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

First Class

April, 1999

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.

April 20th - is this month's meeting date.

The Program is:

Photo essay on Agates

St. Croix Rockhound's
LEAVERITE NEWS
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Member of: AFMS & MIDWEST 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	Freya Kask	(651) 777-6371
Vice President	Dick Blom	(651) 735-2323
Secretary	Karen Barenz	(651) 776-8525
Treasurer	John Parsons	(651) 257-2724
Program Chairperson	Pete Rodewald	(715) 425-5561
Show Chairperson	LeRoy Betlach	(715) 425-5948
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	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!

April 20th - St Croix Rockhounds meeting, 7:15 pm at the Stonebridge Elementary School. The program will be a photo essay of agates, especially iris agate.

Coming Attractions

May 1-2: Heart of WI, G&M Society 26th annual show. So. Wood County Rec Center in Wisconsin Rapids, WI.

May 1-2: Anoka Gem and Mineral Show at the Brookdale Center Mall.

May 15-16: Wisconsin Geological Society Show at Hart Park, 7300 W. Chestnut st, Wauwatosa, WI. Call Erich Salzmann 414-464-0607 for more info.

June 11-12: A.E. Seaman Museum auction and sale, 5th floor Elecrtrical Energy Resources Center, 1400 Townsend Dr., Houghton, MI. Call 906-487-2572 for more info.

June 25-26: 11th annual Knap-in at the North West Company Fur Post, 3 mi. west of Pine City, MN on Co. Rd 7. Take Pine city exit off I-35. Call Jim Regan 612-462-5568.

July 17-18: Agate Days in Moose Lake, MN. Call Tom Olsen 218-384-4961 for more info.

August 8-14: Red Metal Retreat - tours, collecting, and workshops in the Upper Peninsula. Registration $40, held at Michigan Tech University in Houghton, MI. Call 906-487-2263 or e-mail ci@mtu.edu.

Minutes of the Saint Croix RockHounds March 20th, 1999

The meeting was **called to order** by President Freya Kask.

Thanks for March refreshments to Karen Brown and Esther Rodewald.

Motion to accept February **minutes** as published in the Leaverite News. MSP

Vice President - Dick Blom is ill.

No Treasurer's report .

Program chairman. Tonight's program will be given by Tom Buchholtz from the Wisconsin Rapids Club who will talk on Wasau Minerals and there is no April program yet.

Old business: none.

Show chairman LeRoy Betlach asked for table sign up for the March 27th show. Need volunteers for club table. -- Karen Barenz and Vi D'Angelo volunteered (Thank you!).

Newsletter, Doug Olson has exchange newsletters to share with the club.

When do we do the next show?

Librarian Jeanne Blom is absent. New book "Minnesota Underfoot" has been donated to the club by Peter Rodewald.

Door prizes were donated tonight by Vic Martinson. Won by: Karen Brown, LeRoy Betlach, Doug Olson, June Shelander and Robert Olson.

There is some question whether the **Minnesota Mineral Club** is going to open its fossil and petrified wood field trip to Montana to other rockhound clubs. The trip will be held over Memorial Day weekend. John Parson will try to get the definitive answer.

Vic Martinson wants suggestions for field trips - perhaps rent a van.

Club Books are to be audited by David Klinkhammer.

Motion to Close Meeting. MSP.

Respectfully submitted **by Karen Barenz**, Secretary.

Field Trip Suggestions

Quick!! What would you like to hunt for? Where have you been that you would like to go back? Where have you heard of that sounds interesting? Please fill in the space above with your thoughts and ideas to bring to the next meeting. The more active a club is the better able we are to draw in and keep new members and talent.

Dick Blom, get well quickly!!!

Dick was in the hospital a few days. He is home now but has felt better. He had some "repair" done due to a heart problem. The Doctors also found that the medicine he had been taking was causing ulcers. We wish him well.

On a Roll (Fuji film) in Tucson *by Peter Rodewald, St. Croix Rockhound*

A history of winning and losing photography contests in Tucson

It's been ten years since the annual mineral photo contest was explained to me by Bill Cordua, who attends the show, conventions and awards banquet - which is the finale of the Tucson Gem and Mineral Show. After reading announcements about the contest in Lapidary Journal December issues, as well as, Rocks and Minerals magazine I inquired about it. Back then, there were two categories: Professional and Amateur.

In 1989 I made my first stab at entering the contest without knowing what the competition was like. My first entry was in the amateur category. The entry deadline was February 1 when the slides were to be sent to Jeff Scovil in Phoenix (who is also a professional mineral photographer). My first two entries were slides of a copper country calcite inside and mesolite from India. The entries were pre-judged at Jeff's residence by a panel of photographers and mineral collectors who are experts in their respective fields. The entries are reduced to the top five in each category. Those five survivors are taken to Tucson for viewing at the awards banquet on the second Saturday of February which concludes the Tucson show. The audience votes on the slides shown. Historically, it is difficult for entries from outside of the Phoenix/Tucson to win. The Tucson Gem and Mineral Society (original founders of the Tucson Gem and Mineral show) sponsor the mineral photo contest. Their club members are eligible to enter and they are quite good at it. Their geographical location and the presence of the entire known world of minerals at their doorstep each February and September gives them a vast array of specimens to choose from.This is quite a large club as I can imagine, and they attend the awards banquet - a home crowd advantage.

Both of my slides made it to the awards banquet but did not place first, second or third. It was explained to me in the letter returning the slides that since they did not place they were eligible to be entered in subsequent shows.

In 1990, I entered Illinois fluorite and chacotrichite in Lake Superior agate. Both slides stayed in Phoenix (I.e, they were not in the top five) this time.

In 1991 I entered a White Pine copper cube and stilbite with fluoraphophyllite from Poona, India. The copper slide did not go to Tucson but the Poona specimen placed third in the amateur category, my first placement. However, April and May went by without the return of the slides or the award. I called Jeff the first week in June and he explained that a third place plaque was made but the inscription on it miss-spelled Rodewald and was being corrected. He said I would receive slides, plaque and the $25 third place prize next week. "OK, that's good". The rest of June and half of July came and went but nothing came in the mail. Worried even more I called again. Sounding a bit put out by my call, Jeff explained that the new inscription misplaced my category as Professional so had to fixed again. He promised everything would come next week. Next week it all came, slides, check, certificate of accomplishment, and the troublesome little ol' plaque. Rodewald correctly spelled and placed in the "amature" category. This plaque is a novelty for sure.

In 1992 the categories were changed to micro-photography and macro-photography. I entered one slide in each category. Neither made to Tucson, but… It turns out that there were less than 5 slides deemed in the macro category deemed worthy to go to Tucson , consequently none went. Jeff explained that if my macro slide (a revised photo of the same mesolite submitted in 1989) had gone to the awards banquet that it would have won. Discouraged I nearly stayed out in 1993, but entered at the last minute. Both slides went to Tucson but did not place. The same happened in 1994.

In March of 1994 I spent a week of vacation in Sun City, a suburb of Phoenix where I visited Jeff Scovil in his home in Phoenix. He was photographing Red Cloud wulfenites while I was there. The conversation eventually turned to the Tucson contest. I asked directly what it took to win. He said all my slides were excellent, photographically, and in some cases better than the rest. However, it takes glitzy specimens or very rare mineral species to win. Sometimes following the mineral theme of the Tucson show helps.....*cont.*

On a Roll (Fuji film) in Tucson ***by Peter Rodewald, St. Croix Rockhound….continued***

Macro slides in the following two years netted a third place (in 1996) with a copper wire specimen from Isle Royale Mine that I found myself. Bill and Jan Cordua recognized my entry on the screen (at Tucson) and were sure it would place first. Scoring was close from top to bottom.

1996 was the start of an unexpected good run. 1997 was a real shocker for me: first place with a macro slide of a White Pine half-breed mineral. The show theme that year was copper and related minerals. This piece was not glitzy and not at all rare, but its real esthetics pulled it through. Bill Cordua called me immediately after the banquet with real excitement. He reminded me how tough it is to win from outside Arizona. It makes the victory a little sweeter.

But another glitch occurred. Expecting notification of the first place award from Jeff, I became nervous when 60 days went by with no word from Scovil or the Tucson Gem & Mineral Society (TGMS). On June 21st a form letter arrived from the TGMS simply stating that the contest results had been misplaced. Assurance was given that the tabulations would surely be found. Mid-July brought a letter from Scovil again - he found the results while on a photo tour in Europe. "Congratulations, you won first place. You will be getting your award from TGMS shortly". A few weeks later an envelope arrived from Tucson with utmost simplicity delivered a single piece of paper with $75 written upon it signed by the TGMS treasurer. On the memo it did say 1st place, however. The excitement of it all was so overwhelming that the overriding thought was that maybe I shouldn't enter again.

In 1998 I decided, what the heck, one more time - participation is more important than placing and how one is notified. My entries that year consisted of a White Pine barite crystal and an Isle Royale quartz crystal coated with laumontite with interior laumontite inclusion. The barite is 5/8" tall and water clear but very attractive when viewed at certain angles and lighting. The barite crystal came in second and the quartz did not make the first cut in Phoenix. Notification came in about 60 days.

Without hesitation my entries were sent to Scovil in January of this year - confidence is reinstalled after 1998. Entries included again a White Pine specimen. This time it's a double terminated calcite scalehedron which is normally terminated on the lower end and with a pincoid face on the other - exceedingly rare. The crystal is fairly clear with interior hematite beads zoned parallel to the flat basal pinacoid. External hematite beads are scattered about. This Slide came in third.

The other entry was a single Flambeau Mine chalcocite, 1.5" tall, which from a single angle displays electric purple, blue, green and various yellows. Glitzy indeed and it came in first. Bill Cordua informed me of the victory on February 14th after returning from Tucson. Notification has not arrived yet....to be continued, surely!!!

Fossiking For Fossils

A mineral collector friend has grumbled that "names of fossils always seem to be changing", and to a certain extent that is true. Classes, and even phyla, of fossils may change as more discoveries are made and more research done, especially on fossil forms that are made and more research done, especially on fossil forms that have no corresponding living representative, or whose nature is obscure (think "Tully Monster") because of the limits in its preservation. So it is very important to have a recent, complete reference for general classifications.

Of course, there isn't any one such reference, which is why the 1998 MWF Directory has one major reference for each major Kingdom: invertebrate animals (Fossil Invertebrates, eds. Boardman, Cheetham; vertebrate animals (Vertebrate Palaeontology, Benton); and plants Paleobotony and the Evolution of Plants, 2nd edition, Stewart and Rothwell). However, there are other texts, including newer ones, which disagree with some classification used in each of these recommended references.

This is especially true where recent studies of large fossil assemblages have revealed new information about some extinct forms. For example, most texts agree that jellyfish, hydrozoas and scyphozoans properly belong in the phylum Cnidaria (which translates as "stinging nettle") rather than being grouped in the much more general tem Coelenterata, which simply means "sack-like". However, Boardman still consider Conularids as questionable members of the class Scyphozoan, whereas the new Fossil of Ohio *Bulletin 70, Feldman, 1996) creates a whole new phylum -Conulariida-because so many fossil specimens have been found and studied in Ohio's Mississippian rocks which show much more preserved detail that does not match up to any other Cnidaria.

There are several more such cases, some of which we will discuss in future columns. Meanwhile, I have a recommendation: even if you never intend to compete with a fossil display, you should have a copy of the 1995 (1997) AFMS Fossil List which is based on the three references listed in the second paragraph, but has additions and differences. It will give you an easy reference for formal and common names, and is especially helpful with common names of all the vertebrates, from birds to whales, which are correlated to modern animals. Send for the Approved Reference List of Classification and Common Names for Fossils AFMS Fossil List, Second Edition, 1995 (1997), available for $3.50 plus $2.60 postage/handling. Send to Eric Petererson, MWF Director of Supplies, 18114 L Drive South, Marshall, Michigan 49068. *By Cecilia Duluk from MWF Newsletter, 1/99*

New Find of a living fossil

This past summer several Indonesian fishermen made a truly remarkable discovery. While gill-netting for sharks they accidentally caught a 4-foot-long, 70 pound coelacanth! This very rare "living" fossil had previously been found only off the coast of East Africa, an incredible 6,000 miles away. This important find has many ramifications about the range of this endangered species, and may ease fears about it's demise. D.N.A. tests are to be conducted to check if this fish is actually the same species as the African ones. ! *By Dr John Grace, KGMS, from MWF Newsletter 1/99*

More on Dinosaurs

Dinosaurs are always in the news, and this year has been no exception. Recent dig in China and Madagascar have uncovered several new species of bird-like dinosaurs that should help tie in the evolutionary relationship between dinosaurs and birds.

A fantastic find of over 1,000 Upper Cretaceous are dinosaur eggs was recently made in the Patagonia region of Argentina. What makes this discovery truly unique is the finding of embryos inside many of the eggs. Some of the embryos were complete enough to actually show skin casts! *By Dr John Grace, KGMS, from MWF Newsletter 1/99*

New Software for the rockhound: the Photo-Atlas of Minerals *review by Ed Drown, CML&MS*

One of the constraints of field guides is that for the sake of portability only one or two photographs of a particular mineral can be included. For a mineral such as calcite, which can occur in literally hundreds of habits and forms this is quite limiting. The first step past a field guide on paper has been taken by placing it on a CD-ROM instead. "The Photo-Atlas of Minerals" is published b the Gem & Mineral Council Los Angeles County museum of Natural History.

The CD has descriptive data for all known mineral species (about 4,000) and nearly 6,500 high-quality images for about 800 of them. You select a mineral by its: name, synonym/variety or Strucnz system. For unknown mineral you can start by choosing the: location, metallic element, crystal class, hardness, specific gravity or luster. Being able to choose based on physical properties brings this close to being an identification guide. The descriptive information includes the: chemical formula, origin of name, synonym/varieties, color, streak, hardness, luster, tenacity, specific gravity, cleavages and detailed information on crystallography and habit. The handy part is that for any term that is obscure or specific to mineralogy the user can click on it and the definition will pop-up on the screen. For example, if a mineral is described as having a "sectile tenacity" - click will reveal that this means the mineral can be cut into thin shavings with a knife. … System requirements are: an IBM compatible 486-33 or better running Windows or NT, CD-ROM, sound card and speakers (for the pronunciation guide), 16 Mb RAM, mouse and a 24-bit video card. This is version 1.0 of the software, I have found error messages popping-up at random times, but the program recovers and hasn't yet crashed my system running Windows 98. There is a web site for the CD at http://nhm.org/~gmc that has: sample screens, on-line ordering and technical support. … The cost was $49.95 plus $5 shipping (10-Nov-98). The address for the Council is: The Gem 7 Mineral Council, Los Angeles County Museum of Natural History, 900 Exposition Boulevard, Los Angeles, CA 90007. *from Rockhound New 11/98 via MWF Newsletter 1/99*

Quartzite Markers Separate Dakotas

The boundary between North and South Dakota is the only border between two states marked every half-mile with quartzite markers.

In 1890, the United States Congress appropriated $25,000 for the project. The markers, cut from a quartzite quarry at Sioux Falls, South Dakota, are seven feet tall and ten inches square and are set three and a half feet into the ground. Surveyor Charles H. Bates placed 720 monuments along the boundary, only two of which could not be placed in precise locations because of rivers.

Bates placed the monuments in 1891 and 1892. The monuments were shipped to the border via railroad and Missouri River steamboat. The initial monument was placed where the borders of North and South Dakota and Minnesota touch, and the final monument (360 miles from the initial stone was place in August 1892 at the juncture of the North and South Dakota and Montana borders.

Scratching Posts: Bates joked that he should be an honorary member of the Humane Society for having erected 720 "superb cattle-scratching posts". One of the easiest to spot of these markers today is located where scenic Highway 1804 intersects with the border in southern Emmons County. *from an Emmons County (ND) Tourist Brochure via the Glacial Drifter 7/97 via Stoney Statements 1/99*

The difference between a nodule and a geode is that a nodule has 100% fewer cavities.
Via The Nugget 12/87, and Crack 'N Cab 12/97 via Stoney Statements 7/9

Stolen Gems

If you have finished jewelry that is not being used, to keep the gold or silver from tarnishing, add a piece of blackboard chalk to the box. This absorbs the moisture, which is one cause of tarnishing. Make sure that the jewelry is absolutely dry and that the box is sealed tightly. *from Arkansas Rockhound News, via Rock Rattler via Quarry Quips via Rock Chips 10/98*

Cleaning your specimen: wash carefully to remove dirt. If soaking in acids or other solutions, try an inferior specimen first. When working with acids, remember the three A's: Always Add Acid to water. Keep your solution fairly clean for best results. Oxalic acid is useful for rust stains, muriatic acid is good for removing hematite, and hydrochloric acid is the best for removing black manganese stains. When using any of these solutions, wear protective clothing, use goggles, and wear rubber gloves. Household bleach works well for removing many stains, but never mix bleach and acid. The results could be tragic.

Barite: 30% hydrochloric acid solution
Beryl: Any acid solution may be used
Petrified Wood: Household bleach or oxalic acid
Bornite: Overnight in oxalic acid
Carbonated Minerals: If your specimen will not come clean in bleach, use a very weak solution of oxalic acid
Chalcopyrite: Soak overnight in a solution of oxalic acid, 2 ounces to a quart of water, or under close watch in HCl
Copper: Nitric of HCl
Epidote: Quick dip in nitric or sulfuric acid
Fluorite: HCl or muriatic, 1% acid to 10% water
Galena: Soak overnight in oxalic acid. Wash well.
Gold: Ammonium bifluoride
Graphite: Any acid
Hornblende (Microline, Scapolite, Tourmaline): Any acid except hydrofluoric
Iron (Labradorite): Concentrated sulfuric acid
Marcasite: Overnight in oxalic acid solution,k or a very quick dip in HCl, or it may be washed in ammonia water.
Millerite: Hydrofluoric or sulfuric acid solution
Orthoclase: Most acids except aqua regia
Pyrite: Overnight in oxalic acid solution or a quick dip in HCl. Rinse in ammonia water.
Silver: 1 oz. Baking soda, 1 oz salt dissolved in 2 quarts warm water in an aluminum container (or glass with aluminum foil thrown in)
Sulfide minerals: Ascetic acid solution. If this does not work, try HCL acid
Tremolite: Any acid except hydrofluoric
Zircon: Any acid
from others, via the Backbender's Gazette 11/97 via Stoney Statements 2/99

Manzanita Root Briar "Cleanup": Manzanita root briar is actually the stump of the Manzanita shrub (I bet you already knew that). To clean out the bark and stones imbedded in the root use a dental pick. The stuff just flakes out easily. You can even clean out the thin worm tracks from other roots on the surface of the wood. In fact it's a lot of fun and very therapeutic digging around in all those hidden cavities (I don't think I'm going to analyze that to closely).

To clean the wood, first dunk it (optional) in Murphy's Wood oil soap to add a bit of moisture to the wood and then, using the soap and a soft brush or hard bristle tooth brush, scrub away the dirt. Alan recommends Dr. West's Miracle Tuft False Teeth Brush which costs around $2. Don't worry about hurting the wood, it's very hard. Don't soak the wood as that will dry it out in the long run.l When you're done you can rinse it if you want but I'm told it's not necessary with Murphy's.

Dry your piece for at least a week or two (not in sunlight which will create more fractures). Then use two or more coats of tung oil to give the wood a rich glow. You can follow-up with a coat of tung oil yearly to protect and preserve the wood.

…To keep the oil good while storing it between uses, squeeze the can to make sure all the air is out before sealing it. Evidently the air in the can will turn the oil gelatinous over time and you'll have to toss it out. A can of tung oil will last a long time this way. *By Catherine Cummings from Hidden Treasures 4/99*