
Bay Area Mineralogists

March 2017

Meeting: Wednesday, Mar 8, 2017; 7 pm
USGS, 345 Middlefield Road, Menlo Park
Building 3, 2nd Floor, Rm 3-237

President: Don Windeler, [don.windeler at rms.com](mailto:don.windeler@rms.com)
Editor: Barb Matz, [matz.barb at gmail.com](mailto:matz.barb@gmail.com)
BAM web site: www.baymin.org



In this Issue:

- Program: Tucson Show & Tell
- Congratulations Dan Carlson!
- New Carbon (and Other) Minerals
- Other News and Items
- Upcoming Article and Shows

The Bay Area Mineralogists meet monthly during the school year, on the 2nd Wednesday, at the U.S. Geological Survey in Menlo Park, on the second floor of Building 3, where the campus map says "Rambo Auditorium."

(<http://online.wr.usgs.gov/calendar/map.html>)

The front doors will be locked so you'll have to come up the exterior stairs on the Middlefield Road side of the building. Parking is free.

March Program: Tucson Show & Tell

By BAM members



Typical scene at Tucson City Center Hotel

The March meeting will be the usual extended round table discussion where we can share tall (or small) tales, confirm or deny rumors, show off our acquisitions, and see what sort of weird item(s) Gary found this year.

Congratulations to Dan Carlson!

BAM member (and treasurer) Dan Carlson entered a case of fine thumbnail specimens into competition at the TGMS show, and also designated one specimen for the Lidstrom competition. Dan reports that he took first place in thumbnails (blue ribbon) for the case and also won best advanced case, for which he was awarded a bigger ribbon and a trophy at the Saturday night banquet. Congratulations, Dan!!



Dan and his thumbnail case, pre-ribbon.

How to Pay Your Dues

Speaking of Dan, if you can't make it to a meeting, you can pay your dues by mailing \$5 to him at P.O. Box 666, Belmont CA 94002-0666.

New Carbon (and Other) Minerals

The Carbon Mineral Challenge (mineralchallenge.net) has been underway since December 2015 and will run through September 2019. A special poster about the challenge was available at the 2017 Tucson Mineral Show. The goal of the competition is to discover as many new carbon based minerals as possible. The project reports 8 new carbon minerals so far:

Abellaite, $\text{NaPb}_2(\text{CO}_2)_2(\text{OH})$, Spain: A hydrous carbonate named in honor of Catalan gemologist Joan Abella i Creus.

Braunerite, $\text{K}_2\text{Ca}(\text{UO}_2)(\text{CO}_3)_3 \cdot 6\text{H}_2\text{O}$, Czech Republic: A uranium mineral, braunerite is structurally similar to the carbon mineral linekite.

Ewingite, $\text{Mg}_8\text{Ca}_8(\text{UO}_2)_{24}(\text{CO}_3)_{30}\text{O}_4(\text{OH})_{12} \cdot 138\text{H}_2\text{O}$, Czech Republic: The most structurally complex mineral known. Its rarity appears to be due to a very narrow pH and compositional range that is only found in the Plavno mine.

Leószilárdite*, $\text{Na}_6\text{Mg}(\text{UO}_2)_2(\text{CO}_3)_6 \cdot 6\text{H}_2\text{O}$, USA: Water soluble, pale yellow, bladed crystals discovered in an old uranium mine in Utah and named in honor of Leó Szilárd, this is the first natural sodium, magnesium-containing uranyl carbonate.

Marklite, $\text{Cu}_5(\text{CO}_3)_2(\text{OH})_6 \cdot 6\text{H}_2\text{O}$, Germany: Very similar in composition to malachite and azurite; named after Dr Gregor Markl, who found the specimen.



Marklite, Friedrich-Christian Mine, Baden-Württemberg, Germany (FOV 2mm)

Middlebackite, $\text{Cu}_2\text{C}_2\text{O}_4(\text{OH})_2$, Australia: An organic mineral discovered in the Iron Monarch quarry in the Middleback Ridge, Australia.

Parisite-(La), $\text{CaLa}_2(\text{CO}_3)_3\text{F}_2$, Brazil: this is the second discovery with chemistry predicted by the research behind the Carbon Mineral Challenge.

Tinnunculite, $\text{C}_{10}\text{H}_{12}\text{N}_8\text{O}_8$, Russia: Forms when the droppings of a European kestrel (*Falco tinnunculus*) react with the burning dumps of coal mines and quarries. [Not accepted by IMA, also not to be confused with tinnunculite ($\text{C}_5\text{H}_4\text{N}_4\text{O}_3 \cdot 2\text{H}_2\text{O}$), a rare component of urinary and other stones.]



These minerals represent a diversity of environments and localities. The Deep Carbon Observatory, the organization leading the project, predicts there are still at least 145 unknown carbon minerals.

*Leószilárdite is also one of three new uranyl minerals, along with leesite and redcanyonite, discovered as secondary crusts inside old uranium mines in southern Utah.

Leesite, $\text{K}(\text{H}_2\text{O})_2[(\text{UO}_2)_4\text{O}_2(\text{OH})_5] \cdot 3\text{H}_2\text{O}$, occurs in bright yellow aggregates of stacked blades or radiating needles up to 1 mm in length, and is a member of the schoepite mineral family.



Leesite, etc. Jomac Mine, San Juan County, Utah (FOV 2mm)

Redcanyonite, $(\text{NH}_4)_2\text{Mn}[(\text{UO}_2)_4\text{O}_4(\text{SO}_4)_2](\text{H}_2\text{O})_4$, orange to red-orange in color, is one of the rarest uranyl minerals known because it can only grow within narrow constraints (access to manganese ions coupled with an organic-rich matrix).

Each of these uranyl minerals represents a unique environment and formation due to human activity. In fact, it has recently been determined that there are over 200 anthropogenic minerals (<https://tinyurl.com/zboq8jd>), including the following:

Abhurite, $\text{Sn}^{2+}_{21}\text{O}_6(\text{OH})_{14}\text{Cl}_{16}$, formed by the reaction between seawater and pure tin, was first found on the wreck of the SS Cheerful off the coast of Cornwall, then later discovered in the Sharm Abhur Cove, Jiddah, Red Sea, from which its name is derived, and at a few other tin-laden shipwreck localities worldwide.



Abhurite, SS Cheerful (FOV 8mm)

Chalconatronite, $\text{Na}_2\text{Cu}(\text{CO}_3)_2 \cdot 3\text{H}_2\text{O}$, a copper mineral with bright blue crystals, found on ancient bronze artifacts that have been treated with an aqueous Na_2CO_3 solution.

Calclacite, $\text{Ca}(\text{CH}_3\text{COO})\text{Cl} \cdot 5\text{H}_2\text{O}$, the most serendipitous – a white fibrous mineral that occurs in oak museum drawers when minerals placed in the drawers react with acetic acid derived from the wood.

Sources: mineralchallenge.net, Guardian online, mindat.org, Google images.

Pacific Micromount Conference

BAM members, including Dan Evanich, Cliff Imprescia, Ted Hadley, David Lowe, Herwig Pelckmans, Stan Bogosian, and Barb Matz attended the recent Pacific Micromount Conference in Redlands CA. As always, the talks were great and the giveaways abundant. This year, the weather cooperated too! On Sunday, most of the group went on the conference field trip to the Blue Bell Mine, then continued to other collecting localities on their way to Tucson. Barb and David (the two non-retirees) managed to fit in a side trip to the Brilliant Ledge for tiny azurites and malachites on their way home.

BAM Dinner at Tucson

We had a good showing of 19 BAM members and friends at El Minuto Restaurant. Judging from the noise level in the room, everyone had a good time, and also enjoyed the fact that the restaurant had gotten its renewed liquor license that same day!

Coming Next Month

The April newsletter is planned to feature an article on “A Cute Fluorite from Dalnegorsk” by Herwig Pelckmans, with Jon Sigerman (of Crystal Gazers). Technical issues prevented it from being published this month.

Upcoming Shows

March 3-5, Newark CA

Mineral & Gem Society of Castro Valley
Newark Pavilion, 6430 Thornton Ave.
Hours: Fri & Sat 10-6; Sun 10-5
www.mgscv.org

March 18-19, San Jose CA

Santa Clara Valley Gem & Mineral Society
Santa Clara County Fairgrounds
344 Tully Road
Hours: 10-5 daily
www.scvngms.org

April 8-9, Mariposa CA

Mariposa Gem & Mineral Society
Mariposa County Fairgrounds
5007 Fairgrounds Rd / Hwy 49 South
Hours: Sat 10-6; Sun 10-5
www.camineralmuseum.com

A FEW MORE TUCSON SHOW PHOTOGRAPHS, by Barb Matz



Some of the very nice Copper Country specimens in the Seaman Museum display.



The theme was Midwestern Minerals, and everyone had to get in on it!



I wondered if this was a clearance sale?



Here's a new way to display your grape agate.



This case was centered on a very nice copper fan, created when miners tried to remove solid masses of the metal using a hammer and chisel!



A giant Gila monster was observed at the Tucson City Center [aka InnSuites] Hotel.