

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



January, 2005

First Class

Please send exchange bulletins to:

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Stillwater, MN 55082

January 18th - Is this month's meeting date.
***The program: "Show and Tell"
and "Find of the Year" and
"Election of Officers"***



St. Croix Rockhound's

LEAVERITE NEWS

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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 Director		()
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!

January 18th: St. Croix Rockhounds club meeting is to be held at Stonebridge Elementary School at 7:15 pm. The busy slate includes:

- 1) "Find of the Year" – bring in treasures you found over the past year and win the envy of your fellow rockhounds.
- 2) "Show and Tell" – gives you a chance to talk about your adventures over the past year.
- 3) "Election of Officers" – things not going the way you like? This is your chance to make a difference.

COMING ATTRACTIONS.

January 18th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

February 15th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

February 26-27th: Anoka County Gem & Mineral club Har Mar Mall Winter Show in Rosedale, MN.

March 19-20th: Eastern Federation Show in Athens, Pennsylvania

March 19th: St Croix Rockhounds show at the Valley Creek Mall in Woodbury, MN

April 30th: Cuyuna Rock & Mineral Club Show at the Westside Church in Aitkin, MN. For info call Keith at 218-226-4847

April 16-17th: Anoka County Gem club show at the Har Mar Mall in Rosedale, MN

June 10-12th: California Federation Show in Roseville, California

August 16-21st: MWF/AFMS Show in Saint Louis, Missouri.

Minutes of the Saint Croix RockHounds

December 7th, 2004

(No business meeting conducted)

January Birthstone : Garnet *(from the website www.about-birthstones.com)*

Birthstone Color: Deep Red One glance at the deep red seeds nestled inside of a pomegranate fruit explains why the word "garnet" comes from the Latin word "granatus," meaning "grain" or "seed." This name was given to the garnet because of its close resemblance to the succulent pomegranate seed. But don't bite into a garnet, because at Moh's hardness 6.5 to 7.5, it will definitely damage the teeth!

A Greek myth linked to the garnet is the story of the young goddess of sunshine, Persephone, who was abducted by Hades, god of the underworld. Hades eventually released Persephone, but not before he offered her some pomegranate seeds, which guaranteed her return to him.

First mined in Sri Lanka over 2,500 years ago, the garnet is also found in Africa, Australia, India, Russia, South America; and in the United States, in Arizona and Idaho. Although most commonly known as a red gemstone, the garnet comes in a variety of other hues, including muted yellows, vibrant oranges, rosy pinks, lime greens, and violets—a virtual bouquet of colors. This diversity is due to unique combinations of elements within each particular gem, such as iron, calcium, and manganese.

Archaeologist findings of primitive style garnet jewelry among the graves of lake dwellers dates the early use of this gemstone to the Bronze age. But not all garnet is of gem quality. It is also a very effective abrasive and is used commercially for grinding and polishing. Garnet coated sandpaper is one such industrial use.

The garnet continues to be the protective gem of journeyers. A gift of garnet is thought to be symbolic of love and the desire for a loved one's safe travel and speedy homecoming. It is January's birthstone, but far from being only a winter gem, the garnet, with its brilliance and multitude of colors, is truly one for any season.

Robert Olson started school in January at Concordia College in Moorhead.

Marie wants to wish everyone "Happy New Year"

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



Celebrate!

January birthdays:

Esther Rodewald – 22nd

January Anniversaries:

None

(if you don't see your name on this list and it's your month, it is because I don't have it. Send me an e-mail: doug@implan.com)

What do these words have in common?

Agate	Druse
Glass	Rutile
Shell	Snail
Twin	Cleave
Price	Shale
Slate	Stone

Answer: Remove the first letter and another word remains. Remove the first letter again and yet another word remains.

By Diane Dare via SCRIBE via Rock Vein via Agate Explorer

The minerals that attack your concrete driveway

Those hard concrete driveways! How nice they are when first laid. Then they crack, crumble, spall and need replacing. This is not only true of your driveway, but also of our whole concrete infrastructure ranging from stadiums to dams to interstates, which costs the U.S. an estimated \$150 billion a year. What eats the concrete? It turns out that many of concrete's foes are minerals.

Concrete consists of cement paste (a complex mixture made mostly of calcium hydroxides and calcium aluminum silicates) and aggregate (sand and gravel). The process of making the cement begins with limestone and clay. These are mixed, heated, ground and treated with gypsum. Adding water to this starts a number of chemical reactions, forming calcium hydroxides (one of which is called portlandite), calcium aluminum silicates and calcium sulfates (such as ettringite). These reactions continue for days until the cement is finally set and hard. What minerals attack this formidable material?

Ice is an obvious villain. Ice is a perfectly good mineral - inorganic, naturally occurring and possessing a crystalline structure. When water freezes to ice, it expands by about 9%, exerting tremendous force on the sides of any cracks or pores into which it has seeped. As the cracks and pores enlarge, it is easier for more water to enter.

Salt is another enemy. As you spread salt on your driveway, or as salty residue drips off your car, the salt water soaks into the concrete. As the water evaporates, salt crystals grow, forcing apart cracks. Salt can have a more insidious effect, depending on what aggregate is in the concrete. If the aggregate contains poorly crystalline silica, in the form of opal or even chert, it reacts with sodium, converting the hard silica to a hydrated alkali gel. This decreases the strength of the concrete. Since the gel occupies more volume than the original chert or opal, it further cracks the concrete and helps more water enter. By the way, Scott Wolter describes some deposits of the solidified gel material in voids in concrete that show agate-like banding. This may help us to better understand the formation of agates.

Sulfur, which occurs in soils, seawater, and acidic rain, is another enemy. Portlandite, formed during the hardening of the cement, reacts with the sulfur-bearing water to make gypsum and more ettringite. Gypsum is soft and water soluble, degrading the concrete. Both gypsum and ettringite cause an increase in volume, cracking the concrete. The more cracks, the more water and sulfate and salt can enter. This cycle limits concrete's lifetime. Millions of research dollars are going into making concrete more resistant to these attacks. The only way to avoid this completely is to build in where water, salt and ice don't occur. The nearest surface like that is on the moon.

-Dr. Bill Cordua, U. Wisconsin- River Falls

References:

Wenk, Hans-Rudolf and Andrei Bulakh 2004.
Minerals: Their Constitution and Origin.
Cambridge University Press.

Wolter, Scott, 1996, The Lake Superior Agate,
third Edition, Burgess International Group
Publishers.



FIND OF THE YEAR

Contest Rules (revised 1991)

The contest is open to all members of the St. Croix Rockhounds club. Absentee members may submit specimens through another member and junior members are eligible to enter the contest and to vote. However, there can be only one entry per person per class. There are five entry classes:

Lake Superior Agates: No lapidary work of any kind is allowed. Agates may be oiled.

Fossils: Specimens may be cut or glued together. Specimens may be treated or sprayed only to prevent deterioration and not to enhance them. They may not be polished.

Polished: Tumble or face polished but not spray polished. The specimens may also be cut or glued together.

Jewelry: The stone may be cut, shaped, polished and mounted. The featured stone must have been found and worked in this current year.

Open: Specimens may be cut or glued together but not polished or sprayed. Lake Superior Agates may NOT be entered in the Open class.



Note: all specimens must have been found in 2004. Polishing or lapidary work must also be done on the specimen during the year it is found and entered. Finally, the specimen must have been found in its natural setting (“in-situ”) by the person entering the specimen.

Also, please label all entries (approximately 2x3 inches) stating the category, material, and general location (county) of your find. On the REVERSE side of the label, print your name. Place the card, name side down, on the table adjacent to your entry. Thank you.

Polishing a stone all over, front, back and edges, acts as a sealer. It seals and keeps the water in opal; it prevents natural corrosion in rhodonite (that corrodes to a black ore called wad) and it helps stop the absorption of harmful substances such as perspiration. *from Ammonite 6/94 via Beehive Buzzer 8/97 via News & Views 0/08 via Rock Vein via Agate Picker 12/04*

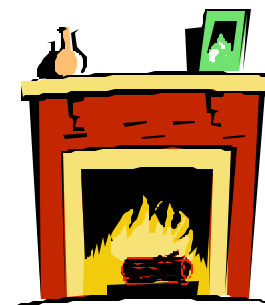
To identify and grind out pits in the cabochon, spray the rough cab with red enamel from an aerosol can, then grind the paint off with a light touch. Pits and lines will stand out as bright red spots, making it unnecessary to wipe the cap to see if the pits are out. This is especially helpful when grinding freeform cabs from fire agate. *from Rock Chips via Quarry quips 12/98 via Petrified Digest 1/99 via Burro Express 2/99 via Rock Vein via Agate Picker 12/04*

Save pitted cabs: get a box of artist's crayons from an art supply house. Mix some 330 epoxy, heat under a lamp until it gets watery, then scrape filings from the crayons to match the desired colors into the epoxy and mix. Fill the pits with this mixture. Let dry until hard, then regrind and polish the stone. Nearly every color desired can be obtained by mixing the various colors of crayons. *from CabberGabber via Magic Valley Gem News 10/00 via Rock Vein via Agate Picker 12/04*

How to number fossil specimens: one thing I was told to do (and it seems to work quite well) for marking specimens is to apply clear nail polish to a small area, let it dry, (doesn't take long) and cover it with white-out. Then you can write a number on the white-out, and cover it with another layer of nail polish for protection. This process is not as involved as it sounds, works on about any surface, and the label can be almost completely removed with nail polish remover. *By Forrest Stevens from Glacial Drifter 6/97 via News and Views 5/98 via T-Town Rockhound 6/98 via Rock Vein via Agate Picker 12/04*

For a colorful holiday fire: Prepare for a colorful holiday fireplace by soaking pine cones or small sticks in solutions. Using a plastic bucket, mix one gallon of water to one pound of chemicals - soak overnight. Put in as many items as the solution will cover. Listed are some suggested chemicals to be used and the color they show when burned. Most can be purchased at the supermarket:

Table salt	- yellow
Borax or boric acid	- light green
Copper sulfate	- green
Strontium chloride	- red
Potassium chloride	- violet
Calcium chloride	- orange
Copper chloride	- blue
Lithium chloride	- crimson



from AFMS Newsletter 5/98 via Emerald Gems 12/04

Imponderables *from Angie Teixeira and Alan Dean via AFMS Newsletter 12/04*

Do infants enjoy infancy as much as adults enjoy adultery?

If love is blind why is lingerie so popular?

"I am" is reportedly the shortest sentence in the English language, could "I do" be the longest?

What hair color do they put on the driver's licenses of bald men?

Last night I played a blank tape at full blast and the mime next door went nuts.

Why is a man who invests all your money called a broker?

How come no one ever says, "It's only a game" when their team is winning?