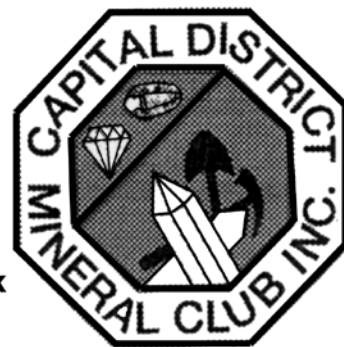


# THE CAPITAL ROCKHOUNDER



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P.O. Box 12814, Albany, New York 12212-2814

## April 2009

### April Meeting

Please come to the next meeting on April 2th at the New York State Museum on Madison Ave, Albany, NY. The door to the museum will be open from 7:00-7:15pm. Please wait in front of the door for us to come let you in. Please sign in at the security desk when you enter. The meeting starts at 7:30pm. We look forward to meeting you.

### April Program

The April Program will be presented by SUNY at New Paltz paleontologist, Dr. Alex Bartholomew (see abstract below).

"RECENT FOSSIL DISCOVERIES IN THE HUDSON RIVER VALLEY AND THEIR BEARING ON FAUNAL TURNOVER IN THE MIDDLE DEVONIAN AP-PALACHIAN BASIN

Many large-scale changes have occurred throughout the history of life on Earth. These changes, referred to as "bio-events", include such varied happenings as the initiation of life on land to the extinction of the dinosaurs. A majority of the bioevents of great magnitude are relatively well-understood. However, many details of the smaller, yet important bioevents remain enigmatic. One such event is the Kacak Bioevent, which represents a faunal turnover during the Middle Devonian (~390mya) in Eastern North America.

The Kacak Bioevent records a large-scale replacement of marine life between the Stony Hollow-Rogers City Fauna and the Hamilton-Traverse Fauna, and has been shown to occur across most of Eastern North America in both the Appalachian and Michigan basins. The first appearance of the Hamilton Fauna has long been identified as occurring in the Halihan Hill Bed of the Oatka Creek Formation, which lies above the East Berne Member shale interval.

Recent attention has focused on investigating the precise timing of this turnover in the stratigraphically expanded interval of the East Berne Member found in eastern New York State. The fauna of this interval is very sparse, with a few beds dominated by non-diagnostic small, dysoxic-tolerant bivalves. Of specific interest is a thin (~30 cm) shell bed in the upper third of the interval known as the Dave Elliot Bed. This unique concentrated shell bed in the East Berne Member provides critical insight into the interval between the Stony Hollow and Hamilton faunas in Eastern North America."

### March Program Review

*Bruce Murray*

The Capital District Mineral Club (CDMC) educational program for March 6, 2009 started with an introduction of new members, then the 2009 PowerPoint show of the club members' activities and lastly, a safety talk for rockhounds who go into the field. The new members signed up at the Albany Gem and Mineral Show in February 2009. Name tags were made up for the new members; a partial list of the tags in the tag box (it's time for a bigger box) show the new members as Kevin and Kathy Belker, Kevin Finn, Gary Neighmond and Greg Taylor. Tell me if your name was left off the list and I will make up a new tag for you. The 2009 CDMC PowerPoint show was carefully assembled by Anne Woods, from a large assortment of photos of club activities. The safety talk was given by Richard Stein, who has been associated with the Lafarge Limestone Quarry near Ravena for a good number of years. Illustrations of what to do and what not to do were demonstrated, most notable, flying rocks producing cracked eyeglasses, broken tools and pictures of people risking their lives by standing and working next to a rock wall; a real no, no.

### Minutes from March Club Meeting 2009

Capital District Mineral Club Minutes

Thursday March 5, 2009

*Curtis Breuer, Secretary*

Met at the New York State Museum at 7:00pm, forty-four members were in attendance. Meeting was called to order at 7:35pm by President Anne Woods. We met our new members which totaled around ten. Bruce Murray introduced our presentation of a PowerPoint by Anne Woods. Rich Stein then gave his annual talk on safety. Remember to wear safety vests, hardhats, and safety goggles in quarries. When wearing prescription glasses, you must have slide-on side shields. You must also be a member of the club in order to go on field trips. Secretary's Report was given by Curtis Breuer; Jo-Anna motioned to accept the minutes. Treasurer's Report was given by Bob Stitham; Balance on Hand February 1st: \$7387.22, Raffle: \$35.00, Interest: \$1.18, Dues: \$75.00, Balance on Hand March 1st: \$7498.40, Barbara Gearhardt motioned to accept the report. Show Committee: George gave a summary of how the show went No new/old business. George Gearhardt motioned a close to the meeting.

### Hand Lotion Cleans Grease!

A hobbyist says when sawing rocks or other greasy things, he must wash his hands a lot. Soap requires several washings—even lava soap. One day he accidentally squeezed his wife's

lotion instead of the soap dispenser, and found that the oil washed off in one application and his hands smelled like lotion instead of ALMAG! He used Jergens® extra dry lotion and rinsed in plain water.

--from *Chats and Chips*, April 2007 via *Stoney Statements*, Feb. 2009 via *The Hounds Howl*, Feb. 2009

### Some Minerals Found In Meteorites

by J. Richard Hartnett

Apatite	Bravoite	Bronzite
Calcite	Chalcopyrite	Chromite
Cristobalite	Diamond	Enstatite
Gold	Graphite	Hypersthene
Ilmenite	Iron	Nickel
Olivine	Plagioclase Feldspar	Pyrite
Pyroxene	Quartz	Serpentine
Spinel	Sulfur	Zircon

### Light Faded Minerals, Can We Restore the Glow?

by Don Kauffman

One day while browsing through Mindat.org a Message Board\* user inquired, "I wonder if faded fluorite (or other minerals) can have their color restored." In a matter of a few hours, he started receiving responses and below is a compilation of what I learned about faded mineral specimens.

It is best to note that most fading of delicate minerals can be avoided by keeping them out of direct sunlight\*. Even a strong source of any UV light may cause a fading or color change.

First response indicated that most color diminished fluorite could be restored BUT only with a strong source of ionizing radiation. It is very important to note that such restoration is considered highly hazardous and not recommended.

One collector stated that virtually tight storage of his fluorite in a lightfree container kept his prized Weardale fluorite in pristine condition. Available information by a collector who apparently did some experimentation established that indeed irradiation has been known to restore green color to sun damaged fluorite. He also stated that "grey ones remained grey." A vast difference was noticed between fluorites observed under natural sunlight and artificial light sources.

Due to crystalline lattice structure of fluorite other minerals defects in the material may trap light. Such "color centers" collect electrons by absorbing light which then emit certain ranges of the color spectrum. (red, orange, yellow, grey, blue and shades of indigo to purple) When a strong UV light source such as sunlight impacts a mineral for an extended amount of time, electron particles are ejected from the mineral and severe fading of the specimen is noted. A strong dose of ionizing radiation will "recharge" some color damaged minerals such as hackmanite.

It was emphasized that to reactivate mineral color a source of radiation may be needed that is just too dangerous for any collector without proper equipment or facilities. In event that a mineral such as blue topaz is in need of therapy only emitted by X-rays or gamma rays would suffice. But this procedure is much too dangerous for laymen or many

## 2009 Tentative Field Trip List

TRIP	DATE	DESCRIPTION	LEADER	CONTACT
Mount Ida, Arkansas	April 7-10	EFTA trip	on your own	www.efta.biz
Mohawk Trip NY	April 11	River Rocks, Fossils, Labradorite	Jim Palmer	577-6119
LaFarge Quarry NY	April 19	Quartz, Calcite, Marine Shelly Fossils	Rich Stein	355-4423
Sterling Hill Mine NJ	April 25	primarily Franklinite, Tephroite, Willemite all fluorescent	co-sponsored	www.uvworld.org
Fonda, NY	May 3	Herkimer Diamonds (Quartz) at club claim	Jim Palmer	577-6119
Barris Ledge, Goshen, MA	May 9	Tourmaline, Goshenite	Richard Hartnett	439-7243
18 Mile Creek, Hamburg, NY	May 30-31	Trilobites, brachiopods, corals, etc. rarely pyritized	Gerry Pratt	392 0453
Gallupville, Fox Creek, NY	June 13	Tentaculites, Corals, Brachiopods	Bob Ballard	377-8656
Rock Swap - Gilsum, NH	June 27-28	Mineral and Fossil Show and Swap	on your own	
Syracuse Mineral Show	July 11-12	Mineral and fossil Show and Sale	on your own	
Gouverneur /Balmat, NY	July 18-19	Anthrophyllite, Apatite, Talc, Tremolite, etc. -camping	Gerry Pratt	392 0453
Bachelorville, NY	August 1-2	Feldspar, Quartz, Beryl	TBA	
West Springfield Show	August 7-9	Mineral and Fossil Show in West Springfield, MA	on your own	
Newcomb Rock Fest	August 8	Geology Fest in Visitor Information Center Newcomb, NY	www.adkvic.org/rockfest.html	
Wild Ammonusac VT/NH	August 15-16	Gold Panning and sluicing and camping	Bob Ballard	377-8656
St. Lawrence Rock Show	August 22-23	Mineral and Fossil Show	on your own	
Stoddard Mine, NH	August 29	green fluorite	Richard Hartnett	439-7243
Lead Hill, Ticonderoga NY	September 12	graphite	Curtis Breuer	338-6266
Rhinebeck Mineral Show	September 19-20	Mineral and Fossil Show sponsored by Mid-Hudson Gem	on your own	
Minerva NY	September 26	Calcite, apatite, rarely labradorite, magnetite, titanium	Bob Ballard	377-8656
Fonda NY	October 3	Herkimer Diamonds (Quartz) at club claim	Jim Palmer	577-6119
Fonda Mineral Show	October 17-18	Mineral and Fossil Show	on your own	
Walworth Dig	October ??(TBA)	Fluorite, dolomite, calcite, celestite, sphalerite	on your own	
Ludlow VT	TBA	Green Talc, Gold panning	TBA	

experienced collectors. Because irradiated gem stones or jewelry then become too radioactively hot to wear. In most instances post irradiation application typically requires them to be sequestered a minimum of five years. After radioactive decay has been desipated irradiated material can then be handled safely.

Depending upon the type of radioisotope emitted not all radiation is an equal opportunity hazard. Shielding from a radioactive source can range from a single sheet of paper (Alpha particles), to a minimum of centimeters of shielding (Beta particles) to very heavy shielding more than twelve inched thick (Gamma partricles) in order to protect human tissue.

Protection doesn't end there. Certain radioactive sources provide an additional hazard when inhaled as emitted gas or ingested in the form of particles. Time of exposure and distance from radiation source are factors in determining how much of a hazard experimentation may pose. Radiation therapy of mineral specimens is not a safe experiment for amateurs or even most experienced collectors.

What minerals are best not exposed to direct and continued UV sunlight? A Mindat reader had the answer. Fluorite and amethyst lose color. Realgar metamorphs into pararealgar (yellow orpiment). Silver bearing minerals (silver halogenides) will turn black due to photochemical reaction with sulphur or sulphur dioxide. It is best that minerals prone to react to sunlight be stored in black boxes. Very often you will observe dealers at show with boxes of specimens marked "Light sensitive, Please do not keep open."

It was reported that some English fluorites from certain locations were more fade resistant than others. The sturdier fluorites reported were deep purples, yellows and a green specimen from a particular location.

Two other reported minerals were reported as victims of sunlight, kunzite and rose quartz. A dispaired collector stated that a brilliant lilac kunzite gradually faded to clear with prolonged exposure to the sun. Pink or rose quartz also will fade as we noted in a piece of quartz from Beauregard Mine, New Hampshire. That material may have been a beautiful pink when first left on a ledge at the mine years ago but when discovered Summer 2008, the mineral had turned to almost a clear, transparent quartz with just a hint of pink.

An excellent source on how sunlight and UV affects various minerals is found in a book written by John Sinkankas\*\* In checking this valuable reference, approximately nine more minerals were found that have adverse reactions when exposed to direct sunlight:

In barite, some colorless crystals turn blue when exposed to sunlight or UV asources. Some beryl crystals change color when exposed to direct sunlight as reported by Sinkankas who had a Brazlian apricot color beryl turn pink after exposure of one wek in sunlight.No changes occurred in pale blue beryls. Cerargyrite (a.k.a chlorargyrite which is

a cubic changes to brown-violet in daylight and to a brown color when exposed to artifical UV light. Cinnebar quickly metamorphoses a purple-black metallic-like coating under UV light. Under UV light exposure ruby corundum transforms to a more violet hue and blue-green corundum became slightly more blue. In direct sunlight cuprite surfaces turn to a more black metallic luster. Lilac to violet lepidolite is reported to pale significantly after several month of exposure to sunlight. Under UV light Smoky quartz, often very abundant in certain pegmatite outcrops, has been observed to pale significantly or turn colorless with long term sunlight. A combination of humidity and direct sunlight will change beautiful pink-red rhodocrosite surfaces black in a rapid reaction. Pink sodalite reportedly goes colorless and sometimes in a matter of seconds.

Last but not least, vivianite beginning as colorless and transparent crystals rapidly changes to various blue shades. Range of color from pale to blue, to green-blue, indigo and blue-black may be exhibited immediately after being exposed to light. An additional response may be disintegration of very large crystals.

Prerequisite knowledge of mineral color characteristics is perhaps the best way to avoid color change in any minerals you may acquire for your collection. Due some additional research or ask some expert collectors in order to know which ones may be affected.

Comments entered in this article just scratch surface knowledge about conditions affecting color change of minerals. Heat and various types of radiant exposure affecting minerals plus restoration of color are covered by consulting Internet resources, other collectors and excellent books such as the Sinkankas reference.

\*Article inspired to Mindat.org Message Board inquiry and responses on January 2, 2008 Thanks to Barry M. who made the initial inquiry and responding contributors; Alfredo P., Jenna M., Stephen M., Ray L., Howard M., Scott, Sebastian M., David B. and Thomas H.

\*\*Sinkankas, John "Color Changes in Gemstones and Minerals" from The Gemstone and Mineral Data Book, Winchester Press, c1972 pp 112-120

\*\*\*Cerargyrite a.k.a. chlorargyrite is a silver chloride halide found in oxidized zones of silver deposits form especially arid regions. Specimens may be cubic, massive crusts or waxy druzied crusts coating surfaces. Also can appear as columnar or stalctactites. It is colorless when first uncovered but changes to a bright chatreuse-green, light yellow, light green or grey. Type locality for this mineral is Marienburg District, Saxony, Germany

NOTE: Bob Jones wrote an article, "Light-Sensitive" MINERALS: Why Some Specimens Lose Their Color in ROCK&GEM of November 2008

Capital  
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Albany



*I'd rather be  
Rockhounding!*

# INTERMISSION



## Officers:

President	Anne Woods	518-322-7932
Vice Pres	Gerry Pratt	518-392-0453
Secretary	Curtis Breuer	518-338-6266
Treasurer	Robert Stitham	518-755-2255

## Newsletter Staff:

Anne Woods	schmanie@albanyrockclub.com
Don Kauffman	- articles
Richard Hartnett	- articles
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.

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