



The Conglomerate

Newsletter of the Baltimore Mineral Society

www.baltimoremineralsociety.org

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May 2016

Program Notes - May Meeting

by Jake Slagle, Program Chair

Each year the Tucson Gem and Mineral Society puts on a 4 day show in the convention center, but for the two weeks prior to that, promoters and dealers set up over 40 satellite shows all over Tucson. Some are huge



*Just one of the 250 dealers who set up at the Convention Center for the TGMS show.
Photo: Mike Seeds*

parking lots filled with dealers and some are exclusive carpeted shows of high-end precious gems. You can buy anything rock related: mineral specimens, fossils, cutting rough, tools, supplies, books, crystals with special powers, jewelry, mi-

cromounts, and more. The citywide festival ends with the four-day club sponsored show in which over 250 dealers fill the Convention Center.

The May program will be given by those BMS members who went to the Tucson Gem and Mineral Show last February – Mike Seeds, Jake Slagle and Steve and Carolyn Weinberger and will briefly cover the mineral highlights of the shows. Each BMS member will get a few minutes to show slides and talk about the aspects of the show that they found most interesting. You will see photos of display cases, fabulous mineral specimens for fabulous prices, bargain minerals of stunning beauty, and more.

The meeting will take place on May 25th at the Natural History Society of Maryland, 6908 Belair Road, Baltimore, Maryland 21206 beginning at 7:30 pm and will be hosted by Jake Slagle. Don't miss The Tucson Show program.

Summer Picnic

Mark your calendar now for the annual, and always fun, BMS Summer Picnic. This year we'll be at the home of Linda Watts and Al Pribula on **Saturday June 11th beginning at 5 pm.**



As usual, the club will supply the burgers, dogs, paper goods and soft drinks. Each of us attending is asked to bring a side dish to share with the crowd.

We'll send out an "e-vite" asking you to RSVP and to let us know what side dish you plan on bringing. Directions will be on the e-vite, so watch your mailbox. For those without e-mail, please contact Al directly.

**27th Annual
Chesapeake
Gem & Mineral Show**

Saturday, May 21, 2016
10 AM – 4 PM

Ruhl Armory - Towson, MD

FREE ADMISSION

Top Mineral Dealers, Original Jewelry
Silent Auctions, Door Prizes

Directions: Take I-695 (Baltimore Beltway)
to exit 26 - York Road South
Ruhl Armory is on the east side of York Road
(across from a car dealer and funeral home)
just inside I-695.

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 at fandm.edu](mailto:mseeds@fandm.edu)>. No e-mail? Hand in your submission at a meeting.

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President's Postings

by Jim Hooper, BMS President



Seems like May hasn't gotten the message that official Spring began in March. Seems like it's been cold and rainy for a long time now. At least it's giving us something of an early start on yard and garden work and the brilliant light green of new growth in the trees, shrubberies, and lawns is all around. Even on a grey, dreary, wet day the very bright green is a promise of warmer weather to come and what I would guess will be some pretty lush foliage. 'Till then I'm still putting on sweaters and drinking hot chocolate.

Speaking of "weather permitting" we had a field trip scheduled for the second week of May to the Beaver Creek quarry that's between Frederick and Hagerstown. There's a possibility of another trip later in the month back at the Medford quarry outside Westminster. Both trips include collaboration with some other clubs in the area. Can't wait to see and hear the outcomes! Let's thank Bob Eberle for negotiating with the quarries in getting the invitations. As always safety ranks first on these trips and if you've somehow missed a reminder; everyone is required to be in a hard hat, steel-toe boots, long sleeve shirts, gloves, sturdy trousers, and a day-glo bright reflective vest or jacket.

I'd like to thank Phil Greenberg for his presentation at the April meeting on collecting antimony and arsenic related minerals and their uses in industrial and commercial applications. Also welcomes and thanks to new members and guests who attended the meeting though I don't have names in front of me. Please join with us again this month with any mineral or club questions, 'mystery minerals' and the like. And all members are encouraged to bring any questions they may have or recent finds, etc., etc.. Do be careful in your collecting trips. We are in the season now when the ticks are out looking for snacks. What a planet!



Stuart Herring and Phil Greenberg study some of the arsenic minerals that Phil spoke about. (Photo: M. Seeds)

Cheers – Jim

PS- be sure and check the last page for show news in the area!

Lynne Emery, Al Pribula, and Phil Greenberg talk arsenic minerals while President Jim Hooper presides over the front table full of cerusite specimens brought by members for the Mineral of the Month display. (Photo: M. Seeds).



Minutes From our Last Meeting

by Jake Slagle, Secretary

President Jim Hooper called the April. 27, 2016 meeting of the Baltimore Mineral Society to order at 7:30 pm. Minutes to the previous meeting of March 23, 2016, were approved without corrections.



Treasurer's Report: Carolyn Weinberger noted that the Society was financially solvent and that all tax forms had been filed.

Unfinished Business - none

New Business

Carolyn Weinberger brought up the need to set a date and place for the annual Society Picnic in June. It was resolved by consensus to firm up these criteria at the next (May) meeting. [In the interest of giving advance notice, this was done in mid-May].

Mineral of the Month

The mineral of the month was cerussite. Al Pribula, Jake Slagle Steve Weinberger, Jim Hooper, and Jim Stauffer showed a variety of specimens.

With no further business, the formal meeting adjourned at approximately 7:45 for refreshments. Immediately thereafter, Phil Greenberg gave a well received presentation regarding arsenic, its industrial and commercial uses, and arsenic bearing ores.

The meeting adjourned at about 9 p.m.

Submitted by,
Jake Slagle: Secretary

Mineral of the Month – Rhodochrosite, $MnCO_3$

photos and text by Steve Weinberger

The name rhodochrosite comes from the Greek *rhodo* (rose) and *chrosis* (coloring.) It forms in the trigonal system, usually rhombohedrons and rarely scalenohedrons.



*Rhodochrosite
with Quartz & Chalcopyrite
Sweet Home Mine
Alma District, Park Co. CO*

Crystals are coarse to fine granular, globular, stalactitic, botryoidal or massive. It can also form in parallel-banded structures good for making cabochons. The color can be pink to deep red, grayish red, orange red, green or brown. Crystals can be transparent to translucent.

Rhodochrosite's streak is white. Luster is vitreous and pearly on cleavage (which is perfect.) The hardness is 3.5–4.0 and it is brittle. Density is 3.6.

The mineral forms in middle and low temperature ore veins in young mountain ranges.

Rhodochrosite is found in many locations worldwide with some of the more important areas are in Poland, Minas Gerais, Brazil. Mexico, Peru, Czech Republic, and Kazakhstan. In the U.S. we can find it in Maine, Montana, and especially Colorado (Sweet Home Mine.)

Bring in your samples of rhodochrosite and be prepared to talk briefly about some of them.

References:

Bernard & Hyrsl. *Minerals and their Localities.*
Sinkankas, John. *Mineralogy for Amateurs.*



*Rhodochrosite
"The Emperor of China"
Wudong Mine, Wuzhou,
Guangxi Zhuang, China.*

Minerals of South America: Rhodocrosite and....Icebergs

text and photos by Alice Cherbonnier

When signing on for a recent 67-day cruise around South America, one of the things I was expecting to see was minerals in the rough, and as collectible specimens in shops in the towns and cities. Well, yes and no: the rock formations, especially along the fjords of southern Chile and in the Andes, were gorgeous, but mineral specimens available for sale were hard to come by. When we did find them, they weren't as special as what we Americans have come to expect from what's available at our mineral shows, even though the pricing was often higher than what we'd pay here.

No doubt fine mineral specimens can be found in locales our cruise did not visit. Mindat does not currently list any resources under its "Mineral & Fossil Collecting Tours in South America" category, but this structured way of collecting would most likely be the way to go, unless you're fluent in Spanish and/or Portuguese.

Especially disappointing was the rhodocrosite on offer in Patagonia and in shops in Buenos Aires and Rio de Janeiro. For the tourist market, the South Americans more likely offer their "Inca Rose" roughly carved into animals or other figures, often with pieced-on extremities (legs, beaks, feet, wings) carved out of black accent minerals (most often manganese), perhaps to fill out the shape of the rhodocrosite.

Way more popular than mineral specimens, for tourists and locals alike, was jewelry, some of the most extraordinary in the world. The H. Stern Company, for example, has swank outlets everywhere in the South American cities, even small ones that attract affluent tourists, like Usuaia in Argentine Patagonia, the setting-off point for sailing to Antarctica. (If I'd had a spare \$10,000 or so, I might have wanted a pair of 18 karat gold earrings set with intensely colored perfectly cut tourmalines.)

Thus it turned out that the most extraordinary minerals seen on this trip were....icebergs! Yes, when water crystallizes into ice, the result is a "mineral." Because our ship was relatively small, we braved the Drake Passage (one night, the waves were estimated at 60 feet) to get to Antarctica. Because it was summer at that time, glaciers had detached from the far side of the continent and floated around to the Antarctic Peninsula, the point closest to South America's Tierra del Fuego.



Note the "blue ice" in this huge iceberg.

Our ship was able to cruise slowly and silently through the chill waters, coming very close to these majestic minerals. Miraculously, it was most often sunny while we were there, so the icebergs shimmered. Often we could see "blue ice" peeking out of the white hulks. This intense color results from compression that squeezes out the air bubbles that make ice look white.

The icebergs, usually broken-off glaciers heading into the sea, come in all shapes and sizes, with much of the forms concealed below the water's surface. The pace of their travel through currents is one of many aspects of study by glaciologists—scientists whose expertise combines hydrology, geology, biology, geophysics, climatology—and meteorology; there's even a subspecialty called astroglaciology, the study of water ice on the moon, Mars and farther out into space.

Eventually the icebergs float far enough away from Antarctica that they melt—and are no longer minerals.



One of the lonely scientific stations on the Antarctic Peninsula on a rare spit of stony soil.

For the most part, the first few causes of color on the list given in Part III of the series don't involve the general mechanism of color production that I previously discussed (selective absorption of energy by excitation of electrons to higher-energy orbitals), nor are they the reason for the color in very many minerals. For this reason, my discussions of these will be relatively brief.

First on the list is incandescence. Whenever you've heated something and it became "red hot" or "white hot," you've observed incandescence. This occurs because the atoms in the sample have a high amount of energy, causing them to vibrate, giving off energy as they do. It is also observed when an electric current meets resistance (such as in the filament of a traditional (i.e., non-CFL or LED) light bulb), and in flames, where the yellow of a candle flame and the red glow of a campfire are due to this. This cause of color won't be observed in your mineral specimens unless you're in the habit of heating them to temperatures above a thousand degrees or so.

Next, we come to gas excitations. When an electric current is passed through a gaseous sample, the electrons in the atoms can absorb some of the energy and move to one of their excited states. When the electrons relax back down to the ground state, they emit very specific energies, which means that they will emit very specific colors. This is how the colors in "neon" lights are produced (although many gases besides neon are used in these devices to give their range of colors). Sodium-vapor and mercury-vapor street lights produce their yellowish and bluish light by this mechanism as well. This type of emission of color can also be induced by strongly heating the sample. If a sample of matter is heated strongly in a flame, various elements can be detected by the color given off in this "flame test" (yellow-orange indicates sodium, crimson red indicates strontium or lithium, green indicates copper, boron, or barium, etc.). Fireworks are essentially flame tests done high above the ground in a spectacular fashion. The colors of auroras are also produced this way (although in that case the excitation of the electrons is by solar (cosmic) radiation), as are the colors of gas lasers, but, again, this is not a cause of color in any known mineral.

The third cause of color is vibrations and rotations of molecules. As with incandescence, the molecules in a sample can absorb or possess energy above their ground state, causing them to vibrate and/or rotate. Since this can only happen easily in the liquid or gaseous states, and minerals are solids, this is again not a cause of color in minerals. You have observed color

due to this, however—the blue of a natural gas flame and the blue color of large samples of liquid water (lakes, oceans, etc.) are caused by molecular vibrations and rotations.

We next come to dispersive refraction and polarization. As mentioned before, when light crosses the boundary from one medium to another, it changes speed and direction. This is called refraction. The degree to which the light changes direction is measured by the material's index of refraction—the higher the index of refraction, the more the light ray is slowed down and the more its direction of travel is bent. (As a footnote: This change of direction and speed is only seen if the two materials have different indices of refraction.) For most materials, the index of refraction is different for different energies of light. The difference in the index of refraction between one end of the visible range and the other is called the dispersion of that material. If the light merely passes through the sample and its "front" and "back" faces are parallel, the amount of refraction produced on entering the sample is reversed when it exits, and the exiting light ray is the same color (or mixture of colors) as the entering light ray. However, if some or all of the light undergoes internal reflection at the "back" surface and then exits the sample in the opposite direction from which it came instead of passing through, the amount of refraction is doubled (due to two changes of medium). Due to the dispersion of the material, the "white" light which was internally reflected and is exiting the sample through the "front" surface will show a spread of colors, rather than being "re-assembled" into the mixture we sense as "white." (Something similar occurs if the surfaces of the sample aren't parallel (as in a triangular prism), and the light exiting the "back" of the sample shows the spread of colors.) If the medium is water in the form of small droplets high in the atmosphere, the result is a rainbow. If the medium is a gemstone, what is observed is a rainbow-like play of colors. For materials of very high dispersion (such as diamond, rutile, sphalerite, zircon, cubic zirconia, and "lead crystal" glass), this effect is very noticeable, and the sample is said to have "fire." The angles of the facets in a well-cut gemstone will be such that the amount of internal reflection (and hence the amount of "fire") is maximized. (In a perfectly cut gemstone, none of the light exits the sample through the "back" surface, so that it all is reflected back to the observer, maximizing the brilliance of the stone.)

Scattering of light results when a light beam bounces off the particles of a substance in random directions. The amount

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of scattering is different for different colors, with blue light being scattered the greatest amount. You have observed a color due to this effect many times. The blue of the sky and the red and yellow of sunsets are caused by the scattering of sunlight by the atmosphere, and the blue of blue eyes is caused by light scattering from the particles in the iris of the eye. When elemental gold is “dissolved” in glass, scattering of light from tiny aggregates of gold atoms produces “ruby” red glass, and tiny aggregates of silver atoms cause glass to have a yellow color. In minerals, while this doesn’t produce any distinct colors, it is responsible for the “cat’s eye” and “star” effect of some polished gemstones such as tigereye and star corundum (ruby or sapphire). If a sample is made up of fibers or has fibrous inclusions all oriented in the same direction (such as the fibers of quartz and altered amphibole in tigereye), scattering of light produces the “cat’s eye” effect, and the stone is said to exhibit chatoyancy. If it contains fibrous inclusions of another mineral which are specifically oriented (such as at 60° or 90° angles to one another), scattering of light produces the “star” effect (that is, it exhibits asterism). Oriented inclusions of rutile needles in corundum are the cause of the “star” in “star sapphires” and “star rubies.” In star garnets, the oriented “inclusions” are sometimes oriented linear voids in the crystal. Scattering of light is also responsible for the schiller in microcline (var. moonstone) and in gold- or silver-sheen obsidian.

Interference of light waves is the cause of many familiar colors. This is somewhat similar to dispersive refraction, in that the light rays are internally reflected. However, interference requires that there be a very thin film of material through which the light is passing, in contact with a bulk material (which could be air) of a different index of refraction. The light reflected from the “front” surface and that internally reflected from the “back” surface (which passes back out opposite to the initial direction) can interfere with one another. This can result in the amplification of some colors and the “cancelling out” of others, producing color as a result of this “destructive interference.” The colors of oil slicks and soap bubbles are due to this cause, as are some biological colors such as the scales of fish and snakes. When one mineral forms as a thin coating on another, an iridescent play of colors can result. Examples include as an oxidized layer on bismuth or chalcopyrite (“peacock ore”), bornite coating pyrite, hydrated iron oxides coating hematite (“turgite”), and hematite coating calcite. A thin coating of metallic gold turns ordinary quartz into “aqua aura,” with its iridescent blue color, and a thin coating of titanium dioxide produces “titanium rainbow quartz.” A thin coating of titanium dioxide or tin dioxide on glass produces a similar irides-

cence. Interference colors are destroyed if the thin film coating the mineral surface is removed by dissolving it or abrading it away. This process also explains the rainbow-like play of colors sometimes shown by cracks in glass or quartz, and interference produced from light interacting with thin Brazil-twin lamellae in quartz produces “iris quartz.”

Diffraction of light is somewhat similar to interference. Here, however, rather than there being a thin film of one material on another, the structure of the sample itself is such that there are layers of particles (much larger than atoms; usually about 100 atoms in diameter). When these layers are of the proper thickness, an interference-like effect is seen, and the sample shows color—often a play of colors. The observed color is related to the size of the particles (i.e., the thickness of the layers) causing the diffraction. Some biological colors (such as those of some feathers, butterfly wings, and the outer wings of insects such as beetles) are due to this. (The book titled *The Splendor of Iridescence*, by Hilda Simon, has a good discussion of these cases, and is filled with beautiful illustrations.) This mechanism can also produce a play of colors in mineral samples.

Labradorite, spectrolite, ammolite, pearls, mother-of-pearl, iridescent garnet, fire agate, rainbow obsidian, and similar materials have a layered structure and show colors due to this effect, but the best-studied example of a material colored by this mechanism is opal. Opal is made up of layers of silica spheres which are often the right size to diffract visible light. The color varies with the size of these spheres; layers of larger spheres lead to a red color, while layers of smaller spheres give colors which progress through the other colors of the visible spectrum to violet. If none of the layers of spheres are the proper size to cause the destructive interference of visible light, the opal will be “common” opal (“potch”) showing no significant play of colors. Many introductory mineralogy textbooks have a discussion of the structure of opal and how this relates to the color, and much more detail can be found in an article (somewhat dated, but still useful and accurate) in the May, 1976 issue of *Scientific American* written by P. J. Darragh and co-authors.

In the next article, I’ll get into one of the most common causes of color in minerals and in other materials—transition metals. “What’s a transition metal?” you ask. You’ll just have to wait for the next installment to find out.

Native Elements – An Update

by Al Pribula

Since the completion of my series of articles on the native elements, I have become aware of two additional metallic elements being reported as occurring in their native forms. The first is vanadium (which I would have included as one of the “light metals”). It was found with a number of vanadium-containing minerals (and native gold as well) in the deposits formed from volcanic vapors at the Colima volcano in Mexico. It occurs as tiny (5-50 microns; that’s 0.0005-0.005 cm or 0.0002-0.002 in) irregular to flattened crystals and, due to the size of the crystals, I’m guessing it wasn’t at all easy to confirm its identity. Their analyses indicate that the crystals also contain iron, aluminum, and titanium. It has been confirmed by the IMA, so it’s “official” now.

The second is thallium (chemical symbol Tl; I would have included it as one of the “heavy metals”), which has been reported as occurring in deposits formed from the volcanic vapors at the Momotombo volcano in Nicaragua. This was published in 1989 without IMA approval, so it has not made it onto the “official” IMA list. It’s not clear when or if the authors of the report submitted the information to the IMA for approval, so it may never be “officially” listed. (And, since the IMA gets pretty prickly if you publish a new mineral without their approval, it may never be approved unless it is “properly” reported by another group or from another locality.)

So, as always, science marches on!

Shoebox Adventures: The Hook

text and photos by Mike Seeds

Gaspinducingness refers to the ability of a mineral specimen to induce gasps when people first see it. Experts say that gaspinducingness increases with specimen size. Certainly an elbaite the size of your head would induce gasps, but there is a little understood part of this relationship that explains a lot.

Imagine that you could graph gaspinducingness against size. You would see a steadily rising line showing that bigger and bigger specimens produce more and more gasps. Look at the lower end of the curve. Down there, smaller and smaller specimens induce fewer and fewer gasps. It is easy to understand why. Nature makes a lot of small crystals, but large crystals are rare. Because they are rare, you don’t see them often, and when you do finally see that monster elbaite crystal in a museum display, you gasp and nudge your companion. “Wow, look at that!” you say.

But down at the lowest part of the gaspinducingness curve, down where the mineral specimens are tiny little things, the curve turns and shoots up. And that hook is where micromounters get caught.

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Lefty

by Mike Seeds

At the last Big Dig Mineral Club meeting, the quarry owner’s pretty daughter suggested a game, and, over Gus’ objections, everyone joined in. Pudge passed out paper and pencils and everyone was to write down a few mineral names, but as they began, Eddie spoke up. “I’m left handed,” he said, “and I often think of the days when I learned to write cursive back in grade school.”

“Man oh man,” said Gus. “That must have been back in the days of clay tablets.”

Eddie laughed with everyone else. “I was just thinking about Mrs. Strathman whacking me with a ruler for using my left hand. She thought she had a good reason back then, but I really hated when we had to write cursive.”

What supposed “good reason” did Mrs. Strathman have back when Eddie was a boy that doesn’t apply today.

Solution on page _____

Most collections include mimetite as a yellow coating on matrix, but micromounters know that under the 'scope you can see the individual mimetite crystals in a pick-up-sticks jumble of hexagonal golden rods. Micromounters tend to have a lot of mimetite specimens; it isn't a rare mineral and it is quite pretty. But micromounters also know that a dime-size piece of matrix covered with mimetite crystals doesn't have the gaspinducingness of a tiny cluster of brilliant crystals floating in the blackness of a micromount box. That's the hook -- that tiny specimen balanced on the end of a brush bristle.



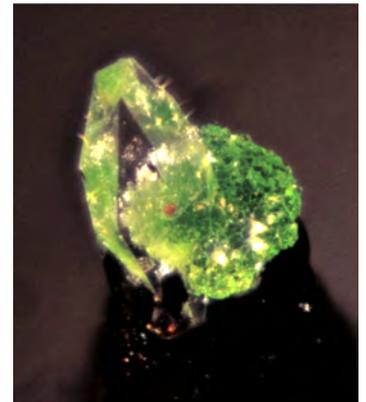
Mimetite, Mapimi, Mexico.
An Ed Quick mount. The entire specimen is 2.1 mm in diameter.

Most collections include mimetite as a yellow coating on matrix, but micromounters know that under the 'scope you can see the individual mimetite crystals in a pick-up-sticks jumble of hexagonal golden rods. Micromounters tend to have a lot of mimetite specimens; it isn't a rare mineral and it is quite pretty. But micromounters also know that a dime-size piece of matrix covered with mimetite crystals doesn't have the gaspinducingness of a tiny cluster of brilliant crystals floating in the blackness of a micromount box. That's the hook -- that tiny specimen balanced on the end of a brush bristle.

Why does the curve have the micromounter's hook at the bottom? One reason is quality. Big crystals are so rare that we put up with chips, cracks, crusts, and missing corners. Nature makes so many tiny crystals that micromounters can be very selective picking through crystal after crystal searching for that perfect specimen. Another reason is drama. The big specimen sits on a shelf and even when illuminated brightly still looks like a specimen sitting on a shelf. If properly mounted, the tiny micromount floats in space like the perfect moon of an alien world.

Conichalcite can form botryoidal coatings with a warm green color. Under the microscope the crowded spheres look like a layer of green peas. In contrast, a single sphere of

conichalcite isolated in the blackness of a micromount box takes on a beauty far beyond green peas. Down on the micromounter's hook, the perfection of the crystals stands out.



Conichalcite with Calcite, Mapimi, Mexico. An Ed Quick mount. The conichalcite sphere is 0.6 mm in diameter.

Another reason that micromounters love those little specimens is the difficulty in mounting the rock to the support. It takes art and technique to glue a crystal less than a millimeter in diameter to the end of a brush bristle.



The submillimeter conichalcite specimen shown in the previous photo is lost in its microbox.

Ed Quick created two of the mounts shown here by gluing the specimens to the tips of what seem to be sharpened toothpicks painted black. The adamite specimen shown below is glued to the end of a squirrel whisker. (It vibrates wildly at every disturbance,

which makes stacked photography an exercise in extreme patience.) Micromounters admire those little crystals so carefully presented just as craftsmen admire ship models built inside bottles.

A tiny specimen concentrates our attention and emphasizes delicacy. Whether it is an unusual spray of acicular adamite or just common conichalcite, the tiny specimen forces us to notice the details of the specific and not the common properties of the whole. We see the tiny needles and the little spheres as single objects, and can admire their smallest structure. Further, the size of the specimen gives it the delicacy

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Safety Matters ... Terribly Toxic Treasures

by Ellery Borow from AFMS Newsletter, October 2015

Tightly tucked toward the top of our trinket trunks are treasures too toxic to touch, tempting us though as they tease our thoughts .

Yes, tis true! Tossed throughout our treasure trunks are things that are toxic to the touch and taste, even in this totally tantalizing, yet tranquil, task of teaching there are terrors taxing my task.

Well, enough of these terrible, Thesaurus taxing "t's". The message this month is a mention that there are dangers lurking among our mineral treasures and what to do about that. Think for a moment, if you will, about the chemical compositions of some of the minerals we collect - autunite, arsenopyrite, cinnabar, betafite, thorite, cuprosklodowskite, malachite, even beach shells for the jewelry we make have within them chemistries that, under certain conditions of working, handling, or storage, can present concerns about their part in maintaining our health. Think of the conditions in which we find our mineral treasures -- conditions that hide biting, stinging insects, or rash-causing plants, or offer precarious physical conditions which may impact ones health.

Our hobby is associated with great joys but also has within it certain dangers with which we should exercise substantial care and caution. There are minerals that should not be touched with bare hands and fingers. There are minerals that should not be worked dry. There are minerals that produce slivers that, oh so easily, penetrate the skin. There are minerals of a radioactive nature as well. Each of those situations requires certain protective measures.

We encounter many specimens of fauna and flora along the way as we walk to our favorite collecting localities. Many of those same fauna and flora are ones which bite, sting or scratch us. Some things just lay in wait to dig into our delicate hides, or scratch and tear us. We don't usually encounter hiding tigers or crouching dragons on our trips but those pesky little eight and six legged things sure can mess with our enjoyments.

What is a body to do to protect oneself? Glad you asked! We have a hobby based on sharing, giving, and teaching! Most of the hobby's enthusiasts out there, ones I've met over the years, follow those practices in all ways. There are folks in our clubs who have all manner of experiences with our hobby's related dangers and hazards. What I would like to offer here is a thought for your consider-

ation. I would like to offer a suggestion that we encourage our members with the most experience to share, give, and teach not just about their knowledge with rocks, minerals, and fossils, but, also share, give, and teach what they have learned about being safe - - safe mineral handling, safe storage, safe caring and feeding of our treasures, safe traipsing on quarry roads, safe avoidance of biting insects and so on.

I'd like to broaden the sharing approach of our hobby to all things safety. Indeed, if your club does not have a safety coordinator, I would recommend your investigation of the benefits to your club with having a dedicated safety person. And, if you already have such a dedicated person in your club, I applaud your forethought! If you have a safety coordinator making safety a fun, interesting, and a learning experience, you are well ahead of the safety curve!

Please be safe, and think safety. Also, please mind those legless critters as well, after all, we all have a place on this Earth and we need to be mindful about sharing it with them.

Shoebox Adventures

continued from page 8

of a tiny filigree engraved inside an antique pocket watch. Somehow the smallest mineral specimens force us to feel the intricate beauty so easily lost in a bigger rock.



Acicular adamite bowtie with conical calcite. Hilarian Mine, Laurium, Greece. M. Seeds mount. The adamite needles are about 0.7 mm in diameter.

The micromounter's hook may tell us about our own sense of drama and art, but it also tells us that beauty is separate from rarity, that modesty is as valuable as spectacle. It warns us not to neglect the tiny bits.

The Conglomerate

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Upcoming Events

May:

21: Chesapeake Show at Ruhl Armory. 10 am - 4 pm.

25: BMS meeting - "Tucson". Natural History Society of Maryland - 7:30 pm. Host is Jake Slagle.

June:

10: Chesapeake Gem & Mineral Society auction. Westchester Community Center, Oella, MD. - 7:30 pm.

11: BMS picnic (see page 1)

18: EFMLS Region IV Picnic and Rock Swap/Sale. Gilbert Run Recreational Park, 13140 Charles St; Charlotte Hall, MD. 9 am - 5 pm. Bring a side dish to share. \$5 per car admission to the park.

July:

27: BMS meeting at Natural History Society of Maryland. Program to be announced.

Lefty: Solution

Eddie explained. "Back when I was a boy we wrote cursive using pen and ink. We had bottles of ink in our desks and we had steel pen points in a holder. When we lefty's wrote with ink, our hand would smudge the ink, so Mrs. Strathman forced us to write with our right hand whenever we wrote with pen and ink. Kids don't use pen and ink now so I don't suppose teachers do that anymore."

"Forcing left handers to write right-handed is bad," said the quarry owner's pretty daughter. "It is psychologically harmful."

"OK Eddie," Gun laughed. That explains a lot."