



ROCK and MINERAL CLUB

P.O. Box 102

ISHPEMING, MI. 49489

THE JASPIRITE

Affiliated with the Midwest Federation of Mineralogical & Geological Societies

Business Meetings: 1st Fri. of Month. 7 PM--Jacobetti Veterans Facility
425 Fisher Street, Marquette, Michigan

Program & Activity: 3rd Sun. of Month. 2 PM Marquette Township Hall, West of
Marquette, Michigan

I don't know about the rest of you, but I am ready to enjoy the coming of spring and the wonders of mother nature, in her brilliant display of colors as she awakens the country side, after a long restful sleep. This picture came to me as I was thinking back to the last two programs: Lake Superior Agates and U.P. Gold mines. They just gave you that feeling of wanting to get out and explore the countryside and walk the beaches, and I'm sure I wasn't the only one.

The coming of spring means field trips. Where should we go, what are we interested in; these are the questions, the answers we need from you. Give Bruce Spike your suggestions.

The Swap and Show is moving ahead under the leadership of Bruce Spike and Larry Sain. As always we ask you to step forward and volunteer. Remember only a team effort will make it a success.

Your President,
Ernie Johnson

From the Secretary's Minutes,.....

The Seaman Museum thanks us for our support and we are Silver Club members again.

A letter from Don Auler to Bruce had this interesting information about the fossil algae at the Lindberg Quarry: "Most of the wavy lines in the Kona are layers of Algae (also called stromatolites) that have been distorted to some extent by metamorphism. The undistorted Algae are in the huge boulders at the entrance to the pit. The algae masses are hard to describe as they have little structure. Although they can be identified in a large mass it is difficult to chip off a small piece that would serve as a specimen. These stromatolites are the same blue-green Algae that exists today.

In Wyoming it forms part of the "Snowy Range", west of Laramie, Wyoming and is 1.7 billion years old. The Kona is in the Huronian series. I don't know its age, but it is very old. Anyway, what's a few million between friends. We hope to make the Swap in August."

The Chamber of Commerce, Ishpeming would like us to list collecting sites in the area for national publications ads, to give to tourists. Include whether or not permission is needed.

The annual auction in April will be on the fourth Sunday, April 25. Bring slabs, rock and mineral specimens, tools, equipment, books, goodies, etc. for the tables and your spare cash to make some good buys.

Laura Wilhite presented the IRMC with the March/April 1990 issue of Michigan Natural Resources in which Ingrid Bartelli is featured by Dixie Franklin a local freelance writer. We thank Laura for her thoughtfulness and are proud of our mushroom expert and rockhound.

The suggestion was made that we have a children's Treasure Trove at our August Swap. This will be discussed further and reported in the next Jaspilite.

The popular Kids Table introduced at the 1989 Swap will be repeated this year. Everyone having specimens should break them down to an inch square or so to fit in egg cartons. The following is a review of what we have, who are volunteering certain minerals and other minerals we need to collect or have people volunteer for. We should have 100 pieces of each.

We have 100 pieces of Ilmenite, Limestone, Slate, Magnetite, Feldspar, Copper, Granite, and Diabase.

We need more Quartz, Gypsum, Asbestos, Diorite

Volunteers: Smalls--Kona Dolomite, Obsidian & Pyrite. Sains- Goethite, Agate, Micaceous Hematite. Mulzer- Marquette Jasper & Verde antique. Bartellis- Marcasite.

We also need 100 pieces of each of the following: Jaspilite, Muscovite, Garnet, Gneiss, Galena, Calcite, Amygdaloid, Talc, Asbestos, Clay concretions, Shale, Sandstone, Quartzite, Marble, Schist, etc.

Hostess for the April 6th meeting--Jan Ruonavaara.

Door prizes for the April 25 meeting--Sains.

Hostess for May 4th business meeting--Clive Sain

Host for the June 1 business meeting--Leon Anderson.

Report on members: Ernie and Helen Johnson have a new Grandchild; number three.

Dorothy Bowns reports that Jim is enjoying his travels in the Southwest and missing the snow. Laurence Sain thanks you for the Get Well cards, telephone calls and visits as he recovers from hip surgery. Dorothy Tubbs has been a patient at Marquette General Hospital. Our love, thoughts and prayers are with Laura Wilhite to give her strength and encouragement. Art Wiig has been missed at our meetings; his mother has been a patient at Marquette General for a long time this winter, we know how full his days must be.

GHOSTS IN THE NIGHT SKY.....Bruce Spike

The Rockhounds Hobby is made possible by the many natural phenomena of our planet. Ever changing; building, tearing down, rebuilding--from crystals to mountains. These forces have been exerting their influence since earth was formed 4 to 5 billion years ago.

Not all the influences are confined to earth and its atmosphere. Our universe, the sun and the planets, also create stresses and pressures which we can feel and see from time to time.

A recent article in Readers Digest (Dec.1989) presents the affects of a major solar storm. Originating from the Sun (solar flares) a mere 93 million miles away, it created disturbances world wide; massive disruptions of radar, satellite, navigation and radio communication systems. It caused huge power surges in oil pipelines, undersea cables and electrical systems. Six major transmission systems in Sweden lost power and a tremendous electrical failure in Quebec lasted for more than nine hours. These various disturbances happened about a year ago when 59 major flares occurred between March 6 and March 19, 1989.

The sunspot cycle that triggered this storm may be the largest ever observed. It is expected to peak perhaps this very month. Get out and see the beautiful displays of the Northern Lights. The Aurora appears in many forms--as arcs of light, as bands that fold across the sky like radiant ribbons up to 200 miles wide and a couple thousand miles long, as patches like glowing clouds, or as rays in an immense star burst. It can shine with all the colors of the rainbow but red, pink, whiteish-green, and purple-blue are most common.

These solar storms come in eleven-year cycles, battering earth with trillions of electrons and producing various colors of light as they collide with atoms and molecules of oxygen, nitrogen and other gases in the atmosphere. The most brilliant display of Northern Lights I ever observed occurred 33 years ago as I was driving one spring night in central Wisconsin. The shafts of light appeared all around the horizon and converged to a vertex directly above me.

January meeting--AGATES.....Ernie Johnson

(Members brought in choice agates for the display table. These were looked at before the program and more carefully scrutinized following the slide program on agates.)

Plume, Carnelian, Sagenite, Moss, Tube, Fortification, Banded, Eyes and combinations. What do these words all have in common? they list the broad Lake Superior Agate types and patterns. Where would you have heard these descriptive words? At the January program meeting. For those of you who were at the meeting, it should bring back visions of beautiful Lake Superior agates and a great wish to hit the beaches this spring and summer.

When I ordered the slide program from the Midwest Film Library, I wasn't sure what to expect. It contained 110 slides which were excellent and the narrative very descriptive. It provided an overview of the many different types of agates and showed in detail what you should be looking for.

To me an agate was an agate; now I can say that I have a better understanding of what I have and what I am looking at.

I believe all those in attendance also came away with a new perspective concerning agates; the types, patterns and the different combinations they come in. It was a very well presented program and we thank the person or club who prepared the program for the MWF Film Library.

February mineral--PUMPELLYITE....I. Bartelli

Shortly after the beginning of time, mother nature was busy baking the crust of the earth. One day when she was working on the Keweenaw peninsula she felt like creating something particularly beautiful. Her specific task was to fill up all the little gas holes in the amygdaloidal basalt. She filled some with agates, thomsonite, calcite, quartz, etc. She wanted to create something green, not the yellow-green of the epidote crystals, but a soft blue-green.

So she opened her cupboard to select from the 10 or more elements stored there. She was starting from scratch. Just as flour is the basic ingredient used when we bake bread, mother nature used silicon generously when she baked the earth's crust, in fact, most of the igneous rocks contain silicon.

For her lovely blue-green creation she chose, in addition to silicon, some calcium aluminum oxygen and hydrogen (sometimes adding a dash of manganese or a sprinkling of iron). She mixed it all with water. The result was as gorgeous as she had hoped. Some of the opaque blue-green crystals looked like jack straws. Sometimes they lay flat in vugs; other times they were piled in star-like aggregates to look like miniature castles--particularly lovely when in company with pink or white feldspar minerals.

More often they were in the form of a fibrous, green, moss-like turf lining the walls of the tiny cavities. Frequently tiny crystals of other minerals such as copper, calcite, quartz, even silver, etc., decorated the green turf. Sometimes the vugs were packed solidly with the fibrous, green, radiating sprays. A job well done!

Eons later, a man by the name of Marguci found some of these crystals in the Carpathian Mountains which he called lotrite. About the same time copper was discovered in the Keweenaw. A geologist studying the area by the name of Palache discovered the same mineral in abundance in the copper ores. He called it Kearsargeite. A fellow geologist, Butler, didn't like the name so Palache crossed it out and wrote in Pumpellyite after another famous geologist--at one time geologist for the state of Michigan.

In 1940 Griffiths from the U of M proved that the solid form, which had been called Chlorastrolite, was actually a form of Pumpellyite. This truly beautiful mineral was named the gem stone for Michigan in 1972 by the seventy sixth state legislature. It is to be known officially as Pumpellyite, variety Chlorastrolite--the gem we commonly call the Michigan Green Stone. With the major world source the Keweenaw land and Isle Royale, Mother nature was most kind to us.

Copper Prospects near Marquette.....Dan Fountain

(Dan Fountain presented this program at the February meeting. However I am printing the letter he sent to the editor last fall.)

The copper prospects south of Marquette were discovered in 1888 by Andrew S. Pings (best known for his brownstone quarry at Mt. Mesnard). Pings discovered and briefly worked the vein in Section 1, T 47N-R25W before selling the prospect to Julian Case. Case sank an 18 foot shaft on the vein and shipped a ton of the ore to a smelter in Chicago for testing. The ore yielded 10 1/2% copper, but Case died before developing the prospect.

By 1897, the Case prospect was held by John M. Longyear, who had more smelter tests run and found that the ore carried \$12. in gold (at \$20.67 per ounce) and 6 ounces of silver per ton, as well as 3% copper. Longyear's crews traced the vein for several hundred feet and sank a second shaft to 40 feet. Twenty tons from this shaft were shipped to the smelter, but apparently proved disappointing, for nothing more was done with the prospect.

After selling the prospect to Case in 1888, Andrew Pings continued his copper explorations in the Migisy bluff area. Near the center of Section 2, T47N-R25W, he found another vein of copper ore, which he sold to Peter Gottstein of Houghton. Gottstein sank a test pit on the vein, which was on land owned by the Harlow family of Marquette, and traced the vein onto land owned by the Iron Cliffs Company. He was unable to get an exploration option on the Iron Cliffs land, and prospecting was abandoned.

When Longyear reopened the Case prospect in 1897, Marquette banker James Wilkinson obtained options on the Harlow and Iron Cliffs land. Specimens from this vein were found to carry as much as \$10.33 per ton in gold, with 1 1/2% copper and a trace of silver. Over the next few months, the prospects had at least two more owners, and two shafts were sunk, to depths of 25 and 40 feet. The last owner left town without paying the mine's bills, and the prospects closed for good.

I know of 2 shafts in Section 1, one near the dirt road which runs from Quarry road (I believe this is the Case Shaft) and another a few hundred feet west along a path (probably the Longyear shaft). In Section 2, there is one shaft at the SE corner of Buschell Lake (formerly known as Copper Lake)--it's actually underwater now, since the lake level has been raised several feet by beavers. Another shaft is located on the south side of the hill south of the lake, a few hundred feet up a small valley from the two rut road leading to the lake.

I've been researching the history of gold mining in Michigan for the last 7 years, and have written a book on the subject which will be published in 1990.

FIELD TRIP SCHEDULE---1990.....B. Spike

- May 19 and 20: Copper Country. Headquarters at Hancock City Park. Explore the many poor rock piles for stirred up activity.
- June 17: Fathers Day special. Felch area with Arnold Mulzer. Rock collecting and sightseeing. Picturertaking at the Barney Miller farm.
- July 15: Exploring old mine sites--Silver and Gold prospects.
- Aug. 5: Lindberg quarry--swap special-- a short side trip if time permits.
- Aug. 19: Still open for suggestions.
- Sept. 1-3: Another Copper country trip? It's a good time for wild apples.
- Sept. 16: For the past two years the CAMPER crew has explored the north shore and Minnesota. Where to in 1990? Let's talk it over.
- Oct. 7: Our fall color tour--Pictured Rocks National Park to the Dunes of Grand Marais and Tahquamenon Falls State Park ending up in Paradise.

Field trips are an excellent opportune time to collect mineral specimens for the kids table and the Treasure Trove at the August Swap. Such materials as Slate, Shale, Pyrite, Marcasite, Jaspilite, Jasper, Kona Dolomite, Graphite, Pyrolusite, Verde Antique, Calcite, Quartz, Selenite, Marble, Pegmatite with Mica, and many more.

SELENIUM---A Health Threat.....B. Spike

A recent article by Robert Walters, syndicated columnist; highlights yet another threat to human existance on earth. To quote--"In an era when new threats to human health and safety surface constantly, the risk posed by exposure to an obscure natural element known as selenium are hardly atop anyone's list of hazards."

A study panel assembled by the governor of Wyoming found no cause for alarm, however, the presence of selenium at elevated levels at sites across the state was a matter of concern. Potentially toxic concentrations of selenium have been found throughout the west. We may also share the problem because western livestock and produce tainted with selenium are routinely shipped throughout the country.

What is selenium? It is an element and it is poisonous. Where high concentrations exist it can leach out of the soil to contaminate water sources. Strangely enough it is an essential nutrient in limited amounts. Ingestion of large quantities can produce damage to the central nervous system, respiratory failure, birth defects, muscle degeneration and numerous other toxic effects, even death.

Although the name is similar to selenite (CaSO₄) a common mineral here in the Midwest, there is no chemical connection. No troublesome selenium deposits have been found east of the Mississippi River. Other than avoiding areas of high concentration, there is little that can be done.

FOOD FOR THOUGHT: Wouldn't we all be better off if we retained as much of what we learn as we do of what we eat? (Agate Picker)

EARTHQUAKES/FAULT ZONES in the Midwest

There are two major fault zones in Central North America: the New Madrid rift zone and the Wabash Fault. The latest earthquake affecting Michigan was the fault running under Lake Erie which registered 5.0 in Detroit, the strongest recorded in Michigan; this was in January 1986. According to Lay, they didn't know there was such a fault until the quake. That quake had its epicenter nine miles below Lake Erie, about 30 miles northeast of Cleveland.

Eastern and Midwestern soil is so thick that seismologists have a much harder time spotting faults than they do in California where they are visible from the air. Lay also stated that when shaken, buildings standing on weak soil are more likely to pitch forward into the street.

For earthquake activity, Michigan is considered to be in Zone One whereas California is at the other end of the scale, Zone Four.

Due to Michigan's low level of seismic activity, earthquakes weren't even considered in building codes until 10 to 15 years ago. Such codes only require Zone One tolerance. If structures were built to withstand Zone Four standards they would cost 15 to 20% more.

Although seismologists say there's not much chance that an earthquake in the 6.9 Richter magnitude would rumble through southeast Michigan, if one did, the destruction would be much greater than the San Francisco quake in 1989.

Freeway bridges and overpasses would collapse, along with some unreinforced brick buildings and many chimneys. R. Darvas, professor of Architecture at the U of M said that damage would be bad because none of our buildings have been designed for an earthquake of that magnitude. Power and water disruption would be severe and many parking decks would pancake.

T. Lay, assoc professor of geological sciences at the U of M said a plus is Detroit's bedrock and dirt, most of which is glacial till left over from the ice age. Although the till isn't very strong, it's sturdier than the soil of northern California's bay area.

.....Excerpt from Detroit Free Press

U.P. DIAMONDS: Crystal Explorations Inc. (a Colorado Co.) has been prospecting for diamonds in the U.P. and adjacent parts of northern Wisconsin for more than a year. The company bought the mineral leases and geological data from the Dow Chemical Co which had done explorations for six years. The bulk of the exploations are done in the winter when they can get heavy equipment over the ground. The search began after geologists found seven rare volcanic shafts in a 40 mile area around Iron Mountain and Crystal Falls.

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IRMC OFFICERS FOR 1990

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Membership: Chairman--2nd V.P. The club is open to anyone interested in Earth Sciences. Initiation: \$1.50. Membership annual fees: Husband & Wife-\$3.00, Adult-\$2.00, Jr.-\$1.00

OUR PURPOSE

To enjoy, to learn, to teach and to conserve
The rocks, the gems, the fossils and ores.
To collect, to admire, to brag and to show
The material we've found, we'll trade for yours.
.....Bob and Marian Markert



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