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

First Class

October, 2001

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

Meetings are held 7:15 PM at the Stonebridge Elementary School on W. Elm St., Stillwater, MN.

October 16th - is this month's meeting date.

The Program is:

UWRF Geology Field Trip to Hawaii

St. Croix Rockhound's
LEAVERITE NEWS
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Member of: AFMS & MFW MID WEST 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	Dick Blom	(651) 735-2323
Vice President	Dave Klinkhammer	(651) 776-8046
Secretary	Elaine Martinsen	(715) 247-3700
Treasurer	Vic Martinsen	(715) 247-3700
Program Committee	Pete Rodewald	(715) 425-5561
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Show Committee	Bill Cordua	(715) 425-9544
	LeRoy Betlach	(715) 425-5948
Refreshments	Freya Kask	(651) 777-6371
Librarian	Jeanne Blom	(651) 735-2323
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
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Tour Directors	Vi D'Angelo	(651) 665-9067
	Karen Barenz	(651) 776 8525
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 16th - The Saint Croix Rockhounds meeting starts at 7:15 pm at Stonebridge Elementary School in Stillwater, MN. The program will be "UWRF Geology Field trip to Hawaii" a slide show of the June, 2001 field trip. Twenty-one students and two faculty member got up close and personal with lava flows, stood at the southernmost point in the United States and near the top of the world's largest mountain, swam with the turtles and snorkeled over coral reefs. Presented by Dr. Mike Middleton of University of Wisconsin: River Falls.

Coming Attractions

October 16th: St. Croix Rockhounds meeting starts at 7:15 pm in Stillwater, MN

October 19-21st: Three Rivers Show in Fort Wayne, IN at the Allen County Fairgrounds, 2726 Carroll Rd.

October 26-28th: Central MI Lapidary and Mineral Soc. Show at Marshall Street Armory in Lansing, MI.

November 2-4th: Southeast Federation Show in Pascagoula, MS

November 3-4th: Madison Gem & Mineral Society show; Turner, 3001 S. Stoughton Rd., Madison, WI

Minutes of the Saint Croix RockHounds
September 18th, 2001

The meeting was called to order by the President, Dick Blom. There were 19 present. The minutes from the May 14th meeting were approved as published in the Leaverite News. The Treasurers report was read and approved. Victor requested approval to pay the school for the use of the room $102.50 and the bill for the news letter $68.64. A motion was made and seconded to pay the bills.

Freya will reserve the Country Buffet for December 5th Christmas party. A motion was made to combine the December meeting with the Christmas party. The motion was carried. Bob reported Vie received news her son and daughter in-law were killed in a car accident. We all extend our deepest sympathy to Vi DiAngelo and her family.

Victor Martinsen reported on the field trip to Keokuk, Iowa for Geode hunting on Memorial weekend.

LeRoy Betlach reported on the limestone quarry field trip on July 28th. Cassandra found some nice fossils. LeRoy had a thank you gift made for the owner of the quarry. John Parson reported on Fairborn trip.

Susan Dustin reported on her trip looking for Lake Superior Agates. Victor Martinsen reported on the Midwest Federation Show in Rice Lake, WI September 7th-9th. Pete Rodewald had a very good display. Floyd Kimball was in the St. Paul paper this summer for his peony collection. Pete was recognized in the Midwest Federation Newspaper.

Our next meeting is October 16th. The program will be on Fossils. Meeting was adjourned. The silent auction and refreshments followed.

Respectfully Submitted
Elaine Martinsen, Secretary

Celebrate! October's birthstone is opal and tourmaline.

To ancient Romans, the opal was a symbol of love and hope. Orientals called it the "anchor of hope." Arabs say it fell from the heavens in flashes of lightning. It was believed to make its wearer invisible, hence the opal was the talisman of thieves and spies.

During the Medieval period, a change in color intensity of an opal was believed to indicate if its wearer was ill or in good health. 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. When worn by someone struck with the deadly plague, it would appear brilliant only until the person died. Then it would change in appearance, losing its luster. In reality, it was the sensitivity of this stone to changes in temperature that altered its appearance, as the heat from a burning fever gave way to the chill 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 alternate birthstone for October is the tourmaline. Compared with other gemstones, tourmalines are a relatively recent discovery and lacks the rich lore that accompanies many other precious gems. However, among some people, the stone is known as the "peace stone," believed to dispel fear and make its wearer calm.

October birthdays:

LeRoy Betlach – 3rd
Floyd Kimball – 10th
Roslynn Runia – 24th
Vi D'Angelo – 26th

October Anniversaries:

John and Sandy Parsons – 11th

Lake Superior Agates *by George J. Hartman*

Lake Superior agates have an endless variety of colors and patterns that rival all the other agates in the world including Brazil, Botswana, Laguna, Montana, and Kentucky. Lake Superior Agates include fortification, carnelian, eye, picture, crystal center, occasional amethyst, crystal line and half-breeds called jasp-agate. It is impossible to have more than one of a kind of Lake Superior agates because no two are alike. To the best of my knowledge Lake Superior agates do not originate in the lake. Back in the '70s I was told that a party backpacked into the Superior National Forest in the northeast part of Minnesota and located the eroded remains of gravel deposits which are still indicated in Geodetic Survey maps. They said the incidence of agate was high in the aggregate gravels. I have since scouted many of the depleted gravel deposits accessible to highways southwest of this area. It is apparent that these deposits were used to build roadbeds.

Glacial movement moved these gravels south into Lake Superior and west to the Mississippi River and beyond. Agates found near the source are difficult to identify since many of them are solid nodules that have not been fractured by glacial movement and river action. Lake Superior agates have been found all the way down to New Mexico and west through Minnesota.

To the best of my knowledge the only true Lake Superior agates were found in the east bay of the lake near Mischipecotin Island in 20 feet of water by skin divers. They did not choose to sell any of the goodies they found to a dealer on the mainland. Rumor has it that when the dealer learned where the area was, he went in with heavy diving equipment and wiped out the area. The story goes on to say that all the material was shipped to Germany. The unique thing about these agate nodules is that they are shaped like a turtle shell. The original finder had up to 60 pounds. *from the Fractured Agate 7/01*

Lake Superior Agate *by Maynard Green*

Lake Superior Agates were formed in a range of volcanic mountains in Canada. Glaciers from further north leveled these mountains on their way southward, crushing the basalt and freeing the agates. Glaciers deposited the agates southward then for hundreds of miles throughout several states. The name Lake Superior agate was given to them because the glaciers which deposited them were called the Lake Superior Drift.

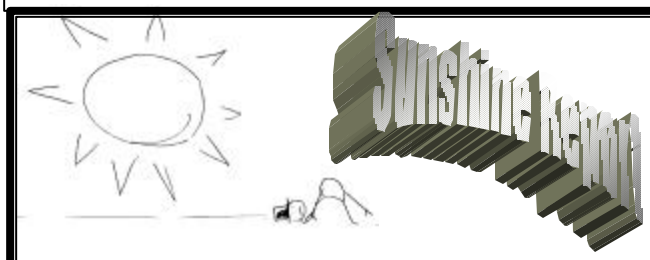
Because of the grinding and crushing action of the glaciers, most agates found are only fragments of agates, however, a rockhound may on rare occasions find an unbroken one. So we must learn to look, not only for the band and inside coloring, but also for the smooth and glassy surface and pockmarked appearance characteristic of Lake Superior agates. The commonly accepted theory seems to be that the Lake Superior agates were formed in volcanic basalt in gas pockets that failed to escape as the lava cooled and hardened.

…(continued on next page)

2001-02 Club Meeting Dates

October 16th
*****November 12th**
*****December 5th (X-mas party)**
January 15th
*****February 12th**
March 19th
April 16th
May 21st

****This date is NOT the third Tuesday of the month*



Heartfelt condolences to Vi D'Angelo for the deaths of her daughter and son-in-law. A card was sent September 16th.

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

Lake Superior Agate by Maynard Green (continued from previous page).... Silica rich liquids later circulated within these pockets, gradually depositing layers of silica which gelled and eventually hardened, forming a complete agate when the pocket was filled.

Because of variations of temperature, pressure, and amounts of mineral content on the circulating liquids, different formations took place in the same cavity as the agate was being formed. First a layer of agate may have formed, then conditions changed and a layer of quartz crystals developed. Then, perhaps, another layer of agate, and so on. We have in this case, alternating bands of agate and crystal which forms such a pleasing pattern.

The Sagenite agate occurred when a cluster of crystals formed in some gas pocket in the basalt. These may have formed as clusters or as simple crystals, sometimes coarse, sometimes as fine hairs, depending on the type or variety of crystal. After the crystal formed, circulating liquids completely filled the cavity and surrounded the crystal with agate.

The Tube Agate is a variety of Lake Superior agate. While no circulating action occurred there was enough moisture from seepage to form a dripping action from the ceiling of the cavity to form a cluster of agate stalactites, much like those found in a cave. Again, silica circulating in and out completed the agate and completely surrounded the cluster of stalactites.

Another fairly common type of agate is the onyx or water level agate. In this case liquid seeped into the cavity, but only enough quantity to lie motionless for a period of time and eventually form a flat layer or band. Layer after layer was built up until the cavity was filled or, in some cases after several layers were built up, more liquid entered the cavity so that the circulating motion began again producing a fortification pattern on top of the layer agate.

Eye agates have long been a favorite. They are not plentiful by any means. They differ from the tube agate in that they usually appear to the surface of the agate like a saucer or half ball and do not penetrate deeply into the agate, as do the tubes. They may have formed as droplets of moisture on the cavity walls. They never collected enough moisture to start dripping or running. Eventually they jelled and hardened with later circulating liquids; coming in and completing the agate.

Jasper agates, or as many rockhounds say jasp-agates, are usually opaque, except for the agate patterns often mixed in. Many have patches of black hematite, or often the patterns are plump-like. They are relatively free from fractures.

One of the most neglected of the Lake Superior agates is the MOSS agate, which is passed up by many and not recognized by others. No two patterns alike are found and the variety seems endless. They are relatively free of fractures and can run larger in size than other agate types.

It is possible to see several different types formed into a single agate. VARIEGATED agate is one of the most interesting types with an endless variety of combinations.

Some of the other rare types of Lake Superior agates include the very rare PLUME agate, an agate within an agate, agate with an amethyst quartz center radiating out from a tube pattern, SHADOW agate which must be tilted back and forth to see the movement of the shadow, RUIN agate with its pattern of breaks, FAULTED agate in which the series of bands were broken apart and the space between filled in with agate, and the GEODE agate.

Most agates range in size from less than an inch up to ¾ pounds. Anything over ½ pound is considered rare and over 2 pounds, very rare. The amazing thing is that all of these various types may be found in any one spot being hunted. Gravel pits are the prime target for the agate hunter, although they are found wherever gravel is to be found, such as lake shores, river beds, gravel roads, new graded roads and even farmer's fields. *from Rock Lore, via the Shawmish Roktawk 3/01, via Quarry Quips 3/01 via the Fractured Agate 7/01*

Stolen Gems

Test for Topaz: Quartz and topaz are not easy to separate by eye, and are sometimes impossible when the quartz is true topaz color. There is a big difference in price in the two and anyone describing quartz and topaz; however innocently, may well be in trouble. Topaz is quite a different mineral, which is harder than quartz. Because of this, a drop of water will not spread on topaz, but will on quartz. Clean the stone with a cloth to remove all traces of grease. It must be dry before the test. Then place a small drop on it with a thin glass or metal rod. *from Crystal Cluster 10/98 via Greater Cinti L&F Society 07/01 via Brukner Rockette 08/01 via Chip & Lick 06/01 via Achates 10/01*

Spotting Cracks and Vugs: To spot cracks and vugs before sawing, first soak it in a tub of water for at least an hour. Remove the rock and place it in a sunny spot. The surface will dry quickly, but the fractures and vugs will not. Use a soft pencil to mark the rock for guidance in sawing. *from Rockatier via Stoney Statements via the Trilobite 11/00*

Jasper and Agate: A word or two about working jasper. You will find that jasper is much more troublesome to polish than agate because many varieties are "earthy" and porous and many others contain hematite, which is very difficult to polish. If you are on a field trip, a good way to test for jasper is to wet it. If it absorbs the water and dries rapidly, throw it away. It will not polish. If it stays wet and does not dry right away, it contains a high amount of chalcedony (quartz) and will take a good polish. Most jaspers polish well on leather with Linde A, but good results can be obtained with tin oxide on either leather or felt. Always remember that a fine sanding job is the secret for good polishing. *from T-Town Rockhound via Stoney Statements via the Trilobite 11/00*

Jewelry Soldering Errors:

1. Balling of solder…improper flux, dirt, oil, insufficient heat, flame concentrated on solder instead of on the base metal.
2. Solder pops off: poor or dirty flux or pre-heating metal too fast.
3. Solder doesn't flow in joint: dirt or oxides in joint, insufficient fluming, uneven heating.
4. Solder seams show: poor fitting joint, too much solder, not enough heat
5. Solder joints break: poor fitting, not enough solder, too little heat to case bond.
6. Lumping of solder: not enough heat and fluming.
7. Base metal fuses: too much heat, solder fluming too high.

from Lap Jour 4/62 via the Template via Rock Chips 6/01

If you have some nice amethyst crystals that need cleaning up a bit, try soaking them in oxalic acid for a few hours. This is a powder you mix with water and heat to 200 degrees but don't boil. It is also great for quartz crystal cleaning. It will enhance the color of amethyst also. Be sure to follow the instructions on the package. *by Mike McGuire in the Agate Explorer 6/01*