anthropology, geology, paleontology, botany, zoology, space and planetary sciences, and health sciences. Papers are either authored by Museum staff, associates, or volunteers, deal with Museum specimens or holdings, or have a regional focus on the Rocky Mountains/Great Plains ecoregions."

The Museum also in January 2014 published on Lulu.com, a 427 page (hardcover or softcover) book on the history of the museum with a lengthy chapter on the Geology Department by Logan Ivy and James Hagadorn. A hardcopy of the book can not be purchased at the museum, only online at: http://www.dmns.org/media/1955236/c5-geology-dmns-history-printwebred.pdf

As an example of the collaboration with the museum, Larry Havens with James Hagadorn, published in the December-2014/January 2015 issue of the *Catalyst*, the Denver Museum of Nature & Science Magazine, an article on the "Ground Hog wire gold" (pages 8-9). This article can be downloaded free from: <u>http://apps.dmns.org/Catalyst/December2014-January2015/docs/December-2014-January-2015-</u> Catatlyst-Resized.pdf

The presentations at chapter meetings this year were by newcomers– Ian Merkel, John Lufkin, Philip Persson and Gary Zito, as well as old-timer collector, author and local mineral historian, Ray Berry. In addition an underground field trip was led to the Henderson Mine, near Empire by Ian Merkel, the mine geologist whose assistance in obtaining permission was invaluable.

Other news for the Chapter is the start of a project to assist Gloria Staebler in the preparation of a new book, "Collecting Colorado." This book, to be written by Terry Wallace, modeled after the already published "Collecting Arizona," will report on the mineral collecting activities of individuals and companies in Colorado from their beginning to the present day, within a historical context of mining development and population growth in the state. The FM chapter will provide a coordinating role in assisting in collector and miner interviews and research on the activities of collectors from the past. All interested people are encouraged to participate in this book, you do not need to be a member. Further details will be posted on the FMCC website after the book outline and further details has been matured.

The FMCC website has also continued to improve. Our Webmaster, Alan Buckman, has moved the site to a new host. Copies of past newsletters have continued to be added to the site. We now have most of the issues back to 2004 available for reading. Many of the past Symposium proceedings, which were out-of-print, have been converted or recovered back to digital formats. Thus, these can now be purchased as newly reprinted on-demand hardcopies from Peter Modreski.

I'd like to thank the strong support, we have continued to receive from all the mineral dealers who have made donations to our annual auction. The funds raised are being carefully and meaningfully used by the society as you can read in this letter.

Our only shortcoming for now is finding a volunteer who will become our new chapter treasurer. Lou Conti is retiring from being our treasurer after five years of keeping excellent records and financially administering the Ouray symposium for three societies. We are all appreciative of the excellent job he has done. Two years from now, another symposium is being considered. Potential subjects, dates and locations are being considered. Your input is always welcome.



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 40th 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 cele-



bration 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.

Pegmatite districts o



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.

Many different minerals have come out of the combined mines.



Geology of the area



Gold in quartz, Idarado Mine, Colorado

Sphalerite, Idarado Mine, Colorado





Idarado, Colorado area



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 REPLACEMENT REACTION OF CALCITE LIMESTONE TO DOLOMITE LIMESTONE

CALCITE ----> DOLOMITE

CaCO₃ ----> CaMg (CO₃)₂

The chemistry of the area.

The Mg²⁺ Ion is 33.3% smaller than the Ca²⁺ 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.

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



2015 MINING & MINERAL SYMPOSIUM

MONTANA TECH, BUTTE, MONTANA MAY 8-10, 2015

CALL FOR PAPERS

The Montana Minerals and Mining Symposium, hosted by the Montana Bureau of Mines and Geology, will take place on the Montana Tech campus in Butte, Montana, May 8–10, 2015. The symposium will be a forum for professionals and amateurs interested in mineralogy and economic geology to share their cumulative knowledge of mineral occurrences within Montana, adjacent states, and the Pacific Northwest. Papers on Mexico and other parts of the world will also be considered.

Proposals from the following categories are welcome:

- Mineralogy
- Mineral Deposits
- Economic Geology

Papers submitted by professionals, amateurs, and students will be considered by the selection committee. Extended abstracts must be submitted by April 10, 2015, to Stanley Korzeb at skorzeb@mtech.edu (406-496-4171). Abstracts must be no more than 2 pages, in editable format (no PDFs). Additional information on registration and potential field trips can be obtained from Stanley Korzeb, Economic Geologist, MBMG.

The symposium will also feature a field trip to the Orphan Boy mine and lunch at the Montana Tech Mineral Museum.

Registration fees are \$60 for professionals and \$30 for students with valid 1D before April 8; \$70 for professionals and \$40 for students thereafter. Fees will be waived for speakers. More information can be found at www.mbmg.mtech.edu/2015symposium.asp.





Chalcopyrite over Covellite, 5cm "Golden Covellite" Butte, Montana collection and photo, John Lindell

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Tales from the Tags: Mineral Labels and Specimen Value

Posted on October 22, 2014 by Terry Wallace wallaceterrycjr Standard

I go down to Speaker's Corner I'm thunderstruck They got free speech, tourists, police in trucks Two men say they're Jesus one of them must be wrong – *Dire Straits, 1982 song Industrial Disease*



Chalcopyrite coating acanthite Joachimstal, Bohemia (now in the Czech Republic). Originally in the A.F. Holden Collection, bequeathed to the Harvard Mineral Museum, traded out and sold to William Pinch, and eventually came to my collection from dealer Cal Graeber.

One of the questions I get asked most often when I visit a mineral show: "Is it real?". I mean this in a mineralogical sense, not a judgement of my personality. The origin of the question is uncertainty about a mineral sample, and the particular inquiry is focused on whether the mineral is as advertised, or "fake". The nature of fakery in the mineral hobby can be subdivided into four broad categories: (1) is the mineral actually identified correctly, (2) has the mineral specimen been enhanced, repaired or constructed, (3) is the mineral actually natural, and (4) is the ancillary information with the specimen - locality information, previous ownership, etc. – correct? To me, the last category is particularly vexing. The ancillary information, usually provided in a label or series of labels associated with a specimen, documents the history and significance of the specimen. I collect minerals partially because of the their "science" (chemistry, geology, and crystal beauty), but also because they are artifacts of history. Someone had to mine the specimen, decide it was worth keeping, pass it on to a collector or dealer that valued it, and finally making its way to my collection. From underground mine to my collection the specimen develops a patina of human history. I very much value this history — the story in the label with the mineral is part of its "worth". The specimen pictured above is an exemplar of a mineral as a historical artifact. The specimen is a miniature sized matrix acanthite with an epitaxial coating of chalcopyrite. The locality is Joachimsthal, one of the most important historic silver mining regions in the world.

The specimen has a well documented pedigree: it was in the A.F. Holden collection that was bequeathed to the Harvard Mineral Museum in 1913, and transformed Harvard's collection from a typical university cabinet into one of the world's greatest mineral holdings.



Labels for the chalcopyrite coating acanthite specimen pictured at the top of the article. The specimen was in the A.F. Holden collection, went to Harvard, traded to a dealer that sold it William Pinch. Eventually, Pinch sold the piece and it made its way to my collection in the 1990s.

In 1912 the Engineering and Mining Journal declared that the finest collection of minerals in the United States is "believed to be that in the American Musuem of Natural History in New York, the basis of which was the famous Bement collection. There are several important private collections. Among those, that of Col. W.A. Roebling, Trenton, N.J., is considered to be the best; anyway, the largest. Next in rank are probably the collections of A.F. Holden, Cleveland, Ohio and Fred Canfield, Dover, N.J." Albert F. Holden graduated from Harvard in 1888 with a degree in Mining Engineering. After graduation, Holden entered the family mining business, and by 1906 he had built one of the largest mining and refining companies in the world. His holdings included what would become the Bingham Canyon copper mine in Utah, and dozens of mines spanning the mineral wealth of Alaska to Mexico. In the 1912-13 Annual Report on Harvard University, the curator of the Mineral Museum, John Wolff, wrote "received this year a mineral collection which represents the greatest single gift of minerals made during its history of one hundred and twenty years...Mr. Holden had found time in the last eighteen years to accumulate one of the finest private collections in existence....As a result, the larger part of the six thousand specimens are of the highest quality, while many are unique." In the detailed instructions to Harvard accompanying the collection, Holden wrote "There shall be no obligation on the Museum authorities to keep any of the specimens when they have lost their scientific interest". Although the chalcopyrite coating acanthite in my collection is modest, its tie to a mining great, and subsequent membership in the Harvard Museum, and ultimately its pathway into one of the great modern collectors, Bill Pinch, is what makes it "more" than a pretty mineral. Remove the labels, and the specimen is

interesting, but it loses its significance. The tale told of specimens from labels is their character — and it is also why labels can also be used to deceive or misrepresent.

raintike & rhombic nodecahedro Las Chispas Mine trispe Dispict, Sonora Marico

Acanthite mounted on a wood pedestal from Bryn Mawr.

The original mineral twitter: Mineral Labels

I am often surprised that many mineral collectors don't spend much intellectual capital on the pedigree of the specimens that they pursue and collect. That statement is, of course, a gross generalization because there are many collectors that intensely focus on the specimen history, but most collectors are first and foremost interested in the perfection of the specimen itself. However, every specimen has a story to tell, and often that story is gleaned from a few lines written on an old mineral label. Although labels may only contain the briefest inscriptions, these are often delightful clues to the thoughts and passions of the original collector. The picture above is a large thumbnail of acanthite from the Las Chispas Mine, Arizpe, Mexico. For a very brief period, the first decade of the 20th century, the Las Chispas mine near Arizpe in Sonora produced some of Mexico's largest and best specimens of polybasite crystals, large clusters of "poker chip" stephanite crystals, fine acanthite crystal clusters and a few very fine pyrargyrite specimens. Many of the specimens were saved through the enlightened efforts of mine manager Edward L. Dufourcq (1870-1919), and now populate museums and privates collections worldwide. The pictured specimen is fairly unremarkable, even if distinctive of Las Chispas acanthites. However, the label (and the wood stand that holds that displays the specimen) are what make this a historical artifact. I purchased this specimen from a dealer in 1986 – but what I saw when it was displayed in his stock was the label — it is a very distinctive "Vaux" tag! George Vaux (1863-1927) was an attorney and member of one of the most important Pennsylvanian families – in fact, he was the 9th George Vaux (and passed the name on to his son too!). George Vaux was the nephew of William S. Vaux, who one of the earliest American mineral collectors. George followed his uncle's lead and passionately collected minerals. When he died in 1927 he had amassed an amazing collection, particularly rich in South American and Mexican specimens (Vaux's Chanarcillo proustites are still considered some of the finest examples of what I believe is the most beautiful mineral).

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Vaux lived in Bryn Mawr, located west of Philadelphia, and upon his death his family kept the collection intact and on display in their home. Bryn Mawr is home to the small college of the same name, founded by the Religious Society of Friends (Quakers) in 1885. In 1958 the family decided to donate his collection of more than 8,000 specimens to the college – and suddenly a small women's liberal arts college had a major mineral holding! The transfer of the collection included Vaux's labels – there are several types, but several thousand were the simple lined cards, with handwritten descriptions (like the one pictured above). In the early 1980s many of the Vaux specimens were traded out of the Bryn Mawr collection, including my acanthite. The wood stand and black wax mount were Vaux's work. On the base of the stand Vaux wrote "Cahn, 11/20" which indicated that he had bought the specimen from Lazard Cahn, a Colorado Spring mineral dealer. Eventually, it was acquired by Al McGinnis (a San Mateo dealer) for his private collection, which was dispersed upon his death. A few years after I acquired the Arizpe acanthite, I found *another* Vaux labeled acanthite specimen in the stock of mineral dealer Gene Schlepp. In fact, the Vaux label was was tagged with the number 703, only a few digits different than the Arizpe piece!



Aguilarite, Guanajuato, Mexico.

The Vaux label stated that the specimen was Argentite (acanthite) from Guanajuato, but I suspected the specimen was actually Aguilarite (Ag₄SeS), a far rarer mineral. The skeletal dodecahedrons are distinctive of the species, and the specimen looked very much like the very best aguilarites I had seen in other collections. I purchased the piece, and hurried off to the lab to do an x-ray. My hopes were confirmed – a outstanding aguilarite with history to boot!

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Argentite. Guanajuato Mexico 703

Vaux label

The front of the Vaux labels only tells part of the story. Turn over a Vaux label and there is a few scribbles that connect Vaux to his mineral suppliers. Below is a picture of the Arizpe and Guanajuato labels. In Vaux's hand writing you can see where and when he acquired the specimens. The Aguilarite was obtained from Wards in 1895 — which is very consistent with the very best samples were mined. Around 1890, Ponciano Aguilar, superintendent of the San Carlos mine at Guanajato collected an "unknown" that he thought might be Naumannite, and sent it to S.L Penfield for identification — and Penfield discovered it was a new mineral and named it in honor of Aguilar.

calm. 11/20 mby Ward 8/14/95. 1kh

Back of the Vaux labels; where the specimen was purchased, when it was purchased, and a three letter code. The code is likely the purchase price.

A mystery on the Vaux labels are the three letters scribbled after the date of purchase. I have looked at about a dozen Vaux labels and they always have these initials, all different.

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Wendell Wilson, editor of the *Mineralogical Record*, suggested that this might actually be an encrypted purchase price. Several collectors from the first half of the 20th century used ciphers to record value. Martin Ehrmann used "tourmaline" as his cipher — 10, non-repeating letters, each corresponding to a numeral, 1-9 and 0 (e.g. *tne* would translate to 190). Carl Bosch, whose fabulous collection ended up in the Smithsonian Institution, used a similar code, with amblegonit thought to be the cipher used to record value in German Marks. I don't have access to nearly enough of the Vaux labels to "break the code", but it is likely that the three letters are some important secret about the specimens. Not all minerals come with a rich history, and when there is a documented pedigree it is still hard to convert that history to a monetary value. The Vaux labeled specimens in my collectors the value will be mostly determined by comparison of the specimens with "their peers". The aguilarite will still be one of the best in the world, with or without the label. But the real value will be the story behind the minerals – it may not be monetary value, but it will be fingerprints of humanity on stones recovered from the Earth.



Bideauxite, Tiger, Arizona

When Labels Go Bad

One of specimens I treasure the most in my collection is a Bideauxite, a very rare lead-silver chloride (Pb2AgCl3(F, OH)2) from Mammoth-St. Anthony Mine, Tiger, Arizona. The photograph above is a closeup of my specimen, and displays two hexoctahedral crystals of Bideauxite associated with boleite on a quartz matrix — the crystals are tiny, only a few mm across. The unusual chemistry of Bideauxite requires a very restrictive set of conditions for formation, and in fact, the mineral is only documented to come from two localities: Tiger and a small prospect in Tarapaca, Iquique Province, in northern Chile. The species is named after the late Richard Bideaux, a good friend and a fountain of knowledge for all things mineralogy (he is co-author of the *Handbook of Mineralogy*), especially Arizona mineralogy (co-author of *Mineralogy of Arizona*). Richard "discovered" the mineral when working on his thesis at Harvard; he was going through material in the Harvard Mineral Museum from Tiger and found a tiny graypink fragments of a mineral he thought was chlorargyrite on boleite. Richard sent the material to Sid Williams who determined that it was a new mineral, and named it Bideauxite.

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In 2005, Dave Bunk bought part of the mineral collection that contained many specimens from Erberto Tealdi (the late editor of *Rivista Mineralogica Italiana*) collection. Tealdi collected a large suite of minerals from Colorado — and in the material Dave acquired was the most amazingly labeled sample: **Bideauxite, Sherman Tunnel, Leadville, Colorado.** Acquired, Rich Kosnar. Looking at the sample I immediately knew that it likely Bideauxite, but what a bizarre reference to the Sherman Tunnel! Never has there been a more ridiculous assertion for a locality — wrong geology, wrong mineralogy, and about as believable as the theory that Roman Christians established a colony on the outskirts of Tucson, Arizona around 700 AD (this theory is based on an archeology hoax, but will live forever on the internet – I love archeological hoaxes!). It is clear that the original label listing the Leadville locality was used to deceive, but really it was a rather flaccid attempt. I eventually obtained the Bideauxite from Dave Bunk, and have labeled it as from "Tiger." This is an example of a very troubling phenomena in which the *Label is Bad*. In the case of the Bideauxite, the bad label has little consequence because it was so preposterous. However, for the very reason that labels add to the value of specimens — both in terms of history and monetary value — the issue of bad labels is one of the worst diseases in the mineral collecting hobby.



The Colorado Dragon

Recently, Pala Minerals published an article about the sale of arguably the most important Colorado mineral specimen — a gold sample from the early days of the Colorado's rich mining history — in their internet newsletter (http://www.palaminerals.com/news_2014_v2.php). The specimen is fabulous – more than 5 ounces of crystallized gold that demands attention. The specimen is reputed to be from the Gregory Lode, Gregory Gulch, Gilpin County, Colorado – the label is shown below. The significance of the label is "Gregory" — as in John H. Gregory. Gregory, a prospector from Georgia, is credited with discovering the first major Colorado gold deposit located near what would become Central City, in May, 1859. Gregory sold his claims, and pretty much disappeared (although there are many Gregory legends, mostly they are unsubstantiated canard). The label changes the "Colorado Dragon" from a great mineral specimen and transforms it to a hugely signifiant historical artifact. Further, the mineral label states that the gold actually belonged to John Gregory, and that he had personally donated the treasure. There is absolutely no other evidence that Gregory collected or owned this outstanding gold, nor that he donated specimens, but the label titillates!



Label included with the Colorado Dragon. Note that it states Gregory donated this gold, even though he disappeared in the early 1860s.

The "original label" for the Colorado Dragon is stated to be from the State Historical Society. The State Historical Society received minerals originally acquired by the Colorado Bureau of Mines over a period of about 80 years, in 1956. This mineral collection was filled with history – it had specimens from senators, miners, and millionaires. The label above serves as exculpatory evidence for those that would cast doubt on the provenance of the gold. The faded piece of paper with a few typed phrases links the nugget with the birth of the Centennial State.

CO	LORADO SCHOOL OF MINES
No 56	00
GOLD	(crystallized) - 51 ozs.
(regory Lode
(regory Gulch
Ē	lack Hawk District
. (ilpin County, Colorado
DONOR OR	S.H.S John Gregory

A label accompanying the Colorado Dragon, from the Colorado School of Mines

Eventually, the Historical Society gave the mineral specimens to the Colorado School of Mines, and it was placed into the Mineral Museum holdings. The photo of the label above is stated to be the School of Mines tag associated with the specimen. In 1990s the Colorado Dragon was obtained by Colorado Dealer Richard Kosnar (the same Kosnar associated with my bideauxite) from the School of Mines.

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This year the specimen was obtained by George Hickox from Kosnar's son, mineral dealer Brian. This would be a remarkable tale, but just as the labels add immeasurable value to the gold, they also cast a dark cloud over the authenticity of the specimen. The problem is that there are at least two more specimens labeled **EXACTLY** the same as the Colorado Dragon! Just as the tag line at the top of the blog from the Dire Straits' song says that when two people claim to be Jesus, one must be wrong! In the case of the Gregory Gulch gold there are three competitors for the label designated 5600.



Number 5600 in the Colorado School of Mines display. Note no mention of a donation by Gregory. The photograph above shows a gold specimen on **display** at the Colorado School of Mines, and it carries the number 5600. This specimen has all the documentation to suggest that it is the original 5600, although no where is there any indication that it was donated by the original prospector. This does **not mean the specimen on display is authentic**. There are many reasons that the Colorado School of Mines to cover up trading away the original Colorado Dragon. But that said, two specimens with the same number, and at least one of those with very questionable historical references? At the very least, one is left with a tremendous sense of uncertainty, and anger that such an important historical artifact is now tarnished. Ed Raines is the Collections Manager at the Colorado School of Mines Geology Museum, and one of the most knowledgeable professionals I know of in terms of Colorado minerals. Ed is also a bulldog – he pursues information with tremendous tenacity, and is a stickler for facts. He understands the importance of Gregory gold, and has scoured the records to shed light on the mystery. Along the way he found a third specimen labeled 5600, now in another private Colorado collection! Two is bad, three is ridiculous.



Another 5600! In a private collection

The picture above shows this third specimen, and its label — identical to the one with the Colorado Dragon. This third specimen was also acquired from Richard Kosnar. Without labels, all three golds would be interesting specimens; with the labels they become locked in the evidence room of speculation and innuendo. Just as labels add to the "value" of many specimens, these simple tags can cast doubt, and ultimately, disgust. The principals in the original transactions may know the real facts, but today there is only conflicting labels and at best, duplicate specimens. In my professional life I am asked to make judgments based on incomplete and conflicting data; I can not conclude anything from this mess other that someone(s) behaved inappropriately.

Why do Collectors Believe?

There are untold numbers of minerals that are inappropriately mated with labels. There are obvious examples where this matching is done with malfeasance - simply mineral fraud. Every collector is also familiar with unintentional mislabeling. This usually occurs when old collections have fallen to a state of disrepair, and labels become disassociated with the physical specimens. There are many tales of collecting apocalypse where carefully nurtured and curated collections that are passed along to uninterested progeny only to end up in a garage sale (I did acquire an outstanding jalpaite thumbnail in estate sale once for the princely sum of 3 dollars!). There are also many labels that are applied to specimens based on "guesses" - some are educated guesses and sometimes they are little more than wishes and hopes (my bideauxite pictured above is now labeled Tiger, but that really is just an educated guess). Unfortunately, once a label is attached to a specimen, however indelicately, it develops some credibility. This credibility resides mostly in the hearts of collectors – it is easy to blame unscrupulous dealers, but in the end it is the collector that decides the value of a specimen. The vast majority of mineral labels are above reproach; if there is something incorrect it is usually based on good intentions (e.g., when I label bideauxite as being from Tiger — no good intention is had by labeling it from Leadville!). However, there are some startling examples where mineral pedigrees that are incredulous, yet are accepted and promoted by knowledgeable collectors. This speaks to the psychology of collectors, especially the most passionate members of the hobby. Their pursuit of minerals can cloud their judgment to point of accepting the flimsiest evidence if it means they acquire something unique.





Barlow Chalcocite: originally sold as Jalpaite

I experienced an example of this power of wishful thinking in the early 1990s when I was asked to write a chapter documenting the silver specimens in John Barlow's collection. John had acquired an incredible jalpaite, purportedly from the Caribou Mine, located about 20 miles west of the modern city Boulder, from Richard Kosnar. John's later recollection of the acquisition was that he was skeptical of identification, but when I first saw the specimen in his home in 1993 he presented it as the world's finest jalpaite – it is pictured above. Peering at the fine miniature, I reacted with typical skepticism and sarcasm – I laughed. I had seen the specimen was stunning....just not jalpaite. Laughing was probably not the best way to start a serious mineral discussion; nevertheless, John eventually had the specimen "tested" at the Smithsonian, and it was confirmed to be a chalcocite. It was a very fine chalcocite, but clearly was not from the Caribou Mine. John eventually came to terms with Kosnar, and decided that it was a chalcocite from Levant Mine in Cornwall, and had come to Colorado as a collectable by William Turnby, a partner in the Caribou mine back in the 19th century. Turnby had spent time in Cornwall, thus, this became "a plausible explanation". This is how the specimen was labeled in John's collection when he died. Is the Barlow label believable? Not to me.

The most disquieting aspect of this story is that John Barlow was a very knowledgeable collector – why would he accept this fanciful explanation? John was not duped into his belief by an unscrupulous dealer, but truly believed he had an amazing treasure. This tale is hardly unique – many collectors have labels that they want to believe against a preponderance of evidence.

When Specimens are Historical Artifacts, not Works of Art

Mineral collecting has as many different facets as there are collectors. For many, minerals are works of art; for others, they are expressions of science. For some collectors, including me, minerals collections are ultimately an expression of humanity. Labels tell that human story.

When labels go awry – intentionally or accidently, the story of a collection is diminished. Sometimes this is inconsequential, but other times, the mislabeling is historical theft.

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FM AFFILITIATES



The Friends of Mineralogy is a long-time affiliate of *The Mineralogical Record* magazine. The magazine was founded in 1970 by John White, who was at that time a curator in the Mineral Sciences Department of the Smithsonian Institution. With the initial help of a financial backer, Arthur Montgomery, White succeeded in launching and bootstrapping the fledgling publication to the point where it was marginally selfsustaining. After seven years as editor and publisher, White stepped aside for a new Editor, Wendell Wilson. Since then the *Mineralogical Record* has grown steadily in size, quality and prominence, thanks to the contributions of over 700 authors, photographers, artists, advertisers and donors. It has become a collective labor of love on the part of the entire mineralogical community worldwide. It is the only journal to have received the Carnegie Mineralogical Award. Subscriptions, back issues, books and a variety of free databases are available online at www.MineralogicalRecord.com.





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Image credit: NASA, ESA and the Hubble Heritage Team (STScI/AURA)

The original image, snapped back in 1995, was captured using the Hubble's Wide Field and Planetary Camera 2. It showed us three columns of cool, interstellar hydrogen gas and dust, drenched in scorching UV radiation from young stars. These <u>trunk-like formations</u> protrude from the interior wall of a dark molecular cloud, much like stalagmites jut out from the floor of a cave.