The Conglomerate

Newsletter of the Baltimore Mineral Society
www.baltimoremineralsociety.org
Volume 13, No. 2 February, 2018

February Meeting: Fantastic Pakistan Minerals

We've all seen those fantastic mineral specimens which have come out of Pakistan—garnet, tourmaline, aquamarine, topaz, and many others, often in mind-boggling combinations. Most of us are unable to afford their price tags (containing too many zeroes), but all of us can appreciate their beauty. This month, we'll be viewing a talk titled "Pakistani Gem Crystals," given by Dr. Peter Lyckberg at the 2017 Dallas Mineral Collecting Symposium. He has been working with sources in the Northern District of Pakistan since 1985 and was the first Westerner to visit the gem mines at high altitude in the Haramosh Mountains. His account of his personal experiences makes for a fascinating story.

*Pakistani gem crystals from the collection of Peter Lyckberg. Photo: Peter Lyck*berg

The meeting will be hosted by Jake Slagle.

The February meeting will take place on February 28th at the Natural History Society of Maryland, 6908 Belair Road, Baltimore, Maryland 21206. The Society is located 1 mile south of I695 beltway exit 32 on the right (west) side of Belair Road. (For further directions, visit the BMS website at http://baltimoremineralsociety.org/directions.html).

Members at Tucson Show

photos by Mike Seeds

BMS members Jake Slagle and Mike Seeds attended the Tucson mineral show in early February. The show actually consists of nearly 30 separate shows held at different places around the city ranging from ballrooms in luxury hotels and not-so-luxury to parking lots. The final event is the 3-day official Tucson Gem and Mineral Show in the convention center. Next year's Tucson Gem and Mineral Show will be February 15 -17 and the theme will be "Wulfenite is Loved".

Jake Slagle photograps some of the many exhibit cases at the Tucson Gem & Mineral Club Show.

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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Editor ..... Mike Seeds
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Write for "The Conglomerate"!
Send news, announcements, comments, observations, or articles to <mseeds at 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, here I am writing my first message as President of **your** Baltimore Mineral Society. (Yes, it's my first. In my previous terms as President back in the 1980's, the Society newsletter was much less extensive and most issues didn't contain a President's Message. Thanks to Mike and Carolyn for making it the much better product that it is today.)

I want to begin by thanking all of you for your confidence in me in electing me President. I also want to thank Chris, Carolyn, and Jake for accepting the other officer positions, as well as Steve and Bernie as board members and Mike as board member, newsletter editor and Symposium chair. I hope that I and they will live up to the responsibilities that you have entrusted us with. And, last but not least, thanks to Jim for his service to the club as outgoing President and for his continued service on the board.

But: notice a word in my opening sentence above. I referred to **your** Baltimore Mineral Society—and I meant it. Like many other organizations, we have officers who have various responsibilities—but it isn't their club. Just as the members belong to this or any other club, so does the club belong to its members. Just like with the human body, the whole is greater than the sum of its parts. Each part of the human body (head, hands, legs, teeth, bones, etc.) has a part to play and a contribution to make. Some parts are at least a bit expendable (yeah, living without a finger or toe may not be the optimum situation, but you can deal with the loss without too much trouble), and others are essential (try living without a head or without bones), but all contribute to the well-being of the whole body. When one part of the body prospers, the entire body benefits and becomes stronger.

How can you contribute to the overall health and strength of the Society? There are as many answers to that question as there are members. Please give consideration to contributing by writing an article for the Conglomerate. (Have you visited a mineral museum lately? read a book that you could review? had an interesting collecting trip? obtained an interesting or unusual specimen on eBay? Taken some photographs of specimens in your collection? All of these could be the basis for an article.) How about doing a presentation? It doesn't have to be a heavy-duty talk—a simple "...is my favorite mineral because..." type talk would be fine. When the time comes, we can always use a hand with setup and cleanup for the Symposium. The more each of us contributes, the stronger the Society will become.

And don't forget these upcoming events: Delaware show (March 3-4), Leidy Society gathering (March 10), Montgomery Co. show (Gaithersburg; March 17-18), Atlantic Micromount Conference (April 6-7), and Rochester Mineralogical Symposium (April 19-22). Supporting these other organizations and events helps to make them stronger, too.

Minutes From our Last Meeting

by Jake Slagle, Secretary

Past President Jim Hooper called the January 24th meeting to order at 7:30 p.m. He introduced Al Pribula as Vice President.

Election of Officers and Directors: The elections that had been scheduled to take place in December, 2017 at the Society's annual Christmas Party, which was cancelled, were now held. Carolyn Weinberger nominated Al Pribula to be President and Chris Altizer to be the new Vice President. Jim then called for further nominations for other offices or Board Memberships. There were none. Carolyn moved that nominations be closed, which was seconded. Since the holders of all other offices and the Directors from 2017 had previously agreed to continue to serve for the 2018 year and were not challenged, they will all continue to serve.

ANNOUNCEMENTS:

Al Pribula and Mike Seeds asked and encouraged members to transmit photographs and articles for possible inclusion in each month's Conglomerate.

Lynn Emery noted that the Chesapeake Gem and Mineral Society would be holding its auction on March 9th at the Westchester Community Center, 2414 Westchester Ave; Oella, MD . Notice was also given that the Chesapeake Gem and Mineral Society's annual show would be taking place on May 19.

Unfinished Business -- see elections
New Business - none

Mineral of the Month

The Mineral of the month was corundum. Steve Weinberger and Mike Seeds both showed some Corundum specimens.

After a 10 minute break, Jake Slagle presented a PowerPoint display featuring spectacular, rare, and unusual minerals that were collected in Pennsylvania.

Respectfully submitted,
Jake Slagle: Secretary

Vanadinite: a secondary mineral with primary qualities

text and photos by Brad Grant

Abstract

Vanadinite, is a lead chlorovanadate mineral that was discovered in Zimapan, Hidalgo, Mexico. While the mineral was officially named in 1832, specimens were being found as early as 1801 by A.M. Delrio. Vanadinite belongs to the Apatite group of minerals and has a chemical formula of $Pb_5(VO_4)_3Cl$ (Back 2014, Cook 1995). The hexagonal shape of its crystals and deep red color makes it a favorite of many mineral collectors. While the type location for vanadinite is Mexico, vanadinite has been found in Western United States and throughout the world. As of 1995 some of the best specimens were being found at Mibladen Morocco (Cook 1995). Traditionally, vanadinite is a secondary mineral that is found in lead ore deposits. It is also associated with mimetite, wulfenite, cerussite and descloizite (Pough 1988). Vanadinite is an abundant mineral and it is an important mineral for research because it is used as an alloy in the manufacturing of steel. (Shaffer & Zim 2001). Potentially a more critical need for additional study could be from a public health perspective. Vanadinite has shown up in lead pipes as a corrosion by-product (Gerke, Scheckel, & Schock 2009)

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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 as possible.

Vanadinite

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Introduction

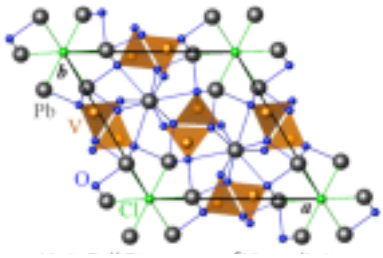
The general date for vanadinite's discovery and naming is 1832 (Back 2014). However, specimens were found by A.M. DelRio as early as 1801 at Zimapan Mexico (Palache, Berman, Frondel 1951). A member of the Apatite Group, vanadinite appears to be isostructural with mimetite $Pb_5(AsO_4)_3Cl$ and pyromorphite $Pb_5(PO_4)_3Cl$ (Palache, Berman, Frondel 1951). The minerals are all chemically similar with the arsenic, chromium and phosphorus all substituting for vanadium. These related minerals are all part of the same hexagonal crystal system and crystal class (6/m). Frequently located in arid environments, (Cook 1995) vanadinite will be found in weathered secondary lead ore deposits (Pough 1988). Interestingly, even though it is found in lead ore deposits vanadinite is not a source for lead. Additionally, while the mineral's name is based upon the element vanadium it is not a primary source for vanadium. Carnotite ($K_2(UO_2)_2(VO_4)_2*3H_2O$) is the most often used source for vanadium (Shaffer and Zim 2001).

A 1mm specimen of vanadinite

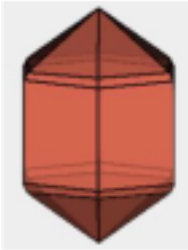
Composition and Structure

Lead Minerals in the apatite group of minerals have a general chemical formula of $Pb_5(XO_4)_3Y$. In this formula Y is a halide element and X is a pentavalent tetrahedrally coordinated cation, which in this case would be vanadium (Dai & Hughes 1989). The ideal composition of the vanadinite is PbO 78%, V_2O_5 19.4% Cl 2.5% .Variations in color are due traces of elements such as Chromium (Cr) and Arsenic (As) being found in the mineral (Dutrow & Klien 2007)

The mineral has a hexagonal crystal system and has a crystal class of 6/m with a 6 fold rotation axis with a perpendicular mirror (Pough 1988, Trotter & Barnes 1958). The Miller indices (which shows the relationship between a crystal face and its intercept) associated with this miner al are {1010} and {1100} (Dutrow and Klien 2007). A solid solution does exist between mimetite and vanadinite with arsenic (As) and vanadium (V) substituting for each other.



Unit Cell Structure of Vanadinite. Courtesy of Wikimedia Commons



Hexagonal crystal system of vanadinite from Goldschmidt, Atlas der Krystallformen, 1913-23.

Physical Attributes

The color of Vanadinite can vary from deep red to reddish brown to yellow brown and brown. Vanadinite has a resinous to adamantine luster. Vanadinite is best known for its deep red color. This color is due to the chromium "Cr" replacing the vanadium "V" cations in the compound (Cook 1995).

Red-Orange vanadinite specimen

Yellow/orange Vanadinite or Mimietite polymorph after Vanadinite

Posssible Polymorph. Pyromorophite after Vanadinite

On the Moh's scale of hardness vanadinite comes in at 2 ¾ to 3. Specific gravity is 6.7 to 7.1. It also leaves a white color on a streak plate. There is no cleavage and the mineral has an uneven to conchoidal fracture (Palache, Berman & Frondel 1951, Pough 1988).

Locations

Vanadinite has an affinity for semi-arid locations and specimens are usually found in weathered secondary lead ore deposits. This would indicate that the region has been

Vanadinite crystals showing penetration twinning

Vanadinite

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fairly quiet tectonically. Quality specimens of vanadinite can be found worldwide. Many of the best specimens come from the Southwestern part of the United States, specifically New Mexico and Arizona. The Apache, Red Cloud and Old Yuma mines are where some of the best specimens have been found (Cook 1995). On the east coast there have been rare occurrences in Virginia and from the lead mines located at Wheatley, Chester County, Pennsylvania (Cook 1995). Upon further exploration, the Pennsylvania mines and their treasures are now covered by a golf course. Worldwide, vanadinite has been found in Russia, Austria, Scotland, and Morocco (Palache, Berman, Frondel 1951). Some very nice specimens have also been found in Namibia, Argentina, South Africa and Australia (Cook 1995, Silliman 1881). Vanadinite is most often found with pyromorphite, another lead based mineral of the apatite group of minerals (Dai & Hughes 1989). It can also be found with mimetite, wulfenite and other secondary ore minerals (Pough 1988). All these minerals make worthy candidates for a rockhounds collection.

Vanadinite
Mibladen Morocco

Other Characteristics

The need for vanadium was immense during World War 2 and even though the United States had a large supply of vanadinite none of it was of high enough quality to be used (Pough 1988). With the mineral being sensitive to light, rockhounds should keep the specimen away from direct light. When not on display, vanadinite should be stored in a dark container.

Prospects for further investigation

With the increasing demands for technology, elements of all types will remain an interest to chemists and mineralogists. With vanadium being used as an alloy in steel (Shaffer & Zim 2001), there will always be a need for research for its use in other materials. With the specimen's attractiveness to rockhounds, new locations will always be pursued. More recently with a possible public health risk of vanadinite being found as corrosion on lead pipes more research is going to be needed to determine these health risks (Gerke Scheckel & Schock, 2009). The ability for vanadanite to form with lead deposits, leads to the question can vanadinite form on other materials. The other issue the authors were concerned about was remediation of vanadinite deposits by use of a phosphate compound. Would the use of this type of compound free up the vanadium in the pipes and contaminate the water. This is because the vanadium cation and phosphate anion can replace each other in a chemical formula (Gerke Scheckel & Schock, 2009).

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Dutrow, B. and Klein C. (2007) The 23rd Edition of Mineral Science, 430 p. John Wiley and Sons, New York

Palache, C., Berman H., and Frondel C. (1951) Dana's system of mineralogy, 7th ed., v. II, 895–898. John Wiley and Sons, New York

Pough, F.B. (1988) A Field Guide to Rocks and Minerals, 5th ed., 252 p. Houghton Mifflin, New York

Shaffer, P.R. Zim, H. (2001) Rocks, Gems and Minerals 1st ed., 56 p. St. Martin's Press New York

Silliaman, B (1881) Mineralogical Notes, Vanadinite and other vandanates, wulfenite, crocoite, vauquelinite, etc from arizona. 198 p. American Journal of Science. Tuttle Morehouse and Taylor, New Haven, Conn

A Gentle Reminder.....
It's Time to Renew Your Membership!

from Carolyn Weinberger, Treasurer

Time is running out for you to renew your membership in the BMS. Dues remain a bargain --- $10 for singles and $15 for families.

You can take care of this little financial matter at the February meeting or you can mail in your renewal. Regardless of which method you use, please fill out the renewal form on page 11 and either bring it to the meeting or mail it to me. The address is on the form.

Mineral of the Month: Magnetite—Fe_3O_4 or $Fe^{+2}Fe_2^{=3}O_4$

by Steve Weinberger. Photos from Wikimedia Commons

Magnetite was named because it acts like a magnet and is attracted to one.

It forms in the isometric system, but the good crystals are uncommon. It can form in octahedrons and can be spinel twinned. Magnetite is brittle, opaque, black to grey-black, has a black streak, and a submetallic to dull luster. Hardness is 5.5-6.5 and specific gravity is 5.18.

Serafimovka, Primorsky Krai, Russia.
Photo: Norbert Kaiser

Magnetite can be found when gold panning because its density allows it to settle and congregate in streams. Early people probably used magnetite to magnetize iron in order to form a compass when navigating in ships.

ZCZ Mine, Balmat, NY
Photo: R. Lavinsky, i-rocks.com

Locations are numerous throughout the world; listed here are just some of the countries where magnetite is found: Norway, Sweden, South Africa, Greenland, Czech Republic, Mexico, Bolivia, Morocco, and Russia. In the U.S. it can be found at the Tilley Foster mine in New York, Utah, St. Lawrence Co., NY, French Creek, PA, Vermont, and Goose Creek quarry, near Leesburg, VA.

Bring in some of your samples of magnetite (you don't have to talk about them if you don't want to) so that we can see the variety.

Hematite replacing Magnetite.
Payun Volcano
Mendoza, Argentina
Photo: R. Lavinsky, i-rocks.com

Color in Minerals—Part XIX: References
by Al Pribula

During the course of preparing the articles in this series, I consulted a large number of references. Some of these were general references, while others were extremely specific (and pretty high-level; I still haven't figured out some of them!). To list all of them would require many pages—my stack of copies of literature papers is about a foot tall, it's nowhere near the complete collection of references available on the subject, and it would most likely give you more information than you really want. However, some of these proved to be very valuable sources of information, particularly the more general ones discussing multiple causes and cases.

Some of these have already been referred to in the articles of the series, while some have not.

So, to wrap things up, here's a list of references which you may wish to consult for further information on this fascinating subject. (Note that additional references for specific cases can be found scattered throughout the articles of the series.)

continued on page 7

Color in Minerals

continued from page 6

Printed Sources

•Desautels, Paul, Interaction between Light and Minerals. Natural History 74 (8), 53-57 (1965).

•Eaton-Magaña, Sally, and Shigley, James E., Observations on CVD-Grown Synthetic Diamonds: A Review. Gems & Gemology 52 (3) (Fall 2016). (Also available electronically.)

•Fritsch, E, and Rossman, G. R., An Update on Color in Gems. Gems and Gemology: Part 1: 23 (3), 126-139 (1987); Part 2: 24 (1), 3-15 (1988); Part 3: 24 (2), 81-100 (1988). (These are available electronically as well—see below.)

•Kunz, George, The Curious Lore of Precious Stones (not much on color, but loaded with good stories)

-Loeffler, Bruce and Burns, Roger, Shedding Light on the Color of Gems and Minerals. American Scientist 64 (6), 636-47 (1976).

•Nassau, Kurt, The Origins of Color in Minerals and Gems. Lapidary Journal 29, 920-928, 1060-1070, 1250-1258, 1521 (1975).

•Nassau, Kurt, The Causes of Color. Scientific American 243 (4), 124-154 (October, 1980)

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•Skalwold, E, and Bassett, W., Blue Minerals: Exploring Cause & Effect. Rocks & Minerals 91 (1), 61-75 (2016).

•Smith, Christopher P., and McClure, Shane F., Chart of Commercially Available Gem Treatments. Gems & Gemology 38 (2), 294-300 (Winter 2002). (Also available electronically.)

•Webster, Robert, Gems: Their Sources, Description, and Identifications. (Great reference for all sorts of information about gemstones, including history, scientific/technical data, jewelry, etc., but getting a bit dated.)

Electronic Sources

•gemdat.org

•mindat.org

•minerals.net

•www.compoundchem.com/2014/06/29/what-causes-the-colour-of-gemstones

•http://gemologyproject.com/wiki/index.php?:title=Causes_of_Color

•www.geology.wisc.edu/~johnf/Gem-color-hlava.pdf

•http://geology.com/articles.color-in-glass.shtml

•www.gia.edu/gems-gemology/fall-1987-color-gems-fritsch (also Spring 1988 and Summer 1988)

•www.minerals.gps.caltech.edu/color_causes

•www.minsocam.org/msa/Monographs/Mngrph_03/MG003_323-348.pdf

•http://nature.berkeley.edu/classes/eps2/wisc/Lect7.html

•www.webexhibits.org/causesofcolor/0.html

•https://en.wikipedia.org/wiki/Opal

The pages on individual minerals and gemstones on Minerals.net, Mindat, and Gemdat often have information as to the causes of the color(s) of the materials, sometimes have references which can be consulted for further information about causes of color, and, of course, have lots of pretty pictures as well. Lots of useful information can be found in articles on Wikipedia.org, but, since that is an open-source reference (i.e., unauthorized changes can be made by anyone at any time), the information there should always be cross-referenced to check its accuracy.

If you have a special interest in a particular case, I can probably supply you with a reference which will give you more information on that case.

That concludes my series on the causes of color in minerals. I have tried to present these causes at a level accessible to all, regardless of your level of scientific knowledge. I have tried to address the cause(s) of color in many of the most common (and some not so common) minerals, but obviously couldn't discuss all 5000 or so naturally-occurring minerals and the many colors that some of these can exhibit. In many cases, the exact cause of color is unknown or only poorly studied, and new knowledge is being acquired constantly as new techniques and instrumentation are applied to naturally-occurring and synthetic samples (and as the "fakers" find new ways of "enhancing" samples for monetary gain). I hope that readers have enjoyed the series and have found it helpful in expanding their knowledge of this broad and fascinating subject.

Finally, I'd like to acknowledge once again that this series is dedicated to the memory of Paul Desautels, my inspiration in the study of the causes of color in minerals and an important figure in the history of the Baltimore Mineral Society, micromounting, and mineral collecting in general.

China Crystals

Text and photos by John Vanko

In 1983 I worked for a company that offered to sell Geophysical Borehole Logging equipment to a Chinese coal-mining and coal-exploration company. I was the 'technical expert'. We negotiated for three weeks in January, and eventually concluded a deal. From time to time, usually on weekends, we took some time off to see famous Chinese historical sites.

For one such interlude, I asked to see the Beijing Museum of Geology. Outside the entrance were mineral specimens too large to house inside. The ones that interested me most were two giant Quartz crystals. In one photo you can see my hosts, members of the Chinese coal company, and the translator. One of them was the Communist Party Apparatchik that accompanied me everywhere, to make sure I didn't see anything I wasn't supposed to see, and didn't get out of line.

The other photo shows two schoolboys - there was an elementary school next door to the museum. Inside, the fossil displays were more interesting than the minerals. The mineral display paled in comparison to any American museum - indeed, the modest mineral collection at my alma mater, Colorado School of Mines in 1972, out-shined anything I saw here."

School boys with a giant quartz crystal.

Scrambles

by Mike Seeds

Unscramble the following to spell the names of well-known minerals.

Mine hotspot _____
Cab haze it _____
Halite dune _____
Bite list _____
Hippie list _____

Finally, what do all these minerals have in common?

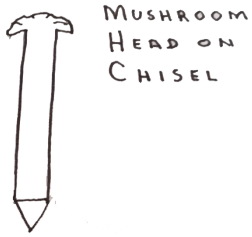
Answers on page 10

Steve and Carolyn Weinberger brought a selection of corundum specimens to the January meeting for the Mineral of the Month: Corundum. Here Steve talks about a bright red ruby. (Photo M. Seeds)

Safety Matters: Mushroom Collecting

by Ellery Borow, AFMS Safety Chair. from EFMLS News, March 2018

Yes, this is a great time of year for rockhounds to do some serious mushroom collecting. The mushrooms being referred to here are not those collected by mycologists, but those more specific to the rock collecting hobby. We are talking here about the mushrooms that form on the head and end of our rock splitting and gap widening chisels. Diagram #1 illustrates the mushrooms that can grow on our chisels...if we are not careful.



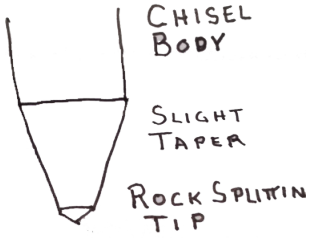
Mushrooms growing on our chisels are indicative of several issues:

- that the chisel is working properly
- that the chisel may be developing dangerous fractures on its struck end
- tjat tjere ,ay be little bits of sharp metal flying off from the mushroom forming proceess when its head is struck.

Why do mushrooms form? A bit of background information is needed to explain. Good rock hammers are expensive. Rock splitting chisels are much less expensive. It we want a thing to break, we would want the cheap chisel to break rather than the expensive hammer. Well, engineers would rather not have anything break so what they did was to create a better rock chisel. The designed chisels to have two different harnesses of the metal used in their making. The sharp end of a chisel is rather harder than the end eing struck by the hammer. See diagram #2. The reason for there being two hardness is simple. The metal in the end of the chisel being struck by the hammer will absorb some of the shock, deform its shape slightly, transfer the energy to the rock being split. If the end of the hammer or chisel was hard, and the hammer was hard, it could end up with either the hammer or chisel being damaged. So, as a compromise, chisels are designed to "wear out" by mushrooming and thus protecting the expensive hammer from damage.

So, this is the time of year, as we prepare for the upcoming collecting season, to collect all the mushroom-head chisels. Once collected, we grind down the damaged ends re-form them, and recreate new, safe, struck surfaces. So just how does one do that? Many home workshops have a metal grinding machine. Such machines are rather common in most home workshops. We use the grinding wheels to reshape the chisel's end by grinding away the damaged parts to form a new surface. Please see Diagram #3. Water is ues to cool the metal as it is being ground. Water keeps the metal cool so as not to change it metallurgival hardness or have it loose it "temper". If your workshop does not have a grinding machine, there are without doubt, members who have such machines and might be willing to help. If not, there are sharpening services available which specialize in reforming mushroom ende chisels.

While one is at it, how are the chisels' business ends, the ends which do the actual splitting? Well, ow might be a great time to do a little judicious reshaping there as well. Please see Diagram #4.



Sharp chisels, non-mushroomed chisels are safer chisels. "Safer" because the tool can still be used unsafely - a topic to be covered under a future Safety Matters article.

We wish you all a good and safe collecting season. Please remember that your Safety Matters!

Shoebox Adventures 74: The Spider That Ate Cleveland

text and photos by Mike Seeds

Some years ago, experts said humans were distinguished from animals because humans are tool makers. That lasted till someone found a chimp modifying a blade of grass to fish termites out of a nest. Maybe we could specify that humans are rule makers. We love to make rules. Never wear stripes with plaids. Always pass on a long third down. A true micromount must fit into a micromount box. Not so sure about that last one.

The Tucson Gem and Mineral Show takes place every February in Tucson, Arizona, and it is filled with dealers in all kinds of rocks. As a micromounter, I go for the little stuff, and once I'm done with certain dealers who bring hundreds or maybe thousands of fabulous micromounts, I head for the micrount room where there are giveaways and micros for sale. Then I visit every mineral dealer in the show to look at inexpensive specimens that might need breaking up, and finally, I look at all of the dealers with trays of little Perky boxes containing micromount-size specimens. Just because they sell it in a Perky box doesn't mean it can't go into a micromount box. That show can keep a micromounter busy for days.

Checking those Perky boxes can be frustrating. You often find small mineral specimens for sale at prices that are astonishing compared with the prices for identical micromounts. A small cavansite sphere in a Perky box might be priced at $30, but the same cavansite sphere in a microbox two tables down the aisle would sell for $4. Some of those Perky boxes are like traps set to spring on unsuspecting collectors who have never looked at micromounts.

Nevertheless, it's worth looking through all those trays of Perky boxes. Sometimes you can find a bargain or an unusual mineral. I was looking at such a tray when I found a silver spider set to spring.

The spider is wonderfully gnarly with misshapen legs and a long raised abdomen. It looks like it escaped from a cheap horror movie where it was the size of a football stadium and devoured entire cities. It would fit right into a black and white movie called, The Spider that Ate Cleveland. Even at its actual size, if you saw it on the carpet and it jumped at you, you would say something inventive. As it was, I jumped at it in spite of a few problems.

The main problem was that the spider was just a little bit too big to fit into a micromount box, and that pesky rule says that a real micromount must fit in a micromount box. Also, if I did get it into a micromount box, it would be viewed from above, and the spider is so beautifully, ornately ugly, it deserves to be viewed from all sides. I decided the spider was more important than the box. The most important rule in micromounting is Rule #1. There are no rules. I bought the spider, so it's my rock and I'll put it in whatever box I want.

Silver spider Batopillas, Chihuahua, Mexico. The specimen is 10 mm in diameter and 16 mm high

Side view of the silver spider

Scrambles: Answers

Mine hotspot	Thompsonite
Cab haze it	Chabazite
Halite dune	Heulandite
Bite list	Stilbite
Hippie list	Philipsite

What do all these minerals have in common? They are all zeolites.

Baltimore Mineral Society
Membership Renewal

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Telephone: _____

E-mail: _____

Names of family members included in membership:

_____ _____

_____ _____

Annual dues for individual memberships are $10.00
Annual dues for family memberships shall be $15.00 for husband and wife and all children residing in the home under the age of 18.

Renewal deadline is the March meeting.

Mail or give to: Carolyn Weinberger
PO Box 302
Glyndon, MD 21071-0302

Checks should be made payable to "Baltimore Mineral Society".

The Conglomerate
Mike Seeds, Editor
2412 Lime Spring Way
Lancaster, PA 17603

Events Near and Far

February
28: BMS regular meeting -7:30 pm.

March:
3 - 4: 55th Annual Earth Science Gem & Mineral Show presented by the Delaware Mineralogical Society. Arsht Conference Center, University of Delaware (Wilmington), 2800 Pennsylvania Ave. (Ft. 52), Wilmington Delaware 19806. Info: www.delminsociety.net

10: 42nd Micromount Symposium presented by the Leidy Microscopical Society at the Northminster Presbyterian Church, 140 Trenton Road, Fairless Hills, PA 9am – 3 pm. Info: Don.mcalarn- en@hpe.com

17-18: 54thAnnualMontgomeryCountyShowMontgomery County Fairgrounds, Gaithersburg, MD. Info: www.glmsmc.com/show.shtml

28; BMS Regular meeting - 7:30 pm

April:
6 - 8: EFMLS/AFMS Convention and Shoaw sponsored by the Tar Heel Mineral Club. Raleigh, NC. Info: <www.amfed.org>

13: Chesapeake Gem & Mineral Society meeting. Noted author Renee Newman will speak on "How Exotic Gems are Changing the Jewelry Industry". Info & Directions: cheapeakegemandmineral.org>

25: BMS Regular meeting - 7:30 pm. "A Visit to Friends Hall at Yale University".

May:
1: Gem Cutters Guild meeting at Meadow Mill. Info: <gemcuttersguild.com>

11: Chesapeake Gem & Mineral Society meeting..

23: BMS Regular meeting - 7:30 pm