

THE CAPITAL ROCKHOUNDER



Publication of the Capital District Mineral Club, Inc.
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December 2008

Next Meeting

There will be no December meeting in Albany this month. We will have a banquet and auction at the Gateway Diner instead. Details inside.

January Meeting

Since the January Meeting falls on New Year's Day, it has been changed to one week later on January 8, 2009. Please make a note of this.

Membership Renewal

Most memberships run out on August 31 (except very new members), so bring your checkbooks to renew your memberships. Please give your money/check to the membership committee (ask for Jim Palmer). Be sure you have decided if you want to switch to an email newsletter or keep your paper copy.

Club T-shirts Available

XL gray T-shirts with the club logo on the front and the quote "I'd Rather Be Rockhounding" on the back are available for \$12 each (cash only) from Anne Woods (322-7932; schmanie@albanyrockclub.com).



Mineral Shows

February 2-9. Tucson, AZ. Show, "Bead Renaissance Show"; J&J Promotions LLC; 3340 E. Michigan, next to the Holidome and Gem Mall; Mon. 10-6, Tue. 10-6, Wed. 10-6, Thu. 10-9, Fri. 10-6, Sat. 10-6; contact J&J Promotions LLC, P.O. Box 420, Williamsburg, NM 87942, (575) 894-1293; e-mail: info@beadshow.com; Web site: www.beadshow.com

February 21-22. Albany, NY. Gem, Mineral, and Fossil Show and Sale. New York State Museum, Empire State Plaza, Madison Avenue, Albany, NY; 10am-5pm. In conjunction with New York in Bloom. Admission: \$6 gets you into both shows. Contact: 518-474-5877; e-mail: mhawkins@mail.nysed.gov

Hospitalized

Max Fischer is home. If you want to visit him, call his wife to make an appointment.

Nominating Committee

J. Anne Woods, pick Noelle Guimond, Ely Fuller, and Bob Ballad (chair) to the position of Nominating Committee.

NOMINATING COMMITTEE: Nominates the new officers for the club membership to vote on at the January meeting. Committee gets dissolved after the vote.

This was supposed to be done at the November meeting, but I forgot, so I did it after the meeting. Read the CDMC Bylaws for further information.

Anne Woods

President

Capital District Mineral Club

Post Fire Research on Surviving Minerals
*Just over 90 years ago, a mineral collection donated by an alumni of a southern university was exposed to a searing fire. A resident expert examined mineral specimens to determine whether salvage was possible. This article is a summary of his findings.**

Collection specimens were of various sizes, minute crystals to several pounds. Mineral types were largely ore minerals, rare minerals and diamonds. It is significant to note that attempts to recover fire damaged diamonds failed.

Examination concentrated on only uncommon minerals since effects of intense heat on standard building stone was long established. Many minerals had exhibited

some known effects of heat exposure through prior laboratory analysis. In theory, belief was that surviving minerals might show characteristics not produced lab environments.

It was estimated temperatures sustained in the fire reached nearly 1750 degrees Fahrenheit. One significant factor was duration of applied heat as a result of building containment during the fire compared to rather short application of heat to produce laboratory reactions.

Surviving specimens were judged on natural properties, original appearance and specimen damage resulting from the fire. Only readily identifiable surviving pieces were considered in the investigation. Some 50 mineral species were identified and examined as a result of his efforts.

The investigator stated that some familiar minerals remained "entirely" unchanged. The list included: Copper, Graphite, Molybdenite, Magnetite, Rutile, Orthoclase, Labradorite, black Tourmaline, Talc and Titanite. Some exhibited only superficial change and demonstrated no appreciable changes within the heart of the specimen: Antimony, Tetradymite, Bornite, Chalcopyrite, Arsenopyrite, Calcite, Prehnite, Cuprite, Mimetite and Turquoise. Some specimens only showed slight changes to exposed edges or surfaces with little or no change: Bornite, Arsenopyrite, Cerusite, Chalcocite, Chalcopyrite, Galena, Olivine and Muscovite.

He further stated that previous laboratory tests of all the affected minerals were largely substantiated. There very few surprises or change to minerals resulting from their exposure to fire. However, most interesting were the changes of "characteristic" color in non-metallic specimens: Fluorite turned opaque white. Cyanite (Kyanite) had all blue totally destroyed by heat. Prehnite showed whitening edges. Lepidolite lost all violet color and turned a uniform white. Change of color in Turquoise was considered "unusual" in a change to white when laboratory heatings most commonly resulted in a brown color.

It appeared that most metallic minerals converted to "earthy" (uneven) color such as Chalcocite, Bornite and Manganite. Several, such as Angelsite (in a lustrous grouping), Arsenopyrite and Galena dulled and lost metallic luster. An exception was metallic Hematite converting to non-metallic. Quartz went "milky-opaque" in color. Transparent Calcite turned cloudy. Vitreous reddish-brown Apatite turned dull gray-pink.

Some ore minerals decomposed and reverted to "native" form by freeing of one or more components. Examples

cited were Angelsite, Chalcocite, Cerargyrite, Mimetite, Polybasite**, Pyromorphites, Vandanite, and Silver wire. Evaporation of elemental mineral components vented gas bubbles to the mineral surface in every instance. (NOTE: Four of the eight minerals liberated globules of lead which congealed on cooling surfaces after the fire).

Numerous minerals became more fragile, and in some cases, crumbled when examined. These were: Fluorite, Jtmenite, Quartz, and Celestite. Alabaster (gypsum) exhibited a powdery exterior to a depth of 1/2 inch due to evaporation of water within the mineral. Chromite became more brittle but held together.

Several mineral components separated from their fire ravaged host which crumbled (i.e. Garnet from mica schist and Andalusite from Quartz).

Where does this research lead us? We may clearly see that fire may be the greatest enemy in preserving of your mineral collection. In any event, after a collection is exposed to fire, most minerals are practically unsalvageable.

Article by Don Kauffman, member from Reading, PA

*Lonsdale, John T., Assistant Professor of Geology at University of Virginia, 1917-1919 and Assistant Geologist in Geological Survey of Virginia (1921-1924) article "Some Effects of Heat On the Properties of Minerals" Journal of the Mineralogical Society of America (American Mineralogist), August 1923, pp 141-147

**Polybasite and Cerargyrite are a rare species of chlorite and silver (silver sulphides)

Picture



This figure represents the quartz crystal found by a Boston Club member at the last LaFarge Quarry Dig of our Club in October 2008. Photograph by Robert Ballard.

December Banquet

The December Banquet will be held on December 4th at the Gateway Diner. You must be a club member to attend the banquet. We will be ordering off the menu. There will be a menu available at the November meeting if you want to look it over, or it is accessible online at: <http://www.gatewaydiner.com/Default.aspx>. Please RSVP by November 30th so we can set up the appropriate number of chairs, auction space, and have enough auction popsicle number sticks available. Please email the club website if you are coming (and list everyone who is coming with you) at schmanie@albanyrockclub.com. If you are without email, you may call Gerry at 482-0511.

TIMES: Social Hour 6:30 pm; Dinner at 7:30 pm (note new times).

AUCTION: Each member is allowed to bring up to three (3) items to include in the auction. Please know the name of the specimen and the specific location where it was found. We are accepting items having to do with earth science which would include rocks, minerals, fossils, lapidary, books, equipment, etc. The split is 80/20 with 80% of the proceeds going to the seller. Please bring your checkbook or cash (we prefer cash). We do not accept credit cards.

PAYMENT: After the entire auction is done, you will be allowed to purchase your item by waiting in line. After you have paid for your item, we will then let you have your specimen. We need to do it this way to avoid total chaos. If you must leave early and know this ahead of time, please let one of the auction committee people know this before the dinner. We will try to accomodate you, but be patient with us.

GIFT EXCHANGE: And as always, we are doing a gift exchange. Bring a gift with a value of about \$5 wrapped, and exchange it with someone else who has done the same. Make sure to give them all to Anne Woods upon arrival who will then make sure no one gets their own gift back. She will then make sure everyone gets a new one. All gifts must be collected before any can be returned. Also, please make sure that the gift is rock related.

Directions from East Follow I-90 West to Exit 5 - Everett Road. Turn right onto Everett Road. Follow Everett Road until it ends at Central Avenue (You will see a car dealership on the corner). Make a right onto Central Avenue. The Gateway Diner is located on your right, shortly after you pass the first traffic light.

Directions from North and West Thruway Exit 24 or I-87 South to I-90 East. Follow I-90 East to Exit 5 - Everett Road. Turn right onto Everett Road. Follow Everett Road until it ends at Central Avenue (You will see a car dealership on the corner). Make a right onto Central Avenue. The Gateway Diner is located on your right, shortly after you pass the first traffic light. If you are continuing South after dining at the Gateway, return to Everett Road and follow I-90 East to I-787 South. You will avoid traffic congestion and enjoy a panoramic view of the Empire State Plaza. You will reenter the N.Y. Thruway at exit 23.

Directions from South Thruway Exit 23. Follow I-787 North to I-90 West. Continue on I-90 West to Exit 5 - Everett Road. Turn left onto Everett Road. Follow Everett Road until it ends at Central Avenue (You will see a car dealership on the corner). Make a right onto Central Avenue. The Gateway Diner is located on your right, shortly after you pass the first traffic light.



Robert Stitham sitting next to large green boulder in freshly blasted outcrop in Iceland.

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Robert Stitham - general

Website:

<http://www.albanyrockclub.com>

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.

The Capital Rockhounder and the Capital District Mineral Club are not responsible for the accuracy or authenticity of any information in the articles printed in this newsletter. Nor are the opinions here expressed necessarily those of the officers of the Capital District Mineral Club nor of the Newsletter Staff as a whole.