

Mineralogical Society of the District of Columbia



MINERAL MINUTES

The Mineral Minutes is the award winning bulletin of The Mineralogical Society of the District of Columbia, Inc.

The purpose of this Society is to promote interest in mineralogy, geology, and related earth sciences and to encourage mineral collecting. An annual scholarship is awarded to a deserving student in the related field.

The Mineralogical Society of the District of Columbia is one of the founding Societies of the Eastern Federation of Mineralogical and Lapidary Societies.

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DR. BRENT OWENS, of the College of William & Mary: Origin of Willis Mountain & Other Kyanite Deposits



Dr. Brent Owens (above, right), College of William & Mary looks on as MSDC President, Stephen Johnson, introduces him to our group during last year's field trip. Below, explaining thin sections. (photos: S. Sims)

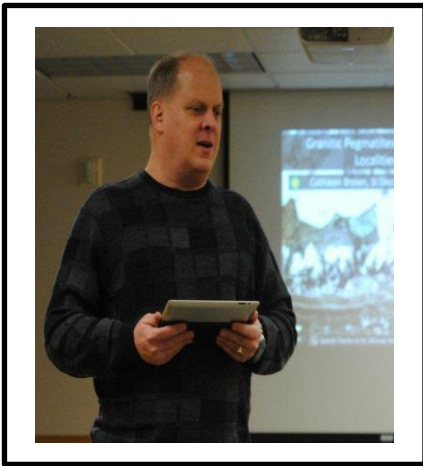
MSDC SPEAKER – JUNE 4, 2014

Brent Owens grew up in San Antonio, Texas, where he first became fascinated with fossils (and arrowheads, too). He has degrees from the University of Kentucky (B.S.), the University of Massachusetts (M.S.), and Washington University in St. Louis (Ph.D.). He has worked extensively in the Grenville Province of Quebec, but now his main research area is the Piedmont Province of the southeastern U.S. At the College of William and Mary,

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Dr. Owens teaches courses on Rock-Forming Minerals, Igneous and Metamorphic Petrology, and a variety of freshman seminar courses.



THE PREZ SAYS...

By Stephen Johnson

First, am glad to be back. We had a great meeting in May with an excellent presentation from Dr. Wayne Sukow on copper agates from

Michigan. This month we're going to have Dr. Brent Owens giving a presentation on Willis Mountain. Composed of Kyanite-bearing quartzite, Willis Mountain stands more resistant to the forces of weathering, 170 meters above the Piedmont in Buckingham County. Much of the mountain's ridge has been removed in Kyanite mining. Dr. Owens will be talking about the formation of the mountain complex and the overall geologic history. For those of you not familiar with Kyanite, its "name derives from the Greek word *kuanos* sometimes referred to as "kyanos", meaning deep blue, is a typically blue silicate mineral, commonly found in aluminum-rich metamorphic pegmatites and/or sedimentary rock. Kyanite in metamorphic rocks generally indicates pressures higher than four kilobars. Although potentially stable at lower pressure and low temperature, the activity of water is usually high enough under such conditions that it is replaced by hydrous aluminosilicates such as muscovite, pyrophyllite, or kaolinite." (from Wikipedia) Kyanite has two related minerals: Sillimanite and Andalusite. These three minerals give geologist detailed information about the temperatures and pressures (depths) that the rock that contains them were formed under. To put it simply, Willis

mountain was formed under high temperature and pressure...definitely not under the conditions we find there now.

At the next meeting, I will also be bringing membership cards so if you're planning on doing any collecting with other clubs over the summer, please ensure that you pick one up. It shows that we have insurance through EFMLS. Speaking of EFMLS, at the last meeting I mentioned Wild Acres as a great venue to learn new lapidary and geology related skills. Sheryl Simshas included a great article by Gerry Cox in this month's newsletter. It's definitely worth a read.

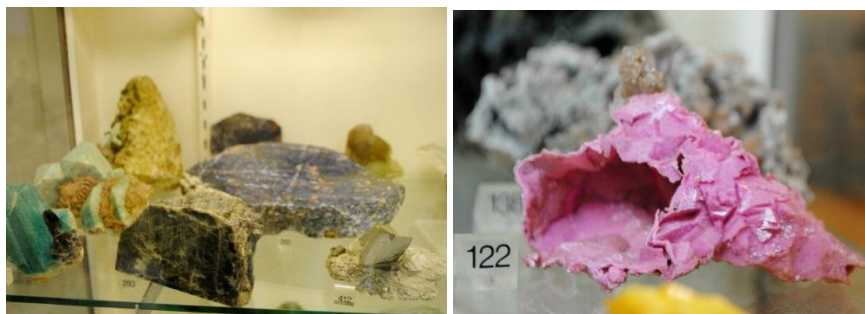
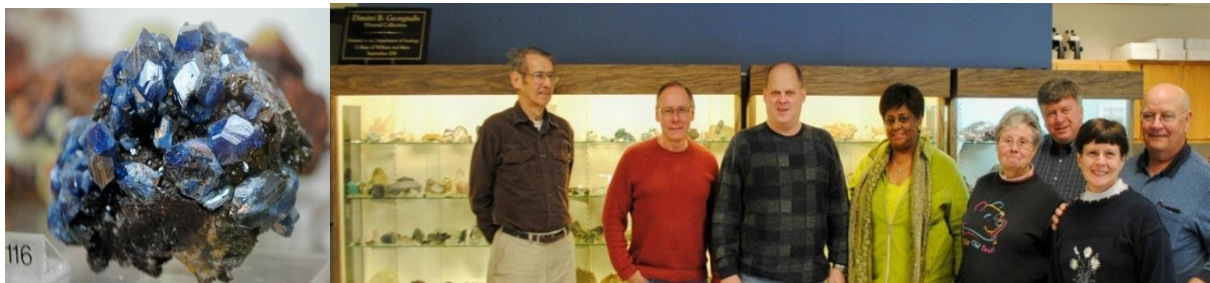
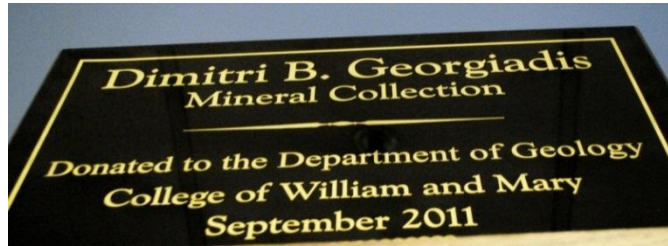
Pat Flavin has done a tremendous job lining up guest speakers. So when we get together after the summer, should be very informative. I've got several ideas that I will discuss with Pat when she returns from her Colorado collecting trip about some others to fill any remaining holes and probably get us lined up well into next year.

See you at the meeting!



VP, Pat Flavin, with presenter, Wayne Sukow

Flash Back from MSDC's April 2013 Field Trip
to meet with Dr. Brent Owens - College of William & Mary,
Williamsburg, Virginia





122: wulfenite on cobalto-dolomite (Namibia); 116: scorodite and pharmacosiderite (Mexico); 49: calcite on vanadinite (Morocco); vanadinite (Morocco); 277: smithsonite (New Mexico); stibnite (Romania); 42: wulfenite (Mexico); wulfenite (Arizona); 335-B: crocoite (Australia); erythrite (Morocco)

EDITOR'S NOTE:

MSDC NEEDS YOU! – to serve as our new editor for 2015. Please give this position a try! If you are interested, contact me and I will be happy to talk with you about what is involved. I'd like to have our new editor work with me towards the end of the year to begin organizing our submissions for the **EFMLS Bulletin Editors Competition.** No volunteers, no newsletter! Thank you! Sheryl Sims, Editor

“I’ve Looked at Clouds (Moon) From Both Sides Now”

By Andy Thompson

On May first, 1969, singer- songwriter Joni Mitchell gave us a Grammy winning ballad which tells the story of someone who has gained a new perspective on life. The song, “Clouds,” shares the voice of a woman whose vision, when younger, was clouded by her romanticism. But today she sees life more clearly, “from both sides now.”

This tune came to mind while reading about scientists’ recent findings of the mapping of variations in the gravity throughout both sides of the moon, the near and far side. NASA, the Jet Propulsion Lab and other scientific organizations collaboratively conducted the study which culminated in successfully placing two satellites in a carefully orchestrated orbit around the moon.. The project was headed by Dr. Maria Zuber, an M.I.T. geophysicist who a few weeks ago took a well-deserved victory lap by sharing some of the findings with enthusiastic audiences in the Nation’s Capital.

The purpose of the study, GRAIL (Gravity Recovery and Interior Laboratory), was to map in extraordinary detail the variations in the Moon’s gravity across the entire lunar surface, while, at the same time, taking detailed pictures of the crust and gathering data on the geological substructure under the crust. The actual collection of

measurements took place during the 464 day mission which started with lift-off from Cape Canaveral in September of 2011 and concluded with deliberately crashing the two satellites, Ebb and Flow, into the lunar surface in December of 2013.

It is always risky business for someone to attempt to summarize the findings of a complicated piece of scientific and geological research. But if readers are interested, excellent articles are readily available for mineral club members to explore in depth. And the discoveries will continue as researchers pour over the data and build a clearer portrait of the lunar geological history. A few bullet points and a newly created crustal-thickness map are listed below to help readers determine their level of possible interest in this topic and also minimize the risk of this article over-simplifying the study and its initial findings.

The “both sides” referred to in the title of this article points not only to the near and far side of the Moon, but more importantly, to the exterior lunar crust and the newly discovered interior structure that lies beneath as discerned by the strength of the varying gravitational force.

- Lunar scientists in recent decades have had to deal with the puzzle of determining the actual size of the Moon’s numerous impact basins. Photographs alone do not tell the whole story. For example, when a meteorite impacts the surface, lava sometimes flows from beneath the surface and spills over a wide area, often exceeding the boundaries of the immediate impact zone. The lava covers the hole made by the impact. So without knowing the actual size of the impact zone, the scientists’ vision is clouded and they cannot accurately estimate the size of the impact nor the size of the incoming object.

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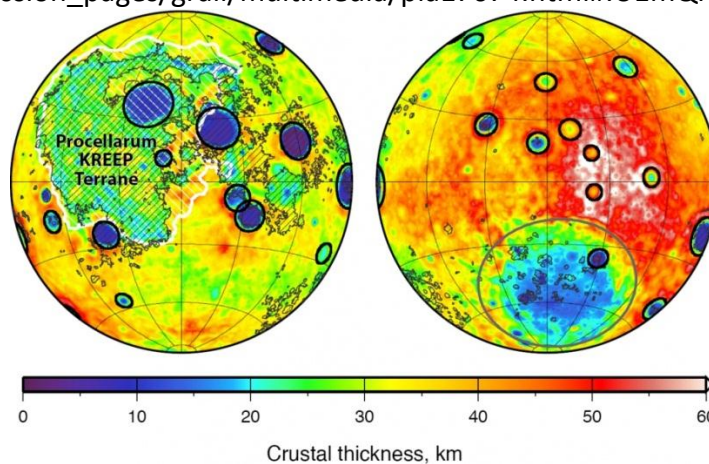
- Scientists agree that the number of the impacts and their associated surface deformations, the craters and dark lava seas or mare, is about equal on both sides of the Moon. But the size of the crustal deformations on the near side is quite different from those on the far side . Why is that?
- The two hemispheres' images below show the near and far sides of the Moon respectively. The map indicates that each lunar side has about 12 large impact zones shown as black circles.
- Based on the strength of the gravity and other data, the illustration's color code uses blue to indicate a thin crust, green for a little thicker, yellow for thicker still and red for the thickest crust. It is clear the near side of the Moon (on the left) has more blue and green, indicating its thinner crust. The far side (on the right) has more yellow and red, indicating it has a thicker crust.
- But, as GRAIL discovered and mapped, the near side's impact zones are much larger than those of the far side of the Moon. What could explain this reality? The GRAIL researchers found for the first time that the crust on the far side is about twice as thick as the crust on the near side. As a result, impacts on the near side seem to have been opening a wider break in the crust, thereby releasing a greater amount of lava from beneath the broken crust.

Even this brief report may serve to give mineral club members a "heads up" with regard to the availability of new findings and understandings of our lunar geology today, and perhaps our Earth's geology and mineralogy tomorrow. If interested, simply use the web to search on the words GRAIL, NASA and Maria Zuber and you'll be

delighted with and perhaps challenged to continue to develop a broader perspective on lunar geology and also on impact zones here on Earth.

A particularly helpful site can be found at:
<http://www.spaceflight101.com/grail-mission-updates.html>

The NASA map below can be found at:
http://www.nasa.gov/mission_pages/grail/multimedia/pia17674.html#.U1mQHlcvHTg



Moon Crustal Thickness

Image credit: NASA/JPL-Caltech/S. Miljkovic

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The above illustration shows a global map of crustal thickness of the moon derived from gravity data obtained by NASA's GRAIL spacecraft. The lunar near side is represented on the left hemisphere. The far side is represented in the right hemisphere.

In the left hemisphere, outlined in white, is the Procellarum KREEP Terrane, a large province on the near side of the moon which contains high abundances of potassium, rare earth elements and

phosphorus. Excluding the Aitken basin at the south pole (the gray circle on the lower half of the far side hemisphere), there are 12 impact basins with crustal thinning that have diameters greater than 124 miles (200 kilometers) on each hemisphere. Those are marked with black circles. The image is presented in two hemispherical Lambert azimuthal equal-area projections centered over the near side (left), and far side (right) hemispheres.

EACH ONE REALLY CAN TEACH ONE!

By Sheryl E. Sims

I was so happy to be able to put on a mineral display at my church recently. During a fundraising dinner, I participated in the "talent" portion of the evening by showing off the display made up of the charts that Jim Kostka shared with me from the Boy Scouts/Eagle Scout project. I was able to briefly explain the cycle of rocks, minerals found in the home and the use of minerals in many buildings around us. This tied in perfectly with the church youth group's mission trip to South Dakota as Mount Rushmore was used as a mineral example in one of the charts.

Having children from the audience come up to assist me and to pass the various mineral boxes around the room to show others proved to be a huge hit! People enjoyed the fact that it wasn't the typical type of thing that one would see at a talent show, and they loved the educational aspect. It peaked many people's interests. Numerous people asked me about minerals the next day at church and had questions about the club. I've invited them to visit our club meetings and hope that they will eventually join. Many parents were interested in the mineral demo and spoke about their own collections as children.

Although my knowledge of rocks and minerals is very limited, the use of the charts and mineral boxes still made it possible for me to pass along to others minerals, information, and my passion for our hobby. None of this would have been possible without the efforts of the Boy Scouts and Jim Kostka's generosity in providing the materials that I used and



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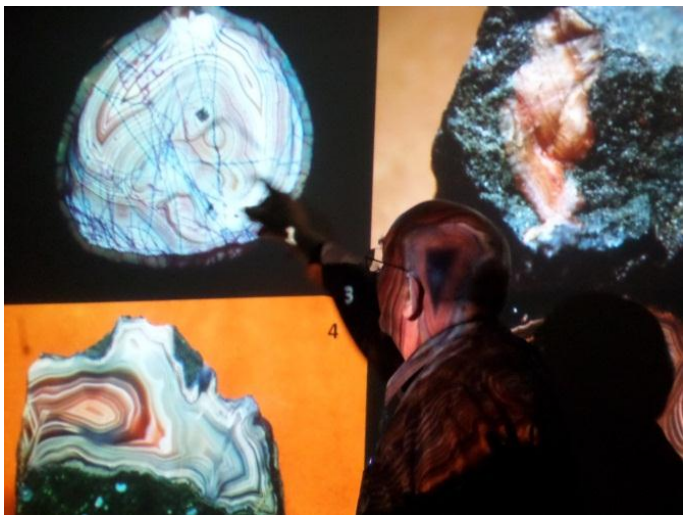
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shared. Remembering how members of the club so generously gave specimens to my daughter, Amber, and me, I too, brought some from my collection to give my junior rockhound assistants and some pretty river rocks to pass around to the audience.

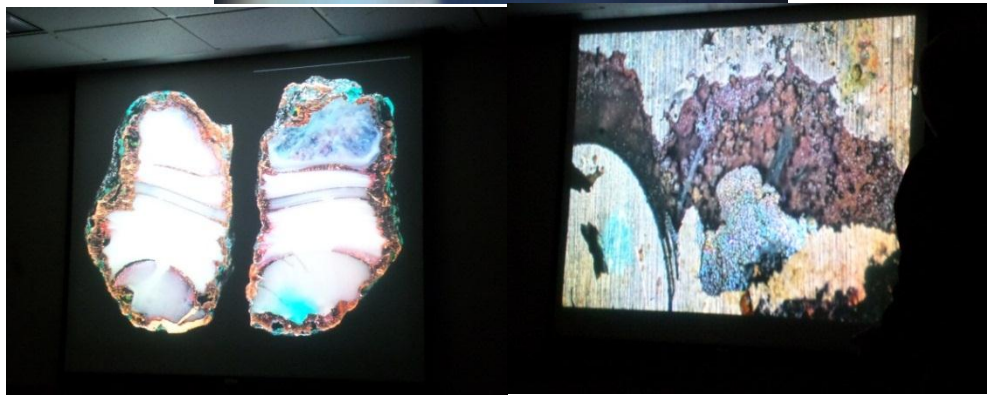
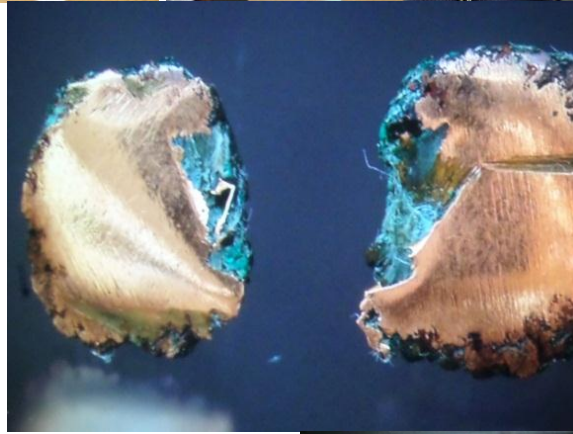
While I love collecting and feeding my personal interests in minerals, it is deeply satisfying to create in others an interest in earth sciences, rocks, and minerals. This, as you know, is what our clubs are all about, and as I found out, each one really can teach one, and it doesn't have to be hard!

MAY MEETING (Agate slides property of Wayne Sukow)



MSDC Pres, Steve Johnson is presented with EFMLS Award

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CHINESE PAINTING STONES

By Sheryl E. Sims



I just love Chinese painting stones! Being the type of person who does a lot of things a little bit, I discovered the beautiful stones a few years ago while attending one of my first mineral shows. While attending the EFMLS conference this year, I ran across the stones pictured above. Every time I see Chinese painting stones, I'm reminded of landscape paintings. Perhaps I'm drawn to them because of my own joy of painting, with landscapes being among my favorite things to paint. I can't get over how realistic each stone is and how uniquely beautiful nature handiwork is. They are just amazing!

After a bit of research, I discovered that some of these stones are from a very remote area of south west China, from a rock formation dating back 250 million years (Permian Era)¹ from the Solitary Mountains. Comprised of limestone, mostly, they also contain grey silica and calcium. The hardness of these stones is Mohr 4-6.

What I find most fascinating is that the beautiful pictures are the result of weathering. Water dissolved the minerals which seep into the stones inside and along their cracks and fissures. The colors are created from the various minerals mixing together. Many village artisans cut, shape, and polish the stones to enhance their obvious beauty.

¹ The Permian is the last period of the Paleozoic Era, following the Carboniferous Period and preceding the Triassic Period of the Mesozoic Era. The concept of the Permian was introduced in 1841 by geologist Sir Roderick Murchison, who named it after the ancient kingdom of Permia. The Permian witnessed the diversification of the early amniotes into the ancestral groups of the mammals, turtles, lepidosaurs and archosaurs. The Permian Period (along with the Paleozoic Era) ended with the largest mass extinction in Earth's history. http://en.wikipedia.org/wiki/permian_era.

Minium - $Pb^{2+}_2Pb^{4+}O$

By Sheryl E. Sims



It was quite by chance that I discovered that I had what I now know was a fairly rare mineral. All I knew was that I had purchased a flat of assorted minerals during an auction and it had some pretty colored minerals in it. Once was a decent sized clump of orange something or another and I liked it.

Our club had been invited to visit Dr. Lance Kearns at JMU as we've been fortunate enough to do numerous times before. Dr. Kearns encouraged us to bring our "unknowns" and he would help us identify them. That was just the offer I needed! As a relatively new collector, there are *many* specimens in my collection that are unknown to me. Also, I learned a bit late that true collectors, get the name, location, and other identifying information for each piece that they collect. It's not simply a matter of having pretty mineral in your collection. However, pretty is good in my book.

When we arrived at JMU, I rushed to the geology department with my box of minerals. Dr. Kearns took me and others to his lab and patiently looked at all of our "finds". While I was waiting for my turn, another enthusiastic member sat down next to me and was excited to discover that I had a sample of "minimum." He said that it was hard to find and that he had been looking for a piece for his collection. Thankfully, he also informed that Minium was toxic and that I should not touch it. He suggested that it would be a good idea to keep it in a closed box, with an appropriate label, and to wash my hands. Thanks, Dave Fryauff, I did that just as soon as I got home!

Minium is also known as red lead and is a naturally occurring form lead tetroxide - $Pb^{2+}_2Pb^{4+}O_4$. It's can be a light red or even darker with brown and yellow tints in it. It has a tetragonal crystal system. Minium is in fact rare. It is found in mineral deposits that have experienced severe oxidization and can also be formed by mine fires. Other minerals that it is associated with are: cerussite, galena, litharge, massicot, mimetite, native lead, and wulfenite.² It can be found in small amounts all over the world. Such locations are Germany, Scotland, France, Sweden, Italy, Iran, Namibia, and the US. Minium has been found in Arizona, Idaho, Colorado, and Mexico. It has been reported that some very good specimens were found by a mine fire at Broken Hill mine, located in New South Wales, Australia. You may be wondering, from where does the name Minium come? The name comes from the Iberian river which was once known as *Minius*, by the Romans, and later as *Miño* by the Spanish and *Minho* by the Portuguese. It has a Mohr's hardness of 2.5 and its luster is dull to somewhat greasy.

I'm so glad to be a member of a mineral club. It's great to have access to the knowledge and experience of so many seasoned geologists, rockhounds and mineralogists. Keeping my article on Minium to a minimum, I will simply close by admitting that I am fortunate to learn so many things by keeping good company with my fellow rockhounds. It happens without me even trying!

Photo Attribution: Rob Lavinsky, iRocks.com – CC-BY-SA-3.0. Locality: Old Yuma Mine (Yuma Mine), [Saguaro National Monument](#), Amole District, Tucson Mts, [Pima County](#), [Arizona](#), USA ([Locality at mindat.org](#)) - Size: 4.8 x 3.8 x 3.4 cm. Intense red microcrystals or druse coating matrix, of this lead oxide species. The matrix seems to be cerussite altering to galena or anglesite. Ex. Bill Pinch Collection. [http://en.wikipedia.org/wiki/Minium_\(mineral\)](http://en.wikipedia.org/wiki/Minium_(mineral)); <http://www.mindat.org/photo-232909.html>

² [http://en.wikipedia.org/wiki/Minium_\(mineral\)#cite_note-HBM-1](http://en.wikipedia.org/wiki/Minium_(mineral)#cite_note-HBM-1)

Secretary's Report



By Rick Rieber

Meeting Date May 5, 2014

Place: Cathy Kerby Rom. CE-340. The Smithsonian Museum of Natural History

Attendees: 15

8:30 pm call to order

Agenda President addressed members and thanks VP, Pat Flavin for filling in for him. VP introduced speaker, Wayne Sukow. Urged participation in Wildacres as enrollment is dwindling. Minerals in the News – news items provided by Jeff Gruber and Sheryl Sims.

Minutes Approved: April minutes approved/seconded.

Visitors: No visitors

Treasurer's report: Not available..

Old Business: EFMLS 2nd Place Award presented to Steve Johnson. Discussion regarding scheduling a board meeting and location for pre-meeting dinners.

New Business: Discussion regarding access to Kirby room when staff member is unavailable. Discussion of schedule to help Cynthia Payne organize her collection. Steve Johnson will print and bring new membership cards to next meeting. The board will work on scheduling a meeting in May.

Adjourned 8:45 pm for presentation. Dr. Wayne Sukow to speak on the subject of agates.

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MORE REFRESHMENTS, PLEASE! A big THANK YOU to **Betty Thompson** for the delicious refreshments that she made for our May meeting! If you are able to bring refreshments to our monthly meetings, please do so.

WELCOME! WELCOME! WELCOME! Guests are always welcome to attend MSDC meetings.

Treasurer's Note: -
Treasurer, Rebecca Siegal



(Photo by Ann Cameron Siegal)

Please continue to invite your friends! Great as always to see our friend and member, George Loud, at our last meeting!

THANK YOU to Andy Thompson for the time that he devotes towards proofreading the Mineral Minutes. His assistance is invaluable!

Best wishes to Ann Cameron Siegal as she makes a smooth recovery from hip surgery!

Please send all treasurer-related emails to: dcm mineralclub@gmail.com. Also, please make sure that the Treasurer has your most current contact information.

2014 DUES

Please renew your membership today!
\$20 for single member-ships. \$25 for family memberships.



Mail to: P.O. Box 9957
Alexandria, VA 22304
U.S.A.

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AFMS NEWS

[From the April 2014 Issue – AFMS Newsletter - <http://www.amfed.org/show2014.htm>]

2014 AFMS/RMFMS CONVENTION & SHOW

Dear Fellow Rockhounds:

I want to invite and encourage you to attend the combined American Federation/Rocky Mountain Federation Show & Convention in Tulsa, Oklahoma from July 9 to 13, 2014. The actual show is from July 11 to 13 with various meetings beginning on July 9. The AFMS Show is always a wonderful opportunity to visit with fellow rockhounds from around the country. It is also a chance to share ideas, see new materials, make new friends, and become more familiar with another area of our wonderful country.



The Tulsa Rock & Mineral Society, in conjunction with the RMFMS, has been working hard to provide us with an excellent show; it will be complete with dealers, a variety of exhibits, kid’s activities, programs, silent auction, field trips, and more. They will also be providing the usual All-Officers Luncheon on Thursday, the Cracker Barrel on Friday, the Awards Banquet Saturday evening and Breakfast with the Editors & Webmasters on Sunday morning. You should really try to attend one or more these functions as they truly add to the show experience. Of course this is also where the AFMS will conduct the business of our Federation. The AFMS Uniform Rules Committee will meet Wednesday evening with the annual AFMS Board of Directors and AFMS Scholarship Foundation meetings taking place on Thursday.

Once again, I invite you attend the AFMS/RMFMS Show & Convention and am looking forward to visiting with as many of you as I can.

Richard D. Jaeger
President,
American Federation of Mineralogical Societies

Deadline for making all reservations is June 16, 2014. Addresses for mailing competitive and non-competitive entry forms as well as convention registrations (including the banquet and all officers luncheon) are on the respective forms. You can download all the convention forms by visiting the AFMS website <www.amfed.org> and clicking on the show header on the home page.



AFMS Newsletter – April 2014

What Every Club Should Know About Tax Status -- Addendum

by Jon Spunaugle

When I agreed to write the above article, I had ordered a copy of the IRS Publication 557 "Tax Exempt Status for Your Organization" to be sure I had the most up-to-date information in writing the article. Unfortunately I did not receive the copy I requested until February of 2014, after the article was printed in the AFMS Newsletter. In that IRS Publication there is a paragraph on page 11 entitled "Annual Electronic Filing Requirement for Small Tax Exempt Organizations" In this paragraph it is pointed out that small exempt organizations, like most clubs that are members of the AFMS and its Regional Federations, must file a form 990N each year even if their gross annual revenues are under \$50,000. In this section it goes on to point out that "ANY ORGANIZATION THAT FAILS TO MEET ITS ANNUAL REPORTING REQUIREMENT FOR 3 CONSECUTIVE YEARS WILL AUTOMATICALLY LOOSE ITS TAX EXEMPT STATUS." To regain exempt status they will have to re-apply. Exceptions to this rule are: churches, organizations included in a group return, Private

Foundations (they file a form 990 PF), and Form 990 and 990EZ filers. Thus if your club is a qualified "Exempt Organization" you must file the Electronic Form 990N each year if you have any revenue at all, which includes dues. The due date of the filing is the 15th day of the fifth month after the end of the clubs tax year. The form 990N is an electronically filed return that requests the following information:

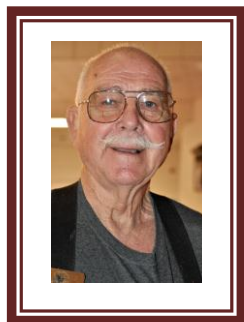
1. The organization's Name and Address.
2. Its internet website address (if any).
3. Its taxpayer ID.
4. The name and address of a principal officer.
5. The organization's annual tax year.
6. Verification that the organizations gross receipts are normally \$50,000 or less.
7. Notification if the organization has terminated.

Sorry I did not have this information when the article was written.

From the (AFMLS) President-Elect

by Marion Roberts, President-elect

[AFMS Newsletter – April, 2014]



June 2014

Greetings to each and every one of you.

As your president elect, I feel that it is time to introduce myself to all

who do not know me yet and say hi to those that do. I am Marion Roberts from the California Federation and live in Modesto, CA. which is in the north central San Juaquin Valley, just 70 miles south of Sacramento. I was a very young transplant from north east Missouri, where my family farmed.

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I was CFMS President in 2005, a Society Federation Director since 1997 or 98, and I'm still an active director. I have been an active instructor, committee member and chair of our Earth Science Program since 2001. I taught faceting for five years at Camp Paradise and was Chief Cook and bottle washer for 6 years at Camp Zzyzx.

I'm 81 years of age with, as my doctor says with a 105 year old body, but have a 30 year old mind. I love all areas of the Lapidary Arts, and mostly learning and trying new things. I'm a very strong advocate of education and competition as a learning tool.

It is now time for me to get acquainted with each and all of the committee chairs for familiarity reasons as

well as to prepare a budget and assemble our working unit for the 2015 year.

Since I was not trained on a typewriter my wife Vivien puts everything on the computer for me after I write it. I do prefer to talk to everyone in person, but will use the phone as an alternative due to distance between here and everyone else. I will be calling many of you in the near future. I will attempt to contact you in the early evening. If this does not work for you, please let me know, and I will call at your best time. My phone number is 1-209- 538-0197 or e-mail <mvroberts1@comcast.net>.

I wish you all good hunting and good creating and am looking forward to meeting and seeing you at a CFMS show or this July in Tulsa.

Marion



(Microsoft Clipart)

Speaker Flash Back

January 2014: Tim Rose, Smithsonian, Museum Specialist-Manager, Analytical Laboratories, Department of Mineral Sciences, will start our New Year off with a presentation on: The Mysterious Stone Masks of Teotihuacan, geologist in the Division of Mineralogy, for The Smithsonian National

February 2014: Sue Marcus, Australia— Minerals and Museums.

March 2014: GWU Field Trip/Dr. Richard Tollo & Student Presentation

April 2014: Joe Marty – Microminerals

May 2014: Wayne Sukow – Agates

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UPCOMING EVENTS:

May

3-4: Treasures of the Earth: 11th Annual Show and Sale; The Mineralogical Society of Northeastern Pennsylvania, Oblates of St. Joseph, 1880 Highway 315, Pittston, PA

14: Field trip, 1-4:30 p.m., to Flag Ponds Nature Center Beach, Calvert County, MD; best beach in the country for Miocene megasharks' teeth; \$35 for total group, including educational tour; for info about Flag Ponds, go to <http://www.calvertparks.org/Parks/FlagPonds/FPhome.htm>; for more information on the field trip, contact Pat Flavin at 703-992-8345 more information and ticket sales, go to <http://www.smithsonian.com/future>

17-18: 46th Annual World of Gems and Minerals: Gemstone, Jewelry, Bead, Mineral and Fossil Show; Berks Mineralogical Society, Leesport Farmer's Market, Route 61, Leesport, PA

24: Ruhl Armory Show; Sat. 10-4; Chesapeake Mineral Club, Baltimore, MD
<http://www.chesapeakegemandmineral.org/>

June

7: 62nd Semi-Annual Mineralfest; Pennsylvania Earth Sciences Association; Macungie Memorial Park, Poplar Street, Macungie, PA

July

11-13: 2014 AFMS/RMFMS Convention and Show; Central Park Hall, Tulsa Expo Square, 21st and Yale, Tulsa, OK; Theme: Rocks and Gems of the Indian Territory; Fri/Sat 9-6, Sun 10-5; \$6 for 1-day pass, \$10 for 2/3-day pass, children 12 and under free; Finis Riggs, 918587-4400, Lriggs1331@cox.net

August

15-17: Gem Miners Jubilee; Fri. 10-6, Sat. 10-6, Sun 10-4; admission: \$6; Lebanon Expo Center, Lebanon, PA <http://www.gem-show.com>

September

1-7: EFMLS workshops at Wildacres Geology Retreat; Fall classes, tuition \$390
www.amfed.org/efmls

November

22-23: Northern Virginia Mineral Club Annual Show; George Mason University; Braddock

S.C.R.I.B.E. is an international organization of bulletin editors of amateur gem, mineral, and earth science societies. S.C.R.I.B.E. exists to:

- improve communication and public relations among gem and mineral societies, their federations, and other related organizations through involved bulletin editors; and
- advise and assist new editors with old ideas and old editors with new ideas while giving all editors a share in all ideas for publishing better bulletins

Visit the website at: <http://scribe.rbnet.net/>.

**Mineral Club Friends Enjoy an Afternoon
with Dave & Leslie Nanney Viewing Azaleas Garden**



(Photo Credit: Barry Sperling)

REMEMBERING MARIE BROWN

By Sheryl E. Sims



Sadly, Marie Brown passed away Monday, April 28 after an extended illness. Although not a member of MSDC, many of us knew her because of her membership with another mineral club. Today, she is missed by many. Marie was a dedicated rockhound and a very sweet person. She possessed a great lapidary talent. I still remember admiring her beautiful lapidary work and the fun time that my daughter, Amber, and I had at a mineral yard sale that she held some years ago. I will miss Marie. She was a real jewel.

Vol. 14 No. 4 THE HOT SPRINGS BULLETIN April 2014 p. 6-7

Record Gold Nugget Found!

Tuesday, March 15th, 2011 –

The discovery in Nevada County, California, of a nearly 7-pound gold nugget has been called a one-in-a-billion lucky find. On the eve of the auction of the so called “Washington Nugget” in Sacramento, its finder has told the story. In addition to a little bit of luck, it’s a tale of geological knowledge, use of modern technology, elbow grease - *and fear*.

He’s afraid to keep his find at home! “I’m just a little paranoid about people knocking on the door, putting a gun to my head and saying, ‘Where is it?’” said the finder. Hence, he demanded anonymity until the treasure sells.

The find was far from total luck. The Nevada County resident had a piece of undeveloped property – not far from the old gold mining town of Washington, California – assayed by a professional for possible gold deposits. “Just to see what gold would be down to the first 10 feet,” he said.

There was some fine gold, and a hint that there might be more in the bedrock beneath the old mining tailings. Knowing how Gold Rush lodes were found in similar bedrock, “it led us to think there may be some,” he said. A friend brought in a piece of equipment known as ground-penetrating radar. Similar equipment is used to locate sewer lines underground, or potential archaeological sites buried beneath centuries of dirt. In this case, it revealed the lay of the land buried beneath a yard or more of old mine tailings.

We found an anomaly – a crevice or crack that indicated that it would be a good target,” he said. Such crevices sometimes trap nuggets. And this one was less than 10 feet down – the depth limit for their rented backhoe. After digging, they used a metal detector that can distinguish between gold and ferrous (iron-based) metals. “We started to use the gold detector and we got a very strong signal,” he said. It told them where – within a square foot – to target. All the time they were working through ground water that seeped in as they dug. The nugget they found, weighing 100 ounces and about the size of a small loaf of bread, is worth more than \$100,000 at current gold bullion prices. “We weren’t expecting to recover anything that size!” the finder said. They did, though, and also two smaller nuggets of less than a pound – about 4 and 10 troy ounces each.

makes it unique. “The Washington Nugget may be the sole remaining authenticated large gold nugget of 100-troy-ounce caliber from the California gold region,” Holabird said. Holabird draws a distinction between nuggets and gold in crystalline form, of which there are larger California pieces. By way of comparison, the largest California nugget still in existence, which is on display at the Smithsonian Museum, weighs 80 ounces. The Washington Nugget is expected to draw bids of \$250,000 to \$400,000, at the Sacramento Convention Center on the final day of the Golden West Auction. The finder, meanwhile, has hopes of returning to his land when the snow is gone to see if there are more. If it doesn’t sell at auction “It may go in a museum,” the finder said. “I just don’t want to have it in the house.” UPDATE: The largest piece of Californian gold in existence sold for \$460,000 at an auction on Wednesday, March 23rd, 2011. The identity of the buyer has not been released.



The finder took it to Fred Holabird, an experienced mining geologist and appraiser in Reno, Nevada. The nugget’s size

Source: From The Rock Collector 5/11 via Rockhound Ramblings, 4/11 Stoney Statements, Clear Lake Gem and Mineral Society Seabrook, Texas May 2011, page 31. (Founded Early 1970’s - THE HOT SPRINGS GEOLOGY CLUB 40 Plus Years)

WILDACRES! A GREAT PLACE TO BE!

By Gerry Cox, Secretary EFMLS

Scrimshaw Class

Scrimshaw created in Wildacres class



PLEASE RESERVE YOUR SPOT FOR SEPTEMBER ASAP!

(Left - below) Photography Class at Wildacres. Common Opal with Dendrites. Photographed by Gerry Cox.



(Right- above) Silversmith Instruction at Wildacres

**The Secret is Out!
Wildacres is the best benefit of
Your EFMLS membership!**

By Gerry Cox, Secretary EFMLS

When my husband and I joined the Northern Virginia Mineral Club, Inc. the Club President, Wayne Sukow, first told us about Wildacres. My husband, Walter, is very introverted, and had to be persuaded to tag along with me for the first session. Once there, he took the geology class in self-defense.

In our almost forty-nine years of marriage he dutifully accompanied me into quarries, antimony mines, a salt mine in Poland, and over the continental divide in Colorado looking at gold mines. Well, I was driving and looking at the mines dotting the hills. He was white with fear because he was looking over the side of the road at the thousand feet-, or greater, drop off the cliff by the road.

I would say, "Look at the mine!"

His reply, "Look at the road!"

We searched the deserts in the Southwest, and toured more caves than he cares to remember. He decided that I would not give up on my interest in minerals so he decided it was time to give in and get educated.

Once at Wildacres, he fell in love with the mountain environment, the wonderful campus and the Eastern Federation members who attended our first experience. At the end of the week, after also carving a soapstone turtle, he said, "Wildacres was the cheapest and most fun vacation we ever had."

Walter anticipates each session with enthusiasm and counts the days to the next session. Between us we learned to:

- create and cast silver using the lost wax process;
 - silversmithing;
 - cabochons;
 - soapstone carving;
 - how to carve scrimshaw;
 - facet stones;
 - gem identification;
- photography of minerals;
 - Techniques to photograph jewelry; and
 - How to take photographs of rock formations in their native environment.

We have not begun to exhaust the learning options. We still look forward to glass etching, pewter fabrication, making fused glass, wire wrapping, chainmaille, bead weaving, intarsia, etc.

Each EFMLS session at Wildacres features a keynote speaker who presents multiple lectures on topics related to their expertise. We learned about diamond mining in South Africa, the unique geology associated with crystal formations in pegmatites, historic jewelry, pearls, Chinese minerals and fossils, the gem mines in Brazil and Columbia, and the photography of crystals and minerals, to mention only a few topics.

Are you beginning to get excited? You should! be ready to sign up for the adventure I cannot think of a better way for a rock hound to spend a week's vacation.

On our free day, scheduled in the middle of the week, we usually explore the many mineral stores in nearby Spruce Pines; go hunting for emeralds or aquamarines at local mines, go on a special field trip to collect in mine piles, pan for gold, or other geological interest. If so inclined, workshop registrants can hike the trails at Lynn Falls and see the exposed African residual rock that was left when the African receded from the American plate. Crabtree Falls is a less challenging hike, just south of Wildacres along the beautiful Blue Ridge Parkway. A short trip to Mount Mitchell, the tallest mountain east of the Mississippi River, allows breathtaking views of the Blue Ridge formations. A little further south is Ashland with the wonderful Biltmore Estate. The free day allows us to simply wander the many nature trails of the Wildacres compound. That afternoon everyone gathers for a tailgate where teachers and students sell and/or swap their finds and creations to others at the Wildacres retreat.

The traditional auction is more comedy than serious auctioning. Attendees contribute items to the auction, and then bid on donated items. I have even been known to bid on the item I brought because I liked the specimen so much. The proceeds go to the Federation to help defray the cost of Wildacres. The Blumenthal Foundation also subsidizes the costs so that each participant pays around \$380 for one week of room, meals and classes. Most classes have a material cost associated with the class that depends on the class.

If you rise early, you can meet with the other early risers in the club room over a cup of coffee, or a short stroll to the deck of the auditorium allows a breathtaking view of the sunrise over Table Mountain to the Northeast. Nature walks allow viewing of wild iris, many wild orchids including the endangered trillium (don't pick it, it is against the law), rhododendron, mountain laurel and many other flowers. Rafters of wild turkeys stroll across the Blue Ridge Parkway, and fox, flying squirrels, and many birds including the ruby-throated humming bird inhabit the area. Each fall the mycologists group visits Wildacres to collect mushrooms and other fungi in the area. Wildacres offers a wide selection for these enthusiasts to observe.

We will share the campus with other groups, and the last time a group of dulcimer players were meeting at Wildacres. They joined us for an impromptu jam session in the cafe after the evening lecture. What a blast!

Many members of EFMLS say they do not go to Wildacres because they do not feel artistic, or do not want to work on the artistic side of the hobby. The class offering always has an offering for those who believe they are not artistically inclined. After seeing the products of those with no previous experience, I begin to believe everyone has an artistic skill just waiting to be released through a Wildacres experience; I never thought that my husband, Walter, could produce such beautiful scrimshaw, for example, with absolutely now experience and no previous indication of an artistic urge.

If you don't try, you will never know. Try to unlock the inner artist in you! Join me and many others at the next Wildacres session September 1 to 7, 2014. Go to <http://efmls-wildacres.org> to register and find more details.

**DO YOU HAVE A FAVORITE
MSDC MEMORY TO SHARE?**

Many of our club members have been members of MSDC for quite a few years. There must be loads of mineral-related and club member-related stories that you have to share. Please take this opportunity to share some of your favorite memories with us!

One of my favorite collecting memories is when I visited the Kyanite Mining Company at Willis Mountain in Dillwyn, Virginia back in October of 2010. We were told that the following minerals could be found there: : Augelite, Biotite, Chalcosiderite, Crandallite, Diaspore, Dickite, Enargite, Fluorapatite, Goyazite, Gypsum, Halloysite, Hematite, Kaolinite, Kyanite, Lazulite, Limonite, Lithiophorite, Magnetite, Muscovite, Fuchsite, Paragonite, Pyrite, Pyrophyllite, Quartz, Rutile, Sphalerite, Sulphur, Topaz, Tourmaline, Trolleite, Variscite, and Woodhouseite. Kyanite was the big thing, though.

I learned that Kyanite feldspar is formed as a result of high temperatures and pressure which causes the mineral to change. That change alters the clay/sedimentary rock and turns it into Kyanite feldspar. It's usually found embedded with "prismatic bladed crystals and radiating masses of crystal formations."³ Kyanite is used in the manufacturing of refractory products like bricks, furnaces, mortars, etc. It's considered an exotic gemstone and is sometimes used in the making of beads and pendants.⁴ Kyanite is also used in ceramic products, porcelain plumbing fixtures, spark plugs and dishware. It can usually be spotted by the elongated shape and columnar form of its crystals. Kyanite is generally found around other minerals such as: andalusite, quartz, staurolite, micas, talc,

³ www.ehow.com/about_6129458_kyanite-feldspar_.html

⁴ Ibid.

MINERAL MINUTES

garnet, mullite, corundum, sillimanite, hornblende and gedrite.⁵ Kyanite also goes by the names: disthene, rhaeticite and cyanite⁶ and can be found in Brazil, North Carolina, Georgia, Switzerland, Serbia; India, Kenya and Russia.⁷ We now know that it is also found in Virginia! In terms of its hardness, Kyanite is widely varied “in the same crystal face.” The same is true for diamonds.⁸



Photo credit: A. Wihshi

Unbelievably, I found an amazing piece of Kyanite just a few hours into the dig! My finding it was purely beginner’s luck. I spotted a couple of friends from the Southern Maryland club who had been busy finding all kinds of minerals. They advised me to just “fish around” in the mud and see what I find. I did, and much to my surprise, I found a very pretty piece of Kyanite. (I also found what I believed were specimens of: Biotite, Diaspore, Fluorapatite, Gypsum, Hematite, Muscovite, Pyrite, Pyrophyllite, Quartz, Rutile, and Sphalerite.) We also found other samples of Kyanite. They were clear, light blue and even a light green. None were as deep blue as the one piece that I found. One rock hound from the Richmond club, I believe, offered to buy it from me on the spot! However, a more experience member from a gold mining club advised me to take good care of my find and to hang on to it as it was near gem quality and, therefore, very special. This was further confirmed by many others that heard about it and came to take a look. Sheryl Sims

HAVE A GREAT SUMMER! STAY SAFE!



⁵ <http://en.wikipedia.org/wiki/Kyanite>

⁶ Ibid.

⁷ Ibid.

⁸ <http://www.galleries.com/minerals/silicate/Kyanite/kyanite.htm>

2014 EFMLS Wildacres Registration

PLEASE, ONLY one person per form per session

CHECK ONE: April 7 – 13: _____ September 1 – 7: _____

Please fill out a separate registration form for each person attending and return to PAMM BRYANT, Registrar at 2645 Davis Mill Rd, Goochland, VA 23063. No registration will be accepted prior to January 1, 2014. (To make it easier for the registrar and others, please do not change or revise this form. You may photocopy it as needed.) **Please write legibly!**

Name (as you wish it to appear on your name badge): _____

Street: _____ City: _____ State: _____ Zip: _____

Telephone number with area code: _____ e-mail: _____

Club/Society Affiliation: _____

Fee for the spring session is \$390.00 per person. Deposit is \$185 per person, payable with registration.

Fee for the fall session is \$390.00 per person. Deposit is \$185 per person, payable with registration.

Make checks payable to "EFMLS". Balance of fee is due 30 days prior to start of session.

No postdated checks will be accepted.

Cancellation policy: *If unable to attend, fees paid will be refunded if notification is given prior to one month before the session begins. **No refund will be made after that date.***

Circle appropriate responses:

Have you been to Wildacres before? Yes _____ No _____ Is your Club paying your tuition? Yes _____ No _____

Name of roommate: _____ (If none, one will be assigned).

Are you: Male _____ Female _____ (No single rooms are available). Are you a smoker? Yes _____ No _____

Do you have any physical handicaps and / or special dietary needs? Yes _____ No _____ If YES, please explain on reverse side.

Do you have material for exhibiting that you would be willing to display at Wildacres? Yes _____ No _____

Do you have a skill to demonstrate or a program to share (up to 40 minutes)? Yes _____ No _____

Class Pre-registration. See EFMLS Newsletter or Web site for class offerings. <www.amfed.org/efmls/wildacres.htm>

MEET, GREET, & EAT!



Join MSDC club members enjoy dinner together before each meeting.
(We are currently meeting at Elephant & Castle. 1201 Pennsylvania Avenue, N.W.)

2014 MSDC OFFICERS & DIRECTORS



(left to right: Steve Johnson, Rick Reiber, Patricia Flavin, Rebecca Siegal, Dave Hennessey, Andy Thompson, Dave Nanney, & Sheryl Sims)

(photos provided by B. Thompson, A. Cameron Siegal, & S. Sims)

Officers & Board Members Contact Information

President: Steve Johnson - StevikJ@gmail.com; Vice President: Patricia Flavin - pattiflavin@gmail.com; Secretary: Rick Reiber - Mathfun34@yahoo.com; Treasurer: Rebecca Siegal - dcm mineralclub@gmail.com; Directors: Dave Hennessey - dhennessey@spa.com; Dave Nanney - DNanney@cox.net;; Andy Thompson - thompson01@starpower.net; Editor: Sheryl Sims - sesims4@cox.net



FEDERATION NEWS- AFMS Officers for 2013-14

President, Richard Jaeger, rjgrsci@aol.com; **President-Elect**, Marion Roberts, mvroberts@bigvalley.net; **1st Vice President**, Matt Charsky, <matt2430@comcast.net>
2nd Vice President, Ann James, amariann113@yahoo.com; **3rd Vice President**, J.C. Moore, jcmoore3rd@gmail.com; **4th Vice President**, Doug True, <dtruefossils12@yahoo.com>
5th Vice President, Ann Monroe, annmonroe@windstream.net; **Secretary**, Anne Cook, secretary@amfed.org; **Treasurer**, Pat LaRue, <bplarue@earthlink.net>



(Photo Courtesy of AFMS Newsletter – November, 2013, p.4.)

NEW EFMLS Officers for 2013 – 2014

President – Hazel Remaley, northridge5@verizon.net; **1st VP** - Merrill Dickinson, medsearchnorth@comcast.net; **2nd VP** – Michael Kessler, Quartz7228@aol.com
Secretary, Gerry Cox, gerryannec@verizon.net; **Treasurer**, Jean Charsky, jean2430@comcast.net
Asst. Treasurer, Michael Patterson, Michael.Patterson@pgparks.com
Editor, Carolyn Weinberger, PO Box 302, cscrystals2@gmail.com

Pre-Meeting Dinner: Join us at 6:00 p.m. for dinner before the club meeting. Location: Elephant & Castler, 1201 Pennsylvania Avenue, NW. Please contact Patricia Flavin, pattiflavin@gmail.com or Steve Johnson, Stevikj@gmail.com, to make a reservation if you wish to attend.

Visitors are always welcome at our monthly meetings and dinners!

**MEMBERSHIP APPLICATION OR RENEWAL
THE MINERALOGICAL SOCIETY OF THE DISTRICT OF COLUMBIA (MSDC)**

Family ~ \$25.00 per year. One address.

Individual ~ \$20.00 per year.

New * Renewal Dues are for Year _____ *

For new members who join in the last months of the year, membership will extend through the following year with no additional dues.

ANNUAL DUES – PLEASE PAY YOUR DUES PROMPTLY.

Pay at next meeting or mail to:

**Mineralogical Society of DC, P.O. Box 9957
Alexandria, VA 22304**

Name(s) (First and Last) _____

Address _____

City _____ State _____ Zip _____

Phone(s): Home/Work/Mobile _____

Email(s) _____

OK TO INCLUDE YOU ON CLUB MEMBERSHIP LIST?

Yes – Include name, address, phone, email.

If you want any information omitted from the membership list, please note:

Omit my: Email, Home phone, Work phone, Mobile phone, Address, Name

SPECIAL CLUB-RELATED INTERESTS?

MINERALOGICAL SOCIETY OF THE DISTRICT OF COLUMBIA

(2014 Officers & Board Members)

President: Steve Johnson, stevikj@gmail.com

Vice President & Program Chair: Patricia Flavin, pattiflavin@gmail.com

Secretary: Rick Reiber, Mathfun34@yahoo.com

Treasurer: Rebecca Siegal, dcm mineralclub@gmail.com, (mail: c/o MSDC, P.O. Box 9957, Alexandria, VA 22304)

Directors: Dave Nanney, Dave Hennessey, and Andy Thompson, thompson01@starpower.net

Editor: Sheryl Sims, sesims4@cox.net

Co-Web Masters: Betty Thompson & Casper Voogt, <http://mineralogicalsocietyofdc.org/>

Meeting Dates, Time, and Location: The first Wednesday of each month. (No meeting in July and August.) The National Museum of Natural History, Smithsonian Institution, 10th Street and Constitution Ave, Washington D.C. We will gather at the Constitution Avenue entrance at 7:45 PM to meet our guard who will escort us to the Cathy Kirby Room. Street parking: **THERE ARE NOW PARKING FEES, PAYABLE AT THE KIOSKS, AND ENFORCEMENT UNTIL 10 PM.**

MINERAL MINUTES

The Mineral Minutes is an EFMLS & AFMS Award Winning Bulletin

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Newsletter of the Mineralogical Society of the District of Columbia



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