

THE CAPITAL ROCKHOUNDER



Publication of the Capital District Mineral Club, Inc.
Chartered by the Education Department of the State of New York
P.O. Box 12814, Albany, New York 12212-2814

April 2010

April Meeting

The next meeting of the Capital District Mineral Club will be held at the New York State Museum on Madison Ave on April 1st, 2010 (no fooling!). Please arrive between 7:00-7:15pm so that someone may let you in the normally locked after hours museum doors.

The CDMC Program for the month of April, 2010 is brought to you through the courtesy of Mike Hawkins and the New York State Museum. The Museum Curator, *Dr. Marian Lupulescu*, will be the speaker and will talk about the Pegmatites of New York. His background is: Present position: Museum Scientist / Curator of Geology - New York State Museum. Education: .Senior Fulbright Scholar, 1998-1999, California Institute of Technology, USA. Ph.D. - Geology, 1987- Obtained degree at "Alexandru-Ioan Cuza" University, Iasi, Romania. Bachelor of Science, 1976 -University of Bucharest, Faculty of Geology and Geophysics, Romania. Teaching Positions: Chairman (1996-1999) - Mineralogy Department, Faculty of Geology and Geophysics, University of Bucharest; .Associate Professor (1995-1999); .Lecturer (1990-1995); .Assistant Professor (1980-1990) - Mineralogy Department, University of Bucharest, Romania. Visiting Positions - Visiting Professor - Geology Department, Union College, Schenectady, New York, USA, 1993-1994. Research Experience and Interest: Geochemistry and Geology of Proterozoic Iron Deposits; Mineralogy and Mineral Chemistry; Precambrian Geology; Kimberlites.

Thanks are Extended
by Anne Woods

The show committee would like to extend their thanks to the many members who donated their time to volunteer during our Mineral Show this past February. Members who participated included: Steve Kelland, Caroline Reynard, Richard Hartnett, Cheryl Halleran, Carol Van Camp, Joe Van Camp, Robert Stitham, Pam Hartig, Robert Hartig, Fred Dobert, Deb Hewson, Bill Cotrofeld, Jim Palmer, Art Collins, Gerry Pratt, Greg Shields, Miriam Shields, Teresa Breuer, Paul Breuer, Curtis Breuer, Ray McKinney, Kevin Finn, Greg Taylor, Max Fischer, Anne Woods, Catherine Chiachiarretta, Bill Williams, Kim Spiak, Jake Spiak, Bruce Murray, Charlyn Murray, Jo-anna Michalek, John Compton, Rich Stein, Mary Beth Mulligan, and Kevin Mulligan.

Mineral of the Month: Calcite (CaCO_3) *by Curtis Breuer*

Despite being one of the most common minerals, calcite is known for its many crystal structures, colors, and being a relatively cheap and accessible mineral. These properties make calcite highly collectable! Calcite is in the carbonate group and has a rhombohedral crystal structure. Many impurities in calcite such as cobalt and others cause calcite to have many colors including white, yellow, red, orange, blue, green, brown, and grey. Similar to last months mineral, calcite commonly has the highly sought after property of fluorescence. Calcite is used for cement, building blocks (marble), agricultural supplements, and optics. Notable locations are Iceland; Elmwood Mine, Tennessee; Cornwall, England; Pugh Quarry, Ohio; and Franklin, New Jersey. Common associations in are fluorite, barite, copper, sphalerite, celestite, galena, sulfur, quartz, and apatite.

Please bring in a maximum of two specimens of calcite to the next meeting. Awards will be given in the following categories: Best Single Crystal, Best Matrix Specimen, Best Association, Most Aesthetic, and Best Self Collected. Judging will take place during break; awards will be given at the end of the meeting. Please be sure that your specimen has a label including location, associations, and your name on the back.

Capital District Mineral Club Thursday March 4, 2010 Minutes *by Curtis Breuer*

Met at the New York State Museum at 7:00, forty three members were in attendance. Meeting was called to order at 7:36. Gerry Boileau spoke about Ruth Schmidt's passing. Mike Hawkins announced that the show was the best to date. Bruce Murray announced and commentated the PowerPoint showing the clubs activities. This was followed by a break where the raffle was sold. The raffle made \$60. Treasurer's Report for March was given by Bob Stitham; Balance on Hand February 1st: \$8573.01, Dues: \$80; Raffle: \$32.00; Interest: \$0.95; Disbursements: \$591.25; Balance on Hand February 28th: \$7981.76; report stand approved with no audit. Secretary's Report was given by Curtis Breuer; Bob Stitham moved to accept, Joe Van Camp seconded, all in favor. No new/old business. Bob Stitham made a motion to close, Gerry Boileau seconded.

Collectors Corner - Acquiring New Specimens *by Curtis Breuer*

Continuing on from last month's edition of "Collectors Corner", we will next talk about acquiring new specimens for your now highly organized collection. There are several ways that are going to be discussed in this issue such as purchasing minerals on eBay, online stores, and mineral shows; self collecting specimens; and trading.

The first topic that we will discuss is purchasing specimens. This is an interesting topic because there is so much to talk about. The three ways of purchasing specimens that will be covered is buying on eBay, buying on online stores, and buying at mineral shows. Here are a few rules that cover all types of purchasing. First, buy what you can afford. Just because it is the coolest fluorite you have seen doesn't mean that you should spend 500 dollars more than you expected to spend. Set aside some money each month for purchasing minerals and don't go over your limit. You can always save up for an extra month to buy specimen. Second rule, know what you are buying. Though a specimen may be pretty, you could be getting over charged or be buying something that is fake, dyed, or mislabeled. The more you know about what you want to buy, the better deal you can get and the better quality you can get. Third rule, do not buy something the second you see it. Minerals are similar to houses, you don't buy the first house you go see, so take your time and be sure what you are buying is what you really want.

After discussing these group rules, we will now go into specific rules about three common methods for purchasing specimens. The first method is eBay. Yes, I said eBay! Though commonly thought to not be a good source, eBay is perfect for a beginning collector. Prices on eBay are often 30-40% cheaper than mineral dealers and great deals can be found. The number one thing to keep in mind about buying on eBay is to look at a seller's feedback to be sure that they are an honest dealer. Again, know what you are buying and do price checks so you know exactly what you are buying. The next type of purchasing is by online mineral dealers. I recommend finding dealers off www.the-vug.com or the mineral dealers with ads on www.mindat.org. These are all reputable dealers and have quite a lot of experience. Often times these are your best way to get new and unusual specimens when there are no mineral shows coming up. Once again, know what you are buying and do some research so you don't get burned. The last method of purchasing is the good old fashioned mineral show. This may be the only way that some people purchase specimens so they can actually handle the specimen. This is by far one of the better ways to purchase a specimen because you can ensure that a specimen is exactly what you want. You can see every single crack and ding when a specimen is in your hand. The downside to mineral shows, however, is that prices can sometimes be inflated and more than online specimens. The fact that you can hold a specimen in your hand is worth the inflated price for most collectors, though.

Our second method of acquiring new specimens is by merely self collecting specimens. Being in a mineral club and actively collecting will allow you to know many sites to self collect specimens and great specimens can be found to be added to your collection. It is important though to not keep every single specimen you find. If your intentions are to build a quality collection, then only keep quality specimens. Often, self collecting is the cheapest way to acquire new specimens; however, it can get expensive traveling around, so be sure to have a few friends to carpool and work together with.

The last method of acquiring new specimens is through trading. This is a personal favorite of mine, and for good reason. Trading is when you have another collector; usually in another part of the country or in another country and you exchange specimens between each other. What I personally do is trade people specimens that I self collected and I have doubles of for specimens that another person collects and has doubles of. For example, I trade Herkimer diamonds and other NY minerals for Ohio calcite and marcasite. To find other collectors, it would be wise to use a forum such as www.mindat.org or www.dirtyrockhounds.com and find some people that want to trade. By now, you should know what I am going to say next, do your homework! Get to know the person, ask for some photos of there specimens, or talk to something that they have traded with already.

Overall, it is wise to keep in mind that a collection is not built overnight. All good major collections were assembled over many years and by careful planning. Take your time, don't rush your collection. Have some fun with it!

Look forward to the next Collectors Corner where we will discuss displaying specimens!

Platinum Found in New York's Mohawk Valley! *by Don Kauffman*

It is almost a certainty that every mineral collector is familiar with New York's Mohawk Valley. Mentioning names of Middleville, Crystal Grove, Ace of Diamonds and Fonda is sure to generate conversation about world famous Herkimer diamonds. The naturally faceted quartz in this area formed millions of years ago. Individual and clustered quartz crystals have been a primary curiosity for early settlers, indians and modern rockhounds for well over 200 years.

With today's economic challenges, prospectors for quartz diamonds may make some money on quartz specimens but will most certainly not get rich. Indications are that some modern collectors/prospectors are returning to formerly worked gold locations in hopes of making some real money. Even more valuable than diamonds or gold is platinum. Unknown to most, one of the world's most valuable primary metals exists in rocky pockets and vugs of magnesium-rich dolomite in this area right along side quartz, pyrite and calcite. The metal is platinum.

Spaniards named the metal "platina," or little silver, when they first encountered it in Colombia. They regarded platinum as an unwanted impurity in silver being mined. Worth \$1530+ per Troy ounce on the London and world commodity exchanges, platinum is even more valuable than gold which currently holds a per ounce value just above \$1115+*.

Sources of platinum are quite scarce. Less than 10% of earthly platinum reserves can be found in North America and Central Africa. As luck would have it, South Africa and Russia have a monopoly on the market. A few open pit operations exist in the U.S. One source declares that without continuous mining for this primary metal, current above ground reserves would disappear in a year.

Actual platinum mining on a large scale requires heavy investment for exploration, production and refining. Few operations are open pit operations and underground mining of platinum requires hard labor. Extraction of this rare metal is accomplished via mechanical drills, explosives and loading for removal to earth's surface. Once platinum yielding ore reaches the surface, refining and processing may require up to half a year. The ratio of ore mined to produce a single ounce of raw platinum is estimated to be more than 10 tons of material. The final pure product weighs just a little over 3 pounds.

Getting down to basics, in New York's Mohawk Valley, platinum coexists within another interesting material, pyrobitumen. Pyrobitumen is a material that draws only passing interest for most Herkimer collectors. Also known as Anthraxolite, but not related to fatal anthrax disease, this curious formally organic material is reported to be found at various locations throughout the Canadian and U.S. Appalachian mountain chain. This hydrocarbon origin material is characteristically black, fragile and without form. (See photos on www.Mindat.org of pitchblack inclusions of Pyrobitumen in Calcite from a German diabase quarry.) It is resistant to water or intense heat. Much of the Appalachian pyrobitumen occurs in scattered base metal deposits of the ancient Canadian Shield.

Over twenty years ago, a researcher examined a sample of pyrobitumen from quartz occurrences at Fonda, N.Y.* His examination showed minute "veinlets" of calcium and sulphide materials enclosed in quartz and calcite. He did not, however, make a statement as to how he had suspected presence of platinum. He was unable to determine (or would not reveal) the actual source location. He did surmise that perhaps the examined platinum had migrated from another, yet to be discovered, location.

His research established that while such an occurrence of base metal in hard rock is unusual, a not-so-uncommon linking of platinum group metals with former organic (petroleum) compounds is almost the norm at other ore bearing locations. Other deposits and world mining locations including Poland, the states of Montana and Nevada in the USA. He also noted that the Sudbury district of

Canada has had recognizable platinum metal groups associated with pyrobitumens.

Unless you ignore it, finding abundant pyrobitumen in pockets and metamorphic fractures of hard Mohawk dolomitic limestone is not difficult. Some masses the size of a walnut have been reported. Pyrobitumen has also appeared as interesting inclusions in some Herkimer crystals. One such inclusion apparently took the form of a "bug" through the imagination of it's discoverer. (See it on the Internet as "Picture of bug in Herkimer Diamond posted in Little Falls, NY Photo Gallery on internet, 02-03-10) But what of the platinum?

If you have been reading along, if you have been absorbing the information. You must certainly realize by now that the precious native platinum found at Fonda must be very small. As a matter of fact, the reported amount was probably smaller than the period at the end of this sentence.

The author of the abstract that inspired this article concluded his paper by stating that pyrobitumens are abundantly associated with regional ore minerals. He subtly suggested that "ore-mineral inclusions may be a valuable source of rare metals such as platinum or as a source of information about metal migration."

Should you concentrate on finding valuable platinum anywhere Herkimer diamonds are located? if you value my opinion, you most likely will have better luck mining the limitless Herkimer quartz diamonds or panning for gold in New England. Just be aware of, and enjoy, any bonus inclusions that you may find along the way.

References:

*Parnell, John "Native platinum in pyrobitumen from Fonda", New York American Mineralogist, Vol. 73, 1170-1171, 1988

*U.S. Geological Survey, Mineral Commodity Summaries, January 2009 metalprices.com 02-17-10

The Platinum marketing Chain. <http://unctad.org/infocomm/anglais/platinum/chain.htm>

Article of Interest: Jones, Bob "Herkimer, New York, Quartz: Crystals So Gemmy They're Called Diamonds" Rock & Gem August, 2009 pp 12-16.

For Sale

Ken Wieland, of 105 McCarty Ave., Albany, NY, has minerals that he needs to sell. He has plenty of polished, cut slabs, other minerals and petrified wood. He also has cutting machines that he needs to sell. Please call 518-434-1346.



Mine entrance in Arizona. Photographed by member Gregg Steuben.

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All submissions to the newsletter must be in my hand before the 18th of any given month, or they will be used in the next subsequent newsletter.

The purpose of our club is:

- To promote and encourage the study of mineralogy and other applied sciences.
- To cooperate with educational and scientific institutions in order to bring about a better and more general understanding of earth sciences.
- To provide a program with suitable speakers for scheduled meetings.
- To sponsor, direct, and assist in the planning of excursions to mineral localities and other places of geological interest.
- To cooperate with organizations whose purposes are similar to those stated in the foregoing items.

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