

The Conglomerate

Newsletter of the Baltimore Mineral Society

www.baltimoremineralsociety.org

Volume 13, No. 8

September 2018

September Meeting Notes

For our September 26th meeting, we'll be going "out west" with well-known field collector and mineral dealer John Cornish. John has travelled and collected widely in the Western US for more than 20 years, and has been responsible for bringing out many fine mineral specimens.



In this presentation (given at the 2016 Dallas Mineral Collecting Symposium) titled "Blistered Fingers – Field Collecting in the Western USA," we'll be regaled with many tales of the collecting adventures he has survived through the years, including some expert tips on collecting methods and tools. Come and listen to this entertaining presentation from one of the premier field collectors currently working.

The meeting will be hosted by Mike Seeds and will begin at 7:30 pm. For directions, visit the BMS website at <http://baltimoremineralsociety.org/directions.html>.

Heulandite-Ca, Mordenite
Rats Nest Claim
Chalis, Custer Co. OR
Photo: r. Lavinsky, I-rocks.com



Proposed ByLaws Changes

by Carolyn Weinberger

Making changes to our club bylaws is not something that should be done frequently and when they are, the changes are made after considerable thought in the interest of making the organization better.

There are two changes that the Board has approved that we feel need to be made. We will vote on these changes during our July meeting. If approved, they will become effective immediately.

Article III, Section 2: Membership

Current - Family Membership shall include husband, wife and all children under the age of 18 residing in the home

Proposed change - **Family membership shall be defined as two adults living in the same home along with any children under 18 years of age.**

Rationale: In the modern world where couples live together without being married or where one member uses their maiden name rather than married name, we should not ask their status. In addition, some families have older adults living in the home and caring for children.

Article IX, Section 1: Fees and Dues

Current: Annual dues for Active Family memberships shall be \$15.00 for husband and wife and all children residing in the home under the age of 18.

Proposed change: **Annual dues for Family memberships shall be \$15.00 for two adults living in the same home and all children residing in the home under age 18.**

Rationale: To balance Article III, Section 2

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.

Officers:

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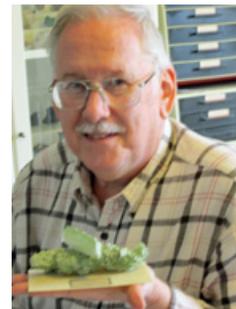
Write for "The Conglomerate"!

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



Well, Summer is almost over, and Fall always brings to mind kids going back to school, cooler weather (at least I hope so!), leaves changing color, and...Symposium! Our annual Desautels micromount symposium will be held next month, on October 19-21. And, yes, the word "micromount" is in the title, but anyone with an interest in minerals will enjoy attending this event. There will be auctions, dealers, talks, inductions into the Micromounters' Hall of Fame, and lots of fellowship with other mineral collectors. Please plan on attending the Symposium. If you haven't yet received the information flyer, contact Carolyn Weinberger to get a copy or download the information from the BMS website. And also please volunteer to help the Society with its biggest event. We can always use help with setup on Friday evening, tear-down and clean-up on Sunday afternoon, and with odd jobs before and during the entire event. Let me, Carolyn, or Mike Seeds know how you'll be able to help out that weekend.

Let's hope that the weather cooperates for this month's meeting. We decided to cancel the July meeting because of the serious flooding which was taking place around the area and hindering travel. I hope that all of you (and your collections) made it through those days safely. This month, we're going to show the video of the talk by John Cornish which was originally scheduled for the July meeting. As always, meeting presentations by members would be welcomed. You don't have to be a polished speaker to give a presentation. A brief talk about some mineral or topic of interest to you would be fine, or a series of pictures of your latest collecting adventure or mineral- or geology-related trip (to a museum, national park, or other place of interest) would also serve as an interesting program. (As you are reading this, I'll be in Utah visiting Zion, Bryce Canyon, Arches, and Canyonlands National Parks, and I hope to bring back photos and specimens (obtained in rock shops, not collected in the National Parks!) from my trip to use in a future presentation.) And even if you don't want to give a presentation, any photos you may have would be welcomed by Mike Seeds for inclusion in the Conglomerate.

Also in September is the annual Atlantic Coast Gem, Mineral, Jewelry, and Fossil Show sponsored by the Baltimore Gem Cutters' Guild, to be held at the Howard County Fairgrounds on September 22-23. This is always a good show, with lots of quality dealers and interesting exhibits and demonstrations, and with plenty of activities for the "junior rockhounds" in our families. Unfortunately, I won't be returning from my trip until after the show (but before our meeting!), so I'll be missing this year's show, but I know that Bernie will do a great job (as always) as show chairman. Plan on attending the show and supporting one of our "sister" clubs.

I also want to remind all of you about the monetary situation at min-dat. In my July message, I pointed out that they currently need funds to continue operation. (A promised donation is being held up in the

Desautels Program Set for Oct. 19-21

Text and Photos M. Seeds



Cornwallite has formed round balls on the white matrix in this specimen. Clara Mine, Black Forest, Germany. Field of view 3.4 mm.

Three fascinating talks are booked for the October Desautels Symposium at the Friends School right here in Baltimore. Given by experts in their fields and illustrated with color slides of fascinating minerals, the talks promise to be highlights of an exciting Symposium.

Saturday afternoon, Hall of Fame inductee Janet Clifford will speak on one of her favorite subjects, "Round Minerals". If you have any specimens that are round, you know how fascinating they are compared with angular crystals.

Saturday evening, Hall of Fame member Pete Richards will speak on "Aspects of The Morphology of Quartz".

The faces on this quartz crystal are outlined by black crystals deposited along the crystal edges. The black crystals are probably hematite. Field of view 9 mm.



You certainly have some quartz in your collection and you are probably familiar with some of the strange forms that quartz can take.

An extra treat Saturday evening will be a short video program honoring Hall of Fame inductee, Philip Foster. Prepared by Tom Mortimer, the 13 minute program shows the ingenious way Foster prepared and protected his minerals.

Sunday morning, Quintin Wight will speak on "Micromounting and Science". Micromounting and rock collecting in general is much more than just a hobby. In many cases, our mineral hobby contributes to scientific exploration.

You don't have to be a micromounter to come and enjoy the talks and other activities. Minerals are minerals regardless of their size! This is our "main event" as a club for the year, so come and join the fun.

Of course, the Symposium will also include mineral dealers, auctions of specimens, giveaway tables, and more. For information, see the BMS web site <<https://www.baltimoremineralsociety.org/desautels-symposium.html>>, or ask Carolyn Weinberger for registration forms. Or just walk in the door. Advance registration preferred, but is not required.

President's Message

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legal system.) As of this writing, almost half of the needed funds have been donated, but the need is still there. A number of BMS members have already made donations. If you haven't already donated, I encourage you to do so; if you have donated, that's great, but an additional contribution would certainly be appreciated to help support this very valuable resource for all those interested in minerals.

That's all for this month. Stay cool, play hard, and work on your mineral collections.

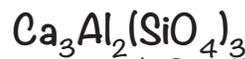
Al

Minutes From our Last Meeting

by Jake Slagle, Secretary

The July meeting was cancelled due to heavy rain and flooding in the area and there was no August meeting scheduled. We did have a successful field trip to Mt Pleasant Mills over the summer and some of our members participated.

Mineral of the Month: Grossular (Garnet Group)



by Steve Weinberger. Photos: Wikimedia Commons

Since the July meeting was cancelled due to heavy rain and potential road flooding, we'll use the same Mineral of the Month as then.

The name grossular comes from the New Latin grossularia or "gooseberry" for its resemblance to that fruit. It forms in the cubic system whose crystals are often rhombododecahedral, trapezohedral, or combinations of forms. Colors vary depending on additional metallic ions: yellow-brown (hessonite)—increased iron; green (tsavorite)—increased V and Cr.



Jeffrey Quarry, Asbestos
Quebec, Canada.
Photo: R. Lavinsky, I-rocks.com

Physical properties: More inclusive colors include colorless, white, yellow, green, red, pink, red-brown to black; vitreous luster; white (or clear) streak; hardness 7; density 3.60; index of refraction (N) 1.73-1.75.

Grossular (grossularite) is found in metamorphosed limestone (associated with wollastonite, diopside, chlorite, idocrase and calcite.) It occurs world-wide but some of the more famous locations include Southwark Asbestos Pit, Quebec; Androscoggin County, Maine; Calumet Iron Mine, Chaffee County, Colorado.

World locations are in many countries such as Mexico, Italy, Siberia, South Africa, Romania, Germany, Switzerland, Mali, India, France, and Tasmania.

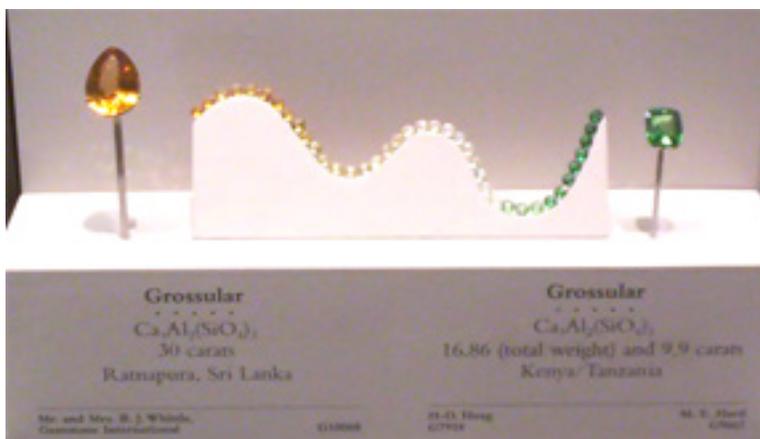
This is a mineral that I would guess most of you have, so why not bring in a few examples for the mineral of the month table and if you don't want to talk about them, just raise your hand when we point to them.



Kayes Region, Mali
Photo: R. Lavinsky, I-rocks.com



Jeffrey Quarry, Asbestos
Quebec, Canada
Photo: R. Lavinsky, I-rocks.com



Shades of Grossular
Smithsonian National Museum of Natural History
Photo: In the public domain

References:

- Bernard & Hyrsl. *Minerals and their Localities.*
- Guastoni & Appiane. *Minerals.*
- Sinkankas. *Mineralogy for Amateurs.*

Collecting Crystal Faces – A Crystal Optical Illusion

Text and Photos by John Vanko © 2018. Used with permission of the author

Identifying crystal faces is a rewarding aspect of mineral collecting all by itself. But it can suffer from the same problem as general mineral collecting in the field. With a new specimen, how can you be sure what mineral you have in front of you? With a new crystal, how can you be sure exactly what that crystal face is?

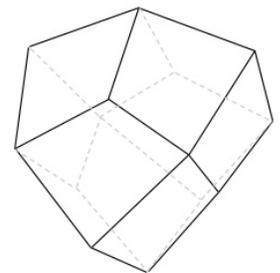
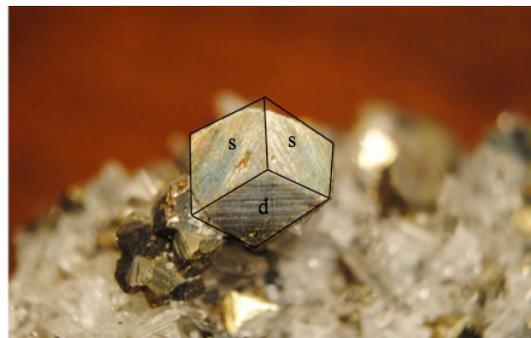
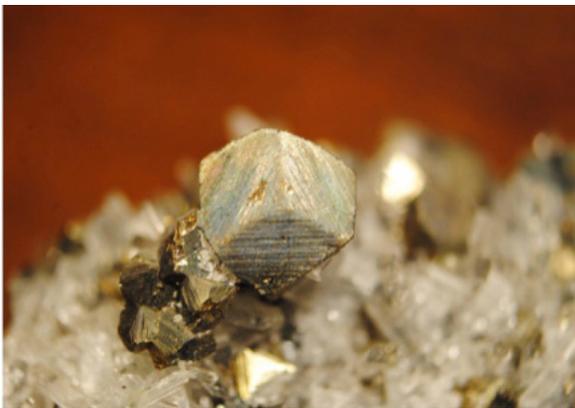
We can rely upon labels that accompany specimens we buy at mineral shows, but these can be wrong - I have several examples (another fascinating collection - misidentified minerals). When we collect minerals in the field, there is always the question - just what is this?

Typically, we use color, texture, and association, to identify unknown minerals. Based upon what has been found there before by others, and what easily-recognized minerals the unknown is associated with, we can make an educated guess. Rarely does the average collector use chemical or optical tests, although they usually can nail it down.

With crystal faces we must rely upon the known crystal class of the specimen, the known forms that class can exhibit, and the relationship of the unknown form with adjacent known forms. That's how we do it. Rarely, a very astute collector may have a goniometer to measure angles between faces. This ultimate test requires an undistorted specimen - and I have plenty of crystals that are "bent" or "stretched" beyond the norm.

If these difficulties weren't enough, we have some crystals that mimic different forms in other classes. I call these Crystal Optical Illusions. Let me explain, by showing an example.

Chalcopyrite is known to crystallize in the Tetragonal System - Tetragonal Scalenohedral Class. You will remember that the Tetragonal System has three axes, all at right angles to one another, but one axis (usually portrayed as the vertical axis) is either longer or shorter than the other two equal axes. In Chalcopyrite the vertical axis is almost exactly 2 times the horizontal axes, giving rise to angles within 1.5% of similar Isometric forms.



*s = tetragonal scalenohedron
d = negative disphenoid*

Chalcopyrite, Groundhog Mine, Vanadium, NM

So Chalcopyrite, giving just the right faces of just the right size, appears Isometric to the eye.

The specimen pictured here, from the Groundhog Mine in Vanadium, New Mexico, 8.3 mm or 0.325" across, looks like the Deltoid Dodehedron of the Hextetrahedral Class of the Isometric System. Without measuring angles, you would never know that two of the big faces are Tetragonal Scalenohedra while the lower face is a negative Disphenoid.

The next time you go to a mineral show, or look through your own collection, keep your eyes open for a pseudo-Hextetrahedral Chalcopyrite. You might just have found yourself a Crystal Optical Illusion.

Pictured here is a specimen of serpentine collected circa 1940 at the chromite bearing serpentine barrens of Bare Hills in Baltimore County, Maryland. It is one of several such specimens The Natural History Society of Maryland owns. Very likely Charles Ostrander and/or Walter Price, the Society's prominent curators at the time, collected them. The NHSM labels identified the specimens as "baltimorite". Minerals of Maryland, the NHSM publication that these two curators co-authored in 1940, may have been the last regional publication to suggest that "baltimorite" was a species or variety of a species.



Serpentine
Bare Hills, Baltimore Co. MD

Mindat describes baltimorite as a "synonym for antigorite." along with 11 other names including "gymnite" and "porcellophite." Interestingly, Minerals of Maryland refers to "gymnite" and "porcellophite" as separate minerals that also occur, along with "baltimorite," at Bare Hills. The three names have since all but disappeared from mineralogical parlance, although Bernard and Hyrsl's Minerals and Their Localities refers to gymnite as a synonym for [deweylite](#), which is typically identified as a mixture of several varying different species that can occur together at some of central Maryland's serpentine outcrops.

In addition to naming twelve antigorite synonyms, Mindat also names eight varieties of antigorite. Two of them, williamsite and chrome antigorite, are known to those who collect in the serpentinized areas of Central Maryland and Southern Pennsylvania. Highly valued in lapidary circles, williamsite is best described as a solid and translucent apple-green antigorite included with specks of black chromite. Chrome antigorite displays varying amounts of reddish purple coloring attributed to the presence of chromium. It is usually columnar or fibrous and known to occur primarily at the now off-limits Woods Chrome Pits in Lancaster County, Pennsylvania just a few miles north of the Maryland state line.



Name: Serpentine, var.
Baltimorite (Picrolite)
Comp:
Locality: Bare Hills, Baltimore Co., Maryland
Coll. 1942 No.



This Picrolite is green

Antigorite, lizardite, and chrystotile are the best known of 13 species in the serpentine subgroup. In addition to these 13 species, the serpentine subgroup as an entity boasts eight varieties, none of them approved as species in their own right.

One such serpentine subgroup variety is picrolite. Mindat defines picrolite primarily by habit as "a columnar or coarsely fibrous (non - asbestiform) variety of serpentine commonly referred to as a variety of anti-

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gorite, but may be other species." The most common of these "other" species are the serpentine subgroup mineral species lizardite and chrysotile. Picrolite is ubiquitous at nearly all the serpentine exposures in central Maryland and southern Pennsylvania. Note the label on the NHSM specimen shown here: "Serpentine, var. baltimoreite (Picrolite)." It makes sense. Here it can be assumed that the term picrolite was used to refer to the columnar habit of the sample. The original material that was given the name baltimoreite in 1843 and wherever else the name was used thereafter matched the Mindat description of picrolite. Typically the color of picrolite is green as shown in the image shown here. Interestingly the color of the several "baltimoreite" specimens at NHSM---which are the only specimens anywhere so labeled that we are aware of--- is brown. Would it be unreasonable to colloquially refer to picrolite of brown color as "baltimoreite?" An interesting aside is that the approved species known as "chrome antigorite," like picrolite, is almost always columnar.

It was Thomas Thomson, a British mineralogist, who came up with the name baltimoreite in 1843 (Phil. Mag.22, 1911). He had recently received a specimen from the well-known American scholar and collector Francis Alger. Collected at Bare Hills in Baltimore County, the specimen was opaque with a silky luster and consisted of longitudinal fibers that adhered to each other. Alger had referred to the material as "asbestos and chrome." Thomson studied the specimen. After ruling out the presence of asbestos as well as chromium, he named it baltimoreite for the locality.

Two years later, citing Peggendorff's Annals, Vol. lxii, p. 137, The Edinburgh New Philosophical Journal, Volume 39 published in an article that the German mineralogist Karl Friedrich August Rammelsberg had found that Thomson's "baltimoreite" was identical to other material that had become known as chrysotile by Kobel. Franz Kobel was another German mineralogist, who had originally called the material Schiller asbestos. The conclusion: "As the latter (baltimoreite) was described subsequently to the former, the name of baltimoreite must be given up."

However, the baltimoreite handle endured, only to receive an additional blow in 1855 by a supplement to Dana's The System of Mineralogy. Therein it was noted that two years earlier, the German mineralogist C. von Hauer had published a new analysis of purported baltimoreite in which the chemical composition varied from the original composition given by Thomson. The Dana supplement concluded:

We have a new analysis of a stone which somebody has labeled baltimoreite. It is very wide from the original baltimoreite of Thomson (from Bare Hills, Maryland) and is no better entitled to the name than many other fibrous stones that could be gathered from our serpentine regions.

Eighty one years later in 1936, the American Mineralogical Association placed the final nail in "baltimoreite's" coffin. The American Mineralogist in an abstract of a paper by George C. Selfridge, Jr. of Columbia University entitled "An X-ray and Optical Investigation of the Serpentine Minerals" proclaimed on page 463:

Based on the results of the x-ray and optical studies and the chemical discussion---to drop the names picrosmine, picrolite, williamsite, bowenite, porcellophite, and baltimoreite for the term antigorite. The term serpentinite is suggested for rocks composed of serpentine or antigorite or a mixture of both.

The recommendation came at about the same time as the mineral aficionados at NHSM were collecting and labeling "baltimoreite" specimens from either Bare Hills or the geologically similar Soldiers Delight serpentine outcrops, also in Baltimore County. Interestingly, the NHSM labeled as "picrolite" numerous specimens from serpentine outcrops in Maryland's Harford County that appeared to differ from those labeled "baltimoreite" only by their green color.

BMS Members Attend Big Eastern Show

text and photo by M. Seeds

The "Tucson Show of the East" takes place in mid-August in West Springfield, Massachusetts. Just a 6- or 7-hour drive north of Baltimore, the East Coast, Gem, Mineral & Fossil Show fills a cavernous convention center with over 200 dealers selling everything from dollar rocks for kids to mineral specimens worth a Lamborghini. There is something fascinating for everyone's budget. Just looking at the beautiful specimens is worth the price of admission, and the shopping opportunities are impressive.



Al Pribula pausing in front of a huge slab of petrified wood.

Six BMS members attended the show this year. Carolyn and Steve Weinberger, Al Pribula, Jake Slagle, Barry Berlin and Mike Seeds spent two days looking and shopping and greeting old friends. All five came home with new treasures to add to their collections.

Mark your calendar for next August and plan to attend the "Tucson of the East". Allow two days to see it all. And bring your camera and your rock bag.

Baltimoreite

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Then in 1956, in Vol. 41 of *The American Mineralogist*, a 21 page paper by George T. Faust and Bartholomew Nagy outlined studies showing "that minerals classified as serpentines are either chrysotile, antigorite, or natural mixtures of these two minerals -- It is suggested that serpentines should be redefined in terms of the relative proportions of antigorite and chrysotile"

Notwithstanding, the endless questions, answers, and names involving various species and varieties in the Serpentine Subgroup have continued--and undoubtedly will continue -- to evolve without reference to baltimoreite For now, here is the best definition for baltimoreite we've been able to come up with: an obsolete and antiquated synonym for picrolite, a serpentine group variety, which depending upon composition may actually be antigorite, lizardite, chrysotile, or a combination of them.

We are grateful to John S. White, Past Curator in Charge of the Mineral and Gem collection at the Smithsonian's National Museum of Natural History for suggesting this story, turning us on to some of the referenced sources, and proofreading it.

Field Trip Ideas

Summer is hot down in the quarries, but autumn is here. Before the snow flies, where would you like to collect?



If you are interested in collecting trips, contact the Field Trip Coordinator Bob Eberle with ideas and suggestions for collecting sites. Do you know someone at a quarry or a property owner of a good location? Give your suggestions to Bob. 410-661-

8436. Let him know that you are anxious to dig, and he will see what he can do to make it happen.

Recent discoveries in astronomy show that the gold in our jewelry and the gold in distant galaxies was all created by nuclear fusion reactions that occur when pairs of orbiting neutron stars merge to form black holes and trigger super supernova explosions. (M. Seeds "Making Precious Gold." The Conglomerate July 2018). That would seem to explain the presence of gold on Earth, but there is a problem. The well understood principles of planet formation tell us that there should be no gold in Earth's crust.

Since at least 1938, astronomers have understood that the solar system formed from the same nebula as the sun about 4.6 billion years ago. This solar nebula was a whirling disk of gas with the sun forming at the center and the planets forming in the disk. The gas of the nebula contained gold because merging neutron stars had produced gold and other elements for the previous 10 billion years or so. When the gas condensed to form solid bodies called planetesimals (much like meteorites and asteroids), those bodies contained atoms of gold, and when those solid bits fell together to form Earth, it inherited the gold.

But there's a catch. Every time Mother Nature tries to do something, Mother Physics says, "Hold on there." In this case, the problem is that infalling bits of solids arrive with tremendous energy of motion – kinetic energy -- and that energy has to go somewhere. Some becomes light, some sound, and some gets used up smashing the surface, but a lot of the energy becomes heat. So as the Earth and planets formed, the heat accumulated and melted them to form molten worlds. When that happened, the iron and other heavy metals sank to the center of Earth to form the core. (M If you could only get to it, Earth's core could make you rich. It contains enough gold and platinum to cover the entire surface of the planet with a layer 4 meters thick. That's a bit over 13 feet, so that's a lot of bling. But you can't dig that deep; Earth's original gold is locked in the core. But there really is gold in them thar hills, so where did that gold come from? The gold in those hills was not factory installed.



This 10-inch gold specimen from the Mockingbird Mine in Colorado is a dramatic reminder that there is gold in Earth's crust. (M. Seeds)

Earth formed molten and cooled slowly. The lowest density minerals – the rocks—rose to the surface and formed a thin, solid crust by the time Earth was 100 million years old. By then the solar system had quieted down. Most of the debris had been ejected or swept up to form planets, but eventually Mother Physics started messing around.

The big outer planets, Jupiter, Saturn, Uranus, and Neptune interacted gravitationally, and they began to move. Uranus and Neptune crept outward and Jupiter and Saturn crept inward. That stirred up the orbits of leftover planetesimals, and some were ejected from the solar system, some were thrown into the sun, and some were pushed into orbits that intersected planets. The Apollo moon rocks show clear evidence that the moon was battered by a storm of meteorites from about 500 million to 800 million years after the formation of the solar system. That storm, called the Late Heavy Bombardment, battered all of the planets.



Moon rocks are almost all breccias meaning they have been smashed to tiny pieces and recemented. That shows that the moon has been battered by meteorite impacts. Careful dating shows that the moon was most heavily cratered during the Late Heavy Bombardment. (NASA)

Of course, those planetesimals that bombarded Earth during the Late Heavy Bombardment contained gold, but that gold didn't sink to the core. Earth had a hard crust by then, so the gold accumulated in the rock. That's true of many other heavy elements. Gold is more fun to talk about, but the iron, the platinum, the nickel, the titanium and

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Gold

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lots of other elements that are heavy enough to sink to the core in a molten planet, were trapped in Earth's solid crust.

If you mess with Mother Nature and Mother Physics, you should always demand to see the evidence, and some new evidence was recently found. Plate tectonics has destroyed nearly all of Earth's oldest crust, but there are a few small segments left. One is in Greenland, and scientists recently studied the abundance of titanium in those rocks. They are so old, they formed before the Late Heavy Bombardment, and titanium is much less common in those old rocks than in more recent rocks. Evidently titanium along with gold and other elements was brought to Earth by the Late Heavy Bombardment.

Next time you look at a bit of gold, remember its story. It was born in the annihilation of two neutron stars, escaped the formation of a black hole, was part of the gas in interstellar space, and smashed into the crust of ancient Earth, just so you could wear a bit of bling.

Scrambles

by Mike Seeds

Unscramble the following to spell the names of six minerals:

Zap to _____
Quite sour _____
A dim nod _____
Mail punt _____
Orchid hooters _____

Finally, what do all these have in common?

Answers on page 10

Ticks, Chiggers, Mosquitos, Oh My!

by Ellery Borow, from AFMS Newsletter, October 2018

Ticks, chiggers, mosquitos, fire ants, black flies, scorpions, venomous snakes, poison ivy earthquakes, volcanos, flash floods, and excessive heat -- oh my! Pretty much anywhere a rock collector goes one will find something in the area that needs special attention. That something can be a little thing or a big thing, but still a thing which should, for safety sake, be addressed and not ignored.

We collectors check maps, monitor tire pressure, bring water, up-date medical aid kits, research what mineral might be found in the area and soon. We might be well advised to also check into things which might bug us on our trips.... things such as bugs and bears and storms and snakes.

Fire ant bites are not fun. Mosquitos and ticks are transmission vectors for more and more diseases. Weather patterns are changing. For these and other local conditions for which the well prepared collector should be aware, there are numerous sources of data. NOAA weather services, state and local health services monitor area insect populations, and even the USGS has websites which report on earthquake and volcanic activity.

A downpour in the mountains and the resulting flash flood 6 miles away could isolate our vehicle, knowledge of how long a tick takes to transmit Lyme Disease, how to prepare for a venomous snake in the trail, precautions concerning fresh bear tracks in the area -- all these take time to research and understand but the well prepared collector is a safer collector. It is, in this time of internet, far easier and less time consuming than yesteryear to be prepared and be safe. Truly, there is sometimes too much information out there to review it all.

When traveling, most rock collectors bring at least the basics - maps, water, food, medical kit, personal protective equipment and so on.

Besides the basics, it is the wise collector who prepares for any additional hazards the area has to offer. Such additional protections might be as simple as bringing an extra strong mosquito repellent.

Please don't let little flying things bug you. Your safety matters.

Wildacres 2019

by Steve Weinberger and Helen Serras-Herman

Now that the 2018 EFMLS Wildacres Workshops are over, it's time to start planning for 2019. Our long-time speaker coordinator, Bruce Gaber has retired and been replaced by none other than **Helen Serras Herman**. Many of you know Helen from previous Wildacres sessions, from articles she's written for *Rock & Gem*, and for her occasional visits to the Chesapeake Gem & Mineral Show as a dealer.

Adding to the excitement of bringing Helen on board, is a recent phone call from the Wildacres Foundation giving us our spring 2019 dates! They will be May 20 – 26.

Here's what Helen tells us about our tentative speakers for the spring and fall sessions:

"As the new Speaker-in-Residence Program coordinator for the EFLMS Spring and Fall Sessions at Wildacres, and I have some terrific news to share with all of you.

The Spring 2019 Speaker-in-Residence will be **Renée Newman** and the fall speaker tentatively will be **Elise A. Skalwold**. I am thrilled that they have both accepted my invitation to be our 2019 Speakers-in-Residence. They are both terrific, and will give some new blood to our Wildacres sessions, as they are both new to Wildacres.

They are both acclaimed in their fields, very well respected within the trade community, and are internationally sought after speakers for gemological conferences and mineralogical symposia. They are great presenters and authors. Here are some biographical notes for Renée:

Renée Newman is a graduate of the University of California at Santa Barbara, and a graduate gemologist from the Gemological Association of



America (GIA). She was first exposed to beautiful gems while working as an international tour director in Asia, South America and the South Pacific. She worked as a gemologist at a wholesale firm in Los Angeles and acquired a wealth of knowledge on diamonds, colored stones and pearls.

Renée is famous for her consumer guide books to buying gems. Her first one on diamonds was published in 1989. For her fourteen-to-date published books Renée Newman uses many photos from designers, lapidaries, jewelry artists and gem dealers, always giving credit and publicity to them, but she also takes many photographs herself. Please visit her website for more info at <http://www.reneenewman.com/index.htm> .

Scrambles: Answers

Zap to – Topaz
Quite sour – Turquoise
A dim nod – Diamond
Mail punt – Platinum
Orchid hooters – Rhodochrosite

What do all these have in common? They are all used in jewelry.

Winter Weather Policy

If Baltimore County schools cancel their evening activities our meeting will be cancelled. You can obtain this information by tuning to WBAL radio (1090 AM) or most TV stations. You usually can also find it on the web at <wbaltv.com>. We'll also try to put out a notice via e-mail.

In addition, if the parking lot at NHSM isn't cleared of ice or snow, and is unusable, we'll send out an alert to members via e-mail as early



The Conglomerate

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Upcoming Events

September:

22-23: Atlantic Coast Gem, Mineral, Jewelry & Fossil Show, Howard County Fairgrounds, West Friendship, MD.

29-30: Franklin-Sterling Gem & Mineral Show, Littell Community Center, Franklin, NJ

October:

6: PESA Autumn Mineralfest, Macungie Memorial Park, 50 S. Poplar Street www.mikneralfest.com

13-14: South Jersey Gem, Jewelry, Mineral & Fossil Show, Jewish Fed. Of Southern NJ Annex Building, Cherry Hill, NJ

19-21: Desautels Micromount Symposium, Friends School, Charles Street, Baltimore, Maryland. <https://www.baltimoremineralsociety.org/desautels-symposium.html>

Gold

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lots of other elements that are heavy enough to sink to the core in a molten planet, were trapped in Earth's solid crust.

If you mess with Mother Nature and Mother Physics, you should always demand to see the evidence, and some new evidence was recently found. Plate tectonics has destroyed nearly all of Earth's oldest crust, but there are a few small segments left. One is in Greenland, and scientists recently studied the abundance of titanium in those rocks. They are so old, they formed before the Late Heavy Bombardment, and titanium is much less common in those old rocks than in more recent rocks. Evidently titanium along with gold and other elements was brought to Earth by the Late Heavy Bombardment.

Next time you look at a bit of gold, remember its story. It was born in the annihilation of two neutron stars, escaped the formation of a black hole, was part of the gas in interstellar space, and smashed into the crust of ancient Earth, just so you could wear a bit of bling.