Micromineralogists of the National Capital Area, Inc.

MNCA Website dcmicrominerals.org

The Mineral Mite

Vol. 49 – No. 1 Washington D.C. – A Journal for Micromineralogists January 2016

January 27 Time: 7:30 p.m. – 10 p.m.

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

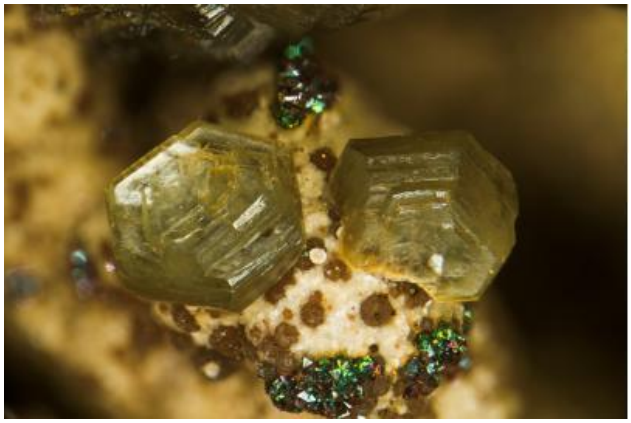
Program: "Exploring the Mines of Dal'Negorsk, Siberia"

By David Fryauff, Vice President

Club members will view a DVD presentation by Rock Currier from the Dallas Mineral Collecting Symposium 2012. He passed away just this past year and was a legendary collector. Thanks to Jim Kostka for the DVD that contains this presentation.

Members who have Dal'Negorsk mineral specimens in their collections are invited to bring them in to the meeting so we can see some of these natural wonders. Cynthia Payne had a good number of Dal'Negorsk specimens in her collection, and I believe I have several of these.

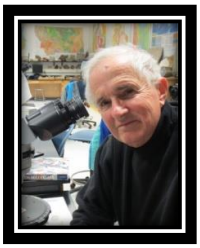
Photo of the Month



Nikischerite Huanuni Tin Mine, Dalence Province, Bolivia. http://www.mindat.org/loc-334.html Named for Tony Nikischer, our 2016 AMC speaker.

President's Message:

By: Dave MacLean



We have three events in the next four months.

*February 13 we can go visit JMU to see Cindy and Dr. Lance Kearns and get our unknowns identified by X-ray powder patterns, close up look by SEM and X-Ray fluorescence. Lance will retire this year. He said he needs minerals thumbnail size and larger to sell to help support the JMU Geology Department's outreach. please bring some to replenish his supply.

*On March 19-20 we will have the opportunity to demo micromineralogy at the Gem Lapidary, and Mineralogy Society of Montgomery County GLMSMC show.

*Friday evening and Saturday all day April 22-23 is our conference at the Springhill Marriott in Alexandria, VA. We need attractive micros mounted and unmounted for the auction. Please give them to Michael Pabst.

Kathy Hrechka won second prize in the AFMS Bulletin Editors Contest, for The Mineral Mite. Congratulations Kathy Julia Hrechka was awarded Honorable Mention for our club Website. Well done.

A reminder, Please Pay your 2016 Dues; only $15.00. Send or give your check to Michael Pabst, 270 Rachel Drive, Penn Laird, VA 22846

2016 MNCA membership dues are due.

Previous Meeting Minutes: 12/16/15

By: Dave MacLean, acting Secretary
for George Reimherr

The President called the meeting to order The Micromineralogists of the National Capital Area and the Northern Virginia Mineral Club are jointly hosting this year's holiday party at the Long Branch Nature Center.

The minutes of the November 18 meeting were accepted as published in The Mineral Mite. There was no treasurer's report.

The president said 2016 dues (15.00 individual and $20.00 family) are due. Dues may be paid at the next meetings or sent to the treasurer Michael Pabst, 270 Rachel Drive, Penn Laird, VA 22846.

By motion duly made and seconded, the members elected the incumbent officers for election the 2016 president, vice president, secretary and treasurer as follows: President – Dave MacLean
Vice-president – David Fryauff
Secretary – George Reimherr
Treasurer – Michael Pabst

Awards: Kathy Hrechka received the plaque as second place winner in the AFMLS bulletin editors contest for the Mineral Mite from Matt Charsky president of AFMS. The AFMS award letter listed The Mineral Mite as the "best of best" in North America.

By motion duly made and seconded the meeting was adjourned for the joint MNCA-NVMC Christmas party.

Previous Program Reviewed 12/16/15

By Dave MacLean, acting Secretary

The Micromineralogists of the National Capital Area and the Northern Virginia Mineral Club jointly hosted their annual holiday party at the Long Branch Nature Center on December 16.

Editor, Kathy Hrechka displays her award.
Second Place American Federation
Editor of *The Mineral Mite*

Crystallography Tree designed by Cynthia Payne

Chromium Minerals: Chromian Titanite on Chromian Amesite

By Michael Pabst

The element chromium (atomic number 24) is neighbor to vanadium (atomic number 23) in the Periodic Table of the Elements. Like vanadium, chromium is a transition metal that can form multiple bonds using its inner electron shell. Like vanadium, chromium produces wonderful colors in minerals. Electrons jumping about in the inner shell absorb light in the visible wavelengths, giving color to minerals that contain transition metals like vanadium and chromium.

One difference is that vanadium occurs in several oxidation states in minerals (V^{3+} and V^{4+} and V^{5+}), and these different oxidation states contribute to the rainbow of colors found in vanadium minerals. In contrast, chromium is found in minerals almost exclusively as Cr^{3+}. Chromium has other oxidation states like Cr^{6+} that are important in chemistry, but Cr^{3+} seems to be the only oxidation state that is stable in geologic environments. Nevertheless, Cr^{3+} can produce a wide range of colors, depending on the nature of the bonds that are formed with the inner electron shell.

Some minerals have Cr^{3+} as an essential ion in the chemical formula, meaning that Cr^{3+} occupies more than half of the sites in a particular position in the crystal structure. However, in other minerals Cr^{3+} replaces Al^{3+} or Fe^{2+} or Fe^{3+} or another ion to some extent, but not above 50%. This is the "50% rule". We are supposed to use the name of the base mineral, if the Cr^{3+} content at a particular crystal site is less than 50%.

We have a beautiful example of two minerals with less than 50% Cr^{3+}, which we are supposed to call Titanite ($CaTi(SiO_4)$) and Amesite ($Mg_2Al(Si,Al)O_5(OH)_4$. But these two minerals, shown below, are so beautiful only because of the Cr^{3+} ions, which are in the minority, but which contribute all the color.

If Cr^{3+} is really important to appearance of the mineral, we are allowed to use the adjective "Chromian". In the example on the next page , we have Chromian Titanite ($Ca(Ti,Cr)[SiO_4](O,OH)$ on Chromian Amesite ($Mg_2(Al,Cr)(Si,Al)O_5(OH)_4$. Note the Cr appears as the second element in the parentheses following either Ti or Al, indicating that Ti or Al are dominant, and that Cr is less than 50%.

It is interesting that Cr^{3+} in Titanite produces green, but Cr^{3+} in Amesite produces purple. This is due to different bond lengths in the respective crystal structures. By the same mechanisms, Cr^{3+} is responsible for the green of Emerald, the red of Ruby, and the multiple colors of Alexandrite. V^{3+} is also sometimes involved in coloring Emerald and Alexandrite, and V^{3+} is used to make synthetic corundum that shows the alexandrite effect (blue-green in daylight versus red in incandescent light). Here is a more complete explanation of color in gemstones:
www.gemologyproject.com/wiki/index.php?title=Causes_of_color

I have seen only one picture that is similar to the one below, showing green Titanite on purple Amesite. The picture appears on the German website: www.mineralienatlas.de/viewF.php?param=1090071362. (This is an excellent mineral website that everyone can use. There is a button to choose English.) There are no dimensions given, but I think that my Chromian Titanite is bigger, and it is a more complex crystal. There are no pictures of green Titanite on purple Amesite on Mindat.org – but I hope to fix that omission.

In some minerals, like some garnets, Cr^{3+} can approach or exceed 50% dominance at a particular site. In these minerals, Cr^{3+} appears as an essential element in the formula of the mineral species, or it appears first in a list of elements in the formula. We will look at this 50% rule again in a future article by examining chromian garnets like Demantoid and Uvarovite.

Continued on page 4

Chromian Titanite on Chromium Amesite, Saranovskii Mine, Permskaya Oblast', Middle Urals, Russia. Field-of-view 8 mm.

For contrast, and to demonstrate the effect of Cr^{3+}, I show below a specimen of Titanite on Clinochlore without significant Cr^{3+}. Titanite is also called "Sphene", which is how this specimen is labeled. The yellow color might be due to some Fe^{2+} or Fe^{3+} replacing Ti^{4+}. Ordinary Titanite is $CaTi[SiO_4]O$, and ordinary Clinochlore is $(Mg,Fe^{2+})_5Al(AlSi_3O_{10})(OH)_8$. In the matrix of the specimen below, there is Clinochlore colored dark green, probably by Fe^{2+}.

Titanite (yellow) with dark green **Clinochlore** (Chlorite) on white Albite. Ankogel, Hohe Tauern, Carinthia (Kärnten), Austria. Field-of-view 12 mm.

We have seen above how Cr^{3+} can give Titanite an intense green color. We will see in the next article what Cr^{3+} can do for Clinochlore, producing Chromian Clinochlore $(Mg_5(Al,Cr)_2Si_3O_{10}(OH)_8)$. Clinochore is a silicate similar to Amesite, if we compare the formulas, so we might expect a purple outcome. If you cannot stand the suspense, look up Chromian Clinochlore on Mindat.org.

Hint: Chromian Clinochlore used to be called "Kämmererite". I prefer the old name!

Atlantic Micromounters' Conference April 22-23, 2016

Marriott SpringHill Suites
Alexandria, Virginia
Please join us in welcoming
Speaker: Tony Nikischer

Tony's interest in minerals was stimulated by an early visit to Franklin, NJ in the 1960s. Today, he is founder and president of Excalibur Mineral Corp., arguably the largest provider of systematic minerals in the United States. The company has specialized in rare minerals for researchers, museums and private collectors worldwide since 1974. He operates an in-house analytical laboratory and is also the publisher of the monthly periodical, *Mineral News*.

He is the founder and chairman of The Hudson Institute of Mineralogy, a not-for-profit foundation devoted to study, preservation and public education pertaining to the mineral kingdom. The Institute is now the parent organization of Mindat.org, the most prolific and widely viewed mineralogical website in the world. Tony has served as a director of the Friends of Mineralogy and is a Life Member of the Mineralogical Society of American, and is also a member of both the Mineralogical Association of Canada and the Mineralogical Society of Great Britain.

In 2001, the new mineral "nikischerite" was named in his honor. Tony has contributed over 200 articles to publications such as *Mineralogical Record, Rocks & Minerals, Mineral News* and *Applied Spectroscopy*, and he has co-authored descriptions of a number of new mineral species. He was awarded the Salotti Earth Science Education award in 2013.

Nikischerite Huanuni Tin Mine, Dalence Province, Bolivia.

Registration details www.dcmicrominerals.org
Reserve your hotel early to receive our rate.
Submitted by Kathy Hrechka, Conference Chair

Robert Hazen: Chance vs. Necessity in Mineral Evolution: A New Approach to an Ancient Subject - Feb. 19 in D.C.

By Robert Clemenzi

Last year I heard Robert Hazen talk on mineral evolution - it was very interesting. According to him, the number of possible minerals changed as the Earth cooled. When liquid water became available, additional minerals were possible. Then, when free oxygen was produced by living things, additional minerals became available. His analysis leads to the prediction that there are ~1500 "missing" minerals on Earth - minerals that must exist but have yet to be discovered. Further analysis predicts what some of those minerals might be and where we might find them.
http://www.philsoc.org/2016Spring/2359abstract.html

Robert M. Hazen is Senior Staff Scientist at the Carnegie Institution's Geophysical Laboratory and Clarence Robinson Professor of Earth Science at George Mason University. He is also Executive Director of the Deep Carbon Observatory, a 10-year project to study the chemical and biological roles of carbon in Earth's interior. Bob's recent research focuses on the role of minerals in the origin of life, the co-evolution of the geosphere and the biosphere, and the development of complex systems. Bob is an author on more than 400 scientific articles and 25 books, including Genesis: The Scientific Quest for Life's Origin and The Story of Earth.

He is a former President of the Mineralogical Society of America. And he is active in presenting science to nonscientists through writing, radio, TV, public lectures, and video courses. Bob earned a BS and an SM in Geology at MIT and a PhD at Harvard University in Earth Science.

Hazen will speak on Fri., Feb. 19, 2016 at 8 PM in the John Wesley Powell Auditorium, adjacent to the Cosmos Club, 2170 Florida Avenue NW, Washington DC 20008. Entrance is through the club gate, the first right-hand entrance on Florida Avenue north of the intersection with Massachusetts Avenue NW. The auditorium entrance is to the left of the gate. The Cosmos Club is within walking distance of the DuPont Circle Metro stop (Q Street exit), the Connecticut Avenue bus routes (L2, L4), and the Massachusetts Avenue bus routes (N2, N4).

The Unsolved Mystery of "Pharmacolite" from Pinto, Maryland

By David Fryauff

I think most of our readers/micromounters know Professor Michael Seeds from the Baltimore Mineral Society. He always writes an interesting article for each of their monthly newsletters and he makes outstanding micromounts. Anyway, I bought several of his micromounts during the October, 2015 Paul Desautels Micromounter's Conference in Baltimore and one of these really got my attention. It was a specimen of pharmacolite $Ca(HAsO_4)\cdot 2H_2O$ from a place called Pinto, in Allegany Co., MD. It also had his name—Mike Seeds—and the date 2/16/13 on the label. What really caught my eye was the location….a rare calcium arsenate mineral from our fair state of Maryland!!!

This micromount is a flat 1.5 cm piece of light gray, fine-grained matrix with 20 or so discrete-noncontinuous groups of recumbent, radial, gypsum-like colorless translucent crystals. It appears these crystals formed in a narrow crevice or seam that prevented upward growth and forced them to spread horizontally. At 20-40X it is quite a nice looking micro, and undamaged except for some rough contact points between the crystal groups and the (presumed) overlying rock that formed the top half of the seam. I was very curious to know where this specimen really came from and the story of its particular occurrence in Maryland....I did not get a chance to ask Professor Seeds at the meeting & did not realize the significance of this specimen until I had done a little more research.

Mindat and the Handbook of Mineralogy report that pharmacolite, a calcium arsenate member of the gypsum supergroup, along with gypsum, brushite, and churchite-Y, all form structurally similar monoclinic crystals. Pharmacolite occurs as an uncommon secondary mineral in formations of oxidized arsenic ores and may also occur post-mining. Crystals of pharmacolite are rare, typically flattened on {010} or needle-like [001] as silky fibrous; acicular clusters; also occurring in botryoidal and stalactitic forms. It is semi-vitreous, pearly, and translucent to transparent and streaks white.

It is soft (Hardness 2-2.5), flexible in thin lamellae, soluble in acids, and insoluble in water. Mindat lists its occurrence in 26 different nations, most significantly in Germany, Austria, France, and the Czech Republic. Mindat lists four states in the US (CA, MI, NV, NJ) as locations for pharmacolite with most occurrences (5 mines) in Nevada. The Sterling Mine at Ogdensburg, NJ is listed as the only recognized eastern US occurrence for this mineral. Upon dehydration, pharmacolite forms the alteration product, haidingerite--$CaHAsO_4\cdot H_2O$—which looks much the same, but as orthorhombic crystals.

Mindat does not have any listing for Pinto in western MD but they have many listings for mines in Allegany Co., MD. Most of these are iron mines and bituminous coal mines. Among these many mines, however, only 15 mineral species are listed and neither pharmacolite nor gypsum are on the list. There are no arsenates of any kind on the list and any pharmacolite would be expected to occur in association with more common, "telltale" arsenates such as realgar, arsenopyrite, and löllingite. However, the Mindat listing for Allegany Co., MD appears woefully incomplete since it does not even include calcite which we know to be a dominant mineral in the Allegany Aggregate (Flintstone) limestone quarries.

I did not have Prof. Mike Seed's email and asked around to other MD mineral collectors for their views on pharmacolite from Pinto, MD. Jake Slagle referred me to his Mineralbliss blog of 26 December 2009 in which he examined & photographed minerals from Maryland in the Harvard University Mineralogical Museum, one of which was a specimen of pharmacolite that had come from the Pinto, MD "railroad cut".

Jake's photo of this specimen was sufficiently clear to see that it was virtually identical to the little micromount I had purchased from Prof. Seeds. In his email to me Jake went on to say that Fred Parker thought that pharmacolite was unlikely to occur in MD, that the Harvard specimen did not look like the Sterling Hill pharmacolite he was familiar with, and that the specimen should be subjected to XRD or EDS for confirmation.

Continued on next page.

Pharmacolite continued

Jake wrote in his blog that when he mentioned this Harvard Museum pharmacolite to Maryland mineral guru Fred Parker, Fred thought the occurrence of such a rare arsenate in Allegany County, or for that matter anywhere in Maryland, was "just silly." Based on his publication on arsenate minerals from Sterling Hill, NJ, I would say that Fred's views are quite likely correct.

I got an email back from Prof. Mike Seeds that did little to clear the waters. He was not aware that pharmacolite was such an uncommon mineral with no record of occurrence in Maryland, and so few valid occurrences elsewhere in the US. He looked it up in his personal catalog as No. 3837 and found that it was not something he had self-collected. Being a Professor of Astronomy and Physics at Franklin and Marshall University, he has, understandably, little time for field collecting and depends largely on dealers, giveaway tables, and trading with friends. He did not recall this particular specimen in detail but suspected that it was something he got from a dealer. However, since no source was listed in his descriptive database, he surmised that it may have come from a giveaway table.

I was curious to know the provenance of the Harvard Mineralogical Museum pharmacolite specimen from Pinto Maryland and whether they had identified their specimen on the basis of analytical confirmatory testing. It seemed likely that such an august institution would have both the resources and the high standards to definitively identify—and label--the minerals in its collections and displays. Their institution maintains a repository of over 400,000 specimens and serves an important international role in supporting mineralogic and geologic science worldwide. Given the clear resemblance of their specimen to common gypsum, why, unless they had good reason, would they label the specimen as pharmacolite?

I contacted Mr. Kevin Czaja, a research and curatorial assistant at the Harvard Mineralogical Museum who specializes in mineral identification, and was informed that their specimen was originally collected (or obtained) from a J. Reiner and came to Harvard via donation in a suite of rare minerals assembled by Richard Gaines. Kevin did not see x-ray info in the database for their Pinto, MD pharmacolite and mentioned that such information might be with the specimen. Unfortunately, this particular specimen was off campus in a "storage facility" (probably sitting alongside a crate containing the Holy Grail or Arc of the Covenant). He wouldn't be able to get this information any time soon but would let me know if he did find out more….

That little bit of additional information from the Harvard pharmacolite about a "railroad cut" got me looking at topographic and satellite maps of Pinto, MD on Google Earth. Sure enough, there is a double set of railroad tracks that hugs the Maryland side of the Potomac River there and it is clear to see that a geologically interesting stretch of blasted rock is exposed along a turn of the tracks that might be about 1km in length. Dark holes in that wall may be natural caves because Mindat does not identify any mines at this site. That was where these "pharmacolite" specimens had been found, I was sure. There was no other railroad cut in Pinto except that one.

However, with caves exposed by railroad cut at Pinto, and possibly bat guano in these caves, I got to thinking that this is a limestone formation and perhaps we were dealing with brushite, the phosphate analogue of pharmacolite. It looked as if that cut, made to accommodate two sets of tracks, and their beds, was wide enough to hike along. There might be plenty of loose rock at the base of this rail cut that could yield more of this pharmacolite (or gypsum or brushite). Maybe even these tracks are completely unused like many others in Western MD. I searched further online to discover that at least one set of the tracks belonged to the CSX system and sent an inquiry to the CSX website asking for information on their current use of these tracks.

I received nothing back from CSX. Interestingly, however, on the West Virginia side of the Potomac River, in Mineral County, and just a few km down the River from Pinto, Mindat records a Knobly Mtn. railroad cut made in 1890 for the West Virginia Central Railroad. This cut into limestone that yielded a host of common minerals: calcite, celestite, dolomite, fluorite, sulfur, quartz, & sphalerite—similar species as are found in the Maryland Flintstone Quarry, but unlisted in Mindat for Allegany Co., MD. This old WV railroad line and cut has almost vanished, but the CSX lines and the exposed rock at Pinto looks fairly recent.

Pharmacolite continued

I asked my friend Jeff Nagy, who is both a railroad man and a keen historian of Maryland mining, what he might be able to find out about these CSX lines in Pinto and the mines and minerals in that area.

While I was waiting to hear back from CSX, and Jeff Nagy, I sent emails out to Erich Grundel and Tom Tucker, both savvy collectors who know the region and who might have views or interest in this unusual Pinto, Md occurrence. Neither of them had heard of J. Reiner but Erich informed me that Richard Gaines, who donated the Pinto pharmacolite specimen to the Harvard Mineralogical Museum, "was a very well-known mineralogist/geologist who had travelled around the world during WWII searching for strategic minerals needed for the Manhattan Project. He lived his final years in Charlottesville, VA. He had many self-collected specimens from exotic locations".

Tom Tucker, a geologist and spelunker, did some searching on Wikipedia and learned that those "caves" I saw in the wall at Pinto were purportedly "limestone mines": "The Pinto Mines - Keyser Limestone at 700 feet (210 m). Along the Potomac River near Pinto a series of disused limestone mines can be found in a cliff face. One of these mines was explored in 1966 using scuba gear, but the deeper passages were not fully explored. The cave was dived and mapped in 1976 to its fullest extent.

Atop the cliff there are several active sinkholes indicating solutional activity; another cave was reported to be in the area, but was not located during Davies' exploration. Other caves have been found west of the mines in the same railroad cut, and can be easily seen in the winter high up in the cliff walls. Peculiarly, a large sandstone boulder blocks the passage of one. Please note: These mines are very unstable and there have been various roof collapses over the years. They should only be viewed from the entrance and not entered."

Interesting how the Wikipedia wording fluctuates back and forth between mines and caves. I cannot believe that men hacked those holes in the cliff and tunneled underground mines for the sake of common limestone. Limestone is so dirt common everywhere in the world that it is always just quarried—never any need to go to the extreme risk and effort of underground mining for limestone, right? There is more to the story. Were men *really* "mining" there or are these natural caves? It is my belief that most, if not all of those holes in the limestone wall are naturally formed caves. I believe they were not mined, but explored

I love field collecting and I will be very satisfied to hike along that stretch of railroad tracks in Pinto, shoot some photos, and examine the rock that has accumulated at the base of that cut. It would be important to have larger specimens of this crystalline mineral—be it pharmacolite, gypsum, or something else--for study and full analysis. If it turns out to be common gypsum it will still be a notable mineral record for Allegany county.

I took my little "pharmacolite" specimen down to the James Madison University Geology Dept. in Harrisonburg, VA and was all set to sacrifice a scraping of the "pharmacolite" crystals from my specimen for the purpose of XRD analysis. Dr. Lance Kearns laughed and told me he'd have to scrape every bit of the mystery mineral off and it would still not be enough for XRD. It would have to be EDS analysis at a later date and he gave me a small adhesive-covered stub for mounting the specimen on. I should have this stub ready for him when we go down to JMU on our annual MNCA field trip in early February (so stay tuned for these results in our March newsletter).

I'm glad that I don't have to ruin a nice specimen, and EDS should easily detect arsenic, if any is present (which I doubt). A nice bonus of the EDS is the chance to get a nice high resolution photo of the crystals by scanning electron microscopy (SEM).

Whatever the EDS analysis proves, or disproves, the results should add a new fragment to our knowledge of the minerals and geology of Maryland.

And all this from a tiny chip of rock……

GeoWord of the Day and its definition:

sterlinghillite A silky white to light pink monoclinic mineral: $Mn^{2+}_3(AsO_4)_2 \cdot 4H_2O$.

All terms and definitions come from the Glossary of Geology, 5th Edition Revised.

GeoWord of the Day is brought to you by: Thermo Scientific! Check them out at thermoscientific.com.

Go to www.agiweb.org/word to subscribe to GeoWord of the day.

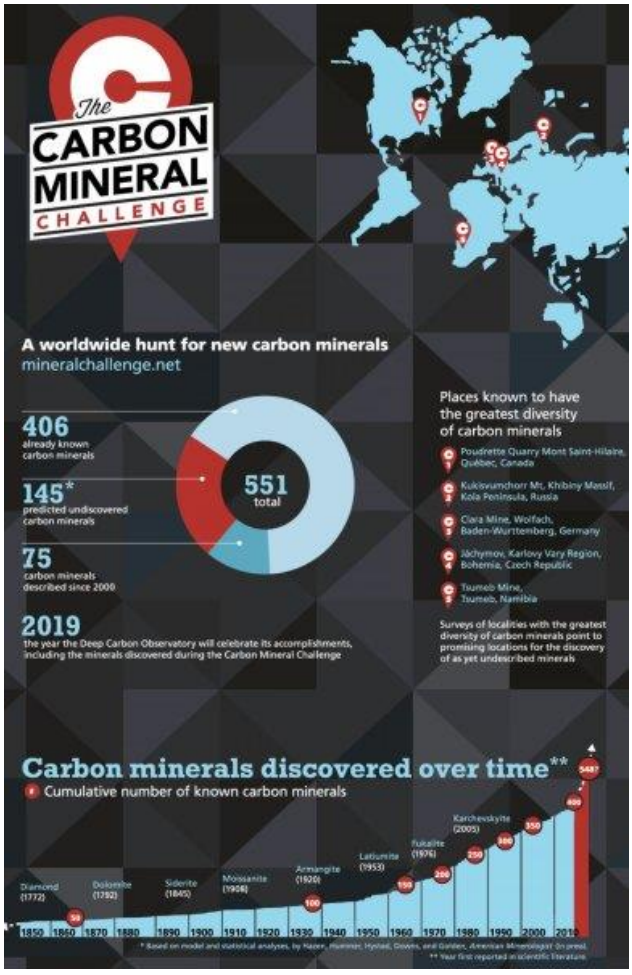
Discovering the Mayan World of Chichen Itza, Tulum, & Coba in Cancun

By Kathy Hrechka

Carbon Mineral Challenge Worldwide Hunt - New Carbon Minerals Science Daily

Submitted by Erich Grundel

New research predicts at least 145 of Earth's carbon-bearing minerals remain undiscovered
Date: December 16, 2015
Source: Deep Carbon Observatory
Summary: At least 145 of Earth's carbon-bearing minerals remain undiscovered, new research predicts. How many can collectors find by 2019? The hunt is on for Earth's undiscovered carbon minerals. Scientists, using statistical calculations, now know how many are out there. They even have some ideas about where to look. But to find them, they need the help of the world's mineral collecting community.
http://www.sciencedaily.com/releases/2015/12/151216231250.htm



American Federation of Mineralogical Societies

(AFMS)
www.amfed.org

Eastern Federation of Mineralogical and Lapidary Societies

(EFMLS)
www.amfed.org/efmls

Communication and Involvement Are the Keys to Our Success!

Congratulations to Kathy Hrechka
Second Place – *The Mineral Mite* Editor
American Federation 2015
Bulletin Editor's Advisory Committee

Photo by Nerine Clemenzi

Congratulations Julia Hrechka!
"Honorable Mention" AFMS
MNCA club website
www.dcmicrominerals.org

Geology Events:

January

23: Philadelphia Mineralogical Society Swap & Sell 9 a.m. to 1 p.m. Cathedral Village
600 E. Cathedral Road, Philadelphia, PA 19128
To swap or sell, you must be a member of a local mineral club and reserve your table by January 10. Contact John Rateike for details and reservations email jdrat@comcast.net Phone 215-576-0741

25: NVMC meeting Presenter - Shelly Jaye, Geology department Northern Virginia Community College

27: MNCA meeting "Exploring the Mines of Dal'Negorsk, Siberia" 7:30 pm Long Branch Nature Center in Arlington

February:

13: Dr. Lance Kearns has again invited MNCA along with MSDC and NVMC, to visit the mineralogy labs at James Madison University, Saturday, February 13, 2016 - that's the Saturday of Lincoln's Birthday (President's Day) weekend. Details will be as usual. It's quite possible that this will be our last invitation to JMU, as Lance will be retiring this year. Hope his replacement on the faculty is as enthusiastic about mineral specimens as he is. RSVP to Tom Tucker threedogtom@earthlink.net. Details are on page 11 of *The Mineral Mite*.

April:

22-23: Our Atlantic Micromounters' Conference – Speaker: Tony Nikischer of Excalibur Minerals
Location – Marriott SpringHill Suites Alexandria, VA 22303

MINERALOGY LABORATORIES AT JMU - INVITATION TO VISIT FEBRUARY 13, 2016

By Tom Tucker **threedogtom@earthlink.net**

RSVP

Dr. Lance Kearns, and his wife Cindy, professors of geology and mineralogy at James Madison University, in Harrisonburg, Virginia, has once again invited our clubs (MNCA, MSDC, & NVMC) to come visit the laboratory facilities at JMU, and their very special Mineralogy Museum. We'll gather at 9:00 AM at the mineralogy classroom, on the lower floor of Memorial Hall, on the JMU campus. This is located in the old Harrisonburg High School, on VA route 42, South High Street, at the junction with Cantrell Avenue (MLK Boulevard). The campus map is at: http://www.jmu.edu/map/regions/memorial.shtml - navigate to the "Memorial Area".

Lance will have coffee and "buns" ready before we arrive. Please be prepared to make a modest donation for Lance's efforts. The funds are used to support field trips and related activities by the students of mineralogy. We will have an opportunity for Lance to examine and perhaps identify any specimens we might have questions about - bring your unknowns for study. Lance may use the Ramen spectrometer, and the x-ray diffractometer to help confirm identifications. After lunch, those interested may go across campus and visit the Scanning Electron Microscope lab, especially useful for identification of micro minerals. If you're a new club member, ask any old timer who has made these trips before - they'll tell you, "Don't miss it"!

The mineralogy museum is the finest such display in Virginia, and Lance will give us a personal tour. To reach Memorial Hall, it's about 130 miles from the beltway on Interstates 66, and then south on Interstate 81, to exit 245. Turn right, go maybe three quarters of a mile, and turn right on South High Street. Proceed north a half a mile to Memorial Hall, on your left, just past the WW I cannon. At the intersection with MLK (Cantrell) Avenue, turn left into the large parking complex. Because it's Saturday, we won't need to get parking permits. Go to the left to the south end of the building, and enter any of several doors. There are signs inside directing you to the Mineral Museum, and hopefully you'll find the mineralogy labs on the lowermost floor.

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
Vice Pres: David Fryauff, fryauffd@yahoo.com
Secretary: George Reimherr, greim@cox.net
Treasurer: Michael Pabst, Michaeljpabst@yahoo.com
Editor/ Historian: Kathy Hrechka, kshrechka@msn.com
Website: Julia Hrechka, dcmicrominerals@gmail.com
Conference: Kathy Hrechka, kshrechka@msn.com

The society is a member of:
* Eastern Federation of Mineralogical and Lapidary Societies
(EFMLS) www.amfed.org/efmls
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Editor's Note:
by Kathy Hrechka

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Club Article Deadline is 5th of each month.
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No newsletter July/August

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