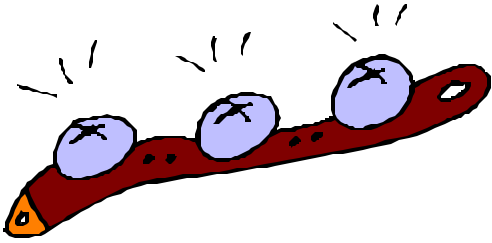


St. Croix Rockhounds
Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082



December, 2004

First Class

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

December 7th - Is this month's meeting date.
***The program: X-mas dinner at
the Old Country Buffet***



St. Croix Rockhound's

LEAVERITE NEWS

Vol. 29, Issue 10; December, 2004

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!

December 7th : At a special place and time. The St. Croix Rockhounds club meeting is to be held at the Old Country Buffet in Maplewood at 6:30 pm. Fun and frivolity and maybe a meeting at our annual x-mas dinner.

COMING ATTRACTIONS.

December 7th : St. Croix Rockhounds meeting and x-mas dinner at the Old Country Inn Buffet in Maplewood starting at 6:30 pm.

December 10-12th : Southeast Federation Show in Norcross, Georgia

December 11-12th : Anoka Co Gem & Mineral club show at Faribo West Mall in Faribault, MN. For info call Stephan Huber 763-935-2083

January 18th : 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

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

November 16th, 2004

President, Vic Martinsen at 7:20, called the meeting to order. The **Treasurer's report** was approved as read by Elaine Martinsen. Elaine also encouraged all of us to pay our dues if we haven't done it yet. The dues are \$7.50 for an individual and \$10.50 for a family. The club insurance has gone up to \$3.50 per member.

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

Committee Reports:

Refreshments -Thanks to all club members and our tireless Freya Kask for providing tonight's treats.

Sunshine Committee -We all miss Dick and Jeanne Blom and would like to get in touch with them but wonder if they have a new phone number. We also extend loving thoughts to two of the Kask's grandsons who are in the military.

Newsletter -Doug Olson reminded members that ALL of us are invited to share articles for the club newsletter.

Show - Our club's educational show date is March 19, 2005 from 9:00-5:00 at the Valley Creek Mall in Woodbury. Members are encouraged to create a display of any size as this is a way of educating prospective members, especially children, about our wonderful hobby.

Library - no report

Old Business -none

New Business -Mike Frankenberg created a clever flyer which could be placed in several local stores and libraries as a way of attracting new members and visitors. He will revise it and bring some to the December meeting. He and/or Elaine Martinsen will also place ads in local newspapers. Elaine contacted the Stillwater Gazette which discussed our club and tonight's meeting in the community events section.

A special guest, Sandy Fuller, who is the state director for the Midwest Federation talked with us about the Federation. She said that several excellent slide shows or video presentations have been created by various clubs, and tonight's program on agates from Germany was one created by another club. She also suggested that we submit our excellent newsletter created by Doug Olson for an award.

Program -Tonight's program is a presentation by Pete Rodewald on "Agates from Germany"

The meeting was adjourned at 7:35 pm.

Respectfully submitted,
Susan Dustin, Secretary

Celebrate!!! December now has four(?) birthstones, turquoise, zircon, tanzanite and blue topaz (on some lists).

The vibrant turquoise was believed to be a defender against bad luck to those that wore it. It has been said that cowboys always carry a blue turquoise on their journey's so that they might be blessed with success. A present day addition is the Zircon, whose naturally found brown clear crystals are heated to turn into the beautiful blue gemstone

December birthdays:

Eloise Kimball - 1st

Robert Olson - 8th

Brad Bonse - 31st

Sandy Dustin - 31st

December Anniversaries:

Avis & David Klinkhammer - 28th

Dave & Wendy Flynn anniversary - 29th

My son has no problem with 2004 ending, but my own internal clock can now finally believe that 1994 has ended. Must be a sign of age - ed.

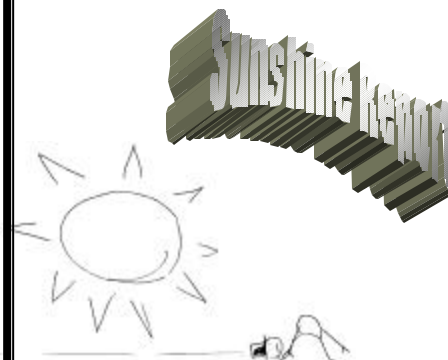
NEW MEMBERS!!!

Christopher Chvala from St Paul

June Young from Hugo

Mark Rasmussen from Stillwater

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



Quartz State Mineral of Arkansas by George Judd G.G. Mineralogy Chairman

Quartz is among the most beautiful of gemstones, yet it's surprisingly cheap because of its great abundance. How abundant? It's the most abundant mineral on Earth, so almost every rock has a little quartz in it.

Quartz is made of silicon dioxide (SiO₂). Quartz and other mineral made of silicon dioxide are grouped in the class, silicates. Quartz is also the most varied mineral. Specimens vary according to color, shade, transparency, size of crystals and crystal form. There are hundreds of unique quartz varieties.

Things that are made from silica include glass, optical lenses, electrical components, abrasives, and gemstones and building stone.

It takes great heat to melt silica. Most quartz is a souvenir of volcanoes, which melt silica, which is then carried by water into crevices, where it crystallizes. Such quartz often includes traces of other minerals picked up by water flowing underground.

But a different process is thought to have created the fabulous quartz crystals of Arkansas' Ouachita Mountains. As the mountains rose, millions of years ago, enormous forces were created. Trapped sea water, buried perhaps tens of thousands of feet underground, was squeezed out and heated to perhaps 500 degrees Fahrenheit. The ancient seawater contained less dissolved minerals than rock melted by igneous (volcanic) sources.

Quartz crystals from Brazil and Chile (formed in association with volcanoes) can be well formed. But Arkansas quartz is purer and clearer. In fact, the finer crystals are pure enough to manufacture synthetic quartz components in computers. Sometimes called "Arkansas Diamonds" or "Hot Springs diamonds", Arkansas quartz crystals are

also sold to mineral collectors, tourists and museums around the world.

Clear quartz crystals from the Coleman Mine, Arkansas' oldest quartz mine and one of the largest, is recognized as some of the purest in the world. The National Bureau of Standards uses samples from this mine to judge the chemical purity of quartz worldwide.

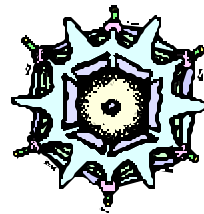
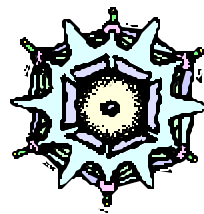
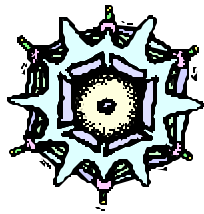
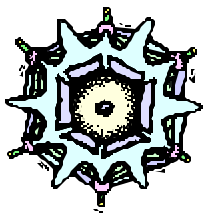
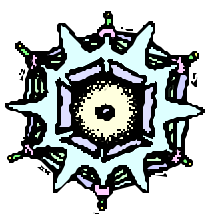
The quartz crystal was named Arkansas' state mineral in 1990. What better geological symbol for the Hot Water State than water-clear quartz, a souvenir of hot seawater?

Most of the mines are located in the area around the resort city of Hot Springs and the small Ouachita Mountain town of Mount Ida. Whether you are a beginning digger or an experienced rockhound you are sure to find a sport at the various mines well suited for you. At these mines, there are areas where crystals are literally lying on the ground and all you have to do is pick them up. Often the only equipment needed is a screwdriver or a small garden tool to loosen the dirt and a bucket to hold the crystals. And for avid rockhounds there are also spots where experience is needed along with a good crowbar or chisel. Regardless of the area you dig in, it is best to wear old clothes and shoes because you will get dirty.

Unlike the gold mines in the old Western movies, there are no tunnels to explore. Instead, the crystal mines consist of pits around exposed hillsides where backhoes and bulldozers have removed soil and clay in search of the quartz veins that run through the ancient mountains.

For more information on the Mount Ida area, contact the chamber of commerce at P.O. Box 6, Mount Ida, AR 71956. Visit their website at

www.mtidachamber.com. from MWF Newsletter 09/03



Field Spar by -Dr. Bill Cordua, U. Wisconsin- River Falls

Feldspars are the most common mineral group in the crust. The name has German roots meaning essentially “coarse mineral in field stone”. This suggests how common feldspars are, turning up in most of the stones of the field, common as weeds.

It is hard to find crustal rocks that don't have some feldspar in them. Most igneous rocks, such as granite, rhyolite, gabbro and basalt have lots of feldspar, and are often named based on the kind and proportion of feldspar in them. Metamorphic rocks such as schist and gneiss have substantial feldspar. Some sedimentary sandstones, such as the arkoses have significant feldspar. Feldspars, though, are less common in sediments, as weathering breaks them down to clays. Much clay in soil likely started out as feldspar.

Feldspars are really a family of minerals that are related structurally and chemically. There are some properties they all have in common. They are all non-metallic in luster. They all usually form blocky grains breaking along two directions of cleavage that intersect at close to 90 degrees. They are 6 on the Mohs hardness scale, unless they've been softened as a result of weathering to clay minerals. They can have many colors, but are most often white, gray, tan or pink.

The feldspar group has two major subdivisions: potassium feldspar and plagioclase feldspar.

Potassium feldspar, also known as K feldspar or K-spar, can take on several crystalline structures, forming the minerals orthoclase, sanidine and microcline. Adularia is a low-temperature form of orthoclase. These minerals differ primarily in the distribution of aluminum and silicon in their atomic lattices. They are very common in granitic rocks. Wisconsin's red granite is dominated by K-spar stained red by tiny inclusions of hematite. The pale pink grains in the St. Cloud, MN granites are also K-spar. But beware of using color to I.D. minerals! Much K-spar is white, and some are more exotic colors. Blue green amazonite, for example, is a K-spar. Some may show pretty plays of color (schiller), forming moonstone and larvikite. The identification of K-spar as microcline, orthoclase or sanidine can't be done reliably without X-Ray diffraction analysis, so most geologists simply refer to them as K-spar when seen in hand specimen.

Plagioclase feldspars are a group of calcium and sodium minerals. They are distinguished by the proportion of calcium to sodium. Anorthite, albite, labradorite and bytownite are all types of plagioclase feldspar.

Clevelandite is a type of highly sodic plagioclase (albite) found as platy crystals in pegmatites. These are usually white, gray, or greenish, but may be other colors, including red and black. Some show beautiful plays of color known as labradorescence. The calcium to sodium ratio in a plagioclase can only be determined by chemical or optical analysis, so it is best to I.D. these in the field solely as “plagioclase” without trying to be too specific.

For field I.D., then, one only has to decide if the feldspar is K-spar or plagioclase. How is plagioclase distinguished from Kspar? It's a bit tricky. The best way is to look for striations. Striations are ruler-straight grooves (similar to the grooves on phonograph records for you old-timers who remember phonograph records) found on about 1/2 of the cleavage surfaces. Plagioclase has striations; K feldspar does not. The striations can be seen best using a magnifier on a freshly-broken surface. Keep tilting the sample to get the light to hit off the cleavage face, and you should see them if they are there. Remember they show up only half the surface. They are also destroyed by weathering. Even handling the sample obliterates them by filling the grooves in with oils from your fingers (I call this “student weathering”). Get used to what they look like by looking at labeled samples. Be persistent. Students HATE looking for these.

Another word to the wise. Minerals other than plagioclase (i.e calcite and tourmaline) have striations, so remember to apply the test on minerals that you know to be a feldspar of some sort.

Not sure about striations? Can't tell if its plagioclase or K-spar? Just call it feldspar, and be glad you aren't in my mineralogy class.

HOW DO YOU CARE FOR AN OPAL? The best way is to wear it! Opal picks up moisture from the body which helps keep it in good condition. It should be stored in an airtight jar with some moist cotton. It should not be stored in a bank vault since the pressures could cause layers to separate. Check settings to see that prongs are not too tight. Giving an opal a glycerin bath once in a while will help prevent its drying out and will also restore the fire. Polishing on all sides helps keep the water inside and extends the life of the stone. Opal is a gem that requires a lot of care, but it is worth the effort! *from Chips & Tips, and The Rockpile 6/95 via Stoney Statements*

SELECTING A CHAIN - With many years of repairing chains, we would like to pass along to you some important tips for choosing a chain.

1. Decide if you will be wearing a pendant on your chain. This alone will help determine the type of chain that will give you the best service. Many flat link Italian chains cannot support even the lightest weight pendant.
2. A chain should be smooth. If it has sharp bites when you run it through your fingers, it will be uncomfortable to wear. In time it will wear out whatever you hang on it.
3. A chain should be flexible, especially if you wear pendants. If a chain will not bend, it will kink and often break. You can tell if a chain is flexible by letting it coil in the palm of your hand.
4. A chain should have soldered links for strength. Most flat link chains and Italian style chains are soldered and then run through a rolling mill, which may break or weaken the solder joints.
5. Avoid hollow chains. Gold is an expensive metal. Consumers should be aware that to cut cost, many imported chains are made with hollow links. If you could see a cross section of one of these, it would look like gold foil. How do these chains hold up? They don't. Worst of all, they are impossible to repair. In our shop, we will not repair hollow chains. They are a nightmare.

from The Olson Company of Seattle, Washington, via The Rock Collector, 4/98, via Hound's Howl 6/98 via Stoney Statements

Stones for record keeping. Stones were the basis of record keeping in early Roman times. The shepherd would pile up stones, one for each of his sheep, as they left the fold in the morning. When they returned in the evening, he moved the stones one at a time, to a second pile. If there were stones left over, he knew that some sheep were still outside, and he would go out again to look for them. The latin word for stone is "calculus", hence the shepherd checker was known as the stone man or calculator! *from Sooner Rockologist via Brukner Rockette 1/96 via Achates 3/03*

Malachite Lovers Beware : To those of you who have heard of soaking your polished cabs in vinegar to remove epoxy, take heed. You could end up with a pretty pile of powder. Having recently polished two cabs of malachite, I put them in vinegar to remove a little epoxy, noticing a couple of hours later that the stones didn't look as bright (and they weren't). So I took a gander at ye olde rock book and sure enough, Malachite is copper carbonate ($\text{CuCO}_3(\text{OH}_2)$) which as any self-respecting rockhound knows is subject to a corrosive effect, caused by acid (vinegar) even though it is weak. Carbonate minerals, such as dolomite ($\text{CaMg}(\text{CO}_3)$) or calcite (CaCO_3) are attacked by acids and the carbonate (CO_3) is eaten away leaving a pile of mud where your gem was hours before. So before you clean that stone, check to see if it's attacked by what you're soaking it in or you may not get to wear it. *from Canadian Rockhound 10/78 via Rock Collector 5/02 via Mid-Tenn Gem 'ers 6/02 via Gr. Cincinnati Lap & Faceting Society 9/02 via Chips and Lick 1/03 via Achates 3/03.*