



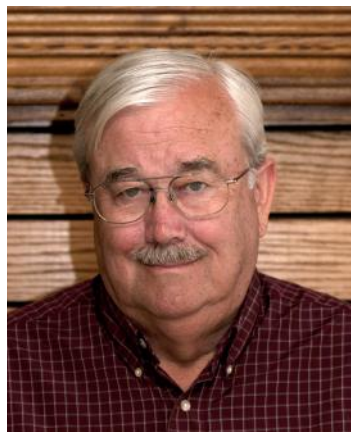
BULLETIN OF FRIENDS OF MINERALOGY

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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.



President's Message By William W. Besse

No report submitted.

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Jack D. Thompson, Sept. 29, 1929 – Feb. 21, 2019

Jack Thompson, of Colorado Springs, longtime member of Friends of Mineralogy as well as of the Colorado Springs Mineralogical Society, passed away on February 21, 2019, at the age of 89. A memorial service was held on March 27 at the Broadmore Community Church, Colorado Springs. He is survived by his wife, Kaye, also an FM member.

Jack was much liked and will be very much missed by his many friends, in and out of the mineral community. He was also for many years at volunteer in the Earth Science Department at the

Denver Museum of Nature and Science, and he loved helping to organize their mineral collection and records thereof. Jack's special interest in collecting and studying minerals was in quartz crystals and in studying their morphology and crystallography. He was also known for giving presentations about Colorado mining history to clubs and schools, dressed in his garb as "The Old



Prospector", accompanied by his faithful (built out of wood) burro, Samantha. Larry Havens is preparing a memorial article about Jack, to be published later this year in Rocks & Minerals magazine. Photo above, Jack and his wife, Kay. Left, a guest exhibit about quartz crystallography by the Thompsons, on display at the New Mexico Bureau of Mines & Geology Museum.



Via Colorado Chapter Newsletter 5/2019

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Friends of Mineralogy – Best Article for the year 2018 Awards

The three best articles in three journals for the year 2018 were presented at the Saturday night banquet at the **Tucson Gem and Mineral Show**. These are annual awards that are chosen from a panel of judges, coordinated by the FM Vice-President. The each journal receives a donation of \$200 in honor of the awardees.



For *the Mineralogical Record*, the best article for 2018 was awarded to Peter K. M. Megaw for “The Santa Eulalia Mining district, Chihuahua, Mexico,” v. 49, no. 1, p. 4- 184.



For *Rocks & Minerals*, the best article for 2018 was awarded to Kenneth Bladh for “Crystal Systems: A Qualitative Visual Guide,” v. 93, no. 1, p. 12-20.



For *Mineral News*, the best article for 2018 was awarded to Herwig Pelckmans for "Malhmoodyte Meanderings," v. 34, no. 6, p. 1,3,15.

Update - An Unusual Specimen from Ohio

This unusual celestite specimen was collected with my students in 1983 at Woodville Lime & Chemical quarry. Two of our experienced field collectors shared the same conclusion about these tubes during an open discussion at the recent *FM Midwest Symposium* at Miami University. They believe them to be casts around former anhydrite crystals. I have added a closeup of one of these tubes (2 mm I.D.) as a first test of this possibility. The tubes have a square to rectangular cross section which is compatible with a missing bladed orthogonal crystal. However, the tube walls are composed of euhedral, pyramidal crystals (still unidentified) that distort any original surface features of the tube interior surfaces that might have held clues. I will continue to study this "old friend" and display it in the FM case at the Cincinnati *GeoFair*.



Via Midwest Chapter Newsletter 5/62019



HARD HATS: A FALSE SENSE OF SECURITY?

Reggie Rose

Introducing Herkimer Hardhead

Howdy y'all. I'd like you to meet my collecting friend Herkimer Hardhead. Herkimer is a second generation collector. I was a classmate of his Dad, Blockhead Hardhead. We were honors students and graduated crash test dummy school together back in the seventies. Considering our fragmented thinking over the years, Herkimer decided not to follow in his Dad's footsteps and crash cars, but instead he thought a healthier career would be modeling hard hats and their accessory features. Herkimer has been collecting minerals and fossils for many years, and though he has binged up a few fingers with his 4 pound sledge, he has never had a head injury in a quarry, because he always wears his hardhat. On several occasions Herkimer has stumbled and fallen on field trips, but has never lost his hard hat during a fall because Herkimer wears his hard hat and uses his chin strap.



Herkimer knows that during a fall, the chances of his hard hat staying on his head are minimal if he does not use a chin strap. Although Herkimer comes from a long line of Hardheads, he realizes that his head is not harder than a boulder and that hard hats are not intended to withstand the impact of a boulder off a 50 foot high wall. Let's look at a short background story in the Amazon region to see how this led to telling Herkimer's story.

A Jungle Story:

Back in February, I watched a TV show on Animal Planet which I had never seen before or since. There were several episodes back to back, and I only watched one show of the series titled Animal Fights. During the episode, a jaguar, known to be an ambush hunter was stalking a monkey. The jaguar was ready to attack, but the monkey saw him and scampered up a cliff. The cliff was so steep it reminded me of a quarry high wall. Well, the monkey escaped the jaguar's clutches, but was stranded on a ledge some 50 feet above the jaguar. The jaguar was quite willing to wait out the monkey. One would think that the monkey had an unsolvable conundrum on his hands, but not the monkey in this episode. He had better things to do than be stranded on a ledge, so he began rolling boulders off the ledge that weighed up to 5 lbs. This discouraged the jaguar who left for an easier meal opportunity.

This got me thinking about Herkimer and safe collecting. If a jaguar left amidst a hail of 5 lb. boulders, what effect would a 5 lb. boulder have on a collector who was struck by a falling rock while venturing too close to a high wall? (Depending on density, a 5 pound boulder is about the size of very large grapefruit.) I checked OSHA hard hat standards, what they are designed for, and what impact they can withstand. Hard hats are meant slow down the force when struck by an object and are expected to be worn to by employees, and were not designed to protect collecting guests who are "high wall huggers". Now I am beginning to understand why quarry people get so twitchy about letting the general public (us) roam around their quarry on foot. Consider the following scenario. If two quarry employees are working on a conveyor belt or some other machinery where one employee is above the other, their hard hats are designed to protect the worker at the lower height if the worker at the higher height drops a tool and it hits his coworker below on the head.

With the assistance of a couple of more physics able minds than my own, (FMer and former science teacher Craig Kramer, astrophysicist Don Stevens and former teaching physicist and mathematician John Hank) I was able to compare the two scenarios.

Potential Energy Calculations: Before an object falls, it has potential energy (PE). PE is calculated by the formula: $PE = mgh$. The units with the monkey - jaguar and boulder - high wall examples are English units. To compare potential energies of those examples, metric units conveniently provide us with Joules as an energy unit. As an object falls, its potential energy is converted to kinetic energy as it impacts its target object.

Hard Hat Standards:

In terms of numbers, hard hats are designed to withstand an impact of 8 lbs. from a vertical distance of 5 ft. To convert to metric units, 8 lbs = 3.6 kg, and 5 ft = 1.52 m. Gravitational acceleration = 9.8m/s^2 . Doing a calculation of the potential energy released at the point of impact ($PE = mgh$) a 3.6 kg mass dropped 1.52 m x gravitational acceleration of 9.8 m/s^2 would strike with kinetic energy of 53.6 J (Joules)

A Collector Too Close to a High Wall:

Getting back to the monkey-jaguar example, would a collector be OK if he/she were struck in the hard hat by a 5 lb rock would fall off a 50 foot high wall. Let us see. A 5 lb. (2.3 kg) rock falling 50 ft. (15.2 m) would generate (the product would be $2.3\text{ kg} \times 15.2\text{ m} \times 9.8\text{ m/s}^2$ (gravitational acceleration) and would strike with kinetic energy of 342.6 J (Joules) at the point of impact.

Looking at the ratio: $\frac{\text{KE of boulder off a highwall}}{\text{KE max a hard hat withstands}} = \frac{342.6\text{ J}}{53.6\text{ J}} = 6.39$

What does this ratio mean? It means that the kinetic energy a 5 pound boulder generates dropping from 50 feet is over 6 times that which a hard hat is designed to withstand. I guess the word here is ouch! However, the word ouch would be incorrect, because dead men can't say ouch. If you get hit in the head with a 5 lb. (2.3 kg) boulder from a 50 ft (15.2 m) high wall, we will not be reporting on what you found on a future field trip. We will be writing your eulogy.

Hard Hats & Chin Straps:

So you think that a hard hat will protect you? In some cases, a hard hat will not save you from serious injury unless you take an extra precaution. What if you trip on a boulder, fall and hit you head on a rock? Will your hard hat stay on your head? Chances are not good. I only know three collectors in this region who use chin straps, but if you want more protection, you should install a chin strap on your hard hat. They are cheap (\$5.00) and are sold locally at Safety Solutions. Inc. (6161 Shamrock Court • PO Box 8100 • Dublin, OH 43016, Phone: 614.799.9900 • Toll Free: 800.232.7463). If you cannot go there, send them an image of the inside of your hard hat or showing the mounting tabs or from the safety store get an image of the chin strap so you are sure the chin strap can attach to your particular hard hat. Unrelated to foot travel in a quarry, one of the times hard hats come in most handy is when you bend over under an open vehicle hatch to examine what one of your fellow collectors found. If you stand up without stepping back, thank yourself for having your hard hat on. Chin straps do look nerdy, but what's the difference, we're already an organization of nerds anyway. Would you rather be a fashion plate with a gash on your forehead, or look nerdy with a chin strap and save yourself a head injury?

A Moral to This Story:

There is a moral to this story. Be like Herkimer. Always wear your hard hat in a quarry. As a further safety insurance, install and use a chin strap. Herkimer does. But do you know what Herkimer does not do? Herkimer does not monkey around high walls. Herkimer is safe, smart and like a good many of us, a nerd.



COLORADO CHAPTER UPDATE

<http://friendsofmineralogycolorado.org/>

Garnet Collecting: Garnet Hill, Ely, Nevada, and Cerro El Toro, La Higuera, Sonora, Mexico

by Marty Houhoulis

Marty Houhoulis graduated in 1982 with a B.S. degree in Geology from Northern Arizona University; Flagstaff, Arizona. Mineral collecting became his passion through many field collecting excursions with friends in Arizona, including annual pilgrimages to Tucson and Quartzsite for the gem and mineral shows. Mining and Mineral Exploration became his profession for 35 years, working for large mining companies such as Phelps Dodge, Magma Copper, Rio Tinto, Sumitomo, and too many more to list. With the advent of NAFTA in the mid 1990's Marty began to work internationally on projects in Mexico and South America. Moving from place to place over the years working in porphyry copper and skarn terranes, and being an avid field collector the opportunity to explore for nice mineral specimens provided a good break from the drill core. Field collecting with hand tools is special because most of the time you enjoy the adventure but only have scraps to show for it, yet you continue. The inspiration comes from the rare instance you find something truly incredible and share it with others.



Early in his career, while working at the Robinson mine at Ruth, Nevada, Marty spent frequent weekends mineral collecting on Garnet Hill. A small hand dug pit was worked for several years amongst Marty, his friends, and many other collectors who visited the area. This small prospect produced hundreds of good garnet specimens. One of the finest of Marty's finds was sold to Dave Bunk Minerals during the early 1990's and was then sold via Paul Pohwat, Mineral Curator, to the Smithsonian Institute where it has now been on display for more than 25 years.

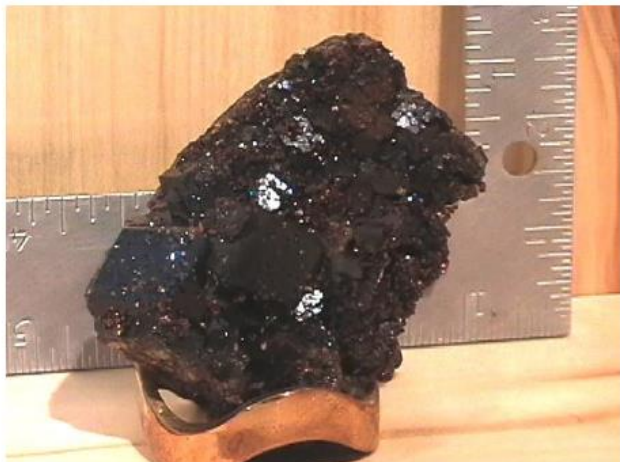


Garnet (manganese-rich almandine) crystals in rhyolite, Garnet Hill, near Ely, White Pine County, Nevada

While working and living in Alamos, Sonora, Marty was exposed to one of the most prolific garnet skarn regions in North America. During the two years he lived there Marty accompanied by local guides visited many areas with well crystallized garnet occurring in a wide variety of colors, shapes, and sizes. One hot Saturday on top of Cerro El Toro and buried in the roots of a large tree Marty discovered several hundred fine andradite garnet specimens, one of which resides in the Arizona Sonoran Desert Museum today.



Alamos #1: A large andradite garnet specimen (7-1/2" x 5"), with crystals in excess of 1", (reverse side), with quartz & actinolite and demantoid overgrowths. Cerro El Toro, La Higuera, Sonora, Mexico. Alamos #1 is a giant specimen, a long vug formed by columnar growths of large deep brown andradite crystals. The vug is lined with hundreds of small clear orange to cherry red garnet crystals perched on top of the larger crystals. This specimen is unique in the entire lot. Marty Houhoulis, self collected in the spring of 1997 near the peak on Cerro El Toro.



Alamos #2; a small cabinet specimen of andradite garnet (3-1/2" x 2-1/2"), with one-inch crystals. A plate covered by very lustrous, large deep brown andradite crystals. The large crystals are sprinkled with small clear orange to yellow garnet crystals perched on top of the larger crystals. There were fewer than six of this quality in this small cabinet size. Marty Houhoulis, self collected in the spring of 1997 near the peak of Cerro El Toro.

Alamos #3, exceptional stalactitic andradite garnet, specimen 3-1/4" long, 2" diameter. Cerro El Toro, La Higuera, Sonora, Mexico.



MIDWEST CHAPTER UPDATE

www.fommidwest.org

Recent Show and FM Meeting in Mansfield

Members of FM Midwest who live near Mansfield, Ohio invited the chapter officers and other members to hold a meeting on the Saturday (June 8) of the Richland Lithic & Lapidary Society Show at the Richland County Fairgrounds.

We did so in the afternoon in the outdoor Nature Center. It was a beautiful day!

On behalf of the officers present, I want to thank our hosts and the FM members at the meeting for an engaging conversation led by Randy on ideas for social and new collecting activities that would be of interest as standalone or concurrent activities on the same

day as FM business meetings. All members present received FM Midwest decals to display proudly.

The Show theme was Fabulous Fluorites and attendees were treated to several displays of spectacular Ohio and world fluorite specimens. Tom Kottyan had a wonderful case of Ohio (mainly Clay Center) fluorites and two others with spectacular fluorite from around the world. The following three photos can only give a hint of the quality and comprehensiveness of this collection.







John and Jay Medici had a case of self-collected calcite and fluorite specimens from Auglaize quarry. The famous purple center-phantom cubes are front and center.



MISSISSIPPI VALLEY CHAPTER UPDATE

Your Report could be here!



NEW JERSEY CHAPTER UPDATE

<https://fomnj.wordpress.com/>

The NJ Chapter of Friends of Mineralogy NJ Chapter, along with the North Jersey Mineralogical Society (NoJMS), had some outstanding monthly Meetings and field trips this past Spring. Each meeting and trip was well attended and members all found good specimens from the respective trip locations, which were in NJ, PA, and CT. The most recent trip outing was just this past Saturday in Monmouth County, at the famed Ramanessin Brook and Big Brook, for marine fossil collecting.

Here are some of our Field Trip reports to get a sense of our collecting trips:

Trip: *Ramanessin Brook and Big Brook*, Holmdel and Marlboro, Monmouth County, NJ
Date: Sat Jun 22

We had a fantastic day of fossil digging yesterday at Ramanessin Brook and Big Brook. Attendees from NoJMS, Friends of Min NJ Ch. and the Morris Museum, were: Groundhog Dave, Derek Yoost, Mike "Mr Maui" Machette, "Super" Nicole Rios, Laura Lynne "Schmeltz", Kimm Brancato, Dr. Diane Carluccio, Jan Strachan, Linda Lovstad, Gary Quam, Laura Jacobson, Rob Rybnicky, Ina Cabrera Franck, Ray Bossinger with daughter, Dan "the Photog" and Linda Sackerman with children Gabriella and Alex, Pat Sheridan, Corey Ogden, Kathy Francis and her husband John. Derek was our official Guide at both locations and was eager to help identify anything that was picked up.

Everyone found a number of small and mid-sized teeth and a few decent sized ones here and there. Derek had 2 outstanding finds, an Arrowhead at Ramanessin, and a BIG Cuclia (hinged bivalve shell like cockle shell) at Big Brook. Nick Sackerman found a small live red-eared slider turtle at Ramamessin Brook, and a few ray crusher teeth were found by various members including The Hog.

On a humorous note, at Ramanessin, The Hog found a spot of "quick-silt" and lost a shoe to the depths after some sinking. Rob Rybnicky assisted the Hog in digging up the shoe which took a LOT of digging. Also in this vein, Ina Taurus braved the streambed sans shoes but wound up fine and had one of the better hauls of nice sized teeth.

Trip Location: Case Quarry, Meshomasic State Forest, Portland, CT

Date: Sat Jun 8

Clubs Represented: Friends of Mineralogy NJ Chapter (FM-NJ), North Jersey Mineralogical Society (NoJMS)

We had an outstanding trip this past weekend to Case Quarry in Portland, CT. Known for boasting plenty of pegmatite material to look through, there was no shortage of opportunities to dig and surface collect. Newbie Anne Wellington introduced herself and brought artisanal Donuts for the trip attendees, which is a great way to ensure getting over with the crowd! Many small pieces of Beryl and Garnet as well as larger Mica and Quartz pieces, were collected. In particular, Ryan Klockner found some stunning large Beryls over an inch long and at least 1/2 inch wide. Also some garnet crystals accompanied his Beryl finds. Newbies Judy Dazle and Reba Quartey found many 1/2 inch Beryl crystals surface collecting in the pit area, and Ron and Jess found numerous small Beryls and garnets further back in the woods. Ron found a particularly nice multi-layer mica specimen in feldspar w quartz. Nina had a notable Beryl find in the pit area, maybe 3/4" square, approximately. Bobby Allen enjoyed the day in his beach chair after a brief collecting spurt early on.

Myself and Bobby Allen enjoyed Guida's Ice Cream after the dig, and we HIGHLY recommend that Guida's be an official stop-over for after the dig.

Trip: National Limestone Quarries, Middleburg and Mt Pleasant Mills Quarry Sites

Date: Sat May 4

Clubs represented: Friends of Mineralogy NJ Chapter (FM-NJ), North Jersey Mineralogical Society (NoJMS), Delaware Mineralogical Society (DMS)

Outstanding trip to National Limestone Quarries yesterday. Had members of North Jersey Mineralogical Society (NoJMS), Friends of Mineralogy NJ Chapter (FM-NJ), and Delaware Mineralogical Society (DMS) in attend. Lots of nice calcite xls and Travertine were found in vugs in boulders and in plates, at both Middleburg and Mt Pleasant Mills Quarries. Some nice Wavellite finds and some Planerite, were found by DMS members at Mt Pleasant Mills Quarry. As always, there was a good canine turnout including Dusty, Max and Angel, and Rainier, among others. We followed up the 2nd quarry with a trip to Jim Van Fleet's to mineral hunt in his barn, which was great as usual. And on the heels of that, some of us went to the nearby Bonanza Steakhouse for dinner per Jeff Wilson's recommendation.

As always, a huge thank you to Eric Stahl for his generosity in having us visit. And also a big thank you to "Host Extraordinaire" Jim Van Fleet for having us mineral hunt in his barn. And a big thank you to Jeff "the Bald Eagle" Wilson for helping steer the course of the day and for our thoughtful conscientious group of members who always help the day run smooth including Mike "Pie Man" Dunton, Ron "ChiselButser" Schulz, and Jess Jacobson.

Date: Sat Apr 13

Trip Location: Bart Twp., Lancaster County, PA

How: Invite Trip from Delaware Mineralogical Society (DMS)

Well we had one OUTSTANDING Field trip yesterday to Lancaster PA for Amethyst collecting. A big thank you to the Delaware Mineralogical Society and Field Trip Coordinator Tom Pankratz and President Teddi Silver for the invite. Over 120 ppl from 6+ clubs attended! Everyone young and old found points and clusters of Smokies, Amethysts and milky or colorless quartz. Surface collecting, aided by recent rain, turned up a lot of nice small points and clusters of amethyst and Smokies. Most attendees, after doing a healthy amount of surface scanning, started digging down as recommended, about a 1 1/2 feet where the greyish soil layer turned to an orange-tan sand. Here the larger clusters and points were found, particularly large in some cases.

Everyone wound up going out with numerous pieces of varying size and quality, too numerous to really name "Finds of the Day".



PACIFIC NORTHWEST CHAPTER UPDATE

www.pnwfm.org

The PNWFM Symposium will be held October 18-20 at the Red Lion Hotel in Kelso, Washington. The theme this year is, "Specimen Mines of the West".

Speaker List:

Virgil Lueth

The Chino Mine, New Mexico
The Magdalena Mining District, New Mexico

Alex Homenuke

The Highland Bell Mine, British Columbia
The Keno Hill - Galena Hill Area, Yukon

Les Presmyk

The Red Cloud Mine, Arizona
The Pioneer District, Arizona

Erin Delventhal

The Blanchard Mine, New Mexico

Friends of Mineralogy
*Specimen Mines
of the West*

October 18-20, 2019 Kelso, Washington

Featuring Talks by:

Erin Delventhal
Alex Homenuke
Virgil Lueth
Les Presmyk

Main Floor Dealers:

Earth's Treasures, Lehigh Minerals,
Pacific Rim Gem & Mineral, & XTAL

And More:

World-class displays
Auctions
Dozens of room dealers
Banquet
Contests



**PENNSYLVANIA
CHAPTER
UPDATE**

www.rasloto.com/FM/

Your Report could be here!



SOUTHERN CALIFORNIA CHAPTER UPDATE

Spring Symposium, March 30, 2019

The spring symposium for 2019 was a wonderful success. The theme was Geology, Minerals and Mining in the northern San Bernardino Mountains and Stoddard Valley area of the Mojave Desert. The symposium was hosted by the Mojave Water Agency, located in the town of Apple Valley, California. The venue was recently renovated and equipped with new high-tech audiovisual equipment. There was a total of 43 participants for the symposium and 38 at our afternoon field trip to OMYA's White Knob quarry. Howard Brown was the guest speaker for the symposium and led the field trips on Saturday and Sunday.

Before retiring Howard was the mining geologist for Omya for more than 35 years and has written numerous published papers on the geology and mining in the San Bernardino Mountains and Mojave Desert area. Howards' first talk outlined the geology, formation of high purity calcium carbonate deposits and existing mining operations in the San Bernardino Mountains, with emphasis on the abundant and famous fluorescent minerals from the White Knob quarry. His second talk summarized the complex geology and numerous mineral deposits in the Stoddard Valley area.

After lunch break, the group met in Lucerne Valley for a tour of the OMYA White Knob quarry. At the quarry we went to several locations to collect. Numerous regional and contact metamorphic and fluorescent minerals are present at the quarry and a variety of minerals were collected by participants. Sunday was a glorious day with colorful desert wildflowers on display. The group traveled to two locations in the Stoddard Valley area to collect, including the Farley mine for massive Epidote and Actinolite, and the Ball Magnesite and iron prospects. The participants collected a variety of minerals at these locations including some exquisite micro-mount crystals.

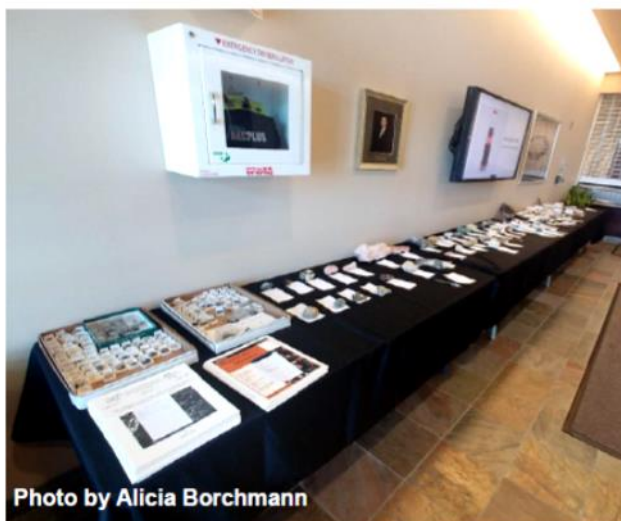


Photo by Alicia Borchmann



Photo by Gregor Lossön

Images 1 & 2. Board members Dr. Robert Housley & Marek Chorazewicz arranged and hosted a display of minerals that our members donated as a fund raiser to support our non-profit organization. Members and guests eagerly participated in our semi-annual Silent Auction. Our SCFM officers and board members thank all members for supporting us in this manner. Note Tori at age 10 in foreground of Image 2 is participating in her second symposium now next to 90+ yr. old Gene Reynolds with cane as all ages are drawn to our symposiums.

Image 3. OMYA California Inc. offices and lab facilities greeted our field trip members where current geologist Jimmy Rogers conducted required safety briefings and issued hard hats and safety glasses.



Photo by Gregor Losson



Photo by Dr. Don Buchanan

Image 4. OMYA quarry tour stop to look at the 100 ton haul trucks used to transport the rock at the quarry. Jimmy Rogers fielded numerous questions from our group on history of the mining operation, environmental impact issues, etc., before we drove upslope to top working level at elevations over 5000 ft.



Photo by Gregor Losson

Image 5. 13 private vehicles ascended up to the top bench of quarry operations to begin an hour of free collecting of carbonates and skarn minerals, including marble, dolomite, diopside, wollastonite, travertine, and some exotic micro-minerals not found previously.



Photo by Hunter Steinmuller

Image 6. University of California Riverside Geology Club president Astrid Garcia (left female), and California State University San Bernardino graduate and Inland Geological Society president Jessie Bagby (right female) search for specimens to establish their developing knowledge of real mining operations and growing collections.

MINERALS RECOGNIZED AT WHITE KNOB QUARRY

SULFIDES	CARBONATES	SILICATES AND OTHERS	
Pyrite	Calcite*	Diopside*	Alunite
Pyrrhotite	Aragonite*	Wollastonite*	Chrysocolla
Sphalerite	Travertine*	Vesuvianite	Quartz
Chalcocopyrite	Caliche*	Mn Vesuvianite	K feldspar*
Galena	Dolomite*	Lazulite	Plag feldspar
Molybdenite	Mn Calcite*	Garnet andradite	Biotite
OXIDES	Rhodocrosite*	Garnet grossular	Muscovite
Magnetite	Malachite	Garnet spessartine	Hornblende
Hematite	Azurite	Epidote	Tremolite*
Geothite		Piedmontite	Actinolite
Zincite		Serpentine	Jasper
Powellite*		Chert	Chalcedony*
Pyrolucite		Chlorite	

* = FLUORESCENT

Slide by Howard Brown

Image 7. Howard Brown shared in his power point presentation a listing of the common minerals he has found in the OMYA California Inc.'s White Knob quarry shown here in this slide. Marek Chorazewicz was able to find and identify a few new microminerals on this field trip that will add to this list. NOTE: the mottramite specimen in Image 11 below and hydromagnesite micromineral shown in Image 26 are new minerals for these localities and will be reported to Mindat.



Photo by Gregor Losson



Photo by Gregor Losson

Images 8 & 9. White Knob quarry Skarn minerals: Brown garnet, white wollastonite, light blue/grey calcite marble (right), pistachio green epidote (left).



Photo by Gregor Losson

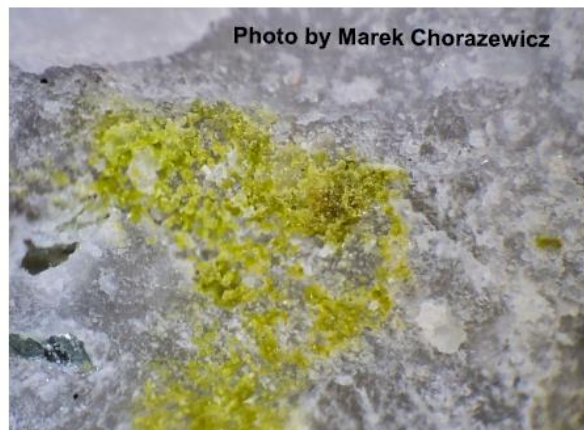


Photo by Marek Chorazewicz

Image 10 & 11. High purity white calcite marble high grade ore sample in image 10. Image 11. Marek Chorazewicz and Dr. Bob Housley identified on Raman at the Caltech spectroscopy lab that the sparkly yellow balls and layers found on calcite at the top bench at White Knob are mottramite, a new mineral for this locality; the FOV is 3mm.



Photo by Gregor Losson

Image 12. Travertine coating on calcite. Slightly acidic water gets into fractures and dissolves the calcite, but as the calcite dissolves the chemistry of the water changes to where it no longer dissolves, it precipitates



Photo by Gregor Losson

Image 13. Yellow wollastonite embedded within grey calcite marble.



Photo by Andy Willis



Photo by Dr. Don Buchanan



Photo by Hunter Steinmuller



Photo by Dr. Don Buchanan

Images 14-17. Geologist Jimmy Rogers allowed our group to scour a lower bench where a lot of contact metamorphism specimens have been found in the past, then gathered us around various pieces of equipment used in daily operations where he opened up to answer a myriad of questions from all of us about minerals found, history and mining operations.



Photo by Howard Brown



Photo by Howard Brown

Image 18 & 19. Farley epidote mine can be seen from miles away due to the apple green tailings slopes from the mining operations. Closer photos of mining scarp and scattered boulders of massive epidote abound everywhere, and some are fractured with white calcite and other microminerals as seen below in Images 20-22..



Photo by Howard Brown



Photo by Howard Brown

Image 20 (above) illustrates scattered epidote boulders down to sand size specimens. Image 21 (center right) with rock hammer depicts calcite veins penetrating massive epidote deposit here with rock hammer for scale. Image 22 (right) shows lustrous epidote crystals with quartz needles on actinolite matrix from the Farley mine trip leg. It was etched out from a calcite vein with HCl acid.



Photo by Marek Chorazewicz



Photo by Andy Willis



Photo by Melissa Poeck

Image 23 & 24. Ball Magnesite and iron deposits at our last stop on Sunday were found in Stoddard Valley region on the ridges, as magnesite formed from alteration of dolomite by intrusion of mafic (diabase) dikes. The magnesite ($MgCO_3$) are normally microcrystalline porous masses with a dull luster. Iron magnetite was found adjacent to these diggings.



Photo by Dr. Don Buchanan

Image 25. A very large mass of magnesite is observed at top of adit opening with balls or rosettes on surface.



Photo by Marek Chorazewicz

Image 26. Marek found hydromagnesite as rosettes and balls of bladed clear crystals on white magnesite as seen in Marek's microscope photo., FOV 3mm, as measured on Raman at Caltech spectroscopy lab.



NATIONAL MEMBERS “AT-LARGE”

Your Report could be here!

**Would someone like to speak up for the “at-large”
members?
Needs, wants, comments?**

From Your Editor

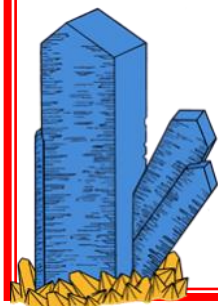
I invite all chapters and anyone from the Members At-Large to either email me their chapter newsletters or a President's report each quarter. Chapters would really like to learn from each other what is working for them or what exciting things are happening like field trips or presentations.

I request that they be emailed since I can store them in one location and not have to search around the internet for every chapter that posts theirs. Just add me to your email list. Beth Heesacker, heesacker@coho.net .

I also invite your pictures of your minerals to grace the pages of this newsletter.

Also please let me know if your President changes so I can keep the officers' page up to date.

Your articles can make this Bulletin a greater resource for mineral collectors around the world. Thank you in advance.



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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 a new mineral species named in its honor (minrecordite), and 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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