



# THE NORTHERN VIRGINIA MINERAL CLUB INC



Crystals are the flowers of the Mineral Kingdom



## THE MINERAL NEWSLETTER

VOLUME 52 No. 5

MAY 2011

# Cave of Giants

By Rob Robinson

A cavern containing extraordinary crystals of selenite (gypsum) was discovered in late 1999 at the Naica Mine in Chihuahua, Mexico. I had the opportunity to visit this mine a little more than a decade ago. Naica is a working lead, zinc and silver mine in which large

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

voids have been found, containing crystals of selenite as large as 4 feet in diameter and 50 feet long. The chamber holding the largest crystals is known as the Crystal Cave of Giants, and is approximately 1000 feet down in the limestone host rock of the mine. The crystals were formed from circulating hot waters under special conditions that produced giant crystals. The cavern was discovered while the miners were drilling through the Naica fault, which they were worried would flood the mine. The Cave of Swords, discovered in 1910, is another chamber in the Naica Mine containing large gypsum crystals.

### NVMC Schedule:

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

June 27 Gen. mtg.

**\*\* NOTE THIS CHANGE\*\***  
September 26+ AUCTION

October 24 Gen. Mtg.  
November 28 Gen. mtg.

December 19\*  
Holiday Meeting  
\* This is a joint meeting with MNCA



Photo courtesy Wikipedia

Please join us for our meeting on Monday 23 May at 7:45pm at Long Branch Nature Center for Rob Robinson's presentation about this amazing cave.

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**20th Annual GEM, MINERAL AND FOSSIL SHOW**

Presented by the Northern Virginia Mineral Club, Inc. [www.novamineralclub.org](http://www.novamineralclub.org)  
Sponsored by the Dept. of Atmospheric, Oceanic and Earth Sciences at GMU

Date: **November 12 & 13, 2011**  
Place: **Student Union II Building  
George Mason University Campus  
Braddock Rd. & Route 123, Fairfax, VA**  
Hours: **Saturday 10-6, Sunday 10-4**  
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 & 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

## April Minutes

**April 25, 2011** - Interim Secretary: *Sheryl Sims*

**Club President, Barry Remer**, convened the NVMC meeting at 7:45 p.m., greeting club members and welcoming visitors *Greg Baker* and *Mike Kaas*. We were delighted to have them visit. Mike joined our Club—glad to have you, Mike!



Barry Remer announced that it was time to give the *President's Award*. While he felt that many members assisted in various ways, and a lengthy discussion among board members, he was happy to announce that *Jim Kostka* was the recipient of this year's President's award. ***Congratulations, Jim!***

### Committee Reports:

**Secretary's Report:** Secretary not in attendance/report unavailable.

**Treasurer's Report:** Rick Reiber stated that he now has *Quick Book* up and running. It will pro-

vide receipts when members renew their membership. Exact balance unavailable at time of report, but the club has approximately \$8-10K. Funds are growing for the Fred Schaefermeyer scholarship fund. We have approximately \$900. Kathy Hrechka is continuing to work on a recipient for the scholarship (JMU student). No report as yet on the amount of money made at our club's recent auction. In connection with this report, Robert Winsor stated that he will provide a list of names to the 2011 Sterling Hill Super Diggg organizer, Jeff Winkler, for the upcoming field in Ogdensburg, NJ on April 30, so that those wishing to attend will be covered by insurance.

**Mineral Show Report:** Tom Taffee spoke regarding the annual show. He's working on an on-line submission form for vendors. Applications will be sent out earlier this year. The show is scheduled for November 12 and 13. We will need the usual help from club members. No word from Julia (GMU) as yet, but he is planning to have flyers available May 21. The cost to use GMU may be about 10% more than previous year. Discussions were held regarding increasing fees for dealers. Jim Kostka said that he is exploring two different websites for recruiting volunteers for the show. Gerry Cox discussed being able to assist using Survey Monkey as she has the professional version of the program.

**Ways & Means/Door Prizes:** Junior club member, Noah Wax, did a wonderful job assisting Sheryl Sims with handling the door prizes. The lucky winners were Ned Stagle and Matt Charsky. ***Congratulations!***

**Show & Tell:** Dave MacLean brought in a mineral sample from Hungary. Gerry Cox, Pat Rehill, and



Patrick Haynes' presentation in April. Here he points to a price tag on a specimen at the show.

## April Minutes (cont)

Karen Lewis attended *Wildacres* and brought in pieces of lapidary work that they made while there. All stated that they had a great time and enjoyed the various workshops. Patrick Haynes shared mineral samples from the Tucson, AZ mineral show. Jim Kostka shared amethyst samples from Charlottesville "Courthouse", VA.

**Presentation:** *2011 Tucson, AZ Mineral Show* presented by Patrick Haynes. An annual attendee of the show, Patrick gave an informative and insightful talk on his trip to the show. He noted that about 100 separate venues make up the Tucson Show, including the

"main" or "official" show. He said that the theme of this year's show was, "Minerals of California." He pointed out behind the scene preparation shots as well as key vendors/dealers. Patrick not only participates in the show's activities by helping Collectors Edge, he also sells minerals, sharing that many dealers sell minerals from their motel rooms. Sharing numerous photos of cuprites, amethysts, and so much more, Patrick had wonderful photos of "The Emperor" and "The Empress," exquisite, large Chinese rhodochrosite samples on display, as well as many other unique—and expensive-- minerals. [Note: Next year's 58th Annual Tucson Gem and Mineral Show™ will be held on February 9 - 12, 2012. It will celebrate Arizona's "Centennial" with "Minerals of Arizona."]

The meeting was adjourned at 9:45 pm.

## Rob Robinson Bio

Rob Robinson has worked with the Virginia Division of Mineral Resources followed by the U.S. Geological Survey as a geologist, geochemist, and mineral resources specialist since 1978. He is currently a regional geology/mineral resource specialist and environmental geochemist in the Eastern Mineral and Environmental Resources Science Center in the USGS, working on mineral resource assessment projects and as a collaborator with National Water Quality Assessment projects, with an emphasis on the occurrence and distribution of

contaminants, arsenic, and trace metals in rocks, sediments, and ground waters in the northeastern US. Work activities include regional geologic mapping, studies of the origin and genesis of metal and industrial mineral deposits, mineral resource assessment, geochemical modeling, project management, and program development.

He is a long-time NVMC club member and a former Club President.

## Fred Schaefermeyer Scholarship Fund

By Kathy Hrechka, Secretary

When Peter Chin was President of our club, he introduced the thought of a scholarship program in the name of Fred Schaefermeyer. Fred became a member in 1982 and served most offices, as well as Chairs in the Eastern and American Federations. Fred valued teaching our youth about geology.

Recorded on March 23, 2009 by Secretary, Kathy Hrechka, Tom Tucker presented the motion to make



annual 'grants' in the amount of \$250. to a deserving student who is studying a specific mineral related topic at James Madison University. The student will be selected by Dr. Lance Kearns. The recipient will be invited to present the results of their study as a club program, or as an article in the newsletter.

Since its inception, two students have been awarded these scholarships. Dr. Kearns will be selecting a student this spring in order to keep the fund active. If you would like to make a donation, simply send a check to our club treasurer, Rick Reiber.

Fred, age 92 is pictured with his companion Muriel at their cabin in Rollinsville, Colorado. We continue to thank Fred for his investment in our club, and many happy years to come.

## THE EMPRESS OF CHINA

By Sheryl E. Sims

As seen recently in a club presentation, the Empress of China is indeed an object of beauty. Sometimes called the Inca Rose, you may be interested to know that the Incas believed that rhodochrosite was actually the blood of their former rulers and that it had simply turned to stone. What is Rhodochrosite? It belongs to the calcite family, is very soft (hardness of 3.54), and is a manganese carbonate mineral ( $MnCO_3$ ). (Because this mineral is so soft, it is difficult to cut. Therefore, it is rarely used in jewelry.) Research shows that "calcium, magnesium and zinc frequently substitute for the manganese, changing the color to lighter shades of red or pink." Where is rhodochrosite found? The first discover of this mineral was in Romanian silver mines. It is also found in Colorado.



Rhodochrosite

*Sweet Home Mine, Alma, Colorado, USA*

Color	Red to pink, Brown to yellow, gray to white
<u>Crystal habit</u>	<u>Massive to well crystalline</u>
<u>Crystal system</u>	<u>Trigonal - Hexagonal Scalenohedral</u>
<u>Twinning</u>	on the {0112} uncommon
<u>Cleavage</u>	on the [1011] perfect
<u>Fracture</u>	uneven, conchoidal
Tenacity	brittle
<u>Luster</u>	<u>Vitreous</u>
<u>Streak</u>	White
<u>Ultraviolet fluorescence</u>	None

(photo/table courtesy of: <http://en.wikipedia.org/wiki/Rhodochrosite>)

<http://www.geologyinmotion.com/2011/02/3mpress-of-china-on-display-at-tuscon.html>

# Taken For Granite

By Sheryl E. Sims

Photos courtesy Wikipedia

We are all familiar with household granite. It's one of our favorite and most common types of igneous rock. Granite comes in colors ranging from pinks to gray. It contains potassium feldspar, quartz, and plagioclase feldspar. Granite is usually found in the continental plates of the Earth's crust. Widely used as a construction stone, Granite is hard and durable. The word granite comes from "the Latin granum, a grain, in reference to the coarse-grained structure of such a crystalline rock." Interestingly, granite is a natural source of radiation. While this is the case with most natural stones, some granites have been discovered to have more radioactivity, which gives way to safety concerns.

Granite is used all over the world. It's found in pyramids, palace columns, Hindu temples as well as the Mormon Temple in Utah, etc. Granite is used in cobblestone, headstones, and the foundations for many houses in New England. If, while watching the increasingly popular Olympic sport of curling, you've ever wondered what curling stones were made from, they, too, are made from granite.



<<  
Common pink granite.



>>  
Orbicular granite near the town of Caldera, northern Chile.



<<  
Close-up of granite exposed in Chennai, India.

References:

<http://en.wikipedia.org/wiki/Granite>

# Mountain Pass Rare-Earth Mine to Re-open

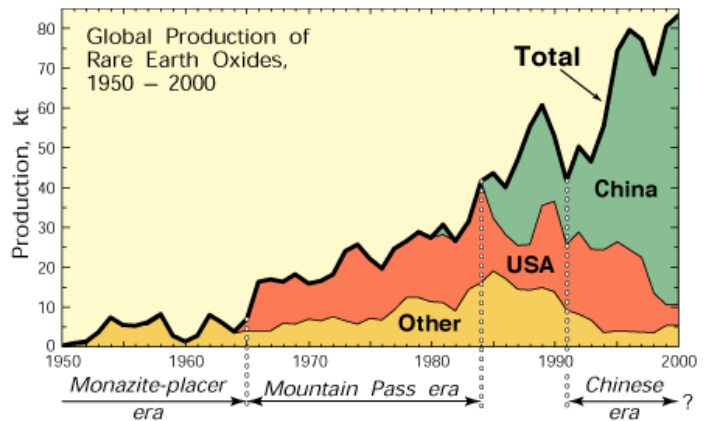
By Robert Winsor

Image courtesy Wikipedia

According to various sources, Colorado-based MolyCorp, who owns the Mountain Pass rare-earth minerals open-pit mine in California, had its ground-breaking ceremony in late April 2011.

Currently most of the world's rare-earth elements are mined from minerals in China, which creates various supply-chain and international trade issues. Mountain-Pass California has had a mine in operation previously for mining such rare-earth elements, however the mine was shut down in 2002.

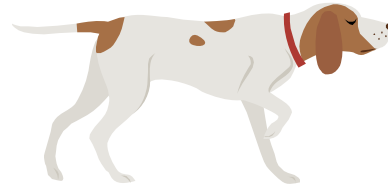
China is responding to the announcement with claims to increase restrictions on their rare-earth exports



over the coming years. This will likely lead to even greater scarcity of such minerals on the market, possibly further assisting MolyCorp's business model.

MolyCorp expects to have the mine in full operation in 2013.

## ROCK HOUNDS



*By Sheryl E. Sims*

Did you know that man's best friend is a true rock hound? Dogs have been used to detect mineral since about 1962. Initially, they were used in Finland to assist prospectors with finding sulphurous rocks. Over time, Russia, Sweden, and Canada (with less success, however) also began using dogs to detect copper and nickel deposits. Due to the strong smell of sulphur, dogs can easily sniff out sulphur-rich boulders.

<http://eng.royalcanin.com/the-puppy-and-the-dog/the-dog/dogs-that-serve-man/the-dog-as-man-s-companion>

## Gear for the Field Tripper

### Wondering what to take on your first field trip?

*Reprinted from the May 2008 issue.*

*By Robert Winsor*

If you are a new member and you are thinking about trying the process of heading into the field to look for minerals, you may be wondering what equipment is needed. Although the club is ready and willing to loan gear to new members, it may not always be available. Here are some things to consider for any field trip you might take (not necessarily just club field trips).

Probably the most important piece of equipment costs less than \$4: a pair of safety eyewear. For this, you should shop around, as many hardware stores carry several different types so your options are numerous. If you are confused and you are looking for a good place to start, try a set that has adjustable temples, and avoid the elastic-band type as they can become uncomfortable after extended use and sometimes fog internally.

The next important piece of equipment is a good pair of boots. Steel toes are preferred, but you can get by with simple



heavy work boots if you do not intend to do a lot of climbing or heavy lifting. Always wear heavy pants when climbing amongst loose boulders, as the jagged edges will cut skin very easily. A bare leg is an open invitation for a bad scrape.

Your next purchase should be a hard hat. This is not required for some places, but is required for working in mines or quarries. These can be obtained at nearly any home improvement or hardware store for about \$7. One size usually fits all, even kids (ages of about 7 or older).

A pair of leather-hide gloves are a very good idea. Heavy rocks have jagged edges, and you can prevent bad scrapes just by wearing them. They can also reduce fatigue on hands while swinging a hammer.

A bucket or heavy-duty backpack is a good choice to carry the minerals you collect.

Keep in mind that where you find minerals will almost surely be far from your vehicle. Be prepared to carry your precious finds! Some people like to use two buckets. One bucket is used for carrying hammers and chisels and the other is used for carrying specimens. This can

## Gear for the Field Tripper (continued)

also be good for returning to your vehicle, as now you have two heavy buckets to carry rather than one. Carrying two buckets “evens the load” and actually makes it easier for some people to carry.

Small containers are good to bring for carrying small specimens or fragile crystals. Newspaper or paper towels can be used to wrap small specimens and egg cartons can be used for storage.

The next good item to get is a loupe. For about \$30, you can mail-order a nice 10x loupe with a lanyard to hold it on your neck. The loupe allows you to see many more details on your mineral find, and can also help tremendously with identification. Features such as crystal shapes tend to be much better quality and therefore more easily identifiable if the crystals are very small (just ask any micromount enthusiast!). Get yourself a loupe and start exploring the fascinating microcosm found in many small mineral pockets.

Finally, the hardware. The most common hardware is the hammer and chisel. You can kill two birds with one stone by purchasing a bricklayer’s hammer, which is *both* a hammer and a chisel, but requires some practice to master. It is a good idea to have other chisels as well. For heavy-duty work such as splitting larger rocks, you should only use chisels that have a hand guard. The hand guard is a rubber or plastic handle that wraps around the chisel (usually mounted to the chisel—see the pictures to the right). These will help protect your hand from a hammer blow that misses the chisel. It is also a good idea to have a small set of cold chisels. A set of 3 of these can be obtained for less than \$15 and these allow you to chip away very small features on a stone.

Then there are the sledge hammers. How many of these you choose to get and how big they are is largely a function of how much WORK you are willing to perform. Most rockhounds like to start with a small sledgehammer called a crack hammer. These are 3lb or 4lb sledges that are 12” to 18” in length, depending on the handle. Many rockhounds like to use these hammers to drive their large chisels



or to hit larger rocks directly. The longer handled crack hammers tend to deliver more energy with each blow, but also require more strength in the hand and wrist.

Then there are the serious sledge hammers. These are 24” to 36” long handles with heads that weigh anywhere from 6 lbs to 16 lbs (imagine swinging a hammer the heft of a bowling ball!). The larger hammers can be very valuable at breaking up the large boulders—boulders that are too big to lift but can sometimes be pulled or rotated into an orientation such that a chunk can be broken off with a few blows (or more!). These hammers can require some very serious amounts of labor to operate, and are not for everyone!

Other hardware that becomes useful include devices such as pick-axes and prybars, sieves and screens, and water sprayers. As your stash of tools grows, you might also want a tool belt for carrying the tools in an organized manner (and they have pockets for stashing some of your finds).

These are items you can add as you go along and become more skilled.

For a “must-have” list for the first timer, here is a prioritized list. You don’t need all of this, but start low and work up:

1. Safety glasses. 2. Heavy work boots (preferably steel toed). 3. Hard Hat. 4. leather gloves. 5. buckets and egg cartons with wrapping paper or paper towels. (or, a backpack if you prefer) 6. bricklayer’s hammer. 7. Magnifying loupe, 10x 8. Crack hammer. 9. Chisels with hand guards. 10. Small set of cold chisels. 11. Water sprayer. 12. Tool belt. 13. pry bar. 14. you choose from here on!

Enjoy, and happy hunting!

THE  
NORTHERN  
VIRGINIA

MINERAL CLUB  
INC



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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:

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Or via email: news.nvmc @ gmail.com

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

**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.