

March 2018 Newsletter
Meeting: Thurs. Mar. 8, 7:30 p.m.
All are welcome!
At our new meeting place:

Lakeview Event Center, 7864 W. Jewell Ave. Lakewood CO

Presentation:

Mineral Species and Occurrences of the Swiss Alpine Clefts

Brent Lockhart

Houston, Texas

The Swiss Alps have long been known as a source of varieties of Quartz and other finely crystallized minerals won at great personal risk from pockets referred to as “clefts”. The Alps were formed beginning in the Mesozoic as the African Plate moved in a northerly direction, colliding with the southern margin of the Eurasian Plate. This collision is complicated by numerous micro-plates in the Mediterranean basin, lying between the two larger plates. As the collision progressed through the Tertiary, the paleo Tethyan Ocean and the Briançonnais Terrane were consumed in the subsequent suture zone. As the orogeny has continued through the present, complex nappe structures formed and highly varied lithologies have become entrained in the resulting mountain belt.



Humans have likely collected the crystals in the Swiss portion of the Alps for millennia. The present border of Switzerland encompasses an area about one and a half times the size of the state of Colorado. The country is composed of twenty-six Cantons (Kantons), or the equivalent of states in the U.S. Most of the population lives in the northern Cantons overlying the Jura and Molasse Basins. The interesting mineralogy is generally found in the sparsely populated high Alps in the south. Extensional forces acting on the brittle hard rocks in this orogenic core zone have opened numerous clefts, or open spaces. Hundreds of mineral species have been found through the years. Mineral collection in Switzerland has been carried out for centuries by professional crystal prospectors known as strahlers. Their activities are often regulated, and they usually concentrate on areas in or near their home Cantons. Despite global warming and the retreat of alpine glaciers, finding these mineral rich clefts has become more difficult. The easy-to-access areas have by and large been exhausted or placed under governmental protection. The strahlers are often required to have excellent mountaineering skills to access the remaining unexploited clefts. This presentation will provide a tour throughout the southern alpine region with a review of the minerals and collecting conditions for each selected locality.



Photographs: Page 1, Smoky quartz, Giuv Valley, Tujetsch (Tavetsch), Vorderrhein Valley, Grischun (Grisons), Switzerland. Page 2, left, Axinite-(Fe), Le Catogne, Sembrancher, Bagnes Valley, Wallis (Valais), Switzerland; right, Hematite “iron rose”, Furka, Furka pass area, Goms, Wallis, Switzerland. All from Brent Lockhart’s photo gallery, www.mindat.org; , axinite and hematite ©Joe Budd Photography.



Brent Lockhart graduated from the University of Tennessee Knoxville in 1980 with a BA in Physics, Geology, and Mathematics. After taking a position with Texaco Inc. as a geophysicist in 1980, Brent worked on multiple assignments in Houston, Denver, and London in technical geophysics, exploration and production activities. In 1998 he was seconded to Chevron Inc. as the Deep Water Exploration Manager for the Greater Gorgon Area in Perth Western Australia. In 2001 Chevron merged with Texaco and Brent moved to New Orleans, becoming the Regional and Portfolio Manager for the Deep Water Gulf of Mexico followed by the Global New Ventures Manager for Chevron Inc. in Houston. After retiring in 2015, the Lockhart family finally moved back home to the Denver area. As a lifelong mineral collector, I have had a focus on aesthetic cabinet and small cabinet oxide zone minerals. Since 2002, Swiss minerals have been an emerging sub-collection.

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Alpine-cleft minerals occur in open fissures within tectonically deformed igneous or metamorphic host rocks, in the Alps as well as many other mountain belts worldwide. They are noted for quartz (smoky and “rock crystal”), adularia, fluorite, titanite, anatase, hematite, magnetite, chlorite, axinite, and many other minerals.

President's Message

Tucson was an exciting and exhilarating time for all who were able to go this year. A chance to get together with old friends and an opportunity to make new ones. The theme of the main show 'crystals and crystal forms' encouraged individuals and museums to create some very informative and educational displays. There was also the amazing variety of specimens from around the world available to purchase. Leaving all with sensory overload, sore eyes and empty wallets.

Do not forget to renew your membership so you can get a free copy of the 50 year retrospective of the Denver show purchased for you by FMCC.

Our annual silent auction will be on Sunday, May 20th. This is an excellent opportunity to support FMCC as well as a chance to pick up the specimens you need for your collection.

We need volunteers to help catalog the New Jersey Zinc Colorado photo collection, as described elsewhere in this newsletter. Contact Mark Jacobson for details.

Our next presentation, Thursday, the 8th, will be on 'Mineral Species and Occurrences of the Swiss Alpine Clefts' by Brent Lockhart. This promises to be educational and exciting. The effort and risks the strahlers put into specimen recovery makes for an impressive story. I look forward to seeing you all there.

Please do not forget that we now meet at the Lakeview Event Center near Jewell and Wadsworth!

---Jeff Self, March 2018, President, Colorado Chapter, Friends of Mineralogy

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Chapter's new meeting place: Lakeview Event Center, Lakewood CO

At 7864 W. Jewell Ave.; on the south side of Jewell Ave., 1/5 mile west of Wadsworth, west of the King Soopers shopping plaza. Turn south across the street from Wendy's, into Lakewood Village Center; the front entrance of the building faces west.

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***The Gilman mine, Eagle County, Colorado photographs 1890-1950
New Jersey Zinc Company
Collection donated to Friends of Mineralogy, Colorado Chapter***

This article is a plea for volunteers to help preserve some photographic Colorado history and make it available to others. Colorado mining historians have a rare opportunity here.

In September 2017, FMCC received via the New Mexico Bureau of Geology & Mineral Resources from the Franklin Mineral Museum, Franklin, NJ five hundred plus pictures and some picture negatives. These pictures, mostly in labeled photographic albums, are mostly of the Gilman mine, Eagle County, Colorado but with a handful of Leadville and Canon city pictures cover the mining activities of the New Jersey Zinc Company in Colorado. The pictures represent the years 1890 to 1950 and document the mining activities, the town of Gilman, workers by name and railroad activities. As a historic record this material is of exceedingly high value. These pictures were reputedly discovered recently in a storage attic in the former Sterling Hill mine, NJ.

FMCC received this gift with the obligation to insure its permanent public access and preservation. Most photographs of this nature, either end up lost and destroyed, in private hands where the material is never used except for viewing while drinking a glass of wine or beer, or in a permanent archive with restricted or no access such as a university, library or museum.



Figure 1. March 5, 1918, Gilman, workers and company officers at town office.

The FMCC board has agreed to a process which will provide both public access and permanent archive with a partnership with the Colorado School of Mines library – mining archive. FMCC will create a finding aid, a digital listing (that is a word document) of the pictures and what they contain and place the pictures in archival quality envelopes for donating to the Colorado School of Mines (CSM) library for high resolution scanning and storage. The CSM library has agreed to provide the digital scans for free public access to FMCC (both high and low resolution) for placement on the FMCC website with the CSM library owning the pictures and the copyright on the digital and physical pictures. The library under their rules will allow access to the originals and their use by others. FMCC will provide a copy of the finding aid to CSM and FMCC will retain the right to

allow access and use of the pictures we post on the website. By use we mean in oral presentations and hardcopy publications with credits to CSM. We do not mean re-distribution on the internet nor sale to others. Most of this material, all post 1923, is still under copyright and will be during our children's lifetime, and maybe beyond.

To execute this plan, FMCC needs to schedule work sessions to inspect, describe and document via word files and create handheld photographs of the material. We will provide the photographs to CSM for scanning in groups of 100. CSM will receive additional sets of 100 photographs upon completion of the prior set.

We plan to schedule a weekend work session, provide pizza, beer and wine and ask for volunteers who have a laptop computer for typing documents and a handheld camera for photographs. FMCC will provide the archival quality photographic sleeves for the photos which will be delivered to CSM. The Franklin Mineral Museum as provider of the photographs has requested 1200 dpi tiffs of each photograph to be provided to them and a copy of the finding aid also.

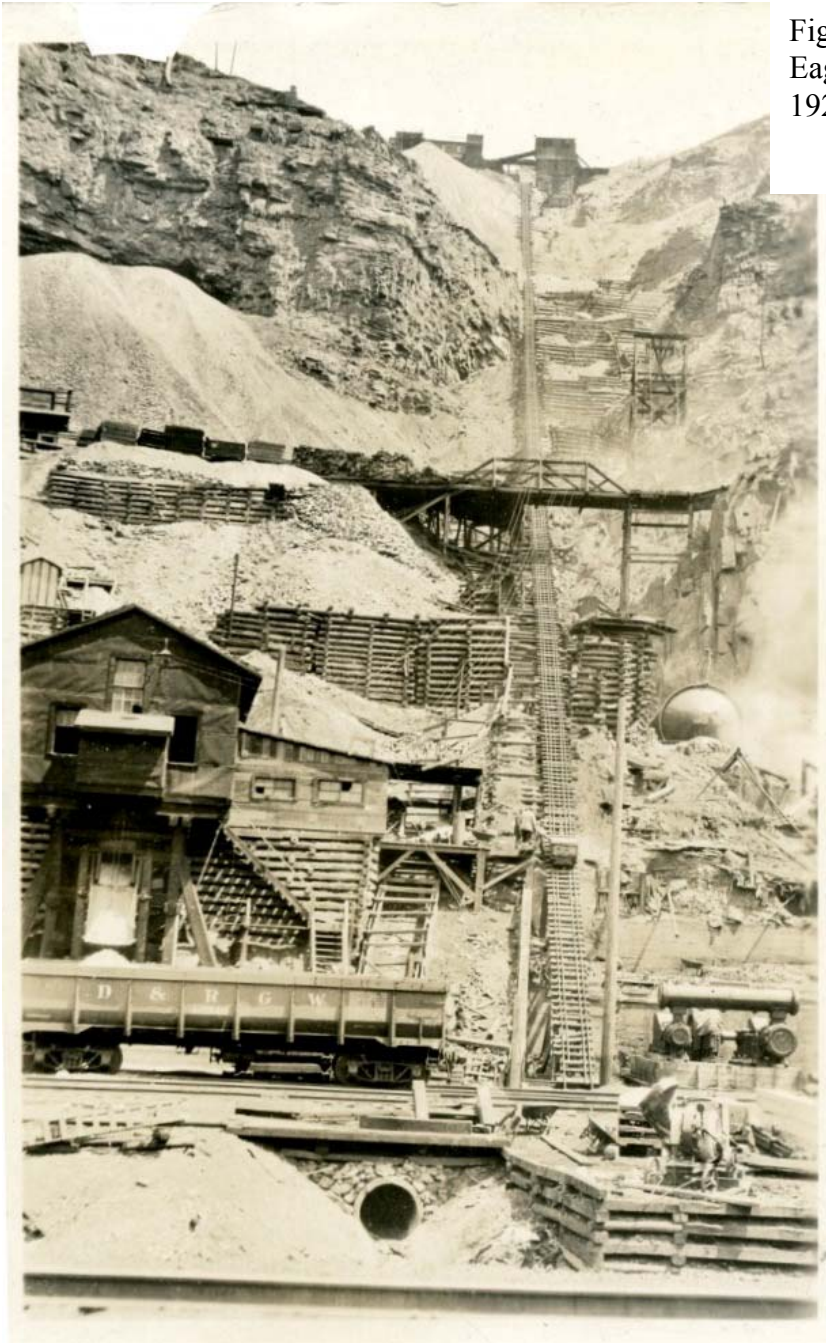


Figure 2. The Gilman tram, Eagle County, CO. May 20, 1928.

Minutes from the January 2018 Board Meeting

FMCC BOARD MEETING Minutes

January 8, 2018; Monday evening. The meeting was held at Denny's restaurant on the southwest corner of 6th Avenue and Simms.

Convened 6.20 PM

Attendees:

Larry Havens, Jeff Self, Don Bray, Mark Jacobson

Donna Ware (with proxy voting rights from Bob Hembree), and Pete Modreski.

Absentee with regrets: Ed Pedersen, Gloria Staebler, and Bob Hembree

New business –

- 1- FM May Silent Auction. Pete Modreski explained that the FM silent auction could not be held at the Clements Center on May 12th (Saturday as usual) due to its booking by another party. One possible solution is to move the event to May 20 (more probable) or May 19. Other options were considered but were less desirable. Pete will try to book May 19 followed by May 20 for a start of the auction at the traditional time, and follow up with the board by email. No board vote needed.
- 2- Bruce Geller appreciation dinner. The board discussed a proposal to have a pot-luck dinner on a week night at the Lakeview event center and invite the Denver area clubs to inform their members that they can participate. The dinner would include people sharing their memories of Bruce's contributions to the Denver earth science community, with a picture book of some of these memories to be presented to Bruce. The target date for this dinner would be early March. A one-time alcohol permit will be obtained, so people can bring their own if desired. FMCC costs expected (room, screen, food incidentals) to be less than \$250, which is less than threshold to need a membership vote. Donna Ware (for Bob Hembree) made a motion to hold the dinner. Mark Jacobson seconded the motion. Unanimously approved.
- 3- The CSM Library proposal to accept the donation, scan and permanently archive the New Jersey Zinc Company Gilman mine, et al. photos with delivery of high resolution tif scans to FMCC, and the Sterling Hill Museum (SAHM), as required by our agreement with the SHM. After delivery to FMCC, we would post lower resolution photos online for public free use. FMCC retains a non-exclusive license to the photos, with the copyright transferred to the CSM Library. The details of the proposal are documented in a separate document. Mark Jacobson made the motion. Don Bray seconded. Unanimously approved.
- 4- A proposal to create a finding aid and inventory list of the New Jersey Zinc Company Gilman mine photographs prior to donating to the Colorado School of Mines Library. The photos consist of more than 500 prints of different sizes, and seven 8x11 contact negatives which need wet paper printing prior to scanning. This proposal is the front-end work necessary to deliver the photos to the CSM library for their scanning. This work assists the library work. The FM work would require many days of volunteer efforts and the FMCC purchase of archival quality storage materials. The costs to FM for archival materials would probably be less than \$300. Mark Jacobson made the motion. Larry Havens seconded the motion. Unanimously approved.
- 5- Mark Jacobson made a proposal requesting FMCC to sponsor the reprinting and shipping of eleven volumes of mineral magazines – these would be 5 volumes of the *Exchangers' Monthly*, 3 volumes of the *Mineralogists' Monthly* and 3 volumes of Goldthwaite's *Minerals* covering the years 1886-1893. The details of this proposal was provided in a separate document. The sponsorship would not require nor need any money or volunteer manpower from FMCC but would allow MIJ to deposit pre-paid checks for the

volumes in a FMCC checking account and pay the printing, shipping and Colorado state taxes to the printing company. If an inadequate amount of money is collected to pay for shipping, MIJ would pay the extra costs. If more money is collected than needed to break even, the excess becomes the property of FMCC. Advertising with mention of FMCC as sponsor for these volumes with collection of the pre-paid amounts is being done for free by the Mineralogical Record. Larry Havens made the motion. It was seconded by Don Bray. Unanimously approved.

The meeting was adjourned at 8.00 PM

Approved and revised by board
January 2018

Mark Ivan Jacobson

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FMCC general membership business meeting minutes

January 11, 2018; Thursday evening. The meeting was held at the Lakeview Event Center near Jewell and Wadsworth Blvd.

Convened 7.30 PM

Attendees: general membership including board members Larry Havens, Jeff Self, Don Bray, Mark Jacobson, Ed Pedersen, and Gloria Staebler.

New business –

- 1) The meeting was called to order and the membership was asked by the FMCC President to vote on approving the revised FMCC bylaws, which had been emailed to all paid members 30 days prior to this meeting. A verbal summary of the changes was presented to the membership. A hand vote was taken. The attending members of approximately 30 to 40 people unanimously approved the changes.
- 2) The FMCC president asked for nominations to fill the two newly created at-large board member positions. A member in the audience made the motion to nominate Peter Modreski and David Bunk to fill those positions. This motion was seconded by another member seated in the audience. A hand vote was taken. The attending members of approximately 30 to 40 people unanimously approved both individuals as at-large board members.

The business portion of this meeting was adjourned near 8.00 PM. The presentation portion of the meeting continued.

Approved and revised by board via email January 2018.

Mark Ivan Jacobson

Denver Gem & Mineral Show Mini Report March 2018

The 51st Denver Gem & Mineral Show will be held on September 14 - 16, 2018 at the Denver Mart, 451 E. 58th Avenue (intersection of I-25 and 58th Avenue). The theme this year is "Minerals of Mexico". Lesley Sebol is the Show Chair and can be reached at lesleysebol@gmail.com or 720-999-1372 if you have any ideas for the show. Planning is underway and we would like your ideas to make this a fantastic show.

Minerals of Mexico will be an exciting theme for the show! Everyone knows that Mexico has a wide variety of exceptional minerals. In fact, the first issue of Mineralogical Record for 2018 was devoted to the minerals of Mexico. The theme is important for the species competitions at the show. A specimen entered into the species competition must adhere to the show theme, i.e., for this year the specimen would have to be from Mexico. The categories are Thumbnail, Toenail, Miniature, Cabinet, Large Cabinet, Self-Collected, and Lapidary/Jewelry. So maybe you have an exceptional Mexican specimen and you would like to find out how outstanding it really is. Enter it in the species competition. You may win a trophy or not, but you will find out how it stacks up against other Mexican specimens. Have you seen the beautiful poster with the vibrant green brochantite from the Milpillas Mine, Cuitaca, Cananea District, Sonora, Mexico?

You know that the Denver Show is a unique show in the U.S. There is no other city in the country that has a group of gem, mineral, and fossil clubs that puts on a world-class show with all volunteers and has done so for 50 years. We should all be very proud of our accomplishments over the last 50 years. The 50 year Retrospective book documents our achievements. I hope you all have had a chance to read it.

The Show Committee is the group that plans and operates the show. The committee is a group of 50 plus dedicated persons. Some are old-timers and some are newbies. Most likely you know one or more persons on the committee. The committee is in need of a few more newbies at this time. After writing the beautiful 50 year Retrospective, Mark Jacobson is stepping down as the Historian. A new Historian is needed and Mark recommends that this is a two-person position. One of the responsibilities is photographing all the exhibits, which takes the time of more than one person. There is also a need for a Set Up Chair. This person is responsible for set up of the show on the preceding Wednesday. Set up entails covering the dealer tables in the aisles and east area with plastic and assembling the wood display cases. Of course, the Chair has a group of experienced people from prior years to help but needs to confirm the set up volunteer list. This is not as difficult of a job as it sounds. The main floor is the responsibility of the contract decorator. So if you enjoy the show, please consider becoming more involved and join the committee. It is a rewarding venture, you will meet new people from other clubs, and you will feel great knowing that you have helped to put on the show. Where else is there such a magnificent event to fully indulge in our hobby?

The Show Committee meets at the Denver Museum of Nature & Science at 7:30 p.m. the first Tuesday of each month except February, July and December. So think it over and come to a meeting. Tag along with your club representative (each club has one) or just show up. You may serve as an At Large member until you find the position that matches your talents. I cannot emphasize enough the need for newbies.

The volunteer signup sheets should be available at your club meetings. Be sure to sign up for which ever area suites you. More than 400 volunteers are needed at the show!

Respectfully submitted, Judy Knoshaug, Show Secretary

Greater Denver Area Gem and Mineral Council
2017 Approved Grant Requests

The Greater Denver Area Gem and Mineral Council receives, evaluates and approves grant requests each year in the months of March and September. This report is a summary of the grants awarded in 2017 and is being sent to all eight, member clubs of the GDAGMC. Newsletter editors are asked to publish this report in your next newsletter.

1. Friends of Dinosaur Ridge requested \$6,098.37 and received \$3000.00. \$1000.00 was awarded to offset expenses of Dinosaur Days. \$2000.00 is to be used to fund stabilization of sandstone above Quarry #5 to protect numerous fossils that are a major stop for bus and walking tours. The \$3,098.37 request was to update and reprint copies of the Dinosaur Ridge Field Guide. The committee felt that since this Guide is sold, sale proceeds should offset the cost of publication. Total approved for 2017 - \$3000.00
2. Western Interior Paleontological Society requested and received \$1000.00 in support of the WIPS Museum Assist Program at USU Eastern Prehistoric Museum in Price, Utah.
3. Colorado School of Mines Mineral Museum requested funding for XRD software for mineral identification. Because they had yet to identify the specific software program and its actual cost in the March grant submission, the Council requested a resubmission with firm costs. This request was resubmitted asking for \$7050.00 for the software and \$259.98 for an Ultra-wide Monitor. At the June meeting, the Council approved the grant to Mines for \$7,309.98.
4. The Fremont County Historical Society requested and received \$3,900.00 to fund the hauling and installation of geologically descriptive boulders along the Geology Time Trail of the Crossroads through Time – Heritage Park Project.
5. The Cripple Creek District Museum requested and received \$4000.00 to fund the installation of LED lighting in 6 mineral display cases, the funds to be used for the hardware and professional, electrical services.

Each of the eight clubs of the GDAGMC may receive \$250.00 each year to help defray the cost of its newsletter. Each club must have a representative present at all four Council meetings in the year to earn the full amount of the grant. A partial award is given should a club not be represented at all the meetings. The Newsletter Grant money paid to clubs for 2016 attendance in 2017 was \$2000.00.

Total grant money awarded in 2017 was **\$21,209.98**. All grants were funded by proceeds from the 2016 Denver Gem & Mineral Show put on by the 8 clubs. The entire show is put on by volunteers! Please step up and be one of your club's volunteers in 2018.

Council Officers for 2018

President pro-tem: Dale Gann

Vice-president: vacant

Secretary: Larry Havens

Treasurer: Maxine Sheel

Respectfully submitted, Larry Havens, Secretary



From the 2018 Tucson Gem & Mineral Show, clockwise; an iconic specimen at the show, the giant elbaite tourmaline “Tarugo”, Jonas mine, Brazil; Mark Jacobson, FM President & FMCC Secretary; the FM booth at the show (yes, thanks to Nelson Shaffer, right, we did have a booth!); pyrite display by Jack & Kaye Thompson; Colorado minerals display by the Colorado School of Mines.

Gold Mining in Colorado exhibit at the Western Museum of Mining

In September 2017, the Western Museum of Mining & Industry showcased an 11-case exhibit at the annual Denver Gem & Mineral Show. This “Gold Mining in Colorado” exhibit won two major awards and the attendant publicity was great for WMMI. This exhibit was in place for only the three days of the show. The museum again thanks Gold Resource Corporation for their essential funding of the Denver exhibit.

In order for WMMI members as well as the general public to appreciate the research and work that went into the Denver exhibit, WMMI will show the exhibit from February 15-June 9, 2018. Although the original exhibit was meant for 11 small cases, it translated well into the museum’s larger changing exhibit gallery. Instead of being in cases, the exhibit material will be placed on the walls for visitors to read the text and enjoy the illustrations, diagrams, and maps. Most of the artifacts in the exhibit will be included in this new rendering, placed safely in Plexiglas-covered display cases.

The contents of the 11 themed cases take the visitor through the story of gold mining in Colorado. From the origins of gold to the story of contemporary gold mining, visitors will learn about how prospectors legally could stake their claims, how mining companies were organized, how the assay process works, learn the difference between placer and hard rock mining, and examine the differences between the four major types of gold processing—amalgamation, chlorination, cyanidation, and flotation. All of the artifacts are from the museum’s extensive collection; many of them have not been exhibited for years, if at all.

As always, the museum has had two associated lectures with each exhibit. Stan Dempsey, Jr., the current president of the Colorado Mining Association, gave a lecture at 7 p.m. on February 15, on “Policy and Organizational Update from the Colorado Mining Association.” A second lecture will take place on April 12, with the speaker and topic TBA. The doors will open for the lecture at 6pm, with light refreshments. WMMI members are admitted free of charge; other guests will pay \$5.00 per person to attend the lecture and view the exhibit.

There will also be a Speakers’ Bureau Lecture at WMMI on a gold mining theme on Tuesday, March 13, at 7 p.m., “**Cripple Creek High Grading: The Untold Stories**”, by Steve Veatch, Geoscientist and Geoscience Educator, and Ben Elick, WMMI and Middle School student, Douglas County School District. Doors open at 6:00 p.m., lecture 7:00 - 8:00 p.m.; \$5 admission, WMMI museum members admitted free. RSVP by calling 719-488-0880 or emailing rsvp@wmmi.org.

Daily museum hours are 9 a.m. – 4 p.m., Mon.-Sat. Regular admission is \$10; there are Military, Senior, Student, and Child discounts. The WMMI is located at 225 North Gate Blvd., Colorado Springs, CO, at I-25 exit 156. Their website is <http://www.wmmi.org>.

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Upcoming FM Meetings for 2018:

May 10: Thursday 7:30 p.m. Speaker Markus Raschke on “**Five Days on Xuebaoding Mountain, Sichuan Province, China: minerals and geology.**”

Markus is a Professor in the Physics and Chemistry Departments at the University of Colorado, Boulder. He has given talks to FM before; in March, 2017, Markus gave us a presentation on “Mineralogy and petrology of a REE pegmatite near Wellington Lake: a case study providing new insight into pegmatite petrogenesis”.

Xuebaoding is a mining area in central China, seldom visited by westerners, that has produced many fine specimens of orange scheelite (often on a matrix of muscovite crystals), beryl (aquamarine and goshenite), cassiterite, and numerous other minerals.

May 20: Sunday, noon (setup starts at 11) to 4 p.m., **FM's annual Silent Auction**, held at Clements Community Center, 1580 Yarrow St., Lakewood. ***Please note that for the first time, our auction will be on a SUNDAY, not a Saturday, and a week later than our usual weekend (due to unavailability of the Clements Center).*** Both members and non-members are invited to bring material to sell, and to bid on specimens.

September 19, Wednesday after the Denver Gem and Mineral Show (rescheduled so as not to conflict with events the week of the show) Topic TBA.

November 14, Wednesday (rescheduled so as not to conflict with people's travel to the New Mexico Mineral Symposium the previous week). Topic TBA.

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Calendar of Coming Events - 2018

Thurs., Mar. 8, 4:00 p.m., Van Tuyl Lecture at Colorado School of Mines, “**Meeting the challenges of the world's growing dependence on groundwater**”, by Bill Alley, United States Geological Survey & National Groundwater Association; Berthoud Hall, room 241.

Thurs., Mar. 8, 7:30 p.m. Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakeview Event Center, 7864 W. Jewell Ave. “**Mineral Species and Occurrences of the Swiss Alpine Clefts**”, by Brent Lockhart, of Houston, TX.

Mon, Mar. 12, 7:00 p.m., “**From past life to "petrified trees" to PRPA: Preserving the past for the future in America's National Parks**”, by Jason Kenworthy, National Park Service. At the monthly meeting of WIPS (Western Interior Paleontology Society), at the Denver Museum of Nature & Science, in the Gates Planetarium. All are welcome; enter through the Leprino Atrium on the west side of the museum; doors open at 6:30 p.m., meeting begins at 7:00.

Tues., Mar. 13, 7:00 p.m., Speakers' Bureau Lecture at the Western Museum of Mining & Industry, Colorado Springs, “**Cripple Creek High Grading: The Untold Stories**”, by Steve Veatch, Geoscientist and Geoscience Educator, and Ben Elick, WMMI and Middle School student, Douglas County School District. Doors open at 6:00 p.m., lecture 7:00 - 8:00 p.m.; \$5 admission, WMMI museum members admitted free. RSVP by calling 719-488-0880 or emailing rsvp@wmmi.org.

Thurs., Mar. 15, 7:00 p.m., **Challenges in Providing Real-time Earthquake Shaking & Impacts Estimates**, by Dr. David Wald, U.S. Geological Survey, [plus possibly a second speaker also about earthquakes, TBA]. At the monthly meeting of the Colorado Scientific Society, Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood CO; social time begins at 6:30, program at 7:00; all are welcome.

Mon., Mar. 19, 3:00 p.m., Denver Museum of Nature & Science Earth Sciences Colloquium, “**Floral responses to global environmental change: the end-Permian biotic crisis**”, by Cindy Looy, UC-Berkeley. VIP Room, DMNS; all are welcome, Museum admission fee not required.

Tues., Mar. 20, 10:30 a.m., USGS Rocky Mountain Science Seminar, Building 25 Lecture Hall, Denver Federal Center, “**Great Megathrust Earthquakes in Alaska**”, by Rich Briggs, USGS.

Tues., Mar. 20, 5:30 p.m., "**Mapping Pluto and Its Moons**" by Catherine Olkin, Planetary Scientist, Southwest Research Institute, Boulder; Rocky Mountain Map Society Annual and March meeting, Denver Public Library, 5th Floor, Gates Room, free and open to the public.

Wed., Mar. 21, 4:00 p.m., **The Galápagos: A Fluke of Geology, Ocean Circulation, Penguins and Climate Colloquium**, by Kris Karnauskas, CU Boulder – ATOC/CIRES. Benson Earth Sciences Building Auditorium 180; social hour with refreshments follows in Benson 185. All are welcome.

Mar 23-25, Fort Collins Rockhound Club Gem & Mineral Show, at The Ranch/Larimer County Fairgrounds, Thomas M. McKee 4-H Building, 5280 Arena Circle, Loveland, CO (I-25 exit 259, Crossroads Blvd; 4-8 p.m. Fri, 9-6 Sat., 10-5 Sun.)

Tues, Mar. 27, 3:00 p.m., Denver Museum of Nature & Science Earth Sciences Colloquium, "**Origins of life: Why did only Earth succeed?**", by Ramon Brassler, Tokyo Tech., & Steve Mojzsis, CU Boulder. VIP Room, DMNS.

Fri., Apr. 13, North Jeffco Gem & Mineral Club Silent Auction, APEX Community Recreation Center, 6842 Wadsworth Blvd., Arvada. Auction begins at 6:45 p.m.; for more information call Bill Jones at 303-503-6288 or email at sidewindermin@comcast.net.

Fri.-Sat.-Sun., Apr. 13-15, Colorado Mineral & Fossil Spring Show, Crowne Plaza Hotel DIA, 15500 E 40th Ave., Denver CO. Free admission; hours 9-6 Fri. & Sat., 10-5 Sun.

Thur., Apr. 19, 7:00 p.m., Colorado Scientific Society meeting, 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.

Wed., Apr. 25, Robert Hazen, of the Carnegie Institution of Washington, will give a talk at CSM on **Mineral Evolution and Mineral Ecology**. Details will be available later.

Thurs., May 3, 7:00 p.m., First Thursday lecture series of the Friends of the Colorado School of Mines Geology Museum, **The Colorado-Wyoming State Line Kimberlite District**, by Philip Persson.

Sat., May 5, 11 a.m. – 2:45 p.m., **Colorado Mineral Society Silent Auction**, Holy Shepherd Lutheran Church, 920 Kipling St. (3 blocks north of West 6th Ave.) Lakewood.

Tues., May 8, 7:00 p.m., annual Emmons Lecture sponsored by the Colorado Scientific Society, **High drama at the Paleocene/Eocene boundary in the Bighorn Basin; implications for today**, by Will Clyde, University of New Hampshire. On the CSM campus, location TBA.

Thurs., May 10, 7:30 p.m., Friends of Mineralogy, Colorado Chapter, bimonthly meeting, at Lakewood Event Center, 7864 W. Jewell Ave.: **The W-Sn-Be deposit of Xuebaoding, Sichuan Province, China: current research, past, and future of a world class mineral locality** by Markus Raschke.

Sun., May 20, 12 noon (setup starts at 11) to 4 p.m., **Friends of Mineralogy, Colorado Chapter, Silent Auction**, at Clements Community Center, 1580 Yarrow St., Lakewood.

Fri.-Sat.-Sun., June 1-3, Pikes Peak Gem & Mineral Show, sponsored by the Colorado Springs Mineralogical Society; at the Norris-Penrose Event Center [new location], 1045 Lower Gold Camp Road #3, Colorado Springs.

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For more lecture series during the year see:

Colorado Café Scientifique in Denver, monthly lectures on science topics held either at Blake Street Station or Brooklyn's, Denver; open to the public, no charge other than refreshments you may choose to purchase; see <http://cafescicolorado.org/> .

Colorado Scientific Society (3rd Thursday, 7 p.m.), see <http://coloscisoc.org/> .

CU Geological Science Colloquium (Wednesdays, 4 p.m.) see <http://www.colorado.edu/geologicalsciences/colloquium>

CSU Dept. of Geoscience Seminars (Fridays, 4 p.m.), see <https://warnercnr.colostate.edu/geosciences/geosciences-seminar-series/>

Van Tuyl Lecture Series, Colorado School of Mines, (Thursdays, 4 p.m.): <https://geology.mines.edu/events-calendar/lectures/>

Denver Mining Club (Mondays, 11:30), see <http://www.denverminingclub.org/>

Denver Region Exploration Geologists Society (DREGS); 1st Monday, 7 p.m.), <http://www.dregs.org/index.html>

Florissant Scientific Society (FSS); meets monthly in various Front Range locations for a lecture or field trip; meeting locations vary, normally on Sundays at noon; all interested persons are welcome to attend the meetings and trips; see <http://www.fss-co.org/> for details and schedules.

Rocky Mountain Map Society (RMMS); Denver Public Library, Gates Room, 3rd Tuesday, 5:30 p.m.), <http://rmmaps.org/>

Western Interior Paleontology Society (WIPS); Denver Museum of Nature & Science, 1st Monday, 7 p.m.), <http://westernpaleo.org/> .

Notes about FM

Annual Dues to Friends of Mineralogy, Colorado Chapter are \$15.00, or \$25.00 for a family; this includes membership in the national organization, Friends of Mineralogy, Inc.. (After many years of dues at \$13, we have *finally* raised them just to \$15, and created a new category of Family Membership for \$25.) New members are *always* welcome! To pay dues, mail a check for \$15 or \$25 to FM-Colorado Chapter, P.O. Box 234, Arvada, CO 80001-0234; please include your name, email address and mailing address; or pay in person at one of our meetings. Attach a copy of our membership form (in this newsletter, or available on our FMCC website under “Membership”), especially if you want to update your information. All our newsletters and mailings are normally sent by email, unless the member is unable to receive them that way. If you are uncertain about your membership status, please contact our Treasurer, Gloria Staebler, gastaebler@aol.com, 303-495-5521. *Now* is the time to pay your dues for 2018!

See our Colorado Chapter website: <http://friendsofmineralogycolorado.org/>

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FM Colorado Chapter activities:

Meetings are normally held at 7:30 p.m. on the 2nd Thursday of alternate (odd-numbered) months. Our meeting place for 2018 will be the Lakeview Event Center, 7864 W. Jewell Ave., Lakewood CO. Our meeting dates are often shifted in September and November so as not to conflict with the Denver Gem & Mineral Show and the New Mexico Mineral Symposium. Visitors are *always* welcome at our meetings!

Meeting dates for 2018 will be:

Thursday, Jan. 11, FM meeting

Thursday, Mar. 8, FM meeting

Thursday, May 10, FM meeting

Sunday, May 20, FM Silent Auction, Clements Community Center, Lakewood

Sept. 14-16, Denver Gem and Mineral Show; 2017 show theme, “Minerals of Mexico” (51st annual show)

Wednesday, Sept. 19, FM meeting (date adjusted to not conflict with Denver Gem and Mineral Show)

Wednesday, Nov. 14, FM meeting (date adjusted to not conflict with NM Mineral Symposium)

Friends of Mineralogy, Colorado Chapter, 2018 officers:

President:	Jeff Self, selfawareminerals@gmail.com
Vice President:	Bob Hembree, rhembree@comcast.net
Secretary:	Mark Jacobson, markivanjacobson@gmail.com, 1-337-255-0627
Treasurer:	Gloria Staebler, gastaebler@aol.com, 303-495-5521
Denver Museum N&S Liaison:	Alan Keimig, alan.keimig@gmail.com, 303-755-9604
DG&MS Council Trustee:	David Bunk, dave@davebunkminerals.com; Alternate, Mark Jacobson
Newsletter editor:	Peter Modreski, pmodreski@aol.com, 303-202-4766
Field trip planner (not field trip leader):	unfilled
FMCC Website:	unfilled
Postings for the FM national facebook page:	unfilled
At-large Directors:	

Larry Havens, lwrnchavens@comcast.net, 303-757-6577

Don Bray, don_bray@copper.net, 303-681-3646

Ed Pederson, mineraljeep@aol.com

David Bunk, dave@davebunkminerals.com

Peter Modreski, pmodreski@aol.com, 303-202-4766



friends of mineralogy
colorado chapter



Prospective members for the Colorado Chapter, please send this form with your check to the address below. This form may also be used to renew your membership. Membership in the local chapter includes membership in the National Society. A local chapter member does not need to live within the area. Membership lists are not shared outside of the organization. Membership in the local chapter provides membership in the Rocky Mountain Federal of Mineralogical Societies (RMFMS) with its associated group 3rd party liability insurance for field trips.

Please mail annual dues of \$15 for an individual, or \$25 for a family made out to Friends of mineralogy, Colorado Chapter to:

Ms. Gloria Staebler

Friends of Mineralogy - Colorado Chapter
P.O. Box 234
Arvada, CO 80001-0234

Please complete the following for new members.

Last Name: _____ First name: _____

Middle name (optional): _____

Street Address (used for mail): _____

City: _____ State or Province: _____

County: _____ Zip or Postal Code: _____

Telephone (land line): _____ Telephone (Cell phone): _____

Email address: _____

Signature: _____ Date: _____

My primary area of interest is: _____

Chapter and National newsletters will be sent to you by email unless you request a paper copy to be mailed. _____ Please note that mail newsletter as sent as a black and white paper copy.

Friends of Mineralogy Colorado Chapter is affiliated with the Mineralogical Record Magazine, The Mineralogical Society of America (MSA), the American Geological Institute (AGI), Rock and Minerals magazine, the American Federation of Mineralogical Societies and the Rocky Mountain Federation of Mineralogical Societies.

Friends of mineralogy, INC. is composed of member of local chapters, of which in 2014, seven chapters existed. Members may affiliate with any chapter or none. Local chapters issue newsletters as does the national organization.