

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

First Class



February, 2002

Please send exchange bulletins to:

Doug Olson, Editor
211 Interlachen Way
Stillwater, MN 55082

February 12th - Is this month's meeting date.

The Program is "Voyage to the Planets" a video.



St. Croix Rockhound's

LEAVERITE NEWS

Vol. 27, Issue 2; February, 2002

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	Dave Klinkhammer	(651) 776-8046
Secretary	Susan Dustin	(651) 430-3933
Treasurer	Elaine Martinsen	(715) 247-3700
Program Committee	Pete 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	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 Directors	Vi D'Angelo	(651) 665-9067
	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!

February 12th - The Saint Croix Rockhounds January meeting will be held at the Stonebridge Elementary school starting at 7:15 pm. The program will be "Voyage to the Planets".

COMING ATTRACTIONS

February 12th: St. Croix Rockhounds meeting

March 9-10th: Anoka G&M Club Spring show at the Apache Plaza

March 16th: St. Croix Rockhounds show at the Valley Creek Mall in Woodbury, MN

March 19th: St. Croix Rockhounds meeting

April 20-21st: Anoka G&M Club Spring show at the Har Mar Mall

July 16-21st: NWFMS/AFMS Show in Port Townsend, WA

July 20-21st: Agate Days in Moose Lake, MN

Aug 30-Sept 1st: NWFMS Show in Enumclaw, WA

October 4-6th: Mid West Federation Show in Springfield IL

Minutes of the Saint Croix RockHounds January 15th, 2001

The meeting was called to order by outgoing president Dick Blom and the new president Victor Martinsen. 20 members were present.

Minutes weren't read since they are in the newsletter. They were approved as published in the newsletter. The treasurer's report was read and approved. A reminder was given to those who hadn't, as yet, paid dues. The treasurer, Elaine Martinsen said that next month a payment will be made to the federation of \$2.00 per member dues and \$2.50 per member for insurance.

A thank you letter was received from the Midwest Federation thanking our club for the \$50.00 contributed to the endowment fund.

Committee Reports:

Sunshine- none

Library- books are available to be checked out. Please call Jeanne Blom with your requests. 651-735-2323

Newsletter- Doug Olson said there will be a list of birthdays of members and date of anniversaries in an upcoming newsletter along with the updated list of members.

Refreshments – June Shalander and Barb Costa will serve in February.

The February meeting will be on Tuesday, February 12th which is not the third Tuesday of the month. We will watch a video called Voyage to the planets.

Calendars made by the Gem Shop are available from John Parsons for \$6.00 each.

Information for an upcoming field trip was provided. There is a new agate pit near Thunder Bay, and amethyst can also be found in the area. A sign up sheet will be passed around in February.

A reminder was given to mark our calendars for July 20-21 to attend the Moose Lake Show.

Dick Blom will inquire about a date for the club show in Woodbury.

The meeting was adjourned at 7:45 pm. Refreshments followed and the evening program followed. Our program was the annual "Find of the Year" contest.

Respectfully Submitted
Susan Dustin, Secretary

2001-02 Club Meeting Dates

***February 12th

March 19th

April 16th

May 21st

***This date is NOT the third Tuesday of the month



GOOD NEWS - Marie Newlander reports that there is nothing to report. If you have news – good or bad - please call Marie at (651) 439-7809.

The Kaali Meteorite Catastrophe

We have evidence that past asteroid or comet impacts have caused mass extinctions such as that of the dinosaurs 65 million years ago. We have also seen movies and read articles about possible catastrophic effects to future civilization from such impacts. These events are hard to grasp, perhaps because we have no record of great human suffering due to such impacts in our history. Some see passages in the Bible or in other traditions (such as the Scandinavian Ragnarok) as indications of past catastrophic events (Gribbin and Gribbin, 1996). One would expect, however, hard scientific evidence that those parts of ancient history were associated with a comet or asteroid impact. Recently, however, researchers in Estonia and Sweden have turned up evidence of a meteorite causing havoc in an Estonian island community (Veski, et. al., 2001). Scientists studying the geology of an island of Saaremaa, off the coast of Estonia, found evidence that a large iron meteorite, perhaps weighing 1000 tons, fell on this island between 800 and 400 B.C.. Such an impact would unleash a force slightly greater than that of the Hiroshima A-bomb. Archeological records show that at that time the island was densely populated. Little is know of these people as they left no written record.

The evidence for meteorite impact at this time is certain. An impact crater, 350 feet across, called the Kaali Crater, was found. It now forms a shallow lake. At least 8 satellite craters surround the main one. Crater morphology indicate the impact released the energy equivalent to 20 kilotons of TNT. Fragments of meteoritic nickel-iron are associated with the crater, as are beads of glass formed by shock melting of rocks upon impact. High iridium concentrations in the lake sediments are also evidence of meteorite impact. Carbon 14 dating of the peat deposited in the lake and nearby bogs pin-point the impact as occurring between 800 and 400 years BC.

Saarema was densely inhabited then, as it had been for thousands of years before the impact. Many Bronze Age artifacts are found there, as are the remains of towns, fields and fortresses. Cattle and crops formed the basis for the economy. Pollen deposited in nearby fens and bogs allow a detailed re-creation of the vegetation before, during and after impact.

Before impact, a number of pollen grains from a variety of cultivated cereals were present, along with tree and herb pollen. At the time of impact, a unique deposit formed. This was a layer of glass spherules, meteorite fragments, rock dust, charcoal and burned stumps. Sediment deposited for the 100 years following impact was quite different from what went before. There was no cereal pollen and little tree pollen found, only an increase of dwarf shrubs. Eventually pollen populations return to their pre-impact character.

Veski et. al.'s interpretations of this data paint a stark picture. The people were hit suddenly with the force of a Hiroshima-size explosion. By comparison with Hiroshima, no living thing likely survived within a mile. of the crater. Flash burning of vegetation would occur up to 2 miles away, setting the stage for still wider wild fires. All structures up to 6 miles. away would have collapsed. That the culture itself collapsed is indicated by the fact that there was no sign of crop cultivation for 100 years after the impact, although there are signs that survivors used the edge of crater in a fortification soon after impact.

One wonders what the survivors must have thought had happened to them, or how they would have described it to others. What influences might this have on stories and legends down to this day?

Bill Cordua,
U.W.- River Falls, Geology.

References:

Gribbin, John and Mary Gribbin, 1996, Fire on Earth, St. Martin's Press, 264 p.

Veski, Siim, A. Heinsalu, K. Kirsimae, A. Poska and L. Saarse, 2001, Ecological catastrophe in connection with the impact of the Kaali meteorite, about 800-400 B.C. on the island of Saaremaa, Estonia", Meteoritics and Planetary Science, vol. 36, p. 1367-1375

Big Boulder Misses Earth

According to the WCCO website on December 31st, 2001 a boulder, the length of three football fields, missed earth by 375,000 miles or less than two times the distance to the moon.

If it had arrived four hours earlier it would have made a direct hit and would have been capable of wiping out a "medium-sized country."

The asteroid was discovered on December 26th which was not enough time to allow any technology we have to avoid a collision.

Scientists have their eye on another that will pass earth even closer in 2027.

known boulder



Some asteroid terminology

Amors, Apollos, and Atens, are the three categories of Near-Earth asteroids (NEAs). Amor asteroids approach the Earth's orbit from the outside, Apollo asteroids cross the Earth's orbit, and Aten asteroids approach the Earth's orbit from the inside. Potentially Hazardous asteroids (PHAs) are larger than ~200 m (0.1 mile) and approach close enough to present a potential hazard but not a current hazard

St. Croix Rockhounds Show

March 16th, 2002

At the Valley Creek Mall
In Woodbury, MN

Be sure to sign up for a table at
the February Club Meeting

Celebrate!

February's birthstone – Amethyst. The word amethyst comes from the Greek word "amethystos" meaning "not drunk", and was believed to prevent its wearers from intoxication. The following is a story from Greco-Roman mythology as quoted from "Birthstones" by Willard Heaps:

"Bacchus, the god of wine in classical mythology, was offended by Diana the huntress. Determined on revenge, he declared that the first person he met as he went through the forest would be eaten by his tigers. As it happened, the first person to cross his path was the beautiful maiden Amethyst on her way to worship at the shrine of Diana. In terror, she called upon the goddess to save her, and before his eyes, Bacchus observed the maiden changed to a pure white, sparkling image of stone. Realizing his guilt and repenting his cruelty, Bacchus poured grape wine over her, thus giving the stone the exquisite violet hue of the amethyst. The carryover to non-intoxication was quite logical. In ancient Rome, amethyst cups were used for wine so drinkers would have no fear of overindulgence."

During the Middle Ages, it was used as medication, believed to dispel sleep, sharpen intellect, and protect the wearer from sorcery. It was also believed to bring victory in battle. In Arabian mythology, the amethyst was supposed to protect the wearer from bad dreams and gout. The amethyst was also the stone of royalty, representing power.

February birthdays:

Sue Mata - 15th

February Anniversaries:

Shari & Mike Frankenberg – 27th

Water: 75% of Americans are chronically dehydrated. (Likely applies to half the world population.) In 37% of Americans, the thirst mechanism is so weak that it is often mistaken for hunger. Even MILD dehydration will slow down one's metabolism as much as 3%. One glass of water shuts down midnight hunger pangs for almost 100% of the dieters studied in a University of Washington study. Lack of water is the #1 trigger of daytime fatigue. Preliminary research indicates that 8-10 glasses of water a day could significantly ease back and joint pain for up to 80% of sufferers. A mere 2% drop in body water can trigger fuzzy short-term memory, trouble with basic math, and difficulty focusing on the computer screen or printed page. Drinking 5 glasses of water daily decreases the risk of colon cancer by 45%, plus it can slash the risk of breast cancer by 70%, and one is 50% less likely to develop bladder cancer. Are you drinking the amount of water you need every day? *from e-mail of unknown origin via Rock Buster News 9/01 via GI Nugger 11/01 via Pebble Pusher 12/01 via Achates 01/02*

He Wrote the Book: People have collected rocks for thousands of years. But a practical book about minerals didn't appear until 1546. It was called *De Natura Fossilium* and was written by a German scientist named Georgius Agricola. Agricola wrote the book while working as a doctor near a major mining center in Germany. Agricola visited the mines every day and gained a wide knowledge of rocks. He was the first scientist to describe minerals by their form, color, hardness, and luster-the very properties we use to identify minerals today. *by Judy Goss from The Fractured Agate 01/02*

Gold Smudges: Have you ever wondered where those smudges on your hands, especially under gold rings or bracelets come from? The name for gold smudging is black fermographism which literally means black writing. On the skin it occurs when cosmetics, containing chemical compounds harder than the jewelry metal they touch, contact.

The common compounds are zinc oxide, titanium oxide, ferric oxide and calamine. Zinc oxide, a major white pigment in face powder, creams and lipstick, is often replaced by titanium oxide, equally hard on jewelry. Rouge and face powder may contain ferric oxide pigments, while calamine, a tinted zinc oxide, is found in some medicated cosmetics and lotions. Particles of these cosmetics, when left on the skin, act as fine sandpaper and abrade softer jewelry metals as gold, silver and platinum. The abrasion deposits a fine metallic powder from jewelry to the skin. The powder looks black because the particles are too small to reflect light.

The stain is removed with soap and water. Jewelry from stainless steel or chromium won't cause dermographism because metals are harder than the cosmetic particles. A greenish black stain is produced when jewelry metal contacts sulphur, contained in some perspiration. Such people should remove rings often and dust fingers with absorbent powder free of zinc oxide. *from Crystal Cluster via the Gemrock via the Trilobite 11/00.*

Whoa! Don't Buy that Shiny Gem!!!: Technology has given new meaning to the old phrase "Hot Gem". As you know, irradiation can darken a crystal producing a deeper color. Deep, vibrant colored gems also sell for top dollar. Now what's supposed to happen is the gem is irradiated then stored in a lead container for several years until the radiation has dropped to safe levels. More time means more overhead. Unfortunately, some traders care more about reduced overhead than morals and have released HOT cat's-eye gems to the market. Some of these were measured at 51 times the U.S. radiation limits! Buyer beware! If you're not careful, more than your watch will glow in the dark. *from The Bottom Line via Rock Rollers via the Gemrock via the Trilobite 02/01*

"No matter what happens, there's always somebody who knew it would." *Lonnie Starr from MWF Newsletter 12/97*