Lake George Gem & Mineral Club

Club News, April, 2023



The April meeting will be held at the Lake George Charter School at 9AM on April 8. Bob Carnein will talk about "The Basics of Mineral Identification"



Have you ever wondered how some mineral enthusiasts seem to be able to ID your unknown specimens so easily while you struggle to figure out what you have? Or, have you looked at descriptions of minerals on websites or in "basic" mineral-ID manuals, only to give up because you don't understand the jargon? As you might guess, a part of this has to do with experience. But there are some very simple tests and tools that anybody can learn for successful mineral identification. LGGMC member Bob Carnein has collected minerals for 67 years, and

(Frank Rosenberg Photo)

he started out just as confused as everyone else. However, in this shortened version of a 4-hour hands-on class, he will share some basic tips and insights that will help to give you a "leg up", if you're determined to develop your skills. When we're done, you should at least know what those pesky terms mean and how to make some basic observations like a scientist.

Biography. Pennsylvania native **Bob Carnein** received BS (geology), MS (glaciology), and Ph.D. (geology) degrees from Ohio State before starting his teaching career at Waynesburg College, in southwestern PA, in 1970. He met his wife Nell while teaching Waynesburg's geology field course in Florissant in 1978. In 1989, they moved to Mill Hall, PA, when Bob accepted a teaching position at Lock Haven University of PA. After retiring in 2007, Bob and Nell moved to their current home near Divide. Bob took over editorship of the LGGMC Monthly Newsletter from Richard Parsons in 2008 and continues in that position to this day.

This presentation is geared towards new hobby collectors who don't know how to get started or want to learn more, and will be followed in May by John Rakowski's Rockhounding Basics class and field trip (weather permitting). Experienced collectors are encouraged to attend to help with questions and hopefully meet new members.

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[♥]♥ We had a great turn-out for the March meeting, with at least 75 people present to hear **Laura Canini** talk about her experiences as a mineral collector. Here's a report and photos by **Frank Rosenberg:**

The Lake George Gem and Mineral Club had a huge turnout for our March meeting to hear club member, Laura Canini, give an enthusiastic account of her rockhounding adventures, from finding her first smoky quartz crystal in Fountain Creek in 2007 to becoming an experienced collector.

Laura shared a number of important tips in her "play to win" philosophy which this writer is sure beginner mineral collectors will be able to use to elevate their prospecting skills and enhance their experience in the field.

We were all able to examine some of Laura's fine specimens which she collected over the years.

Thank you Laura!



Please plan to attend the following Lake George Gem & Mineral Club meetings. Watch the newsletter for more information, and **think about volunteering to give a presentation**. Presentations listed are tentative:

- May: **John Rakowski** will give his "Rockhounding 101" talk, in preparation for a visit to the Patience and Piety claims. Come prepared!
- June: **Bob Carnein** will talk about the rocks and minerals of the Gold City claims, in preparation for 4 trips, starting after the meeting.

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 July: Chad McCarty will report on the new dinosaur find near Cañon City. You can find more information at <u>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=fa_cebook&utm_medium=socialflow&fbclid=lwAR0Jmd85XXa2b4-MaSzp-QznN_p46f5BMbdrzrEEaK1ddp2CV2Ebvc0xMjk
</u>

• **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 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.

♥ Thanks to Pete Modreski for sending the following event announcements:

Fri.-Sun., Apr. 7-9, Colorado Mineral and Fossil Spring Show, Crowne Plaza Hotel DIA, 15500 E. 40th Ave., Denver. See

https://www.coloradomineralandfossilshows.com . Free admission; 10-6 Fri. & Sat., 10-5 Sun.

Thurs., April 20, 7:00 p.m. (social time, 6:30), Colorado Scientific Society Emmons Lecture and April Meeting, **When the Colorado Ran North – Tracking Zircons from Arizona to the Labrador Sea**, by Jim Sears, University of Montana. In-person + Zoom meeting; all are welcome to attend. At **Golden Calvary Church, 1320 Arapahoe St, Golden, CO** (*entrance off 14th St.*)

Sat.-Sun., Apr. 22-23, Southern Colorado Gem and Mineral Show, Pathfinder Regional Park & Event Center, Florence, CO. "Earth Day weekend". This is a new gem and mineral show to Colorado, just now being organized.

See <u>https://socorockandmineralshow.com/</u> or <u>www.facebook.com/socorockshow</u> for more info (forthcoming).

Thurs., Apr. 27, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, **Paleontology in the east: New discoveries from the Upper Triassic of Virginia**, by Adam Pritchard, Virginia Museum of Natural History. *In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post.*

Sat. May 6, Colorado Mineral Society Silent Auction, at Wheat Ridge United Methodist Church, 7530 W. 38th Ave., 11 a.m. – 4 p.m.; see <u>http://www.coloradomineralsociety.org/</u> for details. All are welcome to attend, bid, and bring specimens to sell.

Thurs., May 11, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, Does size matter? What brachiopods tell us about evolutionary rules, by Judi Sclafini (UC Santa Cruz). In the VIP Room; in-person only, all are invited, Museum admission not required; check in at the Security Post. *P.S., Just noticed, the DES Colloquium date in the attached schedule says Tuesday May 11, that day & date don't match; May 11 is probably correct, as given on this DMNS-DES web page for the 2023 colloquium

schedule: https://sites.google.com/view/dmnsdes2020colloquiumschedule/home .

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Thurs. May 11, 7:30 p.m., Friends of Mineralogy May meeting, in person in Berthoud Hall 109 + by Zoom, topic TBA. See https://friendsofmineralogycolorado.org/ for an update.

Thurs., May 18, 7:00 p.m. (social time, 6:30), Colorado Scientific Society May meeting, North American Stress and Strain, by Jens Lund Snee, US Geological Survey; and, Pacific Northwest **Neotectonics**, by Katherine Alexander, US Geological Survey. In-person + Zoom meeting

Fri., May 19, 2:00-3:00 p.m., Denver Museum of Nature & Science, Earth Science Colloquium, Geology of Grand Mesa, Colorado, by Rex Cole, Colorado Mesa Univ. In the VIP Room: in-person only, all are invited. Museum admission not required; check in at the Security Post.

Sat., May 20, 12 noon – 4 p.m., Friends of Mineralogy Silent Auction, Wheat Ridge United Methodist Church, 7530 W. 38th Ave. All are welcome to attend, bid, and/or bring specimens to sell (minimum 20% donation to FM). See https://friendsofmineralogycolorado.org/ .

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; inperson 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.

♥ There were some technical issues with Laura Canini's talk in March. As a result, **Dave Alexander** has put together a "Presentation Technical Guide" to help Club talk presenters avoid issues and make their talks go smoothly. If you plan to give a talk, please contact Dave at dave@davealex.com for a copy.

♥ Mineral-show coordinator Carol Kinate reports that planning for our annual August show is moving along. Here's her report:

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

Currently ALL positions (listed below) could use extra help before or during our Annual Show. My contact information is listed below if you can help or need additional information.

- 1. Volunteer Coordinator (signup sheets)
- 2. Signage
- 3. Publicity

4. Kids Activities "2023" ANNUAL SHOW POSTCARDS WILL BE AVAILABLE AT EVERY MEETING Carol Kinate. Show Chair kinatec@aol.com 719-648-9015 (call/text)

♥ Friends of Mineralogy is a great organization that you should consider joining. Here's a link to their latest newsletter: https://www.friendsofmineralogy.org/wp-content/uploads/2023/03/FM-Newsletter-2023-March-V53No1 revised.pdf

Another great organization is the American Federation of Mineralogical Societies, with which LGGMClub is associated. They have an annual drawing for some great mineral items, held at the

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American Federation annual meeting. Bids for those items support their scholarship program. Here's a letter from Richard Jaeger, Rocky Mountain Federation Endowment-Fund representative, about that: **AFMS ENDOWMENT FUND by Richard Jaeger**

I am the Rocky Mountain Federation Regional Chairman for the AFMS Endowment Fund. Cheryl Neary, a member of the Eastern Federation, is the AFMS Endowment Fund Chair and the AFMS Central Office Administrator.

Basically, this is a raffle drawing with tickets being sold at \$5 each or five tickets for \$20. The drawing will be held at the NFMS/AFMS Convention in Billings, Montana in August. People from around the American Federation donate prizes for the raffle, which may be jewelry, crystals, minerals, fossils, books, or other items, each valued from \$75 to \$200. The drawing is handled so there is at least one winner from each of the seven regional federations; last year we had five winners from the Rocky Mountain Federation. We usually have about three or four winners from the RMFMS.

As items are donated, pictures of them will appear in the AFMS Newsletter and on the American Federation Website, <amfed.org>. There are usually around 30 items.

This is a major way to financially support the American Federation's efforts on behalf of our hobby. Currently the funds go towards the Junior Rockhound Program, Judges Training, and preparing Programs for distribution to Regional Federations (programs that can be used by individual clubs). Over \$5,000 was raised last year.

Purchasing the tickets: Cheryl requests that your checks for tickets be sent to the regional chairs *(for RMFMS, send to Richard Jaeger, 3515 E. 88th St., Tulsa, OK 74137)* so we can issue tickets and have a record of who has entered. **Checks should be made payable to the "AFMS Endowment Fund.**"

We then forward those checks to Pat LaRue, the AFMS Treasurer. I will fill out the proper number of tickets for each contribution, send the stubs to the donating individual, and get the tickets to the NFMS/AFMS Show in Billings in August to be put into the RMFMS bag. There will be at least one general prize ticket, maybe two or three, drawn from each of the bags for the seven regional federations. After that, all tickets will be dumped into one bag, and further drawings will take place until all the prizes have been awarded.

I hope that many of you will participate and hopefully be winners in Billings. **You need not be present to win.** I would also be happy to accept any donated prizes for the raffle or they can be sent directly to Cheryl Neary; the more prizes, the more winners, and hopefully, more money raised. *Cheryl's address is: 42 Jefferson Ave., Patchogue, NY 11772.* My wife and I are each donating a piece of jewelry for Endowment Fund prizes. My contact information is provided below. Please share this information with your club members and thanks for your consideration.

Please purchase some tickets – and hopefully get your ticket drawn in Billings in August.

Richard D. Jaeger 3515 E. 88th St. Tulsa, OK 74137-2602 918-481-0249 <u>RigrSci@aol.com</u>

Here are a few interesting links that you might enjoy:

- From Wayne Orlowski comes this link to a BBC report about the "Father of Geology", James Hutton: <u>https://www.youtube.com/watch?v=esqxYO5vsEl</u>
- From "Rock Seeker", this article is about opals: <u>https://rockseeker.com/different-types-of-opal/?ck_subscriber_id=1874913717&utm_source=convertkit&utm_medium=email&utm_campa_ign=%28Thursday+Edition%29+Opals%21+%20-%2010361935</u>

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- Also from RockSeeker.com, this article is about puddingstone.: <u>https://rockseeker.com/puddingstones/?ck_subscriber_id=1874913717&utm_source=convertkit</u> <u>&utm_medium=email&utm_campaign=Tuesday+Edition%21+Puddingstones+and+A+Crazy+Fo</u> <u>ssil%20-%2010343178</u>
- Wayne Orlowski sent this review of a book you might like:

I just finished "*Geology Underfoot along Colorado's Front Range*" and would recommend this publication to the public and LGGMC members. It is an easy read and covers quite a few places that most members may have visited. The book has color pictures and diagrams and is written for the lay person. Detailed directions to the described stops are provided. Cost new is around \$20 but used is around \$14 on the web.

• From "Rock & Gem magazine comes this article called "What are agates: common types": <u>https://www.rockngem.com/what-are-agates/</u>

♥If you have "cabin fever", a few mineral shows are coming up. Here are a couple examples:



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FYI: April is National Poetry Month. Our Poet Laureate, **Steve Veatch**, sent this contribution:

Time in Florissant

By Steven Wade Veatch

The valley is the way it should be, formed over an endless flow of time. Volcanoes erupted: Mudflows

rushed

downhill mixing rocks, boulders, and soil—knocking down trees,

tossing them like twigs, snapping them apart, and burying them. Time turned trees into stone.

From this destruction a lake formed. Water skippers danced on its surface, caddis flies landed on nearby willows, and fish lurked in its depths.

Consider the fossil insects and plants trapped in layers of time; and a sleeping mammoth at rest on a layer of lost pollen, covered with Ice Age gravels.

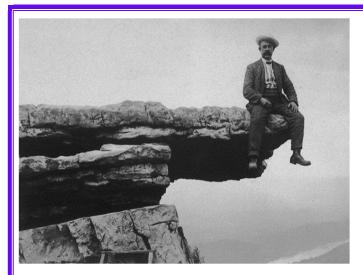
An old homestead sits by Grape Creek, its timbers whisper the past of early settlers. A few pine trees, marked by the Ute people, show this was once their home.

This land, where life has stretched across time, from past to present, magnifies how short time is for me, and just when I learn how to live, it's over.

national poetry month



Petrified redwood "Trio" at the Florissant Fossil Beds. Original artwork by Charles Frizzell.



Notes from the Editor

Bob Carnein

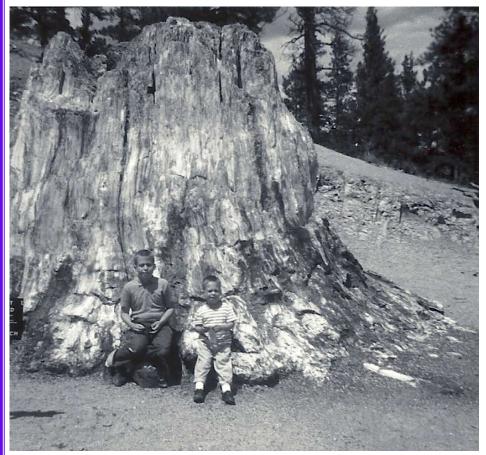
Newsletter Editor ccarnein@gmail.com

Here's an article from **Steve Veatch** that complements his poem (seen above).

The Florissant Fossil Beds, Colorado: A Place of Change

By Steven Wade Veatch

In 1965—when I was a boy—I picked up a chunk of petrified wood (about 34 million years old, or Late Eocene age) at the Florissant fossil beds and wondered how it was formed. This simple act changed my life: it started me on my lifelong hobby of collecting rocks,



minerals, and fossils, and later influenced my decision to study science at college. Both were big and long-lasting changes in my life.

Steven Veatch (11 years old) and his brother Greg Veatch (4 years old) sitting at the Big Stump at the fossil beds in 1965. This was when the park was a private tourist enterprise.

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Years later, I experienced another transforming moment—meeting legendary scientist Estella Leopold at the fossil beds. On that special day, Estella and I ambled along the trail to the petrified stumps, deep in our thoughts. We plunked down on a park bench and chatted the afternoon away while sharing the excitement of Ice Age pollen discovered in a Pleistocene rock layer at the fossil beds. We shared a singular purpose then—to reveal a part of the Ice Age here at the fossil beds. Because the record of Ice Age pollen in the Rocky Mountains was limited, our work on Florissant's Ice Age pollen was important.

The Florissant Fossil Beds is also a place of change. Its landscape is a mosaic of montane forests and rich meadows enfolded in ever-shifting patterns of light, sound, and fragrance. It is a gateway to nature, to the past, and to the present. It is a tale of imagination, of scientific exploration, and of the Ute people. Whenever I visit, I find myself sinking mindlessly into its petrified past while I ponder its present.

The natural beauty at the fossil beds is also an invitation to explore its possibilities, to plunge into the forest and consider the flight of pollen grains, borne on a morning breeze. Or to follow a moss spore's journey. Water moves slowly through Grape Creek. Moss-covered boulders slow the creek, making small pools. Gnats flutter above the creek, and green grasses, dotted with wild iris and other wildflowers, line its banks. Springs, coming from deep inside the ground, help feed the watercourse. I can feel this stream and its sounds deep within my soul. It is sublime.



Grape Creek in the fall. Photo date 2018 by S. W Veatch.

My wife and I walk the forest trails often, and the landscape feels alive. Beard lichen's wiry hair drops from forked branches. Chickadees and woodpeckers live with owls, deer, and black bears. There is a forest symphony of sounds composed of hums, trills, chatters, and

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peeps. Frogs call their mates. Wind stirs through the trees, rustles branches, and knocks down yellow mists of ponderosa pollen.

Black Abert squirrels leave a litter of chewed cones and tiny twigs, stripped of their bark, on the ground. In the winter, these cones, seeds, and twigs lie on the snow, showing that these squirrels do not hibernate. In the spring, pasque flowers poke up through the fallen pine needles and bloom in a soft lavender.



A pasque flower, a harbinger of spring, blooms at the Florissant Fossil Beds. Photo date 2019 by S. W. Veatch.

I notice the slow changes to a rotting log on the fossil bed's forest floor. The log shows the passage of time on a different scale: the time it takes for a big, downed tree to be transformed back into soil—two centuries, or about seven human generations.

Brimming with life, the log—now crumbled bits and pieces of wood covered with leaf litter—is a habitat for many species. Beetles chew the wood, forming serpentine galleries beneath the bark. Colonies of ants live in the cavities, forage for food, and remain subordinate to the mother queen. A mouse lives beneath the log's rotting roots; fungal strands penetrate the decaying wood. Patches of lichen and moss grow green on its surface. Spiders spin webs on spindly branches.

The log is now a spongy, mossy mound that once was a living tree. In this thriving microcosm of decay-dwelling species, there is a quiet yet energetic chemical factory recycling nutrients and organic matter. Altogether, this log, and others like it, nurture the forest by adding nutrients that sustain its health. And so it is that this landscape "nurses" my spirit.

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There are other beneficial changes at the fossil beds. A combination of lightning strikes, a dry forest, and dry winds can cause a wildfire, which spreads across the landscape, bringing sudden change. Ponderosa pines are resistant to fire due to their thick bark and limbs that extend above the forest floor. Fire maintains the ponderosa pine forest by killing off competing trees. The ash from wildfires revitalizes the forest.

Change at Florissant comes in many ways with the cycles of day and night. The red dawn splashes the sky with morning possibilities. The midday sun floods the valley with brightness while the spires of green trees poke at the sky. Wavering shafts of afternoon sunlight reach the forest floor. After sundown, the twilight spreads like ether, and the mountains cool like stone while the valley fills with a flood of moonlight. The stars become pinpricks that sizzle in the night sky.

The circling seasons of the sun, snow, and rain bring change on a longer scale. Summer sunlight falls from unbelievably blue skies. There is music in the rain as it slaps aspen leaves, bounces, and splats on the ground before it disappears into the soil. In the fall, the air is crisp, and the aspen leaves are a brush stroke of radiant gold and orange. In the winter, elk weave tracks across snowy slopes. Coyotes send their penetrating calls bouncing across the white meadows when the frosty night comes on.

Physical processes, such as the imperceptible progress of drifting continents, erosion, soil formation, or freeze-thaw cycles, bring change. And there are more rapid agents of disturbance—such as nearby volcanic eruptions that occurred 34 million years ago. These cataclysms sent flows of mud coursing down the river valley, forming a dam and lake that transformed organisms into fossils. The mud also surrounded the bases of trees, and, over time, petrified them.

Today, petrified stumps stand like sentinels in the forest. Lichens cling to petrified wood



like starfish on rocks. Kingdoms of moss stake their claims on fossil tree stumps. Whenever I hold a Florissant fossil or look at a stone stump, I experience the physical vastness of time and space.

Raindrops bead up on aspen leaves at the park. Photo date 2004 by S. W. Veatch.

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Cultural change is a part of the fabric of this land of petrified forests and fossils. This was first the home of the Ute people, where their elders said you could learn a lot from

listening to the land. The land was taken from the Utes, and these people were sent to less desirable places to subsist. I find evidence of the Ute people today in the trees they modified or by finding an occasional arrowhead that is washed to the surface by summer rains. Roads brought homesteaders, who worked the land. Nearby goldfields intensified settlement.

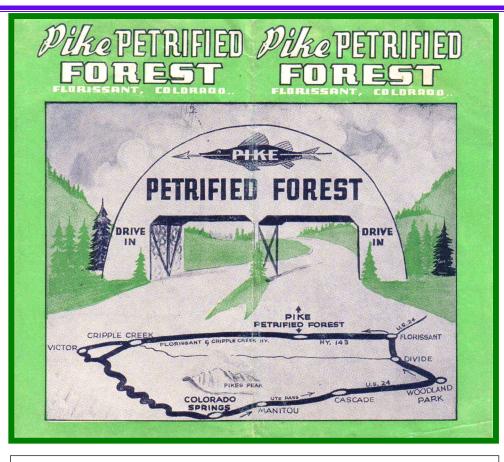
Lastly, the values of people change. After decades of being a commercial tourist attraction, people wanted to preserve the fossil beds. Activists, including Estella Leopold, helped to prevent the destruction of the fossil beds until the National Park Service could preserve the area for future generations. Outside the park, the forest and meadows were plowed under by bulldozers, subdivided, and further broken up by fences, lots, and roads.



A National Park Service archaeologist points out a peeled or culturally modified tree at the monument. The Utes used the bark for cradle boards and scraped the cambium layer for food and medicine. Photo date 2004 by S. W. Veatch.

Forests change, species evolve, and life proceeds. Today, the beauty of this place invites overuse, while the effects of climate change threaten the fossil beds with future habitat destruction and species extinction.

For me, the Florissant landscape is a sacred place: A place of change, a place to meditate and scribble in a journal—a place to gain insight into how to live my life. It positioned me to think about time and change, to peer into the past and imagine the future. And to feel the present while I reflect on life, death, order, disorder, continuity, and change.



Advertisement for one of two tourist establishments at the fossil beds circa 1965. From the S. W. Veatch collection.

Monthly Mineral Quiz

The Monthly Mineral for April (Carnein photos and collection)



Here's another common (but usually not obvious) mineral. The specimen on the left (above) came from a very famous locality in Washington State. However, the one in the middle is more typical, consisting of tiny lemon-yellow flakes on the surface of a piece of pegmatite. You probably wouldn't even notice it unless you exposed it to shortwave UV (photo on the right). This mineral is very fragile (it's very brittle, has perfect cleavage, and has a hardness of 2 to 2.5). It's pretty hot—I keep the piece on the left in my garage, rather than in the basement! The type locality is in France; China is currently the source of some very fine specimens. Mindat.org (accessed March, 2023) lists about 20 Colorado localities, including several in Fremont Co. and one in South Park. What's this somewhat obscure mineral? Lake George Gem & Mineral Club



Last Month's Mineral: Fluorapophyllite,

KCa₄(**Si**₈**O**₂₀)(**F**,**OH**).8**H**₂**O**. This common, sometimes very attractive mineral occurs as fine tetragonal crystals in "trap rock" (basalt) deposits all over the world. Especially fine specimens are sometimes found in hand-dug water wells in India (photo to the left), but it's also common in quarries in the US Northeast, where Jurassic basalts are quarried for "road metal" (crushed basalt used under the paved surfaces of highways and between and under the ties that support railroads). If you're lucky, you might find some at the famous North Table Mountain zeolite deposits near Golden, but it isn't common there. The composition of apophyllite varies somewhat widely, and modern mineralogists divide it into several species, of which fluorapophyllite is the most common.

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.



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