Nov. Meeting – Thursday, Nov. 19, 7:30 pm  (Board meeting 6:30-7:30)
Denver Museum of Nature and Science – Africa Room (3rd Floor)  Enter the Museum through the Security/Staff entrance to the left of the main entrance.

Cave Minerals in 3-D
by Dan Wray

Dan Wray is a cave explorer, surveyor, and photographer. Stereo cave photography has been one of his specialties. Dan has been a member of the Colorado Grotto and the National Speleological Society for 20 years. He is also an active member of the Colorado Camera Collectors, Colorado Meteorite Society (COMETS), Colorado Mineral Society, Denver Astronomical Society, Fluorescent Mineral Society, and Colorado School of Mines Geology Museum (volunteer and Friends member).

Dan’s program tonight will include stereo photos of caves in Colorado and the region.
The Roebling purple apatite, 
Pulsifer quarry, Auburn, Maine

Mark Ivan Jacobson

The finest purple apatite ever recovered from the Pulsifer quarry, Auburn, Maine was named the Roebling apatite, after the famous, top-quality New York mineral collector who obtained it (Wilson 1977). The crystal is 3 x 3.8 x 4.3 cm in size, currently in the Smithsonian collection and has frequently been displayed at mineral shows. The early day history of discoveries at the Pulsifer pegmatite, as well as the discovery of the Roebling apatite seems to have not been previously documented. The Lazard Cahn correspondence files in the Carnegie Library, Pikes Peak Library district, Colorado Springs has two letters that reveal this early day history.

The Roebling apatite, as displayed at the 2005 Tucson Gem & Mineral Show

Wilson (1977) documented that the pegmatite was first recognized as containing valuable minerals in 1839. Pitt P. Pulsifer, a later owner, discovered his first purple apatites and other gemstones from the pegmatite in 1901. Lazard Cahn, the New York City mineral dealer, but who after 1885 lived most of the year in Colorado Springs, received a letter from Pulsifer in 1914. The letter stated:

Auburn May 17-14

Lazard Cahn

Dear Sir

I have taken out this Spring the finest specimen of purple apatite that I have ever found. I think it would make all others look like thirty cents.

If you come east I hope you will come and see it.

Thanking you for past favors.

I remain

Yours

P. P. Pulsifer
This letter was Pulsifer being excited about what was to become known as the Roebling apatite. Cahn was sufficiently intrigued that he discussed the discovery in a typed letter to his sister. The italics in the letter are the author’s to highlight the significant part that documents the purple apatite pockets that had been discovered.

The Sevillia, 117 West 58th Street

My Dear Ida,

Your letter of May 19th enclosing excerpts from newspapers arrived duly and I thank you for your good wishes on the occasion of my 19th anniversary. Of course if I were thirty five, like my older sister, the birthday reminders would be less pleasant. Nevertheless I wish you many happy returns and I trust that for many years to come you may gain in strength, mental and physical.

I have only five days in which to pack five drawers of minerals, a number of large wall case specimens, my microscope, books, and other belongings, and to make four shipments abroad. While the time seems short it is ample if there is no dallying. *I have just received word from Auburn, Maine which excites my curiosity to a very great degree. In the neighborhood of that place, there have been found, in the past, some wonderful crystals and groups of crystals of phosphate of lime (apatite), having a superb royal purple color. The owner of the farm has found at various times “pockets” in which these crystal occur. He has encountered four productive ones covering a period of about ten years. The first pocket’s contents was bought by Harvard for $75.00, the contents of the second, which was much smaller, was bought by me for $100, the contents of the third, which was better than the second but not so good as the first, was bought by Holden for $500.0. Now there is a fourth to be disposed of. The owner wrote me to [to me in] Colorado Springs and the letter which was forwarded to me here gives this information “I have taken out this spring the finest specimen of purple apatite I have ever found. I think it will make all others look like thirty cents.”*

In London, not long ago, a lilac apatite from the Tyrol was put up at auction, together with a number of other minerals. The British Museum wanted it and authorized a bid of twenty five pounds. Fleischmann, a customer of mine and, upon occasion, a patron of the museums, placed a bid of 30 pounds, Böhm raised it to 35 and it was knocked down to Henson for sixty two pounds. Our friend Drugman as well as Fleischmann wrote to me about this matter. Drugman said he would have considered the crystal fairly worth four or five pounds. Henson accepted a nominal profit from the museum on his investment, and the museum aided by Fleischmann, who supplied half of the purchase money, acquired the specimen. The Apatite from Maine should have greater value.

I am glad you had the opportunity of seeing the fine performance of "Les Miserables" produced for the screen…. The letter continues.

Thus, it is clear that this crystal was recognized immediately as being the most significant of all previous pockets.

Many years later, Cahn wrote to Louis Pope Gratacap, Curator of Mineralogy at the American Museum of Natural History in New York and mentioned what he knew about this crystal (Lazard Cahn papers). He wrote that

“…Petereit wrote to me regarding the apatite and wanted me to tell him what it is worth. It is a superb crystal and although not complete, one end having been cleaved off, it is doubt less one of the finest crystals in the world. Pulsifer offered me this crystal when I was at his place some years ago, asking $500.00 for it. It is not worth anything like that, yet in these times of inflated prices it is possible some one may be found willing to pay a lot of money for it. It has been hawked about. Burrage and others have refused it. Harvard is entitled to it as Holden's heir. A year or two before his death, Holden, made a purchase of Pulsifer and in addition left a deposit
with him of about $150.00 to apply to the purchase of any new find. Entre nous, the crystal is worth $125.00 or $150.00…

Gratacap replied belatedly in September 12, 1917 with a list of all the mineral news within the mineral collecting community (Ford 1917). He commented that “…Prof. [William E.] Ford [of Yale University] has figured [on June 15, 1917] and described Petereit, an apatite crystal and mentions its beauty with admiration…” Thus, it should be no surprise that Washington A. Roebling’s wife purchased the specimen for her husband as a gift.

Lazard Cahn, circa 1928, from his passport photo. Courtesy of the Pikes Peak - Carnegie Library, MSS-70

References


Richard Frettard and Jean Cowman made what may well be the most significant discovery of gem topaz in Colorado on December 8, 2012. Carnein (2013) as well as Cowman and Persson (2015) have not only described Frettard and Cowman’s discovery but also done an admirable job describing and illustrating the topaz that was recovered. Frettard and Cowman both attribute their search for gem topaz near Crystal Park to relocate a deposit of etched topaz discovered by Ed Over. The purpose of this note is to add further documentation as to what caused Frettard and Cowman to search for the amber yellow gem topaz.

An etched sherry topaz found by Richard Frettard and Jean Cowman, circa 2013. Offered for sale at the 2013 Denver Gem & Mineral Show.

In George White’s 1972 oral presentation to the Colorado Springs Mineral Society, he spoke on Ed Over’s discovery of sherry-colored (amber) when he wrote in his unpublished manuscript that,

“A few years later he [Ed Over] struck some pegmatites which yielded very dark green amazonite crystals, some of which were of very good size and color. In this and adjoining pockets he also came across the finest phenacite crystals I ever saw from this Pikes Peak Region which included Crystal Peak. They were water clear and beautifully developed, some as large as 5/8ths of an inch, single and in matrix. I have a suite of 10 such [phenakite] crystals from two separate finds which he made probably late in 1954 with the phenacite and amazonite stone.

[Ed] Over also found some remarkable topaz crystals. They were a beautiful amber color, severely etched and quite well modified, some even distorted in shape. It was a rich find, and Ed never would divulge the exact locality, although he hinted they were south and west of Crystal Park somewhere, so go to it” (Pikes Peak-Carnegie Library, MSS-36, box 15, folder 22, unpublished manuscript, p. 15).


“Ed [Over] was always fond of topaz, and one of his last finds was of this favorite mineral. I mentioned previously that many years before, he had worked the area between Crystal Park and Sentinel Rock, above the Palmer Trail.
Somewhere in this area, nobody knows where for sure, he found small brilliant topaz crystals with amazonite, somewhat similar to the topaz from Mexico. I have one of these small groups.

But a few years later, in 1954 or 1955, Ed hit a fine pocket of crystals, amber colored, somewhat like the Devil’s Head ones, clear, modified and severely etched in some cases” (Berry 2002, Chapter 5).

Ray Berry in 2002, assembled some of the basic history of the Colorado Springs Mineralogical Society, including compiling for the first time all eight parts of White’s Memoirs of a Crystal Collector. These were republished and sold as an 8.5 by 5.5 inch booklet to Mineralogical Society members. Thus Over’s historic discovery was not forgotten.

A later oral history reported by Cowman and Persson (2015) stated that,

“In 1957, he [Ed Over alone] discovered an isolated pocket approximately 0.5 x 1.0 m in size on Cameron Cone, east of the Pikes peak summit. The pocket yielded approximately 7 kg of topaz as well as etched crystals of amazonite and quartz. Over sold 5 topaz specimens to dealer Bill Hayward who, after Over’s death in 1963, managed to find the locality from Over’s description, but recovered only amazonite and a few topaz fragments.”

A yellow gem topaz specimen from Crystal Park with a partially illustrated Bill Hayward label as well as an E. Mitchell Gunnell label implying that Gunnell obtained his topaz from Hayward in 1957, are illustrated in Cowman and Persson (2013). Both labels and the specimen are owned by The Collector’s Edge (Bryan Lees).

As a side note, Edwin Over and Arthur Montgomery’s field collecting partnership during the summers, only lasted for a few years; it started with collecting at Topaz Mountain, Utah in 1934, included the Mt. Antero, Colorado expedition in 1938, and ended in December 1940 (Lininger 2000; Montgomery 1941, Zodac 1950). After the last Over-Montgomery mineral exhibition and sale in January 1941, Schortmann’s Minerals announced in May 1941 the complete purchase of Over and Montgomery’s mineral stock and Montgomery’s retirement from the mineral business (Schortmann’s Minerals 1941).

References


PEG 2015, the latest in a biennial series of international pegmatite research symposium, took place this summer at Ksiądz Castle, in southwest Poland. Two days of lectures were preceded and followed by 5 days of field trips to pegmatites in the Czech Republic and Poland. Sites visited included the type locality for lepidolite (Rožná, Czech Republic) and the Strzegom area, Poland, famous for its miarolitic pegmatites with smoky quartz and associated minerals. Two members of our chapter, Mark Jacobson and Pete Modreski, attended the conference. Please look for a more detailed report on the conference and its field trips in the next newsletter!

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Pegmatite Symposium, July 2016:
All are invited to attend the “2nd Eugene E. Foord Symposium on Pegmatites, Golden Colorado”, to take place on the CSM campus, July 15-19, 2016, cosponsored by the Friends of the CSM Geology Museum and the Colorado Chapter, Friends of Mineralogy. There will be a welcoming reception, two days of oral and poster presentations, and two days of field trips to Colorado pegmatite localities. Look for further information on the Friends of the CSM Museum page,

https://www.facebook.com/LikeCSMGeoMuseum/. Pegmatite researchers from around the country are expected to attend, as well as local presenters. If you would like to receive future updates about the symposium or would like to offer to present a paper, please contact Mark Jacobson, markivanjacobson@gmail.com.
Important notes about FM this month:

Annual Dues to Friends of Mineralogy, Colorado Chapter are $13.00; this includes membership in the national organization, Friends of Mineralogy, Inc.. New members are always welcome! To join, just mail a check for $13 to FM-Colorado Chapter, P.O. Box 254, Littleton CO, 80160-0254; please include your name, email and mailing address (all our newsletters and mailings are normally sent by email). Or, pay at our meeting when you attend. Right now (November; last meeting of the year) is the best time to pay your dues for 2015!

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

Dates for upcoming FM Colorado Chapter activities:
Meetings are normally held at 7:30 p.m. on the 2nd Thursday of alternate (odd-numbered) months, at the VIP Room in the Denver Museum of Nature and Science. The dates are sometimes 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! Our planned 2016 meeting dates are:

Tentative dates for 2016:
Jan. 15, FM meeting
Mar. 10, FM meeting
May 12, FM meeting
May 14, FM Silent Auction (tentative date only, not confirmed)
Sept. 8, FM meeting       “        "
Nov. 3, FM meeting       “       "

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FMCC 2015 Officers:  President, Mark Jacobson, markivanjacobson@gmail.com , 1-337-255-0627
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Treasurer, Gloria Staebler, gastaebler@aol.com
Secretary, Alan & Norma Keimig, alan.keimig@gmail.com, 303-755-9604
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            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@aol.com, 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!)

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Election of our chapter’s 2016 officers will take place at the November meeting. Please contact Mark Jacobson if you have any nominees for any office to volunteer—either yourself, or someone else!
Calendar of coming events:

**Sept., Nov. 15, New Mexico Mineral Symposium, Socorro, NM.** This promises to be an extra good symposium; it will feature a reception for the Grand Opening of the new Mineral Museum (Headen Center) at the NM Bureau of Geology. The featured speaker will be Dr. Robert Cook, “An overview of five great American gold specimen locations”. The symposium runs from Friday evening (Museum reception) through Sunday afternoon (silent auction), with talks all day Saturday and Sunday morning. See https://geoinfo.nm.edu/museum/minsypm/home.cfm for full details.

**Sun., Nov. 15, 1:00 p.m., Auraaria Campus, Science Building Room 2009, meeting of the FSS (Florissant Scientific Society),** no food (normally the group brings lunch when it meets), Jason Janke, chairman of the Earth and Atmospheric Science Department at Metro State, will discuss Rock Glaciers, the topic of his Ph.D. thesis. Our group has become interested in these unusual rock/ice formations after hiking to the rock glacier at Lake Agnes in August. Maybe Jason can answer some of our questions! The FSS is an informal group that meets once a month for either a lecture or a field trip (sometimes, but not necessarily, in Florissant, CO). All are welcome; “membership” simply consists of giving Beth Simmons (cloverknoll@comcast.net) your email address, and you will be informed of each meeting. Park in campus Lot M (Maple), reached off southbound Speer Blvd. Parking is free on Sundays. Walk north along 12th Street to Science building, enter southwest door, go upstairs and find 2009; signs will be posted.

**Tues., Nov. 17, 6:00 p.m., After the Storm; Charting a Career in Minerals Exploration into the Next 20 Years; Auraaria Campus Science Building, Room 1067, Denver CO.** “Please join us for a free dinner & seminar by Ken Witherly, President of Condor Consulting.” No charge and all are welcome, but please RSVP to reserve a space via www.condor.rsvpify.com, Sponsored by the MSU (Metro State University) Denver Geoscience Organizations: AAPG (American Association of Petroleum Geologists), AIPG (American Institute of Professional Geologists), and GSA (Geoscience Association).

**Thurs., Nov. 19, ~11:30-1:30 p.m., monthly luncheon meeting of SIPES, Society of Independent Professional Earth Scientists; “The Geology of the Colorado Trail”, by Ned Sterne, Consulting Geologist. Wynkoop Brewing Co., Denver.** “Why not take six weeks, head out your Denver back door and walk 487 miles south on the Colorado Trail to Durango? While you are at it, track the rocks you see across southwestern Colorado from the Front Range to the Paradox Basin. If that doesn’t quite make your bucket list, join me instead for a lunchtime stroll as I build a cross section that follows the trail. My hope is that this section and accompanying maps will provide a geologic overlay for the Colorado Trail Databook…” “SIPES is the Society of Independent Professional Earth Scientists (SIPES) is the only national organization designed exclusively for the independent or consulting professional earth scientist. Members include geologists, engineers, geophysicists, geochemists, and other earth scientists. “RSVP to attend the luncheon via their website, http://sipes-denver.org/ or by calling 303-730-2967. New members are always welcome.

**Thurs., Nov. 19, 4:00 p.m., A Simplified Guide to Sequence Stratigraphy: Nomenclature, Definitions, and Method, by Vitor Abreu, ExxonMobil Research. Van Tuyl lecture at Colorado School of Mines, Berthoud Hall Room 241; all are welcome.**

**Thurs., Nov. 19, 7:00 p.m., Colorado Scientific Society, “The variability of hydrothermal ore deposits in the North American Cordilleran orogenic belt - insights into metallogeny from ore fluid analysis”, by John Ridley, Colorado State University. Shepherd of the Hills Presbyterian Church, 11500 W. 20th Ave., Lakewood. All are welcome. See http://www.coloscisoc.org/.**

**Thurs., Nov. 19, 7:30 p.m., Friends of Mineralogy, Colorado Chapter bimonthly meeting; speaker, Dan Wray, Cave Minerals in 3-D. Denver Museum of Nature & Science, in the “Africa Station” room, 3rd floor; no charge and all are welcome. See http://friendsofmineralogycolorado.org/.**
Fri., Nov. 20, 8:00 p.m., at the monthly meeting of the Mile Hi RAMS (Rock And Mineral Society), "Pegmatite mineralogy and analysis with hands on demo of XRF and micro-Raman spectroscopy" by Dr. Markus Raschke, Professor of Physics and Chemistry, University of Colorado. The meeting is in Berthoud Hall (corner of Illinois & 16th St.), Room BE 108-109, Colorado School of Mines campus, Golden, CO; the society business meeting begins at 7:30 p.m. All are welcome to attend. It sounds like this may be an opportunity to bring a puzzling specimen or two of your own, to get an on-the-spot partial chemical analysis via XRF or attempted mineral identification via Raman spectra!

Sat., Nov. 21, Littleton Gem & Mineral Club Silent Auction (all are welcome!). Columbine Hills Church, 9700 Old Coal Mine Avenue, Littleton, CO. “Seller set up starts at 11 AM, Silent auction starts at noon, Verbal auction starts at 1 pm; Checkout starts at 3:30 pm,”


Thurs., Dec. 3, 4:00 p.m., Fifty-one Shades of Gray: The Deposition and Diagenesis of North Sea Chalks, by Petter Scholle. Bob Weimer Distinguished Lecture in the Van Tuyl lecture series, Colorado School of Mines, Berthoud Hall Room 241; all are welcome.

Dec. 11-13, Flatirons Gem & Mineral Show, “Rocks & Rails” (the Boulder Model Railroad Club show is combined with the gem & mineral show); Boulder County Fairgrounds, Longmont, CO, 10 a.m. – 5 p.m. each day. We (USGS) will have an exhibit booth at the show.

Special exhibits continuing in 2015:
The Mining Art of Buck O’Donnell, special exhibit at the Western Museum of Mining & Industry. “JC (Buck) O’Donnell created a series of pen and ink drawings for various mining related supply and informational magazines during the early to mid-20th century. His work appeared in magazines like Shaft and Development Machines and Machinery Center, Inc. O’Donnell’s works served to provide visual evidence of how miners lived, how they worked, and what the western mining boom looked like to those who lived it.” The exhibit opened on Sept. 10; regular admission charge. See www.wmmi.org for more details.

Steps in Stone: Walking Through Time, at the University of Colorado Museum of Natural History, CU campus, Boulder. “A new exhibition that features real fossil tracks and trackways from the University of Colorado Museum of Natural History collections”. Open 9-5 weekdays, 9-4 Saturdays, 10-4 Sundays; closed on university holidays. Exhibit runs through December 2015; see http://cumuseum.colorado.edu/.

Explore Colorado's Mining and Mineral Heritage: Colorado minerals, gemstones, and mining history material from the Colorado School of Mines Geology Museum and Colorado's State Mineral Collection continues on display on the third floor of the Colorado State Capital Building in Denver, at least through the end of the year. You can explore this online by following this link to the Friends of the CSM Geology Museum facebook page (you don't need to have a personal Facebook account to view this information.):

For more lecture series during the year see:
CU Geological Science Colloquium (Wednesdays, 4 p.m.) see http://www.colorado.edu/geolsci/colloquium.htm
CSU Dept. of Geoscience Seminars (Fridays, 4 p.m.), see http://warnercnr.colostate.edu/geo-news-and-events/department-seminars
Van Tuyl Lecture Series, Colorado School of Mines, (Tuesdays, 4 p.m.) see http://inside.mines.edu/GE_Lecture-Series
Denver Mining Club (Mondays, noon), see http://www.denverminingclub.org/
Denver Region Exploration Geologists Society (DREGS; 1st Monday, 7 p.m.), http://www.dregs.org/index.html
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/ .