

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

READY OR NOT HERE IT COMES
HAPPY NEW YEAR



January 2010

First Class

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

January 19th – *The program:*
*“Show and Tell” and “Find of
the Year”*



The January 1st field trip has
been cancelled.

St. Croix Rockhound's

LEAVERITE NEWS

Vol. 35, Issue 1; January, 2010

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	Victor Martinsen	(715) 247-3700
Vice President	Ron Lewis	(715) 246-5118
Secretary	Bill & Thomas Fernholz	(651) 430-9039
Treasurer	Carol Jensen	(715) 483-1047
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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! - January 19th: St. Croix Rockhounds club meeting starts at 7:15 pm. The 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.

COMING ATTRACTIONS

January 19th: St Croix Rockhounds club meeting at Stonebridge Elementary School in Stillwater, MN at 7:15pm

February 16th: St Croix Rockhounds club meeting at Stonebridge Elementary School in Stillwater, MN at 7:15pm

February 27-28: Roseville, MN - Anoka County Gem & Mineral Club's Pre-Spring Show; Har Mar Mall, Snelling at Co. Rd. B; Sat. 10-6, Sun. 12-5; CONTACT: Martha Miss, 8445 Grange Blvd, Cottage Grove, MN, 55016, (651) 459-0343, rockbiz8@cs.com.

March 16th: St Croix Rockhounds club meeting will be at the University of Wisconsin River Falls campus. We are planning the second "Silent Auction" of the year.

March 27th: St Croix Rockhounds club show at the Valley Creek Mall.

Minutes of the St Croix Rockhounds December 15th, 2009

Munch, munch, mmph, mmph!

No official minutes.

The January 1st field trip has been cancelled due to lack of access for parking.

Growth Habits of Single Crystals

Barrel-Shaped: Self descriptive term applied to such crystals as vanadinite and mimetite.

Bladed: This describes the appearance of crystals that are almost equal dimension in all directions and look like children's toy blocks. Some of the feldspars, galena and fluorite can be so described.

Columnar: These crystals are thick and fairly elongated, shaped in miniature like the columns of a building. Examples include beryl, quartz and tourmaline. Sometimes the word prismatic is used to describe the same crystals, because the dominant faces on columnar crystals are usually called prisms.

Capillary: From a Latin word meaning hair, capillary is often used interchangeable with filiform, also from Latin, meaning threadshaped. The terms describe minerals such as silver, which is sometimes found as thin wires, or millerite, which is found in long, very thin, stiff wires.

Pyramidal: This expression is used when the ends, or even the entire crystal, looks vaguely like three-, four-, or six-sided pyramids. Examples include wulfenite and anatase.

Stubby: Such crystals are also sometimes described as stout or equant. All these terms try to draw an image of crystals that are neither flattened nor elongate, but are nearly the same dimensions in all directions. Tourmaline, apatite and beryl can be columnar or prismatic, but they may also be of shorter lengths and stubby.

Tabular: This means that the crystal growth has been flat, with only minor thickness. Wulfenite is often tabular. Torbernte is almost always tabular.

from Michigan Gem News via Cutting Remarks, 06/09 via Stoney Statements 07/09

Celebrate: January's birthstone is the garnet. The name "garnet" is derived from the Latin "granatum" meaning "pomegranate" because the crystals resemble the red color and seed-like form of this fruit. Most people think of the garnet as a red gemstone, but in fact, it exists in all kinds of colors, such as black, many shades of red and green, or even colorless. The garnet's variety of colors comes from metals such as manganese, iron, calcium, and aluminum. Some varieties even contain mineral fibers that produce the illusion of a four- or six-rayed star within the stone. Green garnets are most highly prized but are very rare. Emerald green and colorless stones are highly valued, followed by pure red garnets.

Ancient warriors believed that garnets brought victory. The Crusaders used them as protection against wounds and accidents during their journeys. In contrast, Asiatic warriors believed that glowing garnets, used as bullets, inflicted more severe wounds. In 1892, during hostilities on the Kashmir frontier, the Hanza tribesmen fired on British soldiers with garnet bullets, believing them to be more effective than lead bullets.

Birthdays:

None admitted

Anniversaries:

None admitted



Klinkhammer Estate Sale

January 15 & 16, 2010. We plan to have it open to club members and friends on Friday from 10 AM to 5 PM. and the general public on Saturday from 9 AM to 5 PM. The address is 2085 Hawthorne Ave. in St. Paul. There are rocks in the rough; polished slabs; specimens; finished cabs; findings and finished jewelry. There are also display cabinets and a limited amount of equipment. We are trying to empty the house for sale, so any reasonable offers will be accepted. Members with questions can call me, John Klinkhammer at 612-889-2968.

AGATES GATES BY MIKE NELSON, CSMS

The CSMS Board has selected “Agates” as the theme of the 2009 Annual Show scheduled for December 5-6 at the Phil Long Center in north Colorado Springs. Members and participants may exhibit their specimens via display cases (available from CSMS). Especially encouraged are cases with display of, and/or educational information on, agates.

The agates, and there are many, are semiprecious gemstones in the quartz family, specifically a form of concentrically banded or included chalcedony. Chalcedony is fibrous microcrystalline quartz. For a description of how agates form, please see the Ask A Geologist column in this issue of the Pick&Pack.

Chalcedony is an interesting stone in its own right and comes in a variety of colors such as the red, yellow, black, or green of jasper, the red of carnelian, the brown to yellow of sard, and the black and green of chrysoprase (See Pick&Pack v.48, #8). Chalcedony is quite porous, and this feature has caused problems with fraud and misrepresentation in the trade market. Somewhere I read (and I cannot find the reference) that essentially all “black” onyx marketed in the jewelry trade is dyed chalcedony. Chalcedony is also dyed to simulate chrysoprase, but this is considered fraud as the value of prase is determined by the “greenness” (Lyman, 1986). In addition, any rock and mineral show, and most rock shops, have displays of extremely gaudy (my opinion) agate in bright abnormal colors. These colors are due to a thin layer of dye that has been used to impregnate the surface of the mineral.

The name chalcedony is quite old and most likely is derived from the port of Calcedon/Calchedon on the Asian shore of the Bosphorus in what is now the country of Turkey (Lyman, 1986). The name agate came from the Achates River (now the Dirillo) in Sicily. The use of agate as an ornamental stone has been around for millennia, certainly as early as ~3000 BC in Crete (Hogan, 2007).

Agate has been given tens of trade names or local names, and it seems as if hundreds of varieties are for sale at various venues. Roger Pabien from the University of Nebraska is recognized as one of the world’s finest authorities on agates and has authored a well-written book entitled *Agates: Treasures of the Earth* (2006). I have followed his terminology in describing the following agate varieties.

Agatized fossils: agate may replace some calcite of marine organisms when siliceous gel engulfs and permeates shells of “dead” marine animals but especially the exoskeletons of corals (commonly seen in Florida) (Fig. 1). Petrified wood is not an agate but wood that has been permineralized by chalcedony (for a differing opinion see The Quartz Page at <http://www.quartzpage.de/agate.html>).

Brecciated agate; Faulted agate: the original agate has been broken and fractured and then re-cemented. This activity probably takes place in fault zones.

Calico agate: the specimens exhibits small banded agate in a light colored groundmass.

Dendritic agate: Mocha agate: the agate has included dendrites (a branch like structure) composed of dark colored iron and/or manganese oxide. A type of non-banded agate. See Ask a Geologist column.

Disk-bearing agates: the agate contains small white disks or ovoids. Rare.

Eye agate: Tube agate; Stalactitic agate: the eyes in the agate are caused by crystallization around a needle-like crystal.

The agate must be sliced perpendicular to the length of the needle to see the eye (Fig. 2).

Flame agate: an agate with flame-like banding of red hematite.

Fortification agate: a well banded agate with sharply defined bands.

Rainbow agate: fine banded but rather colorless agate until viewed as a very thin slice when colors are displayed.

Jasp agate: a mixture of agate and jasper.

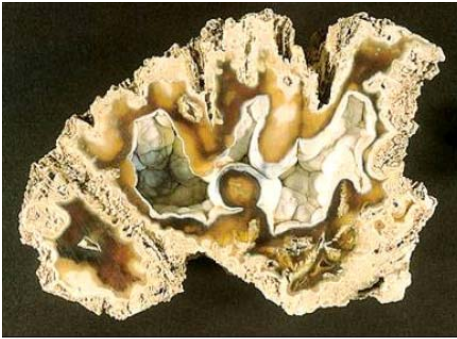


Fig. 1. Agatized Coral. Photo courtesy of the State of Florida.



Fig. 4. Plume agate from Needle Peak, Texas. Permission and photo courtesy of Rick Jacquot.



Fig. 2. Bulls-eye Agate, Texas. Permission and photo courtesy of Rick Jacquot.



Fig. 3. Blue lace agate from Namibia. Photo copyright 2005-2008 by A.C. Akhavan. Used by permission.

Agates continued.....

Lace agate: usually a finely banded blue agate resembling lace (Fig. 3).

Moss agate: a rather “complicated” agate forming when chloritic minerals on the skin of the agate are forced in with the silica gel. The resulting stringy structures superficially resemble “moss”.

Plume agate: a type of moss agate where the brightly colored (red: hematite; yellow: goethite) plumes form arborescent structures. In my opinion, one of the more beautiful agates (Fig. 4)

Saganitic agate: an agate with included needlelike crystals of either rutile, goethite, anhydrite, aragonite, or zeolite.

Thunder eggs: an agate enclosed in a brown (usually) rocky and siliceous matrix. Egg or nodule shape. See Ask a Geologist column. Onyx: level-banded agates (as opposed to the curved bands of traditional agates) with alternating black and white bands are traditional called onyx. Landscape onyx looks like “something”—a mountain scene perhaps. Sard onyx has alternating colors of red to brown to white to blue. Very few collectors can agree of the number, types, and varieties of agates. The above listing is from Pabian (2006). For a different opinion, please check Zenz (2005) who listed 122 varieties.

In addition, any number of web sites and rock/mineral dealers will be happy to sell you agate varieties not listed in either of these two references!

Most CSMS members collect agates for their appearance—they are really nice minerals and make beautiful displays. However, there are some collectors who believe that agates have metaphysical and healing properties. So, if you want to have pleasant dreams, cleanse your aura, balance your yin-yang energies, and eliminate your bad luck— consider agates.

You may also use agates and other varieties of quartz to enter a portal “opening into several realities, including the astral world; the far reaches of physical, interstellar space; and alternate, parallel universes”.

Please see “Ritual of the Portal for Personal and Planetary Ascension” at

<<http://www.diskoftheworld.com/portal.htm>> Let me know how it works. *from Pick&Pack 09/09*

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Pabian, R. with B. Jackson, P. Tandy and J. Cromartie, 2006, Agates; Treasures of the Earth: Firefly Books, Richmond Hill, Ontario.

Zenz, J. 2005, Achate/Agates: Bode Verlag GmbH, Haltern, Germany

(CNN) -- **A pint-sized version of the Tyrannosaurus rex**, with similarly powerful legs, razor-sharp teeth and tiny arms roamed China some 125 million years ago, said scientists who remain startled by the discovery. From <http://www.cnn.com/2009/TECH/science/09/17/tiny.t-rex.dinosaur.discovered/index.html>



An adult Raptorex was about 9 feet tall and weighed about 150 pounds, scientists say. The predator, nicknamed Raptorex, lived about 60 million years before the T. rex and was slightly larger than the human male, scientists said.

The findings, to be released Friday in the journal Science, are based on fossilized remains discovered in lake beds in northeastern China. They show a dinosaur with many of the specialized physical features of Tyrannosaurus rex at a fraction of its size.

"The most interesting and important thing about this new fossil is that it is completely unexpected," said Stephen Brusatte, co-author of the article, in a conference call with reporters.

"It's becoming harder and harder to find fossils like this that totally throw us for a curve," added Brusatte, a [paleontologist](#) with the American Museum of Natural History.

Scientists who have studied the fossilized animal, which was 5 to 6 years old when it died, believe it was an ancestor of the fearsome T. Rex.

"Raptorex really is a pivotal moment in the history of the group where most of the biological meaningful features about Tyrannosaurs came into being," said lead author Paul Sereno, a paleontologist at the University of Chicago.

Don't Miss

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"And the surprising fact is that they came into being in such a small animal," he added.

Based on estimates of other similar-sized theropods, or "beast-footed" dinosaurs, Sereno and his colleagues estimate an adult Raptorex was about 9 feet tall and weighed about 143 pounds.

By contrast, the Tyrannosaurus rex, which topped the prehistoric food chain until dinosaurs went extinct about 65 million years ago, was believed to weigh at least five tons.

Scientists hypothesize that Raptorex ran its prey down, using its enlarged skull, powerful jaws and sharp teeth to dispatch animals much larger than itself. Like the T. rex, the Raptorex also had tiny forelimbs, they said.

"We can say that these features did not evolve as a consequence of large body size but rather evolved as an efficient set of predatory weapons in an animal that was 1/100th the size of Tyrannosaurus rex and that lived 60 million years before Tyrannosaurus rex," Brusatte said.

After the remains were discovered, they were smuggled out of China and into the United States, where they were eventually purchased by a Massachusetts collector, Henry Kriegstein, who donated them to science. Sereno was later asked to identify the fossil.

"I hope that this is a pathway that other important specimens that do find their way out of the ground in the dark of night do not get lost to science," Sereno said.

The Raptorex fossil will eventually be returned to [China](#), where it will be put on display near the excavation site, scientists said.

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 2009. 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.

Stolen Gems *St Croix Rockhounds Leaverite News*

Working with Dark Colored Moss Agate - like the black Montana variety, small pits may sometimes appear on the finished, polished surface. The light colored polishing powders, such as tin oxide or cerium oxide, often pack into these small pits, making removal difficult and white spots surely distract from the stone's appearance. Try rubbing a small bit of black India ink into the spotted area, and then try to rob off the ink. The white spots will disappear. *from Rockhound Rambling 9/08 via Quarry Quips 8/09, via 12/09 The RockCollector via Pick & Pack via Stoney Statements 12/09*

Keeping Ivory in Light - don't put ivory in the dark! It is one substance that needs light. If it has started to yellow, take half a lemon and rub it in some salt. Then rub it over the ivory object. The lemon will work on the yellow discoloration. After it is dry, dampen a soft cloth with lukewarm water, and rub the ivory. *from Rockhound Rambling 9/08 via Quarry Quips 8/09, via 12/09 The RockCollector via Pick & Pack via Stoney Statements 12/09*

Hints & Tips For the Silversmiths *from The Lodestar - 11/92, via The Calgary Lapidary Journal 5/09 via Stone Chipper 09/09*

The success of the final polish on silver depends on the number of buffing wheel threads - not the amount of rouge used. A cheaper buff will not give the same results as a quality one.

Plain old-fashioned whiting moistened with ammonia water makes an excellent agent for polishing tarnished silver. Wipe the paste on; allow it to dry; then rub with a piece of lemon. Wash and dry thoroughly. The silver will stay brighter longer than with ordinary cleansing.

To rub smooth the high points of a gold article, use sodium bicarbonate with a minimum of water.

To antique silver jewelry, paint the pieces to be darkened with raw egg yolk. Rinse off the egg and rub highlights with Linde A.

Glue your pattern on the silver with rubber cement. It removes easily.

Bon Ami applied with a toothbrush will give a satin finish.

One of the most useful and versatile tools on your workbench should be the orangewood stick. This tool is sold for the purpose of working on cuticles and is available in all cosmetic departments. The orangewood stick is soft enough not to mar gold or silver, yet is hard enough to use as a pushing tool in setting prongs. It will not scratch gems and will reach into impossible places.

Seeing Spots - "Doctor!" whined a rockhound, "When I look at minerals under the microscope I keep seeing spots before my eyes." The primary care physician scratched his head, "Why have you come to me? Have you seen an ophthalmologist?" "No," replied the rockhound, "just spots." *from The Rockhouser, 7-8/09 via Pick&Pack 08/09*

Protect 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 may also be used. *from the Trilobite 01/95 via Hidden Treasures 09/95*

Hint: If you wish to take a picture of a stone, photograph it under water. Unpolished stones will have their colors enhanced. Polished stones will not give off undesirable reflections and highlights. *from Blueagate News, via Burro Express, via Rock Vein via Agate Picker 05/95*

Shop hint: Try citric acid as a pickle instead of Sparex. Because citric acid is carbon-based instead of sulfate-based, the residues left on material being re-melted for casting are less troublesome. Sulfate residues may form sulfur dioxide, which is soluble in the re-melted metal and thus creates porosity, while the carbon residues from the citric acid burn off without causing porosity. Use several cups of citric acid powder to a crock-pot full of water. It is used hot. Obtain citric acid through bakery and food supply companies. *by Phil Poirier, from Shawnee Slate. 10/98 via Stoney Statement*