THE NORTHERN VIRGINIA MINERAL CLUB INC

The Mineral Newsletter

Meeting: January 27 Time: 7:45 p.m.

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

Calcite twin

North Vernon, Jennings County, Indiana

Photo: Bob Cooke.

Volume 61, No. 1
January 2020
Explore our website!

January Meeting Program:

Show and Tell

Bring a specimen—tell a story!
(details on page 6)

In this issue …

Deadline for Submissions

January 20

Please make your submission by the 20th of the month!
Submissions received later might go into a later newsletter.

Mineral of the Month
Calcite

by Sue Marcus

Calcite is ubiquitous, and it pops up now as our Mineral of the Month. How could it have been skipped for so long? It can be beautiful and it is collectible. In fact, there are major collections and high-end collectors specializing in calcite. Plus, it is useful!

Calcite is an official component of the Mohs hardness scale, at number 3, meaning that it can be used to rate the hardness of other minerals. Many of us have enjoyed testing for calcite—scratch it to get a bit of powder and carefully put a drop of acid on it. If it fizzes, it is a carbonate, and the most common one is calcite.

Calcite is calcium carbonate, with a chemical formula of $CaCO_3$; the CO_3 is the carbonate molecule. You can probably think of other carbonate minerals like rhodochrosite ($MnCO_3$) or siderite ($FeCO_3$).

Or maybe you thought of carbonated drinks; they have the same fizz or effervescence you get when you test for calcite with acid. This property comes in handy when more desirable minerals are hidden by calcite: you can carefully dissolve the calcite in acid to reveal the other beautiful minerals. I've never had the patience for this process, so I'll leave it to those who are willing to ruin specimens in learning it.

In 79 AD, Pliny the Elder (Gaius Plinius Secundus) referred to *calx*, Latin for lime. The Romans knew that lime was composed of calcite.

The refractive properties of calcite, along with its ready cleavage into rhombohedrons, lead to fun with clear rhombs of calcite that show two lines instead of one when placed on lined paper—a clear example of the physical principle of double refraction, also known as birefringence.

Calcite forms at least eight different types of twinned crystals. Collecting twinned calcite crystals sounds like fun—I wish I had thought of that earlier in my collecting journey. Think of all the possible forms to seek and localities to search in! Scrolling through Mindat's list of varieties, I came across fetid calcite, Mexican jade (dyed calcite, much softer than jade), crazy calcite, and tartuffite (a play by Molière?), along with varieties more familiar to me, such as angel wing calcite, dog-tooth spar, and Iceland spar. As you might know, stalactites and stalagmites in caves and caverns are usually composed of calcite.

A mineral of extremes, calcite forms in both hot environments (like geothermal springs) and low-temperature environments (in the limestone-forming ooze of marine basins). Limestone is primarily calcite, though with impurities. This sedimentary rock usually forms from organic materials—shells and tiny organisms—but it can also form by inorganic means, such as evaporation.

Northern Virginia Mineral Club members,

Please join your club officers for dinner at the Olive Garden on January 27 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 Ti Meredith, Vice President, NVMC. Please RSVP to me at ti.meredith@aol.com.

Manganoan calcite (rich in manganese) from Naica, Chihuahua, Mexico. Photo: Bob Cooke.

Calcite twin (fishtail) from Leiping, Guiyang County, Chenzhou Prefecture, Hunan Province, China. Photo: Bob Cooke.

Aragonite is a polymorph of calcite, meaning that it shares the same chemical formula but has a different internal structure and forms under different conditions. Since the conditions of formation determine whether a mineral will become calcite or aragonite, travertine and tufa can be calcite but are usually aragonite. Travertine is a sedimentary rock formed in hot springs. It is often banded due to impurities caused by fluctuations in the mineralizing fluids.

In conducting research for this article, I learned that there are three additional polymorphs of calcite: calcite ||, calcite |||, and vaterite. All three are relatively obscure, so I will leave further discoveries up to curious readers. If you really want to get down into the weeds, there is also biocalcite: see Mindat's calcite home page for a reference to "fungal calcite biomineralization."

The United States has some of the world's best known calcite localities, particularly Elmwood, TN, and the Tri-state Mining District (Kansas, Missouri, and Oklahoma). Calcite formed as hot fluids surged upwards during intraplate rifting, creating lead–zinc deposits. Huge crystals have come from the Elmwood Mine (Smith County, TN); the Joplin Mine (Jasper County, MO); and the Sweetwater Mine (Reynolds County, MO). Calcite crystals from all three sites are usually in shades of yellow and can be twinned, often forming scalenohedrons (polyhedrons with twelve sides and specific angles between the crystal faces).

The world's largest known calcite crystal originated in New Mexico. Weighing more than 40 tons, it came from near the Hardin Mine and was probably larger before it was blasted.

The midwestern U.S. locales have been known to U.S. collectors for generations. More recently, the Russian Dal'negorsk mines have produced superb, clear, lustrous crystals. China is a large country that now exports a plethora of minerals, including calcite—clear, white, yellow, pink, and so on. France, Germany, and Namibia all host wonderful calcite crystal localities.

Because calcite is so common, there are many places to find beautiful crystals, which is why some people specialize in collecting calcite—there is so much to choose from. If pseudomorphs interest you, check out calcite after gypsum or calcite after aragonite. Many minerals also form pseudomorphs after calcite (replacing the calcite). Pseudomorphs can be another collection option.

Calcite picks up minute quantities of elements to make it fluoresce. The hot orange-red of calcite from the Franklin and Sterling Hill areas of New Jersey contrasts with green-fluorescing willemite to form "Christmas-tree" ore. Mercury in calcite from Terlingua, TX, and other places causes specimens to fluoresce blue under shortwave and pink under longwave ultraviolet light, and many specimens phosphoresce.

Some specimens may be thermoluminescent (emitting energy as light when heated) and/or triboluminescent (emitting energy as light when struck or crushed).

Calcite with duftite from Tsumeb, Namibia. Photo: Bob Cooke.

Calcite from the J.C. Macy Mine, Sierra County, NM. Photo: Bob Cooke.

The original source of Iceland spar—clear calcite, always a nice addition to any collection—was the Helgustadir Mine/Quarry in eastern Iceland. The locality became known to Europe in 1668 and became an Iceland national monument in 1975. The largest reported calcite crystal, at about 618 pounds, came from this location. It was 6 meters (about 20 feet) in its longest dimension.

Revolutionary thoughts about crystal structure began with a broken calcite specimen from Iceland. When famous mineralogist and crystallographer René-Just Haüy dropped a friend's crystal of Iceland spar, it shattered (so glad it wasn't me!). Haüy realized that each fragment broke with the same angles (cleavage), leading him to insights about the crystalline structure of calcite, which he and others then expanded to other minerals.

Calcite plays a crucial role in the industrial world, described by one source as accounting for our societal "hard parts"—like marble, plaster, and cement. In nature, calcite (along with aragonite) plays an analogous role as the structural contributor to coral reefs and marine shells. In the form of limestone, calcite is used in cement, its most important use by volume and probably by total value. Limestone is also used in erosion control (as riprap), as a flux in steel manufacturing, and as grit—with calcium!—for poultry. Pharmaceutical uses of high-purity limestone and calcite range from deacidifiers like Tums®, to pill coatings (buffering agents), to calcium supplements.

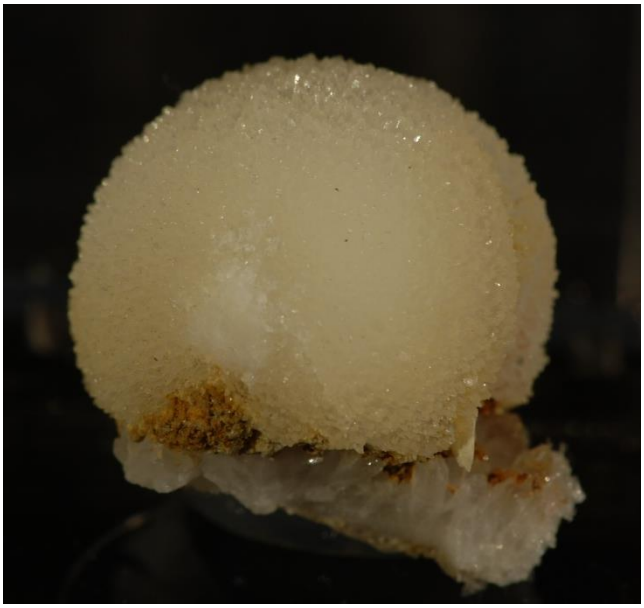
Just as it neutralizes gastric acid, calcite also neutralizes acids on agricultural lands, so it is used as a soil amendment. Similarly, calcite and limestone are used as "sorbents" to react with materials like sulfur dioxide and other harmful chemicals, neutralizing them before their release into the atmosphere from industrial processes.

Calcite and limestone are pulverized and sprayed into coal mines as a nonflammable dust to reduce the amount of flammable and explosive coal dust in the air. The light color of the calcite/lime powder reflects ambient light in the coal mines, helping miners to see.

Chalk, that old schoolroom standard, is composed of calcic plankton shells; newer chalk may have added anhydrite.

Left in place, calcite and limestone help store carbon dioxide, a gas that contributes to global warming. When limestone is ground up for concrete or lime, the carbon dioxide is released, exacerbating the problem of global warming.

Marble is calcite (metamorphosed limestone). From ancient to modern times, the familiar uses of marble range from building construction to sculptures and countertops. Remember the effects of acid on calcite when considering marble for your home. Look carefully at some of the historic marble buildings in Washington, DC, and you can see the effects of acid rain on their exteriors. The original *Building Stones of Our*



Calcite from Siegen, Siegerland, Germany. Photo: Bob Cooke.

Calcite from the Poorman Mine, Silver City, ID. Photo: Bob Cooke.

Nation's Capital by the USGS was revised and republished in 1999 with a new section devoted to acid rain.

Geologists reserve the term "alabaster" for a form of gypsum, although archeologists and stoneworkers sometimes use the term for massive, translucent calcite. The Egyptians added to the confusion by using items carved from alabaster-calcite to honor their goddess Bast.

The optical properties of calcite have been investigated for use in creating an invisibility cloak—yes, real scientific experimental work. High-quality "optical calcite" that was clear and flawless (like Iceland spar) was used for gunsights during World War I.

Though too soft to be worn as a gemstone without risk of being scratched or damaged, calcite has been faceted into cut stones of up to 126.59 carats (that stone was cut from calcite found in Durango, Mexico).

Massive varieties can be dyed to look like other minerals. Mexican onyx is a form of banded marble made up of extremely fine-grained calcite compact enough to be cut, carved, and polished or lacquered. It is softer than true quartz onyx.

Technical Details

Chemical formula ..... $CaCO_3$

Crystal form..... Trigonal (Mindat); hexagonal (Geology.com) (I am not a crystallographer, but my web research indicates that trigonal is now preferred.)

Hardness..... 3

Density ..... 2.71 g/cm^3

Color..... Any color (from impurities or trace elements); usually clear, white, or yellow

Streak..... White

Cleavage..... Three perfect

Fracture ..... Conchoidal

Luster..... Usually vitreous; some specimens pearly, waxy

Sources

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Miscellaneous Business Plus Show and Tell
January 27 Program

by Ti Meredith, Vice President

For our first meeting in 2020, we will have a short business meeting to take stock of our club's status and plans for the year. Then we will have an opportunity for show and tell.

Business Meeting

At our December meeting, we elected four club officers for 2020:

President .....Tom Burke
Vice President.....Ti Meredith
Secretary .....Dave MacLean
Treasurer.....Roger Haskins

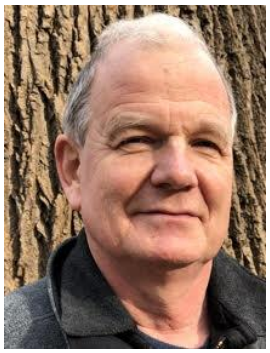
Our club officers will introduce themselves and take questions. We will also recognize past presidents in attendance as well as any unelected club officers who are there.

We will go over the 2020 calendar of events to prepare for the coming year and make sure the right events go into the club newsletter.

Show and Tell

Club members will have the opportunity to show off acquisition(s) related to our hobby, whether rock, mineral, gem, fossil, or lapidary.

Do you have a favorite acquisition from 2019 or before? Self-collected or self-created items go first!



President's Thoughts, Collected

by Tom Burke, President

Greetings from your 2020 club president! Sue Marcus has left me (figuratively) big shoes to fill, but with lots of help from all of you I'll do my best.

First off, I want to thank everyone involved in making our just-past holiday party so much fun. I'll even forgive my surprise nomination, along with the hasty vote taken while I was still trying to sputter out my objections. Seriously, I really am going to need a LOT of help from you all if we're going to make this work, because I have no connections in this field and am terrible with remembering names & faces. Please, please don't be shy about making suggestions for what I, and the club, can do better—especially if you're willing to help make it happen.

I, along with my wife Julia, am new to the club. We joined at the January 2019 meeting, after being inspired by buying way too much random stuff at the Jan. 19 GLMSMC auction. Before that, I hadn't taken collecting more seriously than picking up random shiny things since my high school days, when I used to follow Sue around on her collecting expeditions and marvel at the fact that her parents' house didn't collapse under the weight of all the rocks that the three of them had crammed into it. I do have a science background, though (physics), and am interested in learning more about mineralogy.

My other hobbies include electronics (especially sound-reactive lighting, aka "color organs"), computer programming, house construction, and fishkeeping.

I'm retired now, but while still a productive citizen I spent most of my time in university jobs as a programmer and electronics designer. My favorite was nine years working on exhibit design at UC Berkeley's Lawrence Hall of Science. That experience left me with a strong interest in outreach programs for science education, and that's one of the things I'd like to see NVMC do more of. If it's something that interests other club members, we could explore the idea of expanding the "kids' room" idea from our annual show into a regular, at least biannual, program of educational events (okay, recruitment efforts) in conjunction with local schools.

Tom

Nothing is more responsible for the good old days than a bad memory.

Franklin Pierce Adams, American humorist
(1881–1960)

Club Meeting and Holiday Party

December 16, 2019

by Sue Marcus, Acting Secretary (and President)

The December club meeting was unusually well attended, no doubt due to the delight-filled holiday party that came both before and after the brief interruption for club business.

During the business part of the meeting, President Sue Marcus conducted the annual election of club officers. Ti Meredith, Dave MacLean, and Roger Haskins were each approved by acclamation as Vice President, Secretary, and Treasurer, respectively.

No one had volunteered to run for President. Initially, no one stepped forward, so a discussion of the limited options ensued. Then Tom Burke agreed to stand for election, although he was forthright regarding his concerns about serving as President. The membership elected him unanimously, agreeing that we would help him mitigate his concerns.

On with the party!

About 30 people enjoyed turkey and ham provided by the Northern Virginia Mineral Club, drinks provided by the Micromineralogists of the National Capital Area, and many wonderful dishes brought by members of both clubs. Holly Perlick, despite her wrenched shoulder—and with help from Marie Johnston—organized the festivities. Vice President Ti Meredith helped organize games, prizes, and our traditional gift exchange.

Membership Fees Due for 2020!

Club membership fees for 2020 are due! The fees are $20 individual and $25 family. For a family membership, please include the form listing all family members. You can see Treasurer Roger Haskins at our monthly meeting or send your dues to him at 4411 Marsala Glen Way, Fairfax, VA 22033-3136. If you send a check, please make it payable to Northern Virginia Mineral Club.

Share Your Story in the Newsletter!

Club members appreciate reading stories by other club members, whether it's about a trip they took or a specimen they acquired.

Every show-and-tell story, for example, can easily be turned into an article, no matter how short or long.

Editor Hutch Brown can help you formulate your piece. You don't have to worry about style, grammar, and so on.

So why not share your story with everyone? Just write it up and send it along with a photo of your trip or specimen to Hutch Brown at:

editor@novamineral.club.

Maryland State Fossil

by Bill Beiriger

Editor's note: The article is adapted from Livermore Lithogram (newsletter of the Livermore Valley Lithophiles, Livermore, CA), May 2017, p. 2.

Ecphora gardnerae is a marine gastropod mollusk in the family Muricidae. Many Muricidae genuses are still living in the oceans today, accounting for about 1,600 living species and 1,200 fossil species.

The genus *Ecphora*, now totally extinct, lived from the Oligocene to the Pliocene (from about 34 million to 3 million years ago). The genus contained more then 30 species in Maryland's Miocene formations. Several species of *Ecphora* are found in all three of Maryland's Miocene formations (Calvert, Choptank, and St. Marys).

Ecphora was a predatory animal that bored holes through the shells of other shellfish to feed on the contents inside. Other members of the Muricidae family use acids and toxins to subdue their pray.

The Maryland State Fossil, from the St. Marys Formation in Calvert County, was adopted in 1994. Maryland also has a State Dinosaur, *Astrodon johnstoni* (a large herbivourous dinosaur related to Brachiosaurus), adopted in 1998.

Explorers Map 200th Mile of Jewel Cave

by Seth Tupper

Editor's note: *Thanks to Sue Marcus for the reference! The source is* The Rapid City Journal *(December 18, 2018).*

Six volunteer cavers were greeted like returning astronauts Monday night after they emerged from mapping the 200th mile of Jewel Cave and reported the discovery of a stalagmite that could be the cave's largest.

About 50 people were on hand at Jewel Cave National Monument [in the Black Hills of South Dakota] for a potluck and a celebration of the mapping milestone. The greeting party included 94-year-old Jan Conn, who pioneered the exploration and mapping of the cave with her late husband, Herb, during a 22-year period beginning in 1959. … *Read more*.

Humor
Maybe From Michigan?

Editor's note: *The piece is adapted from Mindat Adventures: Humorous Mineral Stories*.

This morning, a couple of funny stories came to mind.

The first one concerns a fellow who came to me all excited because he had just purchased a specimen from the North Pole. I had to laugh, explaining to him that his galena specimen was not from the actual North Pole but from near North Pole, a mining town in Alaska. Luckily he didn't pay much, but he sure was disappointed.

The second story is about someone who asked me about the locality of a specimen because the label said only that it "may be from Michigan." Again, I had to laugh. I told the fellow that the label had all the proper information and that the specimen was from Maybee, an actual place in Michigan.

Bench Tip
Stiffening Earring Posts

Brad Smith

Soldering an earring post will always soften the wire a bit. The easiest way I've found to harden it is to grip it with pliers and twist it a couple half turns. This work hardens the wire and also tests your soldered joint.

See Brad's jewelry books at
amazon.com/author/bradfordsmith

GeoWord of the Day

(from the American Geoscience Institute)

tectono-eustasy

Worldwide change of sea level produced by a change in the capacity of the ocean basins owing to plate tectonic motions, such as seafloor spreading and subduction. Term introduced in 1961. See also: *glacio-eustasy*; *sedimento-eustasy*. Synonyms: *diastrophic eustatism*; *tectono-eustatism*.

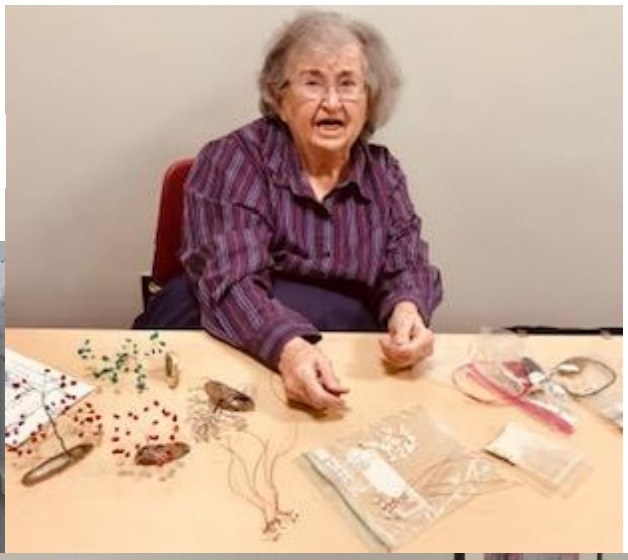
(from the *Glossary of Geology*, 5th edition, revised)

2019 club show

Photos: Tom Taaffe

Scenes from Dewberry Hall

Kids' activity room, demonstrations, and more



… more scenes from the show

Photos: Sue Marcus and Cheryl Sims

A Glimpse Into Club Officer History

by Hutch Brown, Editor

Webmaster Casper Voogt has posted a list of club officers going back almost to the beginning of the NVMC in the 1950s. You can click here to see the list (which—note to self!—needs updating for 2018–19).

The club began in the late 1950s, but the exact year is unknown, at least to me. The first newsletter on file with club Historian Kathy Hrechka is volume 7(1) from January 1966, suggesting that the newsletter began in 1960.

The NVMC has four elected club officers: President, Vice President, Secretary, and Treasurer. The sidebar below shows the office holders over the past 10 years.

Unelected officers have varied over time, but relatively constant positions in recent years have included (in alphabetical order) Communication, Editor, Field Trip Chair, Greeter, Historian, Photographer, Show Chair, and Webmaster.

Based on past newsletters, the average annual number of unelected positions for our club is shown below by decade, along with a sample of the corresponding positions (some of which have lasted until today):

1960s..... 2 (Editor, Field Trip Chair)

1970s..... 4 (Education, Hospitality, Librarian, Show Coordinator)

1980s..... 10 (All American Club, Communication/Members, EFMLS Liaison, Fossil Group Leader, Greeter, Historian, Ways & Means Chair, Youth Chair)

1990s..... 12 (Exhibit Coordinator, Show Chair)

2000s..... 8 (AFMS Liaison, Webmaster)

2010s..... 6 (Photographer)

Some of the older positions (such as Librarian and Fossil Group Leader) have disappeared for lack of interest, whereas newer ones (such as Webmaster and Photographer) have resulted from new digital technology.

As shown on the last page of this newsletter, the club currently has 12 positions (4 elected and 8 unelected). Two of the unelected positions are vacant (Communication and Field Trip Chair).

NVMC Hall of Fame: Elected Club Officers, 2011–2020

Year	President	Vice President	Secretary	Treasurer
2020	Tom Burke	Ti Meredith	David MacLean	Roger Haskins
2019	Sue Marcus	Ti Meredith	David MacLean	Roger Haskins
2018	Bob Cooke	Ti Meredith	David MacLean	Roger Haskins
2017	Bob Cooke	Ti Meredith	David MacLean	Rick Reiber
2016	Bob Cooke	Ti Meredith	David MacLean	Rick Reiber
2015	Wayne Sukow	Kathy Hrechka	David MacLean	Rick Reiber
2014	Wayne Sukow	Kathy Hrechka	Ti Meredith/ Laurie Steiger	Kenny Loveless/ Rick Reiber
2013	Rick Reiber	Kathy Hrechka	David MacLean	Kenny Loveless
2012	Sue Marcus	Barry Remer	Kathy Hrechka	Rick Reiber
2011	Barry Remer	Sue Marcus	Kathy Hrechka	Rick Reiber

Hawaiian Olivine

by Dean Sakaba

Editor's note: *The article is adapted from* Hui Pōhaku 'O Hawai'i *(newsletter of the Rock and Mineral Club of Hawai'i), August 2017, p. 3.*

Olivine is the name of a group of rock-forming magnesium and iron silicate minerals that, in Hawaii, are found in basalt. Olivine is usually greenish in color, with a composition ranging from Mg_2SiO_4 to Fe_2SiO_4. It usually crystallizes in the presence of plagioclase and pyroxene to form in gabbro or basalt.

Olivine has a very high crystallization temperature compared to other minerals. That makes it just about the first mineral to crystallize from magma. So during the slow cooling of a magma, olivine crystals can form and settle to the bottom of the magma chamber because of their relatively high density. The concentrated accumulation of olivine can result in the formation of olivine-rich rocks such as dunite in the lower parts of a magma chamber.

Olivine is one of the first minerals to be altered by weathering. Because it is so easily weathered, olivine is not common in sedimentary rocks and is only abundant in sand or sediment when the deposit is very close to the source. Such is the case at Papakolea Beach, where green olivine sand is mixed in white coral and black basalt.

Olivine has been identified in a large number of stony and stony-iron meteorites. The meteorites are thought to have originated from the mantle of a rocky planet that used to occupy an orbit between Mars and Jupiter—or they might be from an asteroid that was large enough to have developed a differentiated internal structure consisting of a rock mantle and a metallic core.

Olivine crystals in basalt on the Big Island in Hawaii.

Olivine (green) in basalt/coral sand, Papakolea Beach, HI.

Pallasites are thought to represent the part of an asteroid or planet that was near the mantle/core boundary where rocky materials of the mantle were mixed with the metallic materials of the core. Pallasites usually have distinct crystals of olivine (usually fayalite) surrounded by nickel/iron matrix.

Award-Winning Junior Poem
My Reflections on Mountains

by Katherine Nybo

Editor's note: *The poem, awarded 1st place for junior poetry by the AFMS in the 2019 Bulletin Editors' Contest, is taken from* Ore-Cutts *(newsletter of the Orcutt Mineral Society, Santa Maria, CA), March 2018, p. 3.*

Mountains purplish with hues of deep blue on slate.

The luminous snow flows deep into the icy crevices.

Foggy mountains whisper in the silent night.

Their rugged peaks tower over minuscule towns.

Their craggy boulders are gigantic and erode the mountains' jagged sides, while slumbering through the ages.

Save the dates!

Field Trip Opportunities

Northern Virginia Community College *Geology Field Trips*

NOVA's Annandale campus offers 1-day weekend courses—essentially, field trips—related to our hobby. You can get more information at the Field Studies in Geology—GOL 135 Website.

Geology of Great Falls, VA

April 18, 2020, 9 a.m.–5 p.m. Meet at the Great Falls Park Visitor Center and spend the day viewing exhibits and touring the park. You must be able to hike several miles on occasionally rocky trails. After the face-to-face activities, you will have 10 days to complete a set of related online assignments.

Geology of Washington, DC

April 19, 2020, 9 a.m.–5 p.m. This walking tour will focus on the geology of our capital and its effect on city design as well as building stone choice and structure. Also covered will be the origin of the diverse rock types used in building, monument, and memorial construction.

Audubon Naturalist Society

The ANS offers classes and nature programs, including short field trips. You can get more information and register at the ANS website.

Geology at Woodend

March 1, 2020, 1:30–4 p.m. The cost of this field trip, led by Joe Marx, is $36 for nonmembers. The ANS Woodend Sanctuary in Maryland's Piedmont has a tumultuous geologic history extending back half a billion years. We'll hike around the sanctuary grounds and down onto the floodplain of Rock Creek, examining the topography and underlying bedrock to see how they bear witness to the long-term story. Our walk, mostly uphill and downhill over rocky and muddy terrain, will be 1 to 1.5 miles in length.

Geology of Holmes Run Gorge

April 19, 2020, 12–4 p.m. The cost of this field trip, led by Joe Marx, is $36 for nonmembers. Alexandria sits atop overlapping and intersecting terraces created by the Potomac River and its ancestral streams. Holmes Run has sliced through the layers down to the bedrock on which they all rest. We will walk about 3 miles on good trails and mostly level ground through the Holmes Run Gorge, examining outcrops of granite, schist, and partially formed sedimentary rock. The discussion will focus on the ancient origins of the various rock types and on changes that have happened within the gorge in historical times. An added bonus will be a miniature magnolia bog! Note: The pace set and distance covered on our geology hikes will be faster and farther than our usual naturalist's shuffle.

GLMSMC Auction Coming Up!

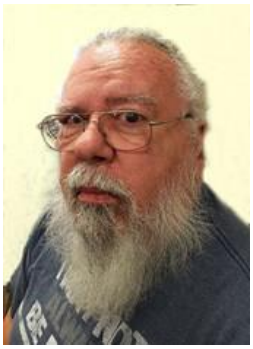
Vast quantity of specimens from the estate of a longtime collection, some museum quality; from all over the world, including closed locations.

Saturday, January 18

Auction preview: 9 am Live auction: 10 am–2 pm

Rockville Senior Center, 1150 Carnation Drive
Rockville, MD

From the Desk of the President



by Dave Wayment, AFMS President, 2019–20

Editor's note: *The article is adapted from* AFMS Newsletter *(December 2019), p. 2.*

And just like that, the year is over and another one has begun.

The year as President-Elect is spent getting ready for the year as President. And no matter how well you think you have planned for it, you always run out of time.

It is my honor to be your AFMS President for the 2019–20 year. I am looking forward to working with everyone and meeting many new friends all over the country.

I have been involved in our hobby but not as a rockhound or collector, as so many of our friends in the West are. In Florida, we have only a few rocks/crystals to collect.

I have been in my home club since 2002. In my first few years, I took a class at each of the five sessions offered by the Southern Federation of Mineralogical Societies (SFMS) through the William Holland and Wildacres workshops. Over the years, I progressed from learning silversmithing to teaching it. I am currently the Education Chair for my home club, teaching classes there and at William Holland.

Now that the winter season is finally getting to Florida and temperatures are dropping below 80 °F, it is time to get back into the workshop for another busy season. After moving to Florida, you need a few years to turn your year around so that you hibernate in the hot summer and go out in the winter. This is the season for club shows and some field trips in our area. If you are coming to the South, look up a local club and you might find a show or field trip in the area.

I'm just recently back from the SFMS Annual Meeting. The SFMS has been working on a big initiative to disseminate information for the State Directors to present to the clubs in each state about the benefits and programs available to the local clubs through the SFMS and AFMS.

One of the most underutilized offerings is the Slide/Video Program, a wonderful benefit to clubs from the AFMS. Not all clubs are lucky enough to have skilled instructors in all areas of our hobby or speakers to offer programs at meetings. This wonderful library can lend DVD's or VHS programs for the clubs to borrow at no cost. The topics range from a tour of the Grand Canyon, to identifying gemstones, to creating a bezel for a cabochon.

In the new year, I wish blessings on everyone and I look forward to working with all of you.

Safety Matters

All It Takes Is One

by Ellery Borow, EFMLS Safety Chair

Editor's note: *The article is adapted from* EFMLS Newsletter *(March 2019), p. 5.*

In this litigious age, all it takes is one action, one club member, one disrespectful event to cause a property owner to boot an individual or a club from a collecting site.

The best solution to the problem is for it not to become a problem in the first place.

Prevention is great, but it has limitations. Club members can be coached, encouraged, guided, and otherwise instructed in how to remain in the good graces of property owners. But accidents happen despite the best of intentions.

Moreover, some people intentionally disregard property owner wishes. What does a club do if a member willfully and repeatedly disregards a property owner's wishes? It can become very touchy for the club.

One way of making the expulsion process easier is to have club rules, regulations, and bylaws that describe the reasons for expelling a member for inappropriate activities in the field. A group of people rather than a single individual should be concur on removing a member. Having specific expulsion guidelines makes it easier to point to rules that say, "Sorry, but we just cannot accept such misbehavior."

It's even worse when a club is booted from a collecting site due to the activities of a nonclub member. What can a club do? A good start is to tell the property owner that the disrespectful collector was NOT a club member and does not represent the club or reflect its behavior.

The AFMS Code of Ethics can help club members be safe and respectful. You can also make sure that your regional federation and club guidelines dictate respect for property owner rights and wishes. It goes without saying that taking a calm, measured, and patient approach can help in discussions with property owners who permit collecting.

Your safety matters, so please keep in mind that respect matters too—respect for your personal limits, property owner limits, and our code of ethics.

Tip of the Month

It is better to keep your mouth closed and let people think you are a fool than to open it and remove all doubt.

Mark Twain

Have You Been There? Wildacres

Registration Opens January 1

Editor's note: *The article is adapted from* EFMLS News *(December 2019), pp. 1, 3.*

Imagine yourself spending a week away from the hustle and bustle of life, from traffic noise and blaring radios, from stories of crime and the pressures of everyday life. You have a wonderful opportunity to get away from it all in a relaxing setting where you can learn a new skill or two, along with new things from a guest speaker.

Imagine a week away in the mountains of North Carolina attending one or both of the 2020 EFMLS workshops at Wildacres Retreat. Wildacres is a fantastic haven located on Pompey's Knob just off the Blue Ridge Parkway about an hour north of Asheville. The property covers over 1,000 acres, much of it truly wild. Think rocking chairs, comfortable nights, starry skies, and great conversation!

The facility features two large lodges with private motel-style bedrooms (each with a private bath), well-equipped lapidary and jewelry studios and other classroom spaces, an auditorium, hiking trails, a dining room, and fantastic views of Mt. Mitchell and the surrounding Blue Ridge Mountains. Wildacres is owned by a private foundation that allows nonprofit groups such as ours to come for a few days for workshops that encourage the betterment of mankind. We've been privileged to be allowed to use the facility for the past 47 years. Think of Wildacres as summer camp, but without the tents.

Imagine a week immersed in our hobby, getting to know others who share the same hobby, whether

you're interested in jewelry, lapidary, or minerals. Each session consists of time for participants to take one or two classes (one 4-day class or two 2-day classes) and hear excellent talks from our guest speaker, Bob Jones for our spring session. Bob Jones is a renowned author, speaker, and prolific writer for *Rock and Gem Magazine*. He always enthralls audiences with his knowledge and effervescence.

You can join a field trip, explore the area, and participate in a variety of other activities. Our instructors, all volunteers, are outstanding and bring with them a wealth of knowledge about their subject, lots of teaching experience, and—above all—patience!

Imagine a week of no cooking, housekeeping, or errand running! The food is well prepared, abundant, and tailored to special dietary needs. Meals are served family style in the very pleasant dining hall.

Dates for 2020 are May 18–24 and August 24–30. Descriptions for our spring classes are on the next page; fall classes will be announced later. You can find the registration form online at https://efmls.org/wildacres.

Tuition for each session this year will be $435 per person, which includes your room and board for the week and gratuity for the Wildacres Retreat staff. You will be asked to pay your instructor a materials fee, but that depends on what class or classes you select. Materials fees will be announced closer to the workshop session because costs, especially for metals, tend to change.

Some classes fill quickly, so we ask that you include 4 options per "semester." You can find more information about the EFMLS workshops at Wildacres on our website.

In a nutshell, an EFMLS workshop at Wildacres should be on your bucket list. We hope to see you there in 2020!

Coming to Wildacres in May 2020 …

Cabochons—Basic (*Bernie Emery*): Transform rock into a cabochon. Learn trim saw, grinding, sanding, and polishing. Slabs provided or use your own. Bring apron, safety glasses. No experience needed. 2-day class, semester 1.

Cabochons—Intermediate (*Bernie Emery*): Learn techniques for cutting different shapes. Slabs provided or use your own. Bring apron, safety glasses. Prior experience with cabbing and trim saw. 2-day class, semester 2.

Chainmaille—Basic (*Jim Hird*): Create jewelry using unsoldered links. Basic patterns will be taught using inexpensive copper rings, with Wildacres supplying the basic tools and printed handouts. Bring optivisors or other magnification devices. Number of projects completed will depend upon your mastery of the rings. No prior experience necessary. 2-day class, semester 1.

Chainmaille—Intermediate (*Jim Hird*): Build upon your abilities learned in the first class to do more advanced and additional patterns as well as working in colors and mixed-material rings. Number of projects completed will depend upon your mastery of the rings. 2-day class, semester 2.

Faceting (*Steve Weinberger*): Learn to cut/polish a 57-facet round brilliant gemstone, identify well-cut stones, and select rough material. Bring optivisor; jeweler's loupe needed, can be purchased. No experience needed. 4-day class.

Micromounting (*KC Foster*): Learn how to prepare minerals for viewing under a microscope, including how to clean specimens and mount them on corks or pedestals such as toothpicks or bristles. Learn how to display tiny minerals with labels in a microbox to appreciate beautiful specimens. Bring a microscope if you have one. No prior experience needed. 2-day class, both semesters.

Precious Metal Clay—Basic (*Dawn Sprull*): PMC is 0.999% fine silver in clay form. Use a roller, a texturizing stamp, and a cookie cutter, then bake the clay matrix away for a pure .999 fine silver creation. Tumble, burnish, and patina for interesting effects. Create a pair of earrings and a small charm using both the clay and the silver clay in paper form. Create a two-sided pendent and set a stone. Class cost includes 25 grams of PMC, sheet silver paper, and one CZ stone to set. 2-day class, semester 1.

Precious Metal Clay—Intermediate (*Dawn Sprull*): Take your PMC skills to the next level by creating a ring band from PMC and working with premade pure silver bands. Set stones, add textures … the possibilities are endless. Class cost includes 25 grams of PMC, CZ stones to set, and premade silver band. Give your ring size at time of registration. Additional clay available for purchase. 2-day class, semester 2.

Silversmithing—Basic (*Richard Meszler*): Learn to work silver sheet & wire to fabricate jewelry. Learn annealing/bending/shaping/texturing metal, soldering, piercing, and polishing. You get a kit with metals/supplies & a step-by-step project description. No experience needed. Optivisor strongly recommended. 2-day class, semester 1.

Silversmithing—Intermediate (*Richard Meszler*): Learn to make a bezel setting & bail for setting a cabochon to make a pendant. You get a kit with all you need. Basic silversmithing experience, including soldering. Optivisor strongly recommended. 2-day class, semester 2.

Soapstone Carving (*Sandy Cline*): Learn the material/tools/methods used to complete a carving. Produce a simple piece; progress toward a more advanced sculpture. No experience needed. 2-day class, both semesters.

Wirewrapping—Basic (*Jacolyn Campbell*): Use pliers/gold-filled or sterling silver wire/assorted beads or gemstones/ basic wirecraft techniques to create rings, bracelets, pendants, and earrings. All tools/materials provided. Make an adjustable ring, two bracelets, a pendant, and two pairs of earrings. 2-day class, semester 1.

Wirewrapping—Intermediate (*Jacolyn Campbell*): Class designed for those with some experience. Make a fitted ring, two pairs of earrings, a cabochon pendant, and a bracelet. 2-day class, semester 2.

January 2020—Upcoming Events in Our Area/Region (see details below)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 New Year's Day	2	3	4
5	6	7	8 MSDC mtg, Washington, DC	9	10	11
12	13 GLMSMC mtg, Rockville, MD	14	15	16	17	18 GLMSMC auction, Rockville, MD
19	20 Martin Luther King Day	21	22 MNCA mtg, Arlington, VA	23	24	25
26	27 NVMC mtg, Arlington, VA	28	29	30	31	

Event Details

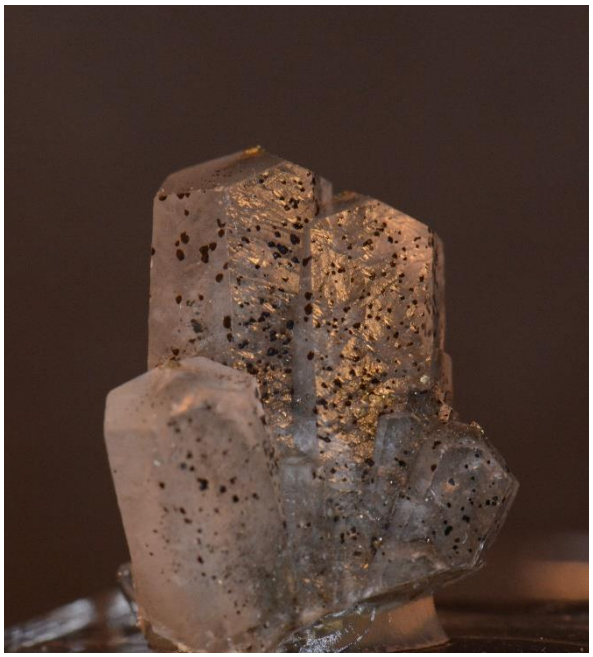
8: Washington, DC—Monthly meeting; Mineralogical Society of the District of Columbia; 7:45–10; Smithsonian Natural History Museum, Constitution Avenue lobby.

13: Rockville, MD—Monthly meeting; Gem, Lapidary, and Mineral Society of Montgomery County; 7:30–10; Rockville Senior Center, 1150 Carnation Drive.

18: Rockville, MD—Auction; Gem, Lapidary, and Mineral Society of Montgomery County; preview 9, live auction 10–2; Rockville Senior Center, 1150 Carnation Drive.

22: Arlington, VA—Monthly meeting; Micromineralogists of the National Capital Area; 7:45–10; Long Branch Nature Center, 625 S Carlin Springs Rd.

27: Arlington, VA—Monthly meeting; Northern Virginia Mineral Club; 7:45–10; Long Branch Nature Center, 625 S Carlin Springs Rd.



Calcite from Charcas, San Luis Potosí, Mexico. Photo: Bob Cooke.

Hutch Brown, Editor
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THE NORTHERN VIRGINIA MINERAL CLUB INC
Crystals are the flowers of the Mineral Kingdom

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Mineral of the Month: Calcite

PLEASE VISIT OUR WEBSITE AT:
http://www.novamineralclub.org

The Northern Virginia Mineral Club

Visitors are always welcome at our club meetings!

Please send your newsletter articles to:
hutchbrown41@gmail.com

RENEW YOUR MEMBERSHIP!

SEND YOUR DUES TO:
Roger Haskins, Treasurer, NVMC
4411 Marsala Glen Way, Fairfax, VA 22033-3136

OR

Bring your dues to the next meeting.

Dues: Due by January 1 of each year; $20 individual, $25 family, $6 junior (under 16, sponsored by an adult member).

Purpose: To 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—at http://www.amfed.org/efmls) and the American Federation of Mineralogical Societies (AFMS—at http://www.amfed.org).

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. (No meeting in July and August.)

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