



# Flatirons Facets

Flatirons Mineral Club of Boulder County, Colorado

Volume 59, Number 4

July-August, 2016

## The Flatirons Mineral Club

is a non-profit Organization which is dedicated to developing and maintaining interests in Earth science and associated hobbies. The purpose of this Club includes, but is not limited to, studying geology and Earth science, teaching others about our hobby, including young people, collecting gem, mineral and fossil specimens and learning lapidary skills.

The Flatirons Mineral Club is affiliated with the Rocky Mountain Federation of Mineralogical Societies, the American Federation of Mineralogical Societies, and the Greater Denver Area Council of Gem and Mineral Societies.



## Our July Meeting is Rock-Bagging Time!

We will have our annual rock-bagging meeting on **Thursday, July 14**, at 7 pm in the fourth floor Assembly Room of Fraser Meadows. The club will provide the specimens, labels, and zip-lock bags. At this meeting, we put the specimens and labels in the bags. At our picnic in August, we will put ten different labeled specimens in each of 1,000 cloth bags. These filled bags are sold at the Denver Show in September and our club's Longmont show in December. The proceeds help fund our yearly scholarship to a geology student attending a Colorado college.

**If you have specimens you are able to donate, please bring them in a labeled (location collected and what you think they are) box or bag. We can also use green plastic newspaper sleeves.**

As always, there will be food, drinks, and prizes!

## Annual Club Picnic - New Location This Year

This year's annual picnic is on **Saturday, August 20** at **Harlow Platts Park**, located just south of the South Boulder Recreation Center at 1360 Gillespie Drive, Boulder, 80305. Please note the new location for this year's picnic. For a map of the location, please see <https://www.google.com/maps/search/1360+Gillespie+Drive,+Boulder,+CO+80305/@39.9739883,-105.2512763,17z/data=!3m1!4b1>.

The picnic starts at 11:00 am. Folks with last names beginning with A-M are asked to bring a covered dish and folks with last names beginning with N-Z should bring a dessert or watermelon. BBQ sandwiches and beverages will be provided by the club.



As in past years, we will start by filling grab bags and then eat lunch. Afterwards, we will present several awards. One of the awards presented each year is the Rockhound of the Year. Please nominate someone in the club who you feel deserves this honor. For more details about the award, please see page 9.

Flatirons Mineral Club Awards

## President's Message



Hello Everyone!

I hope you're having a wonderful summer and are having great rockhounding adventures. If you haven't signed up for any field trips yet there are still quite a few to choose from for all sorts of exertion levels. I'm especially looking forward to Ed Raines' car tour on Saturday, August 6, through our Boulder County foothills. I'm sure he'll impart lots of gold mining history of the area.

This month's newsletter is packed with information! Please try to join us for the specimen bagging meeting this month.

See you at our annual club picnic in August!  
Gabi

### Here is What's Coming in July and August

**Field Trips:** We have already had a number of great field trips this summer. The trips planned for the July and August are listed on page 3.

**Rock Bagging Party:** Join us to pack grab bag specimens on **July 14**. See the article on page 1 for more information.

**Tour the Phoenix Mine:** Visit a working mine outside of Idaho Springs with the club on **August 7** and learn about gold mining. You can also try your hand at gold panning. See below for more details.

**Annual Club Picnic:** The picnic on **August 20** is a fun time with great food. Plus we honor club members for their contributions to the club and stuff grab bags. More information is on page 1.

**Jr. Geologists:** We will continue going on field trips to collect specimens for our collections. More details about the Jr. Geologists program are on page 6.

### Tour the Phoenix Mine



Come to a working gold mine on Sunday, August 7, and learn how miners extract gold out of the ground. The Phoenix mine is located outside of Idaho Springs and is operated by the oldest continuous gold mining family in Colorado. It is a working gold mine where miners actually do the work. Experience mining history with a seasoned Colorado hard rock miner. After the tour try some Gold Panning. You may keep any gold that you find in the stream while panning.

We will meet at the mine at 10:00 am. The club is paying half of the costs, so your costs will be \$5 for adults and \$2.50 for children under 12. Jr. Geologists on the trip will earn the Gold Panning and Prospecting badge.

## July and August Field Trips

You won't want to miss these field trips in July and August. For more information about the trips and to sign up, please contact Anita at [anitacoln@hotmail.com](mailto:anitacoln@hotmail.com).

Date	Location	What to Find
Saturday, July 9	Montezuma District	Sphalerite, galena, pyrite, chalcopryite, and quartz
Saturday, July 16	St. Peters Dome	Quartz and zircon
Saturday and Sunday, July 30-31	Mt. Antero	Quartz, feldspar, fluorite, phenakite, and aquamarine
Saturday, August 6	Front Range Boulder Geology Tour	Learn about the rocks in Boulder County
Saturday, August 13	Midnight Express Mine	Fluorite and gold
Saturday, August 27	Brian's gold panning site	Gold
Saturday – Monday, September 3-5	Como Bluffs, Wyoming	Dinosaur fossil excavation, agate, belemnites

**Consider carpooling:** Carpooling cuts down on the number of cars at these locations, saves gas and money, and makes the trips more enjoyable. Remember to give the driver some money towards the gas.

**Collect grab bad specimens:** The rock clubs in the area assemble cloth bags full of mineral specimens that have been cleaned, bagged, and labeled in order to sell them at the rock shows. The grab bag sales go into our club's education funds. We put together 1,000 grab bags each year and they each contain 9 specimens. Yes, we need around 9,000 pieces of rocks and minerals every year to fulfill our grab bag needs for the Denver Gem and Mineral Show and our own show! Please wash the rocks you collect, bag them, and label the bags with the name of the rock or mineral and where they were collected. Then contact Anita to get them to her at [anitacoln@hotmail.com](mailto:anitacoln@hotmail.com) or 720-556-9889.



### Boulder Creek Festival a Great Success!

We had a successful Boulder Creek Festival outing this year over Memorial Day weekend. We had 600-700 people stop at our booth at the festival and gave away many polished rocks to the kids. Parents and other people who stopped at the booth picked up club information and several joined the club. Plus, the club generated \$131 for the scholarship fund from selling the grab bags.

Many thanks to Anita Colin and Don Mock for coordinating this activity again this year. We also want to thank Julie Klaus, Herman Oehl, Gabi Accatino, and Gerry Naugle who assisted in working shifts at the booth.

Two young people take our match-the-rock challenge as Gerry watches

## Fantastic Field Trips

It is only been six weeks into the field trip season, and already we have had some great ones. Enjoy the pictures of our trips and be sure to sign up for more trips this summer. Thanks to Charlotte Bourg, Gabi Accatino, and Dennis Gertenbach for sharing their pictures. And a special thank you to the field trip leaders for leading these trips.

### Silvercliff



Craig with Isaac playing the mandolin at Silvercliff

### Two Creeks



Off to find that beautiful barite crystal at Two Creeks

### Kremmling



Hiking to the Kremmling Cretaceous Ammonite Site



A nice barite crystal found by Gabi



Bill Wyatt of the BLM talks about the giant ammonites found at the Kremmling site



Piper and Egan digging out fossils from a boulder



Brennan and Katie showing off a *Placenticas* ammonite they found

### **FMC - a Friend of Dinosaur Ridge**

Our club renewed our annual membership to the Friends of Dinosaur Ridge for 2016-17. If you are not familiar with it, Dinosaur Ridge has footprints and bones from a variety of dinosaurs that roamed the beaches of the Western Interior Seaway way back in the Cretaceous Period. They have a number of exhibits explaining many of the important discoveries made at Dinosaur Ridge.

Our membership to the Friends of Dinosaur Ridge allows any FMC member to arrange for a bus tour for up to 10 persons (you must call ahead to arrange this). In addition, FMC members get free admission to the exhibit hall and 10% off of most items in the gift shop.

Dinosaur Ridge is located at 16831 West Alameda Parkway, Morrison, CO 80465. To learn more about Dinosaur Ridge, their website is at [www.dinoridge.org](http://www.dinoridge.org). If you have questions about the benefits that FMC members enjoy, please call Gerry Naugle at 303-591-2830.

## We Have Winners!

Several FMC members received awards at this year's Rocky Mountain Federation of Mineral Societies Convention for articles and photographs they submitted for our club's newsletter. Pictured below receiving their awards from Dennis Gertenbach (left to right) are Aden Bicknell, Piper Rausch, Craig Hazelton, and Adam Wyckoff. Not pictured are Ava Ream, Egan Rausch, and Hudson Stoll.



## Needed: Articles and Photos for Flatirons Facets

Did you go on a great field trip or complete a special lapidary project? Perhaps you have expertise in some rockhounding area that you would like to share with other club members? Or, you have photos of your great finds and activities. The Flatirons Facets is always looking for items to include in each issue. Send your articles and photos to Dennis Gertenbach, editor, at [gertenbach@comcast.net](mailto:gertenbach@comcast.net). You never know, you may receive an award next year for your submission.

## Jr. Geologists Activities

In May, Annie Zaino presented a program about Antarctica, where she had spent several months. To emphasize the extreme temperatures in Antarctica, Annie had the clothing and other protective clothing she had to wear. We learned more about the geology of Antarctica with several demonstrations to show how glaciers shape the terrain and how the land responds to the melting glaciers from global warming. We also learned about the rocks, minerals, and fossils discovered in Antarctica. We want to thank Annie for helping us better understand this continent, one that most of us will never visit.



Linus modeling some of the clothes that Annie wore in Antarctica

This summer we visited the Kremmling Cretaceous Ammonite Site with the club in June and plan to tour the Phoenix Mine with the club (see page 2 for more details). Several other possible field trips are in the planning stage and we will notify the Jr. Geologists families about these when the trips are finalized.



A demonstration showing how glaciers shape the terrain

The Jr. Geologists program is open to all Flatirons Mineral Club families. Each month we learn about different aspects of geology, minerals, and fossils, plus earn badges for different earth science activities. For information about the Jr. Geologists program, please contact Dennis Gertenbach at [gertenbach@comcast.net](mailto:gertenbach@comcast.net) or 303-709-8218.

### Club Lapidary Equipment Available

The club has a new location for our lapidary equipment that club members can come and use after July 8th. Available are a Genie, Pixie, water saw, and flat lap. The club also has a tumbler, but it is currently being used. To use the equipment, please contact Melanie Seaman at 561-573-3942 or [mseaman136@gmail.com](mailto:mseaman136@gmail.com) to schedule when to come and use the equipment. If you are new to using the lapidary equipment, club members will be glad to teach you how to safely use the equipment. A special thanks to Melanie for providing space for the equipment.

### Denver Show Volunteers Needed

This year's Denver Gem and Mineral Show is September 16-18. The show is organized and run by volunteers from the eight mineral clubs in the metro area, including the Flatirons Mineral Club. Our club has a table at the show to highlight our club to members of the public. Both the show and our club table need volunteers and two hours of volunteer time equals full admission to the show. Here is how you can help.

**For the Show:** There are many areas in which your help is needed, including admissions, security, selling grab bags and posters, show set up, show take down, hospitality room, and volunteer check-in. To learn more about the duties of these jobs and to sign up for a time slot to work, please contact Tally O'Donnell at [phantom@indra.com](mailto:phantom@indra.com).

**For our Club Table:** This year our club table will feature information about our club, games for the kids, specimens for the public to learn more about our hobby, and a display case with specimens from our field trips. We need volunteers to man the table Friday, Saturday, and Sunday. Please contact Dennis Gertenbach at [gertenbach@comcast.net](mailto:gertenbach@comcast.net) to volunteer for a time slot.

## **Our 60<sup>th</sup> Anniversary is Approaching!**

Flatirons Mineral Club came into existence on March 9, 1957. We would like to celebrate our 60<sup>th</sup> Anniversary next year. We will celebrate during our June 2017 meeting. Do you have some great ideas to make this celebration special? Please contact Gabi Accatino at [accatino@colorado.edu](mailto:accatino@colorado.edu) to help make our anniversary a fun event.

## **Check out our Website! [www.flatironsmineralclub.org](http://www.flatironsmineralclub.org)**

Our website is up and running! Check out [www.flatironsmineralclub.org](http://www.flatironsmineralclub.org) to see our developing website that Board member, Kevin Notheis, has created.

This is so exciting. This will be where club members can keep in touch and keep track of the club events. We plan to have General and Jr. Geologist meeting news there, as well as our field trip schedule and club photos. A special thank you to Kevin for creating our new website.

Are you on Facebook? So are we! Find the Flatirons Mineral Club on Facebook and Like us, please!

## **King Tut's Dagger Made from a Meteorite**

Dennis Gertenbach

Researchers have discovered that a dagger buried alongside the legendary Egyptian King Tutankhamun was made with iron from a meteorite. Using X-ray fluorescence spectrometry, a team of Italian and Egyptian experts led by Daniela Comelli of the Polytechnic University of Milan, analyzed the blade and found that it has a composition comparable to metallic meteorites. The ancient Egyptians prized metallic meteorites as "iron from the sky."

The dagger was discovered in 1925 among the folds of the wrapping around the mummified boy pharaoh's body. The iron dagger has a gold and crystal handle and was enclosed in an ornate sheath. Since its discovery, archeologists and historians have been intrigued by its beauty and the source of the iron. The researchers compared the composition of the dagger to known meteorites within 1,200 miles (2,000 km) around the Red Sea coast of Egypt, and found that one that landed 150 miles (240 km) west of Alexandria that contained similar levels of nickel and cobalt. Based on the similar analysis, the researchers concluded that this meteorite was the source of the iron in King Tut's dagger.

The fine craftsmanship of the dagger continues to amaze both historians and the public. The quality "suggests a significant mastery of ironworking in Tutankhamun's time", the researchers say. The dagger can currently be seen at the Egyptian Museum in Cairo.

Information for this article was obtained from [http://www.mining.com/tutankhamun-had-a-dagger-made-of-iron-from-meteorite/?utm\\_source=digest-en-mining-160605&utm\\_medium=email&utm\\_campaign=digest](http://www.mining.com/tutankhamun-had-a-dagger-made-of-iron-from-meteorite/?utm_source=digest-en-mining-160605&utm_medium=email&utm_campaign=digest)



King Tutankhamun's iron dagger and sheath. *Credit: Wiley Online Library*



### Get Your Very Own Flatirons Mineral Club Baseball Cap

The club now has baseball caps in a variety of colors for sale, sporting the new Flatirons Mineral Club logo. Buy them at any meeting. The member price is \$10 each, while the non-member price is \$15.

### Thank You

A special thank you to Julie Krauss for volunteering and fixing the show postcard database. Volunteers are what make our club such a success.

### Rockhound of the Year

Each year the club membership honors an active member, or husband and wife team, who have made an outstanding contribution in promoting and furthering the goals of the Flatirons Mineral Club. Since its inception in 2002, the annual FMC recipients have been: Charlotte Morrison (2002), Paul and Martha Ralston (2003), Ray and Dorothy Horton (2004), John and Jeanne Hurst (2005), Ray and Joyce Gilbert (2006), Chuck and Jan Buda (2007), Cory Olin co-tie with Hallie and Dot Cook (2008), Shaula Lee (2009), Anita Colin co-tie with Gabi Accatino (2010), Mel and Charlotte Bourg (2011), Deborah Knox (2012), Ed Raines and Silvia Pettem (2013), Mike Smith (2014), and Tally O'Donnell in 2015.

You are encouraged to nominate a club member for this award in 2016 using the form on the following page. Nominations can be submitted to Gerry Naugle at any meeting, by mailing to Flatirons Mineral Club, P.O. Box 3331, Boulder, CO 80307 or by emailing Gerry at [gnaugle@earthlink.net](mailto:gnaugle@earthlink.net). **Nominations are needed by July 10.**

The recipient of this year's award is honored in the newsletter of the Rocky Mountain Federation of Mineralogical Societies and is inducted into the Flatirons Mineral Club's Hall of Fame. The winner will be announced at the annual club picnic on Saturday, August 20.



Flatirons Mineral Club  
P.O. Box 3331  
Boulder, CO 80307

**2016 Ballot for the Flatirons Mineral Club Rockhound of the Year**

The club membership each year honors an active member, or husband and wife team, who have made a substantial contribution this past year in promoting and furthering the FMC goals and mission statement, as outlined in the Club Bylaws.

Since its inception in 2002 , the annual FMC recipients have been: Charlotte Morrison (2002), Paul & Martha Ralston (2003), Ray & Dorothy Horton (2004), John & Jeanne Hurst (2005), Ray & Joyce Gilbert (2006), Chuck & Jan Buda (2007), Cory Olin co-tie with Hallie & Dot Cook (2008), Shaula Lee (2009), Anita Colin co-tie with Gabi Accatino (2010), Mel & Charlotte Bourg (2011), Deborah Knox (2012), Ed Raines & Silvia Pettem (2013), Mike Smith (2014), and Tally O’Donnell in 2015.

Please list your 2016 nominee below. You can also vote by electronic means. All voting information is confidential and is tallied and is then erased or shredded by Gerry Naugle. The FMC annual winners’ names are sent to the RMFMS and AFMS offices for publication in their respective publications. Note: The annual FMC winner(s) are also inducted into the FMC Hall of Fame and placed on the club’s Hall of Fame plaque.

Your 2016 nomination is: \_\_\_\_\_

The person (or) persons should be honored because:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Submitted by (please print): \_\_\_\_\_

Please return this paper ballot to Gerry Naugle (use the letterhead address above) by July 10th  
**or** you can vote by leaving a message or text to: 303-591-2830  
**or** by sending an e-mail to: [gnaugle@earthlink.net](mailto:gnaugle@earthlink.net),

Voting results will be announced at the 2016 annual club picnic to be held on **Saturday, August 20<sup>th</sup>** at the **Pavilion of Harlow Platts Park in South Boulder**, just south of the South Boulder Recreation Center, near the lake. Please note that this is a new location for this year only. The picnic starts at 11:00 am with usual activities.

## Fossils in the News

Dennis Gertenbach

### World's First Plant Eating Marine Reptile

In 2014, scientists discovered a bizarre fossil in southern China of a crocodile-sized sea-dwelling reptile that lived 242 million years ago. Further study of the fossil revealed that it had a hammerhead mouth, used to feed on plants on the ocean floor. It is the earliest known example of an herbivorous marine reptile. Named *Atopodentatus unicus*, its unique mouth was edged with peg-like teeth. Further in its mouth, it had bunches of needle-like teeth.

As explained by Oliver Riepell, co-author of the study, "It used the peg-like front teeth to scrape plants off of rocks on the sea floor, and then it opened its mouth and sucked in the bits of plant material. Then, it used its needle-like teeth as a sieve, trapping the plants and letting the water back out, like how whales filter-feed with their baleen."



A fossil of *Atopodentatus unicus* next to a reconstruction.

Credit: Nick Fraser

Information from

[www.sciencedaily.com/releases/2016/05/160506160110.htm](http://www.sciencedaily.com/releases/2016/05/160506160110.htm).

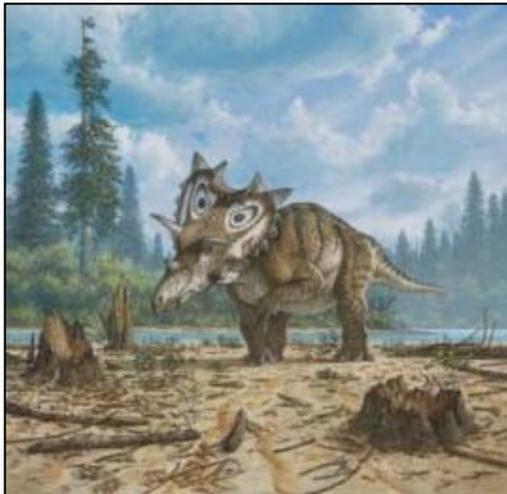


Illustration of *Spiclypeus shipporum* showing spiked shield. Credit: Mike Skrepnick

### New Horned Dinosaur Found with Spiked Shield

An international team has found and described a new species of horned dinosaur from Montana that roamed a floodplain 76 million years ago. What sets *Spiclypeus shipporum* apart from other horned dinosaurs such as the well-known *Triceratops* is the orientation of the horns over the eyes, which stick out sideways from the skull. There is also a unique arrangement to the bony spikes that emanate from the margin of the frill, with some of the spikes curling forward while others projecting outward.

As paleontologist Dr. Jordan Mallon explains, "In this sense, *Spiclypeus* is transitional between more primitive forms in which all the spikes at the back of the frill radiate outward, and those such as *Kosmoceratops* in which they all curl forward." A close examination of other bones of this dinosaur reveal that the animal lived in pain. Its upper arm bone (humerus) shows distinct signs of arthritis and osteomyelitis (bone infection) as determined by Dr. Edward Iuliano.

Information from [www.sciencedaily.com/releases/2016/05/160518152908.htm](http://www.sciencedaily.com/releases/2016/05/160518152908.htm)

### The World's Oldest Farmers Were Insects

Beating out humans by 25 million years, a team, led by James Cook University's Associate Professor Eric Roberts, discovered the oldest known example of animal farmers. They discovered fungus gardens within fossil termite nests from the Great Rift Valley of Africa. Modern fungus farming termites cultivate fungi in gardens in subterranean nests or chambers, helping to convert plant material into a more easily digestible food source for the termites. These fossils from Tanzania demonstrate that termites have been cultivating fungi for 25 million years. Study co-author Associate Professor Duur Aanen from Wageningen University said that the transition to agriculture dramatically increased the

range of possible habitats for both the fungus-growing termites and their domesticated fungi, very much like humans and their domesticated crops and livestock, tens of millions of years later.



Fossil termite nest with the remains of a fungus garden preserved inside. *Credit: H. Hilbert-Worf, James Cook University*

Information from [www.sciencedaily.com/releases/2016/06/160622144634.htm](http://www.sciencedaily.com/releases/2016/06/160622144634.htm)



Reconstruction of an uncamouflaged lacewing larva before adding remains of its prey on its back. *Credit: Bo Wang, Nanjing*

### **Insects Used Camouflage 100 Million Years Ago**

An international research team, with participation from Germany, China, the United States, and France, has discovered examples of insect camouflage in amber samples from Myanmar, France, and Lebanon. One such insect is the larva of the lacewing. These larva attacked pseudoscorpions, using their powerful mouth parts to suck their prey dry. The larva then put the remains of its dead prey on their back. This makes the larva look more like pseudoscorpions, protecting them from predators and making it easier to hunt prey. Prof. Dr. Jes Rust of the Steinmann-Institute of the University of Bonn explained that "Using the pieces of its prey, it even takes on the smell of the pseudoscorpion." Other insects covered themselves with particles of sand, perhaps to not only camouflage themselves, but also to protect them from spider bites.

Information from [www.sciencedaily.com/releases/2016/06/160624154710.htm](http://www.sciencedaily.com/releases/2016/06/160624154710.htm)

## **We Need a Program Chair for our December Rocks & Rails Show!**

Please join the gang of regulars and help make the FMC December Show a success! Take over the role of Program Chair and organize the lectures and demonstrations that we try schedule during the Saturday and Sunday afternoons of the show weekend. It can be as few as one lecture each day or as many as you can arrange. We need your energy! And this position is not a time consuming one – a few emails or phone calls during the fall before the show weekend to make some contacts and the job is done. Contact Gabi Accatino at [accatino@colorado.edu](mailto:accatino@colorado.edu) to volunteer.

## **Other Rockhounding Events and Activities in the Area**

Here is a list of rockhounding-related activities for both adults and juniors that you might be interested in.

**Thursday, July 7, 7:00 p.m.** The club Show Committee midsummer meeting will be at the Clover Building in Longmont. Ray Gilbert (the past show chair for many years) has agreed to come back in as the 2016 Show Chair. The committee is

looking for additional volunteers to help with the show in December. Volunteers are invited to join the meeting at the Clover Building perched on the small hill just north of Nelson Road on the main Fairgrounds driveway. For more information about helping with the Show Committee, please contact Ray at 303-774-8468 or [Hoss@q.com](mailto:Hoss@q.com).

**Saturday, July 9**, is a program on “**When Ice Ruled Leadville I**”, featuring a 90 minute lecture followed by a field trip for the rest of the day by former Colorado State Geologist, Dr. Vince Matthews. Register through Colorado Mountain College at [http://coloradomtn.edu/event/when-ice-ruled-leadville-i-2/?instance\\_id=30656](http://coloradomtn.edu/event/when-ice-ruled-leadville-i-2/?instance_id=30656). A 1/2 mile of hiking is required, dress appropriately for the hike and the weather. Pack a lunch or bring lunch money. Registration fee is \$59.

**Friday-Sunday, July 15-17**, 10 a.m. - 5 p.m. is the **Museum Anniversary and Expo** at the **Western Museum of Mining & Industry**, Colorado Springs. Spend some family time exploring vendors and activities and enjoying all that WMMI has to offer! See operating steam engines, antique mining equipment and a working stamp mill, process real gold ore, visit the fully functional Black Smith shop and watch blacksmiths in action, go gold panning, learn rock identification, play in the special kids’ area, visit gem, jewelry, mineral, craft, and food vendors and exhibits, and spend time with the museum’s burro mascots Nugget and Chism! All this for only \$10 per person age 6 and older! For more details see [www.wmmi.org](http://www.wmmi.org).

**Friday-Tuesday, July 15-19** is the 2<sup>nd</sup> **Eugene E. Foord Pegmatite Symposium** on the Colorado School of Mines campus in Golden, CO. There will be two days of oral and poster presentations and two days of field trips to Colorado pegmatite localities. Registration cost is \$100 (field trips included), full-time students \$50. Full registration information is at <http://www.colorado.edu/symposium/pegmatite/>. See the flyer on page14 for more information.

**Friday and Saturday, July 29 and 30**. The Denver Gem and Mineral Guild is offering a stone carving class, taught by DGMG’s premier prize-winning carver, Linda Burns. You will learn the basics of stone carving. Please sign up by contacting Linda ([burns.henley@gmail.com](mailto:burns.henley@gmail.com)) and/or Beth Simmons ([cloverknoll@comcast.net](mailto:cloverknoll@comcast.net)). The cost for is \$20 for those not members of the DGMG. More information is on the flyer on page 15.

**Friday-Sunday, August 5-7** is the **Creede Rock & Mineral Show** at the Creede Underground Mining Museum and Community Center, Creede, Mineral County, CO. Times are 10 a.m.–5 p.m. daily. See <http://creederocks.com/> for more information.

**Thursday-Sunday, August 11-14** is the annual **Contin-Tail Rock & Mineral Show** in Buena Vista, CO. For more information, see [www.facebook.com/ContinTail](http://www.facebook.com/ContinTail) .

**Saturday, August 13**, 10 a.m.–2 p.m., come to **Dinosaur Discovery Day** at Dinosaur Ridge, 16831 W. Alameda Parkway, Morrison, CO. This month it is “Reptile and Bird Day” where you can see live birds and reptiles! They will also have hands-on dinosaur stations at the Visitor Center and scientists along our trail to teach about the fossil footprints, bones, and the local geology to visitors. Visitors hike at their own pace or take the Shuttle Bus (one way) at \$4 per person (three and under ride free). More information can be found at <http://dinoridge.org/DDD.html>.

**Sunday and Monday, August 14 and 15** is a rock, fossils and gem sale at 5807 W 31st St, Greeley, CO 80634. Ralph Darrough has reached a point in his life where he desires to sell his collection of rocks, gem, fossils and rock cuttings. He has been collecting and working with rocks for over 55 years and has amassed over a ton of specimens. The sale will be from 8:00 a.m. to 5 p.m. each day. Ralph will donate a portion of the proceeds from the sale so the Greeley Senior Activity Center can purchase a Genie for their classrooms. See the flyer on page 16 for more information.

**Friday-Sunday, August 19-21**, are two gem and mineral shows, the **Woodland Park Rock, Gem, & Jewelry Show** in Woodland Park, CO (<https://www.facebook.com/woodlandparkrockandgemshow/>) and the **Lake George Gem & Mineral Show**, sponsored by the Lake George Gem and Mineral Club in Lake George, CO (<http://www.lggmclub.org/>).



## 2nd Eugene E. Foord Pegmatite Symposium

Golden, Colorado  
July 15 – 19, 2016

Quartz Creek pegmatite field, Gunnison County, Colorado

The 2<sup>nd</sup> Eugene E. Foord Pegmatite Symposium opens Friday night, July 15, 2016 at the Colorado School of Mines Geology Museum, on the Colorado School of Mines campus in Golden, Colorado. This symposium features oral presentations by nationally and internationally renowned experts on pegmatites, which are coarse-grained igneous rocks known as producers of the gemstones aquamarine (blue beryl), heliodor (yellow beryl), morganite (pink beryl), kunzite (pink spodumene), topaz (clear and blue) and garnet (red). Pegmatite mines are also known as producers of feldspar for ceramics and glass, white quartz for decorative materials, mica for insulation and lubricants, tantalum for cell phones, and cesium for oil and gas completion fluids.

The symposium has been organized and sponsored by the Geology Museum of the Colorado School of Mines, the Friends of Mineralogy-Colorado Chapter, the Denver Region Exploration Geologist' Society, and the Friends of the Colorado School of Mines Geology Museum.

This technical meeting brings to Golden more than 80 participants who have traveled great distances from Brazil, Czech Republic, Ireland, Sweden, Canada, and many different states in the United States. Oral presentations that last for two days on Saturday and Sunday, July 16-17 on the CSM campus, will be followed by two days of geologic and mineralogic field trips to some of the well known pegmatite deposits in Colorado. Eight field trips, four each day, will cover Larimer, Jefferson, Teller, Fremont and Gunnison counties. The field trip participants will visit some of the pegmatites in Colorado that are famous for their gemstones and rare minerals.

Participation to the symposium is open to the public by registering prior to Saturday, July 16, by mail. Registration information and forms can be found either on the Facebook page <https://www.facebook.com/LikeCSMGeoMuseum/> or the Friends of Mineralogy-Colorado Chapter website, <http://friendsofmineralogycolorado.org/2nd-foord-pegmatite-symposium/>.

For further information you may contact Mark Jacobson ([markivanjacobson@gmail.com](mailto:markivanjacobson@gmail.com), 337-255-0627), Dr. Bruce Geller, director of the CSM Geology Museum ([bgeller@mines.edu](mailto:bgeller@mines.edu), (303) 273-3815) or Dr. Peter Modreski, Resource Geologist, U. S. Geological Survey ([pmodreski@usgs.gov](mailto:pmodreski@usgs.gov), 303-202-4766).

**AT LAST!**  
**A STONE CARVING CLASS**  
**at the DGMG Clubhouse: 1420 S. Reed St., Lakewood, CO 80232**

DGMG is offering a stone carving class on Friday July 29<sup>th</sup> in the evening and on Saturday, July 30<sup>th</sup> late morning and early afternoon, taught by DGMG's premier prize-winning carver, Linda Burns.

You will learn the basics of stone carving. Many types of stone are available to work —pipestone, onyx, soapstone, and alabaster. Many of these stones can be carved with hand tools. A band saw, plus the club's trim saw are available for cutting, in addition to hand saws. Rasps for wood and files for wood will work and are available in the clubhouse. We will only be working on small-sized stones due to the limited time to finish a carving. We reserve the right to limit the number of participants because of space restraints.

If you never took a carving class with Sandy Cline, this is your next best chance to produce a quality piece in a short time. If you took a class and want to review, this is the time! If you have one, please bring a Dremel type tool and carbide or diamond burrs and leather gloves in case you slip. Save your fingers! It will likely be very warm so bring plenty of fluids. For Saturday a pizza lunch will be provided.

Please sign up (minimal cost— DGMG members \$10; \$20 for non-members). DGMG Golden Diggers (junior members) free because they are working on their lapidary badge.

RSVP to Linda ([burns.henley@gmail.com](mailto:burns.henley@gmail.com)) and/or Beth ([cloverknoll@comcast.net](mailto:cloverknoll@comcast.net)) so we know how much pizza to order.



After holding on to this rough piece for two years, DGMG President **Beth Simmons** finally carved this Chinese striped soapstone into a zebra head the last time Sandy was here. If Beth can do this, anyone can do it!



DGMG's membership chairman **Kathy Honda** carved this graceful heron from Canadian soapstone.



DGMG Carving Instructor **Linda Burns** finished these rhodonite roses that **Beth** started about thirty years ago!

Rock, Fossils and Gem Sale  
8:00 AM – 5:00 PM Sunday and Monday August 14 and 15, 2016  
5807 W 31<sup>st</sup> St, Greeley, CO 80634

Ralph Darrough of Greeley, Colorado has reached a point in his life that he desires to sell his collection of rocks, gem, fossils and rock cuttings. He has been collecting and working with rocks for over 55 years and has amassed over a ton of rocks of interest to any one inclined to love a great variety of specimens. Many of his rocks are cut into more than 100 slabs, shaped, polished and displayed. Ralph has also taught lapidary classes for 19 years at the Greeley Senior Activity Center and has been a member of the Weld County Rock and Mineral Society for 19 years. He has generously volunteered to donate a substantial portion of the sales proceeds to the Senior Center so that an additional Diamond Pacific Genie rock grinder/polisher may be purchased for the classrooms. If you like high quality rocks for yard display, polished tumbled rocks, slabs, cabochons, hearts, petrified wood, fossils, and other finely finished items made from rocks, do not miss this sale. Pictures can be found at the following link:

[https://www.dropbox.com/sh/5m7on380ohcir8d/AAC2VFJmGKVdc\\_XIAbp40Ezoa?dl=0](https://www.dropbox.com/sh/5m7on380ohcir8d/AAC2VFJmGKVdc_XIAbp40Ezoa?dl=0)

Note that you do not have to create a Dropbox account to view the pictures.

To find Ralph's house in Greeley, go to the corner of Highway 34 Bypass and 47<sup>th</sup> Ave, go South to the first street past the shopping center, West on 29<sup>th</sup> St to the last street on the left, go one block then right one block more then left to 5807 W 31<sup>st</sup> St. Copy and paste the below web address to your browser.

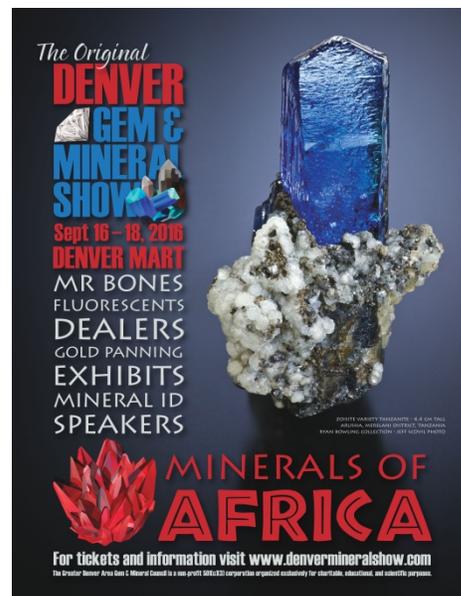
<https://www.google.com/maps/@40.3907371,-104.7571293,15z>



## Denver Gem & Mineral Show Mini Report July 2016

The Denver Gem & Mineral Show will be here soon! The dates are September 16 - 18, 2016 and the theme is "Minerals of Africa". It never hurts to repeat the dates and theme, as though anyone could forget. The location is Expo Hall of the Denver Mart, 451 E. 58th Avenue, a few blocks east of I-25 at exit 215 ( 58th Avenue).

Have you seen the Denver Planner? The Denver Planner is new for 2016 and is purposed to advertise the show. The planner is a 24 page colorful booklet, creatively developed by the Show Publicity Chair Gloria Staebler. The planner has an introduction by Governor Hickenlooper; a map of all the local shows; information about show speakers, dealers, exhibits, and so much more. The planner will be an insert in a Mineralogical Record issue prior to the show. The planner will also be distributed locally and overseas. Another innovative publicity item coming up this summer is a wrap-around for the Westword magazine. Watch for these two this summer. Many thanks to Gloria for coming up with these new ideas for publicizing the show.



There are many exciting talks planned for the 2016 show. Here is the list.

- "A Brief Geologic History of Africa - where did all those great minerals come from?" by Terry Wallace.
- "An African Mineral Safari" by Jeff Scovill.
- "Morocco" by Tom Praszker. "Agates" by Pat McMahan.
- "Gem Bearing Pegmatites in Madagascar" by Frederico Pezzota.
- "The Rudest Fossil Story" by Jack Shimon.
- "How to start a Mineral Collection" by Pete Modreski.
- "Tsumeb: A Mineralogical Odyssey" by Robert Bowell.
- "Mineral Significance of the Cripple Creek and Victor Mining District" by Jenna Salvat.
- "Mammoth Caves" by Nathan and Jerrod Gallup.
- "Overview of the Dimorphodon" by Destin Bogart.
- "Minerals of the Erongo Region" by Rainer Bode.
- "African Meteorites" by Ronnie McKenzie.
- "An English Geologist Abroad" by Robert Bowell.
- "Erongo Pegmatites and Minerals" by Skip Simmons.
- "Fluorescent and non-Fluorescent Minerals of the Franklin/Sterling Hill Mines" by Richard Bostwick.
- "Merelani Tanzanite Mines" by John Jaszczak.

Thanks to our Speaker Co-Chairs Larry Havens and Dale Gann for arranging for this impressive group of talks and speakers. Additional thanks to Gloria Staebler for many leads and contacts.

Don't forget to volunteer for the show! There are many areas in which your help is needed. Some of these are admissions (selling and taking tickets), security (walking around with eyes wide open), selling grab bags and posters, show set up, show take down, hospitality room (serving drinks and snacks), volunteer check-in, exhibits assistant, judging clerk, and schools (bringing in the school children). A total of 400 plus volunteers are needed to put on the show. THIS IS YOUR SHOW! SO LET'S GET INVOLVED!

Respectfully submitted, Judy Knoshaug, Secretary

## Colorado School of Mines (CSM) Geology Museum Musings

Greetings Museumophiles! Our Museum has experienced various construction projects lately. Our largest by far was the relocation of one of our warehouses from one part of Campus, clear to the other end. That move was in the works for many months and it took a great deal of planning, as well as patience to accomplish. The new space is 25% smaller in size, but the space is functional. I wish to thank everyone involved in this move. We believe this new space will provide ample, safe, working space for the paleontology volunteers to continue their fine work, as well as the needed, secure space required for our ever-expanding collections. Another construction project involved the installation of magnetic door holds on the entrance doors to our Museum, which were required by our Fire Marshall, and the final installation of UV filtering mylar on our exterior windows. The latter was paid for by a grant from the Golden Civic Foundation.

Speaking of grants, I'm proud to report that our grant proposal to the Greater Area Denver Gem and Mineral Council for partially funding the purchase of an X-ray diffractometer was approved. We are truly grateful for their support. In April, I gave a paper at the Rochester (NY) Mineral Symposium about loaning specimens to museums, which was well received. That was the same weekend as the Spring Show in Denver, where Sandra Gonzalez, Leslie Sebol, and Amber Brenzikofer coordinated an auction to benefit our Museum, amidst a daunting blizzard. In a few hours, they raised \$4276. I am grateful for their help, along with the auction donations from dealers, and for all the buyers.

At the end of April, our guest attendance data indicated that in 2016, guests have visited us from 49 states (except Mississippi), 32 foreign countries, and 96 Colorado towns. We've had 53% more guests sign-in to our guest register book, compared to this period last year. We were recently ranked the #6 tourist attraction of 52 sites in Golden, by Tripadvisor.com.

Our Spring Garage Sale was terrific, smashing all previous records. We brought in nearly \$9700 during the April 29<sup>th</sup> to May 1<sup>st</sup> weekend. Let me thank all the Friends members who helped set up and tear down the event, along with nine CSM student volunteers, and the volunteers who ran the sale.

I've just hired nine new Student Aides to replace roughly half of my staff that graduated. I've also been involved with a planned solar panel installation to complement our Critical Materials Institute display, and in tweaking a Museum Strategic plan.

One of the new exhibits we will erect this summer is a group display of Colorado calcites. If you are interested in a one year loan to us, please search your collections for aesthetic calcites from Colorado localities and bring one or two to the Museum before July 15th. These should not be too large in size, and we don't mind if these were self-collected, traded, or purchased by you. They must be Colorado calcites that you own.

The Eugene E. Foord pegmatite symposium is shaping up nicely. It will be held at CSM July 15-19, 2016. The Symposium is sponsored by our Museum, the Friends of Mineralogy, the Friends of the CSM Geology Museum, and the Denver Region Exploration Geologist Society. More information can be found at: [www.facebook.com/LikeCSMGeoMuseum/](http://www.facebook.com/LikeCSMGeoMuseum/). Registration is now available on-line and will be limited to the first 140 who register.

Come visit our Museum during normal hours: Monday – Saturday 9 A.M. to 4 P.M. or Sundays 1 P.M. – 4 P.M., except for certain legal and school holidays. Admission to our Museum is free, and so is parking in the neighborhood north and east of the Museum from May 15<sup>th</sup> - August 15<sup>th</sup>, but parking fees are required in our lots and on campus streets Mondays through Fridays before 5 P.M. You may prefer to see our exhibit in the Colorado Capitol building in downtown Denver, if you're in that vicinity.

Bruce Geller  
303-273-3823

## Officers, Directors, and Other Volunteers

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#### Volunteer Chair

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[gertenbach@comcast.net](mailto:gertenbach@comcast.net)

## A friendly reminder that the annual dues to the FMC are due for 2016

Dues are still only \$18 per individual and their immediate family. You can pay in two ways:

**PAY** Gerry Naugle, Treasurer and Membership Chair, at any FMC monthly meeting. Gerry is at or near the sign-in table when you enter the room for the monthly meetings.

**SEND** a check made to "Flatirons Mineral Club" or "FMC" to P.O. Box 3331, Boulder, CO, 80307. Please do not send cash in the mail.

Your 2016 dues must be received by January 20th, 2016 in order to stay current with the member benefits, which include electronic club newsletters containing the information about club activities, club field trips information, annual show opportunities, silent auction opportunities, and the annual club summer picnic. Your receipt is your new annual 2016 FMC membership card.





Flatirons Facets  
P.O. Box 3331  
Boulder, CO 80307-3331

## First Class Mail

### *Upcoming Events*

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Saturday, July 9	Field trip for sulfide minerals	Montezuma District
Thursday, July 14	Rock Bagging Party	Frasier Meadows, fourth floor
Saturday, July 16	Field trip for quartz and zircon	St. Peters Dome
Sat-Sun, July 30-31	Field trip for quartz crystals and aquamarine	Mt. Antero
Saturday, Aug. 6	Front Range Boulder geology tour	Boulder County with Ed Raines
Sunday, Aug. 7	Tour of the Phoenix Mine	Idaho Springs
Saturday, Aug 13	Field trip for fluorite and gold	Midnight Express Mine
Saturday, Aug. 20	Annual Club Picnic	Harlow Platts Park in Boulder
Saturday, Aug. 27	Field trip to pan gold	Brian's claim in Boulder County
Sat-Mon, Sept. 3-5	Dinosaur fossil excavation, collect agate	Como Bluffs, Wyoming