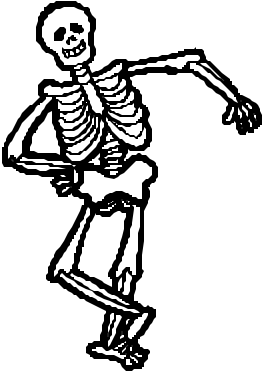


St. Croix Rockhounds  
Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082



October, 2004

**First Class**

Please send exchange bulletins to:

Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082

**October 19<sup>th</sup>** - Is this month's meeting date.

***The program: Makoshika State  
Park and Glacier National Park in  
Montana***



St. Croix Rockhound's

**LEAVERITE NEWS**

Vol. 29, Issue 8; October, 2004

Member of:



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# 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	Vic Martinsen	(715) 247-3700
Vice President	Mike Frankenberg	(651) 723-4467
Secretary	Susan Dustin	(651) 430-3933
Treasurer	Elaine Martinsen	(715) 247-3700
Program Committee	Peter Rodewald	(715) 425-5561
	Bill Cordua	(715) 425-9544
	Victor Martinson	(715) 247-3700
Show Committee	Bill Cordua	(715) 425-9544
Refreshments	Freya Kask	(651) 777-6371
Librarian	Shari Frankenberg	(651) 723-4467
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
Tour Directors		( )
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!

**October 19<sup>th</sup> :** The St. Croix Rockhounds club meeting at the StoneBridge Elementary School at 7:15 pm. The program is slides on Makoshika State Park at Glendive and Glacier National Park in Montana.

## COMING ATTRACTIONS.

**October 19<sup>th</sup> :** St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

**October 16-17<sup>th</sup> :** Minn Mineral Club Annual Show at the Cottage Grove National Guard Community Center. Call Alan Olson 612-729-8331 for info

**October 17<sup>th</sup> :** Bragelman Auction (machinery and mostly rough rock) Henry Auction Center, Foley, MN, viewing from 9am, auction at 11 am.

**October 23-24<sup>th</sup> :** Des Moines Lapidary Show at D.M. Botanical Center, 909 E River Dr; contact Dirk Ver Steeg 515-966-2205 for more info.

**October 30-31<sup>st</sup> :** Black Hawk Rock Show, Mississippi Valley Fair Grounds 4H Bldg., 2815 W Locust Drive in Davenport, IA. Call Delores Bates for info: 309-796-0616.

**November 16<sup>th</sup> :** St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

**December 10-12<sup>th</sup> :** Southeast Federation Show in Norcross, Georgia

**December 11-12<sup>th</sup> :** Anoka Co Gem & Mineral club show at Faribo West Mall in Faribault, MN

**March 19-20<sup>th</sup> :** Eastern Federation Show in Athens, Pennsylvania

**June 10-12<sup>th</sup> :** California Federation Show in Roseville, California

# Minutes of the Saint Croix RockHounds September 21<sup>st</sup>, 2004

The meeting was called to order by President, Vic Martinsen at 7:15. The **Treasurer's report** was approved as read by Elaine Martinsen.

**Minutes** from the May meeting were approved as published in the Leaverite News.

## Committee Reports:

**Refreshments** - Thanks to Helen Betlach and Eloise Kimball for providing tonight's treats. Wendy Flynn and Freya Kask will bring refreshments to the October meeting.

**Library** - no report

**Program** - Tonight's program is our annual silent auction comprised of assorted rocks, jewelry, display cases, books, minerals, produce, and baked goods.

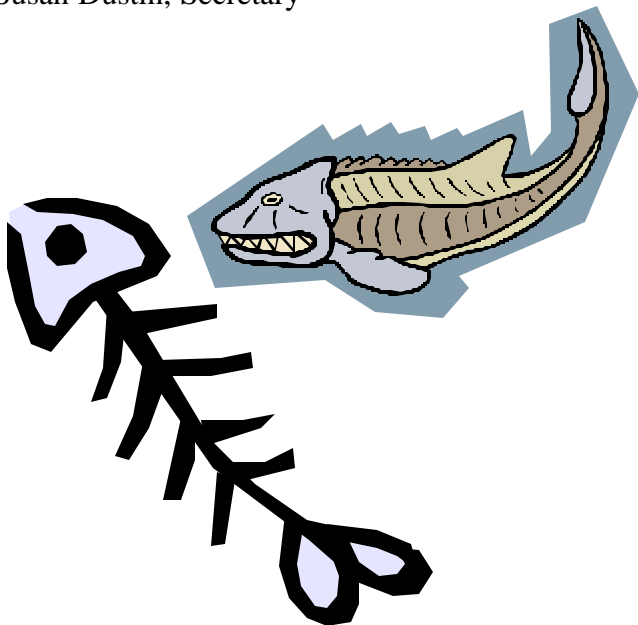
**Show** - Bill Cordua proposed having our club show on 3/19, and this was approved.

**Sunshine Committee** - no news

The meeting was adjourned at 7:25 pm.

**Respectfully submitted,**

Susan Dustin, Secretary



## Celebrate! October's birthstone is opal

Opal formed as silica from decomposing rocks mixed with ground water which formed a silica gel that collected and hardened in underground cavities and fissures. Opal's chemical formula is  $\text{SiO}_2 \cdot n\text{H}_2\text{O}$ .

There are two distinct types of opal, common and precious. In precious opal, silica particles are packed in regular rows and layers. Moving the stone causes light to diffract, or split, as it grazes the opal surface. This light diffusion shows iridescent flashes of green, blue, aqua and sometimes yellowish or red colors which are referred to as "fire".

To ancient Romans, the opal was a symbol of love and hope. During the Medieval period, the opal was supposed to maintain a strong heart, prevent fainting, protect against infection, and cleanse foul-smelling air. The stone, as in ancient times, was still regarded as a symbol of hope. But the opal's reputation changed in the mid-14th century. The Black Death swept across Europe, killing one quarter of its population. The gem was believed to be the cause of death. Australian aborigines see the opal as the devil that lurks in the ground, a half-serpent and half-human with flashes of wicked magic that lures men to destruction.

The Tourmaline was added to the list in more current times.

## October birthdays:

LeRoy Betlach – 3<sup>rd</sup>

Floyd Kimball – 10<sup>th</sup>

Vi D'Angelo – 26<sup>th</sup>

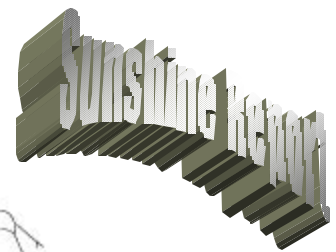
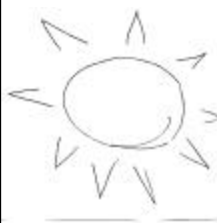


## October Anniversaries:

John and Sandy Parsons – 11<sup>th</sup>

NO GOSSIP THIS MONTH.

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



# Cleaning Your Mineral Chemically

Many chemicals used are strong and can be dangerous to your health especially via skin/eye contact or inhaling fumes. Specimens can also easily be ruined. Always use caution and read labels.

**Sodium hydrochloric acid** (NaOCL) or Javel water, is used in swimming pools. It removes all algae, fungi and moss. The treatment can take days or weeks. CAUTION – do not mix Javel water with any acid since the poisonous chloride gas forms.

**Hydrogen peroxide** (H<sub>2</sub>O<sub>2</sub>) 15% etches like Javel water. It also reacts violently and produced oxygen when mixed with Javel water. This property can be successfully applied to effectively clean minerals with relatively little risk. First, place your mineral in Javel Water for about 24 hours to soak the sand and clay deposits. Then submerge it in hydrogen peroxide (carefully) and because of the somewhat violent reaction the sand and clay particles will be jettisoned out of crevasses and from the surface. This process can be repeated safely until the specimen is clean.

Use the following chemicals only with extreme care! Protect your eyes, skin, and clothing. Use a well ventilated area, outside or in front of an open window since the fumes can be dangerous. If you spill on your skin, wash thoroughly with soap and plenty of water.

Oxalic acid, as a powder, should be diluted in distilled water only since the calcium in tap water will cause ugly deposits. A 10% solution is adequate to dissolve a limonite deposit as well as remove the iron stains after muriatic treatment of minerals containing iron (Fe). Oxalic acid dissolves iron and is poisonous.

**Muriatic acid** is diluted hydrochloric acid available in do it yourself shops. It will remove calcite deposits, will dissolve the halides, carbonates, and to some extent the phosphates and arsenates, as well as the zeolites. It can be further diluted by adding it to water to slow down the reaction. Concentrated hydrochloric acid (HCL) 35-37% is extremely corrosive and should generally be avoided as it will dissolve most minerals.

If the muriatic acid you are using as a bath yellows, then the mineral contains iron. In this case submerge the mineral in a solution of 10% oxalic acid for 24 hours followed by 24 hours in distilled water, and finally rinse with tap water. This involved process is necessary because the iron dissolved in the muriatic will only slowly be removed from the capillaries. If instead you only rinse with tap water then the iron will deposit as an insoluble limonite-like substance, which colors the specimen yellow.

## You should keep the following points in mind:

- 1.-For your precious specimens select an unobtrusive spot where you can test the reaction of the minerals to the chemical.
- 2.-Before placing the mineral in a chemical bath, submerge it in water with some shampoo for about 20 minutes so that the water can replace the air trapped in pores and cracks. The shampoo reduces surface tension of the water allowing it to penetrate. This soaking and subsequent rinsing will facilitate penetration of the chemical.
- 3.- Always add acid to water in a plastic container to dilute the acid.
  - Use rubber gloves and wooden tongs
  - Protect your eyes by wearing goggles.

Initially check you specimen several times every few seconds when submerging it to ensure that the mineral itself is not attacked by the acid. If this is the case then rinse with plenty of water to stop the process. The chemical cleaning process may in some cases take several days or even weeks, but even in this case regularly inspect the specimen.

- 4.-After the chemical treatment rinse thoroughly and leave submerged in clean water for twice the duration of the treatment.
- 5.-After rinsing with tap water submerge briefly in distilled water to prevent formation of calcium spots during the drying process.
- 6.- Dry slowly, some minerals will be damaged by excessive heating.

*from Journal of Netherlands Lapidary Club via Geminews via Fractured agate 09/04 [ed. Note: this article has been edited]*

## Professor gains 'rock star' fame

### Study of crater draws attention *BY KEVIN HARTER, Pioneer Press, St Paul, MN*

Some 450 million years after a meteorite slammed into western Wisconsin, geologist William Cordua's star is on the rise.

Cordua, along with two other scientists, confirmed this spring what he had suspected for more than 20 years: that the 4-mile-wide crater near Rock Elm was caused by a meteor, making it the second meteor-impact site in Wisconsin and one of 120 currently confirmed around the world.

As a result of that finding, Cordua — a University of Wisconsin-River Falls professor — is increasingly in demand as a speaker, and chances of grant money to continue his work have improved.

"I don't know what to do with my minor rock-star fame," he said.

The Pierce County site about 60 miles east of the Twin Cities was first explored by a University of Wisconsin-Madison graduate student who was intrigued by the unusual characteristics of the soil and rocks in the area, collected samples and mapped it in 1942. Nothing more is believed to have been done until Cordua came along.

In the early 1980s, Cordua began traveling often to the site — about a 40-minute drive from his office — to inspect rocks and map the grounds. In 1985, he published his first paper on the site, noting that a meteorite was one of the most likely causes for the landscape's strange appearance.

"There were unusual rocks," Cordua said. "Rocks here are usually nice, flat and evenly layered. At Rock Elm, the usual layers are gone. Rock Elm is unique and strange."

The rock formations are on end, or lifted higher than they should be, or broken up, he said.

"It was a mystery. Why are the rocks so different here?" Cordua said he asked many times. "It was like a mystery story. And intellectually a lot of fun, like a treasure hunt, only you are looking for information."

The key to determining the cause came through collaboration with Bevan French, a former NASA geologist now working with the Smithsonian Institution, and Jeff Plescia of the U.S. Geological Survey, Cordua said.

The details are still emerging, but the big picture is clear.

About 450 million years ago, a meteorite about the length of two football fields came out of the sky, slammed into what was then a shallow sea teeming with life, and left a massive crater. The impact would have caused a tsunami, Cordua said, and affected the region in many ways, including changes in the weather.

Understanding what happened at Rock Elm and places like it is key to understanding what has happened, and what could happen again, to the earth, he said.

"A lot more people are interested now and want to know more about it," said Cordua, who will speak Tuesday at a regional meeting of the American Institute of Professional Geologists in St. Paul.

But beyond speaking engagements and working with his students, Cordua is taking a research break.

"We are still digesting what we have before taking the next step," he said, but he said he hopes to attract grant money for deeper digs into the crater site.

*Kevin Harter can be reached at [kharter@pioneerpress.com](mailto:kharter@pioneerpress.com) ; Posted on Mon, Oct. 04, 2004*

**Stabilizing porous stones:** if you would like to try your luck at stabilizing porous stones, such as turquoise, so that it can be cut and polished, the Silvery Colorado Rock Club offers the following advice. Take a jar with a lid and add one pint of acetone. To this, add the complete contents of both the resin and hardener tubes of epoxy glue. Mix well and add well-dried stones. Cover the jar and let it sit for a least four days. Remove the stones and allow a week for them to dry. They should now be ready to work. *via Pegmatite 5/01 via MWF Newsletter 10/04*

**Slabbing tip:** If you have a thick slab that you would like to slice in two and keep the cut parallel to an existing face, first clamp a junk rock in the vise and cut it. Without unclamping the junk rock, clean the face of the cut and glue the good thick slab to the junk rock. This process may be a little slow and requires that the thick slab be clamped to the junk rock while the glue dries, but the resulting cut through the thick slab will be exactly parallel to the original slab face. NOTE: in saws that use oil, use a water soluble glue, and in saws that use water, use a glue that can be dissolved in acetone. *via Pegmatite 5/01 via MWF Newsletter 10/04*

**To polish onyx:** polish in the usual manner, then dip in a mixture of 3 teaspoons water and ½ teaspoon oxalic acid, then polish. *from the Rockpile 6/89 via MWF Newsletter 10/04*

**Saran wrap** doesn't stick to epoxy. Use it under work to stop it from sticking. *from Bruckner Rockette 2/90 via MWF Newsletter 10/04*

## Obsidian Tips -

**Safety** - after obsidian is sawed, be sure to bevel the edges all around on your fine grinding wheel to keep them from flaking and chipping. Wear goggles or glasses at all times. If a small chip of glass (obsidian) got into your eye, it would be hard to remove as it is transparent and hard to see even with a powerful magnifying glass, and the edges may cut you a great extent before it could be removed.

**Grinding Cabs** – Approach your grinding wheel with the material at a slight horizontal angle. If brought straight in, it may be a “shattering” experience as obsidian fractures conchoidally and this is a sure way to do it.

**Polishing Obsidian** – keep the polishing wheel wet. A dry polishing wheel will result in blisters and scratches. *from the Rockhound Rumbings via Emerald Gems 6/04*

**The Average Man:** The average man is composed of enough iron to make a medium nail; enough sugar to fill a shaker; enough lime to whitewash a chicken coop; enough phosphorous to explode a toy cannon; enough sulfur to rid a dog of fleas; enough fat for 7 bars or soap and enough brass to build his statue. Incidentally, the minerals in a human body used to be worth 98 cents but now they are worth \$5.50 and escalating all the time. *from the Golden Spike via Emerald Gems 6/04*

**Have you heard the expression** “rock caches”? It is said that the Indians and Spaniards used this trick to hide gold and other treasures. The method was to chop a hole in a solid rock wall until it was the diameter and depth that they wanted. Then a lid was made to fit so perfectly that it was almost invisible. If you happen to be in an area where there are rock cliffs, keep a sharp look out for faint, circular dubious depressions that could indicate a cache. You may be lucky and find an old treasure that was hidden away years ago. If you have a metal detector, use it on the circle. *from the Golden Spike News via Rock Chips 6/04 [note: this may fall under the category of “rural legends” –ed.]*

**Polished Cabochons** - keep polished cabochons in photo-slide protector pages. The pages fit a three-ring binder and each page has 20 individual pockets. The cabs are easily visible, but are protected. Coin collector sheets also work well. *from Rockhound Chips 5/04*