

The Conglomerate

Newsletter of the Baltimore Mineral Society

www.baltimoremineralsociety.org

Volume 13, No. 4

April, 2018

April Meeting: A Visit to the Yale-Peabody Mineral Collection

Yale University in New Haven CT. began its systematic collection of specimens for teaching and research in 1802 when the noted mineralogist Benjamin Silliman was appointed Professor of Chemistry and Natural History. Silliman built an outstanding collection of minerals which he used in pioneering the teaching of geology and mineralogy. The collections were open to the public for viewing and attracted many.



In 1866 the Peabody Museum of Natural History was founded with a gift of \$150,000 from wealthy financier George Peabody and a new building to house the extensive collection of minerals, fossils, etc. was opened in 1924 replacing the original one built with Peabody's gift. With

the opening in 2016 of David Friend Hall, made possible by a monetary and specimen gift from alumnus David Friend, the museum was able to house additional specimens for viewing.

Last October, Carolyn and Steve Weinberger took the opportunity of visiting the Peabody while in Connecticut representing BMS at the Eastern Federation Convention.

During our April 25th meeting they will share images of some of the specimens they viewed there. Some will "knock your socks off"!

We'll begin at 7:30 pm at the Natural History Society of Maryland. The meeting will be hosted by Herb Close and Steve Dyer.



Benjamin Silliman

Interested in Giving a Program?

President Al is always looking for good programs for our meetings. If you know of someone who would be willing to come and speak to us, or if you're willing to step up and present a program yourself, please contact Al (see the roster for his contact information).

Baltimore Mineral Society

The BMS was established in order to allow its members the opportunity to promote the study of mineralogy and to act as a source of information and inspiration for the mineral collector. We are members of the Eastern Federation of Mineralogical Societies and affiliated with the American Federation of Mineralogical Societies.

Meetings are held the 4th Wednesday of each month (except November, December, June & August) at the Natural History Society of Maryland beginning at 7:30 p.m. Visit the club website <www.baltimoremineralsociety.com> for directions.

Yearly dues are \$10 for individual members and \$15 for family memberships. Send payment along with your name, list of family members, if applicable, address, phone and e-mail to: BMS, PO Box 302; Glyndon, MD 21071-0302.

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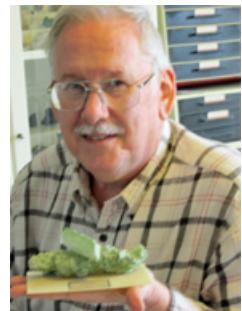
Write for "The Conglomerate"!

Send news, announcements, comments, observations, or articles to <mseeds@fandm.edu>. No e-mail? Hand in your submission at a meeting.

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President's Message

by Al Pribula, BMS President



Ah, Spring! It's always nice when the weather turns warmer. (But, in Baltimore, the weather never seems to make up its mind. This week, daily highs have gone from the 40s to the 80s and then back to the 40s.) Daffodils, magnolias, forsythias, crocuses, and hyacinths have all come into bloom, and we'll soon have tulips and lilacs. (And, of course, onions, dandelions, and other weeds, but we'll overlook those.)

Spring also brings a lot of mineral-related activities in our area. We've already had the Delaware show (well, sort of...) and the Montgomery County show, as well as the Atlantic Micromount Conference in Alexandria, VA earlier this month put on by the Micromounters of the National Capital Area (MNCA). Those of us who attended that event heard a great series of talks given by the Belgian mineralogist Herwig Pelckmans. We learned about minerals in the isometric group ("Fluorite and Friends") and the orthorhombic group ("Topaz and Friends"), as well as minerals and mineralogists from Belgium and the Democratic Republic of the Congo (formerly Zaire, and before that, the Belgian Congo). There were also dealers, silent and voice auctions, plenty of mineral fellowship, and real Belgian chocolates that Herwig brought from home. As always, a pleasant event well-run by Kathy Hrechka of the MNCA. Even if you're not a micromounter, you should consider attending this event next Spring (and, of course, our own micromount Symposium in October).

Spring also brings the annual show put on by the Chesapeake Gem and Mineral Society. As was announced at the March BMS meeting by show chair Bernie Emery, this year's show will be at a different venue than in the past few years. The show will be from 10 AM – 4 PM on May 19th at the **Parkville National Guard Armory**, not at the Towson National Guard Armory as originally planned. It's always a great event, with lots of dealers (minerals, fossils, gems, and jewelry), a silent auction (where items often go for very low prices), activities for younger collectors, and plenty of good mineral fellowship. And, the price can't be beat: free!

And, from 6 – 10 PM on the evening of May 19th (yes, it will make for a long day for those of us who will be set up at the CGMS show!), the Natural History Society of Maryland will be putting on its Spring Gala. The building is being spruced up (you'll notice some of the changes when you come for this month's BMS meeting) and lots of

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Minutes From our Last Meeting

by Chris Altizer, Acting Secretary



President Al Pribula called the March meeting to order at 7:36 p.m. Minutes of the previous meeting were approved by consensus. Treasurer Carolyn Weinberger was not in attendance, however elected officials announced that the society was solvent.

Unfinished Business: None

New Business: None

Field Trips: Bob Eberle is continuing his search for sites in Western Maryland and was awaiting further information, he will inform us of his findings when information comes available at the May Meeting.

Announcements: ***Venue Change*** The Chesapeake Gem and Mineral Society will have its Annual Gem and Mineral show on May 19th now being held at Parkville Armory.

Al as promised, brought unidentified samples from the NHSM basement collection to the meeting for input and identification. This is a big hit with the members as it showcases their collective knowledge, and is a thought provoking exercise.

Mineral of the Month: Pyromorphite samples were brought in for show by BMS members were well received by all attendees.

The break at 8:07 was followed by a DVD showing entitled "Pakistani Gem Treasures" given by Dr. Peter Lyckberg at the 2017 Dallas Mineral Collecting Symposium which was not only rich in information and cultural knowledge, but also showed humans at their best.

Chris Altizer
Acting Secretary

President's Message

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new exhibits will make their debut, showing much more of the Society's collection than is currently on display, and tours of the collections area of the building will be available. The Maryland mineral display has been expanded, and many of the Society's minerals from outside Maryland will be put out in a separate display. The event is being billed as an Evening of Victorian Curiosities. So, you are all invited to this fund-raising event to help support our "host" organization. More information will be available at the BMS meeting.

And, as if that's not enough, the Herring Run Archaeology Project will have its Spring field season from April 22 - 29. (I wrote about this project in the Conglomerate a while back.) If you want to get your hands dirty, you can volunteer to help with the dig any time that week. The previous digs have been very successful at finding artifacts (bottles, nails, glass, marbles, pins, coins, etc.) from a house that burned down many years before the area was made a city park. If you're interested in the project but aren't able to participate in the dig, the Public Day for the project will be on Saturday, April 28 from 10 AM – 2 PM. More information can be obtained from project co-director Jason Shallenhamer at herringrunarchaeology@gmail.com.

So, if you're bored around this time of year, you have nobody to blame but yourself. Come to the next meeting to hear Carolyn and Steve talk about their visit to a great museum, and get out to participate in some of the many activities available in the area.

Al

Field Trip May 5th

Bob Eberly

We have a collecting trip planned for the National Limestone Quarries on May 5, 2018. Meet at 9:00 am



Collecting at Mt Pleasant Mills
Photo: Jake Slagle

at Middleburg Quarries office, collect in the quarry for a while, then drive to Mt. Pleasant Mills Quarry for the next few hours. Directions will be on the "Members Only" page of our web site next week.

They have blasted in the dark limestone at Middleburg. Fluorite and Celestial may be found. The normal selection of calcite's, dendrites, fluorite and wavelite. There is always something great to find in these two quarries.

If time permits we'll also do some fossil collecting at Seven Stars road cut until dark on the way home.

Full safety gear (hard hat, steel toed shoes, safety goggles, reflective vest, gloves) is required for all field trips. You will also need some "rock wrap" (old newspaper or tissue) for your specimens, a bucket, box or sturdy sack to put them in and perhaps a cart to help transport them back to your car.

You must call me by May 3rd to let me know that you are coming. My number is in the roster. If no one is home, just leave a message.

Field trips are reserved for currently paid members of BMS or Chesapeake Gem and Mineral Society.

Mineral of the month--Anatase TiO₂

by Steve Weinberger, photo: Wikimedia Commons

Anatase forms in the tetragonal system and is found in fissures of marriage rocks?

It's crystals are steep dipyramidal and striated perpendicular to the "c" axis. Chemically it is similar to rutile and brookite.

As for the physical properties--color varies from brown to blue, black, or red-brown. It can be transparent or almost opaque. Luster is sub-metallic to adamantine, streak is nearly colorless, hardness 5.5-6, density 3.8-4, and it can be pleochroic. Cleavage is perfect and there is conchoidal fracturing?

The most important occurrences are in Alpine fissures associated with quartz, brookite, rutile, adularia, hematite, and chlorite? Areas that have produced nice specimens include England, Germany, Mt St. Hilaire, Arkansas, Czech Rep., Siberia, Switzerland, Austria, Italy, Wales, Norway, Brazil, Virginia, and South Africa.

References: Bernard & Hyrsl. Minerals and their Localities
Kerbel, Petr. Minerals Encyclopaedia.
Sinkankas, John. Mineralogy for Amateurs.



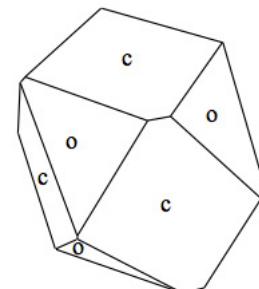
Hardangervidda, Hordaland,
Norway
Photo: Carles Milan

Collecting Crystal Faces: Isometric System Part II - Combinations of Forms

text, photos and drawings by John Vanko ©2017

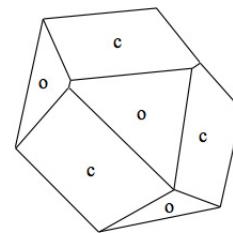
Some of the most interesting crystal specimens exhibit more than one form. Because the Isometric System, also known as the Cubic System, includes many common minerals that often show combinations of forms, we'll look at a few examples you should be able to find in your collection, or at a mineral show.

First is a nearly equal presentation of Cube and Octahedron in Pyrite from Logrono, Spain. This specimen is slightly distorted, but the two forms are unmistakable.



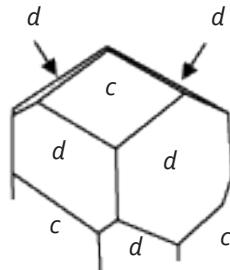
c = cube, o = octahedron

Here is another view



c = cube, o = octahedron

Next is a Fluorite from Naica, Mexico. It shows the Cube and Dodecahedron, with the latter being slightly dominant in size. This one is a little tricky, because we might expect the Cube and Octahedron together. But when we count the number of faces of each kind, if the crystal were complete, and examine the surface texture, we see there are twelve Dodecahedral faces and six Cube faces. If the 'other' faces were Octahedra, then there would only have been eight of them.



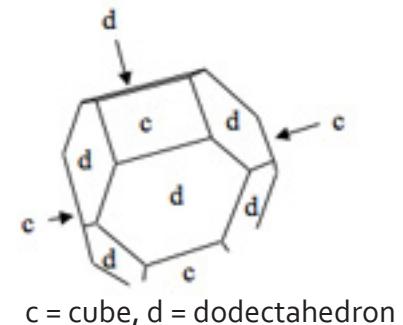
c - cube, d = dodecahedron

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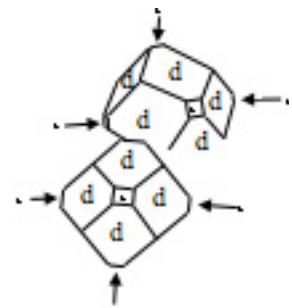
Crystal Faces

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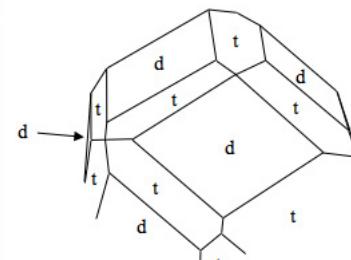
Here's another view. That's Pyrite inside, if you're wondering.



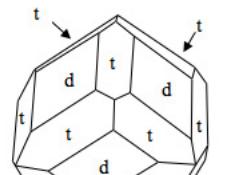
Dodecahedron is perhaps the most common form in Garnet, but Cube is one of the rarest forms you'll ever see in this mineral. Here they are together, major Dodecahedron and minor Cube, in Grossular from Snohomish County, Washington.



Garnet is wonderful for combinations of Dodecahedron and Trapezohedron. Below are two examples, the first with major Dodecahedron and minor Trapezohedron, the second with the forms more equal in size.



Here's another garnet.



t = trapezohedron, d = dodecahedron

Look through your collection and find examples of combinations of Isometric forms. Label them and start a new shelf of Crystal Forms. If you don't seem to have suitable examples in your collection, you know what to look for at the next mineral show.

Teenager's Rock Museum Smashed

by Mike Seeds

Thirteen year old Judah Tyreman of Saskatchewan, Canada is a dedicated rock hound, so it was natural for him to open his own museum to educate his town about rocks and minerals. With the help of his little sister, Avi, he raised money by doing everything from mowing lawns to starting a Kickstarter web site. His Sesula Mineral and Gem Museum and Rock Shop opened in his hometown of Radison two years ago. It even had its own gift shop where he sold mineral related jewelry and other rockish items.

But one recent Saturday night thieves broke in and trashed the place. They broke display cases, scattered minerals across the floor, and took \$6000 to \$8000 in minerals including an ocean jasper valued at \$3000. They even took the contribution jar from the gift shop.

Judah went to work to reopen his museum. He has been raising money and finding helping partners. Web well-wishers from as far away as China have contributed money and specimens. The Royal Saskatchewan Museum has donated duplicate minerals, and Judeh has established a GoFundMe page where he has raised over \$9700. He has now reopened his museum.

Visit Judah's museum and rock shop at his web page <http://www.cbc.ca/news/canada/saskatoon/judah-tyreman-launches-radisson-rock-museum-1.3651518> See his photo and story and consider making a contribution at <https://www.gofundme.com/13-year-old-vows-to-stay-open>

Report: March Mineral of the Month

text and photo by Mike Seeds

The mineral of the month for March was pyromorphite, a favorite of mineral collectors everywhere. The pea green crystals range from microscopic to centimeter size, are easily available at reasonable cost, and can still be collected at some sites such as the Wheatly Mine in Pennsylvania. In the absence of Steve Weinberger, Al Pribula conducted the Mineral of the Month by explaining that pyromorphite is $Pb_5(PO_4)_3Cl$. It has a waxy luster and forms hexagonal prisms. He noted that there is actually no reason pyromorphite should have any color at all, but, of course, all mineral collectors know it is green evidently due to impurities in the crystal.



Pyromorphite from the classic locality, the Wheatly Mine in Phoenixville, PA

Jim Hooper brought a specimen of pyromorphite that he purchased at a show. It came from San Andreas, Cordoba, Spain.

Jim Staufer talked about a specimen he collected in 1966 at the Pennypacker Mine which is near Phoenixville, Pennsylvania. He also brought specimens from Silver Hill North Carolina and from China.

Al Pribula brought quite a range of pyromorphites from Idaho, Arizona, Germany, France, Mexico, Spain and from the Wheatly Mine in Phoenixville.



Al, Anna and Stuart talk about pyromorphite

Editorial: A Complaint

Mike Seeds

The following email was not received recently.

"Dear editor,

The newsletter looks really good every month, but I've noticed that micromounting gets mentioned quite often. Not everyone in the club is a micromounter. Why don't you print more stuff about field collecting, museum collections, or selecting good specimens at rock shows?

A Friend"

Dear Friend,

Thank you for raising that issue. You are right. Your editor is a micromounter, so he thinks mostly about little rocks that are amazingly fantastically beautiful under a microscope. But he isn't much good in a quarry and he doesn't get to shows and museums very often. Other members are expert field collectors, visit museums, and know all about finding bargains at shows. But they don't send anything to The Conglomerate, so their interests don't get discussed much. That's too bad.

So, since you are interesting in larger specimens, how about writing a few paragraphs or sending in a few photographs about your main interest? Have you been to a good show, a bad show, an interesting quarry? Just write some things down and your editor will fit it in as a story about your personal interest in rock hounding. You can make the newsletter represent your interests just by sending in a few words or photos

Peace – Your Editor

Shoebox Adventures 76: Rings

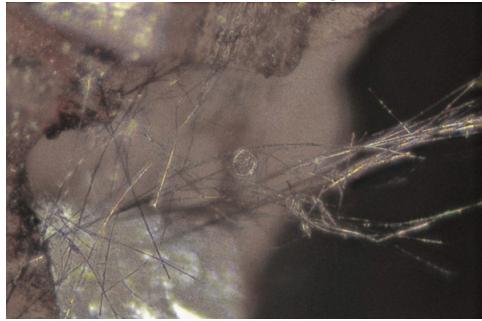
text and photos by Mike Seeds

Does your collection contain any minerals that take the form of balls? Yes, probably. Lots of minerals form balls. And sticks and rods are common too. Surely you own some minerals that have the shapes of plates. Wulfenite, for example forms nice plates. But what about rings? Got any rings?

I first met a mineral ring some years ago when micromounter Frank Ruehlicke gave me a boulangerite, $Pb_5Sb_4S_{11}$, specimen and said, "Look carefully; there's a ring in there." It took quite a bit of looking and some help from Frank, but I finally found it – a ring shaped rock.

The boulangerite is from Madoc in Ontario, and it is a mass of thin gray filaments as fine as hairs. That's typical of boulangerite. Sometimes the hairs are radiating and sometimes they are a tangled mess. Sometimes they are free standing and sometimes they are imbedded in some other mineral such as calcite. If you own a boulangerite specimen, look carefully because sometimes a filament can curl back on itself and form a beautiful ring.

Boulangerite rings are not common, but specimens from the Rogers Mine seem more likely to contain rings. The mine is now overgrown by forest interrupted by beaver ponds, but collectors have visited the dumps in recent years and found boulangerite including rings. Boulangerite is found in other places, but rings are not as common as they are in the Madoc area. Something in the water perhaps.



Boulangerite ring (center) from the Rogers Mine. Field of view 5 mm.

Boulangerite can also form cylinders as the filament curls back on itself and continues round and round to make a coil. In most cases the cylinders are shorter than the diameter of the ring, but some cylinders have been found that are longer.

There are five boulangerite rings in my collection and I never miss the chance to add more boulangerite in the hope that a ring will turn up somewhere in the tangle. Although I've never tried to measure the diameter of the rings, my impression is that they are all about the same size. If someone said that boulangerite rings are always the same diameter, it would make sense – some atomic-level mischief causes the curl, and the same dance of atoms should always produce the same curl. But you can't trust mother nature. She is much too ingenious to trust without direct measurements.

One collector commented that boulangerite rings have a maximum diameter of 200 microns, which would be 0.2 mm – consistent with the rings I see. But if that's the "maximum" diameter, that suggests there is a range of diameters.

Boulangerite is not the only mineral that forms rings. Jamesonite rings are known, and some people refer to pyrite rings found in Halls Gap geodes. Note, however, that the metallic filaments found inside those geodes are generally recognized to be millerite, and specific millerite rings have been found. Rutile is also known to form rings, and an Ed Quick mount of a thin slice of topaz contains imbedded rutile filaments that form two rings one larger than the other.

Keep your eye out for rings among your filamentary mineral specimens. You will have to be patient and look carefully to find them as they are generally quite small. You will need a microscope, but there's nothing wrong with that.



Boulangerite ring on calcite, Rogers Mine, Madoc, Ontario, Canada. Field of view 5 mm.

but rings are not as common as they are in



Two rings of rutile imbedded in topaz are located right of center. Tepetate, Potosí, Mexico.

An Ed Quick mount. Field of view 4 mm.

The Conglomerate

Mike Seeds, Editor
2412 Lime Spring Way
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Events Near and Far

April

19-22: 45th Annual Rochester Mineralogical Symposium, Rochester, NY. Lectures by mineral experts from around the world. Info: www.rasny.org/minsymp/

21: Patuxent Lapidary Guild Show 10 am - 5 pm, Earleigh Heights Fire Co. in Severna Park

25: BMS Regular meeting – 7:30 pm

May:

1: Gem Cutters Guild meeting at Meadow Mill

11: Chesapeake Gem & Mineral Society Mtg. Info at chesapeakegemandmineral.org 7:30 pm

19: Chesapeake Gem & Mineral Show NEW LOCATION: Parkville Armory, Towson, MD. Info and directions chesapeakegemandmineral.org

29th Annual Chesapeake Gem, Mineral, Jewelry & Fossil Show

Saturday, May 19, 2018 10 AM – 4 PM

Parkville Armory - Parkville, MD
FREE ADMISSION



**Top Mineral Dealers, Original Jewelry, Fossils,
Cutting Materials, Silent Auctions, Door Prizes**

Directions: Take I-695 (the Baltimore Beltway)
to exit 32 North (Rt 1, Belair Rd).
Proceed 2 traffic lights to Rossville Blvd. Turn left.
Continue until Rossville becomes Putty Hill Ave (at Walther Blvd).

The Armory is on the left.