

SILENT AUCTION – APRIL 12

Our annual silent auction will take place during our April meeting at the **Left Hand Grange in Niwot** (195 2nd Avenue, Niwot, 80544). It's a fun event and is a great chance to buy and sell rock and mineral specimens, as well as equipment and other related items.

Sellers, email Eileen at elfitz891@hotmail.com to get your seller number ahead of time and then use the bidding slips that are available at our website – www.flatironsmineralclub.org – and attached below. Fill in the slips at home and then print them on your home printer.

There is also a flyer that advertises the auction at the end of this newsletter. Please help the club by printing out a few copies and posting them around your workplace or neighborhood. Thank you.

And come enjoy the silent auction on April 12!

MAY MEETING AND THE PAPERLESS FUTURE OF FIELD TRIP SIGN-UPS – MAY 10

At the May meeting, which is our traditional "Field Trip Sign-Up" meeting, we will be doing things differently this year. We will NOT do sign-ups at the meeting! There will no longer be sign-ups on paper.

This is what will happen: We will have a **short program about this summer's field trips** and a paper list of the trips will be available. Then **Craig Hazelton** will give us a presentation about **Cleaning the Rocks You Bring Home from Trips**.

The day after the meeting the entire field trip guide for 2018 will be available on the club's website after you log-in. And the field trips web page will be active and ready for you to sign-up for the trips.

So, make sure you can log into <https://flatironsmineralclub.org/> ahead of time! Soon! Before May! You want to be ready to sign-up for our field trips on Friday, May 11!

The meeting is in the North Community Room at Frasier Meadows, 350 Ponca Place, Boulder, CO 80303, starting at 7:00 pm. As you enter Frasier Meadows, just ask the receptionist for directions.

FIRST FIELD TRIP OF THE SEASON

Our annual field trip to North Table Mountain outside of Golden will be on **Saturday, May 5**, to collect zeolites and other minerals. The hike to the quarry where we will collect is just over a mile long, climbing 300 feet in elevation. Please contact Dennis Gertenbach at gertenbach@comcast.net, if you and your family would like to sign up for this field trip. This is a great trip for families and everyone will find nice specimens to take home. If it snows that day, the trip will be postponed to May 19.

JR. GEOLOGISTS MEETINGS

- **Wednesday, April 18** – At April's meeting, we will continue to learn more about lapidary, as we complete the requirements for the Lapidary Arts badge. Details will be emailed to the Jr. Geologists families.
- **Wednesday, May 16** – We are still planning our activities for May. More information will be in the May-June newsletter.

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. Meetings are the third Wednesday of each month, starting at 6:30 at the Meadows Branch Library, 4800 Baseline Road. For

information about the Jr. Geologists program, please contact Dennis Gertenbach at gertenbach@comcast.net or 303-709-8218.

CLUB NEEDS

- **Meeting Snack Czar** - We need you! The club needs a snack czar for our regular meetings. The responsibilities involve purchasing donuts and other food items on your way to the meetings. You will be reimbursed. Contact Gabi Accatino at accatino@colorado.edu to volunteer.
- **Lapidary Lab Space Needed** - Our club has a number of saws, a Genie, and other lapidary equipment. Some of this equipment is scattered in club members homes, while other equipment is in storage. Many of you have indicated an interest in learning lapidary skills and using the equipment. Ideally, a club "Lapidary Lab" would be a great place to have this equipment available to club members and to teach lapidary skills. Years ago, equipment was set up at Charlotte Morrison's house, and members could use the equipment one night a week.

To reestablish this, we need a space to set up the equipment for our members' use. If anyone has space in a garage or other building that you would be willing to let the club use for our new lapidary lab, please contact Tally O'Donnell at phantom@indra.com. The club would be willing to cover utility costs.

COUNCIL CASES FOR SALE

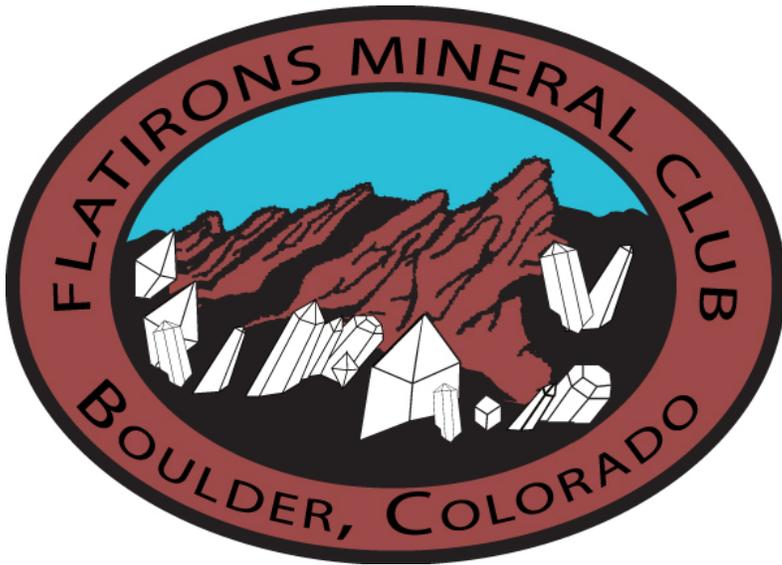
The two cases shown in the attached flyer will be sold by the Denver Gem and Mineral Society by silent auction. These cases were purchased in 2008 and cannot be used at the September Show anymore. They can be viewed at Dave Bunk's Store at 5695 Yukon Street in Arvada. **The auction starts April 2 and closes at noon April 14.** See the flyer below for more details.

OTHER ROCKHOUNDING EVENTS OF INTEREST - Thanks to Pete Modreski of the USGS for providing many of these.

- **Thursday, April 12** is the Colorado Scientific Society's annual **Past Presidents' Dinner**, to be held at Mt. Vernon Country Club, featuring a presentation on **Colorado's Exciting New Dinosaurs** by Dr. Joe Sertich, Denver Museum of Nature and Science. See <http://coloscisoc.org> for details.
- **Friday, April 13** is the **North Jeffco Gem & Mineral Club Silent Auction**, the evening after our silent auction. Located at the APEX Community Recreation Center, 6842 Wadsworth Blvd., Arvada, the auction begins at 6:45 p.m.; all are welcome. Jewelry, gemstones, mineral and fossil specimens, cabochons, craftwork, and rock-craft equipment may be available for sale. Part of the proceeds goes to scholarships at the Colorado School of Mines and the CSM Geology Museum in Golden. Free admission, parking and refreshments. For more information, contact Bill Jones at 303-503-6288 or sidewindermin@comcast.net
- **Friday-Sunday, April 13-15** is the **Colorado Mineral & Fossil Spring Show** at the Crowne Plaza Hotel DIA, 15500 E 40th Ave., Denver CO. Free admission; hours 9-6 Friday & Saturday, 10-5 Sunday. Free admission. Gold panning and rock dig for kids, wire wrapping workshop, and more. Hours 10 a.m.-6 p.m. Friday. and Saturday, 10 a.m.-5 p.m. Sunday <https://www.coloradomineralandfossilshows.com>
- **Saturday, April 14** is the **Denver 2018 March for Science**. Come and show your support for science and the role it plays in our society. See <http://marchforsciencedenver.org/> for details.
- **Thursday, April 19** at 7:00 p.m. is the Colorado Scientific Society meeting featuring a pair of talks on **The role of the USGS and the Colorado Geological Survey**; by Eugene (Buddy) Schweig, Director, USGS Geosciences and Environmental Change Science Center, and Karen Berry, Director and State Geologist, Colorado Geological

Survey. The meeting will be at the Shepherd of the Hills Presbyterian Church, 11500 W. 20th Ave., Lakewood, Colorado. See <http://coloscisoc.org> for more details.

- **Sunday, April 22** will feature an **Earth Day Geology Hike** by **Pete Modreski** in Red Rocks Park (1 p.m.) with optional (12 noon) shared potluck lunch at the Discovery Center at Dinosaur Ridge. Meet at the Discovery Center, 17681 W. Alameda Parkway. At about 1 p.m. everyone will drive to the Geologic Marker and hike the new Geologic Overlook Trail—a short, 3,000 feet (3/5 mile) round trip, with 240 feet elevation gain. During the hike, the “ROCKD” geologic map app will be demonstrated, This will be a joint “general public” + Florissant Scientific Society event; all interested persons are invited. Contact Pete Modreski, pmodreski@aol.com, or (cell) 720-205-2553.
- **Wednesday and Thursday, April 25-26, Robert Hazen** of the Carnegie Institution of Washington will give several talks at Colorado School of Mines on the theme of **Mineral Evolution, Mineral Ecology, and “Big Data”**. The flyer below has a detailed description of this exciting event, including programs, abstracts, biographical sketch, and registration information.
- **Saturday and Sunday, April 28-29** is the **Colorado School of Mines Geology Museum Garage Sale** with a large selection of minerals, rocks, maps, journals, fossils and more. Saturday, noon to 4 p.m., Sunday, 9 a.m.-4 p.m. See the flyer below for more information.
- **Thursday, May 3** at 7:00 p.m. is the First Thursday lecture series of the Friends of the Colorado School of Mines Geology Museum, featuring Philip Persson talking about **The Colorado-Wyoming State Line Kimberlite District**. All are welcome. Expected location: Ben H. Parker Student Center, Ballroom "E", Maple Street, Golden.
- **Saturday, May 5**, from 11 a.m. – 2:45 p.m. is the **Colorado Mineral Society Silent Auction** at the Holy Shepherd Lutheran Church, 920 Kipling St. (3 blocks north of West 6th Ave.) Lakewood.
- **Thursday, May 10** at 7:30 p.m. is the Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakeview Event Center, 7864 W. Jewell Ave. The featured speaker is Markus Raschke of CU (and an FMC member) talking about **Five Days on Xuebaoding Mountain, Sichuan Province, China: Minerals and Geology**.
- **Saturday, May 12**, is **Dinosaur Discovery Day** at Dinosaur Ridge outside of Morrison, Colorado, featuring **Boy Scout Day**. See www.dinoridge.org for full information.
- **Sunday, May 20**, from 12 noon to 4 p.m. is yet another silent auction. This time it is the **Friends of Mineralogy, Colorado Chapter, Silent Auction**, at Clements Community Center, 1580 Yarrow St., Lakewood. All are welcome.



ANNUAL SILENT AUCTION

Thursday April 12
7:00pm

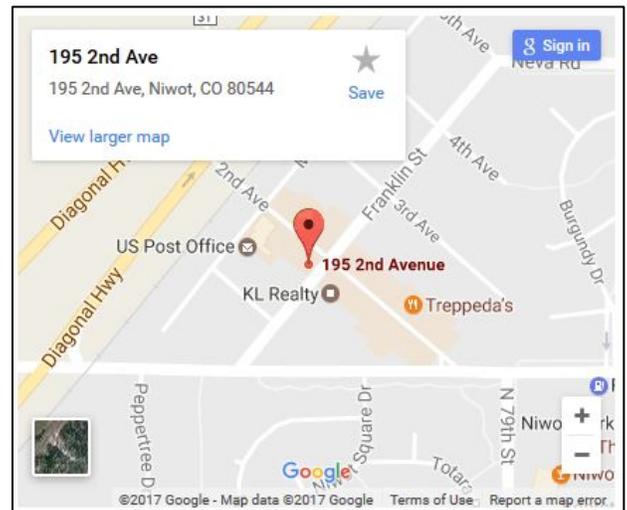
Minerals Crystals Fossils Lapidary

Bring items to sell or just come to browse!

New Location!

**Left Hand Grange
in Niwot**

195 2nd Ave, Niwot CO 80544



Sellers: Set-up starts at 6:00pm

To get a seller number before the event
email Eileen at: elfitz891@hotmail.com

All sellers MUST use 2017 or newer bid slips

flatironsmineralclub.org



COUNCIL CASES FOR SALE! Silent Auction

These cases were purchased in 2008 and for safety reasons can't be used at the September Show anymore. Description: (see pictures) Hexagonal, 6 feet tall. Casters were added on the bottom for mobility. I would recommend they be removed once they've found a home.

They can be viewed at Dave Bunk's Store in Arvada, 5695 Yukon St.,

Sales are final, you haul away.

Auction starts April 2 and closes at noon April 14.

The council paid \$1500.00 each; the current opening bid is \$400.00 for each case. Bidding sheets will be taped to each case, We'll need your name and phone number. Good luck!

Ron Snelling
Buildings and Grounds, DGMS

ron.snelling22@icloud.com

303-880-7956



"The Story of Earth: How Life and Minerals Co-Evolved"

By Robert M. Hazen

We are pleased to announce several upcoming free public events at the Colorado School of Mines with Dr. Robert M. Hazen, Senior Staff Scientist at the Geophysical Laboratory Carnegie Institution, Washington, D.C.; Clarence Robinson Professor of Earth Sciences at George Mason University, Fairfax, Virginia; Executive Director of the Deep Carbon Observatory.



Dr. Robert M. Hazen

Lecture 1, Wednesday, April 25, 2018, 7:00 pm: "Mineral Evolution and Ecology: Tracing Earth's History Through Time and Space"

- Berthoud Hall, Room 241, Colorado School of Mines, Golden. (Seating is limited; please pre-register at <http://bit.ly/2HO5mIZ>.)

ABSTRACT: A fundamental challenge in geology is to understand the evolving diversity and distribution of rocks and minerals through more than 4 billion years of Earth history--changes that reveal much about our planet's co-evolving geosphere and biosphere. Mineral evolution and mineral ecology, which explore mineral occurrences through time and space, exploit large and growing data resources to detect previously hidden patterns in nature. We find dramatic changes in Earth's mineralogy as a consequence of physical, chemical, and most surprisingly biological processes. Powerful analytical and visualization methods are now allowing us to predict Earth's "missing" minerals--a prelude to the discovery of new ore deposits and other natural resources.



Image 1: The formation of the Earth 4.55 billion years ago.



Image 2: "Black Earth" - volcanoes pour basalt across the land 4.4 billion years ago.



Image 3: "Red Earth"- the innovation of oxygen-producing photosynthesis about 2.5 billion years ago changed Earth, turning the land red and ultimately resulting in more than 2/3 of all known mineral species.



Image 4: "Green Earth" - life began to populate land about 450 million years ago, leading to what we think of as the living earth.

Lecture 2, Thursday, April 26, 2018, 7:00 pm: "Big-Data Geology: Visualizing Earth's Co-Evolving Geosphere and Biosphere"

- Berthoud Hall, Room 241, Colorado School of Mines, Golden. (Seating is limited; please pre-register at <http://bit.ly/2pmpGcS>.)

(Continued on page 2)

"The Story of Earth: How Life and Minerals Co-Evolved", page 2

ABSTRACT: The distribution of minerals, rocks, and fossils on Earth mimics social networks, as commonly applied to such varied topics as Facebook interactions, the spread of disease, and terrorism networks. Applying network analysis to these natural objects provides a powerful visual approach to understanding the diversity and distribution of species, while revealing patterns that help predict "missing" deposits. These patterns provide new insights into the way planets evolve, especially the co-evolving geosphere and biosphere, while comparisons of networks for Earth materials with those of Mars and other worlds hint at why Earth is unique.

Book Discussion, Thursday, April 26, 2018, 12:00 pm -1:30 pm – “The Story of Earth: The First 4.5 Billion Years, from Stardust to Living Planet”

- Boettcher Room, Arthur Lakes Library, Colorado School of Mines, Golden. (Lunch will be provided but seating is limited; please RSVP to gevans@mines.edu.)
- Dr. Hazen will lead a discussion of his book, The Story of Earth. Participants are expected to have read the book--available at www.amazon.com.

SPEAKER INFORMATION: Dr. Robert M. Hazen, Senior Staff Scientist at the Carnegie Institution’s Geophysical Laboratory and Clarence Robinson Professor of Earth Sciences at George Mason University, received the B.S. and S.M. in geology at the Massachusetts Institute of Technology, and the Ph.D. at Harvard University in earth science. He is author of 400 scientific articles and 25 books, including *Genesis: The Scientific Quest for Life’s Origin* and *The Story of Earth*. He was the 2016 Roebling Medalist and a former President of the Mineralogical Society of America. Hazen’s recent research focuses on the role of minerals in the origin of life, the co-evolution of the geo- and biospheres, and the application of “big data” to understanding mineral diversity and distribution. He is also Executive Director of the Deep Carbon Observatory, a 10-year project to study the chemical and biological roles of carbon in Earth’s interior. Hazen is active in presenting science to nonscientists through writing, radio, TV, public lectures, and video courses. In 2016 Hazen retired after a 45-year career as a professional symphonic trumpeter.

- Dr. Hazen's personal web site: <http://hazen.gl.ciw.edu>
- DCO website: deepcarbon.net
- 4-D Workshop website: www.4d-workshop.net
- Keck Deep-Time Project website: <http://dti.carnegiescience.edu>

A related technical seminar and two workshops with Dr. Hazen's research colleagues will also take place on Wednesday and Thursday, April 25-26, 2018. Interested members of the public are welcome to attend these events:

Seminar, Wednesday, April 25, 2018, 11:00 am - 12:00 pm - "Mineral Network Analysis: Big Data as Applied to Mineral Systems"

- Berthoud Hall, Room 241, Colorado School of Mines, Golden.
- Presenters: Dr. Shauna Morrison, Carnegie Institute, Washington, D.C.; Ahmed Eleish and Anirudh Prabhu, Rensselaer Polytechnic Institute, Troy, NY.

ABSTRACT: Advanced analytics and visualization has revolutionized nearly all aspects of our society, from city infrastructure to advertising and from healthcare to our understanding of the cosmos. Growing databases in mineralogy and geochemistry offer the opportunity to apply big data techniques to prominent questions in geology and planetary science. These techniques, such as network analysis, allow exploration of multidimensional trends in complex mineralogical systems. For example, mineral network studies have revealed embedded chemical and temporal axes as well as clustering by composition or paragenetic mode.

Technical Workshop: “Mineral Network Analysis I”, Wednesday, April 25, 1:00 pm - 4:00 pm

- Berthoud Hall, Room 306, Colorado School of Mines, Golden.

Technical Workshop: “Mineral Network Analysis II”, Thursday, April 26, 8:00 am -11:00 am

- Marquez Hall, Room 322, Colorado School of Mines, Golden.
- Workshop seating is limited; please pre-register at rwendlan@mines.edu

These events are made possible with generous financial assistance of the Friends of the Colorado School of Mines Geology Museum (FCSMGM), the Colorado School of Mines Arthur Lakes Library, the Colorado School of Mines Department of Geology and Geological Engineering, the Denver Region Exploration Geologists Society (DREGS), and the Colorado Scientific Society (CSS).

HOW TO FIND THE PRESENTATIONS: Berthoud Hall is on the east side of the pedestrian mall extension that runs south from Maple Street on the Mines campus. Room 241 is the large auditorium on the 2nd floor. The closest parking is in Lot D, due west of the Ben Parker Student Center and is FREE in the evening. Paid parking is available during the day. Berthoud Hall (#7), Marquez Hall (#40), and Lot D are shown on this campus map: <http://inside.mines.edu/UserFiles/File/facilities/MinesCampusMap.pdf>

- For more information, please contact Mike Smith (m_l_smith@earthlink.net; 303.530.2646)

*Announcing Another Ridiculously
Awesome Sale!*

**CSM Geology
Museum**

1310 Maple Street, Golden, CO



Friends of the Museum Members Only Sale

Saturday, April 28, 2018

9:00 a.m. to Noon

**Members receive a 20% discount on purchases
(Drop by and become a member!)**

The Public Sale

Saturday, April 28, 2018, Noon – 4:00 p.m.

Sunday, April 29, 2018, 9:00 a.m. – 4:00 p.m.

A large selection of minerals, rocks, books, maps, journals,
fossils, etc. Prices vary by item or box.

Most prices will drop throughout the event.

Information: ph. 303-273-3815