

The Lake George Gem and Mineral Club -

Club News

December, 2017



Program for the month: Saturday December 9, 2017

December LGGMC Meeting: It's going to be a potluck brunch and grownup "Show & Tell"!

LGGMC will supply water and coffee/tea, along with plates, napkins, forks, and knives. For the potluck, **bring snacks or light lunch food** of some sort to share. This might include chips & dip or cheese or cut vegetables, fruit, ham, turkey, chicken chunks, crackers, brownies or fudge, cookies, etc. Serving size for each should be **for about a dozen people**; you don't need to assume YOU alone are feeding everyone. **No alcoholic beverages** are allowed in the Community Center.

We'll have a traditional LGGMC "**Towel Show**", which is essentially a grownup "show & tell". That means **bring one or more minerals, fossils, or cut stones that you'd like to show to the rest of the members**. It might be something like "Here's a rock I found in my driveway, what is it?" or it could be as complex as showing a collection of Chinese fluorite specimens that you bought. Just plan on putting them on the table on top of a towel or other piece of cloth with any labeling you think is appropriate; **restricting size of display to no more than a normal towel** keeps displays a reasonable size. This would be a good time to show what you found last summer! You can explain as much or as little as you feel comfortable doing about the specimens. Also, **bring your "unknown" specimens to try to get them identified**. Pebble Pups/Earth-Science Scholars and their families are invited to come to this meeting also.

We will also continue a **silent auction for some cool specimens** and other items donated by Club members. The specimens will be displayed at the back/side of the room with "bid sheets". Each item will have a minimum starting bid. You write your bid and initials in a blank space on the sheet and then watch to see if others outbid you. You can keep on bidding until the President says bidding is closed. So, bring some CASH and be prepared for the fun!

The new officers will take over at this business meeting to be held before the "Towel Show". We all owe thanks to our prior President **John Sprouse** and Treasurer **Bobby Korzekwa** for jobs well done

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this past year. Our newly elected President is **Bob Baker**, and Treasurer is **Cathy McLaughlin**. And thank you to officers continuing in their positions along with new committee chairs for the upcoming year.

Coming Events

✓ ✓ Several mineral, fossil, and geology clubs meet relatively nearby and encourage visitors. These include:

> **Cañon City Geology Club**, meets on the 2nd Monday of the month at 6PM in the United Methodist Church, Cañon City;

> **Colorado Springs Mineralogical Society**, meets on the 3rd Thursday of each month at 7PM in the Colorado Springs Senior Center, 1514 N. Hancock Ave., Colorado Springs;

> **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;

> **Pueblo Rockhounds**, meets on the 3rd Thursday of each month at 6:30PM in the Westminster Presbyterian Church, 10 University Circle, Pueblo.

✓ ✓ **Pete Modreski** and others sent notices of the following upcoming events:

Sat.-Sun., Dec. 2-3, 9 a.m. – 4 p.m., “**Book and Garage Sale**” at the **Colorado School of Mines Geology Museum**, [1310 Maple St., Golden](#). “Lapidary equipment and material, books, journals, minerals, fossils, maps, and miscellanea. Prices vary by item or box. Most prices will drop throughout the event.”

Sat.-Sun., Dec. 2-3, **Open House and Sale, Dave Bunk Minerals & Lithographie Showroom**, 5695 Yukon Street, Arvada, Colorado. I can't seem to find the exact hours they will be open, but I believe it is about 10 a.m. to 5 p.m., perhaps plus one hour on either side.

Tues., Dec. 5, 3:00 p.m., Ellen Currano (University of Wyoming), **Seeing the forest through the leaves - from Ethiopia to the Rocky Mountains**. Denver Museum of Nature & Science Earth Science Colloquium Series; VIP Room, DMNS; all are welcome, and museum admission is not required to attend.

Fri.-Sun., Dec. 8-10, **Flatirons Mineral Club annual Gem and Mineral Show, “Rocks and Rails”**. Boulder County Fairgrounds, Main Exhibit Building, [9595 Nelson Rd., Longmont, CO](#). Combined Gem and Mineral Show + Boulder Model Railroad Club Exposition; 10 a.m. – 5 p.m. each day. See <https://flatironsmineralclub.org/about/annual-fmc-gem-and-mineral-show/> .

Wed., Dec. 13, 5:30 p.m., **Colorado Scientific Society Annual Meeting**, Potluck Dinner, and President's Address, by Marith Reheis. At the Arbor House, in Maple Grove Park, 14600 W. 32nd Ave., Golden. Social time begins at 5:30, dinner at 6:00, program begins at 7:00 p.m.

✓ ✓ Many thanks to **Joey Korzekwa**, who is working on testing a new application that will make it much easier for members to pay their dues and sign up for field trips online. Watch for an announcement soon.

✓ ✓ **Matt Horne** and **Laura Canini** recently led a small group (**Frank and Ellie Rosenberg** and **Bob Carnein**) to a site I've been hearing about since I taught a field course in Florissant in the 1970s and '80s. It's a schorl locality near Pipe Springs Campground, in Park County (near Wilkerson Pass). With a little digging, we were able to collect some excellent schorl, along with nice almandine-spessartine garnets, from pegmatites in the Silver Plume Granite (1.4 billion years old). **Frank** utilized his fine photography skills, as shown below:



Laura Canini and Matt Horne at Pipe Springs site (Frank Rosenberg photos)

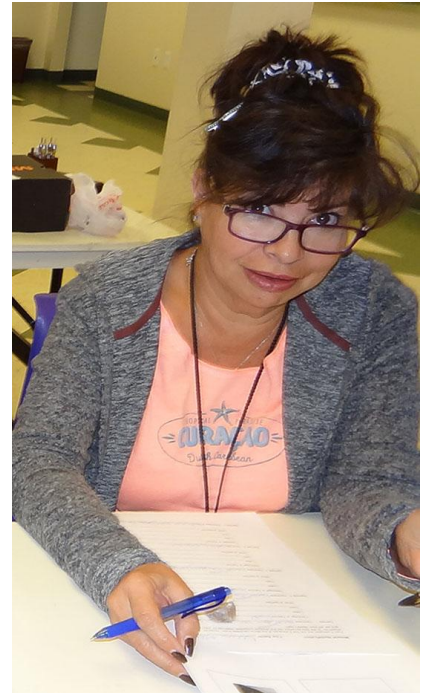


Ellie Rosenberg and Bob Carnein at Pipe Springs (Frank Rosenberg photos)



Schorl in milky quartz, Pipe Springs Campground (Carnein photo)

✓ ✓ **Billy Bell** sent some photos from the Nov. 25 “Mineral Physical Properties” class, held at the Florissant Library:



Barbara Hickok and President Bob Baker; Denise Rogers (Billy Bell photos)



Susan and Joe Mahan (Billy Bell photo)



✓ ✓ **Steve Veatch** sent some Pebble Pups news:

- Volunteers needed to man the Pebble Pups booth at Family Geology Day, Western Museum of Mining and Industry, Jan. 6, 10-3. Contact Steve if you'd like to volunteer.
- Field Trip: Morrison Museum of Natural History and Colorado School of Mines Geology Museum; entrance fee for students and parents. Contact Steve by Dec. 17 (steven.veatch@gmail.com).

✓ ✓ Thanks to **Wayne Orlowski**, who sent in some interesting links:

- Protecting the Netherlands's vulnerable coast from sea-level rise:

https://www.npr.org/sections/parallels/2017/11/25/564098130/protecting-the-netherlands-vulnerable-coasts-with-a-sand-motor?utm_source=npr_newsletter&utm_medium=email&utm_content=20171125&utm_campaign=news&utm_term=nprnews

- "Project Iceberg": searching for oil and gas in the Arctic by submarine (by the Russian Federation)

http://www.bbc.com/future/story/20171121-why-russia-is-sending-robotic-submarines-to-the-arctic?ocid=global_future_rss&ocid=global_bbcom_email_23112017_future

- At the end of the Permian, the Siberian Traps LIP erupted staggering quantities of lava for 300,000 years with **relatively little environmental effect**, just like the Paraná–Etendeka and Columbia River LIPs. Precise rock dating shows that Earth's most severe mass extinction only began when sheets of magma, called "sills," began to inject underground through sediments rich in fossil fuels, **igniting** them and baking off gases, as Seth Burgess describes:

<https://arstechnica.com/science/2017/11/when-will-the-earth-try-to-kill-us-again/>

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✓ ✓ And here is the latest installment of "Bench Tips" by Brad Smith (www.BradSmithJewelry.com):

MARKING YOUR TOOLS

It makes sense to mark your tools if you ever lend them to friends or take them out to classes or workshops. Question is how to mark them permanently. For metal tools, I use a very small ball bur running fast in the Dremel or Foredom to "engrave" my initials. On other times, I'll form the initials with a number of hits with a center punch.

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But for hammer handles and other wooden tools, the country boy in me came back and thought "Why not make a branding iron?" If you'd like to try one, all you need is a little scrap copper or nickel, about 22-24 gauge, a piece of heavy brass or copper for a base, about 6 inches of metal rod, and a piece of wood for the handle.

I formed my initials from a couple 4-mm-wide strips of sheet nickel. The "S" was one piece, but the "B" was three pieces soldered together with hard. (Remember to form the letters backwards.) I then soldered the letters with medium onto a piece of 1/8-inch-thick brass bar to act as a heat sink. Finally, I soldered a piece of 1/8-round-rod on the back of the brass bar as a shaft to join to a wooden handle.



[See all Brad's jewelry books at Amazon.com/author/bradfordsmith](https://www.amazon.com/author/bradfordsmith)

Notes from the Editor

Bob Carnein, Editor

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Thanks to **Norma Engelberg** for submitting this timely article and to **Steve Veatch** for offering a writing class (described after Norma's article) that will help **you too** to write an article for the Newsletter:

What is Earth Science?

by Norma Engelberg

At a recent LGGMC meeting, members were talking about the Club's Earth-science scholarship. At some point, someone asked: "What is Earth science?" That question is easy to ask but how easy it is to answer depends on who you ask.

The typical dictionary defines Earth science as “the branch of science dealing with the physical constitution of the Earth and its atmosphere.” Using this definition, three basic branches of Earth science are geology, oceanography, and meteorology.

Geology.com expands the dictionary definition to a fourth branch, astronomy. It states: “Earth Science is the study of the Earth and its neighbors in space.” This includes planetary geology, and cosmology.

The website also states “Geology is the study of the Earth, the materials of which it is made, the structure of those materials, and the processes acting upon them. An important part of geology is the study of how Earth's materials, structures, processes and organisms have changed over time.”

This statement adds paleontology, and maybe even archaeology, to the list, along with paleoclimatology, the study of how and why the Earth’s climate has changed over time.

There are about 4.5 billion years’ worth of stories locked in Earth’s rocks, and geology is the key that unlocks them.

Geology answers the big questions:

- What is the Earth made of and how was it made?
- How did Earth’s basalt foundation evolve to become the granite that underpins its continental tectonic plates?
- Where did those red and white rocks in the Garden of the Gods come from, and why are they standing on edge?
- What processes created Wyoming’s Devils Towers or Utah’s Canyonlands?
- What causes earthquakes?

For the purposes of earning a Lake George Gem & Mineral Club scholarship, a prospective applicant should look at the geological Earth sciences, as opposed to astronomy, oceanography, or meteorology.

You don’t need to learn about Earth science in high school, although it wouldn’t hurt; but you should build a firm foundation in the physical and biological sciences, math, writing, and reading.

What can you do with a bachelor’s degree in geology? You can find entry-level employment in the oil and mining industries, environmental firms, and government agencies. You can add a teaching degree and become a geology or Earth-science educator, teaching a new generation of geologists and public citizens. According to the U.S. Bureau of Labor Statistics, entry-level wages in these fields average between \$50,000 and \$80,000 (2014).

For higher wages, you can further specialize with a master’s degree or doctorate, becoming a glacial geologist, a geological information technologist, a geoengineer, a geophysicist, a volcanologist, a petroleum geologist, a hydrologist, a mineralogist, or a paleontologist. Employers include private firms, universities and government agencies. Experienced geologists with advanced degrees commonly earn six figures.

If Earth isn’t big enough for you, you could take what you learn to Mars, Europa, or even out to the Oort Cloud, either with robots or, someday, in person. Geologists may, one day, lead the way to mining asteroids for minerals that are rare here but common in space rocks.

When it comes to geology, there are no limits, not even the sky.

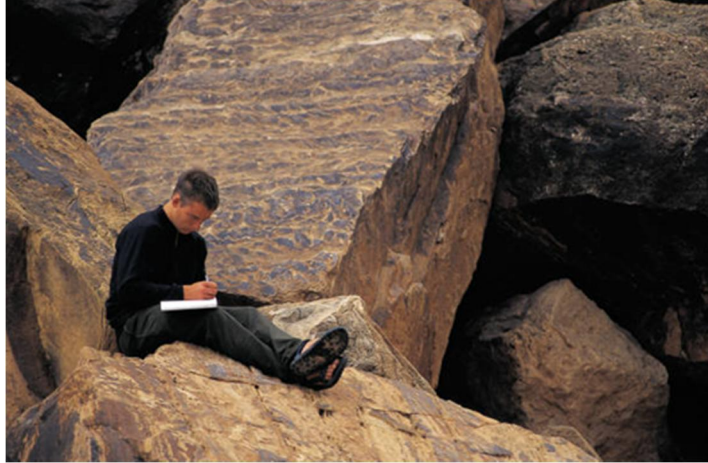
For more information about the Lake George Gem & Mineral Club scholarship, visit www.lggmclub.org and click on “scholarship.” Scholarships are available for students living in or attending high schools (including homeschoolers) in Teller and Park counties and also to the children or grandchildren of club members.

Steve Veatch asked me to include this article about his annual writing class at WMMI:

NONFICTION WRITING CLASS: ROCKS, MINERALS, FOSSILS

Learn to write for the club newsletter

The Western Museum of Mining and Industry invites you to join our 5th annual Winter Writer's Class. Are you ready to take your writing to the next level? We provide an intimate, inclusive program in a remarkable setting. This workshop combines superb instruction with unparalleled resources and is ideally suited for the public, teen



writers, and especially beginners.

Immerse yourself in our intense one-day winter writing class designed for those who want to learn more about writing and publishing. Writing about nature, science, history, and other nonfiction subjects offers exciting opportunities to be published. Although this class is open to the public, we will use examples from our hobby and writing for the club newsletter. Magazines, newspapers, bloggers, clubs, and schools are looking for articles to share with their audience, and this class can teach YOU how to PUBLISH. This class is sponsored by a grant from the Colorado Springs Mineralogical Society and the Lake George Gem and Mineral Club.

Class highlights

- Work with a published author who will teach the class
- Learn about creative nonfiction, nature writing, science writing, history writing, and how science poetry unleashes creativity
- Discover powerful research methods
- Identify and develop story ideas
- Learn potent craft tips
- Practice how to outline and structure stories
- Work with photos for your articles
- Understand the role of an editor in the publication process
- Discuss publication issues

A certificate will be awarded upon completion of the class. All other course materials will be provided, as well as a morning reception. A writer's-resource-kit CD will be available for purchase for \$10 to continue the training beyond the session at the mining museum.

The writing class will take place at the **Western Museum of Mining and Industry**, 225 North Gate Blvd., Colorado Springs, CO 80921. You must **register for this class at 719-488-0880**. The course **fee is \$35 for**

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adults and \$7 for students (21 and under). WMMI members receive \$5 off the adult fee.



Class date: January 27, 2018. **Class time:** 9:30 am to 12:30 pm.

Instructor bio: Steven Veatch Steven Veatch grew up in the Pikes Peak region and earned degrees at Pikes Peak Community College, Colorado State University at Pueblo, Webster University, and Emporia State University. He is a writer of essays, literary criticism, book reviews, science articles, and professional papers. He has published over 150 articles on nature and science. He has contributed chapters to these three books: *Field Trips in the Southern Rocky Mountains, USA, Field Guide 5*; *The Paleontology of the Upper Eocene Florissant Formation, Colorado*; and *The World's Greatest Gold Camp: An Introduction to the History of the Cripple Creek and Victor Mining District*. He was an associate editor of *Leonardo*, a literary and art journal published by the English Department of Central New Mexico Community College for three years. He is a regular at a writer's retreat held in the woods of northern Michigan at the Interlochen College of Creative Arts.



Ben H. Elick has published nonfiction articles in newspapers and magazines, notably the international Earth-science magazine *Deposits*. He recently presented a co-authored paper on Cripple Creek minerals at the New Mexico Institute of Mining and Technology in Socorro, and recently spoke at the Denver Gem and Mineral Show. This will be his second year assisting with this writing class. He is currently a student and lives in Douglas County.

Lake George Gem & Mineral Club
PO Bo 171
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The Lake George Gem and Mineral Club is a group of people interested in rocks and minerals, fossils, geography 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 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).

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