

Lake George Gem & Mineral Club  
**Club News,**  
**June, 2023**

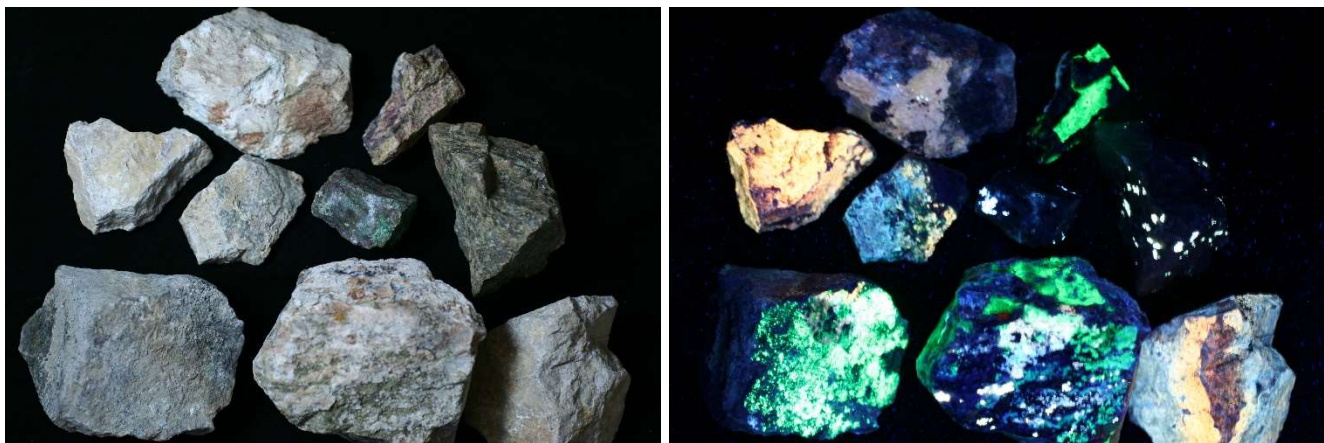


The June meeting will take place at the Lake George Middle School at 9AM on June 10, 2023

**Bob Carnein** will introduce “**The minerals and Geology of the Gold City Claims, Park County, Colorado**”

Here’s a description:

Thanks to Club member **Steve Gorman**, members of the LGGMC will have 4 chances to visit his Gold City claims, a few miles west of Lake George. If your collection has too much amazonite and smoky quartz and you’d like to add some new minerals to your vocabulary, how about chrysocola, clinozoisite, grossular, powellite, and wollastonite, to name just a few of the 15 or so minerals found at this fascinating, nearby locality? And, if you are into fluorescent minerals, bring your shortwave and/or longwave UV lights with you to one of the night-time collecting opportunities—it’s a whole new world of mineral collecting that few other clubs provide for their members.



Some minerals from the Gold City claims. Photo to the right in SWUV.

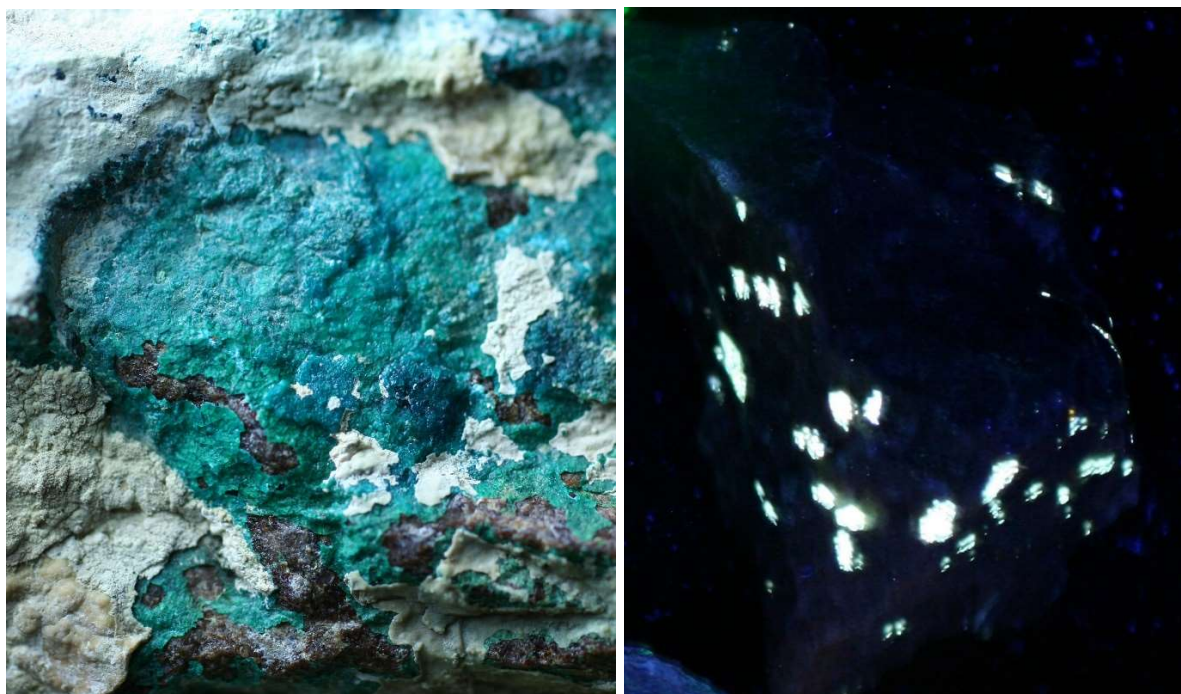
The Gold City claims occur at the boundary between two major geologic rock units: the 1.75-billion-year-old Idaho Springs formation and the 1.4-billion-year-old Silver Plume (or Berthoud) plutonic series. The Idaho Springs formation is a complicated group of metamorphic rocks that formed when 2-billion-year-old sediments and volcanic rocks were converted into Colorado’s first major mountain system as a result of early plate tectonic activity. Included in the original rocks were calcium-rich sediments (limestone, dolostone, and silica-rich calcareous shale and mudstone) that, when heated and compressed 1.75 billion years ago, were converted into calcite and dolomite marble plus a series of other calcium- and magnesium-rich metamorphic rocks. The latter rocks are called **skarn** or **calc-silicate gneiss** and **hornfels**. Because the

original sediments consisted of impure limestone and dolostone (a rock rich in the Ca-Mg carbonate mineral *dolomite*), the rocks formed by metamorphism during the mountain-building event are rich in calcium and magnesium silicates, including wollastonite, tremolite, diopside, vesuvianite, and grossular garnet.



**Wollastonite (left) and grossular garnet (right, in quartz)**

Although the minerals named above are not of economic importance because of the small size of the Gold City deposit, Steve Gorman's claims include some minerals of potential economic interest. In fact, the claims include a shaft and remains of some buildings that, according to Steve, were once part of the Apex Copper Company, which sold stock in the early 1900s. One small area contains bright bluish green chrysocolla, a copper silicate mineral that forms where



**Chrysocolla (left) and a member of the powellite-scheelite series (right, in SWUV)**



other potential copper ores have weathered or altered to form attractive and colorful coatings on the rocks. In the same area, shortwave ultraviolet light reveals a mineral that fluoresces bright butter-yellow to blue-white. This is a potentially important tungsten mineral whose composition puts it into the powellite-scheelite mineral series (calcium molybdate and calcium tungstate, respectively). Because of its close resemblance to quartz, this series is nearly impossible to identify without SWUV light.

Several powellite-scheelite prospects were discovered in similar geologic settings in the area west of Lake George during the late 1940s and 1950s, when the Federal government supported prospecting for strategic minerals, including tungsten. The U.S. has very limited tungsten resources and depends heavily on various countries (e.g., Bolivia, China, Russia) for imports of tungsten and tungsten carbide. In fact, the US is the number one importer of tungsten. It is used mainly in tool and die manufacturing, drill bits, high temperature lubricants, and other applications where there are no viable alternatives.

Come to the June meeting to learn more about the origin and minerals of the Gold City claims and similar deposits.

- July (tentative): **Chad McCarty** will report on the new dinosaur find near Cañon City. You can find more information at [https://www.canoncitydailyrecord.com/2023/01/12/breaking-news-two-large-dinosaur-fossils-discovered-in-royal-gorge-region/?utm\\_content=latestheadlines&utm\\_campaign=SocialFlowFeed&utm\\_source=facebook&utm\\_medium=socialflow&fbclid=IwAR0Jmd85XXa2b4-MaSzp-QznN\\_p46f5BMbdrzrEEaK1ddp2CV2Ebvc0xMjk](https://www.canoncitydailyrecord.com/2023/01/12/breaking-news-two-large-dinosaur-fossils-discovered-in-royal-gorge-region/?utm_content=latestheadlines&utm_campaign=SocialFlowFeed&utm_source=facebook&utm_medium=socialflow&fbclid=IwAR0Jmd85XXa2b4-MaSzp-QznN_p46f5BMbdrzrEEaK1ddp2CV2Ebvc0xMjk)
- **Markus Raschke** will give a talk (not yet scheduled, but probably this fall) on his adventures tracking down a world-class scheelite-beryl-cassiterite deposit in the Tibetan Plateau of China.

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

- **Cañon City Geology Club** meets on the 2<sup>nd</sup> Monday of the month at 6PM in the United Methodist Church, Cañon City
- **Columbine Gem & Mineral Society**, meets on the 2<sup>nd</sup> Thursday of each month, 6:30PM in the meeting room, Mt. Shavano Manor, 525 W. 16<sup>th</sup> (at J St.), Salida
- **Colorado Springs Mineralogical Society**, meets on the 3<sup>rd</sup> Thursday of each month at 7PM in the Mt. Carmel Veteran's Service Center, 530 Communication Circle, Colorado Springs;
- **Pueblo Rockhounds**, meets on the 3<sup>rd</sup> Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

👇 Thanks to **Pete Modreski** for sending the following event announcements:

**Mon., June 5, 2:00-3:00 p.m.**, Denver Museum of Nature & Science, Earth Science Colloquium, **The Dead Sea: Past, present and future**, by Ittai Gavrieli, Israeli Geological Survey. *In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post.*

**Fri.-Sat.-Sun., June 9-11, Pikes Peak Gem, Mineral, and Jewelry Show**, sponsored by Colorado Springs Mineralogical Society, Norris Penrose Event Center, 1045 Lower Gold Camp Road, Colorado Springs. Fri. noon-7 p.m., Sat. 10-5, Sun. 10-4. Admission \$5 per day, \$8 for multiple days, 12 and under free.



↓ ↓ Dave Alexander sent **important information** about field trips, which was included in last month's newsletter. If you missed that, please see the May LGGMC Club News.

↓ ↓ Mineral-show coordinator **Carol Kinate** reports that planning for our annual August show is moving along. Here's a reminder:

**SAVE THE DATE – AUGUST 18-20, 2023 (LGGMC Annual Show)**

"2023" SHOW POSTCARDS WILL BE AVAILABLE AT EVERY MEETING

**Show Volunteer Sign-up sheets will be available starting in May. Come to the meeting and sign up!**

**Carol Kinate**, Show Chair  
719-648-9015 (text/call)

↓ ↓ **John Rakowski** reports receiving a nice "thank you" note from this year's scholarship winner, **Luke Kettler**.

↓ ↓ We were all sad to hear that long-term LGGMC member **Andy Weinzapfel** passed away on May 18. A celebration of life will be held at the Florissant Grange on Saturday, June 17 at 2PM. Andy's cremains will be buried at the Florissant Pioneer Cemetery that morning at 11AM.

↓ ↓ **Linda Jaeger** sent this link to information about the Rocky Mountain Federation of Mineralogical Society's show in July: <https://wsmgs.org/links.html>

↘↘ **Dave Alexander** forwarded this account of a smoky-quartz find by a first-time rockhound who took part in the “Rockhounding 101” fieldtrip:

It was my first time rock hounding, and I really wanted to find something, because I have a rock and mineral collection. I thought it would be really neat to have something in the collection that I found



myself, since I have quite a few things from my great-grandpa. I didn't really expect to find anything big, so you can imagine my surprise when a point of smokey quartz started to become visible in the hole I had been digging.

At first, I was just finding little fragments of things here and there. Then, when I was pretty deep and got around a root, I saw something poking out through some mud. I remember I started saying, “Oh my goodness. Oh my goodness. Oh my goodness” over and over again the more I dug around the crystal. Finally, I called out so I could get some help removing it.

It was really cool, especially because it was my first time. It started raining, and I was absolutely caked in mud, but I think that made it better. It was just really awesome to be out there with people who knew so much about this stuff and to find something neat. I'm really glad Mr. Rakowski was there to teach me how to remove the mineral without damaging it. Now I can truthfully say I'm very excited about my next trip, even if I don't find anything as cool as what I found last time.

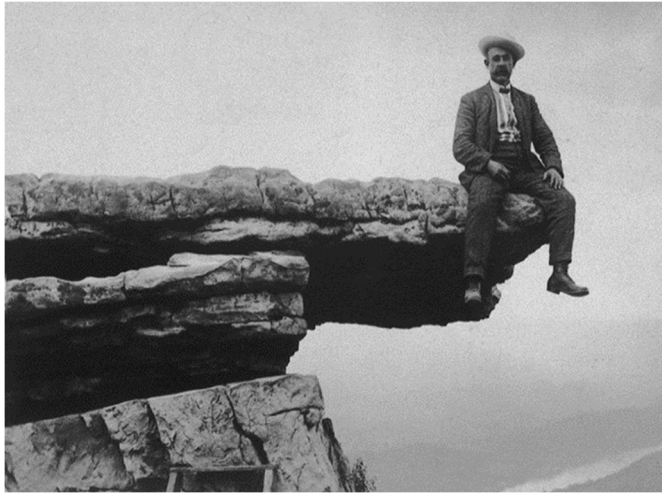
**Shelby Wirsig**

↘↘ I just heard from Linda Jaeger that **Paul Combs**, **Steve Veatch**, and **Bob Carnein** have placed among the “top ten” awards winners for this year’s American Federation of Mineralogical Societies Bulletin Editors Contest. These are national awards given for articles and poetry that first appeared in our Club Bulletin. We will find out more after the awards are presented at the AFMS meeting in Billings, Montana, on August 6.

↘↘ Here are a few interesting links that you might enjoy:

- From **Wayne Orlowski** comes this link to an article about the first minutes of the Cretaceous-Tertiary dinosaur-extinction event:  
<https://www.facebook.com/watch/?v=1263687411077980>
- From Rock&Gem Magazine: How to identify quartz:  
[https://www.rockngem.com/how-to-identify-quartz/?em=Y2Nhcm5laW5AZ21haWwuY29t&utm\\_campaign=RnG+Weekly+May+18\\_2023&fref=b5ffda4c-17d2-403e-83c0-07a427ae7b0c](https://www.rockngem.com/how-to-identify-quartz/?em=Y2Nhcm5laW5AZ21haWwuY29t&utm_campaign=RnG+Weekly+May+18_2023&fref=b5ffda4c-17d2-403e-83c0-07a427ae7b0c)  
[https://rockseeker.com/ammonite-fossils/?ck\\_subscriber\\_id=1874913717&utm\\_source=convertkit&utm\\_medium=email&utm\\_campaign=From+Ammonites+to+Ammolites%3A+Who+knew+fossils+could+be+so+beautiful%21%3F%20-%2010563040](https://rockseeker.com/ammonite-fossils/?ck_subscriber_id=1874913717&utm_source=convertkit&utm_medium=email&utm_campaign=From+Ammonites+to+Ammolites%3A+Who+knew+fossils+could+be+so+beautiful%21%3F%20-%2010563040)
- Also, from Rock&Gem, Fabulous gypsum:  
[https://www.rockngem.com/finding-giant-selenite-crystals/?em=Y2Nhcm5laW5AZ21haWwuY29t&utm\\_campaign=RnG+Weekly+May+11\\_2023&ref=ad59d3f6-791c-4119-8287-c644adce067d](https://www.rockngem.com/finding-giant-selenite-crystals/?em=Y2Nhcm5laW5AZ21haWwuY29t&utm_campaign=RnG+Weekly+May+11_2023&ref=ad59d3f6-791c-4119-8287-c644adce067d)
- Brad Smith didn't send any Bench Tips this month; maybe next month...





## Notes from the Editor

**Bob Carnein**

**Newsletter Editor**  
**ccarnein@gmail.com**

## Help Wanted

My first month as Editor of “Club News” was November, 2008. That means that, as of the October newsletter, I will have sent out 180 monthly bulletins, for a total of over 1800 pages of information about the Lake George Gem & Mineral Club. For me, November marks 2 milestones—my 15<sup>th</sup> anniversary as Editor and my 80<sup>th</sup> birthday. It has been a pleasure to serve the Club in my current capacity, but the October newsletter will be my last.

Now, the Club has two questions to deal with: “Who will replace Carnein as editor”, and “Does the LGGMC really need a monthly newsletter”? Let’s consider the second question first. Feedback (or the lack of it) suggests that many Club members never or rarely read the newsletter. When I started the “Monthly Mineral Quiz” column about 5 years ago, I thought that it would stir some interest among the membership. But, at best, I receive one or two responses from our 400+ members. Especially discouraging is the fact that even some Club officers jokingly admit that they don’t read the newsletter. This suggests to me that the newsletter is superfluous in these days of multiple online communication methods. Now, I don’t happen to like most of the so-called social media available to Club members, but that’s a personal preference. I quit Facebook several years ago after realizing that some people use it for purposes that conflict with my values. At best, Facebook isn’t “edited”, and it’s hard to separate the wheat from the chaff. But Facebook is a great place to communicate directly with your friends and post your own pictures and collecting news. The newsletter could serve that purpose, too, but it’s apparently too much trouble for most members.

So, why bother with a club newsletter? I think of it as a reliable way to record Club history. In the best of worlds, the newsletter records our Club’s activities for posterity. It should provide concrete information about our members’ interests and accomplishments. However, considering the lack of participation by all but 15 or so members, the question becomes whether the newsletter is actually accomplishing that goal. If it isn’t, then why continue it?

The other question is “Who will carry on after next October?” FYI, I’m serious about resigning after that newsletter. And, if the Club decides that the newsletter is important, I don’t want to discourage someone new from taking the reins. We can use new blood and new ideas—that might be just the solution to the current lack of interest. If you are interested in becoming the Editor, please contact me or one of the other officers. I will give you whatever help you need (if any), and I’ll continue to contribute the occasional article and monthly mineral quiz. If you read this, thanks. If you didn’t, shame on you.

## Monthly Mineral Quiz

The Monthly Mineral for June (Carnein photos and collection)



Here's an easy one for you. This triclinic copper mineral rarely occurs as crystals but often forms irregular masses intermixed with altered volcanic rocks, especially in the arid or semiarid west. Its hardness is 5 to 6 (but it is sometimes powdery and soft), it has a conchoidal fracture, specific gravity averages about 2.5, and it commonly has a waxy, dull, or earthy luster. Color is variable from blue to blue-green, or green, making it an attractive stone for making cabochons and for other jewelry applications. It has been described from 7 counties and over a dozen localities in Colorado, one of the most important being in Teller County. What is this attractive mineral?



**Last Month's Mineral: Biotite,**  $\text{K}(\text{Mg},\text{Fe})_3\text{AlSi}_3\text{O}_{10}(\text{OH})_2$  (simplified formula). Biotite is actually a subgroup of minerals under the mica group. Its composition is quite variable, and it includes several specific mineral species (e.g. annite, siderophyllite, eastonite) that are difficult to separate without sophisticated analytical techniques. You can identify it by its perfect cleavage, low hardness (2.5-3), elasticity, and flaky habit. Crystals are pseudo-hexagonal plates, but it actually fits in the monoclinic crystal system. It often alters to a golden brown color, and old timers sometimes mistook it

for gold. Biotite is a common constituent of our local granites, welded tuffs, and pegmatites, sometimes in very large crystals.



**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 2023 are:**

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