

The Mineral Mite

Vol. 46 – No. 10

Washington D.C. – A Journal for Micromineralogists December 2013

Holiday Party: December 16 Time: 6:30 p.m. – 10 p.m.
Long Branch Nature Center, 625 S. Carlin Springs Rd. Arlington, VA 22204



Holiday Party begins at 6:30 p.m.

You are invited to our Member Appreciation Holiday Party. We will be honoring each micromounter who volunteered at the GMU show. NVMC club funds are budgeted for this party. What can you bring? Sign up at Volunteer Spot. <http://vols.pt/7JBb7Q>

Micromounter's Gift Exchange

Bring a wrapped (labeled) Micro, to be placed under the Crystallography Tree, which was originally constructed years ago by Cynthia Payne.



President's Message

By: Dave MacLean

We have a full slate of officers including Dave Fryauff for VP for 2014. I am delighted. Our 2013 conference at the congressional School in Falls Church, VA was a success. Under Kathy Hrechka's leadership we will repeat and grow the success of our 2014 Atlantic Micromounters Conference Friday evening and Saturday 4-5 April, 2014 at the Congressional School in Falls Church, VA. I encourage each one of us to help out and support our conference. I am looking forward to it.

Stimulating and interesting programs are the lifeblood of our meetings. We welcome suggestions, sources for programs (speakers, info off the web, etc.) and always volunteers to present them.

Personally I am thankful to MNCA for the support received during my illness and that now I feel well. May it continue in 2014. Let's look forward to a new and stimulating 2014.



Micromineralogists of the National Capital Area, Inc.

Previous Meeting Minutes: 11/20/13

By: George Reimherr, Secretary

President Dave MacLean opened the business meeting at 7:51 p.m. Eleven members were present. The minutes for the previous meeting were approved, as printed in the Mineral Mite. There was no treasurer's report, but the club president said that the club's finances broke "about even for the year."

Old business - Conference Chair, Kathy Hrechka gave her reasons why we should remain at Congressional School for our conference in 2014. We have an offer for the same location as our conference in 2013, but at a higher price -- \$50 per hour. We expect to use about 18 hours of conference time, for a fee of \$900. The dates for the conference would be April 4 and 5, 2014. It was suggested that we accept this offer. The featured speaker is to be Joe Marty, who had been our conference speaker about 10 years ago. We may bring in food and stay at the conference site for supper. We do plan to reduce the previous time out for supper, which had run as long as 3 hours. Lastly, the conference chairman was given discretion over what we would charge the dealers -- possibly charging so much per table, instead of a percentage of sales.

The Nominating Committee offered its slate of candidates for club officers in 2014. The only change from the previous year (2013) is that David Fryauff has agreed to be the vice president nominee.

New business - Club dues for 2014 will be due. The annual Christmas/Holiday party and December club meeting will be on December 16, 2013.

Announcements - Erich Grundel has a tentative program in development, possibly for a club meeting in 2014.

Miscellaneous - George Reimherr had giveaway specimens from 3 localities. The specimens originally came from George Rambo. Scott Braley had mounted micromounts from Western USA localities, which he had purchased from a dealer in Colorado, and now available to the club members for \$1.50 each. The business meeting concluded at 8:33 p.m.

Previous Program Reviewed 11/20/13

Kathy Hrechka showed a sampling, from a video, of the vast micromount mineral slide collection belonging to the late Louis Perloff.

Micromineralogists of the National Capital Area

Meeting: The 4th Wed. of each month 7:30 -10 p.m.
(Except Easter & December)

Long Branch Nature Center,
625 S. Carlin Springs Road, Arlington VA 22204

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

President: Dave MacLean, dbmaclean@maclean-fogg.com

Vice President: vacant

Secretary: George Reimherr, greim@cox.net

Treasurer: Michael Pabst Michaeljpabst@yahoo.com

Editor: Kathy Hrechka, kshrechka@msn.com

The society is a member of:

* Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS) www.amfed.org/efmls

* American Federation of Mineralogical Societies (AFMS) www.amfed.org

Dues: MNCA Membership Dues for 2014 are due.. \$15 (single) or \$20 (family)

Payable to MNCA

Michael Pabst

270 Rachel Drive

Penn Laird, VA 22846



Editors' Notes:

Kathy Hrechka

**AFMS Editors Award
1st Place - 2011 Mini Bulletin**



Each month we will feature a club member's original article. Also, if you enjoy a particular article in an electronic form, forward it to us to be included in the next Mineral Mite. Photos are great too.

Club Article Deadline is 10th of each month.

The Mineral Mite will be emailed on 15th



December Articles

*Cynthia Payne

*Michael Pabst

Billietite and Curite

By Michael Pabst

I have a few more secondary uranium oxides from Katanga, including Musonoi, Shinkolobwe and nearby mines. These crystals are so tiny that they are at the limit of my ability to photograph them. But failure is always an option, so here goes: If you replaced the Pb in Fourmarierite or the Ca in Becquerelite (two minerals featured in previous articles) with Ba, the resulting formula would be: $Ba(UO_2)_6O_4(OH)_6 \cdot 4-8H_2O$. This barium uranium oxide mineral is Billietite. Billietite forms blocky yellow pseudohexagonal prisms, which, in my only sample, are jumbled together on a matrix of green malachite or torbernite (?), as shown in the picture. (To see a really good Billietite photo, go to Mindat (www.mindat.org) and look at the Billietite crystal on Torbernite, photographed by Vessely.)

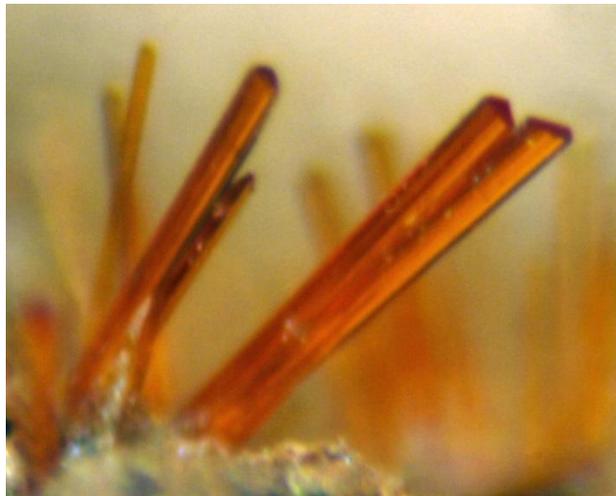


Billietite from Musonoi, Kolwezi, Katanga, Democratic Republic Congo

Another attractive secondary uranium oxide is Curite, which has a formula containing Pb, similar to Fourmarierite:

$Pb_3(UO_2)_8O_8(OH)_6 \cdot 3H_2O$. Curite forms brilliant orange needles, and is often associated with green Torbernite, giving a beautiful color

contrast. One interesting fact is that the Pb in Fourmarierite, Curite, and all the secondary uranium minerals in the Katanga mines comes from radioactive decay of uranium via radon, not from Galena.



Curite with minor Torbernite from Kasolo, Katanga, D R Congo (two views from the same specimen)



If you leave out the Pb, Ca, Ba, or any other cation from the preceding formulas for uranium oxides, you get Schoepite. Schoepite is $(UO_2)_8O_2(OH)_{12} \cdot 12H_2O$. Schoepite forms either clusters of tiny yellow crystals or pseudomorphs after larger crystals like Uraninite.

Article continued on page 4

Billietite and Curite continued



Schoepite on Malachite from Musonoi, Katanga, Democratic Republic Congo

Masuyite is another hydrated uranium oxide: $Pb(UO_2)_3O_3(OH)_2 \cdot 3H_2O$. Its formula suggests that it is a cousin to Fourmarierite. Like Fourmarierite, Masuyite forms pretty red-orange plates, but with ragged edges. Closely related to Masuyite is Wölsendorfite: $(Pb,Ca)U_2O_7 \cdot 2H_2O$. It also forms red-orange plates with ragged edges. Vandendriesscheite is similar, but it forms yellow-orange prisms: $PbU_7O_{22} \cdot 12H_2O$.

An interesting historical note is that three of these minerals were named in honor of Belgian geologists who were killed by the Nazi's. ("Trois de ces nouveaux minéraux ont été dédiés à trois géologues belges victimes de la barbarie teutonne: Billiet, Vandendriessche et Masuy." In: Vaes J F (1947) Six nouveaux minéraux d'urane provenant de Shinkolobwe (Katanga), Annales de la Société Géologique de Belgique, **70**, 212-225.)

Vandendriesscheite, Masuyite and Wölsendorfite are worth looking up on Mindat, if you enjoy looking at pictures of these secondary uranium oxides. Alas, I do not have a specimen of any of them; I have only seen pictures. Another good source for pictures of secondary uranium minerals is *Mineralogical Record*, Volume 20, Number 4, 1989, which is the *Katanga!* issue. (That issue is still available on their website www.minrec.org for \$12.)

Finally, we should not leave the subject of uranium oxides without looking at plain old uraninite: UO_2 . Most crude uraninite or pitchblende is not worth photographing, unless you are fond of looking at bubbly "tar" or chunks of "coal". There are some attractive uraninite crystals from Topsham, Maine, but they are too big (and expensive) for a micromounter. The picture below is of "Urano-Thorianite", which means that it is Thorianite with considerable uranium: $(Th,U)O_2$. (So, it is almost uraninite.) The picture shows two interpenetrating cubes. This photo proves that even black uranium minerals can be beautiful.



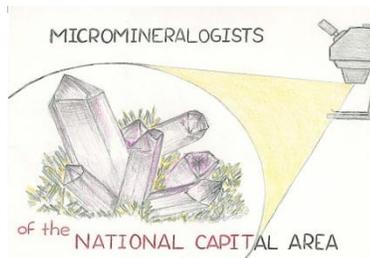
Urano-Thorianite, Yates Uranium Prospect, Otter Lake, Quebec, Canada



Michael & Karen Pabst, Club Members MNCA
Photomicrography by Michael Pabst

Founding and Early Years of Micromineralogists of the National Capital Area, Inc.

By Cynthia Payne



Cynthia and the HOPE

The Micromineralogists of the National Capital Area began in 1967. We have many new members and as I appear to be the only charter member still around, so I thought maybe I should record our beginnings.

(The Mineralogical Society of DC was organized in 1942. When we think about that date, we wonder about those founding members and why they would start a club during a war.)

I decided to write a history of our club's micromounting from when I became interested. I wrote a history of our conference a couple of years ago, so I will skip that part of our activities.

In the early 1960's there was a small group of micromounters who met once each month in someone's home. **Jack Barbour, Phil Cosminsky, Bob Gates, Florence and Ted Ruhoff**, and a few others. I went to maybe half a dozen meetings, and then the group broke for the summer and never got together again.



Phil Cosminsky with his micromounts

In 1966 a group of us in the Mineralogical Society of DC talked **Paul Desautels** into teaching a class on crystallography. He had just given a program on the subject but we really wanted to learn much more about it. We met once each week for many months. At the time Paul was active in MSDC. In fact, he was President one year. At the end of the course Paul suggested we stay together and continue studying or we would forget what we had just learned. Almost all of us were interested in micros so we decided to form a micromount club. The organizing meeting was in **Paul Dunning's** house, where we elected him president. I don't remember who was Vice president, **Vernon Wertz** was Secretary-Treasurer and Editor. My husband, **Warring Barnes** did not know anything about minerals but he did like to go collecting and volunteered to be Field Trip Chairman. We couldn't wait to get out, so the club had our first trip to Cedar Hill Quarry in February the next year.



We met in members' homes, with enough table space for our microscopes. We started as a study group, and for several years. We studied the crystal systems, then learned about a particular mineral, such as pyrite, calcite, copper. Next, we studied sulfates, oxides, silicates, etc. Each member would prepare and conduct a program. Everyone brought several specimens, which were passed around for everyone to see. Grant Edwards was a chemist, so we could always depend on him to bring print outs on the chemistry of whatever the subject was.

I had a very small house, but in 1969 we built a large addition, a living room and a new kitchen. Someone gave us a pool table. We put a full sheet of plywood on that pool table and didn't worry about damaging a good table with rock chips and dust. After a few months we all decided that the large table that we could put a dozen scopes on was better than anyone else's place, so we started to have all meetings at my house. After a year or so, a couple of members said they felt guilty imposing in me. On the contrary, I was happy with the arrangement. In

Micromineralogists of the National Capital Area, Inc.

winter they had to go out in the cold and drive home. I turned out my lights and went to bed. When we started the club, we had coffee and donuts for refreshments. After a short time, the donuts went aside, and we had more variety depending on who was hosting the meeting. **Margaret Maloney** was a great cook and made the most wonderful desserts. We usually had eight to fourteen people at meetings, and almost all were active micromounters. Margaret and Warring were the only spouses.

One day **Eric Grundel** told us he had been to visit **Phil Cosminsky**, who had moved to Harrisburg, and had gotten acquainted with a professor at James Madison University, who started a micromount group of students. He said we really should visit Phil and JMU.



Eric Grundel

It was winter, so we scheduled it as a field trip to the University. Phil took us to the Geology building where we met **Dr. Lance Kearns**.

That was in February, 1980. That trip started the annual winter field trips to JMU.



Dr. Lance Kearns
with his wife **Cindy**

In 1982 unfortunately, Phil had died. He had given his micromount collection to Lance, so we could still see his collection. By then, our visit had become a regular winter field trip. We felt we could ask Lance, to teach us how to use a Petrographic Microscope. He immediately agreed, but said we needed two full days. So later that spring a group of us went to JMU, for the weekend. During lunch **Ruth Wertz** and I sat at a table with Lance, and after a short time the same thought occurred to both of us. We asked Lance if he would speak at our next conference. He has been a speaker several times since. Later he taught another class using heavy liquids to identify minerals. On one trip we

found the microscopes locked in the cabinets. **Joe Murter**, being extraordinarily handy with tools, took the doors off and got the scopes out. One trip it started snowing just after noon, so we decided we better start home early. As soon as we got over the mountain the snow stopped and the sun was out. That day with Lance is one thing I missed when I was traveling to Florida for winters.



Joe Murter

For many years we entered a competitive micromineral case in the EFMLS show. Ruth took it to the National Show for several years. Sometimes the exhibit was a variety of micros, or educational. One year it showcased the Goose Creek Quarry with photos and detailed explanations of half a dozen of the species found there. We almost always won awards, usually a first or second. In 1970 at Atlanta we won "Best in Show for Societies". My husband, Warring did not see much point in showing micros when the viewer could not see them. He had a complete machine shop, so we built a case with a traveling lighted magnifier, which was a great hit. The wiring and switches wore out about the time **Paul Smith** and other Micromounters started using pictures next to each Micro, so I retired it.

I covered the first thirty years of our conference in a previous article, so I will not write anything about it here. But to know about the early days you should know something about those who started the club and kept it going in the early days. I will list some of our founding members, who did other things in our hobby, besides in our club.

Art Roe, who had been volunteering at the Smithsonian after he retired, moved to Tucson. He went to the University of Arizona and properly curated the Micromount collection, then added hundreds of specimens to it. Art wrote numerous articles which were published in the Mineralogical Record. Art is also a member Micromounter Hall of Famer.

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Ruth Wertz, who was mainly responsible for our Conference, was Vice President for many years and President on and off for 7 years. She was the Director of Wildacres for 13 years, on the EFMLS Rules Committee for 16 years, Chair for many of them, AFMS Rules Chairman, President of EFMLS 79-80, exhibited award winning minerals and micros at EFMLS & AFMS shows. Ruth was the editor of The Mineral Mite for 6 years, and wrote articles for Rocks & Minerals. She is also a member of the Micromounters Hall of Fame.

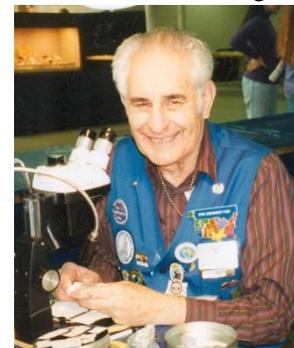
Vernon Wertz was our Secretary, Treasurer and Editor for our first fifteen years.

Cynthia Payne was club President on and off for 6 years, VP several times, Exhibits Chairman 1967 until? She was the AMC Speaker Chair fourteen years, on EFMLS Rules Committee thirteen years, and Co Chair 1982-84. Cynthia was an EFMLS and AFMS Judge for education, minerals, and nomenclature exhibits. She was a Micromount instructor at Wildacres 1980-86. In 1991, she exhibited Miniature Minerals and Micros at EFMLS and AFMS shows. Cynthia designed the Wildacres patch and pin. She is a member of the Micromounters Hall of Fame. While volunteering at the Smithsonian she cataloged Paul Desautels and Herb & Geneva Corbett's micromount collection, as well as part of Randy Rothchild's collection.

We had some other exceptional people who were not founding members, but who contributed a great deal to the health of our club.

Herb and Geneva Corbett were almost charter members. They joined in 1968, and came from Baltimore every month for our meetings. Herb was Vice President for two years, which was very generous as he was very active in the Baltimore Mineral Society. He was Chairman of the Symposium and founder and chairman of the Micromount Hall of Fame. Herb cataloged Neal Yedlin's micromount collection at the Smithsonian. Both Herb and Geneva are members of the Micromounters Hall of Fame.

Fred Schaefermeyer joined in 1982. He was treasurer for nine years, Editor for three, President for three, Co-Chairman of the Conference for a couple of years. He became President of EFMLS and AFMS, including a half a dozen AFMS committees for years. He was a judge of minerals and micros, lectured at other clubs and taught at schools. He is a member of the Micromounters Hall of Fame and also the Bulletin Editors Hall of Fame.



Fred Schaefermeyer

Paul and Jenny Smith joined us in 1976. When our meetings were in Maryland they started having informal meetings in their basement for residents of Virginia who lived too far away to get to regular meetings. One reason we moved to Long Branch for meetings was because they said it was getting too crowded in their basement. Paul was always thinking of ways to mount specimens, for instance he mounted micros on squirrel whiskers. He wrote many articles for The Mineral Mite, and always demonstrated at every show he could get to. Jennie taught crystallography and wrote the book on Crystallography that we could understand.

Paul and Jenny Smith



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American Federation of
Mineralogical Societies

(AFMS)
www.amfed.org

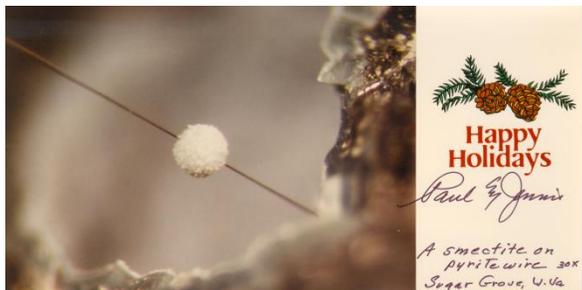
American Federation Show 2014
July 9 – 13 Tulsa, Oklahoma

New officers of AFMS

President - Richard Jaeger (Rocky Mountain)
President-elect - Marion Roberts (California)
1st Vice President - Matt Charsky (Eastern)
2nd Vice President - Ann James (South Central)
3rd Vice President - J.C Moore (Midwest)
4th Vice President - Doug True (Northwest)
5th Vice President - Ann Monroe (Southeast)
Secretary - Anne Cook Treasurer - Pat LaRue



2013-2014 AFMS Officers Photographed above
Doug True, 4th Reg. VP; Pat LaRue, Treasurer; J.C.
Moore, 3rd Reg. VP; Anne Cook, Secretary; **Matt
Charsky**, 1st Reg. VP; Ann Monroe, 5th Reg. VP;
Marion Roberts, President-elect; Richard Jaeger,
President. Camera shy: Ann James, 2nd Reg. VP..



Christmas Card from Paul & Jennie Smith
Pyrite on smectite, Sugar Grove, WV 1990



Eastern Federation of
Mineralogical and
Lapidary Societies

(EFMLS)
www.amfed.org/efmls

Communication and Involvement
Are the Keys to Our Success!

Eastern Federation Show 2014
March 29 – 30 Plymouth Mtg. PA

The 64th Annual EFMLS Convention & Show
hosted by the Philadelphia Mineralogical Society &
Delaware Valley Paleontological Society: LuLu
Temple, Plymouth Meeting, Pennsylvania

Geology Events:

By: Matt Charsky

December:

16 - Holiday Party - 6:30 pm - 10 pm

Long Branch Nature Center, Arlington, VA
Combined with Northern Virginia Mineral Club

February:

8, 2014 - "Thin Section Field Day" 1pm

Northern Virginia Community College Annandale Campus -
John Weidner, Geology Lab Technician, Geology
Department CS Bldg, 1st floor - lab room CS-217
8333 Little River Turnpike, Annandale, VA 22003

22, 2014 - "Field Trip to JMU" - 8:30am - 3pm

Mineralogy Laboratories and Museum at James
Madison University. Dr. Lance Kearns has again
invited the MNCA Micromounters along with the
NO VA Mineral Club and the DC Mineral Club

March:

15-16, 2014 - 50th Annual Gem, Mineral, &

Fossil Show, sponsored by the GLMSMC.

Montgomery County Fairgrounds - Bldg. 6.

16 Chestnut Street, Gaithersburg, Maryland

MNCA Weather alert: SNOW CONTINGENCY

If schools in Arlington County are to be cancelled,
or let out early, because of weather on the day of our
scheduled meeting, we will have no meeting. Call
the NMCA President or a Board Member.