Micromineralogists of the National Capital Area, Inc.

MNCA Website dcmicrominerals.org

The Mineral Mite

Vol. 51 – No. 2 **Washington D.C. – A Journal for Micromineralogists** **February 2018**

February 28 Time: 7:30 pm – 10 pm

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

Program: Tucson Trip 2018

By David Fryauff, Vice-president

Dave will share his first-hand experiences from the Tucson Gem & Mineral Society show.

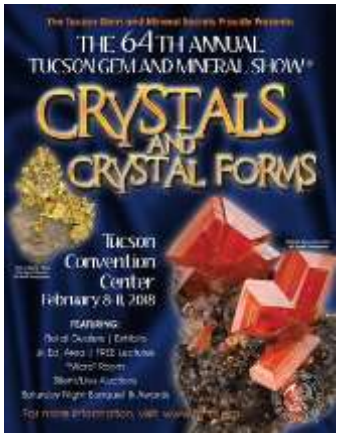

Photo of the Month

President's Message:

By Dave MacLean

We have a March and April opportunity to show off our craft to the public and to those who are micro mineralogists already. The Gem, Lapidary, and Mineralogical Society of Montgomery County GLMSMC show is March 17-18 at the Fairgrounds in Rockville, MD.

We are invited to demonstrate again. We need demonstrators to show the adults and children the wonders of minerals through a microscope or loupe. Please sign up at our February 28 meeting.

Our Alantic Micromounters' Conference is April 6-7. Friday evening and all-day Saturday at the Holiday Inn, Richmond Highway in Alexandria. Here is our chance to hear interesting talks by Herwig Pelkmans from Antwerp Belgium. We will also enjoy an auction, acquire freebie table treasures, trade with others, and enjoy some good geology fellowship.

Remember
Membership Dues: 2018
Single = $15. Family = $20.
Payable to MNCA - Michael Pabst, Treasurer

Photo of the Month
Raspite from Broken Hill Proprietary Mine, Broken Hill, Yancowinna County, New South Wales, Australia. FOV 3.5 mm. Photo by Michael Pabst. Stacked 25 images taken with 60 mm macro lens.

Previous Meeting Minutes: 1/24/18

By Acting Secretary John Kress

President Dave MacLean called the meeting to order at 8:00 P.M.; eight members were present. No past presidents or guests were present.

Old Business:

Kathy Hrechka raised two needs related to the upcoming Atlantic Micromounters' Conference to be held at the Holiday Inn on Richmond Highway in Alexandria, VA on April 6-7, 2018. A speaker is needed for Saturday night; club members are asked to consider suitable presenters and send them to Dave MacLean or Kathy Hrechka as soon as possible so this time slot can be secured. She raised the need to conduct a spirited marketing effort to assure good attendance at this meeting owing to activity date conflicts with other mineral clubs' conferences and functions. Club members are asked to market our conference to all potential groups whose members might come to this meeting. A draft marketing flier and registration form were circulated at the meeting for edits and comments. They will be mailed out shortly and made available on our website.

New Business:

Michael Pabst presented the Treasurer's report indicating our treasury balance, with about half our members having paid their 2018 club dues. He urged all members in arrears to pay their dues.

President David MacLean reported that volunteers were needed to staff the Gem, Lapidary, and Mineralogical Society of Montgomery County, GLMSMC club Show on March 17-18 Our club is expected to staff a table demonstrating the micromounting aspects of the larger mineral collecting hobby. He circulated a sign-up sheet with coverage times and Dennis Hedrick agreed to join David at the show. Additional volunteers are requested; please contact David MacLean if you can help us with this activity.

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270 Rachel Drive Penn Laird, VA 22846

Michael Pabst brought flats of micromounts from the Ulinsky collection donated to the club by Lance Kearns of GMU. Members present decided to allow the purchase of this material at $5/flat with the proceeds to go to the GMU Geology Department. Mike will bring additional material at subsequent meetings until it has all been distributed.

Meeting adjourned at 9:45P.M.

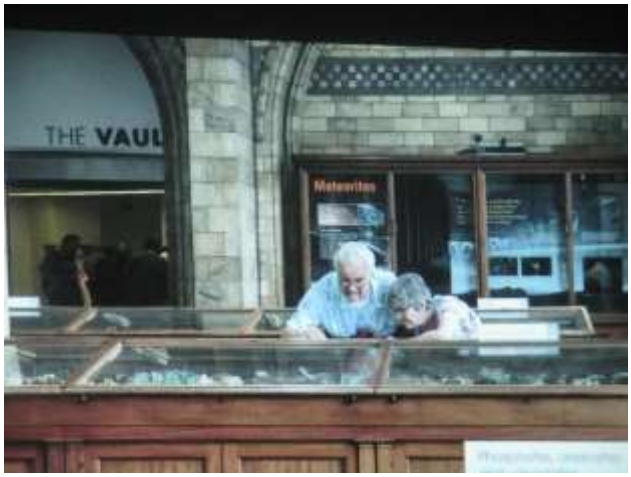
Dave MacLean and Dave Hennessey are viewing their new acquisitions.

Meteorite from China was in Kathy Hrechka's pick.

Previous Program Reviewed: 1/24/18

By John Kress, acting secretary

Michael Pabst presented a slide show titled*: British Minerals: Close-Up Look at Minerals in the National History Museum, London*. It demonstrated how one could dramatically enhance photos taken of museum mineral specimens through Photoshop or related programs bringing out the true color and enhancing the clarity of these specimens. He also matched these specimens with photos from his own micromount collection.



Karen and Michael Pabst are viewing minerals.

British Minerals at the Natural History Museum in London

At the MNCA meeting on January 24, 2018, Michael Pabst presented a talk titled "British Minerals: A Close-up Look at Minerals in the Natural History Museum London". He showed about 80 photos of minerals from the museum, including some photos of corresponding micro minerals from Michael's collection. Using Photoshop to magnify and enhance the photos, Michael showed the audience views of some British minerals that are hard to see clearly in person. Although there are wonderful specimens to see just by strolling by, the talk helped to show the depth and perfection of the museum's vast collection. Of course, some of the micro minerals from the Pabst collection were more beautiful than the corresponding cabinet specimens in the museum, which was no surprise the micro-mineralogists in the audience.

Bournonite, Herodsfoot Mine, Cornwall, England, UK

Linarite, Roughtongill, Cumbria, England, UK

Ludlamite, Wheal Jane, Kenwyn, Cornwall, England, UK

Pyromorphite, Leadhills, Strathclyde, Scotland, UK

Gold, Hope's Nose, Torquay, Devon, England, UK

Photo credits by Michael Pabst

GeoWord of the Day and its definition:

athabascaite (ath-a-bas'-ca-ite) A metallic grayish-white orthorhombic mineral: Cu_5Se_4.

larvikite (lar'-vik-ite) An alkalic *syenite*, grading to *monzonite*, composed of phenocrysts of two feldspars (esp. oligoclase and alkali feldspar), often intimately intergrown, which comprise up to 90% of the rock, with diopsidic augite and titanian augite as the chief mafic minerals, and accessory apatite (generally abundant), ilmenite, and titaniferous magnetite, and less commonly olivine, orthopyroxene, biotite, and quartz or feldspathoids (less than 10 percent by volume). Its name, given by Brögger in 1890, is derived from Larvik, Norway.

Rosiwal analysis (Ro'-si-wal) In petrography, a quantitative method of estimating the volume percentages of the minerals in a rock. Thin sections of a rock are examined with a microscope fitted with a micrometer which is used to measure the linear intercepts of each mineral along a particular set of lines. This method "is based on the assumption that the area of a mineral on an exposed surface is proportional to its volume in the rock mass" (Nelson and Nelson, 1967, p.320).

kerstenite (ker'-sten-ite) A yellow orthorhombic mineral of the *barite* group: $PbSeO_4$. It is inadequately characterized.

All terms and definitions come from the

Glossary of Geology, 5th Edition Revised.

GeoWord of the Day is brought to you by:
Rayfract! Check them out at rayfract.com.

Minerals & Their Localities, 3rd Ed.

By Herwig Pelckmans

Article adapted from the *Bay Area Mineralogists* September 2016

Minerals and their Localities, 3rd edition, 2015. Authors: Jan H. Bernard and Jaroslav Hyrsl. Granit Publishing House, Prague, Czech Republic, pp. 912, 1025 color photos, 170 x 240 mm, hardcover, ISBN 9788072960989, $150.

The first edition of this standard reference book appeared in 2004. Back then it was an instant hit, because it filled a gap in the mineralogical literature: a single, up to date book on all known minerals and their localities. This is THE book you will go back to time and time again, because it offers a condensed overview of almost all minerals known. For every mineral, many important properties are mentioned briefly, with special emphasis on the data that are of importance to mineral collectors. The most important classic AND more recent localities, the dimensions of the crystals found there, and the geological environment it occurs in are mentioned for most species; data you do not always find in other reference works.

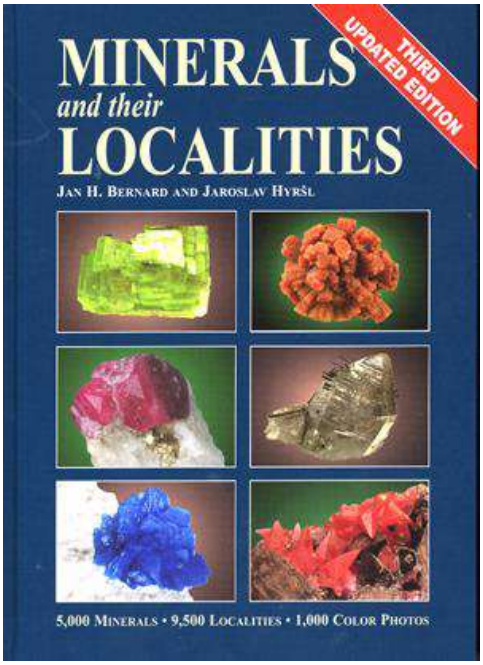
Compared to the first edition, the looks of the book have not changed much. The descriptions are still quite compact, but that did not prevent the number of pages to increase from 808 to 912. It actually makes sense: about 830 new minerals have been described since 2004. The color code on the edges of the pages are still there and make it easy and fast to find a specific mineral. Also, important is that a lot of information has been added or updated for most of the "older" minerals, especially regarding new localities or other important data (Hyrsl, 2016, pers. comm.)
In this latest edition no less than 5,030 minerals, all valid species according to the latest IMA standards (situation of August 2015), have been included. Even though the paper used for this edition is slightly thinner than previous editions, the huge increase in minerals translates to a heavier book: 2.5kg for this edition, being about 200g heavier than the first version.

The number of color photos on the other hand has slightly decreased: 1,025 in 2015 compared to 1,035 in 2004. The good thing is almost all pictures are new; only 5 photos of the first edition have not been replaced.

The dimensions of the photos (7.0 by 4.5 cm) and the book are still the same (17.0 by 24.0 cm). On the other hand, the number of localities mentioned in this third edition has increased considerably: from 8,500 to 9,500. This also means mineral collectors have been very active the last 11 years! :-)

The final good news: the price for this edition ($150) is almost equal to what it was when the first edition became available ($145 in 2004). Considering the number of pages has increased by 13%, and general costs have gone up as well since 2004, you're getting a better deal for such a high quality publication than ever before!

Herwig Pelckmans, San Mateo, July 2016.
References:
1st edition: http://rruff.info/doclib/cm/vol43/CM43_1435.pdf 3rd edition: www.granit-publishing.cz/en/minerals/mineralogy/minerals-and-their-localities-en-3edition



Raspite

By Michael Pabst PhD

Raspite is lead tungstate, $PbWO_4$. Raspite is the low-temperature dimorph of Stolzite (also lead tungstate, $PbWO_4$). Stolzite was featured in last month's article. Stolzite is tetragonal, whereas Raspite is monoclinic. Raspite converts to Stolzite at ~395°C. Raspite is monoclinic - prismatic 2/*m*, β = 107.63°, which means one mirror plane and one two-fold axis of rotation. To help with visualizing this form, there are crystal diagrams on the Mindat page: www.mindat.org/min-3368.html. Raspite was named after Charles Rasp, who discovered the Broken Hill deposit in New South Wales, Australia in 1897.

Last month, I cited a Mindat photo of Stolzite from Broken Hill in New South Wales, Australia that showed the true symmetry of Stolzite: https://www.mindat.org/photo-524402.html. And here is a specimen from Mindat that shows both Raspite and Stolzite on the same specimen from Broken Hill: www.mindat.org/photo-376981.html. I would like to have that specimen! Here is another excellent photo of a pretty specimen of Broken Hill Raspite: www.mindat.org/photo-130810.html.

I have two specimens of Raspite from Broken Hill, which is probably the best location for Raspite. My first specimen of Raspite is a brown and black rock of 6 x 5 x 2.5 cm, with several nice crystals scattered around. The crystals are transparent, and they have an adamantine luster. My tolerable photos below really do not convey how brilliant these crystals are under the microscope.

Raspite from Broken Hill Proprietary Mine, Broken Hill, Yancowinna County, New South Wales, Australia. FOV 3.5 mm. Photo by Michael Pabst. Stacked 25 images taken with 60 mm macro lens.

And here are some other Raspite crystals from the same specimen.

Raspite. FOV 7 mm. Photo by Michael Pabst. Stacked 27 images taken with stereo microscope.

My second specimen is much smaller and lives in a micromount box. It features groups of small but well-developed crystals. Because the crystals are smaller, they are lighter in color, compared with the crystals on the big rock.

Continued next page

Raspite, smaller specimen, stack 6, taken with stereo microscope. Photo by Michael Pabst. FOV 1 mm.

Continuing with tungsten minerals in upcoming articles, I plan to photograph Hübnerite, manganese tungstate, and Ferberite, iron tungstate. The symbol for tungsten, W, comes from the ore "wolframite", which is a mixture of iron tungstate and manganese tungstate. All these tungsten minerals contain tungsten in the fully oxidized state, W^{6+}. Once more, we mineralogists are grateful for the Great Oxidation.

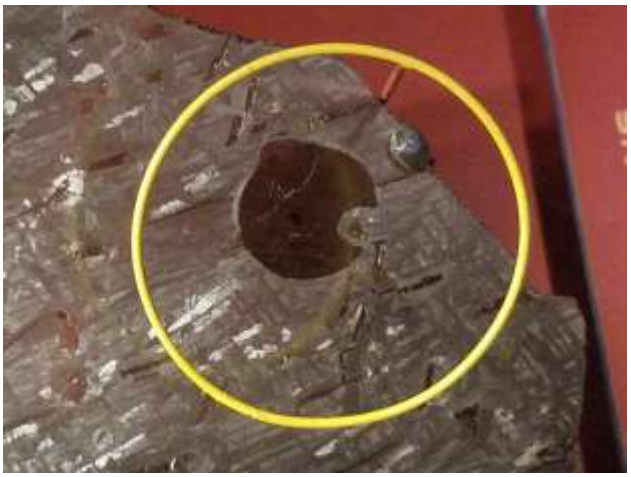
American Museum of Natural History, New York City, New York

By Kathy Hrechka, Editor

While I was visiting our son, Michael in Long Island, I got stranded amidst the snow storm, "bomb cyclone". After the storm moved off shore, I was able to venture to the American Museum of Natural History to study the mineral collection. Upon entering the mineral gallery, no words could describe my disbelief. A guard was place at the entrance, because of visitors like me that just need to study the minerals collection. Closed! Why?

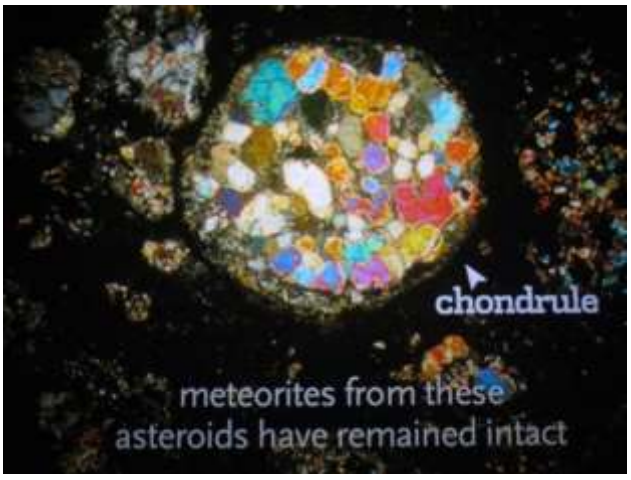
Recovery: I decided to like meteorites. The museum had an impressive gallery. So, I learned something new. I guarantee, I will return in the fall of 2019.

34 tons of iron known Ahnighito, is just a portion of a 200-ton meteorite which landed in West Greenland, Greenland thousands of years ago. This is the largest meteorite in the museum.



Bella Roca, found 1888. Sierra de San Francisco, Santiago Papasquiaro, and Durango, Mexico. All iron meteorites contain grains or nodules of other minerals. When the molten metal cooled and crystallized, elements that do not fit into the mineral structure, became concentrated in droplets between the crystals, such as sulfur, became concentrated in droplets between the crystals.

Chondrules combined with mineral grains in the early solar system.



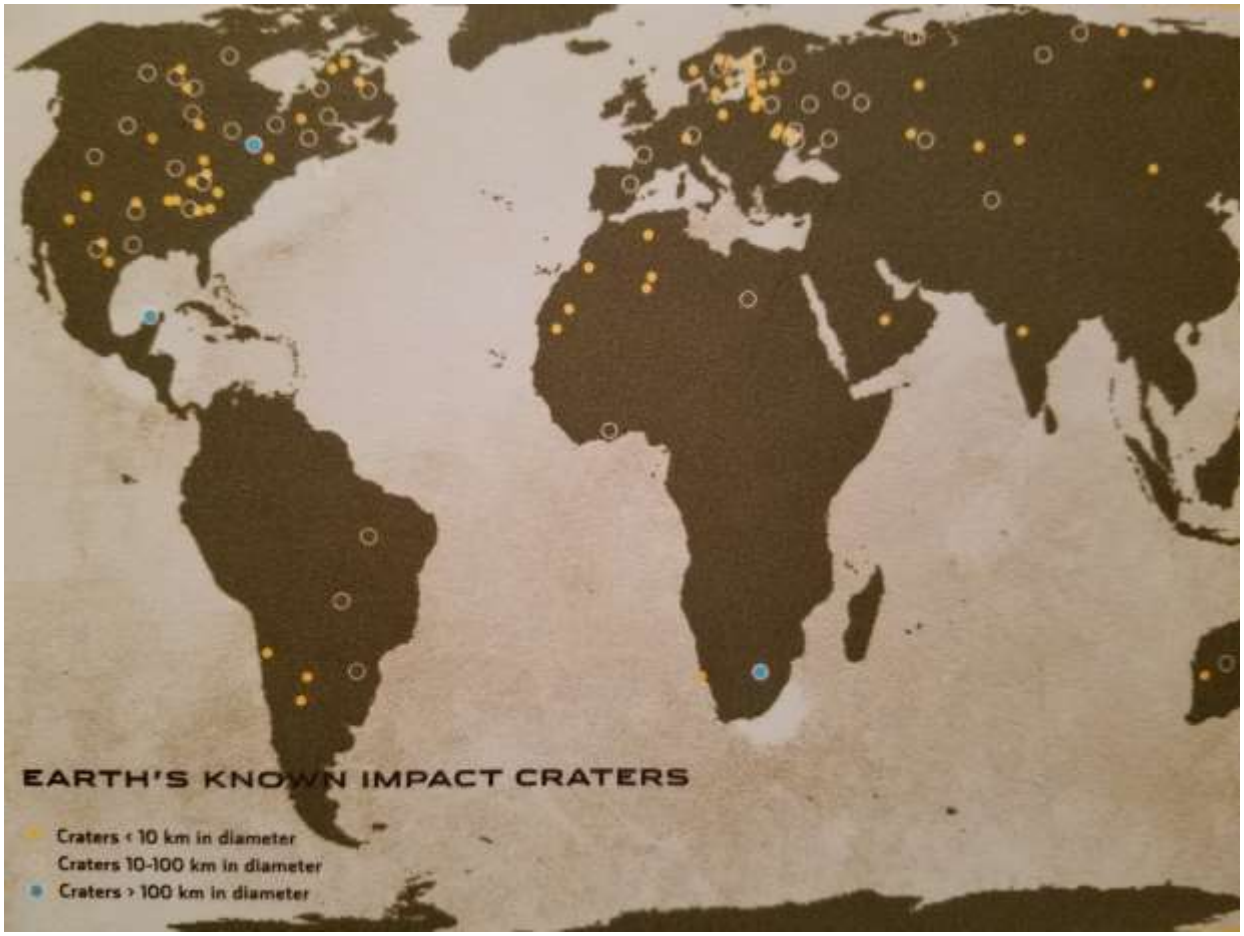
Scanning electron microscopy of a **chondrule**

American Museum continued

Photos courtesy of Kathy Hrechka

New Titanosaur cast Patagonian Desert region of Argentina in Hall of Vertebrate Origin

Theodore Roosevelt Rotunda: Barosaurus cast



American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

Eastern Federation of Mineralogical Societies

(EFMLS)
www.amfed.org/efmls

Communication and Involvement Are the Keys to Our Success!

2018 AFMS Convention & Show

Tar Heel Mineral Club annual show April 7 – 8 Raleigh, North Carolina

Forms can be found on the EFMLS website. AFMS Annual Meeting: Thursday, April 5 (10:30 am)
EFMLS Annual Meeting: Friday, April 6 (7 pm)

Plans are still being finalized for the 2017 EFMLS/AFMS Convention and Show to be held in Raleigh, NC the weekend of April 4 – 8. This is an exciting venue to hold a show since North Carolina is home to numerous ruby, sapphire and emerald mines to name just a few of the gemstones found there.

Hosted by the Tar Heel Gem & Mineral Club, a dual Federation club (EFMLS and SFMS), the club show has always been an excellent one and the members are excited to share their annual event with us. Field trips, both during and after the show are in the planning stage.

March 17 & 18: 54th Annual GLMSMC Gem, Mineral and Fossil Show - Gem, Lapidary, and Mineral Society of Montgomery County MD., Inc.
at the Montgomery County Fairgrounds at
16 Chestnut Street, Gaithersburg, Maryland 20877
Saturday 10:00 A.M. to 6:00 P.M.
Sunday 11:00 A.M. to 5:00 P.M
Admission is $6.00, ages 12 and older.
Admission is Free for Children (11 and under)
Free for Scouts in Uniform.

Geology Events:

February

26: Northern Virginia Mineral Club meeting
7:30–10pm Long Branch Nature Center,
625 South Carlin Springs Road in Arlington, VA

28: Micromineralogists of the National Capital Area meeting 7:30–10pm
Long Branch Nature Center,
625 South Carlin Springs Road in Arlington, VA

Snow Policy: If Arlington County schools are closed on the day of our meeting, we are cancelled.

March

10: 42st Annual Micromount Symposium of the Leidy Microscopical Society
Location: Northminster Presbyterian Church, 140 Trenton Road, Fairless Hills, PA Saturday 9am – 3pm

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Don McAlarnen, 916 Senator Rd, East Norriton, PA 19403 (610) 584-1364
Email: Don.mcalarnen@hpe.com

Atlantic Micromounters' Conference
April 6-7, 2018

Featured speaker; Herwig Pelckmans from Antwerp, Belgium

Herwig Pelckmans was born in the summer of '62 and grew up on the outskirts of Antwerp (not Antwerp, New York, but Antwerp in Belgium). When he was 10, his parents gave him a comic book, on the evolution of life on earth. One section dealt with paleontologists finding dinosaur remains in Mongolia. It did not take long for Herwig to find large bones and teeth himself. The fact that they later turned out to be whale bones and shark teeth, instead of dinosaur fossils, did not really turn him down; the collecting bug had already taken over.

Ever since, his travels and collecting trips have brought him and his family all over Europe and the United States, and even to some countries in Africa and Asia. Besides, he loves to write mineralogical articles and give talks for mineral clubs. Since last year, he is the president of the "MKA" (= the Mineralogical Society of Antwerp; one of the most vivid mineral clubs in the world). Herwig is also promoting the use of the polarizing microscope and the spindle stage as inexpensive and reliable tools for mineral collectors who want to identify their unknowns in a scientific way.

He retired from his job as an officer and a database administrator for the Belgian Army in 2013 and soon realized life is even more hectic when you are retired. He lives with his loving wife and three kids in the small town of Hasselt in Belgium.

Programs: 1. The Many Faces of Fluorite 2. Belgium and Mineralogy 3. Schoep, from Fred Flintstone to Bob the Builder

Location: Holiday Inn, Richmond Hwy, Alexandria, VA (same location as last year) Details are posted on our club website www.dcmicrominerals.org

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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Conference: 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 Affiliation

Dues: MNCA Membership Dues for 2016
$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 5th of each month.
***The Mineral Mite* will be emailed on 10th.**
No newsletter July/August

EFMLS Editor's Trophy Award
First Place 2016 - Small Bulletins

* Dave MacLean
* Michael Pabst
* John Kress
*Herwig Pelkmans
*Kathy Hrechka