

Lake George Gem & Mineral Club

Club News,
October, 2022



On Saturday, October 8, LGGMC member Mark Ivan Jacobson will talk about the history of collecting amazonite and other minerals in the Crystal Peak area. The October meeting starts at 9:00 AM at the Lake George Charter School, just east of Lake George, CO. Mark is working on a huge new book on the minerals and collecting history of the area—you won't want to miss this presentation! Here's an abstract of his talk:

**The Crystal Peak amazonite-smoky quartz locality,
Teller and Park counties, Colorado: (1873-1986)**

Mark Ivan Jacobson

The Crystal Peak pegmatite locality first became known in February, 1873, with Jesse Summers Randall's terse note, published in the Georgetown *Miner* newspaper. He stated, "Smoky quartz or Cairngorm ... Park County – Fine dark colored crystals associated with crystals of orthoclase

and Amazon Stone on Elk Creek. Also near Judge Castello's on the South Platte." James Castello had homesteaded a combination ranch - trading post - hotel in June, 1870, along what was the Ute Indian trail between Manitou and South Park, where Florissant is located today. The Colorado Springs *Gazette*, in July 1874, announced "quite an excitement in that locality over some Crystal Deposits lately discovered about seven miles north of Judge Castello's place." Abram J. Randall noted 25 to 30 crystal diggers during his visit in 1875. Albert E Foote stated that, in 1875, 17 crystal diggers were shipping crystals to him. George White reported in 1935 that George Reeser told him that, in 1874, he had observed 19 specimen hunters digging crystals.

By the fall of 1875, all the Colorado mineral dealers as well as anyone who read the local newspapers or visited the curio stores in Manitou Springs, Colorado Springs, or Denver knew about the smoky quartz and amazonite from the "Crystal Mountains." The largest smoky quartz crystal recovered at this time was 4.5 feet long by 10 inches wide and was exhibited at Lewis Hamilton's mineral store in Denver prior to being resold. The largest reported pocket at that time contained 4,000 pounds of crystals and was found by Albert Anthony in September, 1875.

Some of the men who we can prove were crystal-specimen hunters in 1875 were Thomas F. Houghton and his son John S. Houghton, George Reeser, Joel W. Disbrow, John Powell, George Coplen, Albert Anthony, Lewis Hamilton, Joseph Hurtgen, and Abram J. Randall. James Castello also sold specimens at his hotel. Thomas Houghton is documented to have shipped large quantities ("annually from 4 to 5 tons" – *CS Gazette*, 1877) back east as well as to the specimen stores in Denver, Colorado Springs, and Manitou. Feisty Albert E. Foote acquired his stock in 1875, mostly by mail-order purchase from other specimen hunters, with some contributions by purchase on-site during his own six visits to Crystal Peak prior to 1876. Foote was prolific in advertising, bragging, and selling smoky quartz and amazonite in his own store that opened on January 17, 1876, even before the Centennial Exposition, Philadelphia which opened on May 10, 1876. The black and white mineral plates exhibited in his catalog show the quality of this first obtained material.

During the 1880s, later visitors such as Roselle Theodore Cross, Walter Brown Smith, Joseph G. Hiestand, Arsene H. Thiebaud, and Abram Randall dug their own crystals or purchased specimens and resold the material to East Coast and local collectors. By 1880, phenakite and topaz were also recognized from the Crystal Peak area by C. Whitman Cross and William F. Hillebrand (1882). Other minerals recognized almost from the start were fluorite, goethite, albite, hematite, columbite, cassiterite, orthoclase, muscovite, and pseudomorphs after siderite [or calcite]. George L. English and Ward's also acquired and sold Crystal Peak material.

The Colorado Scientific Society collection (Mines Museum of the Colorado School of Mines) helped preserve some of these first discovered specimens and their provenance. Similarly, collections at Harvard University, the American Museum of Natural History (Bement collection), NY State Museum (Kunz collection), the Smithsonian Institution (Holden collection), and the Denver Museum of Nature and Science (the R. C. Hill collection) contain specimens from the earliest collecting era.

By the 1890s, out-of-state and local mineral dealers were buying Crystal Peak specimens for resale. They included William C. Hart (Loveland-Manitou), George L. English (New York), Maynard Bixby (Salt Lake City), George W. Reeser (Florissant-Manitou), George Addison Coplen, and George H. Weed,

By 1908, the next wave of younger specimen collectors was exploiting the pegmatites. James D. Endicott and Alonzo Henry Davis of Cañon City started development of claims around Crystal Peak. Albert Barnes Whitmore, with help from George A. Coplen and his son George Henry Coplen, George H. Weed, Anna M. Saunders, and other friends from Cripple Creek formed, in April 1912, the Crystal Peak Gem Company. Whitmore's peak years of activity, with

a retail store in Cripple Creek, probably only lasted until 1918. His partners moved on to other commercial activities, but Whitmore moved permanently to the property circa 1920, until he was paralyzed by a stroke some years later (circa 1938) and moved to the Cripple Creek hospital. He lived in the Cripple Creek Hospital until two years before he died.

Prior to the formation of the Colorado Springs Mineralogical Society in 1936, several Colorado Springs collectors made field trips to the Whitmore claims and adjacent areas. Collectors such as George White, Ed Over, Willard Wulff, Orville Ackers Reese, Carl Mathews, Abby Kernochan and others made trips to the locality when Whitmore still lived onsite.

As a high school student, Jerome Hurianek worked for Whitmore during the summers of 1934-35. In 1938, Hurianek stated that the largest pocket he had been told about was 15 x 15 x 6 feet in size and was found in 1909-10 by a Mr. [George Addison] Copeland [sic Coplen of Cripple Creek].

With the passing of Whitmore in 1943, the patented or homesteaded former digging areas become increasingly off limits to collecting. Thus, after World War II, prospecting and claiming land moved northwards onto unpatented national forest lands in Park and Teller counties. Collectors during this era included Clarence Coil, Orville Reese, Jerry and Thelma Hurianek, Ray Ziegler, George Fisher, C. W. "Bill" Hayward, and others. Notable discoveries included Clarence Coil's striped amazonite pocket of 1974, the 1978 Ordway pocket on the Bartsch-Currier claim, the 1981 museum pocket by Thelma and Jerry Hurianek, and the Keyhole vug on the Ten Percenter claim by Don Smith, in 1986.

This presentation will review some of the historic collecting and discoveries made at Crystal Peak by some of the collectors mentioned above, and the iconic or historic specimens that have been preserved in collections without losing their provenance. It is hoped that this presentation will encourage others to better preserve the provenance of their beloved specimens.



Figure 1. Amazonite and cleavelandite from Crystal Peak. Collected prior to 1876, possibly by Thomas F. Houghton, sold to Albert E. Foote, lithograph drawing of the crystal by Chamberlain in 1876 and sold to G. F. Kunz. Kunz sold the specimen to the NY State Museum in 1886. Specimen is 9 by 7 inches. Courtesy of the New York State Museum, George and Barbara Gerhard photographers.

Mark Ivan Jacobson is a geologist-mineralogist specializing in pegmatites. He obtained a BS in mineralogy-geochemistry from Pennsylvania State University in 1973 and an MS in sedimentary geology from the University of California at Berkeley in 1976. After graduate school, he worked for Amoco and Chevron in oil and gas development as an earth scientist, completing 35 years with Chevron before retiring in 2013. He has published numerous articles on the geology, mineralogy, and mining-collecting histories of pegmatites since 1978 as well as three major books: *The Gems of Hiddenite, North Carolina: Mining History, Geology, and Mineralogy* (2021), *Guidebook to the Pegmatites of Western Australia* (2007), and *Antero Aquamarines: Minerals from the Mount Antero - White Mountain Region, Chaffee County, Colorado* (1993). He has been a consulting editor for *Rocks & Minerals* since 1984 and has previously been President of the Friends of Mineralogy, Colorado Chapter (2014-2016) and Friends of Mineralogy - National (2017-19, 2021-23).

* * * * *

Scheduled Programs at Club Meetings:

The Club currently has no program coordinator. If this is a job that appeals to you, please consider volunteering to do this.

- **Silent Auction!** Several lucky people bought bargains at the September meeting. In October, we hope to have more great items. Bring cash and bid high for Club projects!
- Here's a note from **Dave Alexander**, our field-trip maven:
This was a marquee year for the club, we had the most trips since I've been coordinating. We had 31, but a couple were cancelled so the total (assuming the 6 forthcoming) will be 29. I had help by Cory Miller and Carol Kinate in coordinating trips this year (they each did a couple) and we had many volunteer leaders helping with the individual trips. I'm highly biased but I'm going to say it anyway, it was an amazing season and I'm grateful for those who want to help me in both coordinating and leading.
- The remaining trips for this year are out of state/multiple location trips. Western Colorado/Eastern Utah 3 locations this weekend and the New Mexico 3 locations (with RAMS) in late October,
- When viewing the field trips event site, I have added a "September Update" that details our club's need for volunteers for next year. There are two roles where folks can participate depending on their desire, skill and/or comfort level, of course folks can do both! I have broken them out to hopefully spawn more interest in helping; the coordination role can all be done from the comfort of your home; whereas the leader role is out in nature. Due to some negative experiences I've had in volunteer organizations in my past (where I did very little to support the cause I wanted to support - instead doing just mundane clerical work) I've focused on making these volunteer roles doing the fun stuff and leaving the clerical work mostly to the event software! Isn't that what robots/computers are for, doing the mundane stuff?
- For the 2023 events/field trip program, I'd like to schedule a meeting (was thinking as part of or after the November 12th meeting??) where anyone who has interest in participating and brainstorming our field trips for 2023 could give their ideas. Additionally I'll be taking ideas via email, phone or however folks want to participate. Then I'd like to recruit perhaps 3-8 coordinator volunteers that can help me

(the field trip coordinator leader volunteer) with coordination effort for the 2023 field trips. Having many coordinator volunteers with experience will ensure that the club stays healthy far into the future, will offer the fun of coordinating to many, and will relieve the burden (and risk!!) of just a single individual doing all the work while retaining a rich field trip events program year after year. Divide and conquer as they say!

- For 2023 I plan to volunteer again leading the field trip events coordination role, but again I will need help as I will not be able to coordinate the amount of events like we've had in the past several years! My ultimate goal is to have a 2023 program at least partially figured out and published before January 1 registration opens.

--dave

- **Election of officers** has been postponed. Please contact one of the current officers (listed at the end of this newsletter) if you would consider running for a 2023 office.

ADDITIONAL COMING EVENTS OUTSIDE THE LGGM CLUB: (Nearby gem, mineral, fossil, and geology events that you may enjoy.)

- **Denver Gem and Mineral Guild Silent Auction, October 14**

Meeting: SILENT AUCTION—our primary moneymaker!

When: Friday night, October 14

Where: **Wheat Ridge United Methodist Church, 38th & Vance**

Set up at 6:00; auction starts at 7:00

Bring food to share!

- **Littleton Gem & Mineral Club Silent & Verbal Auction
Saturday, October 15, 2022**

Heritage United Methodist Church,

7077 S. Simms Street

Littleton, CO 80127-3241

Seller set up starts at 11 AM,

Silent auction starts at Noon,

Verbal auction starts at 1 pm;

Checkout starts at 3:30 pm

Bring your minerals, gems, jewelry, fossils, books, and equipment to sell. Club retains 20% commission.

Non-club members are limited to 2 flats. Members are limited to 4 flats.

Payment is by cash or check only.

Email Lynette Warren at flywithle123@comcast.net to pre-obtain a seller/buyer number or get it at the door.

- **Cañon City Geology Club**, meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City
- **Columbine Gem & Mineral Society**, meets on the 2nd Thursday of each month, 6:30PM in the meeting room, Mt. Shavano Manor, 525 W. 16th (at J St.), Salida

- **Colorado Springs Mineralogical Society**, meets on the 3rd Thursday of each month at 7PM in the Mt. Carmel Veteran's Service Center, 530 Communication Circle, Colorado Springs;
- **Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

As usual, Wayne Orlowski sent some interesting links:



- Always amazing! Folded metaturbidites from the Lower Cambrian of Kangaroo Island, South Australia.



- Hollandite inclusions in quartz, Ankatseketsa, Madagascar. Hollandite is a relatively rare barium-manganese oxide that sometimes forms star-shaped inclusions in quartz, as a result of simultaneous crystallization of the two minerals. This is an unusually fine example.

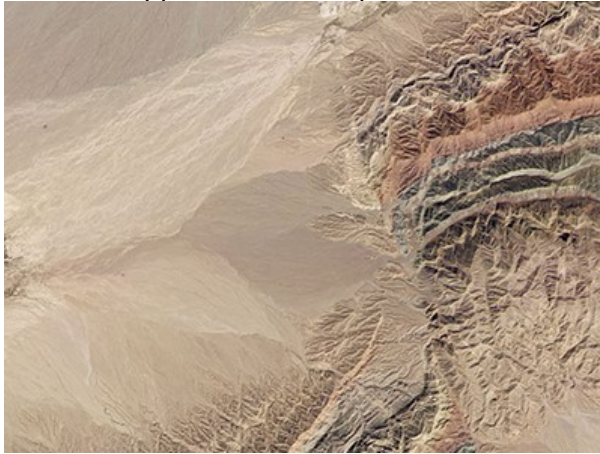


- Megaspherulites in rhyolitic lava-flow, Silver Cliff volcanic field, Wet Mountain Valley, Colorado, US. A spherulite is a spherical body generally found in rhyolitic rocks (volcanic rocks rich in silica). Spherulites often have a radial structure that results from the directional growth of quartz and orthoclase. They are generally quite small. These megaspherulites are believed to have formed as a result of rapid mineral growth after nucleation, possibly by the concentration of volatiles in the magma.

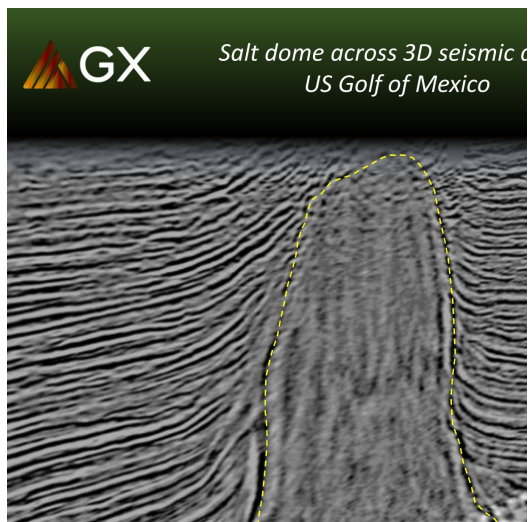
- Watch this amazing video of a mountain glacier collapsing in Patagonia:

<https://www.reuters.com/world/americas/mountain-glacier-chiles-patagonia-collapses-amid-high-temperatures-2022-09-13/?fbclid=IwAR1J49ZFCdmBvU0Rt138iivcNZYAutWDwhZ9DuUY5iAyWR4-VeOcc4ruV-Y>

- A apparent strike-slip fault, seen from space. Taklamakan Desert, Northwest China.

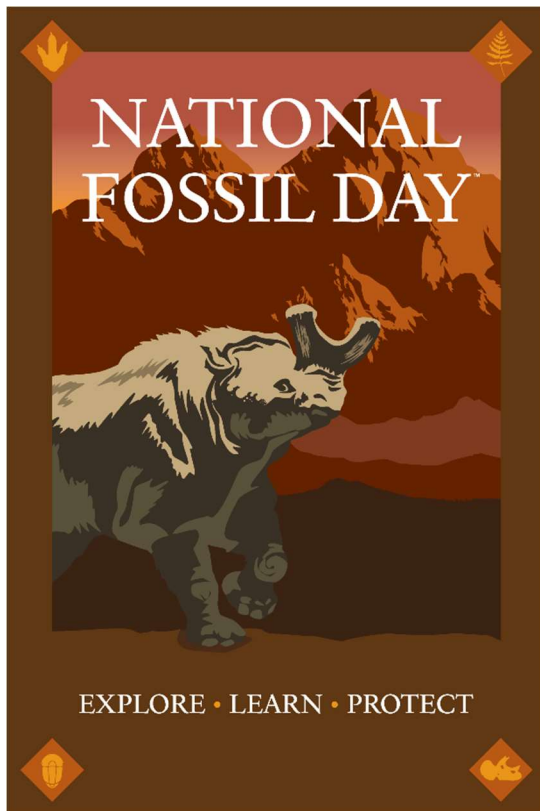


- A salt dome in the Gulf of Mexico, seen in a seismic section. Flanks and crests of salt domes are important area that trap oil and gas. For scale, salt domes may be a mile across and 2 mi. high.



- Here's a link to an interesting article from *Smithsonian Magazine*: https://www.smithsonianmag.com/travel/treasures-of-fossil-lake-180980544/?utm_source=join1440&utm_medium=email

- **Steve Veatch** sent this reminder to help celebrate National Fossil Day, October 12.



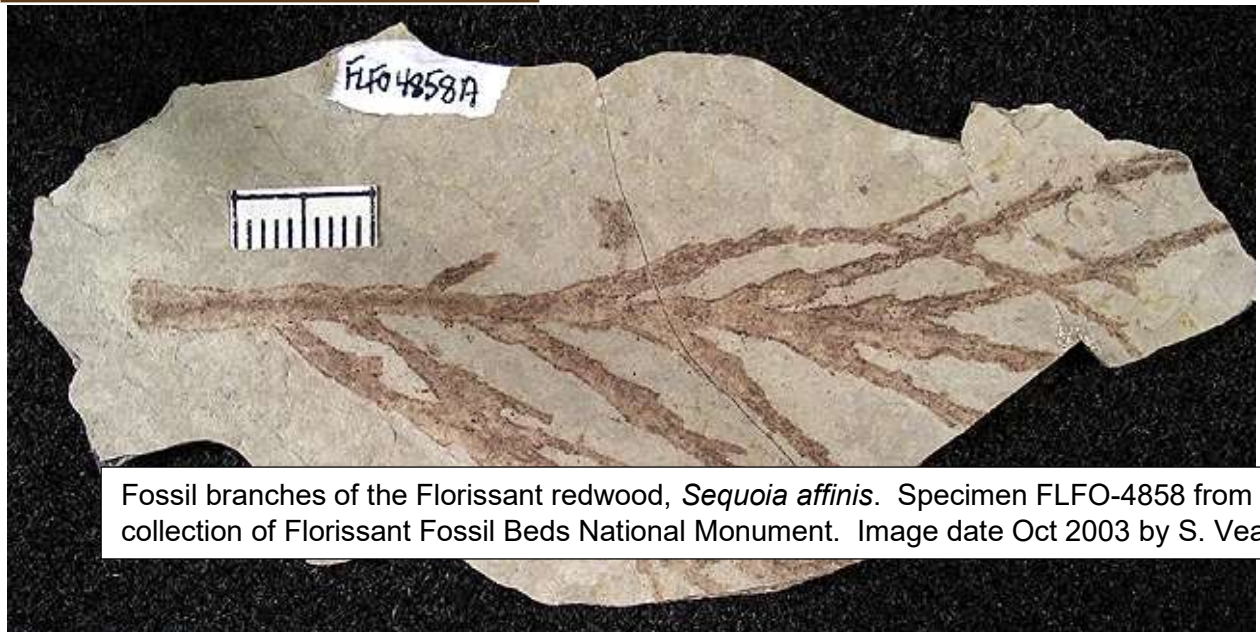
Fossils

By Steven Wade Veatch

Fossils.

Mammoth bones,
petrified trees,
insects trapped in amber,
pine pollen, a moss spore,
impressions in paper-thin shale,
stony steps of a dinosaur trail.

Just fragments of time,
puzzling pieces, vestiges
in layered ground:
A kingdom come,
a realm now gone,
past worlds in stone.



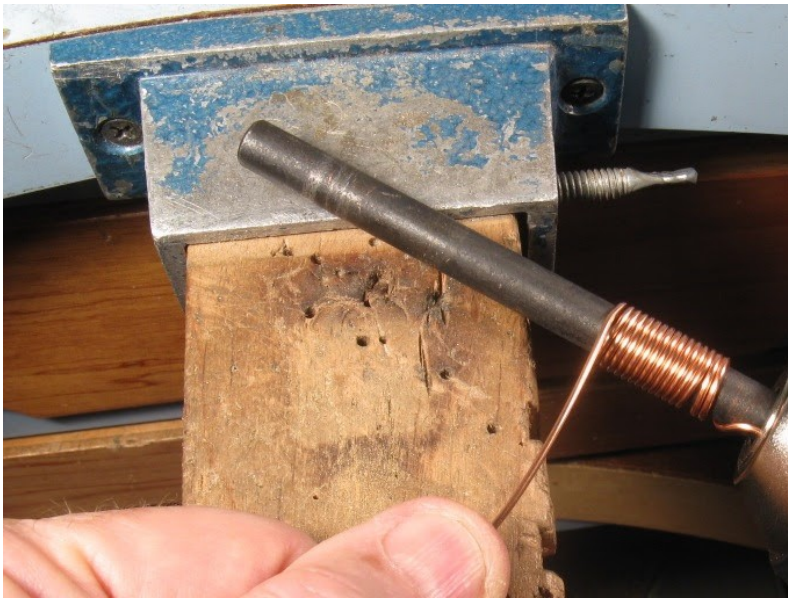
Fossil branches of the Florissant redwood, *Sequoia affinis*. Specimen FLFO-4858 from the collection of Florissant Fossil Beds National Monument. Image date Oct 2003 by S. Veatch.

- And here is the latest installment of “**Bench Tips**” by **Brad Smith**: (www.BradSmithJewelry.com)

WINDING JUMP RINGS

If you need a few jump rings the same size, it's easy to grab a round rod and wind as many as you need. But when you need a lot of them, some form of winder saves a lot of time. A variable speed screw gun makes quick work of winding the coils. Screw guns are quite inexpensive at discount stores and are remarkably handy for odd jobs in the shop and around the house.

To wind a coil, just bend a right angle on the end of the wire about a half inch long and insert this into the screw gun chuck. Then wind slowly, keeping a tight coil. I like to rest the end of the mandrel on the edge of the table or bench pin. Finally, **one note of caution**. If you are winding an entire length of wire, be careful as you get near the end of the wire. If the end passes under your thumb, it can cause a nasty scratch or cut.



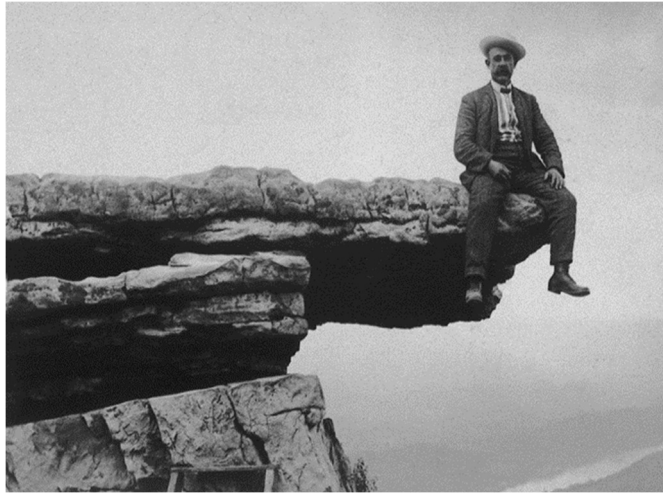
TOUCHING UP A BEZEL

Pumice wheels are good for touching up a bezel after you've set the stone. The hardness is about 6 on the Mohs scale, less hard than quartz, so it shouldn't scratch any of your agates or jaspers. However, I'd avoid or be careful of using pumice near the softer stones like turquoise, amber, howlite, etc.

If you're unsure about the hardness of your wheels, test them on a piece of glass. Glass is about 5 ½ on the Mohs scale, softer than quartz. So if the wheel doesn't harm glass, it's safe for use on the quartzes and harder stones.

My preference is the one-inch diameter ones such as those shown at riogrande.com/Product/AdvantEdge-Pumice-Wheels-Medium/332722?pos=2

Smart Solutions for Your Jewelry Making Problems:
Amazon.com/author/bradfordsmith



Notes from the Editor

Bob Carnein

Newsletter Editor
ccarnein@gmail.com

Here's a short article by yours truly about an interesting find near the New Hope amethyst locality.

Something New Near the New Hope Claim

by Bob Carnein

On July 27, 2022, several LGGMC members accompanied **Patrick Hale** on a Cañon City Geology Club field trip to their New Hope amethyst claim, on BLM land near the Royal Gorge. A few years ago, **Richard Kawamoto** showed me something that he had collected about a half mile northwest of this well known locality. It turned out to be orange-fluorescent baryte, similar to baryte from at least two localities in nearby Custer County. I was eager to see the occurrence for myself, and Patrick, knowing my tendency to dizzy spells and spills, obliged by driving me almost to Richard's site.

It turned out that there are two baryte prospects on a ridge following a northwesterly trend. Both contain baryte-calcite breccias, but the more northerly one seems to be the more interesting of the two. This apparently was true for the original prospectors, who expended a lot of back-breaking effort to dig a 30-foot vertical shaft, which is still open (and dangerous to those unaware of its existence).

In places, the rock exposed on the tailings dump is a yellowish to reddish-brown calcite-baryte breccia containing orange fluorescing baryte and bluish-gray fluorescing calcite (Figure 1).

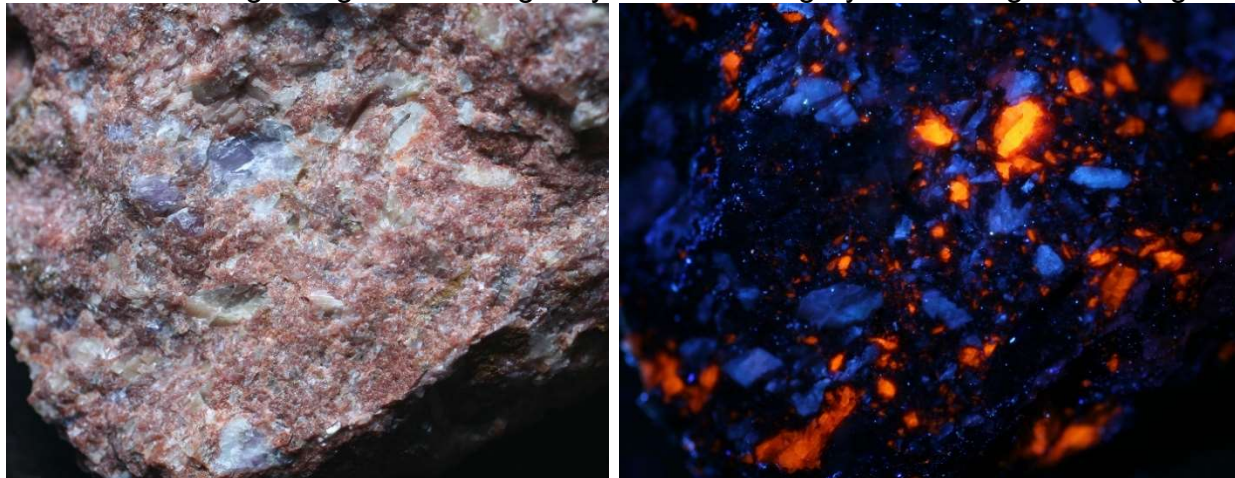


Figure 1. Freshly broken calcite-baryte breccia in daylight (left) and in LW ultraviolet (right). The orange fluorescence is baryte. (Carnein collection and photos)

Both of these fluorescent colors are somewhat unusual for these minerals. Both calcite and baryte often fluoresce, but orange fluorescence in baryte is relatively rare. I know of at least 2 localities in Custer County that contain baryte that is strongly fluorescent in shades of orange to “peach”. The activator is not known at this time.



Elsewhere at the same prospect, we found white calcite, in radiating aggregates to more than 2 inches across, that show no distinct fluorescence (Figure 2) and thin veins and vugs containing calcite crystals that fluoresce pink (figure 3).

Figure 2. Calcite in radiating aggregates from the New Hope locality. (Carnein photo and collection)

The calcite varieties are certainly interesting, but, while checking out some vuggy looking dump material, I came across a specimen containing a small cavity with some greenish-yellow crystalline material with a vaguely botryoidal (“grape like”) habit (Figure 4). It looked like some smithsonite I’ve seen, but one would expect to find associated sphalerite with that mineral, and none seemed to be present in any of the rocks that I broke.

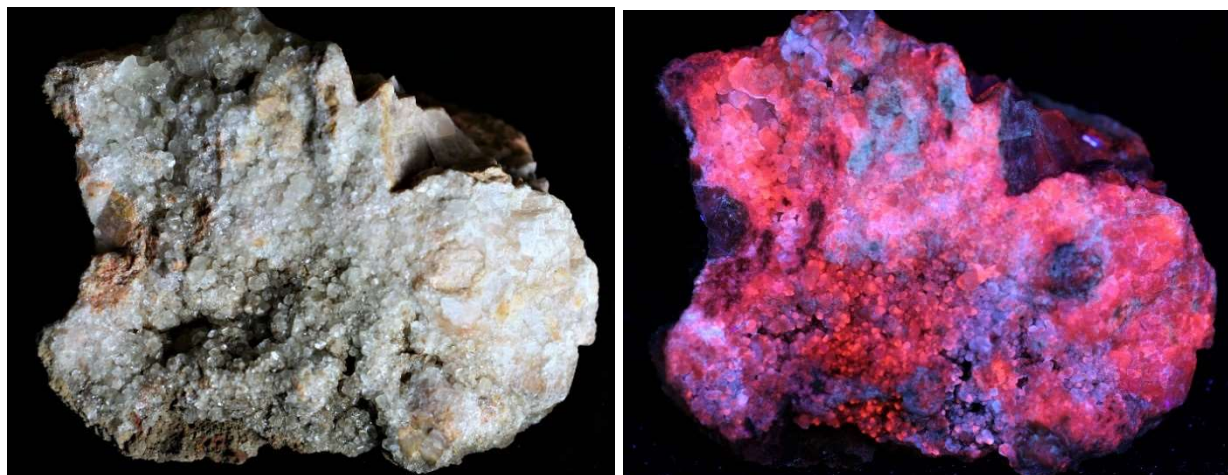


Figure 3. Calcite crystals in white light (left) and shortwave UV (right). (Carnein photos and collection)

When I got home, I took out my trusty Convoy S²⁺ longwave ultraviolet lamp and discovered that the unknown mineral fluoresces a bright pale yellow (Figure 4) and exhibits a weak greenish- white phosphorescence. In shortwave UV, it fluoresces weak greenish-white and phosphoresces weakly in the same color. I immediately thought of aragonite or calcite, but dilute hydrochloric acid produced no reaction.

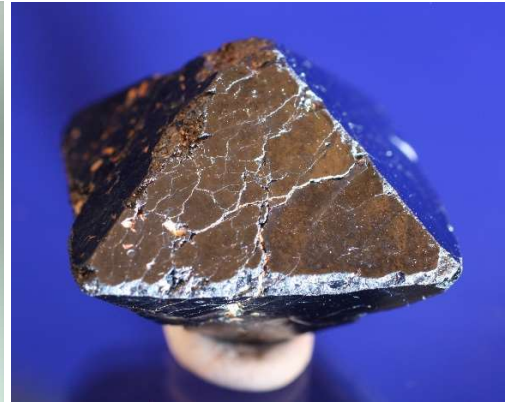


Figure 4. New Hope unknown in visible light (left) and in LWUV (right). (Carnein collection and photos)

I next broke off a small, clean sample and included it with some others in a shipment to Kelsey McNamara at New Mexico Tech. Ms. McNamara operates the XRD lab at NMT, and in the past, she has favored our Club with several mineral identifications. Within a few days, Ms. McNamara returned the XRD results, which identified the mineral unequivocally as fluorite. This is the first report of fluorite that I am aware of in the baryte-calcite breccia veins north of the New Hope claim. It is also very unusual in that fluorite rarely fluoresces in shades of yellow, the most famous occurrences being the brown or yellow fluorite from quarries in Ohio and elsewhere in the midwest. So far, this specimen is a tantalizing “one-offer”—I hope I or others can return to this interesting locality and find some more, better specimens in the future.

Monthly Mineral Quiz

The Monthly Mineral for October (Carnein photos and collection)



This month's mineral is a tough one, in more ways than one. It occurs as complex crystals (the one on the right, above, is atypical) that are often twinned. Its high hardness, bright luster, imperfect cleavage, and occasional transparency make it a candidate for faceted gems, but its root beer-brown color isn't particularly attractive to most gem collectors. Instead, this mineral is the most important ore of a metal that is mostly used in alloys and coatings. Hardness is 6 to 7, SG is about 7; these and the lack of perfect cleavage make this a great candidate for placer deposits. It is found in hydrothermal veins, granites, and pegmatites, including the pegmatites of the Pikes Peak/Crystal Peak area. What is this important ore mineral?



Last Month's Mineral:

Pyromorphite $Pb_5(PO_4)_3Cl$.

Pyromorphite, the lead arsenate *mimetite*, and the lead vanadate *vanadinite* form a series and are all part of the apatite supergroup. All three occur in the oxidized zone (above the water table) in mixed sulfide deposits that include galena. Pyromorphite crystals from Phoenixville, PA were, for years, arguably the most attractive known, and collectors vied for fine specimens. However, various other localities (especially China, as in the specimen to the left) have produced better examples. The Pennsylvania pieces are now considered to be American classics. The crystal habit, SG, and color are often "give aways"; massive specimens are uncommon.

Eckel, E.B., 1997, *Minerals of Colorado, Updated and Revised by R.R. Cobban, et al.*: Golden, Colorado, Fulcrum Publishing.



The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geology and history of the Pikes Peak/South Park area, Indian artifacts, and the great outdoors. The Club's informational programs and field trips provide opportunities to learn about Earth science, rocks and minerals, lapidary work and jewelry making, and to share information and experiences with other members. Guests are welcome to attend, to see what we are about!

The Club is geared primarily to amateur collectors and artisans, with programs of interest both to beginners and serious amateurs. The Club normally meets on the second Saturday of each month at the Lake George Community Center, located on the north side of US Highway 24 on the east edge of town, sharing a building with the county highway shops. **In the winter, we meet at 10:00AM. From April through October, we meet at 9:00AM, to allow more time for our field trips.**

Our organization is incorporated under Colorado law as a nonprofit educational organization, and is a member of the Colorado, Rocky Mountain, and American Federations of Mineralogical Societies. We also sponsor an annual Gem and Mineral Show at Lake George, where collectors and others may purchase or sell rocks, minerals, fossils, gems, or jewelry. Annual membership dues (Jan. 1 through Dec. 31) are \$15.00 for an individual (18 and over), and \$25.00 for a family (parents plus dependents under age 18). New memberships and renewals are only accepted Jan 1 through March 31 each year.

Our Officers for 2022 are:

Richard Kawamoto, President
7584 Cedar Mountain Rd.
Divide, CO 80814
719-748-8152
rmkfishalot@gmail.com

John Rakowski, Vice President
PO Box 608
Florissant, CO 80816
719-748-3861
rakgeologist@yahoo.com

Lorrie Hutchinson, Secretary
10915 Grassland Rd.
Colorado Springs, CO 80925
719-330-2795
4lohutch@gmail.com

Cathy McLaughlin, Treasurer
11595 Owls Nest Rd.
Guffey, CO 80820
702-232-3352
cathy_mclaughlin@hotmail.com

C.R. (Bob) Carnein
Newsletter Editor
507 Donzi Trail
Florissant, CO 80816
719-687-2739
ccarnein@gmail.com