February

FEBRUARY MEETING -- Mr. Rod Cranson of the LCC Geology Department spoke to the club on Crater Lake National Park. Mr. Cranson spent some time there as a ranger-naturalist, and his beautiful slides and interesting talk brought his listeners a real understanding of the unusual features of the area.

ROUND ROBIN FIELD TRIP -- Well we had our Round Robin field trip and it was a success.

When we got to Sally and Slim Barber's they, along with Van and Nora DeLashmutt and Royal Olson and Pat Thompson, had set up to show the people what they have been doing in Silversmithing class. Also some of the finished product. Sally and Slim had lapidary equipment there to show anyone who wanted to know what they could do to get set up for a start themselves. Also rock, slabs, and the finished product. There were thirty four people there.

Red and I left early to go to Loyd and Lola Pearson's to get the coffee and cookies ready. When we got there Lola had things started, with the help of their two daughters and sons-in law, Shirley and Bill, and Alma Jean and John. The boys carried in the heavy stuff for them.

Loyd and Lola had displays set up to show you what you could find in the Northwest, and maps marked. It made some of the people wish they could go on a field trip that way. There is so much to find o t there when you know where to go. There were forty one people (rockhounds) there. Everyone seemed to have a beautiful time, and even with the bad weather some stayed a little late and talked.

FIELD TRIP FEBRUARY 26 -- There will be a field trip to the Michigan Natural Storage, 1200 Judd Ave., S.W., Grand Rapids on February 26. Be there by 10:00 a.m. The mine will be open at 9:30. Many varieties of gypsum and crystals have been brought out of this old gypsum mine by our club members. You will see some specimens at the meeting February 17.

The temperature in the mine is a constant 50°, so dress accordingly. Take flashlights and lanterns for light, tools such as hammer, chisels, picks, and something to pack your specimens in. You will need hard hats and rubber footgear. Lunch,drinking water, extra batteries, and bulbs are other suggested items to carry. The entrance fee is $1.

Directions: Take I-96 to M-11 (Wyoming Ave., 28th St. West) at the east edge of Grand Rapids. Take M-11 west to Clyde Park St., a few blocks after passing over the US 131 bridge near Holiday Inn, turn right and go north on Clyde Park to the end. Turn left on Chicago Drive and go west about a mile to Judd St. (the 1300 block of Chicago Drive). Turn right onto Judd and go north to the end.

If anyone can take an extra passenger, or if you need transportation, call 332-2970. Holly Chubb will arrange rides if space is made available.

SAFETY - 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 POL 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 POL 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 POL 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 pound 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 gas 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 times 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.

Your Safety Chairman William Rogers
Assistant Chairman Bessie Rogers

Ed. Note - To add to this fine article, 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 LP 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.

IDENTIFICATION - Fluorescence and Radioactivity

Both fluorescence and radioactivity are aids to finding and identifying certain minerals.

Briefly, fluorescence is the color a mineral displays under an ultraviolet lamp due to the activators or impurities in the mineral. Using a portable lamp in the field assists prospectors or rockhounds in locating such ores as tungsten, mercury, and uranium. Some books, such as Ultraviolet Guide to Minerals by Sterling Gleason, give charts listing minerals by their fluorescent colors. Knowing this property, along with other ones, sometimes is a help in identifying a mineral specimen.

A Geiger Counter, which is an instrument for detecting radiation, can also be of value in the field. It helps in locating ores that contain uranium and thorium and in identifying these minerals in your collection. The two major uranium ores, pitchblende and uraninite, are radioactive but not fluorescent, while some secondary uranium ores, such as autenite and uranophane, are both radioactive and fluorescent.

Both ultraviolet lamps and Geiger Counters require a moderate outlay of cash. Unless the collector is particularly interested in radioactive ores, he might not care to own a Geiger Counter. An ultraviolet lamp, however, can bring much pleasure to a mineral collector regardless of whether he ever uses it for identification or prospecting. It is a thrill to discover the many beautiful fluorescent specimens that most collections contain.

Frank and Eleanor Owens

Frank and Eleanor Owen, Identification

SAFETY -- FOLKS JUST AIN'T CONSISTENT

Charlie ran through a red light telling his kid to sit down before he got hurt.

Harry ran to catch the bus after taking the electrocardiogram for the mysterious flutter in his rib cage.

Joe got skinned jaywalking while taking his kid to get a polio shot.

Sally left the sleeping pill on the coffee table by Bobby while running to the kitchen to get Tommy away from the hot pan on the stove.

Jim killed 9 million foliage-eating crawling grubs, 4½ million flying pests, and 17 million 6-legged nuisances in a massive spray assault -- then wondered why his pipe didn't taste right, his beer seemed flat, and his stomach was fluttery.

Sam slowed down from 55 to 40 going through the 15 MPH school zone on his way to get his car safety checked.

The Doc told Abe to quit drinking beer so he switched to martinis.

With people like this around, you wonder if is safe to get outa bed.

-- National Safety News, thank to
Irene Jane Brett

William and Bessie Rogers,
Safety Chairman and Assistant

CHLORASTROLITE

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 the 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 solid Chlorastrolites, 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 a o 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 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 openod many mine piles. The long-held secrets of many piles are now waiting for you.

by Don H. Clarke
via The Sycamore Valley News

Attention - fossil lovers

FISHING THE EOCENE AGE, from Friends, Oct. 1971, thanks to Bettie Patterson.

When it comes to fish and fishing, Carl Ulrich and his small family like to work both ends of the geologic table. If not baiting a hook for a Wyoming brook, a member is most likely to be found recovering slabs of shale containing fish fossils that help to delineate life on earth in the Eocene epoch 36 to 58 million years ago. At this distance, it is impossible to be more precise. On the other hand, for a fish story, that is close enough.

The Ulrichs live in Diamondville, a hamlet of about 500 on US-30N in southwestern Wyoming, and, like the fossils they lift from the bed of a prehistoric lake, are a rare breed. They happened onto "fossil fishing" some 20 years ago, without benefit of technical training or academic background, and since have become recognized by museums around the world as outstanding in the field of discovery and preparation of marine fossils.

Fossil Butte, just off US-30N about 10 miles west of Diamondville, is a fertile field of fossilized fish for the family to explore. Tourists may look, but mustn't touch. The Ulrichs, under license by the Wyoming Land Board, alone may remove the fossils.

As natives, their love for the area has deep roots, and their credentials for truly scientific study and recovery are well established.

In his work, Ulrich is joined by his wife, Shirley, their children, Wallace and Gail, and by Wally's bride, Beth. The three youngsters are all students at the University of Wyoming at Laramie.

The Ulrich version of finding riches in their own backyard had its origin in the early '50s, when Carl and Shirley drove out to Fossil Butte, "just to look around." The Butte is an outcropping of shale in the Green River Formation, and contains one of the best-stocked marine fossil beds in the world. They knew that over the past century railroad construction crews, rockhounds, and oil company bulldozers tearing at the oil-saturated shale had almost obliterated the beds. Barely in time, the federal government closed the land to unauthorized excavations. On the day that changed their lives, Shirley remembers that "we brought home some broken pieces of fossil shale and tried to prepare them. I loved the exploration involved, and Carl had the artistic patience required for cleaning fossils."

As their interest grew, the two intensified their study of fossils and marine life. The children were exposed to and became absorbed by the work of their parents. Despite their interest, however, the work remains a partime thing. Carl has retained his position with El Paso Natural Gas Company, but devotes every bit of free time in season to exploration. In the winter they prepare fossils in their laboratory at home.

The detection, removal, and preparation of a 50-million-year-old fossil is work of the most exacting kind. The scene at one time was a semi-tropical lake, 150 miles long and 30 miles wide, surrounded by endless reaches of lush vegetation. In whatever convolutions there were to cause the lake to drain, the trapped fish were buried under the weight and pressure of enormous overburden and compressed to paper thinness. With keen eyesight and sensitive fingers, the Ulrichs can detect the slight undulations in the shale surface that indicate a fossil. A laminate only a fraction of an inch deep is removed, and it is with the upper side of this that the work is done with fine-pointed triangular files and an air hose to remove the fine dust as it is loosened. Only the covering shale is removed, leaving the fossil imbedded to show how it was found. The average time involved in preparation is about eight hours, but Ulrich has labored as many as 300 hours on one specimen.

The fossils range from less than two inches to nearly six feet long, and examples of Ulrich craftsmanship are on display at the Smithsonian Institute and other great museums of the world. President Eisenhower presented Emperor Hirohito of Japan with a choice Ulrich fossil-- a Diplomystus, or armored herring. This is one of six genera of fish found here in fossilized form. The others are the Knightia, Priscacara, Miosus(found only here), Phareodus, and Notogoneus (found also in Labrador).

More than 2400 fossils have been salvaged and prepared by the Ulrichs, whose fees run generally from $15 to $750, although one multiplex plaque, containing three large and 48 small fossils within an area about five feet square, brought $7,000.

Visitors who make arrangements in advance may accompany the Ulrichs to their quarry. Under close supervision and using Ulrich equipment, they may remove a layer of shale dontaining a fossil to prepare for themselves. There is a modest fee, as there is if they purchase a fossil in the raw -- one unsuitable for museum display-- at the Ulrich workshop in Diamondville.

Diamondville is about 450 miles west of Cheyenne (I-80 and US-30N), and 132 miles north of Salt Lake City (I-80 and SR-189*. Should a sign on the workshop door say, "Gone fishing," the only question to be answered is, fresh or fossilized?