St. Croix Rockhounds
Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

Club meeting is in River Falls

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March 2009

First Class

Please send exchange bulletins to:

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March 17th – Program is C*oncretions, Nodules and Geodes*

Meeting is in River Falls

St. Croix Rockhound's
LEAVERITE NEWS
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Member of: AFMS & MIDWEST FEDERATION

ST.CROIX ROCKHOUNDS

MEETINGS: Club meetings are held the third TUESDAY of each month, at Stonebridge Elementary School on W. Elm. St. in Stillwater, MN at 7:15 P.M.. Everyone is welcome.

MEMBERSHIP: Full membership for a single person over 16 is $7.50 per year. Family membership is $10.50 per year.

OFFICERS:

President	Victor Martinsen	(715) 247-3700
Vice President	Ron Lewis	(715) 246-5118
Secretary	Bill & Thomas Fernholz	(651) 430-9039
Treasurer	Carol Jensen	cjensen_onyx@yahoo.com
Program Committee	Pete Rodewald	(651) 275-0607
	Victor Martinsen	(715) 247-3700
	Bill Cordua	(715) 425-9544
Show Committee	Bill Cordua	(715) 425-9544
Refreshments	Freya Kask	(651) 777-6371
Librarian	June Young	(651) 429-3887
Historian		
Sunshine Committee	Marie Newlander MN	(651) 439-7809
Tour Director	Susan Dustin	(651) 430-3933
Liaison Officer	Freya Kask	(651) 777-6371
Newsletter Editor	Doug Olson	(651) 430-9035

The purpose of our organization is to bring together rock and mineral enthusiasts on a regular basis through membership and through pooling of individual knowledge, talents and skills, to improve the lapidary skills of participating members. Affiliation: American Federation of Mineralogical Societies and Midwest Federation of Mineralogical and Geological Societies.

COMING UP! - March 17th : St. Croix Rockhounds club meeting will be held in River Falls, WI at the UWRF campus; Room 337 in the Ag. Sc. Building at 7:15 pm. NOT at Stonebridge Elementary School in Stillwater MN. The program will be "Concretions, Nodules and Geodes" given by Bill Cordua. He encourage anyone who has some favorite geodes to bring them along.

COMING ATTRACTIONS

March 17th: St Croix Rockhounds club meeting in River Falls, Wisconsin

March 20-21: Cedar Rapids, IA Cedar Valley Rocks and Minerals Society Annual Show, Teamsters, Union Hall, 500 J. St. SW. Saturday 8:30-6:00, Sunday 9:30 -5:00 adults $2, students (12-18) 50 cents, youth groups and children under 12 free (with adults); programs, demonstrations, Pebble Pit for kids, silent auctions, displays, 20 dealers, special exhibit theme "Crystals." For info contact Leslie Blin, (319) 377-3339; bblin@bser.com

March 28-29: Monroe, WI. Badger Lapidary & Geological Society Show, "Driftless Treasures of the Badger State." Monroe High School, 1600 26th; St.; Sat. 9-5, Sun. 9-5; dealers, minerals, fossils, gems, jewelry, speakers, educational exhibits, wandering "Rock Wizard," demonstrations, hourly door prizes, club sale table, kids' games and Fish Pond, specimens from around the world; for info: David Zimmerman, (608) 921-0206; e-mail: David@showchair.com ; Web site: www.MonroeRockClub.org

April 4th: St Croix Rockhounds club show at the Valley Creek Mall. For info call Bill Cordua 715-425-9544

April 5th: Waterloo, IA. Black Hawk County Gem & Mineral Society Annual Show. Waterloo Center for the Arts, 225 Commercial St.; Sun. 12-5; free admission; demonstrations, displays, fish pond, silent auction, jewelry, vendors; contact Dave Malm, (319) 266-6433

April 18-19: Des Plaines, IL 44th Annual Show, Des Plaines Valley Geological Society, Des Plaines Park District Leisure Center, 2222 Birch St. Sat 9:30 a.m. - 5 p.m.; Sun. 10 a.m. - 4 p.m. Jewelry, gem, fossil, rock and mineral dealers. Live lapidary arts demonstrations, silent auction, educational exhibits, kids' room, raffles and door prizes. Contact Lois Zima at (847) 298-4653 or Jeanine N. Mielecki, jaynine9@aol.com.

April 21st: St Croix Rockhounds club meeting at Stonebridge Elementary School.

July 18-19th: Agate Days

Minutes of the St Croix Rockhounds
February 17th, 2009

The **meeting was called to order** by Vice-President at 7:15 pm. 19 members present.

Treasurer's report was approved as given by Treasurer Vic Martinson. We paid insurance and dues.

Minutes for the January meeting were approved as published in the February newsletter.

Tonight's **refreshments** were provided by Susan Dustin and John Fernow.

Newsletter: If you would like to receive the newsletter by e-mail instead of snail mail, send a request to doug@implan.com.

Joyce Sullwood has recipes from the x-mas party to hand out.

Old Business – discussion on motions to change the by-laws on the Find of the Year. There were few comments. Motions were tabled for future consideration.
Motions were:
1) allow more than one entry per category per person for Find of the Year.
2) allow jewelry and polished rocks categories for Find of the Year to be for rocks worked on in the current year but allow them to be found in previous years.

Club field trips – Susan Dustin and Brad Bonse are putting their heads together to come up with some future field trips. Suggestions are appreciated.

Club Show – Bill Cordua is not here, reportedly will have flyers for next meeting.

Door Prizes – prizes of polished slabs were provided by Vic Martinson. Winners were: Joyce Kelch, Susan Dustin, Gladys Weikert, and Earl Kask.

Vic Martinson brought in some copper from a southern Arizona mine that demonstrates how fast things can happen in the mineral world. The mine was close ~100 years ago. Water recently pumped from a section exposed copper deposits that had formed on mine timbers, rails and abandoned equipment. Sulfur from the rock matrix leached out and created acidic water which dissolved copper. The copper precipitated out forming deposits. Acid holes in jeans attested to the acidity of the water. Vic also noted that copper prices are way up in Tucson.

LeRoy brought in some rocks from the Ozarks left to him by a Doctor friend. Mostly dolomite agate.

Bill Fernholz reported on a trip to the gravel pit near Lake Elmo at which he found (maybe??) mossy agate or petrified wood and fossils.

Elections –Joyce Sullwood collected the nomination sheets which were passed out at the beginning of the meeting. New officers selected are:

President – Vic Martinson
Vice President – Ron Lewis
Secretary – Bill Fernholz
with Thomas Ferholz assisting.
Treasurer – Carol Jensen.

Submitted by Doug Olson, secretary.

More COMING ATTRACTIONS

April 18-19: Eau Claire, WI. Chippewa Valley Gem & Mineral Society 46th Annual Show. Eau Claire County Expo Center, Lorch Ave.; Sat. 9-5, Sun. 10-4; silent auction, minerals, fossils, crystals, gems, rocks, artifacts, jewelry, demonstrations. Contact Mike Schoenfuss, (715) 456-0664.

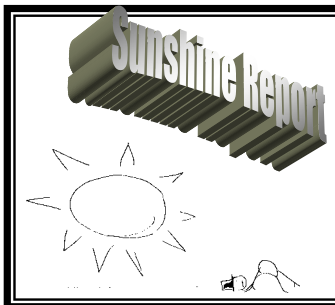
May 2-3: Cayuna Agate and Mineral Show at Aitkin High School, Hwy 210, Aitkin, MN. Sat 9-5 and Sun 10-4. For info call Kat Thomas 218-678-3298 or e-mail katmoose@emily.net.

August 2-8: Copper Country Mineral Retreat – hosted by the Seaman Mineral Museum. A week long mineral collecting extravaganza in Lake Superior Native Copper District near Houghton, MI. For details see www.museum.mtu.edu/copper_country_mineral/index.html or call 906-487-2437.

A Show Note by Donna Nolte

Something that has worked successfully for gaining new membership in our club organization happened by the suggestion of our new President, Dan Hughes. He suggested we have a drawing for free memberships—placing slips and a box at our show. (Like a door prize!)

It was a **gold mine** of names, and we went the extra mile extending more free memberships than planned. Based on the theory that we didn't have the membership money to start, but sure will in the future, we now have regained the fresh energy, ideas, and interest in our hobby. Positions for officers and chairs were easily filled, our lapidary shop is busy like a beehive, and new friendships have been made. We are also following the role of the Green Bay, WI, club by publishing our club programs as an annual leafletfor better attendance. *from MWF Newsletter 02/09*



Pete Rodewald is getting more tests.

Bill Cordua has the flu.

if you have news - good or bad please call Marie at (651) 439-7809.

Celebrate!

March birthstone: **Aquamarine** is the gem name of the blue variety of beryl: beryllium aluminum silicate - Be3Al2Si6O18. Beryl typically forms in granites and pegmatites, in volcanic rhyolites and high temperature hydrothermal deposits. Less commonly occurring in metamorphic rocks.

The blue color of aquamarine is due to impurities of iron and it gets its name from the Latin *aqua marina* "water of the sea". Some of the very finest aquamarine comes from Minas Gerias, Brazil, Ural Mountains, Russia, Malgasy Republic, India, and Namibia. Aquamarine is the March birthstone.

If you can picture the cerulean blue waters of the Mediterranean, you will understand why the birthstone for March is named Aquamarine. Derived from the Roman word "Aqua," meaning water, and "mare," meaning sea, this pale blue gem does indeed resemble the color of seawater.

March Birthdays:

Kerry Rasmussen 22nd
Doug Olson 27th
Rodney Harvey 31st

March Anniversaries: None

Programs in a Can

by John Washburn, Illinois State Director Looking for a club program? Looking for something other than a MWF Library program? Then check out the list of videos and DVDs on the Nova, National Geographic, Jewelry, and History Channel Web sites. You should have seen the program when it aired before you order to be sure it fits your needs.

The History Channel has several programs that were produced for the series called “Modern Marvels.” But the only one that I can recommend at this time is “Diamond Mining.” It is excellent. The cost of buying one of these canned programs is usually more than the postage cost for a MWF library program, but it can get repeated use. My club shows it for a meeting, uses it at the show, and rents it to other clubs. In no time, our cost is recovered. *from MWF Newsletter 03/09*

Opal Cracks and Crazing *by Paul Downing* Opal they say is a delicate stone. They are wrong! Two things may happen to an opal. It may crack

or it may craze. An opal may crack when subjected to severe pressure applied by a sharp instrument. An opal may craze if it dries out and/or changes its internal structure; but the vast majority of all opals do not crack or craze.

Crazing is readily identifiable in an opal. It starts with intertwined cracks at the surface of the stone,

which may spread over time. The pattern they form looks like a spider web or a dried mud puddle. Scientists do not know why some opals craze. One common explanation is that the opal loses part of the water trapped between silica spheres. It then shrinks and the surface tension causes the crazing. Another explanation is that the chemical structure of the silica spheres changes because of being exposed to the light. The energy of the light activates the chemical reaction.

Cracking is easily distinguished from crazing. Cracks are long and go into the stone. When examined with transmitted light, a crack will reflect an orange light from one or more directions. Usually there isonly one crack. Cracks are caused by external pressure. The miners break up large pieces of opal by squeezing them between the sharp jaws of a file nipper. Prongs in jewelry designed for faceted stones do the same thing to an opal. Most cracked opals are the result of inappropriate setting. On rare occasions , an opal will crack for no apparent reason. People have told me of opals that cracked in their rings when they wentoutside in very cold weather.

The problems of cracking and crazing made me curious, so I started an experiment about a year ago. I took several opals and put them in a paper bowl in the freezer. After several days, they were frozen solid. I then ran them under scalding tap water. After repeating this exercise six times, none of the opals cracked or crazed. Next, I placed these opals in a west window and let them bake in the hot Florida sun. After almost a year, not a one has cracked or crazed. The experiment included opals of several types. Base colors ranged from white to gray. Some opals had full fire, some only lines of color, and some had no fire at all. They were from Coober Pedy, Mintabe, Andamooka, and Lightning Ridge. Some had inclusions in them. Others had cracks. Neither the inclusions nor the cracks spread. I conclude from my observations that we really do not know why an opal crazes. We do know that almost all (well over 99%) of the opal from any Australian mining area does not craze. Know that almost all cracking results from pressure caused by improper setting of the opal or rough wear. Opal has an undeserved reputation. Cracking and crazing are very rare. Is opal delicate? Not really. *from Serendipity Gems, 1/92, via Gem Cutter Gazette, 8/08 via the Rockhound 10/08*

Eliminating Flats *by Ted Robles*

A while back, someone was saying that he was having problems with getting “flats” on his cabs, that there was insufficient “give” in his wheels, and it didn’t seem to make any difference no matter how much pressure he applied. That was his first mistake.

Diamond and corundum are two different animals; relatively speaking, about the same difference as between quartz and chalk. If you “lean into” a diamond wheel, you will get lousy results (flats, etc.) on your stone, and your wheels will wear out long before their time.

On diamond, you try to do your cutting (and everything else) by almost not touching the wheel. Use essentially no force. Don’t “grind” the stone, let the diamond wear it away, but keep it spinning. The technique is simply to use the whole face of the wheel, and keep your cab moving. Any time you stop, you just bought a “flat”. Can’t help it!

It’s the same principle as sharpening a knife on an emery wheel. If you don’t want notches in your blade, you keep it moving. Do almost all of your cutting on the coarsest wheel you have.

If you leave any flats on the pre-form, you’re - going to have them on the final piece…can’t help it. *The RockCollector 2/08 via Stoney statements 02/08*

UV Light & Fluorescent Minerals

The hobby of collecting and enjoying fluorescent minerals is of recent origin. It really got its birth as the result of the search for strategic mineral ores during and after World War II. Thomas Warren founded UV Products company just as Roosevelt was elected in 1932. He had to petition Congress to allow hir to continue to buy ample supplies of copper and steel during WW II so he could produce UV bulbs. They were being used to find deposits of Sheelite, a much needed Tungsten mineral.

Now let's take a look at UV Light. We have invisible light at both ends of the visible light spectrum. Ou visible light lies in the range of 400nm to 700nm, a nm (nanometer) being 1/1,000,000 of a meter - Violet light being at 400nm and Red light being at 700nm. Infrared light lies beyond 700nm, and while invisible, it is sensed as heat. UV or ultraviolet light lies below 400nm, and while invisible, it is the spectrum of light that gives you sunburn. The UV light useful for a mineral collection is between 400nn and 250nm. Longwave UV light, also known as black light lies between 400nm and 350nm. Short wav UV light lies between 300nm and 250nm. While both types of UV light are produced by the sun, only Longwave UV light reaches the Earth and Short wave UV light being absorbed by the atmosphere. Th middle range of UV light, especially around 310nm is the sunburn causing light, it also activates Vit. D and provides bactericidal action.

Most fluorescent minerals fluoresce most brilliantly in shortwave UV light. Shortwave UV light can be harmful to the eyes with anything beyond limited exposure. The shortwave bulb uses a vacuum tube filed with Argon gas to which a small drop of Mercury has been added. The tube must be made of high silica glass or quartz since Short wave UV light will not pass through most glass or plastic. A 40W incandescent light bulb would be considered dim, where at 15W Short wave UV light is capable of lighting up a whole mineral display.

Minerals that fluoresce have an atomic structure that will respond to UV light. Most solids, and nearly all minerals are arranged in a precise 3 dimensional array. As minerals crystallize on earth, it is common for stray elements to become incorporated as impurities. These are important because they cause a mineral that would not normally fluoresce to fluoresce. Such an impurity is called an activator. These impurities allow electrons in the atoms of the mineral to absorb energy from the UV light. The electrons then jump to a higher orbit. When they give up their energy and fall back to the lower orbit, they give off light and a minute amount of heat. This light is what we see as fluorescence. Common activators are Tungstate; Molybdate; and Uranyl ions. Mercury, Lead, Boron, Titanium; Manganese; and Chromium to mention a few.

Quenchers of fluorescent light are Iron; Nickel; Copper; and Cobalt. The presence of these elements i even minute amounts can reduce or eliminate fluorescence in minerals. While in a few rare exceptions like Copper Iodide, which is fully 1/3 copper, it will fluoresce brilliant red in longwave UV light. So it never hurts to give a specimen a try.

Common mineral groups likely to fluoresce are Sheelite; Willemite; Apatites; Calcite; Dolomite; Aragonite; Uranium Group; Zinc minerals; and Lead minerals. Gemstones that fluoresce are Amber; occasionally Beryl; Corundum, ie. Ruby; Diamond; Spinel; Topaz; Zircon; Chalcedony; Opal; Quartz.

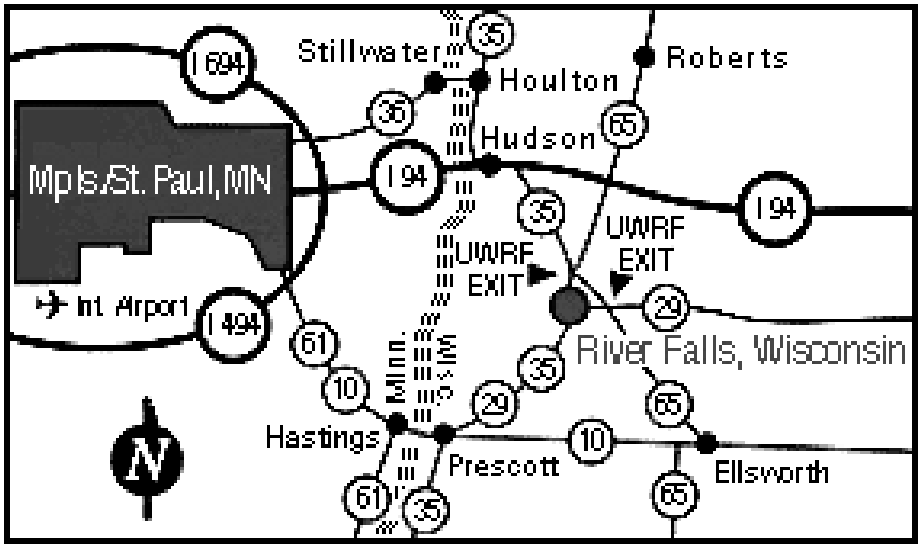
Locations where fluorescent minerals can be found are Franklin and Sterling New Jersey with world renowned deposits. Oregon and Wyoming thunder egg deposits; Opal deposits in Nevada; Sheelite deposits in Arizona; Fluorite from Ohio; Uranium from New Jersey; and minerals found around hot springs in Texas and California.

When cleaning minerals, be sure the soap used to clean them does not fluoresce. Also be sure the glue used to display fluoresce minerals does not fluoresce. I hope this might open up a new area of mineral interest for you. GOOD HUNTING !!!! *from The Rockcollector 6/07 via Arkansas Rockhound News, 2/99 Stoney statements 02/08*

St Croix Rockhounds meeting in River Falls

The program at the March 17, 2008 meeting of the St. Croix Rockhounds will be "Concretions, Nodules and Geodes“ and be presented by Bill Cordua: “ I encourage anyone who has some favorite geodes to bring them along for others to enjoy.”
Due to the unavailability of our normal facilities, we will meet in Room 337 in the Agriculture - Science Building on the campus of the University of Wisconsin- River Falls. Directions are below.

Take I-94 east into Wisconsin. Take Exit 3 towards River Falls. In about 7 miles you will see an exit for Main Street - River Falls. DO NOT TAKE THIS. Continue on the four-lane another few miles to the traffic light at the intersection with Route 29. Go right (west) at this light. In about a mile you will see a flashing yellow pedestrian-crossing sign. Go another 0.1 mile to the next entry into campus (South Third Street) and turn left. Follow this road around to the Agriculture Science Building. The building is easy to recognize. It has a planetarium near the road and greenhouses in the back. There are convenient parking lots nearby. Parking restrictions are not in force after 4:30 P.M. Signs will be posted at the building entries with directions to room 337. Any questions ask Bill: william.s.cordua@uwrf.edu



Impact linked to extinction

Scientists say a comet led to the extinction of mammals and early humans well after the one that wiped out the dinosaurs. Their evidence is the presence of nanodiamonds across North America. Geologists and archaeologists have long argued about what caused the extinction of dozens of large North American “megafauna” species, such as saber-toothed cats and mammoths. Now a recently issued report says scientists have found a family of at least five different forms of diamonds in various locations across North America. Some of these diamonds are formed only by impacts. “A swarm of comets” or carbon-rich meteorites either delivered or created the nanodiamonds in a fiery impact the study suggests.

If true, the impact date coincides with the abrupt halting of deposits of “Clovis” Native American artifacts, distinctively fluted tools and arrowheads. Dozens of large animal species also vanished in North America about 12,900 years ago. While some geologists are urging caution on the conclusions drawn, study leader Douglas Kennett of the University of Oregon-Eugene says future studies will show evidence of nanodiamonds from Europe and further afield 12,900 years ago. Impact shock waves, debris and wildfires sparked by comets breaking apart in the atmosphere would have hit North America hardest, he says, but the effects would have been felt worldwide. (Summary of articles appearing in USA Today and the LA Time on January 2, 2009) *from the Trilobite 03/09*

Stolen Gems *St Croix Rockhounds Leaverite News*

DID YOU KNOW? QUARTZ USE IN WATCHES. The characteristic of quartz is that it vibrates at a constant rate of 32,768 times per second, and can be used to control the watch hand movements. The little battery energizes the quartz, the quartz vibrates at its set rate, and the movement does the rest. It is true that we use other crystals in the same way in other electronic gear such as computers, transmitters, telephones, etc. *by Wayne Ehlers: from the Tucson and San Diego GMS Newsletters via Rockhound Ramblings 11/97*

Opalized wood is extremely brittle. Clamp it and slab it with care, exerting as little pressure as possible. This is a heat sensitive material and should be kept wet and cool at all times while working. A drum sander or horizontal lap works better for removing saw marks than grinding wheels. Cerium oxide, tin oxide, or Linde A on a moist felt buff will bring a mirror polish. It is not usually precious opal but do remember that opalized wood is opal. *by Wayne Ehlers. From Ventura GMS 02/97*

Arachnijig (ah-rack'-nuh-jig) The involuntary dancing pattern one makes when one accidentally walks into a spider web, or is told that there is a spider ON them! *from the Rockhound 07/08*

Polishing tiger iron is difficult due to the hardness and textures of the minerals that make it up The best polish I have ever been able to obtain on tiger iron was using Raybrite® (Linde A) on suede leather. Starting out with the leather slightly wet and let it dry as you polish. With a little practice you will find that there is a point right before the leather gets bone dry that you will be able to feel it pulling when polishing. This is when Tiger Iron seems to be taking it's best polishing action. Don't continue polishing too long after the leather gets dry. If you need to polish the stone more give the leather a light spritz of water. Happy Cabbing. *from Pat Baker, the Rockhound 07/08*

How to make a set of coasters. Get out that box of slabs you plan to use some day and blow off the dust. Pick out six that you can trim to 4 inch squares. Then, round the corners and bevel the edges so that the squares have smooth edges. Polish the best side - either on your equipment or by spraying with a waterproof acrylic. Back the other side with self-sticking felt. The thickness of the squares does not have to match. Finished? You now have a set of six unique coasters in a variety of colors and patterns. Of course, if you have a huge supply of slabs and want a matched set of coasters - **go for it !** *No author given - from Post Rock 05 / 02 Via -Pickin's & Diggin's 05 / 03 via Calgary Lapidary Journal 10/08 via*

Great Truths About Growing Old

Growing old is mandatory; growing up is optional.
Forget the health food. You need all the preservatives you can get.
When you fall down, you wonder what else you can do while you're down there.
You're getting old when you get the same sensation from a rocking chair that you once got from a roller coaster.
It's frustrating when you know all the answers, but nobody bothers to ask you the questions.
Time may be a great healer, but it's a lousy beautician.
Wisdom comes with age, but sometimes age comes alone. *from Pseudomorph via Rock chips 11/08*

Lapping Geodes: When you are trying to polish a geode on a vibrating lap, it is difficult to keep the grit out of the center of the geode when it is hollow and filled with crystals. One suggestion has been to fill the center with Knox gelatin, a product you can buy at any grocery store. It turns to jelly when mixed with water and after a while, will set up good and firm. Pour this into the geode before polishing and, when you are done, just wash it out with warm water. It leaves no residue. *from Rockhound Ramblings 07/07. Jasper: Abundant & Beautiful by Marilyn Ferrier via Sedona Red Rocking News 5/08*