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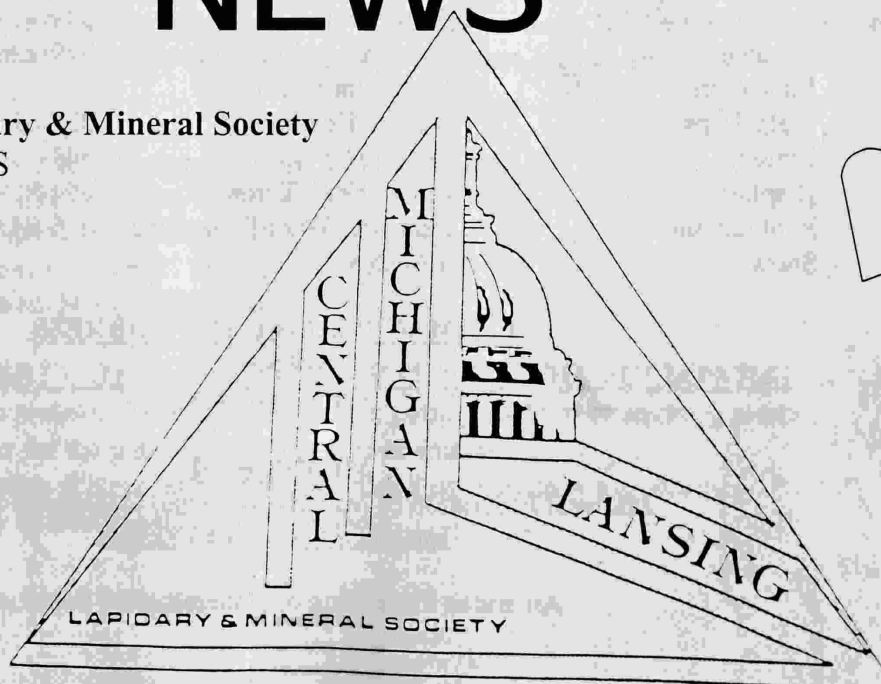


Neil & Connie Snepp
1325 Orlando Dr
Haslett MI 48840

ROCKHOUND NEWS

February 1999

Official publication of the
Central Michigan Lapidary & Mineral Society
Member of MWF & AFMS



ROCKHOUND NEWS

This bulletin is the official publication of the Central Michigan Lapidary and Mineral Society of Greater Lansing, Michigan. It is published the second week of each month except July and August.

The Central Michigan Lapidary and Mineral Society is a non-profit organization, meeting to promote interest and increased knowledge in the fields of mineralogy, geology, paleontology and the lapidary arts. It was organized in May, 1957.

Meeting place: North School, 333 E. Miller Rd, Lansing MI

Meeting date: Third Thursday, except in July and August

Meeting time: 7:30 p.m.; doors open at 7:00 p.m.

Annual dues: Adults \$5.00, Students under age 18 \$1.00

OFFICERS 1999

President	Larry Bourland	543-6669
Vice President	Mary Kay Bean	351-1107
Recording Secretary	Mary Gowans	351-6136
Corresponding Secretary	Lee Olson	339-2059
Roster Secretary	Wayne Zittel	485-2002
Treasurer	Alan Hukill	641-6125
1 Year Director	Ed Drown	347-5097
2 Year Director	Alice Turner	694-9596
3 Year Director	Gail Hopkins	886-6047
Liaison Officer	Bettie Patterson	347-8821

COMMITTEE CHAIRS

Program	Mary Kay Bean	351-1107
Membership	Rich & Lila Stevens	616-693-2733
Hospitality	Phyllis White	349-9159
Finance	Gordon Lewis	349-2263
Education	Duane Jorgensen	
Field Trips	George Heaton	339-8914
Library	Lee Laylin	349-3249
Display	Irwin "Grit" Turner	694-9596
Publications	Jean Ann Wahl-Piotrowski	616-948-9589
Show	VACANCY	

PERMANENT MAILING ADDRESS

4519 Seneca
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MEMBER OF:

Midwest Federation of Mineralogical and Geological Societies

<http://www.comean.com/rock/mwf>

American Federation of Mineralogical Societies

**FEB. 18 REGULAR MEETING: IF YOUR LAST NAME BEGINS WITH
R-Z PLEASE BRING SOME GOODIES TO SHARE
PROGRAM: WE'RE GOING TO THE MOON!**

VICE-PRESIDENT'S PROGRAM REPORT-- Mary Kay Bean
A thank you was sent to Yvonne Ferriera for speaking last month.

This month's speaker will be Karen Stockstill, one recipient of the American Federation Scholarship, who will speak on the subject of planetary geology, as revealed in the Clementine Expedition to the moon. Karen received her Bachelor of Science in Physics & Astronomy from Ohio Wesleyan Union and is currently working at MSU on a Masters in Geology and Volcanology. Before pursuing her master's degree, she worked as an intern at the Planetary & Lunar Institute in Houston TX where she worked with materials from Apollo XVII moon rocks and photos from the Clementine Project.

CORRESPONDING SECRETARY REPORTS-- Lee Olson
Sympathy was extended to Nora Card and her family on the passing of life member Frank Card. Get well wishes have been sent to Marie Lewis, who broke her leg, and to Mrs. Boyd Schumaker, who had surgery recently. If you know of club member in need of a greeting, please let me know!

WELCOME TO OUR NEW MEMBERS:

Welcome to the Penzer family: William, Christine and their son Nick. Between them, they are interested in Archaeology, Fossils, Geology and Mineralogy. Nick is thirteen and a student at Perry Middle School. Please add them to your directory: 14463 S. Barnes Rd, Byron MI; email zalfrin@geocities.com

NEWS FLASH!! TEACHER ALERT!!-- Duane Jorgenson

Once again the Michigan Section of the AIPG (American Institute of Professional Geologists) will award a \$500 Educational Advancement Award in 1999 to promote geological sciences education in grades K-12 in public and/or private schools. The award is made for the best proposed project, as judged by the AIPG Selection Committee, submitted before July 19, 1999. For more information contact:

James W. Brode, Jr., CPG
c/o Fishbeck, Thompson, Carr, and Huber, Inc.
161 East Michigan Ave, Suite 615
Kalamazoo, Michigan 49007
Phone 616-349-3717; fax 616-349-0109
e-mail: jwbrode@ftch.com

KID'S DAY ALERT -- RICH & LILA STEVENS NEED THE FOLLOWING

- egg carton size pieces of: iron, copper, calcite, pyrite, amethyst or anything pretty
 - petoskey stones for the polishing kits (egg size or smaller)
 - shells from Florida (I think maybe any sort of shells would do.-- the editor)
- It's never too early to start thinking about our show!

ATTENTION FACETERS & FACETER "WANNA BEs"

At the last Faceters Guild meeting, sponsored by Joseph and Alberta Manina, someone casually mentioned that it would be nice if a group of faceters from our won club could be gotten together. If you have an interest in faceting, and would be interested in forming such a group, please let Mr. Manina or myself know. It could be fun and informative. There are at least 4-5 members who said they would be interested, but we don't know if others have an interest, so we are throwing it out to the members of our club as a possibility. We hope to hear from some of you.

Alan Hukill

GEORGE HEATON'S POTLUCK REPORT

We had our January potluck at the Alaiedon Township Hall on Sunday, January 24th. As usual, this proved to be a popular event which attracted about 28 people. This was sufficient to provide a good quantity and variety of food and again George Heaton did not overeat but ate just the right amount. Besides eating food we also played a word game brought by Bettie Patterson, viewed slides of Roger and Leora Laylin's recent trip out west, and also Gail Hopkins' slides of past field trips and other events from our club's earlier days including our club's first gem and mineral show. Those members who did not come missed out on some very good food and a fun time.

MINERAL OF THE MONTH: GYPSUM-- Duane Jorgenson

What a coincidence that in the same month the Club field trip is to a semi-active gypsum mine the mineral of the month is gypsum! Thinking persons may conclude it was careful planning, giving more credit than is due.

Gypsum is one of mankind's most useful minerals. Chemically, gypsum is hydrous calcium sulfate, i.e., $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$. What makes gypsum very useable is that 3/4 of the two molecules of water can be driven off with the application of modest amounts of heat. The process of heating to drive off the water is referred to as calcining and the resulting product which is $\text{CaSO}_4 \cdot 1/2\text{H}_2\text{O}$ is referred to as stucco or plaster of Paris after the place in France where it came into popular use. Mineralogically, the 1/2 water molecule phase is known as bassanite. Bassanite is a rare mineral, because, just as stucco, it is eager to convert itself to gypsum which is stable in normal climatic conditions. A third Calcium Sulfate mineral is anhydrite, which is anhydrous Calcium Sulfate, and which in humid climates slowly converts to bassanite and then to gypsum.

Stucco is the basic material of gypsum plaster and wallboard or gypsum panels. In the U.S. about 75% of all gypsum used goes into the manufacture of wallboard, popularly known by the brand name SHEETROCK. In the boardmaking process, the water that is driven off during calcining is added back, and while the mixture is fluid, the stucco-water slurry is formed into a continuous sheet that is cut into standard size sheets after the stucco has rehydrated to gypsum, or set. Wallboard is popular because of its fire resistance. Only after the water in the gypsum of the wallboard core is driven off, does the paper on the wallboard burn. Additional fire resistance is gained by adding additional hydrous minerals to the slurry in the board making process. In 1997, the latest year for which data is available, there were 24,400,000,000 square feet of wallboard sold or used in the U.S., that's more than 560,000 acres, or 875 square miles of surface. It should be noted that wallboard is a popular building material in areas that use lumber as a building material. Where masonry is the basis for building, plaster is much more popular. Other uses include an ingredient in manufacture where it is essential to the control of setting time of the cement; plasters of various types: medical, dental, statuary, etc.; as a calcium supplement in food; calcium enrichment for soils; binder for pills; carving material; etc.. Ben Franklin used gypsum on a hillside

field forming the words "Landplaster used here" in grass that grew greener for all to see from a nearby hillside. Even the Egyptians use gypsum plaster to make the pyramids white.

Gypsum is monoclinic and has a perfect b cleavage which separates easily forming nonelastic plates, which easily differentiates it from mica. It crystallizes in a variety of forms second only to calcite. Gypsum occurs in four main varieties based on crystallinity. The crystallized variety is referred to as selenite, the fibrous variety is satinspar, the very fine grained variety is alabaster, and the ordinary garden variety is rock or massive gypsum. Some of you readers may have some of the spectacular gypsum crystals from the Cave of Swords in Mexico, or have collected selenite roses at Jet, OK.. In most mined or quarried deposits crystals are rare. Gypsum is THE mineral with a hardness of 2 on Moh's scale, is "easily" carveable with common tools, and in spite of being soft, polishes reasonably well.

Deposits of gypsum are widely distributed, but being a sedimentary mineral of evaporitic origin, is not found in quantity in areas of igneous or metamorphic terrain. Michigan holds gypsum or anhydrite, gypsum's parent, in formations of 3 ages, Silurian (Salina Fm.), Devonian (Detroit River Fm.) and the Mississippian (Michigan Fm.). Michigan's 5 active mines and quarries are in the Michigan Fm. and in 1997 total production was 1,920,000 metric tons, making Michigan the nation's 4th largest producer after Iowa, Texas, and Oklahoma(3,100,000 mt). Because gypsum is soluble and the sulfate ion can be converted to Hydrogen Sulfide by sulfate reducing bacteria, many deposits are associated with stinking water or sulfur water, e.g. French Lick IN, Whitcomb sulfur springs in St. Joseph, and many others. Surface water is essential to the formation of gypsum, as it is rain seeping into the anhydrite bearing rock formations that hydrates the anhydrite to useable gypsum.

The field trip was/is to the old mine of the Alabastine Company, which produced a colored plaster, as well as other products, but not wallboard. The mine is a room and pillar geometry, with what appears to be about a 75%-80% extraction ratio. The pillars that remain hold up the back or roof. On the pillar walls you will observe the generally nodular texture of the rock, some pseudo-stratigraphy, and remnant drill and blast holes. Fortunate folks may find old wood dynamite boxes, horse or mule shoes, carbide lights and cans, and other artifacts of the miners who survived the rigorous 54 degree year round temperature, in addition to a variety of gypsum crystallinities, perhaps a few crystals, and maybe phosphate pellets that have been referred to as shark feces. A final two words to the wise-quiz-prize.

This is your last chance!!!!!!

Wayne Zittel the "Roster Rooster"

reminds you that dues are due!

\$5.00 Adults, \$1.00 for under 18 yrs.

See him at the meeting, or send a check to:

3401 Walker Rd, Lansing MI 48906-3205



CLUB CALENDAR

- Feb. 13 Fieldtrip, MI Natural Storage, Grand Rapids. Be ready to go down at 10 am.
- Feb.18 Regular meeting, 7:30 North School
- Oct. 22-24 Our show. WE STILL NEED A CHAIRMAN!!! INTERESTED?

SHOW CALENDAR

- March 6 & 7 Roamin Club Auction. Schoolcraft College, Waterman Campus Center Bldg, 18600 Haggerty Rd, Livonia. Sat. 11-6, Sun 12-6. Free.
- March 20 Metro Rock Swap (Dearborn Club). Democratic Club of Taylor, 23400 Wick Rd., Taylor (just East of Telegraph). 10am-5pm. Free.
- April 7-10 Indian Mounds Show. Eastbrook Mall, Corner of 28th St. & East Beltline (M-37), Grand Rapids. 10am-9pm Free
- April 10-11 Midwest Federation Show & Convention. Veterans Memorial, 300 W. Broad St., Columbus OH. Sat.10-7, Sun. 11-5.
- April 16-18 Mt. Clemens Show, Mt. Clemens Community Center, 300 N. Groesbeck, Fri. Sat 10-7, Sun 10-5
- May 1-2 Cincinnati Show. Cincinnati Gardens, 2250 Seymour Ave, Cincinnati. Sat. 10-7, Sun. 10-5.
- Apr. 30-May 2 Kalamazoo Show. Fairgrounds County Center Bldg., 2900 Lake St. Fri. 4-8, Sat. 10-6, Sun. 10-5. Admission \$2.00, under 12 free with Adult.
- May 21-23 Dearborn Show. Allen Park Civic Arena, Allen Park MI. Allen Rd + Southfield Fri. 5-9, Sat. 10-8, Sun. 11-5:30
- June 25-27 Lawrence County IN show/swap. Monroe Co. 4-H Fairgrounds, Bloomington Indiana. Fri. 10-7, Sat. 8-7, Sun. 8-4. Camping \$6.00 per night. Free admission.
- June 19-20 MGAGS Rockhound Seminar. Southwestern MI College, Niles MI \$15.00 per day, advance \$12.00 per day. See Grit & Alice Turner for more information.
- Aug. 8-16 Red Metal Retreat. Houghton MI
- March 19-21 Jackson Show Masonic Lodge, 355 Napoleon Rd, Michigan Center. Fri. 11-7, Sat 10-7, Sun 10-5

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CENTRAL MICHIGAN LAPIDARY & MINERAL SOCIETY
TREASURER'S REPORT
JANUARY 1, 1999 - JANUARY 31, 1999

BALANCE ON HAND(01-01-99)
CERTIFICATE OF DEPOSIT(07-16-99)
COMERICA BANK SAVINGS
COMERICA BANK CHECKING
TOTAL

RECEIPTS:
DUES
BADGES
CONTRIBUTION
CHECK RE-ENTRY
SAVINGS TO CHECKING TRANSFER
INTEREST
TOTAL

DISBURSEMENTS:
MERIDIAN TOWNSHIP
STATE DIRECTOR
MWF INSURANCE
MWF DUES
SAVINGS TO CHECKING TRANSFER
PUBLICATIONS
ALAIEDON TOWNSHIP(RENT)
CORRESPONDING SECRETARY
TOTAL

BALANCE ON HAND(01-31-99)
CERTIFICATE OF DEPOSIT(07-16-99)
COMERICA BANK SAVINGS
COMERICA BANK CHECKING
TOTAL

RESPECTFULLY SUBMITTED.

ALAN HUKILL

THOMSONITE

Thomsonite, a zeolite mineral found in volcanic rocks as seam or gas cavity fillings, is named after a Scotch chemist, Dr. T. Thomson, who analysed it.

Pure Thomsonite is dead white in color. The colorful banding in most Thomsonites are caused by infiltrations of foreign minerals during growth. Iron, copper, and other elements are responsible for the pink, red, green, black, purple, brown, and yellow colors.

Thomsonites have been found in Nova Scotia, Colorado, Oregon, Michigan, New Jersey, Minnesota, Czechoslovakia, and Germany.

Ontario Thomsonites are reddish and brownish tints, and are found on the beaches of Michipicotin Island in Northeastern Lake Superior.

Michigan Thomsonites are found on the beaches of Isle Royal and in areas of the Upper Peninsula.

The Minnesota Thomsonites are found along Thomsonite Beach in Cook County, about $5\frac{1}{2}$ miles along the shoreline of Lake Superior between Grand Marais and Lutsen. An authority estimates the locality to be only 65 feet across the outcrop.

The basaltic rocks containing the Thomsonite in the Grand Marais area are among the oldest of this continent ranging from 1.1 to 1.4 billion years of age.

In Thomsonite formation, the liquid magma within the earth rose to the surface. As this occurred, the surrounding pressure decreased. As result, any gases in the magma expanded. Voids were formed by these gases as the rock solidified. Later, water containing dissolved minerals percolated through the rock depositing minerals in the voids.

The most color is found just below the opaque dark green skin. Dark green and black colors are next to the skin while the pinks, yellow, and other colors are more into the interior of the spheres. Many eyes appear in the radiated masses.

The Thomsonites of Grand Marais are distinctive. No others like them are found anywhere in the world. The best specimens are found in the gravels of Lake Superior where the constant wave action has weathered them out of the basalt. The Thomsonites are free of the green skin or basalt matrix as they are partially polished because of the constant tumbling by the waves.

Most nodules measure $1/8$ to $5/8$ inches. Specimens over an inch are highly prized. They have many eyes and are highly chatoyant. Those imbedded in the basalt are hard to remove without fracturing. There is a way to do it, but much care and patience is needed. These Thomsonites are covered with an opaque green skin.

November seems to be the best time to collect from the lake because the gravels are close to shore and Lake Superior is calmer. Best specimens are found by scuba divers.

Thomsonite has a hardness about 5. The minerals are very brittle and most have fracture lines. However, they make beautiful and valuable jewelry. The fractures enhance the beauty of the pieces.

Thomsonite was mined during the middle ages in Scotland, and was used as good luck stone.

Queen Victoria commissioned the Chippewa Indians to mine Grand Marais Thomsonites because they were becoming scarce in Scotland.

-Continued

THOMSONITE, CONTINUED

Thomsonites have been found in Alaskan Eskimo burial sites over 2000 years old.

The Russians made jewelry using them in the 8th century.

Thomsonites are found along the beaches of the Keweenaw Peninsula (and on Thomsonite Hill not far from Eagle Harbor).

The Pica Pick,
Tulip City Conglomerate
via The Conglomerate 2/98

PRETTY IN PINK

One of the most attractive minerals for jewelry is rhodochrosite, a manganese carbonate ($MnCO_3$). It is the ore of manganese and occurs most commonly in vast sedimentary deposits. In one location, rhodochrosite occurs as stalactites in old silver mines abandoned by the 13th century. These tunnels in the Capilltas Mine in Argentina, have furnished some of the finest ornamental rhodochrosite ever found and continue to produce fine specimens. The owners of this mine currently only mine the rhodochrosite for jewelry and collecting specimens. Cavers oppose removing any materials from caves but these are man-made tunnels in which stalactites have formed over the 700-year period since the mines were abandoned by the Inca Indians.

For jewelry, desirable rhodochrosite rough is a warm pink color. Its name is from the Greek and means "rose-colored." A fancy name for rhodochrosite is "Inca Rose." The rough often features concentric bands of pink and white rhodochrosite (not white calcite). More commonly, it is reddish-brown, brown, or gray. It is a very soft mineral, rating only a 4 on the Mohs scale. It should be handled very carefully, as it is also brittle. Rhodochrosite crystals form in the trigonal system forming

rhombohedral crystals. Fine crystals have begun to be found again in the Home Sweet Home Mine, a historic silver mine in Colorado. The largest gem on record is 59.65 carat oval faceted gem from Kuruman, South Africa.

Working rhodochrosite rough into jewelry can be difficult. It may tend to separate along the bands. Further, it has three directions of easy cleavage making it brittle and weak. It is somewhat heat sensitive. Consequently, rough must be handled carefully to avoid shocks that might break it and excessive heat that might harm it. The bands have different degrees of hardness, so sanding will deform the stone, use only the finest wheels and grit to smooth and polish stones. Grinding results in pits that seldom disappear during sanding. Finished rhodochrosite will oxidize, causing the surface to turn brown with age. If you have rhodochrosite jewelry, treat it gently. Be sure to protect it from bumping against harder stones or being tumbled with other jewelry that may scratch or nick it.

By Sue Medina (Golden Nugget 4/96)
The Quarry 12/98
via The Pterodactyl 1/99

OVER 500,000 ARTIFACTS were found at sites along the trans-Alaskan pipeline. Some date as far back as 10,000 years. Flint scrapers, small micro blades and projectile points comprise the bulk of the finds. Tools, animal remains and dwelling ruins have all been found. The finds indicate that early inhabitants were nomadic and followed caribou herds and fish runs. Finds in the Brooks Mountain range suggest yearly north slope crossings. Whalebone sled runners, copper, obsidian, and white mink bones have been found hundreds of miles north of the area of origin.

From Pegmatite, via Quarry Quips