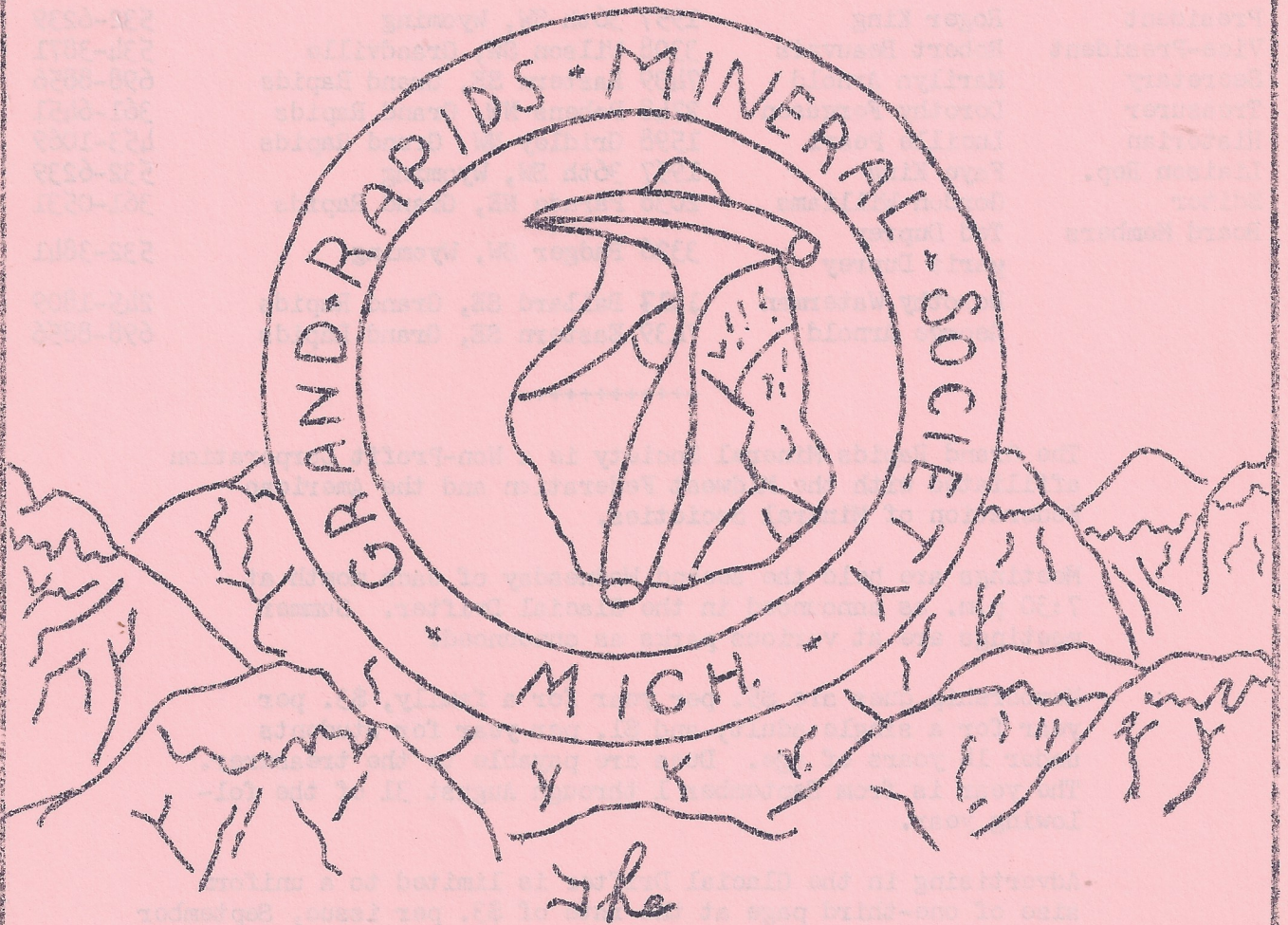
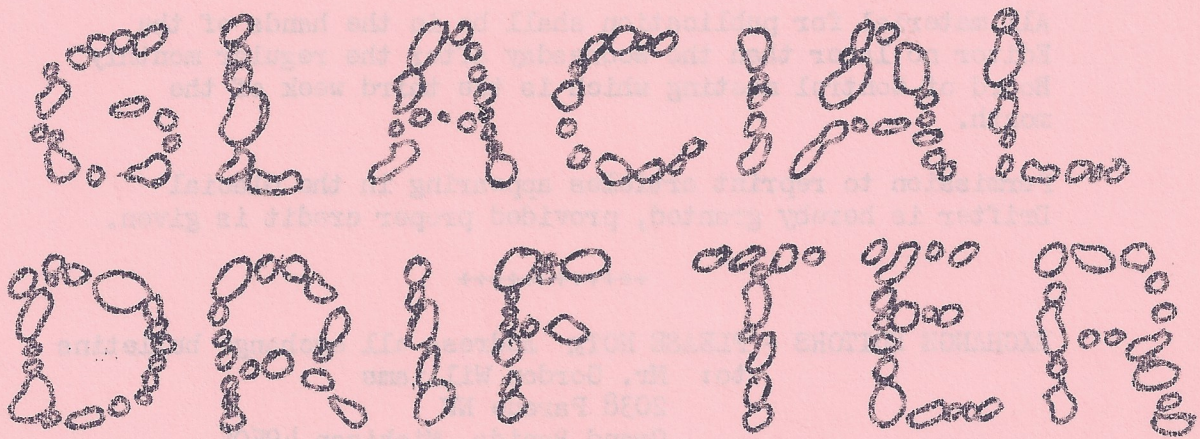


MARCH 1972



The





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The Grand Rapids Mineral Society is a Non-Profit Corporation affiliated with the Midwest Federation and the American Federation of Mineral Societies.

Meetings are held the second Wednesday of each month at 7:30 p.m. as announced in the Glacial Drifter. Summer meetings are at various parks as announced.

Membership dues are \$5. per year for a family, \$3. per year for a single adult, and \$1. per year for students under 18 years of age. Dues are payable to the treasurer. The year is from September 1 through August 31 of the following year.

Advertising in the Glacial Drifter is limited to a uniform size of one-third page at the rate of \$3. per issue, September through May only.

All material for publication shall be in the hands of the Editor no later than the Wednesday after the regular monthly Board of Control meeting which is the third week of the month.

Permission to reprint articles appearing in the Glacial Drifter is hereby granted, provided proper credit is given.

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EXCHANGE EDITORS - PLEASE NOTE Address all exchange bulletins to: Mr. Gordon Williams  
2038 Parade NW  
Grand Rapids, Michigan 49505



# THE GLACIAL DRIFTER

VOLUME 14

NO. 7

MARCH

1972

## MARCH MEETING

Place: East Building, Grand Rapids Public Museum

Time: 7:30 p.m. Wednesday, March 8, 1972

Program: Karl DeBack takes us to the Midwest Convention and Show at Mansfield, Ohio, last July via slides; Randy Jurries will exhibit his prize winning lapidary display from that show. Karl also has slides taken at Lizzadro Museum on our January field trip there.

## G.R.M.S. CALENDAR

- March 2 - 7 p.m. "Set-up" time at the Museum
- March 4 - 8 a.m. until closing "Set-up" day at the Museum for our March show
- March 13 - Board of Control meets with the Ferguson's
- March 21 - Indian Mounds Rock & Mineral Club Silent Auction - 7:30 p.m. - Sunset Park Church of God, 3450 Michael SW, Wyoming
- March 29 - Mineral Study Group at the Beauvais home
- April 2 - Remove museum displays after 5 p.m. (also on April 3 at 7 p.m.)
- April 12 - Regular Meeting - Program on birthstones by Jim Frans
- April 26 - Mineral Study Group

Mr. & Mrs. Arnold R. Wendt Sr. will be honored on their 50th wedding anniversary by an Open House on Sunday, March 11, from 2 - 5 p.m. at St. James Lutheran Church (basement social room) at 2040 Oakwood NE. All relatives and friends are invited. Mr. & Mrs. Arnold Wendt Jr. will host the event.



## FROM THE PRESIDENT'S ROCK ROOM

This month my rock hunting story is about our trip to Herkimer, New York on September 4, 5 and 6 of last year. On this trip we enjoyed the company of our rock hunting friends, Ted and Marie Duprey. We all traveled in the same car which made the trip very interesting and the time simply flew by.

Leaving at 2 a.m. (my usual time!) we arrived at Niagara Falls about 9 a.m. This was the first time my son, Lance, had ever seen the falls. And at the age of four this is really something to see. You should have seen the look on his face. I think it was just too much for him to take in all at one time. After all, it is one of the seven wonders of the world.

After a while at the falls, we left and got on the New York Thruway which takes you on a direct route to Herkimer and the famous diamond fields.

First we got a motel, then off to the diamond fields which are in the town of Middleville about ten miles north of Herkimer. There are two places to hunt and they are right next to the road, side by side. The first place you come to, the Herkimer Diamond Company, is the original quarry where the first diamonds were found. There the fee is \$2 a day for men and 1.50 for women. The other place is called the Ace of Diamonds and the charge is 50¢ less per person. Children under 12 years of age are free.

We decided to go to the Ace of Diamonds because there were not as many people and the choice was a very good one. We found a fair amount of very fine diamonds. You really have to work hard to get them. The rock is just about the same hardness as the shale in our own gypsum mines, but a lot thicker and the only way to get to the diamonds is to break it up with the biggest hammer you can handle. I brought a 12 lb. hammer from the shop to use. I thought this would be big enough - but I found out that it would bounce off the rock like a rubber ball. The men out there were using hammers up to 25 pounds. This seems to be the best size to use if you really want to burst rock and also get yourself a good body building course at the same time. You should have seen Marie swing that 12 lb. sledge. She is quite a swinger. My wife just took it good old Tennessee style - sitting down. She's from Tennessee, you know!

The weather was quite warm and sunny, 86° and I do believe this was the hardest I have ever worked for any mineral specimen--but Herkimer diamonds are one of the prettiest. We collected about 200 diamonds between the five of us and working on a joint basis, we split all the loot between us.

We enjoyed our trip very much and are planning another one this year. So, rockhounds, join together on some of your rock hunting trips. It's lots of fun to travel together - and to work together - hard!

(continued on page 2)



## PRESIDENT'S ROCK ROOM (concluded)

Remember our show! You may set up your display either on Thursday, March 2 after 7 p.m. until 10 p.m. or on Saturday, March 4 from 8 a.m. to closing time at 5 p.m.

June Smith gave a very interesting and accurate account of her trip through Grand Canyon at our February meeting. I know I really enjoyed it and I am sure all of you did too. Thanks so much, June, to you and your husband.

We have our club stickers in. This is a reproduction of our club emblem and you can use them on the window or bumper of your car (good for identifying cars at field trips), on your trailer, or anywhere you choose. You can get them from our treasurer, Dorothy Ferguson, at 35¢ each or 3 for \$1.

Once again, we need a candidate for our Michigan Conservation Camp Scholarship this summer. This should be someone with an active interest in ecology, conservation, and preferably geology; and one who is in a position to pass his knowledge on to others, i.e., a teacher or prospective teacher. If you know of anyone interested and eligible, please contact me or any member of the Board of Control.

-Roger King

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BE PREPARED

At our next meeting the editor plans to ask you to fill out a little questionnaire. We are going to ask each of you to tell us your favorite specimen and your favorite hunting area. This will make some good entries for our field trip books as well as some interesting copy for the Drifter. Have your answers ready.

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AN AD FROM ONE OF OUR MEMBERS:

FOR SALE: Waddell Display Case - birch finish, glass front with mirror back, base and 7 shelves. 36" wide, 7' high, like new condition. Bargain at \$75. May be seen by appointment only. Phone 452-5713, -Edna M. McDowell



## FROM THE EDITOR'S ROCK ROOM

Our Field Trip Chairman asked if I would explain that because of the many obligations we have at the show, no field trip has been planned for March. April and good weather (?) should find us back at it.

Sitting here editing the bulletin I am watching the sparrows, juncos, and redpolls contesting for space at the feeder. The birds must be getting cabin fever too for today they are noisy and quarrelsome. Their chatter is sharp and strident and they show signs of wanting to stake out their own territory. And we even have some misguided crocus that have pushed their noses into this February air.

Spring is indeed coming!

Speaking of spring - how many of our members are Ishpeming bound for the convention? Remember, there are only 3000 spots available. Don't get left out.

I hear tell the basement field trip was another successful one. Since we were the first stop this time, we can report that it was indeed a pleasure to see between 30 and 40 G.R.M.S. members and guests visit us. I undertook a count, but ran out of fingers and toes.

By the way, did you see Bob Beauvais with his camera and notebook lining up specimens for the show? No use telling him you have nothing - he has the pictures to prove you have!

My stars! I can't find a thing about our January 29 field trip to the gypsum mine. Probably the reason the editor neglected to say anything about it was that he was just too lame to write.

About 20 showed up for a forenoon of chipping, hammering, and general hard rock mining with small tools. But the rewards were worth the effort. We saw many beautiful crystals taken and came home ourselves richly rewarded with one nest of perfectly terminated crystals.

We heard of no mashed fingers, toes or broken hard hats. The good natured kidding and general good fellowship made it a successful day.

Who said anything about spring? While I have been putting the Drifter together, a storm front moved through and it is snowing like it means to continue. Oh well, I still say spring is coming!

We had a newsy letter from the Cooleys dated 2/14/72 telling us of the Tucson, Arizona, show. They were thrilled to be a part of the show with their "Fossils of Michigan" exhibit. Prior to the Tucson show they participated in a coin show with Chuck awarded a trophy and Gladys a certificate. Later she was interviewed by one of the Tucson papers. On March 8 they leave for a tour of Guatemala and will be headed for Michigan on April 1.



March is  
Show Month

## " THE MIRACLE WORLD OF MINERALS "

By the time you read this it will be time to put in our displays at the museum. Thursday, March 2, at 7 p.m. and Saturday, March 4, at 8 a.m. are the times. Today we will report mainly on details not covered previously-for other details see your December and January Drifters.

Bob Beauvais, chairman of the club mineral exhibit, will use the first three large wall cases on the north side of the museum to display mineral specimens. Case #4, devoted to physical geology, will be put in by Steve Tchozeski and his earth science classes from Belding. Dr. Rose will depict four periods from the Paleozoic Era in case #5 and Rich VanBeek will show the Cretaceous period and Eocene Epoch in the end case.

Gordon Williams is preparing an insert "plugging" our show, 100 copies of which will be sent to all of the rock clubs within 75 miles of Grand Rapids to be inserted in their bulletins.

We will be getting plenty of publicity and this should assure a good attendance for our show. Now it is up to us - and that means YOU - to do our part in making this the best possible show that we are capable of putting on.

As announced last month, Dan Miller and Don Zandee will appear on "Bozo's Big Top" on WZZM-TV, ch. 13 on Tuesday, March 7 at 7:30 a.m. They will show about a dozen rocks and fossils, the club emblem, three slides of last year's show, a rock hammer, etc. This will be taped the previous afternoon. A WOOD-TV cameraman will be at the museum opening day. This will be shown on the ch.8 11 p.m. news the same evening and/or on the 12:30 or 6 p.m. news the following day. Bob Beauvais and Rich VanBeek will be on "Ac'cent" on WKZO TV, ch. 3 at 11 a.m. on Thursday, March 2, with slides, the club emblem, etc. This has all been arranged by Terry Viele of the museum. She is also making arrangements for newspaper coverage. We are hoping for "Flair." Buck Matthews has promised to announce it on his morning show at 9 a.m. on WOOD-TV, ch. 8.

Marguerite Petersen, School Publicity Chairman, has sent flyers to 76 area non-public schools, the colleges, and rock shops. She has also placed an article in "Contact," which she edits, and which goes to every  
(continued on page 5)



THE MIRACLE WORLD OF MINERALS (continued)

public school teacher in Kent, Ionia, Allegan, Ottawa and Montcalm counties.

In conjunction with our show there will be a special art exhibit by R. J. Kronbergs of Stockholm, Sweden, entitled "Flowers of Stone." This will run from March 22 to April 2. The artist used ground up rocks and minerals for his "paint," including fluorescent ones which will be shown under black light. The list of rocks and minerals used appears in Swedish and is interesting since the English equivalents are obvious for some. To list a few: rod arsenik, gnejs, jaspis, kalcit, rosenkvarts, ortoklas, granat, kvarts, pyrit, and kvarts och dolomit. We were stumped by jarmalm I, flusspat, farggrafik, bla stensalt, and tidernas begynnelse I. These have been exhibited in London and Paris. Some will be placed in one of the portable cases in the Jefferson Avenue building and the others in the East Building. Arrangements were made by the local Latvian community.

A schedule of hosts, hostesses, demonstrators, and programs for the show follows:

<u>HOSTS &amp; HOSTESSES</u>	<u>DEMONSTRATORS</u>	<u>PROGRAMS</u>
Marilyn Arnold Chairman	Henry Tchozeski Chairman	June Smith Chairman

SUNDAY, MARCH 5

Henry, Bette &  
Nancy Tchozeski  
Steve & Joyce  
Tchozeski

Marilyn Arnold  
-Lapidary-

Slide Lecture:  
"Dating the  
Past"  
by W. D. Frankforter  
Museum Director

SATURDAY, MARCH 11

Jim & Em VanVuren  
Joan, Paul & Dan  
Miller

Junior Rockhounds  
with Larry Fegal

SUNDAY, MARCH 12

Stan & Fran  
Wondolowski &  
children  
Sandi Feole &  
children

Don Bowers  
Joan Miller  
Paul Miller  
-Lapidary-

Slide Lecture  
"Geological History  
of the Grand Rapids  
Area"  
by James Muller  
teacher, G.R. Central  
Christian High School

SATURDAY, MARCH 18

Arnold & Joyce  
Wendt  
Helen Slavinskas  
Mr. & Mrs. Walcott

Junior Rockhounds  
with Larry Fegal

(continued on page 6)



HOSTS &  
HOSTESSES

Pete & Crystal  
Boogaart  
Jim & Don Zandee

DEMONSTRATORSSUNDAY, MARCH 19

Dr. Robert Smith  
-Lapidary-

PROGRAMS

Slide Lecture:  
"Rafting through 4½  
Billion Years - A  
Geological History of  
the Grand Canyon"  
by June Smith, teacher,  
Jackson Park Junior  
High School, Wyoming

SATURDAY, MARCH 25

Clyde & Elizabeth  
Littlefield  
Marian Jennings  
Lucile Pearl

Arnold Wendt, Jr.  
-Arrowheads-  
Arnold Wendt, Sr.  
-Lapidary-

SUNDAY, MARCH 26

Bob, Ruth & Rob  
Beauvais  
Art & Dorothy  
Ferguson

Matt Smith  
Peggy Atkins  
-Lapidary-

Movies: "How the Great  
Lakes were Formed"  
"Earthquakes & Volcanoes"  
"Crystal Gazing"

SATURDAY, APRIL 1

Ernie & Ruth  
Potter  
Roger & Faye  
King

Karl DeBack  
-Silversmithing-

SUNDAY, APRIL 2

George Sr. & Marilyn  
Arnold, George Jr.  
& Greg  
Don, Leona, Jim,  
Steve, Janet & Kim  
Crabbs

Movies: "Hidden Earth"  
"Birth and Death of  
Volcanoes"  
"Why Do We Still Have  
Mountains?"

SHOW CALENDAR  
=====

THURSDAY, MARCH 2 \* 11-12 a.m. "Ac'cent" WKZO TV ch. 3  
p.m. Set-up at the museum

SATURDAY, MARCH 4 8 a.m. Set up day at the museum

SUNDAY, MARCH 5 2 p.m. Opening of Show  
2:30 p.m. Opening Ceremony (Marguerite Petersen to  
present fossil to the museum)  
3 p.m. Program. All-Purpose Room (see schedule above)  
\* 11 p.m. News - WOOD-TV ch. 8 (shots taken at show)  
(and/or may also be shown on Mon. Mar. 6 on  
12:30 or 6 p.m. news)

TUESDAY, MARCH 7 \* 7:30-8 a.m. "Bozo's Big Top" WZZM-TV ch. 13

SUNDAY, APRIL 2 5 p.m. Remove exhibits  
(also Monday, April 3 at 7 p.m.)

\*We have no way of knowing which segment the above TV programs will be on.

-Rich VanBeek



MARV'S SAFETY CORNER

A QUICK QUIZ

1. What is safety?  
Safety is preventing accidents
2. What's an accident?  
An unplanned event that can injure or kill somebody.  
9 out of 10 accidents can be prevented because 9 out of 10 accidents are caused by people.
3. Why do people cause accidents?
  - A. Wrong attitudes
    1. frustrated
    2. angry
    3. tense
    4. worried
    5. careless

When something is on your mind besides what you're doing, it's easy to make a mistake

B. Lack of knowledge

We must know our own abilities and limitations as well as conditions which surround us. Some jobs call for special safety equipment as we well know.

C. Errors in judgment

- "I have time to pass that car"
- "I can swim that far"
- "I can easily lift that rock-- it sure would look nice in my rock garden"

4. How can we recognize accidents before they happen?

It's not easy, it takes practice.

-Marv Mulder

NEWS ABOUT OUR MEMBERS IS THE BEST KIND OF NEWS. HOW'S THIS FROM JOYCE WENDT?

STUDENT TURNS TEACHER.

Some time ago, in a beauty school, Joyce Wendt was a senior instructor and her student was Marilyn Arnold. Things were reversed when Marilyn turned teacher and began to teach Joyce the lapidary art. "To see my stone become a thing of beauty is a thrill I won't forget," says Joyce.

Marilyn learned from Elaine Smith, now she is graciously passing her knowledge and skill to others as Elaine did. This is the spirit that makes rockhounds great and makes a good club member.

One of Marilyn's tricks is to lay a pad down under the buffing machine (she calls it a mattress!) in case a nearly finished cab is dropped and damaged by a hard floor. That's heartbreak, to chip a cab when it's almost completed. So, says Joyce, "Lay that mattress down, rockhound, lay that mattress down! Thanks again, Marilyn, I've laid my mattress down!"

A LUCID INTERVAL...

Whatever made you marry an archeologist, my dear?

Very simple planning. The older I get, the more interested he becomes in me.

(This from the Prospector cheers me-- I'll love those grey hairs after all.)

THE EDITOR COMMENTS: On the fine bulletin "Arrowhead News" that Shirley and Len Jurries are editing, helped by publisher Lois Mersing and staff members. Sheila Smith, Ruth Steele, Nancy & Bill Ammerman. We hope they win an award in the bulletin contest this year.

Now that Greenstone (Chlorastrolite) is our state gemstone, we should all know more about it. So, we are reprinting on the next page an excellent article from an exchange bulletin.



CHLORASTROLITE

by Don H. Clarke

Reprinted from the Sycamore Valley News, via Grand Valley Lithogram

Chlorastrolite or Isle Royale Greenstone is a native Michigan gem stone of special beauty. Chemically it is hydrous calcium aluminum silicate. It was once considered a form of prehnite which it resembles in general composition. It has light to dark shades of green in a polygonal mosaic pattern. In the lighter shades a distinct turtleback pattern is observed. Radiate lines exhibit chatoyancy like tigereye. It can be highly polished but is easily marred because of its intermediate hardness of 5.5 to 6. Upon heating, Chlorastrolite intumesces (bubbles and foams) similar to prehnite.

Chlorastrolite was first found by Mr. J. H. Blake who was in the employ of the Ohio and Isle Royale Mining Company. The mineral was named Chlorastrolite by Dr. C. T. Jackson when he examined specimens on July 24, 1847 at the Epidote Mining location on Isle Royale. This mining location contained stellated masses of the mineral in trap rock.

There are several excellent locations for finding Chlorastrolite on Isle Royale. For many years Isle Royale has been the main source of this mineral. There are several reasons why this is true. Chlorastrolite is not plentiful in any location. If a person should travel to a remote location, his chances for finding samples would be greatly increased.

Chlorastrolite is formed in vascules or small holes in the lava. Its usual size is from one quarter inch to three-quarter inches. In many cases the Chlorastrolite does not completely fill the holes and forms a hollow shell. When these shells are weathered out along the beaches they are quickly destroyed. Only the solid core Chlorastrolites remain and if they are not rescued, they too, will be destroyed.

Because of the similarity in geology between Isle Royale and Keweenaw Point, practically any mineral that is found on Isle Royale can be found on Keweenaw Point. Because of the high value of Chlorastrolites (solid ones) the persons who found them on Keweenaw Point kept secret about the locations. Many years ago a man renowned for his excellent collection of Lake Superior Agates was asked, "Where can I find an agate?" His reply was, "If I knew where there was an agate, I would go and pick it up."

Chlorastrolite is found at every mining location from the Medora Mine to the Cliff Mine. A few years ago we took a field trip from Copper Harbor to the Cliff Mine. Our sole purpose was to look for Chlorastrolite. We stopped at each mine and limited the search until we found samples of Chlorastrolite. The Medora, Delaware, Central, Phoenix and Cliff mines all yielded gem grade samples. The mineral has been found in at least 25 mines in this area.

Many of the samples found are hollow and cannot be polished. Excellent solid samples have been found at all these mines. In some cases the center hollow core has been filled with Thomsonite. The Chlorastrolite was formed  
(concluded on page 9)



## CHLORASTROLITE (concluded from page 8)

near the surface of the lava flow. Thus the small mines and the numerous exploratory shafts prove to be very profitable. The material taken out when the shaft was sunk is not buried under the enormous piles found at the Central and other very productive mines. The recent filling of many small shafts has opened many mine piles. The long-held secrets of many piles are now waiting for you.

=====

## NEWS FROM OUR EXCHANGE BULLETINS

The Geologic reports that there is an excellent article on button making in the April 1970 Lapidary Journal. At the present price of dressmaker buttons, why don't some of our home sewers make and use hand-crafted buttons. They are beautiful! A simple cab with spread open bell cap -- and presto -- a button. (While typing this, it comes to mind that the Cooleys do make buttons, lovely ones of Petoskey stone. Bring some to the first spring meeting you attend, (Madys.)

The Ozark Earth Science News was of special interest to us this month --the Mountain Home (Arkansas) Club showed Lizzadro Museum slides on carvings of German craftsmen.

Cabber Gabber, via Ozark Earth Science News, offers a chuckle -- "Thunder eggs do not thunder, neither will they hatch." And we add - "Nice to have around, tho!"

FROM THE CONGLOMERATE..... Have you ever tried your luck breaking open rocks down in a limestone quarry in 20° weather?

During the Thanksgiving holiday, we took time out from Mother Meinert's table to drive the 24 miles from her place to Pint's Quarry near Raymond, Iowa, just east of Waterloo.

We had previously written for permission to collect there, though I understand this is not strictly necessary. At any rate, when we arrived, the quarry manager was expecting us as if we were old friends.

While there, we were able to collect many excellent specimens of calcite with bladed marcasite. One pocket of dark brown calcite had a pure white dog tooth calcite crystal perched right in the middle. Other specimens of calcite with single crystals of brown or honey colored fluorite were also found. We also added a few specimens of bladed barite to the collection.

For my micromounting friend, Ed Wilson, I came up with some unusual dog tooth calcite crystals that have tiny blooms of marcasite on the tip of each crystal.

Darkness came all too soon.

by H. William Neinert



via Rockhound News - SPIDERS SPIN GAS TROUBLE

If you have a liquid petroleum gas (LPG) refrigerator in your camper, watch out for small spiders spinning cocoons in the burner air holes. The small spiders are attracted by the odor of gas. Their cocoons may be picked out by hand. If left in, they cause serious burner problems.

Don't use a wrench on the PCL service valve and liquid level gauge. They are designed to be closed leak-tight by hand. If you have to use a wrench there is something wrong with the valve, and it needs repair or replacement. When using the tank, open the PCL service valve all the way, then close it one quarter turn. That way you can tell if it is open or closed.

When tightening the PCL nut, which has left hand threads, on the service valve, draw the nut up tight but don't jam it. These are machined brass fittings and no pipe dope is necessary.

Check all tank and line connections periodically to make sure they are safe. Don't use matches! Use soapy water, which will bubble if gas is leaking. There is also a product on the market which you can buy and use.

Make sure that the tanks are in the proper place and fastened down tight so that they won't move around, both for moving and for stationary use. On dual installations turn the tank with the open part of the tank guard towards the trailer to protect the valve and regulator against flying rocks and mud. If you take your tank to an LP gas dealer for filling, close the valves and transport in the same position as it is used. Secure it against falling or rolling. Since only the vapor of an LP gas tank can be used, a vertical tank will work only in a vertical position and a horizontal tank in a horizontal position, never upside down. Otherwise the tank will drain liquid rather than vapor.

Never allow the tank to be filled above the liquid level stop-fill gauge. LP gas tanks have a safety factor, and should never be filled more than 80%, leaving 20% of the space for expansion. We know about this because they just put a 500 LP gas tank in our back yard, and they only put 450 pounds in the tank. When we asked why, they told us this was to allow for expansion.

To keep the regulator from freezing up, keep the tank closed when not in use. Or have a dealer inject dry methyl alcohol into the tank. Since LP is non-corrosive, don't worry about the inside of the tank. Protect the outside with a coat of good paint once in a while.

Practice safety at all time around the gas and appliances. If you have a question about it, go to a gas or appliance dealer, or someone that you know has had experience with this kind of equipment.

It has been brought to my attention that some of our club members, Wayne and Marion Henderson by name, shut off their gas refrigerator when they fill the gas tank in their camper home, so that there is no danger of explosion. So you folks see that Wayne knows about other things besides geology. I think this is a good safety hint. . . . Here is another safety fact you may not know. LP gas is different from natural or most commercial gases in being heavier than air. In case of a gas leak, LP gas flows down, not up, and will not clear out up a flue. If you suspect gas has leaked, open doors and windows and use a towel or rug to fan the gas out. Don't snap on an electric switch until the air is clear.

-William & Bessie Rogers



APPLACHIAN DISCOVERY  
by Ken Mink

(from Arrowhead News via The Geode)

Whitesburg, Ky (AP) - A startling new discovery of a series of Pine Mountain caves that "make Mammoth Cave look like a baby" has prompted Letcher County officials to predict a major economic boom for this Appalachian town of 1,800.

The man who discovered the caves says they are "perhaps the wonder of the world."

Ray Lowe, who has two masters degrees and for many years has studied geological formations across the continent, found the caves three weeks ago while checking out a small charted cave near here.

He says the cave system may run as far as 60 miles and contains rooms with ceilings of at least 400 feet.

"This is truly the most fantastic cave discovery in the world," said Love. "One of the biggest things about this cave system is the natural colors found there. It's highly unusual for a cave to have any color at all, but this one abounds with blues, greens and various shades of browns."

Love wants to name the cave "The Letcher County Natural Color Angel Cave" because of the color and a 30-foot high angel-like formation inside one of the big rooms.

"One of those rooms is at least 400 feet high," said Love, who has taken color photo slides of scenes inside the cave. A few of the slides showed the ceiling of one of the rooms to be so high that cloud-like mist formed near the top.

"I have already seen enough to rate this cave the most outstanding in the country," said Love. "And there's lots more that we will chart as we go along. I'm sure the cave probably runs about 60 miles or so."

Love said an underground river "20 feet deep and clear as crystal" runs through the cave. There is also a 50-foot waterfall, he said.

The cave contains what Love terms a hole that has a sheer drop of 325 feet, "the second deepest such known in any cave in America . . . second only to the one in New Mexico."

Love said nearly all the cave area lies under land comprising the Pine Mountain State Park.

Letcher County officials already have contacted the Kentucky Parks Department to obtain rights to develop the cave as a local tourist attraction. "In fact, we have already started developing roads to the area of the cave entrance," said Letcher County Judge Bob Collins.

Love said he discovered the cave while checking out a small room previously charted by a state official.

(concluded on page 12)



## APPLACHIAN DISCOVERY (concluded from page 11.)

"Previously, it was thought the cave ended just a few hundred feet inside the mountain," explained Love. "But there is another passageway partially hidden by some large rocks and once I got past that I found I had hit a geological jackpot. You just wouldn't believe the amount of flowstone in those big rooms."

Collins said the caves and other tourist attractions in the area "could make Letcher County the garden spot of the world. Gatlinburg (Tennessee) could be just a drop in the bucket compared to what we have."

Love says he has checked with American Speological Association officials and they confirm his belief that the Letcher County cave is "a true wonder of nature."

Love said the U. S. Forest Service is sending two men to the cave May 8 to climb down the 325-foot sheer-drop hole. Love suspects the drop may have been used as an Indian burial ground hundreds of years ago.

Another factor which prompts Love to believe the cave system is perhaps the largest in the U.S. is the wind that whips across the deep river in the cave.

"The wind is brisk enough to ripple the surface of the water... and that means you've got some big openings elsewhere in the cave," he said.

Love says he thinks the cave runs from the Breaks Interstate Park at the Kentucky-Virginia border to Cumberland in Harlan County.

Love estimated the cave to be about five million years old.

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### TIGEREYE

Sometimes when tigereye has too much brown color, it is not desirable as a gemstone. Removing some of the iron oxide which produces this brown color will expose more of the fibers and give the stone more "life" and chatoyancy.

The bleaching process will be quite easy and can be done at home with a minimum of material. First, get some granular oxalic acid from a local drug store. Dissolve 1 heaping tablespoonful to each cup of warm water using a covered pyrex dish.

Clean all matrix and oil from your tigereye slab, immerse in the acid bath and place in a 200° oven for 12 to 14 hours, or until the desired results are obtained. This process not only removes the excess brown color but enhances other colors which were suppressed by the iron oxide brown.

Oxalic acid is not dangerous or messy if handled with ordinary care. After removing tigereye from the acid bath, soak it in warm water to clean off excess acid. It is now ready to use the same as any tigereye. The acid solution can be used again, but add more acid each time.

-Geologem & Agatizer via Rock Rollers



## SPRING TRIP TO NORTH CAROLINA

How many of you have ever actually picked a ruby out of this old earth of ours? Well, we have. It was our first trip to Florida and it was also our first trip to the ruby mines in North Carolina. We were homeward bound but we had allowed enough time to spend a few days looking for rubies and sapphires.

We arrived in Franklin, North Carolina, about noon on May 18th, looked up a Rock Shop for information, plus a few gifts and lots of "ohs" and "ahs" over their specimens. By late afternoon we were all parked in a hilly campground and getting very curious about the mining of rubies.

The next morning bright and early (they open at 8 a.m.) we were on our way -- boots, sun hats, lunch and jug of water. Our Rock Shop information had a listing and location of four quite dependable places in Cowee Valley - Gibson's was on the top of the list so that is the one we headed for - a few acres of valley land with a few holes in the ground and a mountain stream to provide water for the flume for the washing process. There is a daily fee of \$2 per person who passes through their gate and by mid-morning the long bench at the flume was almost filled with eager rockhounds or ruby hunters (we counted 52 at one time). It doesn't matter where you sit yourself down, there's going to be lots of water to wash your mud that you buy from Mr. Gibson at 25¢ per bucket; we saw some people go through sixty buckets in one day - we were much slower (our eyes hadn't got that acclimated yet), we only used about fourteen buckets that first day but then we were trying to catch sapphires, rutile, kyanite and such. We were there three days, had beautiful weather and fully enjoyed every bit of it. George went over to the Shuler Mine on Friday to try his luck there and wouldn't you know it, he found the largest ruby that we brought home! About then we were tempted to stay another day or so. We didn't have our "loot" appraised before we left there as many of them did but we do know we have a few fair sized rubies and sapphires.

About noon on Friday we had had our lunch, packed up, hooked on and we were on our way to the Great Smokies and on our way home but we are already thinking of our return to Cowee Valley to see what it might have for another surprise for us.

-George and Bernse Morrison  
(sorry, the credit line is lost, so we can't  
name the bulletin)

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Now it's time to put this issue to bed; and it's time to put the typist to bed, too. It 12:30. Bob is surrounded by all these lovely mineral specimens he's been appropriating from all the collections for the show mineral cases--he's really happy! And now he's painting mules! Curious? Look for them at the museum! As for me, I'm ready to go to bed and dream about taking off for all these fabulous places I've been typing about for the past few hours. GOOD NIGHT! SWEET DREAMS!

-Ruth Beauvais



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