



THE
NORTHERN
VIRGINIA

MINERAL CLUB
INC

Crystals are the flowers of the Mineral Kingdom



The Mineral Newsletter

Meeting: November 25 Time: 7:45–9:00 p.m.

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

Happy
Thanksgiving



Recent Results from the Mars Science Laboratory *Curiosity*

November 25 Meeting

Dr. John A. Grant, III, a geologist at the Center for Earth and Planetary Studies at the Smithsonian Institution's National Air and Space Museum, will give the presentation at the next club meeting.

Dr. Grant is a member of the science team for the Mars Science Laboratory *Curiosity*, which landed on Mars in August 2012. He will give an overview of recent data and discoveries from the *Curiosity* rover. *Curiosity* has been roving the interior of Gale crater on Mars for over a year and has discovered rocks that

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You can explore our club website:

<http://www.novamineralclub.org/>

Northern Virginia Mineral Club members,

Please join our November 25 speaker, Dr. John Grant, for dinner at the Olive Garden at 6 p.m.

*Olive Garden, Baileys Cross Roads (across from Skyline Towers), 3548 South Jefferson St. (intersecting Leesburg Pike), Falls Church, VA
Phone: (703) 671-7507*

Reservations are under Kathy Hrechka, Vice President, NVMC. Please RSVP to my cell at (703) 407-5393 or ksrechka@msn.com.



contain evidence of past habitable conditions on Mars.

Dr. Grant serves as Long-Term Planner on the science team, responsible for helping to plan strategic science activities for the rover. He is also a member of the science team for the Mars Exploration Rovers.

Dr. Grant joined the Smithsonian in 2000. Since 2002, he has served as one of about 12 Science Operations Working Group chairs responsible for leading science planning on the rovers. Dr. Grant cochaired the science community process for selecting the landing sites for the *Spirit* and *Opportunity* rovers, as well as for *Curiosity*.

Currently, he is targeting the HiRISE camera on board the Mars Reconnaissance Orbiter while helping to image and map possible future landing sites on the red planet. He has been interested in Mars ever since reading Ray Bradbury's *The Martian Chronicles* as a child.

Dr. Grant attended the State University of New York College at Plattsburgh and received his bachelor's degree in geology, *magna cum laude*, in 1982. He went on to earn a master's degree and a doctorate in geology at the University of Rhode Island (1986) and Brown University (1990), respectively. His Ph.D. dissertation focused on the degradation of meteorite impact craters on Earth and Mars; he remains interested in understanding processes responsible for shaping planetary landscapes.

After a 2-year position at NASA headquarters, where he served as Program Scientist for the Mars Global Surveyor, Dr. Grant accepted his current position at the Smithsonian Institution. ↗

President's Thoughts

by Rick Reiber

We had a large turnout at the October meeting, partly because we were able to get Dr. Michael Wise from the Smithsonian Institution's National Museum of Natural History to speak to us on pegmatites. This was a great opportunity to meet and talk with a Smithsonian scientist with a great depth of knowledge who is also a very approachable and friendly guy.



Many of the specimens in the presentation were so beautiful that members of the audience took pictures of the slides.



Dr. Wise, second from left, talking to club members.

Below are pegmatite minerals in a slide from his presentation. Photos: Sheryl Sims.



We have continued the practice of listening to the speaker first and then holding a business meeting.

In addition to hearing great presentations, club members who come to meetings often hear field trips announced; if you're there, it's quicker and easier to get all the details. Kathy Hrechka and Sue Marcus brought a great refreshment spread, adding to a very pleasurable evening.

Our annual show at George Mason University is coming up on November 22–23. If you've never been to a show before, this is your chance to dip your toe in the water and try your hand at any of the open volunteer spots for a couple hours. It's great chance to socialize, pick up some new specimens, and learn from other folks who like the same stuff that you do. ↗



Dr. Lance and Cindy Kearns from James Madison University made a guest appearance at the NVMC's October 28 meeting.

The Annual NVMC Mineral Show—Volunteers Needed!

Jim Kostka, Show Co-Chair

Our annual mineral show is coming up on November 22–24, again at George Mason University. This is *your* show—we need your help!

It's easy to sign up online. Just type or copy and paste the following volunteer spot link into your browser: <http://vols.pt/fmg5iM>. Then enter your e-mail address twice.

You'll see a range of activities you can sign up for. Just click on whatever appeals to you. Even if you can't participate this year, just click "No, thanks." Maybe next year!

Just to let you know, there are four white display cases available for allotment. If you have a great display case available, please let Jim Kostka know.

Your rocks are needed for the show! Please give generously! This is a great time to clean out your garage and basement and donate to the club!

In particular, we need moderately sized specimens suitable for the kids' tables, door prizes, and the silent auction.

- Kids Mini Mines—the size of a quarter to a half-dollar is best. Detailed information on the specimen is not necessary.
- Door prizes—pretty specimens are best, but relatively small (under 4 inches). Labels are desirable but not required.
- Silent auction—labeled and well-identified specimens are best. Again, the specimens should be moderately small.



If you have something to contribute to the cause, bring it to the show—or contact Tom Taaffe, Jim Kostka, or Rob Robinson. ↗

Talaya Ridgeley displaying her hand-made Kids Mini Mines poster. Photo: Sheryl Sims.

Previous Meeting Minutes

October 28, 2013

by Dave MacLean, Secretary



President Rick Reiber called the meeting to order at 7:50 p.m. The minutes of the September 2013 meeting were approved as published in the October 2013 Mineral Newsletter. There were no Treasurer's or Committee and Officer reports. Sue Marcus was recognized as a past president of the club, and Farzanah Davari as a guest.

The annual NVMC show at George Mason University is coming up, and show notices were distributed for club members to pass out. Setup is late afternoon and evening on Friday, November 22; the show will be open on Saturday, November 23, from 10 a.m. to 6 p.m., and on Sunday, November 24, from 10 a.m. to 4 p.m. Takedown is on Sunday right after the show. Volunteer signups for setup, show operations, and takedown are online.

The meeting cochair asked club members to pass out discount cards for the show. He said that less than half of the volunteer slots for taking tickets, the kids' table, and other operations had been filled. He noted that the people who usually volunteer had already signed up for many specific tasks and will not have time for more. He urged all club members to sign up online for the show. Club officers might be asked to call members to persuade them to volunteer.



No new business was discussed.

David MacLean was recognized for receiving an honorable mention in the AFMS bulletin editors' contest for his article "Move over Hope Diamond."

Announcements included the following:

- The next club meeting will be on Monday, November 25, at 7:45 p.m.
- The next AFMS meeting will be in July 2014 in Tulsa, OK.



Club members brought minerals to show to others at the October meeting, including this fossilized coral from Florida. Photo: Sheryl Sims.

- The next EFMLS meeting will be on March 27–29 in Plymouth Meeting House, PA (near Philadelphia).
- The club received a thank-you letter from the Fairfax County School Age Child Care (SACC) program for our participation in the SACC teacher orientation program on August 27, 2013. NVMC gave the teachers more than 200 mineral specimens.
- The new edition of *Reptiles and Amphibians of the Washington, DC Area* is on sale.
- All club members are welcome on field trips to Manassas Quarry in Manassas, VA, on November 2 and 9, 2013.

The NVMC board agreed to give \$100 to The Nature Conservancy in memory of Buck Keller, a long-time member, who died in August 2013. The club passed the hat for donations to the Fred Schaefermeyer Scholarship Fund.

Douglas Brooks had marine fossils and minerals from various parts of Iran on display.

The drawing winners for minerals and fossils were Bob Cook, Carolyn Cook, David MacLean, Sheryl Sims, and Conrad Smith.

Presentation by Dr. Wise

The presentation was made by Dr. Michael Wise, a mineralogist at the Smithsonian Institution's National Museum of Natural History in Washington, DC. The title of his presentation was "Feldspar, Beryl, Topaz, and More: What Pegmatite Minerals Re-



Dr. Michael Wise and his wife, Vickie.

ally Tell Us about Geological Processes.”

Pegmatite minerals are treasured for their beautiful colors and well-developed crystals, making them extremely desirable to mineral collectors. Their wide range of colors and durability also make some of the crystals suitable as gemstones.



To the geoscientist, however, pegmatite minerals can be used to obtain valuable information about the genesis of pegmatites. Astute pegmatologists can utilize the presence of common and rare minerals to understand the physical and chemical evolution of pegmatite fields. Pegmatites can even give us insights into larger scale geologic processes.

Pegmatite colors have certain meanings. Multicolored tourmalines such as those found in Maine often have a black base (schorl), a clear green zone (elbaite), and a pink zone at the top (rubellite). The colors reflect trace amounts, respectively, of ferrous iron (Fe^{2+}), ferric iron (Fe^{3+}), and manganese. As the tourmaline crystals formed, the fluid around them was rich in varying amounts of minerals: ferrous and ferric iron early on, followed by ferric iron and finally by manganese.

Pegmatites are structured by distance from the granite core: first comes a zone rich in beryllium; then a zone of beryllium niobium and tantalum; next, a zone of lithium, beryllium niobium, and tantalum; and finally, a zone of lithium, cesium, beryllium niobium, and tantalum.

Other minerals form in various sequences when pegmatites transition from simple (comprising only feldspar, quartz, and biotite or muscovite) to more complex. Examples of transition include tourmaline (schorl), to elbaite, to rossmanite; muscovite to lepidolite; apatite to manganese-rich apatite; almandine garnet to spessartine garnet; beryl to a cesium-enriched mineral with iron; triphylite to lithiophylite; and columbite with iron to tantalite with more manganese.

Pegmatites sometimes contain minerals that do not fit into the existing categories. Examples include olivine and fayalite in low water concentrations at 550 °C under reducing conditions. Other examples include



stilbite, laumontite, and natrolite at low pressure at 250 °C.

Dr. Wise showed the relationships of sodium versus aluminum concentrations and the potassium rubidium ratio versus the gallium concentration.

Pegmatites are classified as LCT (rich in lithium, rubidium, cesium, beryllium, tin, niobium, tantalum, and phosphates), derived from crustal granite; and NYF (rich in niobium, yttrium, lanthanides [rare earths], titanium, zirconium, beryllium uranium, thorium, and fluorine as fluorite and amazonite), derived from the mantle. Biotite is common to both LCT and NYF pegmatites.

For example, pegmatites found near the South Platte River in Colorado are NYF. They often have quartz cores derived from a class A granite of the Pike's Peak batholith, surrounded by NYF pegmatites of varying composition. Pegmatites in Maine and the Black Hills of South Dakota are LCT. ↗

Name Tags for Club Members

Club members, if you would like an NVMC name tag, please order it through Kathy Hrechka at kshrechka@msn.com.

It would be great if everyone could have a name tag for our NVMC show at George Mason University on November 23–24.

The cost to you is \$5. Just send Kathy your name and the town where you live, and pay her when you receive your name tag at the next meeting.



Jupiter and Saturn Are Full of It ... Diamonds, That is!

by Sheryl E. Sims

On October 9, 2013, EarthSky.org's *Science Wire* carried an article about diamonds in the sky that captured my attention (go to <http://earthsky.org/science-wire/jupiter-and-saturn-are-awash-in-diamonds-say-scientists>).

The word diamond comes from the Greek word *adamas*, which means unbreakable (see Wikipedia at <http://en.wikipedia.org/wiki/Diamond>). That characteristic alone might make diamonds a girl's best friend; women just love them! Remember "Lucy in the sky with diamonds"? And Paul Simon even saw "diamonds on the soles of her shoes."

Still, who knew that Jupiter and Saturn were awash in them? Yes, that's right, awash!

According to planetary scientists, some of the diamonds found inside Saturn are huge! In fact, they are called "diamondbergs," and they float inside the planet in a sea of liquid hydrogen and helium. Can you imagine?

Imagine field trips to Jupiter and Saturn to do a little rockhounding for diamonds! It might seem far-fetched now, but perhaps it won't in the future!

According to scientists, enormous lightning storms on both planets generate elemental carbon, such as soot and graphite. The carbon sinks into the planets and is crushed into diamonds at deep altitudes. The diamonds are stable at relatively high altitudes, but near the cores of the planets they actually melt into a liquid form, creating a sort of diamond rain!

On Earth, diamonds are formed at high temperature and pressure at depths of 87 to 120 miles inside the mantle. Carbon-containing minerals provide the source. Diamond growth can take up to 3.3 billion years, three-quarters of the Earth's entire age!

Deep volcanic eruptions bring diamonds close to the Earth's surface. The magma cools into igneous rocks known as kimberlites and lamproites.

Diamonds can also be produced synthetically in a high-pressure, high-temperature process that simulates conditions in the Earth's mantle. An alternative growth technique is chemical vapor deposition.



The slightly misshapen octahedral shape of this rough diamond is typical. Photo: Wikipedia.

Minerals such as cubic zirconia and silicon carbide, often called diamond simulants, resemble diamond in appearance and many properties. Special gemological techniques have been developed to distinguish natural from synthetic diamonds and from diamond simulants.

Blood diamonds are controversial in parts of our world, and they should be. But it's safe to say that diamonds are not only forever, but also—on Jupiter and Saturn—they are wherever! ↗

Utah's Red Horn Coral

Editor's note: The article is adapted from Chipper's Chatter (newsletter of the Chesapeake Gem and Mineral Society), October 2013, p. 9; a version appeared as far back as March 1998 in The Rock Rattler (author unknown).

Horn corals buried in Utah's Uinta Mountains lived during the Mississippian and Pennsylvanian periods. In ancient seas, they grew on reefs and rocks on the ocean floor as separate, distinct, solitary animals. Some floated and some were attached to anything solid.

Myriad corals began to be buried in limey silts and oozes that came from the eroding land masses nearby. Some sources estimate that the sediments accumulated at the rate of one-quarter inch in 400 years. As the corals died, they were slowly entombed along with crinoids, pelecypods, and brachiopods.



As various seas formed and dried up, thousands of feet of sediment accumulated; the intense pressure and weight of the sedimentary column hardened the oozes into solid limestone rock. The limestone layers were separated by shale beds formed from clay that accumulated when the seas became shallower.

The Uinta coral beds are extraordinary. In relatively recent times, they were fractured by crustal movements and then buried by a lava flow in the early Tertiary age. The pyroclastic flow covered over 180 square miles with jumbled, steaming lava formations.

Rainwater and upwelling groundwaters carried silica, calcite, manganese, iron, and other minerals into the fractured fossilized coral bed, which was originally gray. Trapped beneath a thin layer of green clay 10 to 12 feet above the coral, the silica-bearing waters gradually soaked the fossil material. Colored by manganese, the silica permeated the walls of solution cavities and joint cracks, finding its way into the interior of a great many fossilized corals, probably through ion exchange between silica and calcium in a process known as selective replacement.

A few crinoids, pelecypods, and brachiopods and their fossil parts have been preserved in the carnelian agate, although they are not as bright red as the horn coral. Though decidedly rare and very expensive, they can be found complete here, except for the full crinoid calyx and stem.

Erosion finally exposed the sunlit ridge that was once covered by lava, stripping away the sedimentary cover to reveal a rockhound treasure of the Uintas. ↗

The Minerals of Makeup

by Donna Boreck and Liane Kudnick

Editor's note: The article is adapted from Chipper's Chatter (newsletter of the Chesapeake Gem and Mineral Society), October 2013, p. 6, taken from RockBuster News (Beliflower Gem and Mineral Society), September 2013.

Have you ever read the list of ingredients in makeup, shampoo, or toothpaste? It might surprise you. Many personal-care products contain a wealth of mineral materials taken from the Earth.

Adherence, Luster, Absorption

Take, for example, eye shadow. One of the first ingredients listed in eye shadow is usually talc, a magnesium silicate mineral. Its platy crystal habit is in part the reason why talc has been an important ingredient in cosmetics since 3500 BC. The plates glide smoothly across each other, allowing makeup to be applied easily. They lie across the pores in the skin, thereby lessening the chance of clogging pores while providing texture to the skin.

Yet they are translucent enough not to be seen. Talc is resistant to acids, bases, and heat and tends to repel water. In addition to eye shadows, talc is used in loose and pressed powders and blushes. It is also a filler in some deodorants and is added to lotions and creams. Talc can also be found in chewing gum and pharmaceuticals.

Mica, a mineral widely used in eye shadow, powder, lipstick, and nail polish, gives luster or pearlescence to a product. Mica adheres to the skin and resists ultraviolet light, heat, weather, and chemical attack. Like talc, it has excellent slip characteristics and can



Talc, often used in makeup.



Iron oxides used for coloring.

be used to replace talc in makeup. When coated with iron oxide, mica flakes sparkle with a gold tint.

Kaolin, a clay, is added to makeup to absorb moisture. It covers the skin well, will stay on the skin, and is resistant to oil. Kaolin and another clay, bentonite, are added to earth-based face masks or packs predominately for their cleansing effects. Clays are also used as fillers in various products.

Powdered calcite, a calcium carbonate, absorbs moisture. Calcite and a magnesium carbonate, processed from dolomite, are added to powders to increase the ability of makeup to absorb moisture.

Coloring

When it comes to makeup, color is the name of the game. Minerals provide coloring for the eyes, cheeks, lips, and nails. Iron oxide, one of the most important color minerals, was used by Cleopatra in the form of red ochre as rouge. Today, iron oxides give red, orange, yellow, brown, and black tones to makeup.



Ground lapis lazuli can be used for blue in makeup.

Chrome oxides are used for greens and manganese for violet or purple; ground lapis lazuli can be added to makeup for blue. Ultramarine blue and pink coloring is made from a mixture of kaolin, soda ash, sulfur, and charcoal. Even gold has historically been used as a colorant. Ancient Egyptians used gold to color skin and hair. Gold is still used in powders and makeup to add a rich golden tone to the skin.

An artist starts a painting with a bright white canvas to give the colors brightness and intensity; similarly, titanium dioxide is added to makeup to brighten and intensify color and to give whiteness and opacity. Titanium dioxide is also a natural sunblock; like talc, iron oxides, and gold, it has been used for centuries. Titanium dioxide can be found in any makeup shadow, blush, nail polish, lotion, lipstick, or powder. Titanium dioxide also makes Oreo cookie frosting extra white; it is the “M” on M&Ms candy.

Minerals for Health Care

Minerals also find their way into health care products we use daily. Salt is effective in treating skin disease and is used in same soaps. Fluorite, processed for fluoride, is added to toothpaste and drinking water to help prevent tooth decay.

Calcium carbonate (calcite) and baking soda are abrasives in toothpaste. A mixture of borax and beeswax is added to cleansing creams as an emulsifier to keep oil and water together. Boric acid is a mild antiseptic and is added to powder as a skin-buffering agent.



Ingredients for homemade calamine lotion include salt and bentonite clay.

Zinc oxide is added to creams to help them cover more thoroughly. Zinc oxide ointment, which is about 20 percent zinc oxide, is used to heal chapped skin. When an unlucky hiker runs into poison ivy, calamine base lotions are often used to soothe the itchy skin. Calamine is another name for hemimorphite, a zinc silicate mineral.

As you can see, minerals are found in many things we use. So the next time you are at the supermarket, take a moment to acquaint yourself with the multitude of minerals that are a part of our daily lives. ↗

Animal, Mineral, Debatable

*Editor's note: The story is from "No Sale: Not Always Right," a Website about incidents that defy the maxim that the customer is always right. You can submit your own story at <http://notalwaysright.com>. Or, if your story is mineral related, you can send it to the newsletter editor at hutchbrown41@gmail.com, and it will appear—*anonymously, if you choose—in the next issue!**

The store I worked at sells rock and mineral specimens, so it's quite common that customers don't know much about what they are buying. Luckily, I have a geology background, so I can explain in detail what things are.



Customer (pointing to a specimen): “What is that?”

Me: “It's a chrysanthemum stone.”

Customer: “Well, what is *that*?”

Me: “It's strontium sulfate that forms on top of black limestone.”

Customer: “But what *is* that?”

Me: “Strontium sulfate is celestite. This is just a different form of it, but deposited on a limestone, it looks like a flower.”

Customer: “But what is *that*, though? It's not a fossil of a flower, is it?”

Me: “No, it's a mineral on top of a limestone. Limestones are fine-grained sedimentary rocks. The crystallization just makes it look like a flower.”

Customer: “So it's a rock on top of another rock?”

Me: “Not technically, but sort of ... I don't know how to explain it simpler than that.”

Customer: “So, it's two rocks in one! I'll take it.”

Me: “Okay, great. I assume you want an info card on it?”

Customer: “Nah, it's just a rock on a rock. That's all I need to know!” ↗



Pyrophyllite

by Hutch Brown, Newsletter Editor

My parents had a small mineral collection, but they did not keep good records of what they had. So when my brother inherited the collection, we had no idea what most of the minerals were.

Fortunately, the NVMC invited members to bring minerals to the October club meeting. I posted a picture of one of my parents' minerals in the club's October newsletter.



Dave Hennessey and Erich Grundel told me by e-mail that the photo allowed a pretty definite identification: it's pyrophyllite, recognizable from the distinctive radiating fans of needles.

I looked up pyrophyllite on the Internet and discovered that it is composed of aluminum silicate hydroxide ($\text{Al}_2\text{Si}_4\text{O}_{10}(\text{OH})_2$). Like talc, it's in the clay mineral group of phyllosilicates. The product of repeated metamorphosis, it is commonly found in phyllite and schistose rocks, often together with kyanite, andalusite, topaz, mica, and quartz.

Pyrophyllite comes in two forms: crystalline folia and compact masses. Both varieties can be white, pale green, grayish, brownish, or yellowish; like talc, they are greasy to the touch and very soft, with a hardness of 1 to 1.5. The specific gravity ranges from 2.65 to 2.85.

The folia on the crystalline variety have a pearly luster due to a perfect cleavage parallel to their surfaces. This variety, when heated with a blowpipe, exfoliates and swells; hence the name pyrophyllite, from the Greek *pyros* (fire) and *phyllos* (leaf).

The compact variety of pyrophyllite is used for slate pencils and tailors chalk; sometimes it is carved into small images and ornaments. Easily machineable and with excellent thermal stability, pyrophyllite is added to clay to reduce thermal expansion when firing. It is also used in insecticides, brickmaking, and high-pressure experiments, both as a gasket material and as a pressure-transmitting medium. ♪



Pyrophyllite on quartz matrix, about 5 cm across. The sample is from the Hillsboro District, Orange County, NC. Photo: Rob Lavinsky, iRocks.com.

New AFMS Officers

The American Federation of Mineral Societies has elected a new set of officers, shown below.

In the front row (left to right) are Pat LaRue, Treasurer; Anne Cook, Secretary; and Ann Monroe, 5th Vice-President, Southeast Federation.

In the back row (left to right) are Doug True, 4th Vice-President, Northwest Federation; J.C. Moore, 3rd Vice-President, Midwest Federation; Matt Charsky, 1st Vice-President, Eastern Federation; Marion Roberts, President Elect, California Federation; and Richard Jaeger, President, Rocky Mountain Federation.

Absent from the picture is Ann James, 2nd Vice-President, Southcentral Federation. ♪



EFMLS: Well-Represented at the AFMS Conference and Competitions

by Sheryl E. Sims

Below are the results of this year's AFMS competition. As you can see, EFMLS clubs made a good showing.

Let's keep up the good work by supporting our editor, Hutch Brown. We can do this by submitting, articles, pictures, and mineral-related news to him, helping to make our newsletter a good one! In turn, this will allow our editor to submit your contributions to the EFMLS bulletin editors' competition.

Sharing mineral-related information is what our clubs are all about; being recognized for it is simply an added bit of fun. Not only that, you gain valuable information from the critiques of the federation judges and make connections with members of other clubs along the way.

It's great to see the smiles of our fellow club members when they win a trophy or certificate. From your submissions, the editor selects entries in a variety of categories; they compete against submissions from other clubs in our federation. Winning articles go on to the AFMS competition. Both federations are constantly pleading for representation by all member clubs. That would be an amazing accomplishment!

So what do you say? Will you make it a point to support YOUR club bulletin with YOUR submission? I hope so! Our club has a lot of expertise and talents to share!

The submission deadline for the 2013 EFMLS Bulletin Editors' Contest is January 2, 2014. That's coming up soon, but it's not too late to start 2014 out right by supporting our club's editor! Let's do it!

EFMLS Results from the AFMS Competitions:

EFMLS Clubs Do Well in AFMS Contests....

compiled by Ye Oldeh Editor (Carolyn Weinberger)

(EFMLS News, Oct.–Nov. 2013)

The 2013 AFMS/SFMS Convention held in Jacksonville, FL, this past September is now history. Eastern Federation was well represented at the AFMS meet-

ing by Matt Charsky, Cheryl Neary, and Hazel Remaley. Several other EFMLS members attended as well. These conventions are always a fun time and a wonderful opportunity to get together with friends from across the United States.

Several competitions are held each year, with entries first submitted for evaluation at the regional federation level; the top three entries in each category are then forwarded to AFMS for further evaluation. Eastern entries did fairly well again this year, with the following results:

Web Site Competition

8th place

Ken Casey
Delaware Mineralogical Society
Wilmington, DE
<www.delminsociety.org>

10th place

Brad Grant
Baltimore Mineral Society
Baltimore, MD
<www.baltimoremineralsociety.org>

12th place

Beth Hadley
Richmond Gem & Mineral Society
Richmond, VA
<rgms-va.info>

Bulletin Editors' Contest

Original Adult Articles

2nd place

Giants Take Baby Steps
by Erich Grundel
Mineralogical Society of District of Columbia
Mineral Minutes, 5/12

8th place

Tourmaline, by Bev Eisenacher
Central PA Rock & Mineral Club
Rock Buster News, 10/12

Honorable Mention

Move Over Hope Diamond
by Dave MacLean
Northern Virginia Mineral Club
The Mineral Newsletter, 12/12

Original Articles - Advanced

2nd place

Shoobox Adventures: The ID Problem
by Mike Seeds
Baltimore Mineral Society
The Conglomerate, 7/1

4th place

What Am I Buying?
by Frank Craig
Central PA Rock & Mineral Club
Rock Buster News, 11/12

Honorable Mention

A "World" of Granite in Elberton, GA
by Walt Kubilius
Aiken Gem, Mineral & Fossil Society
Hound's Howl, 6/12

Junior Articles (under age 12)

3rd place

Wildacres
by Isabella Brandon (11)
Central PA Rock & Mineral Club
Rock Buster News, 8/12

Junior Articles (age 12 - 17)

1st place

Droplets of Information
by Jessa Potvin (13)
Aiken Gem, Mineral & Fossil Society
Hound's Howl, 2/12

6th place

Internship
by Conrad Smith (15)
Gem, Lapidary & Mineral Society
of Montgomery County, MD
The Rockhounder, 10/12

Written Features

Honorable Mention

Finding Oil and Gas: The Good, the Bad, and the Ugly
by Scott Germain
Richmond Gem & Mineral
The Collecting Bag, 7/12

Internet Resources, by Lorraine Johnston
Gem Cutters Guild of Baltimore
Gem Cutters News, 2/12

On the Mountaintop: A First Visit to Wildacres
by Alice Cherbonnier
Baltimore Mineral Society
The Conglomerate, 5/12

Mineral Identification Using the Raman Spectrometer
at James Madison University
by David Hennessey
Mineralogical Society of the District of Columbia
Mineral Minutes, 2/12

Adult Poetry

2nd place

I Ain't Nuthin But A Rockhound
by Sheryl E. Sims
Mineral Society of the District of Columbia, Mineral
Minutes, 3/12

6th place

The Softer Side
by Jim Stedman
Maryland Geological Society
The Rostrum, 7/12

8th place

Our 24th Seed
by Barbara Fenstermacher
Aiken Gem, Mineral & Fossil Society
Hound's Howl, 9/12

New Editors

3rd place

Mineral Minutes, October 2012
Sheryl Sims, Editor
Mineralogical Society of the District of Columbia,
Washington, DC

Large Bulletins

5th place

The Rockhounder, May 2012
Wendell Mohr, Editor
Gem, Lapidary & Mineral Society of Montgomery
County, MD
Gaithersburg, MD

9th place

Chippers' Chatter, December 2012
Carolyn Weinberger, Editor
Chesapeake Gem & Mineral Society
Baltimore, MD

10th place

Gem Cutters News, January 2012
Carolyn Weinberger, Editor
Gem Cutters Guild of Baltimore
Baltimore, MD

Special Publications

2nd place

Rocks, Minerals and Fossils of Pennsylvania
by Beverly Eisenacher
Central Pennsylvania Rock & Mineral Club
Harrisburg, PA

3rd place

EFMLS Annual Meeting
by Sheryl Sims
Mineralogical Society of the
District of Columbia, Washington, DC

Endowment Fund Drawing

Yabba, Dabba, Doo ... Eastern members not only purchased the most tickets, but also earned the most prizes, going to:

- Pat Barker
- Mary Bateman
- KC Foster
- Tom Gangi
- Gem Cutters Guild of Baltimore
- Jim Hird
- Val Johnson
- Keith Kaneda
- Marie Stackhouse

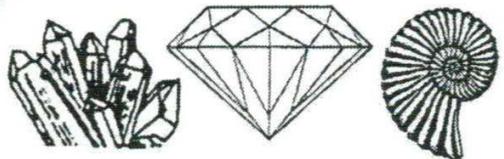
All American Club

There were no EFMLS entries this year! Why not?

The next AFMS Convention will be on July 9–13 in Tulsa, OK. Details will be available in February or March. ↗

More images from the October club meeting, courtesy of Sheryl Sims ...





22nd Annual **GEM, MINERAL AND FOSSIL SHOW**

Presented by the Northern Virginia Club, Inc.

www.novamineralclub.org

Sponsored by the Dept. of Atmospheric, Oceanic and Earth Sciences at GMU

Date: **November 23 & 24, 2013**

Place: **The Hub Ballroom (Student Union II Building)
George Mason University Campus
Braddock Rd. & Route 123, Fairfax, VA**

Hours: **Saturday 10am-6pm, Sunday 10am-4pm**

Admission: **Adults: \$5, Seniors & Teens (13-17): \$3
Children 12 & under, Scouts in uniform,
and GMU Students w/valid ID are FREE.**

\$1 OFF

**1 Adult admission
with this card**

**Demonstrations, Exhibits, and Door Prizes. Mini-mines for
children to dig in and get free fossils and minerals.
Over 20 Dealers with Fossils, Minerals, Crystals and Gems for sale.**

*Use Parking lot A, enter Lot A from Nottaway River Lane.
Look for our Courtesy Shuttle to Mineral Show*



2013 Club Officers

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Vice-President: Kathy Hrechka
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PLEASE VISIT OUR WEBSITE AT:

<http://www.novamineralclub>

The Northern Virginia Mineral Club

You can send your newsletter articles to:

news.nvmc@gmail.com

Visitors are always welcome at our club meetings!

RENEW YOUR MEMBERSHIP!

SEND YOUR DUES TO:

Kenny Loveless, Treasurer, NVMC
PO Box 10085, Manassas, VA 20108

OR

Bring your dues to the next meeting.

Purpose: To promote and encourage interest in and learning about geology, mineralogy, lapidary arts, and related sciences. The club is a member of the Eastern Federation of Mineralogical and Lapidary Societies (EFMLS, <http://www.amfed.org/efmls>) and the American Federation of Mineralogical Societies (AFMS—at <http://www.amfed.org>).

Dues: Due by January 1 of each year; \$15 individual, \$20 family, \$6 junior (under 16, sponsored by an adult member).

Meetings: At 7:45 p.m. on the fourth Monday of each month (except May and December)* at **Long Branch Nature Center**, 625 Carlin Springs Road, Arlington, VA 22204. (No meeting in July or August.)

*Changes are announced in the newsletter; we follow the snow schedule of Arlington County schools.