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

JANUARY 2005

January Meeting

The January Meeting of the Capital District Mineral Club will be on January 6, 2005. We will once again hold our meetings in "Room B" on the concourse level (go down the escalator) at the state museum, on Madison Avenue, in Albany, NY. The doors will only be open from 7:00pm to 7:15pm. A word of caution, since it is can be very cold outside and the door is located in a "wind tunnel", please wear warm clothing including a hat, mittens, and a scarf. The meeting will begin at 7:30pm.

A video entitled, "A man, a plan, a canal, PANAMA" prepared by "NOVA as one of its mysteries of science and insightful narration from author David McCullough will be shown. Get an unprecedented look at the Canal's dangerous 30-year construction and wondrous present-day operation. Meet the persevering pioneers whose vision and determination overcame tremendous physical—and fiscal—obstacles. Understand why France abandoned the project after ten years and 20,000 deaths. A 50 mile shortcut to the Pacific lying just north of the Equator is one of the most extraordinary achievements human achievements ever." -script from video back

Review of December Banquet

Thirty members and guests were present for the semi annual dinner/auction held at the Gateway Diner on Central Avenue in Albany on December 2, 2004. Registration of the mineral specimens and related hobby items were quickly done on arrival and on display before the buffet diner was served. A short business meeting was held by our president Mark Kilmer. The only items on the agenda were the nomination of officers in the coming year (see separate listing later in newsletter). George Gearhardt as part of the auction committee distributed a "Procedures Report" and then high-lighted the changes regarding bidding and calculating the sharing of the proceeds (bidding in whole dollars only, minimum bid options, and the calculations in sharing..e.g. rounding off to whole dollars and the immediate payment at the end of the auction).

The use of a "cash bank" to start with allowed the immediate payment to the seller's without the necessity of collecting from the buyer's first. Bob Ballad and George Gearhardt served as the two record keepers during the auction, Mark Kilmer served as "auctionee" with charm, grace, and good humor. Gerald Boileau served as our runner who provided the auctioneer with the item and then delivered immediately to the winning bidder as soon as "SOLD" heard.

The club retained $222.00 for the treasury. The highest bid was $32.00 for a piece of galena from Missouri and a few went for the minimum bid of $1.00.

Trustees Meeting

A trustees meeting has been scheduled for Sunday January 23rd at noon at Bob Ballad's house. Lunch included: please bring a dish to share. Agenda includes voting in the new class, acceptance of the revised bylaws, and other agenda. Bob will provide directions to people at 377-8656 or by email at <rballad@nycap.rr.com>.

January 2005 Show Announcements

January 7-9. Mesa, AZ: 33rd annual show, "Flagg Gem and Mineral Show"Arizona Mineral and Mining Museum Foundation; Mesa Community College parking lot, Dobson, just north of Superstition Fwy.; Fri. 9-5, Sat. 9-5, Sun. 9-5; free admission; contact Ray Grant, (480) 814-9086.

January 14-15. Globe, AZ: 48th annual show; Gila County Gem & Mineral; Gila County Fairgrounds; Fri. 9-5, Sat. 9-5, Sun. 9-4; adults $2, contact Bill Morrow, (928) 425-0194.

January 14-16. Phoenix, AZ Annual show, "Arizona Rockfest and Earth Science Fair" Rockfest USA, Mineralogical Society of Arizona; Tempe Diablo Stadium, I-10 exit; Fri. 9-5, Sat. 9-5, Sun. 9-5; ages 13 and up $5, ages 7-12 $3, contact W.R. Russ, 4515 E. Joan De Arc, Phoenix, AZ 85032, (602) 684-7381 or (620) 929-7802; e-mail: pghrockfest@hotmail.com.

January 26-30. Quartzsite, AZ: 39th annual show, "QIA Pow Wow" Quartzsite Improvement Association; 235 E. Ironwood Dr.; Wed. 9-5, Thu. 9-5, Fri.9-5, Sat. 9-5, Sun. 9-5; contact Diane Abbott, P.O. Box 881, Quartzsite, AZ 85346-0881, (928) 927-6325; e-mail:qia@redrivernet.com; Web site: www.quartzsiteimprovementassoc.com.

January 29-12. Tucson, AZ: Annual show; Martin Zinn Expositions; The InnSuites Hotel, 475 N. Granada; 10-6 daily; contact Martin Zinn Expositions, Box 999, Evergreen, CO 80437, (303) 674-2713; e-mail: mz0955@aol.com.

January 29-12. Tucson, AZ: Annual show; Martin Zinn Expositions; The Mineral & Fossil Marketplace, 1333 N. Oracle Rd.; 10-6 daily; contact Martin Zinn Expositions, Box 999, Evergreen, CO 80437, (303) 674-2713; e-mail: mz0955@aol.com.

January 29-12 — Tucson, AZ: Annual show; Martin Zinn Expositions; Clarion Hotel-Randolph Park, 102 N. Alvernon Way; 10-6 daily; contact Martin Zinn Expositions, Box 999, Evergreen, CO 80437, (303) 674-2713; e-mail: mz0955@aol.com.

January 29-12. Tucson, AZ: Annual show; Martin Zinn Expositions; Smuggler's Inn, 6350 E. Speedway; 10-6 daily; contact Martin Zinn Expositions, Box 999, Evergreen, CO 80437, (303) 674-2713; e-mail: mz0955@aol.com.

January 29-12. Tucson, AZ: Annual show; Martin Zinn Expositions; Ramada Limited, 665 N. Freeway; 10-6 daily; contact Martin Zinn Expositions, Box 999, Evergreen, CO 80437, (303) 674-2713; e-mail: mz0955@aol.com.

Show Announcement for 2005

February 26th & 27th 2005: Albany, New York, the 12th Annual James Campbell Memorial Gem, Mineral & Fossil Show and Sale will be co-sponsored by the New York State Academy of Mineralogy and the Capital District Mineral Club, Inc. It will be held at the New York State Museum at the Empire State Plaza, Madison Avenue, Albany, New York.

The hours will be 10:00AM to 5:00 PM on both days. Free parking. The admission is $5.00 which includes both the Gem, Mineral, and Fossil Show and the New York in Bloom Flower Show. This year there is one fee that gets you into both shows, and no coupons.

For more information, call Mike Hawkins, Geology Collection Manager of the museum at (518) 486-2011 or (518) 473-7154. His email address is <mhawkins@mail.nysed.gov>.

Signup Times for Show Committee

Mike Hawkins, collections manager for the NYS Geological Survey section at the museum has announced several changes for the 12th Annual James Campbell Memorial Gem, Mineral Show and Sale coming up on the last weekend in February 2005.

(1) It will be held on the Terrace Gallery (fourth floor) of the museum instead of the concourse level. When the mineral show was first started, it was held on the Terrace Gallery (fourth floor), since then, it was unavailable to us due to the installation of many exhibits and the carousel. (2) The mineral show will be held in conjunction with the New York in Bloom Flower Show. Instead of two separate shows on the same dates and location. A combination ticket price of $5.00 will allow our visitors to see both shows. Their will not be separate tickets as had been the procedure in the past. Also there will be no coupons.

For the show committee, our assignments will change a little since the physical arrangements are different and the "flower show" volunteers will be assigned to the ticketing tables along with our volunteers. Mike will probably want to talk a little about this at our next club meeting since apparently he forgot at the last one. A meeting will be held at the Gearhardt's in the last week of January (not on the 23rd) to pass out the posters and stuff as well as assign specific places to visit to avoid overlapping (schools, colleges, stores, libraries, etc). No one wants to travel 20 minutes to a new location to only find it has already been wallpapered with flyers. If you can not attend the CDMC meeting on Thursday January 6th you can contact George or Barbara Gearhardt by email at <ggear@atecone.net> or by the club mailbox (P.O. Box 12814, Albany, NY 12212).

Upcoming Field Trips

The last time I thought about a field trip, I went outside, got really cold, changed my mind, and then retreated to the warmth of my house. But if anyone wants to go south with the birds, announce it at the next meeting.

Program Committee

The Program Committee would like to hear from any member willing to give a presentation or knowing someone who may give an intresting talk relating to our hobby. In February, Richard Stein will again do his "Many Faces of Calcite" program. That leaves March, April, and May open for volunteers. So call George Gearhardt at 518-355-0670 at your earliest convenience and help our club continue to enjoy the hobby. If you have an abstract ready, please email to George at <ggear@atecone.net> and copy it to <schmanie@albanyrockclub.com>. Or if you want to give a presentation, but just can't think of a topic, we can help you with that.

Special Mars Issue of Science magazine

By Anne Woods

Special Mars issue of Science magazine in December 3, 2004 (v. 306, no. 5702). It has been brought to my attention by Gerry Boileau that this magazine is available for $10 prepaid by Emailing the editor (this includes postage and handling). There is no newstand price for this magazine as it is only available to those belonging to the AAAS (Advancing Science, Service Society). The interesting articles span from pages 1697-1756; 1689; 1758. It is only available on the web as abstracts unless you have a subscription. Subscription for one year runs around $130. Check it out as abstracts on the web before you order it to make sure that it is of interest to you. Some of it is in highly technical language. <www.sciencemag.org>

Website

Due to problems beyond my control, the current website is currently out of order. Please refer back to the original one again. This problem will be fixed in the near future. <www.anglefire.com/rock3/cdmc>. However, webmaster Anne can still be reached at <schmanie@albanyrockclub.com> for various random questions about the club.

EFMLS Workshop Dates

Our regional organization is the Eastern Federation of Mineralogical and Lapidary Societies. They organize 2 five-day workshops each year. For the past twenty-five years or more these workshops have been held at the Wildacres Retreat in western North Carolina near the towns of Spruce Pine and Little Switzerland.

This year the dates are: June 26-July 2 and September 20-26, 2005. They include room and board, workshops, lectures, field trips, and an auction. The cost for the entire package is $280.00 per person plus any materials used in the workshops. Details are on the EFMLS website <www.amfed.org/efmls> or you can phone Barbara Gearhardt at (518)355-0670; <ggear@atecone.net>.

Wishing You a Serendipitous New Year

by Don Kauffman, member from Reading, PA

Whatever your collecting objectives may be in the new year, nothing could be more exciting or rewarding than finding the unexpected. Whether you are a novice mineral and fossil collecting hobbyist or a seasoned veteran, there are times when fortune smiles on you without notice.

Imagine being a dry-eared first year geology student walking through a fresh road cut. You pick up a fist-sized mass of rock, curtly examine it and then throw it down. Oops! Later you return to the same area, stumble upon the same rock and then decide to take it in to show your geology professor. Eureka! Upon expert examination you then learn that you may have discovered a new genus and species of creature of the Pennsylvanian Period that may well be 300 million years old. Just think of how this may have changed your grade in geology class!

This recent story of fortunate accidental discovery is not rare. From over ten years of newspaper clippings and magazine articles, generating a collection of such interesting articles has not been difficult.

In news from 2003, a University of Pennsylvania professor on a horseback ride came up with a small piece of bone. His discovery, in an area of western Montana, presented a new species of herbivorous dinosaur that is 150-million years old. A continuing mystery is as to why this species required an extra whole in the top of its head.

Spring of 2002, an assistant professor from Susquehanna University visited Wyalusing Rocks of Bradford County in Pennsylvania. A “fish fossil or bird doo” in the sandstone above her head turned out to be skeletal remains of a denizen from a 355 million-year-old tropical river delta. Found was a tooth-filled jaw belonging to a lobe-finned, carnivorous fish of the late Devonian Period. Subsequent finds as a result of this turn of fortune have produced an armored bottom-dwelling fish scavenger, the stump of an ancient tree and another fossilized tree that formed the first forests of the period all in the surrounding area.

You don’t necessarily need a Ph.D. To make serendipitous fossil or mineral discoveries, your luck may just be result of curiosity and a keen eye.

In 1996, an amateur fossil collector was traveling with vertebrate biologists from Philadelphia’s Academy of Natural Sciences to a road cut in Clinton County. The New Jersey native was examining a pile of talus at the foot of a sandstone cliff when his eye caught sight of “a bug on the rock.” He picked up the piece of sediment and found the object to be impressed into the stony matrix. His prize was a nearly pristine Paleoarachnid (spider) dating from about 370 million years ago. His find, according to one expert, helped fill in a gap between finds at spectral ends of 415 and 215 million years.

In 1995 a student from Philadelphia was visiting the Hyner View area of Clinton County. In a chance find at a road cut location, he discovered fossilized shoulder and skull fragments of what has since been noted as North America’s oldest known amphibian dated at 363 million years.

Serendipity has not just shined on fossil discoveries. There have been gemstones and mystery minerals found too.

My scrapbook features a clipping from July of 1995. A ten year-old Virginia boy accompanied his family to a commercial gem mine in North Carolina. A newspaper clipping features a photo of his smiling face, object of his gaze is a 1,061-carat raw gemstone. An uncut sapphire, appraised at more than $35,000, was his lucky find in a $10 bucket of dirt.

One source stated that up to 40 new minerals are found each year. My favorite is from a newspaper report of early 1996 about a British tourist in North Africa.

A mystery rock purchased at a Moroccan bazaar raised some scientific stiff upper eyebrows in the U.K. Large enough to be held in two hands, declared a new mineral; it was vivid

blue with ability to change color. The stone was labeled as lapis lazuli but "off color." A British researcher observed color change from purple to blue to cream to clear when rotated under polarized microscopic light. When the article appeared in EARTH in magazine, the mystery mineral had yet to be named and its source of origin was still uncertain.

As a raw amateur or even an experienced collector, your chances at a serendipitous discovery are just as good as any chance examples from my scrapbook. You never can be sure what a fieldtrip or outing may produce. That is what makes our hobby so exciting and rewarding.

May you all have a serendipitous New Year!

The Treacherous Mineral

by Bill Cordua, U. of Wisconsin Ð River Falls

Mineral names are often given to commemorate a famous scientist or locality. Sphalerite (ZnS) however, has a name based on the Greek word for 'treacherous'. Blende, a German synonym for sphalerite, means 'blind' or 'deceiving'. What is it about this common mineral (which forms very attractive collector specimens) which led its namers to be so negative about it?

The name comes from the tendency of people to misidentify it. It was often mistaken for galena, which was mined for its lead, and sometimes silver, content. Sphalerite yielded neither at the smelter, and, until the nineteenth century, there were few if any uses for the zinc that was present. So, to the old-time miners, the mistaken identity was a costly error. Things changed for sphalerite in the 1850's with the advent of galvanizing. In Wisconsin, many deposits worked for lead suddenly became zinc mines as well, with hundreds of thousands of tons of metal produced. This was also true for deposits elsewhere, notably in the Tristate district and other mid-western deposits, now prized for the beautiful sphalerite crystals found during mining.

So this is a bum rap for poor sphalerite. It is actually a relatively easy mineral to identify, and has a number of very distinctive properties that can be tested with little equipment. Yet, true to form, I find many students misidentifying it with depressing regularity.

First, when well crystallized, its form is distinctive. Sphalerite forms complex crystals that have a generally tetrahedral habit, although many modifying forms commonly occur. A tetrahedron has 4 faces, each one an equilateral triangle. Even with the complex modifications frequently present on sphalerite crystals, the generally triangular outline is usually visible.

Few minerals have this crystal habit.

The color of sphalerite is extremely variable, and this is probably part of the identification problem. Though usually some shape of brown to nearly black, red, yellow, green, blue and clear sphalerite is known. The colors represent the effects of chemical impurities, generally iron. The percentage of iron controls how dark the brownish hue is. Chemically pure sphalerite is clear (a variety called cleiophane). Translucent red sphalerite is sometimes called ruby jack.

The streak plate helps even out the color problems. Sphalerite will generally give a pale yellow streak. The hardness of 3-4 on the Mohs' scale, distinguishes sphalerite from quartz or feldspar. You can scratch sphalerite with a steel nail, but not with a copper penny.

Sphalerite breaks readily along a number of regular cleavage planes. Ideally, there are 6 preferred directions of break (the so-called dodecahedral cleavage). While it is not usually possible to count all 6 directions on any particular specimen, an observer will clearly see this is a mineral with at least 4 cleavages. Few minerals have more than three.

A chemical test is also helpful. When powdered and moistened with weak HCL (muriatic or brick-cleaning acid), sphalerite emits a potent rotten egg odd of sulfur compounds. Kids generally love to do this test. So sphalerite gives many cues to its identity, yet is still viewed as 'treacherous'. Many minerals for sphalerite is mistaken, such as calcite, fluorite, siderite or goethite, will never emit sulfurous fumes. Among the sulfur-bearing minerals, few have the color, luster, streak and cleavage of sphalerite. Galena, for which it is most frequently mistaken, is always metallic; always some shade of gray, breaks along 3 sets of cleavages as cubes, and never crystallizes as tetrahedrons. Who could honestly mistake it for sphalerite? Poor sphalerite. Sometimes life ainÕt fair.

Last fall, I took my mineralogy students to visit the core labs of the proposed Crandon copper-zinc mine in Wisconsin. While viewing a length of core student, I pointed out to my students what I thought was an interesting zone of coarse siderite in one of the cores. The mine-site geologist looked at me and said, "Oh, no, that's one of our main ore minerals up here: it's sphalerite." Boy was my face red. The treacherous mineral had struck again!

Mining the Internet

By Nate Martin

I recently came across a free program for mineral collecting cataloging. It is called "Lithos", and has been developed by some German collectors (Karl Günter & Micaela Pantke).

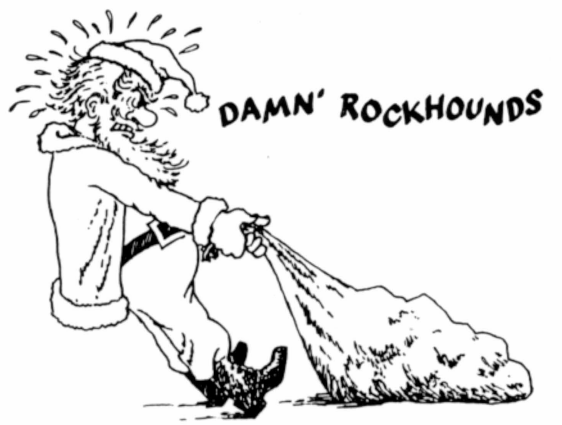
Below is my rewrite of the description that was on their website. I have downloaded the program and given it enough of a cursory examination to think it may be useful (but have not yet completely checked it out to see how well it works). Given how long it might take me to do that, I though I should at least let you know that it exists. If you try it and develop some opinions about it (good or bad) please write a follow-up article to mine.

What is Lithos? Lithos is a software tool to keep track of your mineral collection. It is available for Windows 95/98/Me and Windows NT/2000. The current version is 2.3. It seems to be free for the downloading at <www.lithos-mineralien.de>.

The current version of Lithos offers the following features:

(1) An integrated Database with all IMA acknowledged mineral species up to December of 2000. The information available for each species includes name, crystal system, crystal class, hardness, density, color, streak color, cleavage, fracture, and crystal grid parameters.
(2) Links from over 1000 trade names, old or obsolete names, and mineral groups to the currently acknowledged species.
(3) Quick identification of mineral species based on physical properties with powerful search capabilities.
(4) Over 1000 crystal drawings of approx. 600 species.
(5) A database for your own collection. Keep track of the specimen in your collection and where they come from.
(6) Search facilities for your own collection that permit the following operations: a. listing all localities from which you have a specific mineral species; b. listing all specimens from a locality or region; c. listing all specimens in a given storage space; d. of course, all of this only works after you have catalogued your collection using Lithos.
(7) Printing out labels using numerous formats.
(8) Note that whenever you need to enter a mineral name inside Lithos there is an assistant that helps to prevent casual spelling errors.

A full bilingual version of Lithos 2.3 (German & English) is available for download at <www.lithos-mineralien.de>. The download consists of a single zipped file (lithos2000.zip) that is 886kb in size and unzips to create 13 files requiring a total of 3.56 MB of additional disk space. To install the version of Lithos just unzip the file lithos2000.zip into a subdirectory and create a shortcut to the program lithos_en.exe. If you also want to try out the German language version create a shortcut to lithos_de.exe.



Drawn by Ernest Barnhart, Rock Buster News, 1998, Central PA Rock & Mineral Club

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CAPITAL DISTRICT MINERAL CLUB
P.O. Box 12814
Albany, New York 12212-2814

MEMBERSHIP FORM

Name(s) _____ **Phone** _____

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Dues are $20.00 Family membership; $14.00 Individual membership; $5.00 Student membership

Capital District Mineral Club
P.O. Box 12814
Albany, NY 12212-2814

Officers:

President	Mark Kilmer	518-725-7629
Vice Pres	Paul Van Schaick	518-399-5810
Secretary	Helen Eckler	518-943-3459
Treasurer	Ruth Schmidt	518-943-4876

Newletter Staff:

Anne M. Woods <schmanie@albanyrockclub.com>
Barbara Gearhardt
George Gearhardt
Don Kauffman
Amy Sternstein

Website:

<www.angelfire.com/rock3/cdmc>

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.