

Friends of Mineralogy, Colorado Chapter Newsletter – March/April 2014

March Meeting – Thursday, March 13, 7:30 pm (Board meeting 6:30-7:30)
Denver Museum of Nature and Science – V.I.P. Room. *Enter through the single door
Security/Staff entrance to the left of the main entrance. The V.I.P. room is to the left
through the cafeteria area.*

March Program:

Pegmatites of the Black Hills, South Dakota

by John L. Lufkin, Ph.D.

There are literally thousands of pegmatites in the Black Hills of southwestern South Dakota. They are spatially and genetically related to the Harney Peak Granite, a peraluminous, S-type granite located in the south-central portion of the Black Hills uplift in the area of Custer-Hill City. The granite outcrop is less than 10 miles in diameter, and intrudes the Precambrian metamorphic complex that forms the core of the Black Hills elongate dome.

In this presentation the structure and mineralogy of eight pegmatites will be discussed with numerous illustrations, including Tin Mountain, St. Louis, Bob Ingersoll, Etta, Dan Patch, Helen Beryl, Tip Top, and White Elephant.

The genesis of these deposits will be covered in terms of the two leading models that have been published over the past 75 years: the Jahns-Burnham “vapor model” and the “magmatic model” of David London, University of Oklahoma.

Dates for upcoming FM Colorado Chapter meetings:

May 8 (meeting location & topic still TBD)

May 10, 12-3 p.m., Silent Auction, Clements Community Center

September 5-7, San Juans Mineral Symposium, Ouray, CO

(whether to have an additional September FM meeting is still TBD)

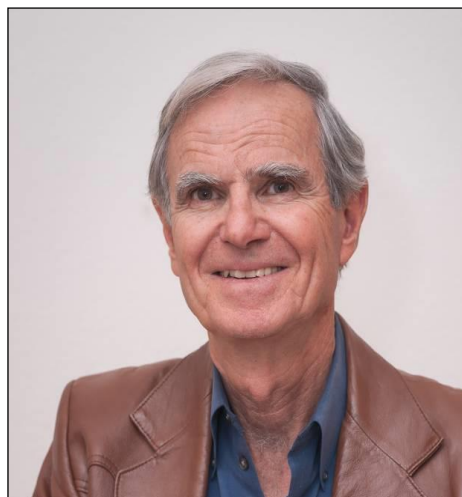
November 13, FM meeting

Meetings are normally held at 7:30 p.m. on the 2nd Thursday of alternative months, at the VIP Room in the Denver Museum of Nature and Science. Any visitors are *always* welcome at our meetings!

FMCC 2014 Officers: President, Mark Jacobson, markivanjacobson@gmail.com , 1-337-255-0627
Vice-President, Jim Hurlbut, jfhu@earthlink.com , 303-757-0283
Treasurer, Lou Conti, dlconti@aol.com , 303-797-3205
Secretary, Alan & Norma Keimig, alan.keimig@gmail.com, 303-755-9604
Directors: Bill Chirnside (2013-14), billdozer@mho.com , 303-989-8748
Don Bray (2014-15), don-bray@copper.net , 303-681-3646
Larry Havens (2014-15), lghavens@aol.com , 303-757-6577
Chairpersons: Newsletter, Pete Modreski, pmodreski@usgs.gov, 303-202-4766
Preservation, Jeff Self and Donna Ware, selfawareminerals@gmail.com
Liaison for DMNS, Alan Keimig
Liaison for RMFMS, Jim Hurlbut
Membership/Hospitality - ? (open!)

More about our March speaker, Dr. John Lufkin:

At the March 13, 2014 meeting of the Friends of Mineralogy, Colorado Chapter, the presentation speaker will be Dr. John L. Lufkin. Dr. Lufkin is an alumnus of Hot Springs High School, Hot Springs, South Dakota, Class of 1958. He earned a B.A. degree from Carlton College and a M.S. degree from Brigham Young University. He received his Ph.D. in geology from Stanford University in 1972, where he was first exposed to the then master of pegmatite studies, Dick Jahns. He has recently returned from a visit to University of Oklahoma where he learned more about the current theory of pegmatite genesis, based on the experimental research by Dr. David London and his graduate students.



From 1984 to 2001, Dr. John L. Lufkin worked in various consulting geological positions around the United States, specializing in environmental geology and opaque ore mineralogy. From 2001 to 2007, he was an Adjunct Professor of Geology teaching at the University of Colorado at Denver, Metro State College and the University of Denver, Denver. From 2007 to 2010, Dr. Lufkin was a geological consultant for numerous companies and taught short courses on metallic ore textures, ore mineralogy and ore microscopy at various colleges. From 2010 to 2013, he returned as a Professor of Geology, Adjunct for Metro State University of Denver and also was an instructor of Geology at the University of Northern Colorado, Greeley. He taught courses in geology, including the geology of Colorado, physical geology, oceanography, igneous and metamorphic petrology, ore mineralogy and microscopy, and the geology of ore deposits as well as continued research on ore textures and field work on the pegmatites in the Black Hills, S.D. and Colorado. Since 2013, he has been a consulting geologist in economic geology and president of Golden Publishers. He has co-authored the book, *Guidebook to Geology of the Black Hills, South Dakota* (2009) and numerous articles in geologic and mineralogic journals.

Dr. Lufkin will have his book, *Guidebook to Geology of the Black Hills, South Dakota*, available for sale at the meeting.

Some important notes about FM this month!

Please pay your dues for 2014! Dues are \$13.00 , which includes membership in national Friends of Mineralogy. You may pay at our meeting, or send your dues payment to: FM-Colorado Chapter, P.O. Box 5276, Golden CO, 80401-5276.

Be aware—our chapter mailing address may change next as of next month. The small postal station on Old Golden Road at which our P.O. Box has always been located, has permanently closed. Our existing P.O. Box number will only be usable through the end of March; the board will make a decision at the March meeting about where to establish a new P.O. Box address, whether in Golden or elsewhere—we'll keep you informed. Be assured that any mail (or dues checks!) sent to the old Box # will continue to be forwarded to our new one.

Also be aware – our next (May) meeting may not be held at the Denver Museum of Nature & Science. Our normal (VIP Room) meeting place will not be available on our scheduled May 10 meeting date, and no other meeting rooms at DMNS appear to be available either. Please look for an announcement in our May newsletter (or check the chapter website for updates) to confirm the exact date, time, and place of the May meeting, as well as the topic. A meeting room at Colorado School of Mines is being considered.

2014 FMCC Silent Auction, May 10, 12 – 3 p.m. (Setup at 10:30, checkout 3-4 p.m.)

Our 2014 silent auction will take place on Saturday, May 10, at the Clements Community Center, 1580 Yarrow St., Lakewood, CO (a block west and a block north of the intersection of Colfax and Wadsworth). Please put it on your calendar! The auction is our organization's main annual fund-raising event. Please bring some specimens, and, thank you to all our specimen donors/contributors.

Ouray-Silverton San Juan Mountains Mineral Symposium, September 5-7, 2014

This Symposium, cosponsored by FMCC as well as the Colorado School of Mines Geology Museum and the Friends of the CSM Geology Museum, will be our major special event this year. Detailed plans are in process of being made, but the symposium will be held at a location in Ouray, with a Friday evening welcoming party and speaker; lecture program and banquet with speaker on Saturday; field trip(s) on Sunday; and possible optional field trips on Monday. The program will include presentations about San Juan Mountains history, mining, geology, and mineralogy. Information will be posted as it becomes available on the Chapter website. If you are interested in helping to organize the symposium, please contact Chapter president Mark Jacobson, markivanjacobson@gmail.com . To be put on a mailing list to receive updates about the symposium, write to Mark or to Lou Conti, dlconti@aol.com . Attendees will be responsible for making their own lodging reservations for the symposium; this is a popular weekend in Ouray/Silverton, and whether you would plan to stay in a hotel/motel or campground, it would be wise to make your reservations as far in advance as you can.

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

Mark Jacobson has been making a particular effort to have past newsletters and historical and current-events information about the Chapter posted and kept current on our website. Take a look, and please refer to it often as a best source of info about the Chapter's meetings and special events!

January Colorado Chapter meeting:

At our January 9 meeting, Phil Persson gave an excellent presentation on “Minerals of the Franklin and Sterling Mines, Sussex County, New Jersey, and Recommendations for Modern Collecting”. He described the geology, mining history, and mineralogy of these famous deposits, with a lot of personal anecdotes and perspectives. Philip has recently reported that he has decided to begin work on a Master’s Degree program at Colorado School of Mines this fall.

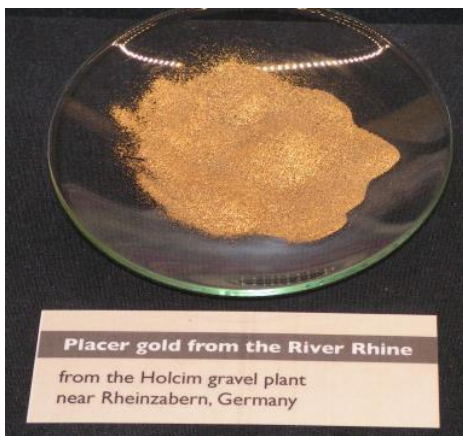
A potpourri of pictures from the Tucson Show:



The Friends of Mineralogy, Inc., display of this year's Best Article Awards, and past Best Educational Displays. Mark Jacobson received the 2014 award for Best Article in Mineral News, "Walter Brown Smith, 1858-1939, Pioneer Colorado Mineralogist-Geologist"



FM's Award for Best Educational Display by an institution went to the Univ. of Bonn for Renate Schumacher's display of "Treasures of Gold and Gemstones from the River Rhine"



Detail from the University of Bonn display; placer gold from a gravel plant along the Rhine.



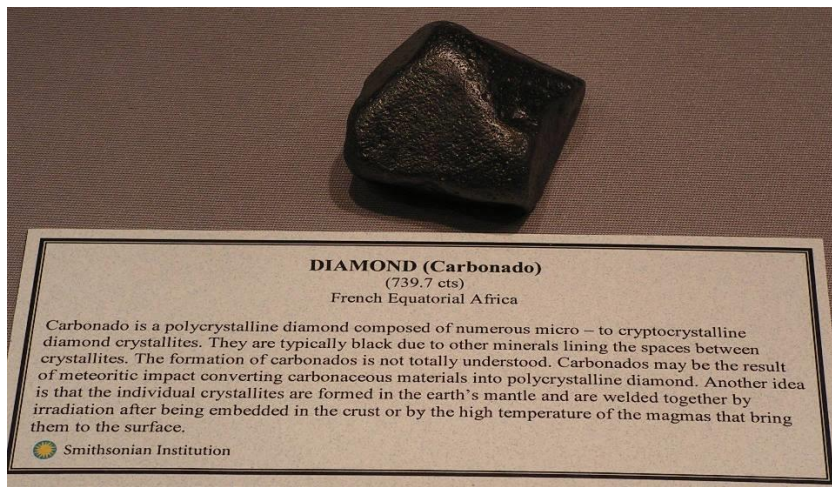
Bryan Lees' (Collectors Edge) display of some specimens obtained from their past 30 years of worldwide mining operations.



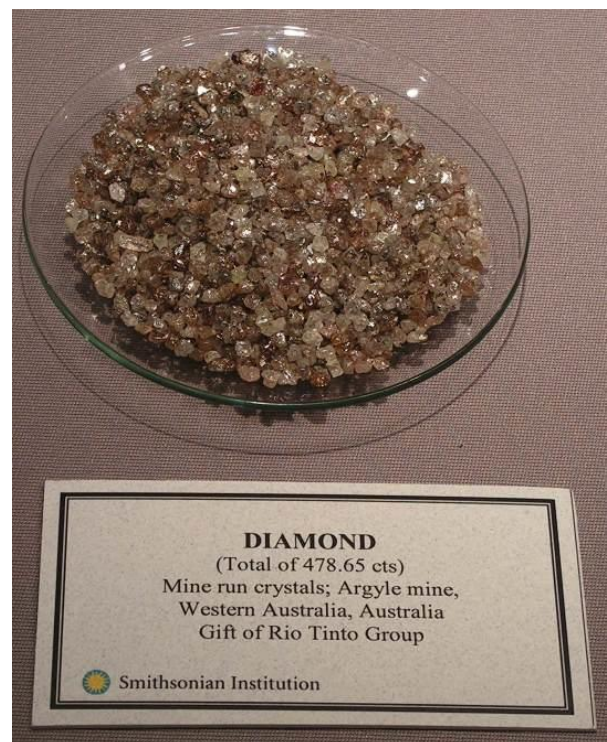
Sweet Home rhodochrosite



Topaz from the Tribute Pocket, Agnus Dei Claim, El Paso County, Colorado, "discovered October 2012 by Rich Fretterd and Jean Cowman". Oval cut stone in center is 1,345 carats



“60 Years of Diamonds, Gemstones, Silver, and Gold” was the theme of the 2014 Tucson Show. Here, from the Smithsonian, a 739.7-carat Carbonado diamond—black, polycrystalline diamond of enigmatic origin.



A very unusual gold specimen; this 56-gram gold “egg” was found with rounded pebbles in a pool “by a dried out waterfall” near the bed of the Bodaybo River, Bodaybinsky district, Transbaikial, Russia. It appeared to have been formed of gold crystals pressed together by the action of the surrounding pebbles; a tiny hole in the top showed that the interior is lined with undeformed “Christmas tree like” gold crystals.

The successor to the Mineral Collector magazine

Mark Ivan Jacobson

The *Mineral Collector* magazine in New York City ceased publication in February 1909, with Volume 15, No. 12 due to lack of income from subscribers and ads and not enough authors providing material to publish. Arthur Chamberlain, the publisher, with Albert Chapin Bates helping out, published the magazine out of interest in minerals and not for profit. The mineralogical literature noted its demise without commenting that both Chamberlain and Bates continued to at least publish mineral columns in another journal, *The Guide To Nature*. This brief note is designed to pass this information on to a larger group of readers.

The initial news of the closure of the *Mineral Collector* appeared in *The Guide to Nature* in the March 1909 issue (V. 1, No. 12, p. 450-451). Edward F. Bigelow, Stamford, Connecticut provided an editorial as shown below:

"A LABOR OF LOVE.

The February, 1909, issue of "The Mineral Collector" completes the fifteenth volume of that interesting, semi-technical magazine. Mr. A. C. Bates, a well known writer on mineralogy, tells, in his "Sundry Notes." of the work of Mr. Arthur Chamberlain who for fifteen years has conducted "The Mineral Collector" as a labor of love. Quite rightly Mr. Bates praises this indefatigable worker for the great task that he has accomplished and, in closing, says "Let us stand and drink a silent toast to Mr. Arthur Chamberlain." I intend to drink the toast but not to make it a silent one. Such faithful work as Mr. Chamberlain has for fifteen years been doing for that magazine now discontinued and on the previous "Exchanger's Monthly" and the "Mineralogist's Monthly" deserves our highest commendation. And that he already has. Nothing that THE GUIDE TO NATURE can say will add to the estimation in which he is held by his clientele. His work has been not a means to an end but an end in itself. Undoubtedly he will value the praise that has been showered upon him by his subscribers but this, however sincere and enthusiastic, cannot be an adequate reward for his labors. The work in itself has been worth doing but to that he has added pleasure by utilizing his evenings and holidays in setting the type and making up the pages of the magazine, a combination that can be realized and appreciated only by those who are likewise engaged in some missionary work for the advancement of the study and the love of nature.

THE GUIDE TO NATURE, in the number closing the first volume, makes to Mr. Chamberlain a bow of sincere appreciation. Both magazines, his and ours, are edited by love which Drummond, as quoted by Bates, calls the greatest thing in the world.

I have not had the pleasure of an extended personal acquaintance with Mr. Chamberlain but from what I have seen of him I agree with the writer who calls him "a bundle of American energy." He has been a collector of minerals from boyhood and always willing and conscientious,—a combination which never fails to do something. "The Mineral Collector" has not been a large magazine. It has never boasted of having more than a million subscribers and the paper has not always been good nor the press work the best, but the beauty of the life that has animated the magazine has made every reader close his eyes to defects so trifling. Affection beautifies everything to him who sees even the so-called ugly things of nature with the eye of love. "We love things not because they are beautiful but they are beautiful to us because we love them."

But one wonders why such a condition of the human mind should exist as to make such a labor of love necessary. Why has it not been better appreciated by humanity in general? Why should one go to a news counter and find displayed, with all the excellency that liberal patronage can produce, magazines that are devoted to trash, while "The Mineral Collector" has for fifteen years struggled on, humanity not giving anything to the editor to pay him for his paper and press work? It does seem that the very rocks should their silence break and cry out for better appreciation."

This editorial seemed sufficient to most readers but Bigelow after the editorial contacted Arthur Chamberlain and together they agreed that *The Guide to Nature* should contain a Mineralogy section. This section was continued for at least a while. Enclosed below is the first column of the Mineralogy section which is from *The Guide To Nature*, Vol 2, No. 1 page 13-16:

“MINERALOGY

Address all correspondence to Arthur Chamberlain, Editor, 56 Hamilton Place, New York City

The Mineral Collector Company.

PRINTERS AND PUBLISHERS, 56 HAMILTON PLACE.

New York, March 22, 1909.

To THE PATRONS OF "THE MINERAL COLLECTOR:

It is with pleasure I announce that I have arranged with Mr. Edward F. Bigelow, editor of THE GUIDE TO NATURE, to introduce a department, to be edited by myself, and thus make that publication the successor of *The Mineral Collector*. All unexpired subscriptions are to be filled out by that publication. We hope all persons whose subscriptions have expired will send in their renewals to me without delay. As the subscription of THE GUIDE TO NATURE has been reduced (beginning April 1909, from \$1.50 to \$1.00 and is a much larger and better publication than *The Mineral Collector*,) we hope all our subscribers will use their best endeavors to aid in securing additional subscriptions. We would also like to secure notes, original papers and descriptions of trips, accompanied with photographs, where possible for this department. I thank my subscribers for their support in the past, and request a continuance of the same for THE GUIDE TO NATURE, as successor to *The Mineral Collector*.

Very truly,

ARTHUR CHAMBERLAIN, Editor and publisher of "The Mineral Collector."

P. S.— Volume two of THE GUIDE TO NATURE starts with the April, 1909, number. Every subscriber sending \$1.75 can secure the first two volumes.

To the Constituency of *The Mineral Collector*:

THE GUIDE TO NATURE and The Agassiz Association, represented by it, cordially welcome you to our fellowship in the study and love of nature. We realize that minerals are of intense interest to the careful student, and are very attractive to lovers of the beautiful. Minerals seem especially available for those who desire to make collections, and we agree with Dana that, "every one who desires to really learn mineralogy must have a collection of his own to examine and experiment upon." We further agree with that talented scientist that, "no subject is better fitted to cultivate the powers of observation and at the same time to excite active interest than that of mineralogy."

No subject is also better adapted to the work of the Chapters of The Agassiz Association, to which we call the attention of all our new friends. We have Chapters of all ages and all degrees of proficiency. No efforts will be spared to make "Mineralogy" one of our best features.

Cordially yours,

EDWARD F. Bigelow.

Introductory.

In beginning this department, let me say that I shall endeavor to make it both attractive and instructive, and that I shall do my best to make the magazine itself even more successful than it is. To do these things I must have the cooperation of all interested in minerals. Let me know what you would like

to have described. Send me notes of your trips or of collecting fields in your vicinity. If you are puzzled about anything on this subject, write to me. If you have the leisure write a short article on some mineralogical subject that interests you and send it to me. If you come across any interesting items in print send them, with name and date of the paper in which they appeared. We want every subscriber to feel that he is part owner of this magazine and to take just as much pleasure as I shall in making it successful. Let us all be like one happy family, each striving to do the most to help the others. Hoping that I may be the means of adding many new subscribers to THE GUIDE TO NATURE, and of adding many new students to my beloved study of the mineral world. I am,

Your humble servant,

ARTHUR CHAMBERLAIN.

How Sluice Mining Originated.

Colonel Eddy of Nevada, claims the credit of having originally introduced the sluice-box for mining purposes; the invention owing its origin to an accidental discovery.

He gives the following account of his connection with this important discovery. In the spring of 1850, when all operations were being carried on by the aid of "long torn" and the "rocker." he located a claim in the ravine just above the Catholic Church in Eureka. There were several claims below him, the holders of which refused to permit him to run tailings on their grounds. So he made a trough leading from his location through theirs and to a point below. On the bottom of the sluice, wherever the different sections joined, he nailed wooden cleats to keep the water and gravel from leaking through.

At the lower end of the sluice he placed a rocker and for one day manipulated the dirt that came down it. At the end of the day he found that the rocker had saved very little gold. Going along up the sluice he found behind each of the cleats numerous sparkling particles of gold that had lodged there. He abandoned the use of the rocker, increased the number of cleats and then commenced what he said was the first sluice mining ever carried on, so far as he knows.

The sluice and riffles soon became popular, causing the price of lumber to advance rapidly. The colonel says the only thing he regrets about his discovery is that he did not have it patented and thus win fame and fortune.

Stones That Will Swim in the Human Eye.

Eyestones are really portions of the covering of certain shellfish. They are found at the opening of the shell and serve to close the entrance when the animal draws itself within. They are of various kinds, but those used as eyestones are hard, stony bodies about the size of split peas, one-third to one-sixth of an inch in diameter, a little longer than broad, having one surface plane and the other convex.

When they have been worn by the action of the sea they are very smooth and shining. Like other shells they are composed of carbonate of lime. When placed in a weak acid such as vinegar, a chemical change takes place, carbonic acid gas is given off and in its escape produces the movements which are popularly supposed to show that the stone is "alive."

When one of the stones is placed under the eyelid, at the outer corner, the natural movements of the lid in winking push it gradually towards the inner side, and when it comes in contact with the mote which is causing the irritation this is carried along and finally expelled with it.

The belief that such stones have a peculiar detective power and move about in the eye until they find and remove the substance for which they are sent, has no foundation in fact.

It is interesting to know that in the lining membrane of the stomach of the crawfish there are found small bodies which go under the name of "crab's eyes," and look not unlike the true eyestones. They have sometimes been mistaken for them and presumably would serve a similar purpose.

Collecting Interesting Minerals.

BY HORACE R. GOODWIN, PHILADELPHIA, PENNSYLVANIA.

Let those of your readers who have not visited the home of an enthusiastic collector of minerals do so at the first opportunity offered and they will be treated to a new experience, spend a pleasant hour, and in many cases become interested in every stone and rock encountered in their rambles afield, with the result that the mineral department of THE GUIDE TO NATURE will soon be in a flourishing condition. I have been an active collector of minerals for over a quarter of a century and, while not advanced in the science, have used my eyes to some purpose in the field.

One of my most enjoyable and profitable experiences was the meeting with the Student's Mineralogical Club, now the Philadelphia Mineralogical Club, on Thanksgiving Day, 1894, in Fairmont Park. The friendships there formed have been of lasting benefit.

While searching for specimens in a large quarry at Moores Station near Trenton, New Jersey, some time ago, I discovered a large cavity in the rock which was lined with beautiful snow-white crystals of natrolite, a mineral consisting of silica, alumina, soda and water, belonging to the zeolite group and named from natron, soda. Associated with the acicular crystals of natrolite were rhombic crystals of yellow calcite (carbonate of lime) from one half to one inch in diameter, the combination of the two minerals being very attractive. Although the material is very fragile a number of fine specimens were secured and are now safely housed in my cabinet.

Numerous other minerals occur at this locality, among them being stilbite, both white and honey colored, sometimes coated with iridescent pyrite; calcite of various forms, chalcopryite, prehnite, galena, chalcedony and several others that I cannot now recall.

On another occasion while digging for quartz in a sand pit at Lansdowne, Delaware County, Pennsylvania, I unearthed a fine large crystal of smoky quartz that weighs thirteen and three-quarters



Smoky Quartz

pounds and is as fine a specimen as ever came out of Japan or Switzerland, the latter place being noted for the magnificent quartz found there. The quartz occurred in a large pocket of pegmatite which had undergone decomposition leaving the crystal of quartz free. Many crystals were found, some of very curious form, but most of them were broken by the laborers who knew nothing and care nothing about them.

Those who wish to find specimens for themselves should investigate quarries, railroad cuts and fills, outcrops of rocks and excavations of all kinds, select pieces that appear odd in composition or form and apply to the nearest collector or museum for information. It is important that the locality of specimens be known as this is often of great assistance in making determinations."

Successive issues of *The Guide to Nature* contained other mineralogical articles but after the January 1910 issue, they no longer occurred in every issue. Some of the articles that did appear are listed below.

Mineral Articles in *The Guide to Nature*.

V 2, No. 2 May 1909. p. 51-55. On a New Cinnabar. Arthur Chamberlain, p. 51; Tubular Concretions of Iron, p. 52; Three Bronx Localities for Stilbite. Edwin W. Humphreys, p. 52; The Passing of the Drawer Mineral Cabinet. Chas. H. pennypacker, p. 53; Mineral Reviews, p. 54-55.

V 2, No. 3 June 1909, p. 113-115. Minerals Occuring in the Neighborhood of the University of Virginia. Wm. M. Thornton, Jr.

V 2, no. 4 July 1909. p. 147-151. A Cuban Cave. Arthur Chamberlain, p. 147; The Cullinan [diamond]. Translation by Albert H. Petereit, p. 149-151; The Arrangement of Specimens. Howard R. Goodwin, p. 151.

V 2, No. 5, August 1909, p. 174-175. Minerals of Stamford, Conn. Wm. C. Banks, p. 174; Curious Crystals [of quartz]. Howard R. Goodwin, p. 174-175.

V 2, No. 6-7, Sept-October 1909, p. 211-215. Selenite. Arthur Chamberlain, p. 211-212; Bronx Tourmalines, Edwin W. Humphreys, p. 212-213; Minerals of New Hampshire. Kate A. Jones, p. 213-214; A Magnificent Gift. Arthur Chamberlain, p. 214; A Few More Incidents. Wm. C. Banks, p. 214-215.

V 2, No. 8, Nov 1909, p. 262-263. Quartz. Arthur Chamberlain

V 2, No. 9, Dec 1909, p. 298-302. Minerals of Rye, New York. Wm. C. Banks. p. 298-299; A few More Incidents. William C. Banks, p. 299; Notes on Mineville, Essex County, NY and nearby localities. Alfred C. Hawkins. P. 300-302.

V 2. No. 10, January 1910, p. 329-332. Some Beautiful and Interesting Minerals [from the American Museum of Natural History]. Arthur Chamberlain.

V 3, No. 1, May 1910, p. 40- 44. How an inspiration became an actuality. Arthur Chamberlain. [Description of Petereit's mineral business. Contains several pictures of Petereit]

V 3, No. 3, July 1910, p. 127-131. Some Beautiful and Interesting Minerals [from the American Museum of Natural History], Part II. Arthur Chamberlain.

V 3, No. 4, August 1910, p. 172-173 . A Fine Kaolinite Locality. Edwin W. Humphreys, New York City.

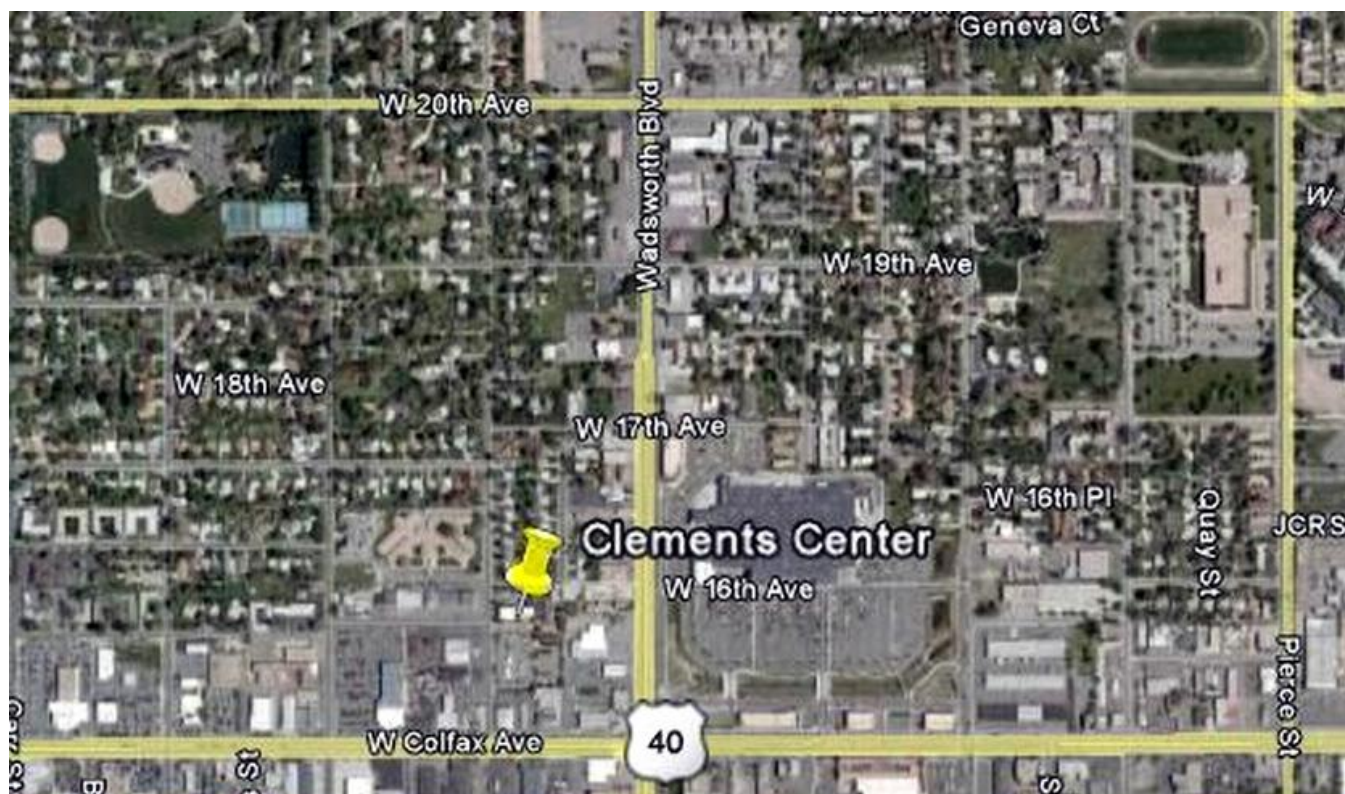
V 3, No. 4, August 1910, p. 173- 174. Geodes. Howard R. Goodwin, Philadelphia, Pennsylvania.

V 3, No. 5, September 1910. p. 220-222. A Few Incidents. William C. Banks, Stamford, Connecticut.

FRIENDS OF MINERALOGY COLORADO CHAPTER SILENT AUCTION

Saturday, May 10, 2014, 12:00-3:00 p.m.

The 2014 FM Silent Auction will be held at the same place as last year, the Clements Center, 1580 Yarrow Street, Lakewood, near the intersection of Colfax and Wadsworth. Mineral specimens, gems & jewelry, books, and other mineral related paraphernalia will be available to bid on. The silent portion of the auction will be tables set up with specimens with bid sheets. The tables will be closed in an organized manner and they will be removed to tally the bids. The verbal auction will be held during this time and the specimens will be shown around the room to encourage bidding on some of the better offerings at the auction. Set-up will begin at 10:30; Auction begins at 12:00; Auction will end at 3:00; Check-out will be from 3:00-4:00. Members are asked to help bring finger foods and refreshments.



A sheet of bid slips is attached separately for your convenience; for those receiving our newsletter electronically, it is attached as a separate pdf file.

Our sincere thanks to all the dealer/specimen donors from whom we will be requesting donations at the Spring Colorado Mineral and Fossil Show (April 18-20)! Please consider selecting some of your own specimens to donate to the auction; contributions may be made as either 20%, 50%, or 100% donation to FM. If you have any questions in advance of the auction, please contact Mark Jacobson, markivanjacobson@gmail.com, 1-337-255-0627.

Calendar of Coming Events

Thur., Mar. 13, 7:30 p.m., at the bimonthly meeting of the Colorado Chapter, Friends of Mineralogy: **Geology and Pegmatites of the Black Hills, South Dakota**, by Dr. John Lufkin. Denver Museum of Nature and Science, VIP Room; all are welcome. See <http://friendsofmineralogycolorado.org/> for an abstract of the talk and more information.

also, **Thurs., Mar. 13**, 6:00 p.m., at the Western Museum of Mining & Industry, '**Uranium Drive-In': Special Movie Showing**. "WHO DECIDES THE FUTURE OF RURAL AMERICA? Join WMMI for a special viewing of Uranium Drive-In at 6:00 pm on March 13th, 2014. Free with reply to rsvp@wmmi.org. The promise of jobs from a proposed uranium mill has an economically devastated mining community in Colorado hopeful for the first time in decades. When environmentalists step in to stop the mill, pro-mill advocates are enraged. A debate ensues, pitting jobs against health and the environment.

Without judgment, both sides of the issue are brought to life in heart-wrenching detail as the film follows conflicting opinions and visions for the future. The film offers no easy answers but aims instead to capture personal stories and paint a portrait of the lives behind this nuanced and complex issue.

Director Suzan Beraza will be at WMMI to discuss her documentary and answer your questions and comments.

Seating for this one time event is limited. Please RSVP to reserve your spot today. rsvp@wmmi.org or 719-488-0880."

Fri., Mar. 14, 7:30 p.m., at the monthly meeting of the North Jeffco Gem and Mineral Club, **The Mount Antero Mineral Locality, Chaffee County**, Colorado, by Mark Jacobson, geologist and author of "Antero Aquamarines"; at Apex Community Recreation Center, 6842 Wadsworth Blvd., Arvada. All are welcome.

also **Fri., Mar. 14**, 7:30 p.m., monthly meeting of the Denver Gem and Mineral Guild, "**Pegmatites—The Rest of the Story**", by Pete Modreski, USGS; Berthoud Hall (Geology Building), Room 109 (lower level), 1516 Illinois Street, Colorado School of Mines, Golden. All are welcome; see <http://denvergem.org/> for more info.

Sun., Mar. 16, 1:00-2:30 p.m., **The Colorado Plateau Province: Sedimentology, Stratigraphy, Forces, Landforms, and Parks**, by Bob Knapp; at the monthly meeting of the Florissant Scientific Society, taking place this month at the University of Colorado at Colorado Springs (UCCS), Osborne Center, Room B215. All are welcome; optional, bring your lunch to dine "brown bag" together, 12:00-1:00. For more info contact Bob Knapp, 719-260-7178, rknapp@uccs.edu, or Beth Simmons, cloverknoll@comcast.net.

Tues., Mar. 18, 10:30-11:30 a.m., USGS Rocky Mountain Seminar, **Geochemical impacts of CO₂ leakage into shallow aquifers**, by Alexis Navarre-Sitchler, Colorado School of Mines. All interested persons are welcome to come to these biweekly lectures, held in the Building 25 auditorium, Denver Federal Center, Lakewood. Enter the Federal Center via the main gate (Gate 1) on Kipling St., and go north to the large parking lot (with overhead solar photovoltaic panels) east of Building 25; enter Bldg. 25 via the Security station at its main entrance E-14, near the center of the building.

Tues., Mar. 19, next presentation in the **FrackingSENSE 2.0** series, 6:30 p.m., Hale #270, CU campus, Boulder, **"Is the oil and gas industry exempt from major environmental laws and what about that "fracking" loophole?"**, by Rebecca Watson; to be followed by on **April 1**, **"Hydraulic Fracturing: Where Does the Research Lead Us?"**, by Norman Warpinski. See <http://centerwest.org/> for information on the series, through the last presentation on April 15.

Thurs., Mar. 20, 4:00-5:00 p.m., “Fluids of orogenic and intrusion-related gold deposits: what can the compositions tell us about ore genesis?”, by John Ridley, CSU; Van Tuyl lecture series, Colorado School of Mines, Berthoud Hall Room 241; all are welcome; refreshments served.

See http://geology.mines.edu/GE_Lecture-Series for a full list of this weekly lecture series.

also **Mar. 20, 7:00 p.m., Regional Analysis of Flood Hazards along the Colorado Front Range**, by John Pitlick, Professor of Geography. University of Colorado, Boulder; at the monthly meeting of the Colorado Scientific Society, Shepherd of the Hills Church, 11500 W. 20th Ave., Lakewood CO; all are welcome. “Many questions have arisen in the aftermath of the 2013 flood...”; for a full abstract and more info, see <http://www.coloscisoc.org/>.

Mar. 28-30, Fort Collins Gem and Mineral Show, Larimer County Fair Grounds, Loveland; 4-8 p.m. Friday 3/28, 9-6 Sat., 10-5 Sun. See <http://www.fortcollinsrockhounds.org/gemAndMineralShow.shtml>

Tues., Apr. 1, 10:30-11:30 a.m., USGS Rocky Mountain Seminar, Origin of Grand Canyon, and implications for geomorphology, by Brian Wernicke, Cal Tech. Building 25 auditorium, Denver Federal Center, Lakewood. Write to Pete Modreski, pmodreski@usgs.gov, for a complete schedule of spring 2014 USGS seminars.

Wed., Apr. 2, 4:00 p.m., CU-Boulder Geological Science Colloquium; The coming changes in the Mexican petroleum industry and their consequences for North America’s energy supply, by Alfredo E. Guzmán, Consulting Geologist; Benson Earth Science Building, Room 180; refreshments will be served at 3:30 pm upstairs outside Benson Room 380; all are invited. See <http://www.colorado.edu/geolsci/colloquium.htm> for a list of all the spring term colloquia.

Thur., Apr. 3, at the Western Museum of Mining and Industry, Exhibit opening (6:00 p.m.) and Heritage Lecture (7:00), Social Life in Western Mining Camps, with Mark and Karen Vendl and Duane Smith. Free, but lecture room capacity is limited so advance RSVP is required; write to rsvp@wmmi.org

Fri., Apr. 11, 7:00 p.m., “The Age of Grand Canyon: A Century of Debate”, by Dr. Karl Karlstrom and Dr. Rebecca Flowers; at the National Mining Hall of Fame & Museum (ballroom), 120 West 10th Street, Leadville, CO

Come to Leadville for the Great Debate on the Grand Canyon

On April 11th at the National Mining Hall of Fame and Museum, the Collegiate Peaks Forum will present a free debate between Dr. Rebecca Flowers (CSS Councillor) and Dr. Karl Karlstrom. Come early and spend the afternoon enjoying the Museum and Hall of Fame as well as the spectacular winter scenery that includes the two highest mountains in the entire Rocky Mountains.

The question of the Grand Canyon’s age may not be the most crucial concern on your mind. However, that issue has focused the professional attentions of Dr. Rebecca M. Flowers of the University of Colorado at Boulder and Dr. Karl Karlstrom at the University of New Mexico. They represent two competing views, old canyon (Flowers) vs young canyon (Karlstrom), and the controversy brings to light new technology and raises fascinating questions about what was happening and when in the Grand Canyon’s long-ago past.

Fri., Apr. 11, North Jeffco Gem & Mineral Club Silent Auction. APEX Community Recreation Center, 6842 Wadsworth Blvd., Arvada, CO; 6:45 p.m.; free parking, free admission.

Sat., Apr. 12, 10 a.m. – 2 p.m., first **Dinosaur Discovery Day** of the year at Dinosaur Ridge, Morrison, CO, featuring **Bicycles and Dinosaurs**. “Join us for our first Bicycle and Dinosaur day. Ride your bike along the ridge and learn about the geology and paleontology from Dinosaur Ridge volunteers!” For more info see <http://www.dinoridge.org/>

Looking further ahead this year:

Apr. 17, Colorado Scientific Society monthly meeting, topic TBA

Apr. 18-20, Colorado Mineral & Fossil Show (Ramada Plaza-Denver Central, formerly the Holiday Inn), 10 a.m. - 6 p.m. Fri. & Sat., 10-5 Sun.

Apr. 18-20, Colorado School of Mines Geology Museum, Book & Garage Sale (rocks, etc.), 9 a.m. – 4 p.m. each day.

May 3, Colorado Mineral Society Silent Auction, Holy Shepherd Lutheran Church, 920 Kipling St., Lakewood CO, 11 a.m. – 3 p.m.

May 8, FM-Colorado Chapter monthly meeting; topic and meeting place (may not be at DMNS) TBA

May 10, FM Colorado Chapter, Silent Auction, Clements Community Center, 1580 Yarrow St., Lakewood CO, 12 noon – 4 p.m.

May 10, Dinosaur Discovery Day at Dinosaur Ridge, Morrison, CO; featuring Boy Scout Day; for more info see <http://www.dinoridge.org/>

May 15, Colorado Scientific Society monthly meeting, topic TBA.

May 31-June 1, Colorado Scientific Society Field Trip, to the **North Park and Middle Park region of Colorado** is being organized for this weekend by CSS Field Trip Chair Cal Ruleman.

June 6-8, Pikes Peak Gem and Mineral Show, Western Museum of Mining & Industry, Colorado Springs, sponsored by the Colorado Springs Mineralogical Society

June 14, 9 am - 3 pm, **GEOdyssey's** annual home sale. 15339 W. Ellsworth Drive, Golden CO

Aug. 7-10, Contin-Tail Rock Show, Buena Vista Rodeo Grounds, Buena Vista, CO

Aug. 14-17, Woodland Park Rock, Gem & Jewelry Show, Woodland Park, CO

Aug. 15-17, Lake George Gem and Mineral Show, Lake George, CO, sponsored by the Lake George Gem & Mineral Club

Sep. 5-7, San Juan Mountains Mineral Symposium, Ouray CO; lectures and field trips; for more information see <http://friendsofmineralogycolorado.org/>

Sep. 6-14, Denver Coliseum Mineral, Fossil, & Gem Show

Sep. 7-14, Colorado Mineral & Fossil Show, Ramada Plaza Hotel (formerly Holiday Inn), Denver

Sep. 10, Colorado School of Mines Geology Museum, Reception & Open House, 6-9 p.m.

Sep. 12-14, Denver Gem and Mineral Show, Denver Mart (formerly the Denver Merchandise Mart); the theme of the 2014 show is “Agate”; see <http://www.denvermineralshow.com/> for more info.

Nov. 8-9, New Mexico Mineral Symposium, Socorro, NM

Nov. 13, November FM meeting

Nov. 14-16, Jeffco Fairgrounds 2014 Mineral Dealers Show

Dec. 12-14, Flatirons Mineral Club Show, Boulder County Fairgrounds, Longmont, CO

Colorado Mineral & Fossil Show - Spring

Adams Minerals
Amber America
AmeriAsian Business Corp.
Angelic Healing Crystals
Artisan Jade
Avian Oasis
Chaotic2Creations
Coloradominerals.com
Comet Meteorite Shop
Costigan's Minerals West
Cowboy Crystals/KQ Minerals
Dan's Used Rocks
DB Opals
Enchanted Rock Garden, The
Fenn's Gems & Minerals
Fine Gems & Minerals
The Foothills Boxes
Friends of CSM Geol. Museum
David Geiger Minerals
Gemas NO
Glory Designs
Great Basin Minerals
Great Wall Consulting
Great Wall Mineral Museum
Hands of Spirit
Hamimine Mineraux
Holguin Mexican Minerals
J.K. Stone
Jeanne's Rock Shop
John E. Garsow Gems & Minerals
Johnny Got Rox
Kristalle
Lew Wackler
Madagascar Imports
Midwest Minerals
Minas Brazil Stones



*Beryl, var. Aquamarine with Quartz
Mount Antero, Chaffee Co., CO
Collector's Edge specimen, Frederick C. Wilda watercolor©*

Mineral & Fossil Supply
Mineral Treasure-Madagascar
Gemstone
Morocco's Fossils & Minerals
Moss Rock Enterprises
New Era Gems
Norcross - Madagascar
Donald K. Olson & Assoc.
One of a Kind Designer Cabs
Orca Gems & Opals
Paradise Gems & Minerals
Persson Minerals
Pinnacle 5 Minerals, L.L.C.
Pirtas de Navajun
Porter Minerals International
Prospector's Choice Minerals
Rainbow King Solomon's Mines
Raj Minerals, Inc
Rocks N Wraps
Self-A-Ware Minerals
Sidewinder Minerals
SMSMS, Inc.
Starborn Creations, Inc.
Strong Rock, The
Sunnywood Collection, The
Super Bead Mart
T.G. Mining Group
Top-Gem Minerals
Unconventional Lapidarist
Vicjon - Peru
Wendy's Minerals & Gems
World Circle
XTAL - Dennis Beals Minerals
Yuthok Tibetan Treasure

April 18 - 20

Hours: Fri. & Sat: 10 - 6, Sun: 10 - 5

Ramada Plaza - Denver Central

(Formerly Holiday Inn)

4849 Bannock St. (where I-25 meets I-70)

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