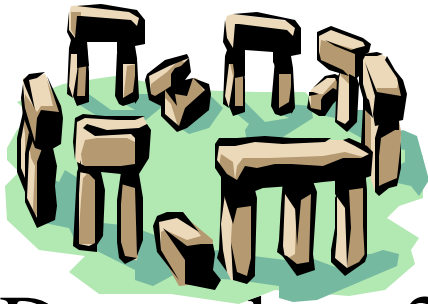


St. Croix Rockhounds  
Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082



## *First Class*

# December, 2005

Please send exchange bulletins to:

Doug Olson, Editor  
211 Interlachen Way  
Stillwater, MN 55082

**December 7<sup>th</sup>** - Is this month's meeting date.

***The program: X-mas Party starts at  
5:45 pm at the Old Country Buffet  
at the Maplewood Mall***



St. Croix Rockhound's

# LEAVERITE NEWS

Vol. 30, Issue 10; December, 2005

Member of:



&



# 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 Rasmussen     | (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!

**December 7<sup>th</sup>:** St. Croix Rockhounds club meeting will be the annual Xmas party at the Old Country Buffet near the Maplewood Mall. Starts at 5:45 pm.

## COMING ATTRACTIONS

**December 2-4<sup>th</sup>:** South Central Federation convention and show in Austin, TX hosted by the Austin Gem & Mineral Society

**December 7<sup>th</sup>:** St. Croix Rockhounds club meeting will be the annual Xmas party at the Old Country Buffet near the Maplewood Mall.

**December 10-11<sup>th</sup>:** Anoka County Gem & Mineral Club Faribo West Mall show in Faribault, MN

### 2006

**January 17<sup>th</sup>:** St. Croix Rockhounds club meeting will be at the Stonebridge Elementary School.

**May 12-14<sup>th</sup>:** Midwest Federation convention and show in Detroit, MI hosted by the Midwest Mineralogical & Lapidary Society

**June 9-10<sup>th</sup>:** California Federation convention and show in Angels Camp, CA hosted by the Calaveras Gem & Mineral Society

**June 9-11<sup>th</sup>:** Rocky Mountain Federation convention and show in Stillwater, OK hosted by the Stillwater Mineral & Gem Society

**July 14-16<sup>th</sup>:** Northwest Federation convention and show in Longview, WA hosted by the Southern Washington Mineralogical Society and the Mt. Hood Rock Club

**November 18-19<sup>th</sup>:** Eastern Federation convention and show in West Palm Beach, FL hosted by the Gem & Mineral Society of Palm Beaches, Inc.

# Minutes of the Saint Croix RockHounds

## November 15<sup>th</sup>, 2005

**The meeting** was called to order at 7:25 by President, Brad Bonse. There were 23 members present along with new member Dave Rusterholtz and guests Angela, Tiffany, Monica, Samantha and Ryan from River Falls and Marty from Spoon Rapids.16

**Minutes** for the September 20<sup>th</sup> meeting were approved as they were written in the Leaverite News with the exception that the reference to Bill Bonse was actually for Brad Bonse.

**The Treasurer's report** was approved as given by Lin Rawlings.

**Programs** – **Mark Rasmussen** reports that tonight's programs will be a presentation with video on the Green River Formation discussing stone working and preparation of the fossils. The December program is the x-mas party with related fun and games. The January program will be the Find of the Year contest.

**Refreshments** tonight are provided by Susan Dustin and Lin Rawlings.

**Trips** – **Vic Martinsen** has nothing new on a trip to Upper Peninsula, Michigan. A sign-up sheet will be passed around at the x-mas party, sign-up or call Vic to let him know you want to come.

Brad was in Northwest Nebraska visiting the agate fossil beds park (no collecting) and looking for Fairburn agates on nearby BLM lands.

**Sunshine Committee:** Vic Martinsen reports that Peter Rodewald is going to St Joes Hospital on Nov 26 to get his prostate removed. Lin Rawlings volunteered to run out and get a card for us to sign tonight –at Brad Bonse's request. Vic will deliver the card.

Doug Olson reported that Marie Newlander is sick.

Freya Kask reported that Phyllis White is done with her radiation treatments.

Susan Dustin is a grandma. Brad Bonse is expecting two grandchildren.

**Show Chairman:** Bill Cordua is not here but we have a show scheduled for April 8<sup>th</sup>, 2006.

**Old Business:** More talk on donating club library materials to other libraries with club publicity inserted. Mark Rasmussen wants to check the books for anything valuable. It was also brought up that some who donated to the club library may wish the materials kept with the club. It is hoped to get the list of materials posted on the club site so people can see what we are dealing with. It was also suggested that we purchase some up-to-date texts for local donations. A call went out for members to look for possible book/magazine recipients.

**New Business:** June Young is the new insurance chair for the Mid-West Federation. If you are planning a club trip and need a Certificate of Insurance contact June.

We still need a tour director.

LeRoy Betlach wanted to know where the guest book is. Vic had it in his vice president box. First date in the guest book is 2/12/76 and the most recent signee was Mark Rasmussen, 2/18/03.

Existing Officers and Program Chairs were nominated for another year of service.

**Door prizes** were won by: Helen Betlach, Joe Moore, Susan Dustin, Reuben Shalander and June Shalander.

**The meeting was adjourned** at 7:50 pm.

**Respectfully submitted by,**  
Secretary, Doug Olson



Get wells to Peter Rodewald,  
Phyllis White and Marie Newlander!  
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***

### **Avoirdupois Units of Weights**

16 dram = 1 oz - ounce

16 oz = 1 lb - pound

14 lb = 1 st - stone

2 st = 1 qtr- quarter

4 qtr = 1 cwt- hundredweight

20 cwt = 1 ton

### **Troy Units of Weights**

24 grains = 1 pennyweight

20 pennyweight = 1 troy oz

12 troy oz = 1 troy lb

### **Apothecaries Units of Weights**

20 grains = 1 scruple

3 scruples = 1 drachm

8 drachms = 1 apothecaries oz

The abbreviation for hundredweight is "cwt" because "C" is the Roman symbol for 100. It is called a hundredweight because it is 112 lb (well, it's close!). It can also be called the long hundredweight to distinguish it from what the Americans call the short hundredweight, which is 100 lbs. So the long ton or UK ton is 2240 lbs, and the short ton is 2000 lbs. The metric tonne is 1000 kg (about 2205 lbs). The word "ton" is derived from the same source as that of a tunne of wine, a cask which held about 250 gallons. Tons were in use in the late 15C.

A dram is short for a drachm, but since the **avoirdupois** drachm is different from the **apothecaries** drachm, it could be that the name "dram" was used to help distinguish it. These different types of weight measurement are a confusion anyway. The kilogram is at least well defined without having to say which system you're using! Scots use 'dram' to mean a small glass, probably of whisky! I don't think this is connected with the weight measurement dram.

A pound is always written as "lb" to prevent confusion with pound money "£". It is very old, traced back to the Roman "libra" (which explains its abbreviation!). It was defined in England since Ethelred the Unready (968-1016). In fact, a pound (money) was originally a pound (weight) of silver, and the symbol for pound (money) £ is a stylized L.

The abbreviation for ounce is "oz". This comes from 15th century Italian, also "oz" which is an abbreviation of "onza". "Oncia" seems to be the modern Italian for ounce (although they use metric measures now, of course) and I suppose that "onza" is a variant of this. The word "ounce" comes from the Latin "unica" or twelfth part. The ounce is a sixteenth part of a pound avoirdupois, but it used to be a twelfth part of a pound troy. **Troy** weights are

now only used for precious stones and metals (and not even for that, much), but they used to be the normal measure of weight. Wool used to be measured in tods. A tod was 28 lbs, or 2 stone. For some reason, the plural of stone is also stone - like sheep, come to think of it! Americans measure their own weight in pounds rather than stone.

Troy weight is a system of weights used for precious stones and metals. The troy pound is no longer in legal use, but gold is still sold in troy ounce bars. Apothecaries weight was used for measuring drugs and medicines. Both systems had the grain, ounce and pound in common (since a troy ounce was the same as an apothecaries oz).

A pennyweight was called that because it was the weight of a silver penny.

A scruple is derived from the Latin for a small stone, because it's a very small weight. We also use scruple to mean your conscience pricking you like a small sharp stone in your shoe!

These weights were not learned at school, because they had very specialized use. But our normal weights tables were always marked as avoirdupois (which comes from Old French "to have weight"). The troy system dates from the 10C. The troy pound was defined as different from the avoirdupois pound in the reign of Elizabeth I (1558-1603).

### **Jewel weights**

Individual stones may be described using carats.

200 milligrams = 1 carat; 100 points = 1 carat

Carat is derived from "quirrat", Arabic for the seeds of the coral tree, which were the traditional weights for precious stones.

An ancient unit was originally based on the weight of a grain of wheat. The grain is the smallest unit of weight in the avoirdupois, troy, and apothecaries systems.

Weights – continued from previous page...

Surprisingly grains are used in all four of the above weights systems.

1 carat = 4 grains

1 apothecary oz = 480 grains

1 troy oz = 480 grains

1 oz avoirdupois = 437.5 grains

1 troy lb = 5760 grains

1 lb avoirdupois = 7000 grains

Although we have stated above that the grain weighted the same in all the above systems, there were at least two different grains. The troy system used the supposed weight of the barley grain, whereas the wheat grain was also used as a standard of weight. There were three barley grains to four wheat grains.

There is an old joke "Which is heavier, a pound of lead or a pound of feathers?" Of course, they weigh the same. But if you said "Which is heavier, a ounce of gold or a ounce of feathers?", then you could claim that the gold is measured in troy and the feathers in avoirdupois, and so the gold is indeed heavier. But a troy pound of gold is lighter than a pound (avoirdupois) of feathers!

### **A Confusion of Standards**

Each trade may have preferred to develop and use its own peculiar system of weights so as to exclude others, or at least to confuse them. In this case, the trade or profession which could invent the most obscure system would be able to gain the greatest advantage over others, hence the proliferation of obscure and confusing standards. This is similar to various occupations having their own jargon. While this may provide an effective method of concise communication within a particular occupation, it can also be used to add to the mystique surrounding that occupation. Of all the above weight systems, it appears that the apothecaries system is by far the most confusing, perhaps we should conclude that they had the most reason to confuse or mislead their customers. In modern times lawyers probably win the prize for the most obscure jargon. It's perhaps as well that lawyers never developed a system of weights, but interesting that a pair of scales are used as a symbol of justice.

## **REPOSING EASILY**

Whenever we rockhounds go on a field trip, we are likely to be around a creek bed, a road cut, a quarry, a steep bank, or a spoils pile. If so, we should all remember that there is something called the angle of repose.

No, I'm not talking about how flat you should be when you lie down to rest. The angle of repose is a civil engineering term. It is a fact that a pile of anything - sand, rocks, marbles, hay, or whatever - has the property that the slope of the side of the pile determines whether the pile slides down or not. If the slope is over the angle of repose, it WILL slide - sooner or later. If it less than the angle of repose, it will sit there forever without sliding. The angle depends on the materials in the pile and on their sizes, so there is no general rule as to what angle is safe. Therefore, most road cuts and fills are slightly less steep than the angle of repose.

If you stand below or try to climb a slope that is too steep for the material it is made of, there is a very good chance that the top will come down on you.

It gets more complicated. Consider what happens when you step into the side of a slope. Your foot forms a hollow. This means the material just above and just below your footprint is at too steep an angle. So, it slides down. As it goes, it continuously forms a slope that is too steep, so the material slides and slides and forms a major slump. If you are trying to ride it or if you are below it, that is not good.

When you dig or extract a sample from a pile or a cliff or a quarry wall, the same thing happens. If you dig a tunnel, you have definitely formed a highly unstable slope and the slightest jar may bring it all down on you. That's why mines have shoring. Several children are killed each year because of this. I'm sure you have heard of it.

So, when hunting rocks, test the slope you're on or below for stability before getting into a position where you might get hurt or buried. And, always keep an eye on any rockhound that is above you. They might start something that hurts you!

by Mel Albright - AFMS Safety Chairman *from the AFMS Newsletter*

**Marking Pens** - A fine felt tip permanent marker pen is great for marking non-porous polished or rough stones. This can be for tracing cabs, marking defects, etc. It can even be used in faceting. These marker pens should not be used on opal, turquoise, or other porous or fragile materials. *from Wayne Ehlers, the Lapidary Journal via the Ventura Gem.*

**To cut jade**, first grind and polish your jade chunk on six sides as if it were a cube. One of these faces will polish better than the others. Then cut your cab parallel to this best face. *from Breccia via Santa Clara Gem & Mineral Society 6/97, via Coral Geode 3/98 via the Ventura Gem.*

**Mineral oil** is an excellent cleaner for selenite crystals. It seems to loosen the little tiny particles left after washing in water and it brightens them too. It has several other uses: It makes variscite a deeper green, and improves the appearance of fluorites and calcites. - *from Ghost Sheet, 3/97 via Nodule Nocker News, 1/98 via Rocky Review, 3/98 via the Ventura Gem.* - note: professional carpet cleaners also use mineral oil on tough spots —ed.

**Polish problems?** Many people think of polishing as comparable to shining a shoe. Actually, each grit used on a stone leaves scratches in the surface of the stone. So, when you go to a finer grit, it's purpose is to remove all the scratches from the last grit. An estimate of the depth of scratches left on the stone by each grit is: 80 grit - 2.6 mm, 180 grit - 0.86 mm, 220 grit - 0.6 mm, 325 grit - 0.3 mm, 600 grit - 0.16 mm, 1200 grit - 0.07 mm, 3000 grit - 0.03 mm.

With reflected light, the unaided eye can see imperfections far smaller than 0.03 mm. On a cabachon, small grit scratches are hidden by surface imperfections and the stone looks shiny. *from AFMS Newsletter 4/98 via the Ventura Gem.*

**Save that water from boiled potatoes.** Drop your tarnished jewelry and table silver in it. Leave it for an hour or two and it will shine! *from Breccia via Santa Clara Gem & Mineral Society 6/97 via The Coral Geode 3/98 via the Ventura Gem.*

**When you use fine steel wool** on a (silver) piece, be sure to rinse the silver thoroughly in water before continuing the next step of soldering. Even the heat of the torch will not eliminate the steel wool dust that accumulates on the piece, and if you drop it uncleaned into the pickle, you will get a fine cast of copper plating, covering the silver entirely. *via Lapidarian 9/89 via Breccia 9/97 via The Coral Geode 3/98 via the Ventura Gem.*

**Why place knots between beads?** The obvious answers - to prevent beads rubbing against each other and to prevent loss in case the string breaks. Be sure to knot if the beads are valuable. Knotting is also a way to extend the length somewhat. Most knots will take up about 1/8 inch of string. When calculating the amount of thread needed, figure the length of beads, add about 1/8 inch per knot (count the beads to find out how many are needed), and add about 18 inches. Now double the amount because you should use a double thread. Besides, it's easier to knot the double thread. Also the double thread lends extra security.

Take your beads along when buying thread to be sure to get the right thickness. Work as tightly as possible and in the same direction. Of course you let the strand hang overnight before knotting so all the stretch is completed. *from Petrograph 2/97 via East Bay Nodule 5/97 via The Coral Geode 3/98 via the Ventura Gem*

**Great looking display labels** can be made by typing the descriptions (with a computer so the font size can be made large enough to read easily) on ordinary paper and then having a print shop duplicate them on clear acetate film. You then cut them to size and place them directly on your case liner so the liner fabric shows through. *from Beth Rosengard, CCR&MC via the Ventura Gem*