

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



March, 2004

First Class

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

March 16th - Is this month's meeting date.

The program:
"Venezuela's Ancient Tepuis"



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	()
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
	LeRoy Betlach	(715) 425-5948
Refreshments	Freya Kask	(651) 777-6371
Librarian	Helen & LeRoy Betlach	(715) 425-5948
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
	Esther Rodewald WI	(715) 425-5561
Tour Directors	Vi D'Angelo	(651) 665-9067
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!

March 16th : The St. Croix Rockhounds club meeting at the StoneBridge Elementary School at 7:15 pm. The program is a video: "The Lost World – Venezuela's Ancient Tepuis" about a living fossil ecology.

COMING ATTRACTIONS.

March 16th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

April 4th: **St Croix Rockhounds show** at the Valley Creek Mall in Woodbury, MN

April 17th: Rock, Gem & Mineral Auction, Dorshorst Auction Bldg, 113 N. Main St, Hwy 73, Deerfield, WI. Call Pat at 608-838-3523, or see www.geocities.com/dorshorstauction

April 20th: St. Croix Rockhounds meeting at Stonebridge Elementary School at 7:15 pm

April 24-25: Chippewa Valley Gem & Mineral Society show in Eau Claire Expo Center

April 23-25th: 2004 Midwest Federation Convention and Show in Cedar Rapids IA. See www.angelfire.com/ia3/cvrms for information

April 24th: Agate and Marble Show at Westside Church Parking Lot in Aitkin, MN on Hwy 210 W

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

June 19th: Rock Swap Meet at Osseo United Methodist Church, 2190 8th Ave in Osseo, MN

July 7-11th: AFMS/Eastern Federation Show in Syracuse, NY

Minutes of the Saint Croix RockHounds February 17th, 2004

The meeting was called to order by Vice President, Mike Frankenberg.

The Treasurer's report – no treasurer.

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

New people attended tonight: Ryan, is a student of Bill Cordua's. Also, Wendy and Dave Flynn who heard of us through Berg's Rock shop.

Committee Reports:

Show-Bill Cordua reported that the date is April 3, 2004. Signup for tables will occur at the March meeting.

Field Trip – A date has be set for a field trip to the Upper Peninsula of Michigan to visit some of the copper mine tailings – June 11-13, hopefully to be led by Peter Rodewald or Vic Martinsen.

Library-Mike and Shari now have the library and are taking requests.

Program-Tonight's program is a slide presentation and specimens of Iris Agates by Peter Rodewald.

Refreshments-thanks to Doug Olson and June Shalander for tonight's snack. March snacks will be provided by Avis and David Klinkhammer and Lin Rawlings.

New Business- none

Door prizes: Iris agate was the door prize provided by Peter Rodewald and were won by Wendy Flynn and Doug Olson.

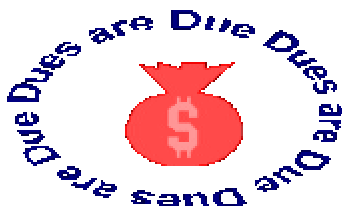
The meeting was adjourned at 7:40 pm.

Respectfully submitted,

Shari Frankenberg, Secretary pro tem

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

*Elaine Martinson
1938 Co. Rd. I
Somerset, WI 54025*



Celebrate!

March's birthstone – two birthstones -- aquamarine and bloodstone. The name aquamarine was derived by the Romans, "aqua" meaning water and "mare" meaning sea, because it looked like sea water. Aquamarines were believed to have originated from the jewel caskets of sirens, washed ashore from the depths of the sea. They were considered sacred to Neptune, god of the sea. This association with the sea made it the sailors' gem, promising prosperous and safe voyages as well as protection against perils and monsters of the sea. The Aquamarine has been thought to bring intelligence, youth and happiness.

The second birthstone for March is the bloodstone. It's a favored material for carving religious subjects, particularly the crucifixion. According to legend, bloodstone was believed to have formed during the crucifixion of Christ. A Roman soldier-guard thrust his spear into Christ's side and drops of blood fell on some pieces of dark green jasper lying at the foot of the cross, and the bloodstone was created. Roman soldiers wore it as it was believed to prevent bleeding to death.

In the Middle ages, bloodstone was believed to hold healing powers, particularly for stopping nosebleeds. Powdered and mixed with honey and white of egg, it was believed to cure tumors and stop all types of hemorrhage.

March Birthdays:

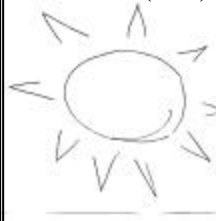
Avis Klinkhammer 4th

Doug Olson 27th

Rodney Harvey 31st

March Anniversaries: None

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



Iowa Coldwater Agate

Ellis Voss of Westside Agates in Ames, IA has seen an Iowa coldwater agate sell for 1,000 dollars. Did that get your attention?

You do not have to travel to Arizona for serious rockhounding. Iowa is as good as it gets in some categories: geodes, fossil paleozoic marine fauna, and coldwater agates.

We find two kinds of agate in Iowa. Lake Superior agates were formed in vesicles in basalt around the Lake Superior region and transported in Iowa glaciers. The agates we find in gravel are Lake Superior agates. Coldwater agates form in limestone and are native to Iowa and some other Midwestern states. They are found in limestone quarries and occasionally in roadcuts or stream beds where they have eroded out of nearby limestone exposures.

Of course, not all limestone contains coldwater agate. Iowa's best coldwater agates are found in quarries in Keokuk County. The best of these quarries is the Kaser Corporation Quarry near Keswick. The Kaser Corporation is now a wholly-owned subsidiary of Martin-Marietta, and the area is closed to collectors. (However, some people on the inside track will give a sly wink and say, "not necessarily". Maybe Arsen can work his persuasive magic and get us in there for a field trip sometime. The first time Jo, Luke and I went to Keswick Quarry, we thought we were in heaven. The roads were paved with agates: not keepers, but tantalizing enough to make our hearts pound as we headed for the nearest spoil banks. Here I quickly found my first ever geode, then another. We also found a number of specimens of coldwater agate with which we were thrilled, but which (we now know) pale in comparison to the agate found there by people who know what they are doing.

We carried our buckets full of what we considered trophy specimens up the long steep read to the car, exhausted but exhilarated. We had never even dreamed of rockhounding like this. We paused to rest half way up the road, watched the full moon rise over the quarry walls and thought, "Life doesn't get any better than this!"

We went back several times that summer, always searching the spoil banks, and always finding nice material by the bucketful. Then permission to search became hard to get, and I was ready to get back to fishing anyway. The guys who found the monster agates, we later found out, did not search the spoil banks. They knew which strata contained the best agate, and searched where new openings had been made in these strata. I have seen some of these guy's agates, and the best of them, in my opinion, far outshine Brazilian agates and thundereggs.

Beautiful coldwater agate can also be found in the quarries, roadcuts, and bluffs near the Cedar River in Benton County, and the Maquoketa river in Delaware County. These are less colorful than the Keswick agate, but still provide the Iowa rockhound an opportunity to find large, well-banded agate nodules that are great for lapidary work.

The coldwater agate of Story County is not well known and rather hard to find. Most of it is of lousy quality, but a small percentage is very attractive and good sized with nice wide, starkly contrasting banding in black, white and orange. The only way I know of to find it is to search the creek beds and hope your serendipity kicks in that day. If you know of a better way to find it, please let me know.

The question of etymology always arises in any discussion of coldwater agate. The term was first used to describe a banded chalcedony found in limestone matrix in Wisconsin, and seems to have been coined by amateur rockhounds. Scientists generally prefer the term "banded chalcedony" since this material is more opaque than the "true" agates! (ie, those found in igneous rock.) This is only speculation, but I think the adjective "coldwater" is applied to his material because the limestone matrix evokes coldness, while the igneous matrix of other agate evokes heat. This is a not-quite logical folk etymology, since both matrices were equally cold by the time the agate was formed. *by Rick L. Olsen via the Rockpile, via the Kettle Krier via the Fractured Agate 03/04*

Mineral Collecting in the Western Upper Peninsula of Michigan

by George Judd, Mineralogy Chairman MWF

Since I ran out of state gemstone and minerals for states in the Midwest Federation I thought I would start with collecting areas in the Midwest that I have collected at and would be of interest to Midwest Federation members.

For the last thirty-five years the Copper Country in the Western Upper Peninsula has been my favorite collecting spot, not only for minerals but the scenery and many interesting sites that are available. There are motels in Houghton along with campgrounds at state parks, city parks and privately run ones. Most of the time I stay at the Hancock city campground right next to the canal. It's also nice because it's about halfway between Copper Harbor and Ontonagon so the traveling distance either to the north or south can be done in a fairly short amount of time.

The several hundred copper mining claims that are found in the counties of Keweenaw, Houghton and Ontonagon have produced over one hundred different minerals although many are quite rare. The most sought after minerals are Copper, Silver and a combination of copper and silver called half-breeds along with datolite. There mines were active from 1845 to 1969 and produced 12 billion pounds of copper worth \$2.26 billion dollars.

The first thing to do before you go collecting is to visit the Seaman Mineral Museum on the campus of Michigan Tech. University in Houghton located on the first floor of the Electrical Energy Resources Center. It has the worlds finest display of minerals from the Copper Country. The museum is where you can see the minerals you will be looking for on the mine dumps.

We will start our collecting trip up north near Copper Harbor and Fort Wilkins (a state park), where the first copper mine that I collected at can be found. This is the Clark mine. Native copper can be found along with calcite with copper inclusions and once in a while datolite can be found along with epidote, prehnite, and native silver.

While you are this far north Copper Falls mine is another good spot to hunt. Datolite in several colors can be found along with crystals of analcite. Needle-like crystals of natrolite are also found with the analcite.

At the Delaware mine you can find native copper and silver along with domeykite, epidote, laumanite and prehnite. Also I have found several datolites there.

A little farther south is the Central mine where you can find native copper and silver, prehnite, epidote, chlorastrolite, laumanite, and domeykite. The same minerals can be found at the Phoenix mine a little farther south of the Central mine.

Next a little farther south you will find the Mohawk and Ahmeek mines where you can find native copper, domeykite (mohawkite), algonite and quartz.

As you got to Calumet you can go to the Osceola mine where I've found native copper and silver along with very nice prehnite, epidote, datolite and quartz.

At Houghton is the Isle Royale shafts. Most of the piles have been crushed and used for road and landfill although much nice specimens have been found there, especially copper and silver.

Further south in the town of Painesdale you will find the Champion mine where many fine copper and silver specimens have been found. A few years ago I was able to dig out a large copper specimen weighing 42 lbs with crystals at one end.

As you enter Ontonagon County there are three mines right together. They are the Adventure mine, Mass mine and Ridge mine. You can find native copper and silver, epidote, quartz and calcite.

One of the only operating mines left is the Caledonia Copper mine in Ontonagon County. You can taken on a tour through the mine by local geologists. Also you can collect copper, silver, datolite and calcite. You can also buy specimens and books from Red Metal Minerals, P.O Box 445, Hubbell, MI 49934. Phone (906) 296-9440.

The best ways to collect minerals from Copper Country is to attend Keweenaw Week in August. Every day there are field trips to different mines where bulldozers have removed the top layer of rock to let you get down where the good specimens lay. Besides you'll get great help and instructions from the people running Keweenaw Week. It's a great way to learn about mineral collecting in Copper Country.

References: (1) M. Wilson, S. Dyl II, (1992) The Michigan Copper Country
(2) W. Vogtmann, (1998) The Rockhound's Michigan
(3) E. Wm. Heinrich (1976) The Mineralogy of Michigan

Stolen Gems *St Croix Rockhounds Leaverite News*

A use for old CDs: Try using them for final polish on your faceting machine. Rinse one with water and a little detergent, and place it on top of the last cutting wheel. Center it reasonably well, as the hole is slightly larger than the shaft, and clamp it down. It should be good for several stones. *from the Clackamette Gem 01/04 via Emerald Gems 02/04*

To reclaim cutting oil, put in a milk carton, add a small amount of water; let the sludge settle for a few days, then put it in the freezer. The water will freeze and the oil will have risen to the top. Then, all you have to do is pour the oil off. *from the Sooner Rockologist 3/03 via Rock Chips 11/03 via Agate Explorer 12/03*

Tips for beadings: Silk thread is very strong and is great for stringing but it lacks abrasion resistance. Nylon thread has abrasion resistance but it is not as strong as silk and also stretches with the tension required for beading.

The solution: use silk on non-abrasive materials such as pearls, turquoise, mother of pearl, lapis. Use nylon of abrasive materials such as onyx, metal beads, amethyst, rose quartz. To eliminate stretching after you have carefully knotted a strand with nylon, suspend the cord on a doorknob (several loops are okay) then hang a pliers from the loops and leave overnight. the nylon is now pre stretched and will not become loose after being strung. *from Wasatch Gem Soc. 1/95 via Gem Time 4/95 via Stoney Statement website*

Slice a thick slab in two? Might you want to slice a thick slab in two? Clamp a rock in the vise and cut it. WITHOUT CHANGING THE ROCK, clean the face of the cut, and glue the thick slab to it. Clamp until the glue dries. Use water soluble glue in an oil cooled saw, acetone based glue in a water cooled saw. Now cut your slab. The cut will be exactly parallel to the slab face. *from Strata Data, via The Trilobite 2/95*

True Blue Beryl: First there were diamonds in the early 1990s, then the emeralds in 1998, and now the deep velvety blue beryl was first found in 1976, but was not identified at the time. The rediscovery was made in August 2003 by Bill Wengzynowski, president of Archer Cathro and Associates, and Dr. Lee Groat, Professor of Earth Science at the University of British Columbia. Using research money from True North gems Inc. and others, their team was out prospecting for more emerald localities when they came upon glittering blue rock bits. At the time, they were about 100 kilometers northwest of True North Gem's existing emerald project, Regal Ridge, in the Yukon Territories.

At first, the team's blue specimens were thought to be the second occurrence of maxixe beryl, first discovered in Brazil. However, physical test results showed that the True Blue Beryl, unlike maxixe, is stable in the presence of light, and does not fade over time. Also, Brazil's maxixe is almost pure $\text{Be}_3\text{Al}_3\text{Si}_6\text{O}_{18}$ and its color is due to natural irradiation. Canada's blue beryl is very high in iron, sodium, and magnesium, and its color is due to substitutions in the crystal lattice, probably of iron.

In fact, True blue Beryl is a new type of aquamarine. However, compared to aquamarine, it is generally more blue, has higher refractive indices, greater specific gravity, different absorption spectra, and is very pleochroistic. True Blue Beryl has the highest iron content reported for beryl, or for gem beryl for that matter.

Geologically, True North Gems describes the environment as "a warm of closely-spaced quartz-carbonate-tourmaline veinlets that cut a Mississippian (320 Ma) fluorite-bearing syenite rock". The veins range from 0.5 to 20 cm in thickness. The blue beryl crystals range up to 2.5 cm across. It appears that the beryl has replaced tourmaline. Not a bad trade perhaps.

Sources: "There are Gems in Those Hills", article by M. Munro in the Regina Leader Post 8/03. "True Blue Beryl Fact Sheet", on True North Gems Inc. website (<http://www.truenorthgems.com/s/home.asp>) click on "Photo Gallery" for pictures of crystals. -from the Pegmatite 01/04 via the Rock Collector 01/04 via Rockhound News via Agate Explorer 03/04