



MNCA Website [dcmicrominerals.org](http://dcmicrominerals.org)  
**The Mineral Mite**



Vol. 48 – No. 7 Washington D.C. – A Journal for Micromineralogists September 2015

**June 24 Time: 7:30 p.m. – 10 p.m.**

**Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22206**

**Program: Spruce Pine District of North Carolina; My Collecting Trip**

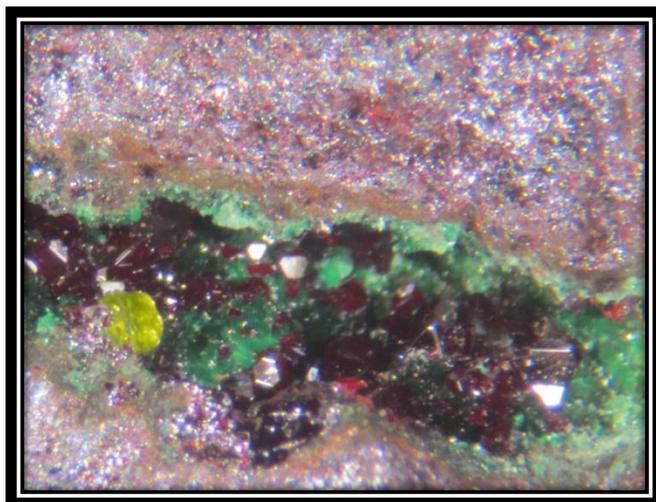
By David Fryauff, Vice President

David will present his travelogue of King's Mountain collecting, guided by "Appalachian Mineral & Gem Trails, by June Culp Zeitner, 1968. The Spruce Pine district is known for having hundreds, maybe even thousands of old mines -- many for uranium, many for beryl and emeralds, some for gold, lots for mica, and hundreds of others for plain old white feldspar. Dave also visited the Emerald Village / North Carolina Mining Museum. He also spent time with geologist phosphate expert, Jason Smith in Charlotte.



Read David's Travelogue on pages 3-6.

**Photo of the Month**



**President's Message:**

By: Dave MacLean

We look forward to hearing about each one of us's mineral and other adventures this summer.

We meet WEDNESDAY 23 Sept.

2016 comes all too soon. We need volunteers for a nominating committee to obtain willing persons to serve as president, VP, Secretary, and treasurer in 2016. We need volunteers to demo micromineralogy at the NVMC show Saturday-Sun 21-22 November at GMU. We will also need to present a 2016 budget at the November meeting.

After my birthday in June I reflected on what happens to our collections and equipment after we die or become incapacitated. We all know about the horrid collections into the dumpster stories. Often our children or other family are not interested in our collections and do not know what to do with them. We are aware and have been part of the process to keep micromineral collections in circulation among persons who are interested in them.

I will write in the Mite an article on How do you find a loving home for your collection(s) after you are gone or incapacitated.

\*\*\*\*\*

**Cuprite, Copper, Vesigniete** - New Cliff Hill Quarry, Stanton - u - Barden, Leicestershire, England. George Reimherr owner.

*Photomicrographer, Kathy Hrechka taken at our June workshop meeting.*

## Micromineralogists of the National Capital Area, Inc.

### Previous Meeting Minutes: 6/24/15

By: George Reimherr, Secretary

President Dave MacLean opened the meeting at 7:45 p.m. Eleven members and one guest were present. The minutes for the previous month's meeting were approved, as published in the Mineral Mite. The treasurer gave his report.



**Old business** -- There has been no new developments in planning for the 2016 Atlantic Micromounters Conference, since our last club meeting. We still have to pin down the rates that the hotel will charge us.

**New business** -- We began to consider the club's participation for the NVMC show, scheduled for next November. Two club members volunteered to help demonstrate micromounting at the show.

**Announcements** -- The Baltimore micromount symposium is scheduled for next Oct. 9th and 10th. The business meeting concluded at 7:55 p.m.

### .Previous Program Reviewed 6/24/15

By: George Reimherr, Secretary

The previously unsold micromounts from the Cynthia Payne collection were once again passed around to the attendees, for possible purchase



## **My Travelogue of Hard & Fast Rockhounding in North Carolina**

By David Fryauff

My first collecting trip down to the Foote Mine, in King's Mountain, Cleveland Co., North Carolina was last year, in December, 2014, and from a phosphate micro-mineral perspective, it was so productive that I was keen to get back there again. That next opportunity came this summer (2015), in the first week of July, with daily temperatures in King's Mountain hovering in the mid to high nineties. But I knew the "East dump" was overgrown with oak, pine, and sweet gum, into a relatively shady place, and I planned to go well prepared for the heat. I knew a little bit about living and working in heat from having lived in Egypt for seven years...three of those years in the north Sinai desert. I wasn't prepared for yellow jackets though, and took a couple of stings on my way to the oxidation zone. But I had their nest identified and we avoided each other nicely after that first encounter.

At one of our spring meetings, we had a silent auction for books on gems, minerals, & geology, and I placed the winning bid on a small stack of books, the largest of which was "Appalachian Mineral & Gem Trails, by June Culp Zeitner. This book was falling apart, but its 134 pages were packed with great details on eastern collecting sites from Florida to New Jersey. I was especially impressed by the rich mineralogy of the western highlands of North Carolina, and after a couple of hot days down in the Foote Mine I planned to head into the mountains for some cool tent camping near Spruce Pine and Little Switzerland. This travel plan also took me through Forest City where I could stop by for a long overdue reunion with my Aunt, Uncle, and cousins.

In the weeks before setting out I jotted down the old location details from June Zeitner's 1968 book and cross-checking with a combination of

current Mindat and Google maps, I tried to identify whether there were any old mines and mine dumps that were open to collectors. That Spruce Pine district had hundreds, maybe even thousands of old mines -- many for uranium, many for beryl and emeralds, some for gold, lots for mica, and hundreds of others for plain old white feldspar.

I also connected with EFLMS clubs in North Carolina, my geologist friend/phosphate expert, Jason Smith, in Charlotte, and corresponded with Mike Streeter, author of "A Rockhounding Guide to North Carolina's Blue Ridge Mountains (available from Amazon, new at \$136 or used at \$98), and his outstanding web site, <[www.mcrocks.com](http://www.mcrocks.com)>. According to Mike, most of those old Spruce Pine mines are either on private property or long flooded, overgrown and inaccessible. The famous Chalk Mountain Mine which is clearly visible in Google topographic maps, and from the roads leading into Spruce Pine, is a huge, bright white gash in the dark green of the mountains, and is still a very active feldspar mine -- off limits to collectors. Mike Streeter, with over 35 years of experience as a North Carolina mineral collector, gave me several location names for promising pegmatite mine sites in Mitchell County (Ray Mica Mine, Sinkhole Mine, and Abernathy Mine) and advised me to check out the extensive diggings that constitute the Ray mica mine.

I was a bit surprised that he hardly mentioned the McKinney Mine, which had greatly impressed June Zeitner, back in 1968, and which still exists as a mine dump that is currently accessible at the "Emerald Village", a combination mining museum/gift shop/gemstone panning attraction that has been built over the old McKinney, Bon Ami, and the Big Deal pegmatite-feldspar mines. And they manage the Crabtree Emerald Mine, which is a bit farther off. For \$20/day, and a signed disclaimer, the more adventurous collector (me)

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can collect on the old dumps of either the McKinney Mine, or the Crabtree emerald mine, but tourist “types” and especially youngsters, are strongly advised to take the easier route and pan for emeralds in buckets of gravel that are “salted” to insure that some “gemstone” either local, or exotic can be found. I sent emails around to a lot of “well-experienced” east coast rockhounds, asking them for advice on collecting sites in western NC, but few of them had any specific experience or guidance.

Jason Smith, who I considered to be one of the real experts on North Carolina rockhounding told me that he had little success collecting at the Ray Mine, and lamented that rockhounding in NC had fallen into an “unfortunate state”. On top of that, Robert Lavinsky, a leading authority, warned that “Mineral specimens, in general, are very uncommon from these old feldspar pegmatite mines.” Not what you’d call glowing recommendations. So I readjusted my objectives and figured that if I just set my goal on a few quiet nights of camping in cool, clear mountain air, then that alone would be pretty nice. If there was any mineral collecting up there, then that would be a bonus.

With a little web searching, I had found a primitive campground, right on McKinney Mine road that seemed perfect; it even had a hot shower and flush toilet: The Blue Ridge Campground. It was relatively primitive, and I was the only camper. I checked out every one of their 15 campsites, and even found a big black schist boulder with a little pale green beryl crystal in it, but I could not find a 10’ x 10’ patch of level ground to pitch my tent on....Nevertheless, I could make do with a little slope. It was beautifully green and cool, and quiet.

I arrived too late in the day to do any collecting, but after setting up my tent, I walked down the road to the Emerald Village/NC Mining Museum to make plans for the next day. They

had an interesting array of old mining equipment, and a big gift shop that was mainly devoted to souvenir jewelry, rocks, & minerals. Mostly they offered little pale green beryl crystals (“emeralds”) in black schist, but also, to my surprise, a lot of hyaline opal. This opal was from the Bon Ami mine and was mostly colorless, and featureless, but there were a few pale green specimens that were quite expensive. Under short wave UV all of this opal gave off a bright green fluorescence due to the presence of dissolved uranyl ions. In a far corner I found an assortment of whitish feldspar pieces with small veins of pink “Thulite”. According to Mindat, this is not true thulite but rather clinothulite, a variety of clinzoisite that owes its pink color to the presence of trivalent manganese ( $Mn^{+3}$ ). These specimens were from the Hawk Mine, in Bakersville, north of Spruce Pine. They were not attractive and eye-catching specimens and judging by the dust, they had been sitting on the shelf for a while.

I bought a new loupe at the gift shop to make up for the one I lost down a hole at Foote mine and with this I could see tiny, but well formed orange-pink clinothulite crystals in gaps between the feldspar blades, and another finer, more fibrous mineral...maybe just actinolite. Thinking TNs & micromounts, I bought a bag of the most promising pieces for \$15. If collecting on the mine dumps did not pan out, I would come back from the NC highlands with something to show for my travels.

Mindat was a very useful tool in helping me to identify sites with the best collecting potential for the limited time that I had. Chalk Mountain mine (12 valid species) was off limits, the Bon Ami mine (3 valid species) was flooded, the Crabtree emerald mine (13 valid species) was near my campground, and open to collecting for \$20/day. It also has the distinction of a unique, recently described (2011) type locality tourmaline group mineral: Fluor-dravite. However, this mineral only occurs as “isolated

anhedral grains of a few millimeters”. The Ray Mica Mine, (Wray Mine), was described to me as a series of numerous beryl and mica pits along streambeds flowing down from Hurricane Mountain in Pisgah National Forest. Although Federal property, it was still accessible for surface collecting and Mindat listed 38 valid species for the site -- the most for any one mine in the district. June Zeitner, writing back in 1968, and Mike Streeter, writing in 2015, both gave the Ray mica mine high ratings, but it was located near Burnsville, in Yancey county, at least 25 miles away from my campground in Little Switzerland.

Mike did not have much good to say about the McKinney mine, which was just a walk down the road from my campground, and where collecting on the dump would cost \$20/day, but with 31 valid species, almost half of which were uranium and rare earth minerals, it seemed the better site for me. Factor in easy access, parking right beside the mine dump, no weight charges, all day free coffee refills at the gift shop, clean toilets, and outdoor speakers playing great bluegrass music.....what more could you want?

But what about the collecting? The mine dump was basically a 30 foot ridge of rock that had been bulldozed flat on top. Big boulders had tumbled down the sides, into a heavily wooded creek on the south side, and on the north side bordering McKinney Mine road, possibly making for a total surface area of about 3-4 acres. The dominant mineral is white albite feldspar with abundant quartz, and muscovite. Small pyrite cubes were fairly common, but they appeared most often to be altered to limonite. There were numerous large rocks and boulders of black biotite-schist in the dump which may be the best source of beryl crystals, but I did not find any beryl or tourmaline during my 6 hour workday. I found some massive pale green microcline, and abundant garnets, however, only those of pinhead size and smaller

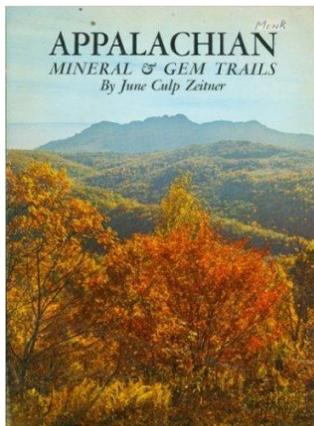
had good color and form; the larger, fingernail-sized ones were opaque, rounded, brittle, and often “decayed”.

My efforts yielded nothing but micro-sized garnets, but several breaks revealed hundreds of tiny, dull black, flat hexagonal crystals on the smooth faces between albite panes. Some of the mica had what appeared to be these same dark micro-crystals, quite dense in some specimens and with sharp definition when the thin mica leaves were backlit. I’m not sure what this mineral might be, but suspect one of the 14 recorded species of uranium or REE minerals as these micro-sized specimens gave a Geiger counter readout 3 times over background.

I was surprised to find a boulder with the tell-tale green of malachite or chrysocolla and broke it up looking for crystals. The most common mineral in this break was covellite, present as velvety blue-black patches on the white albite. The microscope later revealed much of this covellite to consist of brightly iridescent micro-crystals—or maybe these were bornite. Associated minerals were chalcopyrite, sphalerite, and another sharply crystallized brown mineral that will require analysis, and higher magnification, to identify. At the heart of that copper-stained boulder I found a few tiny pockets that contained beautiful bluish-green xls—tiny but perfect, clear, deeply striated, lath-like crystals with good terminations. In that copper & zinc environment, I doubt these are beryl and suspect something more exotic that is not (yet) on the Mindat list. Since I have two specimens, each with multiple crystals, I could sacrifice one or two of the crystals for EDS or XRD analysis and a chance to update the Mindat list. I think one of these is a very photogenic specimen.

The entire day had been overcast and by late afternoon, there was light rain. When the place closed at 4pm I drove into Spruce Pine to check out the only rock shop in town and was

disappointed. After a half hour I got back in my car and drove west to Burnsville where I had a great rib eye steak at Bubba's. All along US Rte 19E from Crabtree Road to Burnsville, there was heavily mechanized highway construction going on, and I imagined that casual Sunday rockhounding might be pretty interesting along that stretch after a good season of rains have washed away the dust. It might be a nice idea to pass through that area again, maybe this fall, when the leaves turn. It was a fast, and busy week and I enjoyed beautiful North Carolina, but times change and it is not the rockhound paradise that June Culp Zeitner described in 1968. One final note: beware of fog on the Blue Ridge Parkway.



**Larsenite: Collected by R.B. Gage 1927**  
By ALOHA Peter Chin

I thought the club may be interested in images of thin plates of Larsenite. Larsenite normally occurs as acicular crystals, thin plate morphology is very rare. I believe there are only 3 known specimens of it. The specimen was collected by R.B. Gage in 1927. It also has another great rarity, (purplish) crystals of barysilite. The other associated minerals are colorless crystals of clinohedrite and willemite. Clinohedrite and willemite crystals are not present in the first two images but present in the third photo, which shows the whole specimen. The described minerals occur in an open vug in esperite. I used a Nikon D7000 camera body for the photos. Zeiss Luminar lens is a microscope lens with aperture ring.



The image above has a FOV of 5 mm and shows an area completely covered by larsenite plates; 25 mm Zeiss Luminar lens on 68 mm ext tube.

\* \* \* \* \*



Image of the whole specimen; Sigma lens



Above image has a FOV of about 2.5 mm; 16 mm Zeiss Luminar lens on 68 mm ext tube. 25 mm Zeiss Luminar lens with ext tube.

## Vanadinite

By Michael Pabst, Treasurer

In earlier columns, I have written about uranium and vanadium minerals, many of them rare and beautiful. This column will feature Vanadinite, a rare mineral that is nevertheless commonly seen, because it readily forms beautiful crystals. In fact, we have all seen beautiful Vanadinite crystals so often that we may no longer pause to appreciate how remarkable they are. At every mineral show, there are flats of Vanadinite for sale. At most high-end shows, there will be stunning specimens of Vanadinite from Morocco with high prices, but the abundance of fine Moroccan specimens is such that the prices are still reasonable for the quality. However, as usual, the best crystals of Vanadinite are inexpensive micro-crystals. I have about 10 Vanadinite specimens from various locations in my collection. I have always thought that the Vanadinite crystals from the Hamburg Mine, Trigo Mountains, La Paz County, Arizona are the most beautiful. These crystals are deep red and transparent, and they show many complex faces that illuminate the true symmetry of the crystals, as described below. There is an article about the Hamburg Mine by David Shannon in *The Mineralogical Record* **11**:135-140 (1980) with some excellent photographs (see especially Figure 5).



Vanadinite is a secondary mineral found in the oxidized zone of lead deposits. Vanadinite is a lead vanadate with chloride, aka lead chlorovanadate,  $Pb_5(VO_4)_3Cl$ , which crystalizes in the hexagonal system. Vanadinite is part of the Apatite supergroup of hexagonal minerals. Vanadinite is isostructural with the lead arsenate Mimetite,  $Pb_5(AsO_4)_3Cl$ , and with the lead phosphate Pyromorphite,  $Pb_5(PO_4)_3Cl$ . Vanadinite forms series with these minerals. So a particular Vanadinite crystal might contain some arsenate or phosphate, and it might also contain some cations like  $Ca^{2+}$  instead of  $Pb^{2+}$ . Vanadinite that contains significant arsenate is called "Endlichite".

On the Mindat website ([www.mindat.org](http://www.mindat.org)), there are currently about 2600 pictures of Vanadinite. Many of the specimens and photographs on Mindat are better than mine. I recommend particularly photographs of Vanadinite from the Hamburg Mine, taken by some of the great Mindat photographers: [www.mindat.org/photo-547706.html](http://www.mindat.org/photo-547706.html) by Yaiba Sakaguchi, [www.mindat.org/photo-53997.html](http://www.mindat.org/photo-53997.html) by Stephan Wolfsried, [www.mindat.org/photo-315910.html](http://www.mindat.org/photo-315910.html) by Matteo Chinellato, and [www.mindat.org/photo-361623.html](http://www.mindat.org/photo-361623.html) by Christian Rewitzer. Someday, I hope that my pictures can be as good as these.

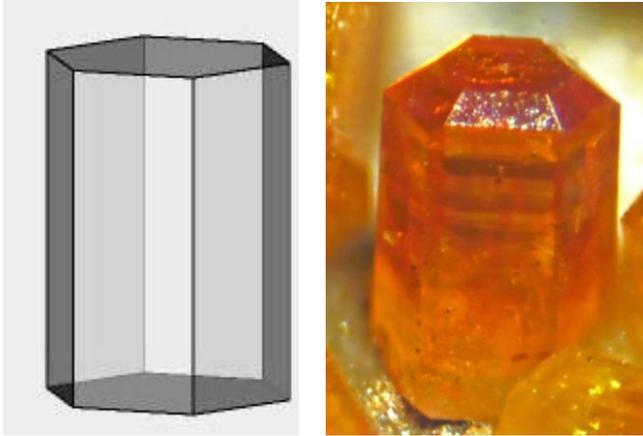
I have shown a picture of Vanadinite in an earlier article, when I compared Vanadinite, lead vanadate, with Pucherite, bismuth vanadate, in the January 2015 issue of *The Mineral Mite*. (This issue can be downloaded from our website, [dcmicrominerals.org](http://dcmicrominerals.org).) I showed that despite a superficial resemblance in color and luster to some crystals of Vanadinite, Pucherite is not hexagonal.

Most crystals of Vanadinite occur as simple hexagonal prisms or simple hexagonal tablets, sometimes with beveled edges. The first picture below is Vanadinite from the Mammoth Mine, Tiger, Arizona. The crystal has the shape of a hexagonal prism, with bevels at the top. The next picture is an example of a hexagonal tablet of Vanadinite from Mibladen, Morocco.

To appreciate the true symmetry of Vanadinite crystals, and of all the minerals in the Apatite supergroup, I will show some crystal drawings that I have "borrowed" from an excellent German website, [www.mineralienatlas.de](http://www.mineralienatlas.de). This website is similar to Mindat, but it excels in crystal structure illustrations, some from Goldschmidt's Atlas of Crystal Forms (V.M. Goldschmidt, Atlas der Krystallformen, 1913-1923), but also many created by Ulrich Baumgärtl. We will first look at a simple hexagonal prism and a hexagonal tablet:

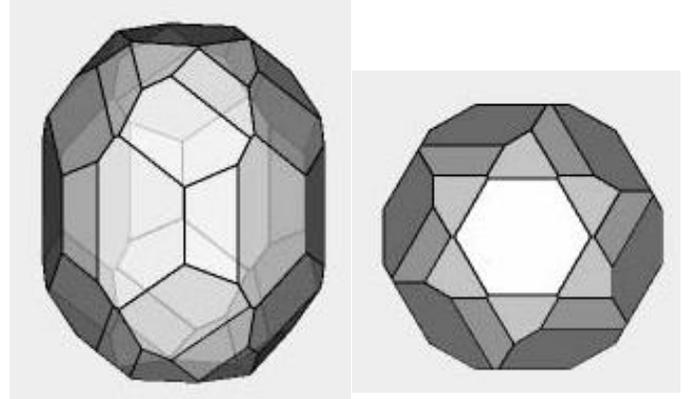
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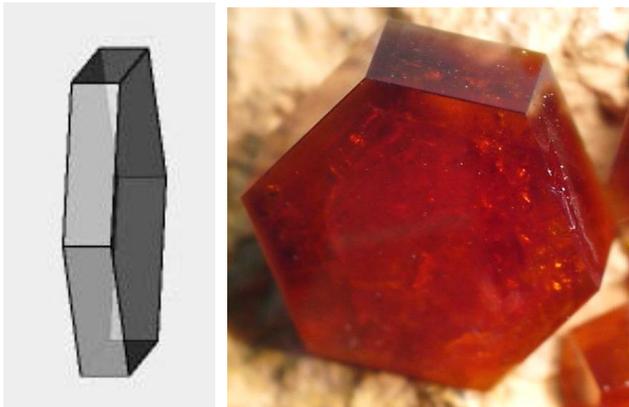
**Above left:** Illustration of a simple form of Vanadinite as a hexagonal prism. (Vanadinit: Kristall Nr. V005af by U. Baumgärtl).

**Right:** Vanadinite from the Mammoth Mine, Tiger, Arizona, as a hexagonal prism with beveled edges at the top. Field of view 1 mm. Six images were taken through a stereomicroscope, stacked with CombineZP, and edited with Photoshop Elements.



**Above left:** Illustration of a hexagonal bipyramidal crystal  $6/m$ , showing asymmetric crystal faces. This is a view from the side, with the c-axis running from bottom to top. Notice that this crystal is symmetrical top-to-bottom (mirror plane  $m$  in  $6/m$ ), but not right-to-left.

**Right:** The same hexagonal bipyramidal crystal diagram viewed from the top, looking down the c-axis. Notice that this figure is not symmetrical, but that rotating this figure  $60^\circ$  clockwise or counterclockwise gives the same result (six-fold axis of rotation (the 6 in  $6/m$ )).



**Left:** Illustration of a hexagonal tablet of Vanadinite (Vanadinit: Kristall Nr. V005ak by U. Baumgärtl).

**Right: Vanadinite** as a hexagonal tablet from Mibladen, Morocco. Field of view 8 mm. This is a single image taken with a Minolta 50 mm Macro lens, and edited with Photoshop Elements.

Next we will look at a more interesting crystal form that shows the true symmetry of Vanadinite. (Vanadinit: Kristall Nr. V005aq by U. Baumgärtl):

The **Vanadinite** specimen shown below is from the Hamburg Mine. The wonderful red color is accurate.



Overview of the **Vanadinite** specimen from the Hamburg Mine. Field of view 30 mm. Single image was taken with a Minolta Macro lens.

continued on next page

## Micromineralogists of the National Capital Area, Inc.

The close-up photo of the Hamburg Vanadinite below shows enough of the less common faces that we can see the true symmetry, which is that of the hexagonal bipyramidal  $6/m$  crystal class. This class has a six-fold axis of rotation, which means that if you look down the c-axis, and rotate the crystal  $60^\circ$ , you get the same appearance. You can do this rotation six times to perform a complete  $360^\circ$  rotation, and you will see six instances of the same pattern. There is also one mirror plane perpendicular to the c-axis, meaning that the top and bottom are symmetrical. However, there are no mirror planes parallel to the c-axis in the  $6/m$  crystal class. This means that the crystals are not symmetrical right-to-left. In a simple hexagonal prism, there would be three mirror planes, as appears to be the case with the specimens from Morocco and Arizona, but this is not the true symmetry, as shown by the asymmetric faces of the crystals from the Hamburg Mine. So the Hamburg Mine Vanadinite crystals are not only the most beautiful but also the most interesting and instructive Vanadinite crystals.

Close-up photo of **Vanadinite** from the Hamburg Mine specimen. Field of view 2 mm. Note the asymmetrical bevels at the top of the crystal. Seven images were taken through a stereomicroscope, stacked with CombineZP, and edited with Photoshop Elements.



The next image is a close-up photo of another Vanadinite crystal from the same Hamburg Mine specimen. This smaller crystal is so asymmetrical that it is hard to find the c-axis, but I think that it is roughly vertical in this photo. I have noticed that smaller crystals are more likely to have the rarer asymmetric faces, but as the crystals grow, they become more symmetrical. This means that, during crystal growth, the ions prefer to attach to the asymmetrical faces first, using up all those sites, and allowing the slower growing prism faces to become dominant.



Smaller **Vanadinite** crystal from the Hamburg Mine specimen. Field of view 2 mm. Three images were taken through a stereomicroscope, stacked by CombineZP, and edited with Photoshop Elements.

You can look for these rarer asymmetrical faces, which show the true symmetry of the  $6/m$  class, in the many minerals that comprise the Apatite supergroup. For example, look at the Apatite supergroup page on Mindat at [www.mindat.org/min-274.html](http://www.mindat.org/min-274.html), and click on the icon for Goldschmidt's diagram of Apatite no.25 from St. Gotthard, Switzerland to display a 3D diagram of a crystal with asymmetrical crystal faces indicative of the  $6/m$  class. Then you can look at Stephan Wolfsried's photo of asymmetrical apatite at [www.mindat.org/photo-100810.html](http://www.mindat.org/photo-100810.html), or look at Matteo Chinellato's photo of another apatite crystal at [www.mindat.org/photo-234115.html](http://www.mindat.org/photo-234115.html).  
continued on next page

### Vanadinite concluded

I hope that this description of Vanadinite was not too technical. At first, I wondered whether I could find anything interesting to say about such a well-known mineral. But as I looked over my specimens, and started to read about Vanadinite, I became enthralled. You are lucky that I have stopped before describing the 3D atomic structure.

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### Photomicrography Decisions

By Hillar Ilves

My "Plan 2X" infinity corrected microscope objective, purchased from Australia a month ago, has arrived. I placed it on the G-1 with Olympus 200mm tele on which I previously used a 4X objective and had found it was a bit more magnification than I wanted for micro-minerals, in general.



The mineral is iron pyrite. I'm fascinated by how straight "grained" the crystals grow, with so many "fibers" and yet how abruptly they all cease in the cleanest "crosscut" to those linear "structures".

The caption on the image tells you how much of the full image I cut off (cropped).



### GeoWord of the Day and its definition:

**piezoelectric crystal** (pi-e"-zo-e-lec'-tric) A crystal, e.g. of quartz or tourmaline, that displays the *piezoelectric effect*. Any nonconducting crystal lacking a center of symmetry may be piezoelectric.

All terms and definitions come from the [Glossary of Geology, 5th Edition Revised](#).

**Crystals Go To War 1943**  
**Reeves Sound Laboratories;**  
**Piezoelectric Quartz Crystals for Radio**

<https://www.youtube.com/watch?v=b--FKHCFjOM>

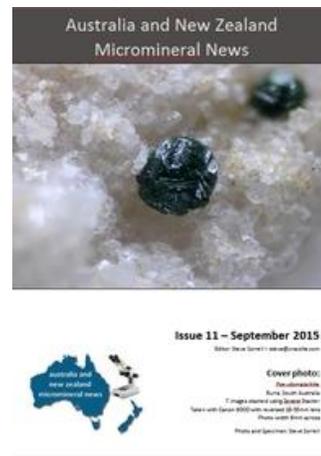
Contributed by Jim Kostka

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### Micromounters from Down Under

Editor: Steve Sorrell – [steve@crocoite.com](mailto:steve@crocoite.com)

Cover photo:  
Pseudomalachite  
Burra, South Australia  
7 images stacked  
using Zerene Stacker  
Taken with Canon  
600D with reversed  
18-55mm lens Photo  
width 6mm across  
Photo and Specimen:  
Steve Sorrell



Issue #11 - September 2015 of the Australian and New Zealand Micromineral News, is a publication for those interested in micromounting or microminerals, and particularly in minerals from this region. Open link below.

[http://www.crocoite.com/wiki/index.php?title=Australia and New Zealand Micromineral News](http://www.crocoite.com/wiki/index.php?title=Australia%20and%20New%20Zealand%20Micromineral%20News)

Hope you enjoy it! Regards, Steve

## Micromineralogists of the National Capital Area, Inc.



American Federation of  
Mineralogical Societies

AFMS)  
[www.amfed.org](http://www.amfed.org)

### American Federation Mineralogical Societies / SCFMS Convention & Show October 23-25, 2015 Austin, Texas

Convention Location: Doubletree Inn  
6505 North Interstate Highway 35  
Austin, TX 78752 (512) 454-3737

Show Location: Palmer Events Center  
900 Barton Springs Road  
Austin, TX 78704-1169 (512) 472-5111

Sponsor: Austin Gem and Mineral Society, member  
of the South Central Federation of Mineral Societies

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### A Folding Paper Microscope? It's real

Foldscope is a paper microscope that folds into  
shape and costs less than a dollar to make.

By Michael Pearson, CNN

Submitted by Erich Grundel Follow link below.

[http://www.cnn.com/2015/09/08/tech/paper-  
microscope-feat/index.html](http://www.cnn.com/2015/09/08/tech/paper-microscope-feat/index.html)

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Atlantic Coast  
**Gem, Mineral  
& Jewelry Show**  
@ Howard County Fairgrounds  
**September 26-27, 2015**  
Saturday 10 AM-6 PM • Sunday 10 AM-5 PM  
[www.gemcuttersguild.com](http://www.gemcuttersguild.com)  
**\$1.00 off admission with this ad**  
Regular admission \$5.00 • Children 12 and under free with paying adult



Eastern Federation of  
Mineralogical and  
Lapidary Societies

(EFMLS)  
[www.amfed.org/efmls](http://www.amfed.org/efmls)

Communication and Involvement  
Are the Keys to Our Success!

### Geology Events:

#### September:

**23: MNCA Meeting Spruce Pine District of NC;**  
Presenter, David Fryauff 7:30 pm

**28: NVMC Geology Auction Meeting 7:30 pm**

**26-27: 59th Annual Franklin-Sterling Gem & Mineral Show;** Franklin Mineral Museum; Franklin School, 50 Washington Ave, Franklin, NJ; Sat 9-5, Sun 10-4; Outdoor Swap: Sat 7:30-6, Sun 10-5; adults \$7, children 6-16 \$4

**26-27: 51st Annual Gem, Mineral & Jewelry Show** Gem Cutters Guild of Baltimore; Howard Co. Fairgrounds West Friendship, Maryland

#### October:

**9-11: 59th Annual Paul Desautels Micromount Symposium.** Friends School of Baltimore, 5114 North Charles Street, Baltimore, MD beginning at 7:30 pm Friday evening the 9<sup>th</sup> and extending until noon on Sunday the 11<sup>th</sup>. Details may be found on page 12 of *The Mineral Mite*

### 24 Cynthia Payne's Birthday

**24: ULTRAVIOLATION 2015**

**FLUORESCENT MINERALS ONLY**

First United Methodist Church, 840 Trenton Road  
Fairless Hills, PA: 9:00 AM to 4:00 PM  
For information call 302-384-7876  
email [ultraviolation@yahoo.com](mailto:ultraviolation@yahoo.com)

#### March:

**11-12: Atlantic Micromounters' Conference**  
SpringHill Suites Alexandria, VA 6065 Richmond  
Highway Alexandria VA 22303. Speaker TBD

## Micromineralogists of the National Capital Area, Inc.

### Mark your Calendar for the 59<sup>th</sup> Annual Paul Desautels Micromount Symposium to be held on October 9-11

By Mike Seeds, Conference chair

The Desautels Micromount Symposium will take place at The Friends School of Baltimore, 5114 North Charles Street, Baltimore, MD beginning at 7:30 pm Friday evening the 9<sup>th</sup> and extending till noon on Sunday the 11<sup>th</sup>.



The program will include the Micromounters Hall of Fame induction Ceremony Saturday afternoon at 3pm followed by a talk, “**Micromounters I have Known**” given by honoree Lou D’Alonzo. Saturday evening at 7:30, honoree Dr. Donald Howard will speak on “**Filiform Minerals and Catalyzed Growth**.” Sunday morning at 10:30, Dr. Howard will speak on “**The Minerals of the Golden Horn Batholith, Okanogan Co. WA.**”

This rare multimount of four native elements by Hall of Fame member Jules Bernhardt has been donated by Lou D’Alonzo. It will be auctioned off in the voice auction on Saturday afternoon.



There will be giveaway tables, dealers, a silent auction and a voice auction. Lunch on Saturday will be provided. There will be plenty of mineral talk and mineral trading.

The program and registration materials are available on the Baltimore Mineral Society web site. Register promptly to reserve your spot at

<http://www.baltimoremineralsociety.org/2015desautelssymposium.html>

**Micromineralogists of the National Capital Area Meeting:** The 4th Wed. of each month 7:30 -10 p.m. Long Branch Nature Center, (Except Easter & Dec.) 625 S. Carlin Springs Road, Arlington VA 22204

**MNCA Purpose:** To promote, educate and encourage interest in geology, mineralogy, and related sciences.

Pres: Dave MacLean, dbmaclean@maclean-fogg.com  
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Secretary: George Reimherr, greim@cox.net  
Treasurer: Michael Pabst, Michaeljpabst@yahoo.com  
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#### The society is a member of:

\* Eastern Federation of Mineralogical and Lapidary Societies (EFMLS) [www.amfed.org/efmls](http://www.amfed.org/efmls)  
\* American Federation of Mineralogical Societies (AFMS) [www.amfed.org](http://www.amfed.org) Affiliation

**Dues:** MNCA Membership Dues for 2015 \$15 (single) or \$20 (family)

**Payable to MNCA - Michael Pabst, Treasurer**  
270 Rachel Drive  
Penn Laird, VA 22846



#### Editor's Note:

by Kathy Hrechka  
Send your articles and photos to your editor.

**Club Article Deadline is 5<sup>th</sup> of each month.**  
*The Mineral Mite* will be emailed on 10th.  
No newsletter July/August

#### AFMS Editor's Award First Place 2011 - Mini Bulletins

#### September inputs:

\*Dave Fryauff  
\*Peter Chin  
\*Michael Pabst  
\*Hillar Ilves  
\*Mike Seeds  
\*Jim Kostka  
\* Erich Grundel.

