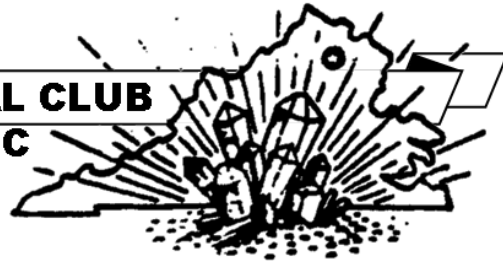




# THE NORTHERN VIRGINIA MINERAL CLUB INC



*Crystals are the flowers of the Mineral Kingdom*



## THE MINERAL NEWSLETTER

VOLUME 51 No. 4

MAY 2010

### Copper, Bentonite and Brutality

Also find information on our Club Website: <http://www.novamineralclub.org>

Come join us on May 24 for an evening of geological intrigue! Our speaker, Erich Junger, will tell us how he uses geologic information to solve real criminal cases. We will learn about the fascinating field of forensic geology as Dr. Junger shares his experiences. Dr. Junger is a person of many talents—geologist (first and foremost), former police officer, former Naval officer, Instructor in the Forensic Program of the International Academy of Public Safety, and entertaining speaker. Club members and visitors are welcome to join us at the Olive Garden res-

taurant preceding the meeting. Each person will be responsible for her or his own bill. Please contact Sue Marcus at [rlhaskins@verizon.net](mailto:rlhaskins@verizon.net) to be included in our reservation. Our meeting will still be at Long Branch Nature Center in Arlington, starting at 7:45pm.

WHERE: Olive Garden, Bailey's Crossroads 3548 S. Jefferson Street Falls Church, VA It is across from Skyline Towers & Target on King Street.

#### NVMC Schedule:

24 May General meeting of the NVMC at 7:45pm

29 May Field trip to Nelson County rutile quarry

28 June General meeting of the NVMC at 7:45pm - this is the last meeting before the summer break.

NO MEETINGS IN JULY OR AUGUST

### Pictures from April Meeting by Sheryl Sims



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## April Meeting Minutes

By Sheryl Sims, Acting Secretary

26 April 2010

Call to order at 7:45 p.m.

Rick Reiber gave the Treasurer's Report.

Barry Remer acknowledged Past President, Wayne Sukow.

Discussion took place and reports were made on the possible venues for next year's mineral show. Things to be considered were the location, parking, cost of hiring security. The show attendance was good despite difficult economic times. Vendors were happy with their sales and are familiar with the GMU location. It was mentioned that the show would likely be held at GMU next year, but that we should continue to search. Any suggestions should be sent to Barry Remer or Robert Winsor.

Robert Winsor gave a report on the demographics of the NVMC members. Long Branch wants the club to continue to meet at its current location because of its cultural draw. The currently charge \$50 per meeting. Barry Remer mentioned as a disclosure that the \$50 is paid to him for his presence at the meetings. Robert explained the chart/survey that he created using Google Maps, and stated that at some point, based on the location of the majority of the members, we might consider a change in meeting location.

Robert Winsor was not in attendance at the March

## The Prez Says

By Barry Remer

Nestled in the mountains of North Carolina lies a true 'Gem'. No, you won't find it in any of the mineral books...it's called Wildacres. We can learn a lot from this gem. In fact if you go there in September you'll have a choice of 14 facets or courses. Most of us get to take one or two of these courses depending on our interests. The most recent group was there from April 23-29 and from all reports they had a great time. The accommodations are very comfortable, the food is excellent, and the speaker and classes are wonderful.

meeting, therefore, Barry Remer awarded him certificates for 1st Place Awarded for Newsletter Editor, 2nd Place Award for an Original Educational Article: Growing Crystals; and a 7th place award for Written Feature: Field Trip to JMU. Congratulations Robert!

Sheryl Sims and daughter, Amber, awarded door prizes to three lucky winners: Robert Clemenzi, Carolyn Evers, and Casper Voogt.

Welcomed Georgia Stromer, guest of Sheryl Sims, who joined as a new member. Welcome Georgia!

Discussions were held on the possibility of future field trips, with other clubs and those being organized by Ted Carver.

Sue Marcus introduced guest speaker, Lee Horowitz, who gave an interesting presentation on unique gems of Peru. He discussed in depth, blue opals, chrysocolla, the distinction between natural blue opals and simulated ones. He also addressed other minerals such as pink opals, azurite-malachite, leopard stone, banded rhodocrosite, and more. Mr. Horowitz had a vast amount of gemstones on display as well. Also, joining Mr. Horowitz was Tim Morgan, of the Native American Museum, located in Washington, D.C.

## May Meeting Agenda

1. **Treasurer's report**
2. **Minutes from the April meeting**
3. **Committee reports (if any)**
4. **May speaker, Erich Junger**

All this mixed together with a fantastic group of people from the Eastern Federation of Mineralogical and Lapidary Societies. This is the group we all belong to as members of NVMC . The Fall session is gathering from September 6-12. Please see me, Wayne , Karen or Lois for more details.

Warm regards, Barry

## Radiation Safety

Are you considering starting a collection of radioactive minerals? Member Jim Kostka has sent the following information which you might find helpful.

### General Safe Handling Considerations

For the most part the following recommendations are overkill, but this memo is written for those who want to be extra cautious. Please note, many other types of mineral samples also pose a risk of poisoning. These same precaution may apply to them as well (lead, arsenic etc.).

Radioactive minerals emit various forms of radiation. They pose little to no danger to the General Public and only slight danger to the collector. If proper safeguards and precautions are followed, the danger from radiation is minimized. Even amateur collectors can collect and store radioactive mineral samples without worry.

Remembering that the greatest danger is from internal exposure (inside your body):

- Use standard Laboratory Practices when handling
- Handle specimens as little as possible. If they are touched, wash hands with soap and water. It is always best to wear disposable latex gloves. If a detector such as a Geiger counter is available, use it to check your hands, clothing and work area after handling.
- Never store specimens, even the smallest size, in an inhabited room. Do not keep in your bedroom, under your pillow or stored with clothing items.
- Store specimens in a well ventilated area.
- Keep all specimens out of reach of children.
- Do not ingest or inhale. You should wear a filter mask for dusty chores.
- Never eat, drink, smoke, use tobacco products or apply cosmetics - near or when handling radioactive material. Do not store adjacent to food items. Avoid hand-to-mouth (mucous membrane) contact at times when your hands might be contaminated.
- Do not use radioactive materials as homeopathic medicine.
- If warranted, label all radioactive specimens as radioactive.

- Don't carry radioactive minerals on your person, in your pocket or wear them as jewelry.
- Try to keep radioactive minerals in a plastic display case or some other container with a lid (at least a Zip Lock bag). This helps to control contamination from small pieces that may break off during handling. A boxed radioactive mineral keeps you from directly touching the specimen, which helps to minimize radiation contamination of your skin. Boxed-in-plastic specimens also have the great majority of their Alpha and Beta energies blocked by the plastic, reducing the direct shine to you.
- Clean up small particles that may break off of radioactive specimens.

**HINT:** Stray autunite particles may easily be detected with Ultra Violet light. It is recommended that you "scan" the area where you have handled an autunite specimen, plus your hands and clothing, with an Ultra Violet light source.

- If you collect lots of large highly radioactive specimens, then I would consider a - lead, lead glass or concrete shielded box for storage, in a well ventilated area. Or at least - store in a strong tight leak proof container - out in the garage or the tool shed out back.

## Our Membership

By Robert Winsor

Last month there was an article about the geographical distribution of the membership. In the article, a survey was presented asking members to weigh in on their preferred location for meetings. Less than 10 members responded to the survey, so it is deemed statistically insignificant. Of the respondents, most preferred to keep the meetings at Long Branch Nature Center. If you overlooked the article in last month's newsletter, feel free to take a look and respond to the survey. There is no deadline on responses.

*Editor's Note: Due to the cancellation of the March newsletter, some articles slated for that newsletter were misplaced and mistakenly omitted from the April newsletter. These articles are therefore published in this newsletter, and may seem somewhat untimely.*

## **Vulcan Mine Trip** by Lew Holt

This newby just recently returned from his first rock watching trip to the Vulcan mine at Manassas. Boy howdy is this ever fun, and so much better than bird watching. The rocks never fly away on you just when you finally get them cornered like those pesky birds do. We gathered there pretty early in the morning but all the older club members were most welcoming and helpful. The mine boss too. First he led us to a seventy foot bank where they had most recently been blasting. There were lots of blasted rocks to look at. But we were free to roam and pretty soon the whole mine was speckled with rock people pecking away with their rock picks or thumping away with sledge hammers. As a lifetime construction carpenter I am a firm believer in the "get a bigger hammer" school of problem solving so I was gratified to see that my fel-

low rock hounds are not shy of using the trusty old sledge. In fact, with all their safety gear and sledge hammers, crowbars, etc. they looked like a pretty good construction/demolition crew. They also didn't hesitate to posse up and surround a rough looking boulder whenever the need arose. We pretty soon wore one down but it didn't look any better on the inside than it did on the outside. Somebody said it was mostly leaverite so we left 'er rite where we found her. I learned what calcite and prehnite look like so I looked them up in the books when I got home and learned that the best ones in the world were found right around here in Northern Virginia. I don't think anyone struck the mother lode on this trip but a good time was had by all.

## **Vulcan Manassas Again** by Lew Holt

24 April, 2010

Once again a large contingent of rock people gathered at the edge of this awesome pit. Yours truly, the old rock watcher can't quite imagine how such a great hole in the ground ever got built. The mine boss says just one rock at a time so I guess we'll just have to accept that. And in fact we are here to haul away a few more rocks. And Vulcan Manassas sure showed them some. Our club was well represented too. We found a lot of pretty yellow stuff called stellerite way down at the end of Bench 80. There is a seam about 50 feet long at the base of the back wall on the right hand side. Or anyway near the base on top of the rubble pile. There is also a large pile to the left and crystals on the ground between the pile and the back wall. The large pile, about 12ft high and 20ft in diameter should probably be torn down completely and sorted out for crystals while other people

line up and work the seam. So there should be plenty of work for the whole club if we decide to go back. Once I had filled my bucket I went back to the truck for a snack and a drive around the whole pit. That was very interesting too. In fact I don't think our club does enough nature through a car window. If we could get the use of an abandoned strip mine we could open a Rock Country Safari type of attraction. A pit side theme restaurant would bring in the bucks too, as the public doesn't like to spend a real lot of time on nature adventures before stopping to eat. Me too. And don't forget the gift shop stocked with Rock watching tee shirts, refrigerator magnets and coffee mugs. We really need to get the tee shirt or some kind of junk to remember our trip by. Oh by the way, if anybody digs up more stellerite than they can personally use, I notice it is selling pretty well on Ebay.

### **New email address for the Newsletter Editor**

Over the course of the last several months, there have been some members no longer receiving the newsletter despite being on the distribution list. To fix this problem, the official contact email for the newsletter has now been changed

to [news.nvmc@gmail.com](mailto:news.nvmc@gmail.com). This email address should solve all the problems. So, please take notice of the new email address and update your records as such.

Thanks, Robert Winsor

## Discovering Minerals in Your Home

Photos and article by  
Sheryl E. Sims

Learning about minerals can be both fun and interesting. Even more interesting is where they can be found. It may surprise you to know that many minerals can be found right inside of your own home! Why not see what you can discover by going on a mineral scavenger hunt? The results will be surprising!

Here is a tip to get you started: Visit the mineral exhibit at the Smithsonian Institution's Museum of Natural History. Fellow Northern Virginia Mineral Club ("NVMC") member and club vice president, Sue Marcus, is a museum docent. Using her cart full of ordinary household items and mineral samples, Sue makes it fun to learn about minerals and chemistry with her hands on approach. "Do you put rocks in your mouth?" she asks the children gathered around her cart. "No!" they respond knowingly. "Well, I sure hope that you do!" Sue answers back. "You brush your teeth, don't you?" A look of surprise crosses the faces of the children. "Did you know that fluorite and mica are found in some brands of toothpaste? Fluorite protects your teeth from decay and mica adds the sparkle!" Sue invited Amber Wihshi, a Junior NVMC member, to help her with her mineral presentation. Amber explained that garnets are ground down to make emery boards and that talc and perfume are used to make baby powder. Offering up a stone that looked heavy enough to be held with two hands, one child is surprised at how light the pumice stone was compared to the way that it looked. Visitors to the exhibit enjoy the "please touch" atmosphere and the opportunity to examine minerals in their natural forms. I invite you to look for the product labels and see how many of the items listed below you can find at home. Happy mineral hunting!



Aluminum: bauxite

Baby powder: talc

Carpet: calcium carbonate, limestone

Counter tops: titanium dioxide, calcium carbonate, aluminum hydrate

Diaper rash ointment: zinc oxide

Fiberglass roofing: silica, borates, limestone, soda ash, feldspar

Glass/Ceramics: silica sand, limestone, talc, lithium, borates, soda ash, feldspar

Glossy paper: kaolin clay, limestone, sodium sulfate, lime, soda ash, titanium dioxide

Household cleaners: silica, pumice, diatomite, feldspar, limestone

Ink: calcium carbonate

Kitty litter: attapulgite, montmorillonite, zeolites, diatomite, pumice, volcanic ash

Lava soap: pumice

Lipstick/Makeup: calcium carbonate, talc

Medicines/Antacids: calcium carbonate, magnesium, dolomite, kaolin, barium, iodine, sulfur, lithium

Pencils: graphite, clay

Plant fertilizers: potash, phosphate, nitrogen, sulfur

Potting soil: vermiculite, perlite, gypsum, zeolites, peat

Stainless Steel: chromite

Vegetable oil: clay, perlite, diatomite

Wallboard: gypsum, clay, perlite, vermiculite, aluminum hydrate, borates

## Field Trip to Rutile Quarry

Contact me, Ted Carver and not Dave Callahan, at [jtcarve@msn.com](mailto:jtcarve@msn.com) if you want to attend.

Combined Lynchburg and Roanoke Clubs and special invited guests.

Mineral Collecting Field Trip

Saturday May 29, 2010

**Sign-up required.** Call me, email me or sign up at the meeting.

We may need to carpool and or limit the size of the group due to the private nature of this site and respect for the landowners living there.

We will explore an old rutile quarry in Nelson County and will be able to collect some massive rutile, ilmenite, feldspar and blue quartz. Some beautiful rutile crystals have been found here before. This material is hard and will make beautiful specimens and will take a good polish. In addition to personal specimen collecting, please help the Lynchburg Club in its quest to collect hard solid material to make bookends, rock candles and spheres for sale at our two fund raising events.

We will meet in Amherst, VA, Saturday morning, at the Hardies Restaurant on US 29 business no later than 8:30 A.M. We will decide if we need to carpool and I will distribute maps. We will depart from there promptly 9:00A.M. From Lynchburg and Roanoke, follow US Rt. 460 east / US 29 north by-pass several miles east of Lynchburg. Take the new US Rt. 29 north by-pass across the James River and proceed north to the Amherst US 29 business exit. The Hardies is in the Ambriar Shopping Center at this exit. Come early and have a bite to eat. We can determine if carpooling is necessary and leave any cars here. From this point, it should take about 30 minutes to arrive at the quarry. Be sure that you are fueled up and ready to leave by 9:00 A.M. If you are coming from the north, the US 29 business exit will be about 2 miles south of the US 60 exit. If you live in Lynchburg, it might be closer to just follow US 29 business thru Madison Heights to Amherst. The Hardies will be on your left at the new US 29 bypass interchange, just before you arrive at the town of Amherst.

Dress for the weather that day and be sure to bring food, water, bug spray and warm clothing. Wear boots, gloves, long pants and safety glasses. Hard hats will not be required.

**SAFETY NOTE...DO NOT CLIMB UP OR DOWN THE QUARRY WALL. THIS IS UNSTABLE, UNSAFE AND THE QUARRY IS FULL OF WATER. DO NOT WONDER OFF BY YOURSELF. TAKE SOMEONE WITH YOU. STAY IN SIGHT OF OTHERS. THE SITE IS OVERGROWN AND YOU WOULD BE HARD TO LOCATE IF YOU NEEDED HELP. IF YOU LEAVE EARLY, LET YOUR LEADER OR A CLUB OFFICER KNOW.**

Bring a hoe or something to turn rocks and watch where you put your hands. There may be a surprise waiting underneath. Hopefully the kudzu has not overgrown everything this early in the year.

Bring a hammer and chisel to break rocks, buckets and newspaper to wrap any delicate specimens you might find. Digging tools and a sledge may come in handy. We can drive into the quarry if it is dry. A low-slung car or 2-wheel drive may bottom out and get stuck. We will make that decision when we observe the situation that morning. It may be wet and will be slick and muddy if there has been a recent rain. There is no age limit but children must be supervised. There are NO restroom facilities at this site.

More information will be available at our next meeting as well as samples of what you can expect to find.

We must arrive together but you will be free to leave at any time.

For more information contact: David Callahan, Field Trip Leader

Lynchburg Gem & Mineral Society Inc,  
Roanoke Valley Mineral & Gem Society Inc.  
Phone 540-297-1853 Cell 540-874-5201

[Dbcall1@aol.com](mailto:Dbcall1@aol.com)

# NATIONAL GEOGRAPHIC: THE TERRACOTTA ARMY

*Article and Photo by Sheryl Sims*



**O**n March 23, 2010, I was privileged to see the Chinese Terra-Cotta Army exhibit. This impressive clay display was on tour in the United States. One of the stops on the tour was *The National Geographic Museum*. The magnificent work of art was created for the first Chinese Emperor, Qin Shihuangdi, to accompany him in the afterlife.

The reproduction on the left was made in the same manner as the original warriors, and was made by the Chinese craftsmen in Xi'an so that it could be photographed by visitors. The techniques used to make the replica are very similar to those used over 2,000 years ago.

A ruthless tyrant and ruler, Qin met an untimely death in 210 B.C. Prior to his death, however, thousands of people died at his hands. In 1974, approximately 7,000 life-size clay images of warriors and horses were discovered when some farmers were digging a well near Xi'an<sup>1</sup>. The tomb, clay warriors, and personal objects, were made by over 700,000 forced laborers<sup>2</sup>. The detail given each clay object was absolutely amazing! The clay soldiers were shown ready for battle and were accompanied by tools, horses and much more. Also uncovered, were swords, bows and arrows, as well as silk and jade objects.

It took incredible skill to create these objects. The legs of the warriors were made of solid clay<sup>3</sup>, but the bodies were made from a mold. Great care was taken to preserve the figures. When they were first unearthed the glaze on them began to crack. Therefore, since then, they have been treated with a chemical designed to stop the deterioration at the University of Munich. Interestingly enough, Chinese archaeologists are examining the pollen content of the clay used to make the warriors to determine exactly where they were built<sup>4</sup>.

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1. National Geographic Museum, Washington, D.C.

2. Smithsonian Rock and Gem, Ronald Louis Bonewitz, p. 63.

3. Clay comes from sedimentary rock and is formed when weathered rocks dissolve.

4. <http://archaeology.about.com/b/2007/03/25/pollen-and-the-terracotta-army.htm>

# SODALITE THIS! SODALITE THAT!

photos and article by Sheryl Sims

**W**hen I renewed my interest in collecting rocks and minerals a couple of years ago, I discovered *sodalite*. I knew nothing about this mineral except that I was attracted to its color. I thought that sodalite could only be found in blue, but that was not the case. It can also be found in blue, grey, white, and a yellowish color. It also contains streaks of white. Sodalite's transparency can range from transparent to opaque. It fluoresces in a strong orange color and the chemical composition is chloric sodium aluminum silicate.

Sodalite has a hardness of 5-6 and a greasy luster. Sodalite can be found in Canada, Brazil, Greenland, India, Namibia, Russia, Montana, and even North Carolina, where I found my samples. It gets its name from its sodium content, and can be confused with azurite, lapis, and dumortierite. Some believe that people can be healed from illnesses, such as



sore throats, by wearing sodalite.

Stumbling upon sodalite, I initially thought that it was lapis lazuli. Lapis lazuli has similar hardness and can be found in blue, violet, and greenish-blue colors. Its chemical composition is sodium calcium aluminum silicate. It is opaque and fluoresces in a strong, white, orange, or copper-color. In the end, I learned that lapis lazuli is sort of like sodalite, but sort of *not!*

[Sources of information: *Handbook of Rocks, Minerals, & Gemstones*, Walter Schumann; *Gemstones of the World*, Walter Schumann.]

## Wells' Collection Sale

Sheryl Sims was at the sale and took a couple snap shots shown here.





# AN APPETITE FOR ROCKS & MINERALS *by Sheryl Sims*

Recently, a friend sent me an email that blew my mind! I simply had to share it with you! The email contained a write-up about Bill and Lois Pattillo. They became avid rock hounds and joined the Gulf Coast Gem and Mineral Society in 1976, after attending the Gulf Coast Gem and Mineral Show in Corpus Christi. Since that time, they have taken to their RV to travel and display their amazing rock and mineral collection, primarily around the southern part of the States. The collection is made up of rocks that look like food! The below description and pictures are from their website at [www.rockfoodtable.com](http://www.rockfoodtable.com):

While on vacation, in the Northwest, in 1982 we had the opportunity to attend the Portland, Oregon Gem and Mineral Show. We were busy enjoying the show and we noticed an exhibit of pastries. There was a cake, sweet roll, piece of pie and several other items of rock that looked like food. We didn't give this sighting much thought until we returned to our home in Robstown, Texas. This is when my wife, Lois Pattillo, had the idea to exhibit a table of rocks that look like food. We were the owners of several rocks that looked like food at that time. Lois decided to open up her idea and extended an invitation to our club members, Gulf Coast Gem and Mineral Society, in Corpus Christi, Texas, to bring their rock food items to our show, which was to be held in March of 1983.

The 'Food Table' is presented as a project of the Gulf Coast Gem and Mineral Society and because it was Lois' idea. We take it to different Gem Shows, as we are asked to include it in their show. It was quite by accident that it has been exhibited at other shows. At our first show, in 1983, some Club members from San Antonio, Texas came to our show and were completely struck with awe. They inquired of Lois, would she bring it to San Antonio, the next weekend and set it up as a special exhibit. After thinking about it, Lois agreed to try taking it to other Gem Shows. ...

Since the first showing, in 1983, the Table has been to 41 different show locations and we have traveled over 100,000 miles. ...One club has invited



the exhibit back for the past 16 years.

There is hardly a show, where the exhibit is set up, that there is not an incident to report on. We have had people try to throw away some of the items, thinking that they were left on the table by accident. One young man even confessed that he had, while we were away from the exhibit for a few minutes, put an item in his mouth thinking it was edible, but

luckily he did not bite down on it hard and did not damage his teeth. We have four "Do Not Touch" signs on the table....

Most of the rocks, in the collection, are in their natural state. They may be cut, to show what the rock looks like on the inside or shaped to form the shape of the natural food. Some of the pieces are dyed to resemble the food that the rock is representing. A few of the items have been purchased, but most have been collected while on rock hunts. Some of the items have been given to us by other rock hounds. To them, it is just a rock, but to the Food Table it is a great addition to the collection.





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PLEASE VISIT OUR WEBSITE:  
[HTTP://www.novamineralclub.org](http://www.novamineralclub.org)

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## The Northern Virginia Mineral Club

You can send your Newsletter articles to:

Robert Winsor  
35740 Roundleaf Ct.  
Round Hill, VA 20141

Or via email: news.nvmc @ gmail.com

**Visitors are Always Welcome at our Club Meetings.**

**TIME TO RENEW YOUR MEMBERSHIP!**

**SEND YOUR DUES TO:**

**Rick Reiber  
Treasurer, NVMC  
PO Box 9851  
Alexandria, VA 22304**

**OR**

**Bring your dues to the meeting**

**Purpose:** To promote, educate and encourage interest in geology, mineralogy, lapidary arts and related sciences. The society is a member of Eastern Federation of Mineralogical and Lapidary Societies (EFMLS)

<http://www.amfed.org/efmls> and American Federation of Mineralogical Societies (AFMS)

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

**Dues:** Due by 1 January of each year; \$15.00 Individual, \$20.00 Family, and \$6.00 Junior (under 16, sponsored by an adult member).

**Meetings** are held 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. Phone (703) 228-6535. (No meeting in July & August.)

(\*Changes announced in the newsletter.) Snow schedule - Arlington county schools.