

St. Croix Rockhounds
Community Education & Recreation
Independent School District #834
1875 Greeley Street
Stillwater, MN 55082

First Class

MARCH, 2000

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.



March 15th

 - is
this month's meeting date (this is not a typo, it
is on Wednesday night).

The Program is:
The Homestake Gold Mine
in South Dakota

St. Croix Rockhound's

LEAVERITE NEWS

Vol. 25, Issue 3; March, 2000

Member of:



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ST.CROIX ROCKHOUNDS

MEETINGS: Club meetings are held the third TUESDAY of each month, with the one time exception of the March, 2000 meeting, 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	Freya Kask	(651) 777-6371
Vice President	Dick Blom	(651) 735-2323
Secretary	Elaine Martinson	(715) 247-3700
Treasurer	Vic Martinson	(715) 247-3700
Program Chairperson	Pete Rodewald	(715) 425-5561
Show Chairperson	Bill Cordua	(715) 425-9544
Refreshments	Helen Betlach	(715) 425-5948
Librarian	Jeanne Blom	(651) 735-2323
Historian	John Parsons	(651) 257-2724
Sunshine Committee	Marie Newlander MN	(651) 439-7809
	Esther Rodewald WI	(715) 425-5561
Tour Director	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 15th - (This is not the normal meeting date!!!) St Croix Rockhounds meeting, 7:15 pm at the Stonebridge Elementary School. The scheduled program is

Coming Attractions

Mar 15 – St. Croix Rockhound monthly meeting (this is not the third Tuesday!!!!)

Apr 1-2: Neville Public Museum Geology Club Show in Green Bay Wisconsin

Apr 1-2: Des Plains Valley Geol. Soc. Gem & Mineral show in Des Plaines, IL. For info, call Paul Okolowicz at 847-215-7345

Apr 8-9: Chippewa Valley Gem & Mineral show in Eau Claire, WI. For info, call Mike Schoenfuss at 715-831-8833

May 6-7: Heart of WI Gem & Min Soc Show at Marshfield Senior High School Fieldhouse, Marshfield, WI.

May 13-14: Cincinnati Mineral Society show and sale in Cincinnati, OH. For info, call Terry Hampton at 513-752-8875.

July 15-16: Agate Days in Moose Lake, Minnesota. The show is held in Moose Lake High School. For info contact Tom Olsen (218) 384-4961.

Minutes of the Saint Croix RockHounds

February 15th, 2000

The **meeting** was called to order by the President, Freya Kask

There was a **correction in the minutes** of last month. Marie Newlander will continue as Minn. Sunshine committee and Esther Rodewald will continue as WI sunshine committee. The Minutes were then approved.

Treasurer's report: Vic Martinsen as of yet did not have the treasurer's records. He will contact John Parsons to obtain the records. No report

Old business: March 25 show was canceled by the Manager of the St. Croix Mall. Discussion on a new date for the show followed. It was agreed that we would try for April 8th.

Jeanne Blom had some pamphlets to pass out at the show.

Be sure and keep July 14-16 open for Bill **Cordua's Field trip** to the Superior area in Wisconsin

New Business: Doug Olson volunteered to make a Web site for the Club. The cost would be \$70.00 for the first year. Discussion followed. Pete asked Doug to write up the suggestion in the newsletter so all would have the information. We will vote on it next month.

Leroy showed us a news clipping. **Pete Rodewald was photographer of the year** for Western Wisconsin Clubs. Vic announced that Pete also received a first and third at the gem & Mineral show in Tucson for his photographs of Minerals. Congratulations Pete!

Serving Refreshments in March will be Avis Klinkhammer and Freya Kask.

Doug had old newsletters if anyone wanted to read them. **Victor had fliers** of Gem & Minerals shows in other areas.

We were reminded that if **any papers** were left behind at our meetings the maintenance person would throw them.

Dues are due. Victor Martinsen, 1938 County Rd I, Somerset, WI 54025 if any one wants to mail it. (\$10.50 for families and \$7.50 for individuals)

Leroy had the **Drawings for the door prizes**. Phyllis and Gene White donated the Door Prizes for the last several meetings and the gifts at the Christmas party. Thank you!

Please note: **The Next meeting will be Wednesday March 15th**. Stonebridge School will be closed on Tuesday

The **Meeting was adjourned** for the Antarctica program.

Respectfully submitted, Elaine Martinsen, Secretary

St. Croix Rockhounds Web Site - A preview of the newly formed Saint Croix Rockhounds website is available to those who have access to the internet. Go to www.leaverite.com to view the site. I will not be able to put any time into further development until I get back from Israel on April 2. Some ideas for inclusion are: Maps to the meeting site; Club event calendar (or at least meeting dates); Club show page; Bill Cordua's Leaverite contributions; Pete Rodewald's photos; Newsletter Archives; Club contacts; and Links to other rockhound websites.

I am requesting that the club pick up the cost of maintaining the domain name (leaverite.com) which is \$70 for the first two years, and \$35 a year thereafter (or until they increase the price). *Doug Olson*

Clarence Steltzner -

Our condolences to family and friends of Clarence Steltzner, a long time Saint Croix Club rockhound, who died February 17th, 2000. Services were held February 21st. He will be missed at our meetings.

Dig this! Wisconsin's State Soil is of Glacial Origins

Antigo silt loam is the official state soil of Wisconsin. One of more than 500 major soil types found in Wisconsin, Antigo silt is as old as the last Ice Age – having taken 10,000 years to form. According to the Wisconsin Blue Book, “Antigo silt loam is a productive, level, silty soil of glacial origins, subsequently enriched by organic matter from prehistoric forest.” During the last Ice Age, the massive force of the glaciers that covered Wisconsin reduced boulders and rock to dust. After the ice recede and the climate became more temperate, vegetation began to grow in the ancient soil. Forests sprang up and as they died, the leaves, bark and wood of the trees left enriched and amended soil, making it versatile and productive. Today, Antigo silt loam, found mainly in patches stretching from east to west in the north central part of Wisconsin is an important part of Wisconsin's economy. Antigo silt loam and other soils of glacial origin grow vegetables including potatoes, timber and dairy animal products. Just think, Geology is indirectly the reason Wisconsin is called the “Dairy State!”

To find out more about Antigo silt loam, you can go directly to the source of this information in this article at:

<http://www.geobop.com/World/NA/US/WI/Soil.htm>

.Submitted by: Janine M. Meilecki *from Badger Diggins via the Fractured Agate*

DID You Know

Talc is used in eye shadow, liquid make-up, rouges, blushes and pressed powders.

Iron oxides (magnetite, black oxide, hematite, red oxide, limonite, yellow oxide, goethite) are used in liquid make-up.

Zinc Oxide is used in creams to protect skin from the sun.

Mica is used in eye shadows. If coated with rutile or anatase, it make pearlescent shades of lipstick, eye shadow, hair gel, body lotion, rouge and blush.

Titanium oxide (rutile and anatase) whitens such products as lipstick, eye shadow, hand and body lotion and make-up.

Calcite is a binder in eye shadow and pressed make-up, in chewing gum bases, antibiotics, antacids, and dentifrices.

Quartz is used in scouring soaps and toothpaste, in coatings for pills and capsules, and in ointments, suppositories and lotions.

Kaolinite clay thickens creams and lotions, absorbs oil from the skin, and forms gels and pastes for toothpaste and shaving gels.

Barite helps in X-ray diagnoses of the lower intestines.

Bauxite polishes teeth, adds smoothness to lotions and creams, and is a carrier for perfumes in sachets and creams.

from an article by Sharon Robinson from The Voice via One Cutt News via SMS Matrix via Rockhound News 9/90

So Why Do You Want to Take a Picture of a Rock? *By Chuck Fonaas*

I've been asked that question and others like it on several occasions. Since I specialize in natural history photography, close-up photography in particular, I've arrived at a conclusion. That is that many people live out their lives, perhaps even travel the world, yet never see the world at their feet. Certainly I don't need to explain the fascination rocks, minerals and fossils hold for mineralogists, paleontologists and rockhounds alike so let's get to the business of photographing them.

Many of today's field guides and books use photographs rather than illustrations. While there are arguments to support both, I believe that in the case of geological specimens, photographs are superior. Obtaining good photographs, however, can be a little more difficult from an exposure standpoint than many other subjects.

Let's start out with the equipment you'll need. For basic shots of larger specimens and displays just about any camera will do, but for the purposes of this article let's suppose that you want to do more than that. A 35 mm single-lens reflex camera is probably the best suited and most practical tool for the job. It is far more capable of getting close and you will have more control over function than with *(continued on the next page)*

Picture of a Rock? (continued)... many point and shoot cameras. Due to its small size and versatility I believe it also has an edge over medium and large format cameras.

Under most circumstances you will be working at shows or in museums where you will not have hands-on contact with specimens. You will need a portable, manageable unit that is quick and easy to handle. Under these conditions tripods, photo-floods, etc., are not very practical or considerate of those around you, unless you are fortunate enough to have after hours access to your subjects. For this reason this method will not be discussed here. electronic flash or high speed film are the answer.

You will need a method of getting close-up shots of small and medium-sized specimens. This can be accomplished one of several ways. Close-up diopters, extension tubes, bellows and macro lenses all work well. The diopters which screw on the front of your normal lens just like a filter are easy and relatively inexpensive. They come in sets of three containing 1x, 2x and 4x magnifications. They will yield good results, however, when used at higher magnifications definition can be lost, especially around the edges. Stacking the diopters, such as 4x plus 2x, is possible but not necessarily recommended. While true that you can stack them together to achieve 7x power, photo quality really suffers at this point. A good rule of thumb with diopters is to use the lowest power needed to achieve your goal.

Bellows are not conducive to work where mobility is a necessity. If you're working in a controlled environment (at home for example) they will give perhaps the best results of A but in the field they're probably not the best choice as a tripod is almost a necessity.

That leaves extension tubes and macro lenses, the two most useful, practical and efficient devices of the lot. Extension tubes are just that - tubes that fit between camera body and normal lens. A macro lens is generally a normal or short telephoto lens whose elements travel as such that minimum focusing is increased considerably. Both work on the same principal as do the bellows -

by increasing the distance between lens elements and camera body you increase the ability to focus closely.

If you want to do available light photography you will need a fast film such as Elite 400 slide film or a comparable (or faster) print film. These can be pushed to gain more speed. When using a ISO 400 film, for example, set your camera's ISO at 800. just don't forget to tell your processor that you've pushed your film. That way they can process it accordingly. You'll be surprised at the results! Check on individual cameras to see how or if this can be done. Some less expensive cameras may not permit it.

Even with higher speed films, getting enough light may still be a problem. Slow shutter speeds may make it necessary to steady your camera. Perhaps there is a convenient surface to rest your camera on. If not a small tripod and possibly a cable release will be needed. There are many tabletop type tripods available that are small and easily affordable. Although they may not always be the answer they are a worthwhile addition. My personal preference is to use electronic flash. When I first started in photography over 20 years ago electronic flash was the way to go. Lately it seems there is more of a push toward available light. In some instances with rock and mineral displays lighting has been carefully planned to maximize appearance. Under these conditions using a flash would negate this. You may want to consider this. As stated previously, I do prefer electronic flash but there are exceptions.

Regardless of the type camera you have, the single largest problem you will face is shooting through glass with electronic flash. This is not as much of a problem as you might think. When positioned away from the glass as when shooting a display case in a museum, etc., don't shoot straight on. Rather position yourself so as to shoot at an angle of 45 degrees or so. This will minimize reflection. Note that I said minimize and not necessarily eliminate - there are many variables. You may not always be able to get a good angle, there may be other light sources, etc. *(continued on the next page)*

Picture of a Rock? (continued)... Sometimes results can be of the hit or miss variety. Even for the most experienced it's not always a sure thing. Don't be afraid to experiment a little at first or shoot additional shots of a subject. Try shooting at different f-stops. This is called bracketing and it is a good idea especially if you are on that once in a lifetime trip. Shoot for correct exposure and then shoot 1/2-stop over and under. Film is not as cheap as it used to be but if you really want those shots it's worth the extra dollars.

When doing electronic flash a slower film such as Elite 100 is recommended. Close-up flash requires a small flash unit. Attach it to your camera with a straight bracket (not a handle type). This way your flash is mounted to the side where you have control over its positioning and it will be alongside your lens and close to your subject. On board flashes probably would not be best for this kind of work. Lack of control over positioning may result in some undesirable reflections and shadows. I find that my side mounted flash works best when angled toward my subject at 35 degrees or so. In other words angle the straight bracket when you attach it to your camera. This way, though your camera may be aiming straight into the glass, the flash will be angled not only directly on to your subject but in such a way as to avoid reflection. Getting as close as possible to the glass will also minimize reflection.

Most cameras today are automatic. My equipment is from the dinosaur age and frankly I wouldn't have it any other way. I personally like the older equipment. If you have a camera that is automatic "everything," check regarding its function and override capabilities. You will probably want to go to manual operation when doing close-up work. Put your flash on manual also. When working within about a foot of your subject f16 is a good start when using ISO 64-100 film.

Bracketing is going to be the rule here. In other words, don't just take one shot of a subject. The most important tool you have is your head - use it. Shoot what you think will work. Start with f16, but then shoot a couple at 1/2-1 stops over and under. Your flash guide will not help you at this close range.

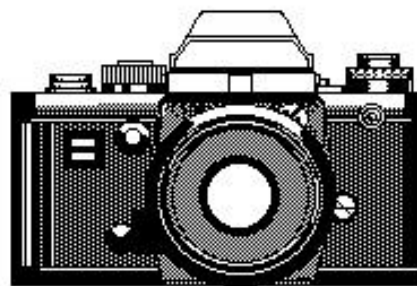
Think about things like - is this a light specimen or a dark one? Am I as close as I want to be? If I'm farther away do I need a larger f-stop?

You get the idea. It might seem like hit or miss for awhile but you will get a feel for it before long.

Another thing to remember - many crystals are highly reflective. Try to position the specimen or camera to minimize direct reflection off the crystals flat surfaces. Remember to bracket.

If you are able to have first hand access to a collection or are shooting your own specimens at home, here are a few suggestions. Try using different colors of felt or other materials as back-drops when doing available light work. When doing electronic flash while back-drops will work you may want to try mounting your specimen on a pedestal of some sort. Make certain there is nothing behind it for several feet. This will result in a black-out behind your subject. This can be a very striking effect. If your camera has a slower sync speed (one-sixtieth of a second) make sure that the surrounding light isn't too bright as this will reduce the black-out effect.

These suggestions have worked well for me and have produced good results. Admittedly, I've had some less than thrilling results at times also. Remember that often there is more than one way to accomplish something and that we learn from our mistakes. Try new methods and don't be discouraged if you don't get outstanding results the first time. Rocks, minerals and fossils can be, by their very nature, difficult to photograph. If you are interested in some guidance shooting them, use these suggestions for film, lighting, etc., as a starting point. Then think, experiment, use your imagination and sometimes...cross your fingers!!!*from the Trilobite 9/99.*



Club member Vi D'Angelo shared with us a bone she had found in Montana, the official results as to what it is can be found in the letter she received below:

Dept. Plant and Earth Science
U.W.R.F. 410 South Third Street
River Falls, WI 54022
January 21, 2000

Vi D'Angelo
7 Heather Place
St. Paul MN 55102

Dear Vi,

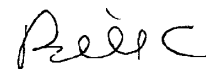
I had our paleontologist, Dr. Mike Middleton, look at the fossil you loaned me on Tuesday night. He knew exactly what it was. It isn't a dinosaur bone. It is an ankle bone from a large mammal, perhaps a camel or giant antelope. He felt it likely that it was from either the Miocene or Oligocene epochs of the Tertiary Period. That would make it any where from 5 to 35 million years old. This is old, but is more recent than the dinosaurs. The name of the bone is the astragalus. All mammals (including you and me) have these bones but they differ in shape depending on how they typically walked. This bone is characteristic of an animal that could run fast, but not dodge well around in a dense forest

The bone has been entirely replaced by fine-grained quartz (chalcedony). It fluoresces green under short wave U.V., probably due to trace element impurities such as uranium. Don't worry there isn't enough there to harm you. Most chalcedony from the west has at least a little uranium dissolved in it,

This is a really neat specimen, and it has such a good story attached to it. I'll gladly return it to you by mail or at a club meeting, but we could also use it here as a teaching specimen if you'd be willing to part with it.

Thanks for sharing this interesting specimen with us.

Best wishes,



Bill Cordua

Stolen Gems

Valuable Vug: At the bottom of a 1,200 foot shaft in a mine near Elkton, Colorado, in the Cripple Creek area, a geode or vug, measuring 30 feet across and 18 feet high was found. It was lined with syvanite, containing almost solid gold. This lining was several feet thick. It was so rich tat a vault door was installed over the opening. It assayed out at \$1,000,000 per ton at the 1914 price of gold. *from Trilobite via 3MRockhound News via Achatas 11/92.*

Fracture or Cleavage: Do you know the difference? If a crystal is broken and the break is irregular, it is said to have a fracture. If the break occurs along a plane and parallel to a crystal face, it has cleavage. Cleavage is caused by the internal structure and varying strength of bonds between planes of different atoms, e.g., the cleavage of mica in thin sheets is called perfect cleavage. *from the SMS Matrix, via Tule Smoke Signals 4/87 via Scribe summer/87.*

Rucksack Paralysis: Hikers carrying rucksacks that are too heavy, or are allowed to remain in one position for too long may subject themselves to “rucksack paralysis”, specialists at the Cleveland Clinic say. The palsy was observed among soldiers in WWII and later diagnosed in boy scouts. A pediatric neurologist at the clinic said the pain is the result of strap pressure on the nerves at the base of the neck and armpit and may last for a week or months. Hikers are advised to use packs which put more weight on the back and pelvis instead of on the shoulders. *from Loup Scoop via GI Nugget via Scribe winter/91.*

Hint: A problem encountered by some sphere cutting enthusiasts is rust on sphere cubes. A remedy is to use a mixture of 8-parts water to one part soluble oil instead of plain water as a carrier for the abrasive grit. In addition to preventing rust, the soluble oil causes the grit to adhere to the sphere for a longer period of time. *from Cedar V Gems 12/96 via Achatas 1/97.*

Turquoise?: You can test turquoise by putting a drop of ammonia on the BACK of the stone in question. Real turquoise will turn white. *from Glacial Drifter via Opal 9/91 via Achatas 8/96.*

Hint: To get an extra high polish on a cabochon or a flat piece, first polish in the regular way, then buzz with a used sheet of “Bounce” fabric softener. A used sheet seems to work better, maybe it has been transformed by heat in the drying process. Any brand of sheet would result in the same manner. This trick has worked on different materials. The higher polish is noticeable. *from Leslie Brooks: Border Gem Chatter via Rockfinder via Achatas 12/95.*

Lead that Isn't: Next time you sharpen your pencil look at the shavings of lead. Actually, the lead isn't lead, it's a combination of Bavarian clay and Madagascar graphite. An ordinary pencil could write a geography lesson just by tracing [sic] its own life journey. Cedar trees [incense cedar] growing in California's Sierra Nevada Mountains provide straight-grained wood for the casing. Pigments from West Germany color the lacquer coating. Tin from Bolivia, pumice from Burma, rubber from Sumatra, and gum from Iraq help erase your mistakes. Gathering these materials from all over the world, the United States produces more “lead” pencils than any other country. *from Hy Grader 5/78 via Achatas 1/96.*

Wednesday, March 15 is this month's meeting date!!!