

THE TREASURE CHEST

NEWSLETTER OF THE NORTH JERSEY
MINERALOGICAL SOCIETY, INC.

Charter Member of The Eastern Federation of Mineralogical & Lapidary Societies
and affiliated with The American Federation of Mineralogical Societies

VOLUME 64, ISSUE 9

THURSDAY, NOV. 13, 2008

649th MEETING

Time..... Social—Mineral Sales.....6:30PM
Meeting.....7:30PM
Program.....8:00PM-9:00PM
When..... Thursday, November 13, 2008
Where.... The Paterson Museum — (phone 973-321-1260)
2 Market Street, Paterson, NJ 07501-1704
Editor:.... Jack R. Troy, 48 Beverly Rd., Hawthorne, NJ 07506
973-423-5225 — e-mail: troy39@optonline.net

DIRECTIONS

For those unsure of a route to the museum, these directions should help. You can get to the museum via Rt. 80 using exit 57a,b or Rt. 19 north, following the signs to downtown Paterson. Left at the first light, (follow red dots) left again at the next light (Market St.) and then two and a half blocks to the museum on your left. You could also come north on McBride Ave. from Rt 46 in West Paterson to Overlook Park, right at light to next light, left at Burger King and 100 ft. to museum entrance on your right. A winding but safe route to a paved, fenced and well lit parking lot.

PURPOSE

The North Jersey Mineralogical Soc. is a non-profit, educational organization founded in 1945 whose goal is to bring together people with an interest in the Earth Sciences in general and mineral studies in particular. Guests and prospective members are always welcome. Young people under 17 years of age are welcome to attend if accompanied by a parent or adult friend.

FOR INFORMATION CALL

Rolf Schudel (201-925-2716) or Mel Pollinger (201-791-9826). Call the the museum or one of the officers if inclement weather might cause meeting cancelation.

EDITOR'S COMMENT

Have you notified the editor of your current and correct e-mail address yet? We need it to mail your newsletter to you and also notify you of field trips and other important club functions.

SEND DUES TO

Treasurer pro-tem
79 Lakeside Avenue
Pompton Lks, NJ 07442
973-595-6278
Individual members: \$12.00
Married couples \$18.00
Additional family members
are \$6.00 each
Junior members: \$5.00

OFFICERS FOR 2008

President.....Juan Gonzalez
1st VP.....Robert Horn
2nd VP.....open
Secretary.....open
Treasurer.....open
Assoc. Treas.....open
3 yr trustee.....Arlene Castleman
2 yr Trustee.....Mel Pollinger
1 yr Trustee.....Robert Santee

PROGRAM

Our program for November will be presented by John Scott Lucas and is entitled "Making the Fossils Dance -- Inside Phil Fraley Productions" They are a museum exhibit fabrication company best known for it's innovative genuine fossil mounts for premier institutions including the American Museum of Natural History, the Field Museum, the Carnegie Museum of Natural History. and the Natural History Museum of Los Angeles County. Director of Research, John Scott Lucas, will give a "virtual tour" of the studio, and talk about the process of restoring and mounting dinosaurs. Along the way, he will reveal many insider secrets and tricks of the trade, like how to tell a genuine fossil from a cast.



Fabricators from Phil Fraley Productions place the skull of an *Allosaurus* on a specimen from the Carnegie Museum of Natural History. Photo by D. Zverif, Copyright Phil Fraley Productions

ANNUAL HOLIDAY PARTY

Sunday, December. 7. 2008
from 1;00-5:00 pm
at the Paterson Museum,
2 Market St., Paterson, NJ

Social Period — Refreshments
Mineral Sale — special guest dealer
specializing in minerals and gem
dealer specializing in fine Jewelry.
Discounts offered to members.

Program and Guest speaker to be announced.

Visitors are welcome to our holiday party! There is no charge to members. Guest \$10 donation suggested.



THE RIVERSIDE QUARRY, TOTOWA, NJ

There are quite a few small mineral localities in our area that are not well known to younger collectors. Everyone



knows about the Great Falls of the Passaic, but few people know about the Little Falls of the Passaic. This water fall is in "Little Falls" and is a short distance south of a quarry that produced some interesting



micro minerals in the past. This locality is visible from Route 46 (see arrow) but has not been worked for quite a few years. When pipes were laid to connect to the new Passaic

Valley water treatment plant, there were a number of specimens of amethyst collected. The road along the river can still produce an occasional quartz specimen, but it was the quarry that produced some fine minerals, mostly micro in size. Like many quarries in the area, it was named for the location or by the owner-operators name. So this quarry was known as the Riverside Q. or as the Ferguson Quarry. Back about a dozen years ago, the quarry was leveled and squared off to prepare it for a commercial use. A new road was cut



so the property would have access from the eastbound lanes of route 46 (see picture below). It was not a deep rock cut and was mostly non-productive. Nick is shown in the center of the photo walking toward a prehnite exposure. The prehnite was not large, but was well crystallized. Pumpellyite-Fe⁺⁺⁺) was one of the most interesting minerals that occurred in the quarry.



It was most common at the south east end of the quarry. Not very common in other quarries, it is seen in this quarry filling numerous vugs, often fibrous and crystallized.

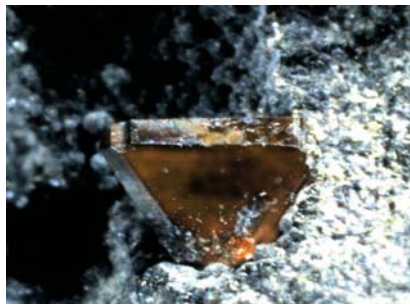


Sometimes it was associated with albite, quartz and/or calcite. (See photo at left). Sometimes, single crystals of albite such as the piece below right could be found.

Other minerals that were reasonably common included the mineral sphalerite. There were amber colored crystals that were very clean and sharp. (See photo below left). Also found were beautiful hopper type crystals that were iridescent. It was difficult to get a good photograph of these one mm crystals. There were some zeolites, but they were scarce and not many were keepers. I did not have good



luck finding very many of these minerals whose quality was high enough to get a good photograph. I found some low quality heulandite, got at least one picture. Other zeolites were there, analcime occurred in clusters in some of these vugs, datolite also occurred in vugs, and were reasonably well crystallized. Pyrite was fairly common and well crystallized. (see page 2).

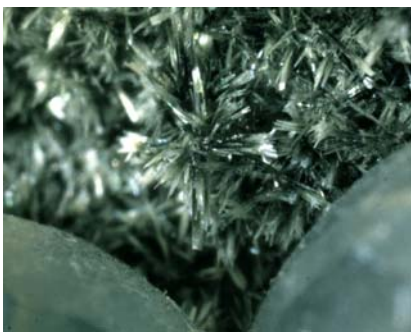


There was some chalcopyrite found of reasonable quality. And below right, sitting in a nice vug, is a calcite crystal. You should make it a practice to always check out construction sites.

They can be a treasure trove of good mineral specimens. Careful examination might enable you to come up with mineral samples such as these. They're not big, but they'll do!! Get out your microscope. This was one of the localities that our club's micro-mineral study group examined some years back. If you check the book dealers at our shows, you might even find a copy of a monograph put together by that micro-mineral group and Mel Pollinger that described the minerals that occur here. Minerals that could be added to the list include galena and epidote.

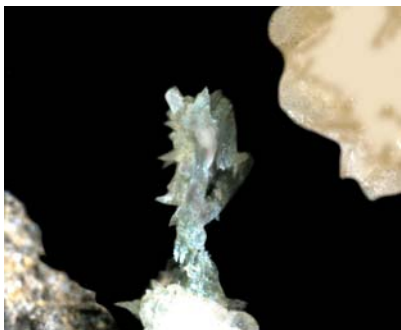


At the southeast end of the quarry there was a lot of cavities, some with nice balls of prehnite along with pumpellyite- Fe^{+++} . The color was grey-green with silver white tips. Many of the crystals were fibrous and only a few were clean and sharp. I enlarged the center portion of the photograph above to better show one of the crystals standing upright. That is about as clean as they get. Like many of the zeolites, it is a calcium



aluminum iron silicate and has been found in New Jersey and in Michigan. The specimen below right is a lighter blue color and appears to be growing on another crystal, maybe albite. Many vugs were found in the southeast corner

of the quarry that were filled with clusters and individual crystals of pumpellyite- Fe^{+++} . Trying to select a specimen that could be photographed was a little bit of a problem. The crystals had to stand up to be properly lit for photography....not always a simple choice. If you got too much light, the color would bleach out and the crystals would come out a lighter color. There were a number of sulphides present including the



sphalerite shown on the first page of this article. At this quarry, chalcopyrite was found, but not as clean and sharp as in many other localities. At some of these other quarries, there would be some green efflorescence (malachite?) surrounding the crystals. This is one of the rare situations where color can be used to help with an identification. Chalcopyrite is

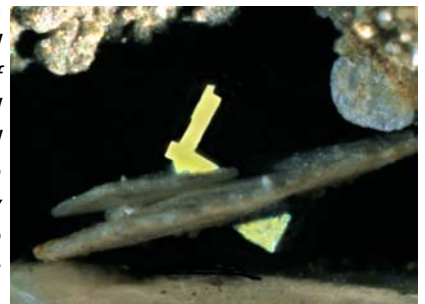


generally a bronze-yellow color whereas pyrite is a brassy golden-yellow color. Of course, the crystallization is also different. Chalcopyrite often looks either tetrahedral or sphenoidal.

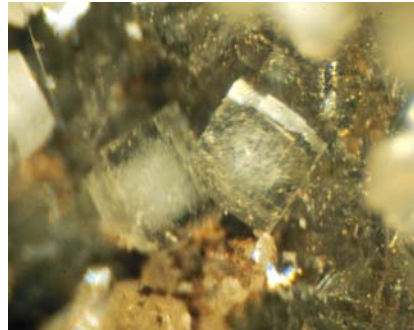


Pyrite occurs as a variety of different crystal forms as shown in the photo to the left (a combo of the octahedron and the cube with both forms being equally developed). The photo below right is a cube

with elongation of the cube face. Remember one of the rules in crystallography, (distortion is always in distance, never in direction) In this specimen, the crystal is growing on a calcite crystal. I wish that both of these crystals could have been measured in inches instead the 1-3mm size that they were. The clear to milky white crystals below are heulandite.



I wish that there was a secret formula for finding some of these great minerals. But if there is I don't know it. My own formula for collecting trips is to enjoy my company. Take photos and then start to explore for mineral specimens. I always check the floor to see what chips might lead me to finding an interesting vein or a better piece.



Then you have to check the wall to see any signs of veins or cavities. If the material that you've collected looks like they are keepers, put some aside to take photos when you have the time. If you

are not inclined to take pictures, have one of your friends do the work. And don't forget to record pictures of the site and the people you collect with. The only problem you have is that since you are the photographer, you are never in any of the pictures. I try to get photos of the flowers around the quarry. I have gotten some beautiful pictures doing just that.

It's amazing what you can photograph if you are just careful. The photo at right is a photo of my car at that time with my collecting buddy, Nick Facciolla loading his loot into the trunk. Those were good days.



COMING EVENTS

Nov. 14-16: Hamburg, NY: Show and sale, "Gemstreet USA"; Strieter Productions Inc.; Erie Co Fairgrounds, 5600 McKinley Pkwy.; Fri. 10-6, Sat. 10-6, Sun. 11-5; adults \$7 (three days), seniors and students \$5 (three days), children under 12 free; minerals, fossils, contact Jane Strieter Smith, (216) 521-4367;

Nov.15-16: Lebanon, PA: Show and sale, "Gem Miner's Holiday Festival"; Mid-Atlantic Gem & Mineral Assoc. Lebanon Expo Center, Rte. 72 and Rocherty Rd.; Sat. 10-5, Sun. 11-4; admission \$5, children under 12 free; gems, jewelry, minerals, fossils, contact MAGMA, (301) 565-0487;

January 24, 2009: 41st Annual Rutgers Geology Museum Open House. Details will be included in our January newsletter as soon as they are available from the Rutgers web site.

March 14-15: Clifton, NJ: 19th Annual Show:

Sponsored by the North Jersey Mineralogical Society, and held at the Pope John Paul II Elementary School, 775 Valley Rd. Clifton: Sat. & Sun. 10-5.; adults \$5, seniors \$3, children over 12 \$2; gems, jewelry, minerals, meteorites, fossils, crystals, New Jersey and worldwide specimens, fluorescent minerals, spheres; for information contact Robert Horn, 411 Mansfield Village, Hackettstown, NJ 908-813-0808; e-mail: Mineraldog@Comcast.net.

WHAT'S NEW IN MINERALS

Calciopetersite, $\text{CaCu}_6(\text{PO}_4)_2(\text{PO}_3\text{OH})(\text{OH})_6 \cdot 3\text{H}_2\text{O}$ from Domasov Nad Bystrici, Northern Moravia, Czech Republic, is a new mineral species of the mixite group. It occurs in cavities in quartz veins at an abandoned quarry near Domasov Nad Bystrici, about 20 km north-east of Olomouc, northern Moravia. It forms translucent to transparent minute acicular crystals up to 0.4mm in length and up to 5-20um in width, with an hexagonal outline, clustered in fine radiating sprays. It is soft and brittle with an uneven fracture with no cleavage being observed. It has an olive green color, light olive green streak and vitreous luster. It originated by weathering of chalcopyrite, and other copper sulphides in association with chrysocolla. The name calciopetersite denotes that it is the Ca dominant analog of petersite-(Y). For complete information see mineral description by Sejkora, Novotny, Novak, Srein, Berlepsch, published in the Canadian Mineralogist, Vol. 43, pp 1393-1400. (2005).

It is likely that this mineral is similar to the specimens that I submitted to the American Museum in New York for identification some 25 years ago. When I first looked at the specimens that I collected, they seemed to have the same association as petersite but were either pure white or had a bright yellow color. Because of the color difference, I thought that it would be logical that specimens containing less copper and more calcium would not be green.

After waiting for some time for American Museum to finish identifying the unknowns, I removed the samples from the museum and sent them to people I know at the Univ. of New Orleans for identification. They arrived just before hurricane Katrina. Many specimens and labels suffered damage from the hurricane and subsequent flooding. With some luck we may identify my specimen somewhere down the line and be able to find out whether we have the same mineral or something different.

Haineaultite, $(\text{NaCa})_5\text{Ca}(\text{TiNb})_5(\text{SiS})_{12}\text{O}_{34}(\text{OHF})_8 \cdot 5\text{H}_2\text{O}$ is a new mineral species discovered in altered marble xenoliths at the Poudrette Quarry, Mont St. Hilaire, Quebec. It was first encountered in 1986 by Dr. Peter Tarassoff and pending identification was called UK 61. It was named Haineaultite after Gilles Haineault, a well known collector and dealer of minerals from Mt. St. Hilaire. Some of the best specimens were found in 2000 on level 8 at the east corner of the quarry. Crystals of haineaultite from the unusual breccia altered marble xenolith are tabular with somewhat complex stepped terminations. Associated minerals include quartz, a lubuntsovite group mineral, calcite, a sodic amphibole and another unknown minerals, temporarily designated UK 75. The majority of the mineral has been recovered from vugs in what is clearly altered marble xenoliths. Crystals are generally lemon yellow and more rarely tan, off white or orange. The mineral occurs as either isolated, prismatic crystals or fan like aggregates of more tabular crystals elongate along 001 with a maximum length of 6 mm. It has a vitreous luster, is transparent to translucent, For full info see Canadian Min. Vol 42, pp.769-780.

VICIOUS POLAR BEAR ATTACK IN ALASKA

Below is a photo of an Alaskan polar bear attack on a man caught in the open! Photos were taken while people watched but could do nothing to stop the attack. One person captured the terrifying scene using a telephoto lens. Local newspaper reports say that the victim should make a full recovery.

