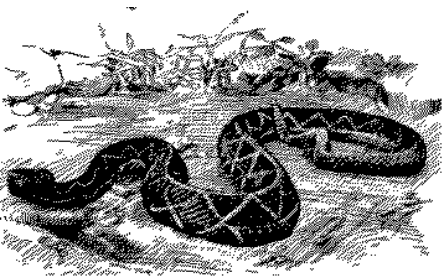


St. Croix Rockhounds  
Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082



May, 2005

**First Class**

Please send exchange bulletins to:

Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082

**May 17<sup>th</sup>** - Is this month's meeting date.

***The program: Fossil Collecting in  
Minnesota***



St. Croix Rockhound's

**LEAVERITE NEWS**

Vol. 30, Issue 5; May, 2005

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	Brad Bonse	(651) 439-6832
Vice President	Vic Martinsen	(715) 247-3700
Secretary	Doug Olson	(651) 430-9035
Treasurer	Lin Rawlings	(651) 735-4691
Program Committee	Mark Rassmussen	(651) 275-0607
	Bill Cordua	(715) 425-9544
	Victor Martinson	(715) 247-3700
Show Committee	Bill Cordua	(715) 425-9544
Refreshments	Freya Kask	(651) 777-6371
Librarian	June Young	(651) 429-3887
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!

**May 17<sup>th</sup>** : St. Croix Rockhounds club meeting is to be held at Stonebridge Elementary School at 7:15 pm. The program will be *Fossil Collecting in Minnesota*.

## COMING ATTRACTIONS.

**May 17<sup>th</sup>**: St. Croix Rockhounds club meeting is to be held at Stonebridge Elementary School at 7:15 pm

**June 3-5<sup>th</sup>**: G.A. St. Paul, MN – International Gem & Jewelry Show at the Minnesota State Fairgrounds, call 301-294-0034 or [www.intergem.net](http://www.intergem.net) for info.

**June 11<sup>th</sup>**: Anoka Gem and Mineral Rock Sale/Swap at the Osseo United Methodist Church Parking lot (Fellowship Hall in case of rain). For info call Jack Rehnberg 763-425-2923.

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

**June**: Rocky Mountain Federation show in Colorado Springs, CO

**July 16-17<sup>th</sup>**: Agate Days in Moose Lake

**July 23<sup>rd</sup>**: St Croix Rockhounds Picnic at Susan Dustin's House – 2pm: a flyer will be mailed with info.

**July 9-10<sup>th</sup>**: Anoka County Gem club show at the Har Mar Mall in Rosedale, MN

**August 5-7<sup>th</sup>** : Northwest Federation show in Albany, Oregon

**August 13-14<sup>th</sup>**: Driftless Area Gem & Mineral Show at the Masonic Center, 520 E. Saratoga St. in Tomah, WI. For info contact Jim DeVoe 608-378-4677 or Robert Crook 608-372-4461

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

**September 20<sup>th</sup>**: St. Croix Rockhounds club meeting and Silent Auction

# Minutes of the Saint Croix RockHounds

March 15<sup>th</sup>, 2004

**The meeting** was called to order at 7:15 by President, Brad Bonse.

There were 18 members present.

**The Secretary's minutes** for March 15<sup>th</sup> meeting were approved as they were written in the Leaverite News, although it was noted the newsletter announced a show for tonight rather than a meeting.

**The Treasurer's report** was approved as given by Lin Rawlings. He will look into redoing club patches as we are down to 7.

**Program chairman Mark Rasmussen** announced that tonight's show is by William Mason III. He works for Paleobond brand products and is into fossil and meteorite preservation. He noted that there is a potential for flintknapping programs and workshops.

**Tour director:** Brad Bonse noted that there is no tour director but he solicited ideas for trips. Suggestions included copper country, Montana for mossy agates, and agate at quarries. Mark Rasmussen also is willing to come to your house to photograph your rock collection.

**Show Committee Bill Cordua** got a note from the Mall Organizers thanking the club for the rock show. He distributed certificates for the show participants.

**Newsletter Editor Doug Olson** had a show flyer and is, as always, looking for material and ideas.

**Librarian June Young** had no updates.

**Refreshments** tonight are provided by Bill and Jan Cordua and Brad Bonse.

**Old Business:** a vote for donation to the Stonebridge playground fund will be made next meeting. Mark Rasmussen will match whatever the club donates.

## **New Business:**

LeRoy Betlach noted we will need new business cards, will look into it.

LeRoy Betlach will arrange for a fossil trip to a River Falls quarry either September 24<sup>th</sup> or October 1<sup>st</sup>. Mark Rasmussen is willing to demonstrate fossil prep at the quarry.

Club Picnic may be at Sue Dustin's house this summer in July. The Shalanders or Martinsons are fallbacks.

**Guest tonight:** Catherine Saunders who picked up a flyer at the show.

**Door prizes:** were won by Doug Olson, June Shalander, June Young, Kathy Saunders and Lin Rawlings.

**A celebration for Reuben's** 80<sup>th</sup> birthday will be held at the Scandia Community Center on April 24<sup>th</sup> from 1-4 pm. All are invited.

**Meeting was adjourned** at 7:50 pm.

**Program: Bill Mason** presented a discussion on Meteorites and also brought samples.

**Respectfully submitted,**

Doug Olson, Secretary

The Saint Croix Rockhounds wish to welcome visitor and new member Cathy Saunders.

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



*If paying dues by mail,  
send to treasurer:*

**Lin Rawlings**  
850 Woodduck Rd  
Woodbury, MN 55125

# Celebrate!

**May's birthstone –Emerald.** This brilliant green stone reinforces love and creates harmony in the family.

## May's Birthdays:

Jeanne Blom – 5<sup>th</sup>

## May's Anniversaries:

Bill & Janet Cordua – 16<sup>th</sup>

**June's birthstones** - June has three stones: pearls, moonstone, and Alexandrite. Pearls, according to Indian mythology, were dewdrops from heaven that fell into the sea. They were caught by shellfish under the first rays of the rising sun, during a period of full moon. In India, warriors encrusted their swords with pearls to symbolize the tears and sorrow that a sword brings. .

## June's Birthdays:

Janet Cordua - 8<sup>th</sup>

Marie Newlander – 16<sup>th</sup>

Dave Klinkhammer – 18<sup>th</sup>

## June's Anniversaries:

Elaine &

Victor Martinson – 24<sup>th</sup>

June &

Reuben Shalander – 7<sup>th</sup>

**July's birthstone** – The Ruby. Large rubies are harder to find than large diamonds, emeralds and sapphires. As a result, rubies' value increases with size more than any other gemstone. In the Orient, rubies were once believed to contain the spark of life -- "a deep drop of the heart's blood of Mother Earth"

## July's Birthdays:

Dick Blom – 15<sup>th</sup>

Bob Carlson – 23<sup>rd</sup>

## July's Anniversaries: none

**August's birthstone** –Peridot and Sardonyx. The peridot was regarded since ancient times as the symbol of the sun. The Greeks believed that it brought royal dignity upon its wearer. During the Middle Ages, peridot was pierced, then strung on the hair of an ass and attached to the left arm to ward off evil spirits. The Crusaders thought that peridots were emeralds, and brought them back to Europe where they were featured as ornaments in churches.

## August's Birthdays:

June Shalander – 23<sup>rd</sup>

## August's Anniversaries:

Jeanne & Dick Blom – 15<sup>th</sup>

Brad Bonse – 25<sup>th</sup>

## North Carolina Miner Finds 5-inch Emerald

**Hiddenite's Hill digs up a 3rd major gem by Kathryn Wellin,**  
*Charlotte Observer 12/03 via Hidden Treasures 2/04*

Jamie Hill, excavator of the noted Carolina Queen and Carolina Prince emeralds, may have finally found what he's sought since he dug up his first quartz crystal at age 6.

On Wednesday, blasting with dynamite on his 100 acres about 50 miles northwest of Charlotte in Alexander County, he found the second piece of what he says is the largest natural emerald crystal discovered in North America, and possibly the world. He saw the first piece Tuesday, and realizing its top had been sheared off, kept digging nearby for its match.

"I've been chasing this belief that the finest emeralds are in North Carolina and in this little town," Hill, 39, said at his mother's bed and breakfast, the Hidden Crystal Inn.

Glued together into its original formation, the emerald weighs an estimated 1,861.9 carats, Hill said. The previous largest natural North American emerald weighed 1,686 carats and was found on Hill's property in the early 1980s, although not by him.

The emerald stick juts out of a lumpy bed of muscovite, calcite, pyrite and other crystals. It is as wide as a silver dollar and at its longest point, five inches.

"In other words, it's a hog's leg," Hill said.

Last year, Hill found two joined emeralds on his property, weighing about a combined 140 carats, that gem experts, at the time, said put America on the world emerald map. In 1998, he found an 88-carat emerald that he later cut into the 18.8 carat Carolina Queen and 7.8 carat Carolina Prince.

The Prince sold for \$500,000, and the Queen has offers in the millions. Hill has spent the last year and a half raising money to dig again. When he started dynamiting again this wee, he quickly uncovered a quartz vein blocking a 6 by 12 foot cave covered with more crystals than he'd ever seen.

He watched "The Wizard of Oz" on TV that night, his favorite movie, and the next morning found what he called "Emerald City," the first piece, a nearly 1,300 carat emerald in the cave's doorway.

At auction, the emerald could bring between \$2 million and \$5 million, Hill estimates.

The find is likely just the start in proving the area's worth to the gem industry for good, Hill said.

"Emeralds love company; they hate to travel alone," he said. "Usually, the deeper you go in the pocket, the solutions (of minerals) are better."

The cave's depth is impossible to estimate because it is honeycombed like floors in a skyscraper, Hill said. "I just busted into an Aladdin's cave," he said.

May is the last regularly scheduled meeting until the September meeting! This is the last newsletter until September. Enjoy your summer!



# **Pepin Asteroid Crater was Discovered by UW-River Falls Professor**

by **Deb Claxton** *from the Courier Newspaper in Durand via the Fractured Agate 4/04.*

In 1990, Bill Cordua, a Geology Professor at UW-River Falls, was celebrating his birthday with a drive through the country. He was south of Lund headed toward Pepin on County Hwy CC when something caught his eye, a rock quarry. While most people like to celebrate their favorite restaurant, Cordua's idea of a great time is exploring rock quarries.

"I've never met a rock quarry I didn't like," Cordua explained.

With permission of the rock quarry owner, he began to investigate. What he discovered was deformed rocks, which led him to the discovery of the Pepin Asteroid Crater, one of only three known sites in Wisconsin.

What Cordua found wouldn't be obvious to the average person who doesn't have training in the geological field. According to Cordua, normally, bedrock is formed in horizontal layers, one on top of the other. What he discovered was fractured rocks signifying that some type disturbance occurred. The rocks were all tilted. He also found rock walls with what he describes as hairpin turns.

All the strange rock formations were located inside a circle. Outside of the circle, the rocks were 2 miles wide.

Cordua theorized that the disturbance was caused by an asteroid collision, because if an earthquake had occurred, the impact area would not be round, and if a volcano had occurred, there would be evidence of lava or ash.

In 1999, Dan Geister, a senior at UW-River Falls conducted a geology research project on the Pepin disturbance. His gravity experiments discovered that the rock density was lighter than normal inside the circle of the Asteroid crater which is consistent with what you would expect from the impact of a collision. Outside of the circle, the rock density was normal.

Not far from the Pepin site partially located in Nugget Lake Park, is the site fo the Rock Elm disturbance, which is twice as big as the one in Pepin. Could both sites have been caused by the same asteroid? Cordua said it is possible that a fragment could have broken off the asteroid that caused the Rock Elm disturbance, but he has no way of verifying that possibility since he doesn't know the age fo the Pepin crater.

A UW-River Falls graduate student, Chris Peters who majored in geology, studied the Rock Elm disturbance and determined that it is roughly 430-455 million years old.

The site of the other known asteroid crater in Wisconsin is in Grover Bluff, located in the central part of the state. That crater is know to be 500 million years old.

What ever the age of the Pepin disturbance is, Cordua said the impact of the asteroid most likely destroyed all life for miles around. Even the impact from a small asteroid would unleash more destructive energy than that of the atomic weapons used to flatten the Japanese cities of Hiroshima and Nagasaki during WWII.

Although people are understandably curious about the Pepin Asteroid crater, Cordua would like to caution people about exploring it, since it is located on private property.

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## **Greenland Meteorites**

In 1818, the British explorer John Ross, sailing north along the west coast of Greenland noticed that the local natives had knives made from meteoritic iron. Native Greenlanders refused to reveal the site of the meteorite to anyone until Robert Peary arrived on the scene in 1895. Peary was esteemed because he had crossed the Greenland ice sheet by dog sled. It turned out there were three meteorites, which the natives called the Woman, the Dog and the Tent. The Tent was the largest, weighing 31 tonnes. It wasn't until 1897, after nearly dropping the massive Tent meteorite in the icy waters of Melville Bay, that Peary and his men sailed the cargo back to Boston. The meteorite was purchased by the American Museum of Natural History for \$40,000, which Peary used to finance his trek to the North Pole. *from Thunder Bay Club via Agate Explorer 02/05*

# Stolen Gems *St Croix Rockhounds Leaverite News*

**Tip for the field:** The US Postal Service sent out a message to all letter carriers to put a sheet of Bounce in their uniform pockets to keep yellow jackets away. Tying a sheet of Bounce around your belt loop will help to repel mosquitoes. *from Rock Chips 4/05*

**At a theater near you:** “RockHounds: The Movie”, an independent movie, is now making the film festival circuit around the country. Producers are hoping to distribute the film to Gem and Mineral shows that are interested in screening it. “While the film serves as a great introduction to the hobby...we believe it will also be appreciated by life-long rock hounds,” said director Todd Kent...”A wide range of diggers appear in the move,” said producer and geologist Devin Dennie. Shot in three states, the film covers digs of fossils, crystals and more with an emphasis on the people who share this great adventure. Any interested in screening the documentary can contact the producers through the film’s website: <http://www.rockhoundsmovie.com> . *from Polished Slab 3/05*

**Fire Agate** is a layered stone. The layers are small enough that light entering them forms interference colors known as “fire”. The gem is thought to be formed when hot water saturated with colloidal silica and iron oxide invades cavities in country rock and begin to cool. Chalcedony with iron oxide begins to grow on any available surface (the iron oxide gives the basic brown color to the gem). As the solution began to precipitate and grow, layers of silica and iron oxide would be deposited... These alternating silica and iron oxide layers (Schiller layers) cause the brilliant fire in the gem. As iron oxide ran out into the solution colorless chalcedony continued to grow. Cutting Fire Agate essentially reverses nature’s process. Grinding and polishing away layers, you follow natural contours until only the fire is visible. As you might imagine, one layer too far and the stone is ruined. *from Polished Slab 3/05*  
*by Tom Simondi*

**Cutting fire agate:** Inspect the rough stone by wetting with water under bright light to observe the depth and location of color layers (fire layers). Trim away excess top coating of chalcedony by sawing, grinding, or sanding to 1/8 inch of color layer. Then use 100 grit wheel no more than 4-5 seconds at a time. Sop and examine stones for fire, do not overheat the stone, use plenty of water for all steps. When satisfied that you have exposed the fire, grind on a 600 grit wheel to eliminate scratches. Then use 325 diamond paste wheel, moving to 600, 1200, 3000 and finally 50,000. *from Polished Slab 3/05*

**Toothpaste with fluoride** formula has the unique characteristic of penetrating some ceramics, brick and terra cotta flushing dirt to the surface where it can be washed away with water. *from Rock Chip Reporter 2/05*  
*via Emerald Gems 3/05*

**To measure grit:** 1 oz coarse, medium or fine grit is 4 level teaspoons. 1 oz polishing powders equals 8 level teaspoons. *from Slab and Cab 4/84 via Agate Picker 3/05*

**Solder silver in dim light** if possible for then you can watch the color of your work as it is being heated. The first visible red shows the work is about 900 F. When the work is dull red, the temperature is around 1200 F; a cherry red indicates 1400 F and is molten at 1641 F, so avoid overheating the work. Many a bezel has been burned right through. *from Slab and Cab 4/84 via Agate Picker 3/05*

**Montana Agate:** Rig a closed container with a light bulb inside. Using a nail make a small hole at one end. “Candle” your agates over the light beam to determine if they have dendrites in them. *from Slab and Cab 4/84 via Agate Picker 3/05*

**Alternative to Dop Wax:** While at the Gem Fair one company was demo-ing grinders and saws. He was using hard plastic rods & super glue. If the stick needed flattening he would file it flat & put a drop of glue on it and stick the stone on it, when done just bend it & the stone pops right off. A little glue might stick to the stone but a little acetone or nail polish takes care of it. This might not work on softer stones. *by Dennis Chapman, Strata Gem 1/00 via Hidden Treasures 2/04*