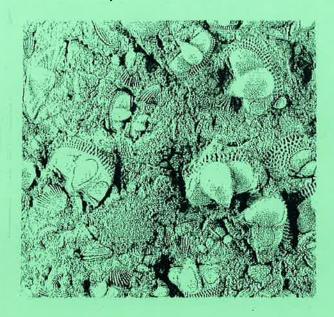
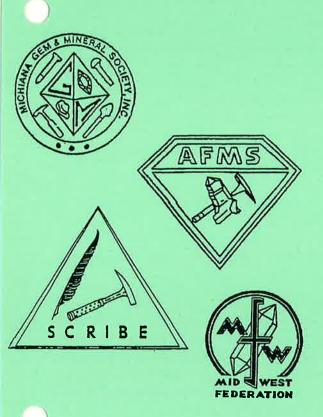
# THE CHILD ST.

Michiana Gem & Mineral Society Fom Noe, Editor 305 Napoleon Blvd. South Bend, IN 46617







OCTOBER, 2000

#### MICHIANA GEM & MINERAL SOCIETY

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The purpose of the Michiana Gem & Mineral Society is to promote the study and enjoyment of the earth sciences and the lapidary arts, and to share lapidary knowledge and techniques.

General meetings are held the fourth Sunday of each month, 2:00 PM, EST, at Our Redeemer Lutheran Church, 805 S. 29th St., South Bend, IN. Regular exceptions include May (third Sunday), July (no meeting), August (club picnic) and the November/December meeting and Christmas party. Board meetings are held before the general meetings. The annual club show is Labor Day weekend.

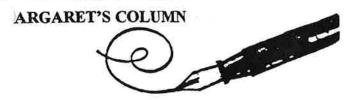
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Yearly Membership Dues (Payable by January 1) Individual \$10.00 per year
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This is being written before we leave for Utah to attend the AFMS Convention. Bob and I will leave October 3 and should return about the  $20^{th}$  or so. The next club meeting is the  $22^{nd}$ , and if we decide to stay away for a few more days, Don Church will be the leader at that meeting. I don't know what will keep us away longer, but who knows?

The convention is being held in Moab, Utah, October 11<sup>th</sup> and the show itself will open the 13<sup>th</sup> through the 15<sup>th</sup>. Bob and Kathy Miller will be there also, as Kathy has been nominated for Second Vice-President representing the Midwest Federation. Congratulations, Kathy.

I don't know anything about the field trips that will be held in the area, but we hope we will have some goodies to show the club. I know this area is nod hunting for fossils.

Bob and I are still not in our home after the fire. I imagine we will come home from Utah to a finished house, HA HA! It is very inconvenient to be away from my computer and other items, especially the kitchen. I mentioned to the insurance inspector that I had never heard of a stove shorting out and causing a fire. His reply was "90% of kitchen fires come from electrical appliances that are not being used, but plugged in. The wiring seems to go bad and shorts out." I am sure I will watch what I keep plugged in from now on: coffee maker, toaster, etc. I know I cannot unplug my stove, but he says statistically we will never have another kitchen fire.

We have new members, Nathan & Michelle Carter, Seth, Celena and Miranda, 911 Simon Ct., South Bend, IN 46615. Welcome.

Our program this month will be a very interesting one by Heidi Santarelli on "Beaded Gemstone Jewelry." A very interesting young lady!

I hear the bus trip was fun, and everyone found "the best" rock. Bob and I did not get to go, ecause of having so much to do at the house. Gordon Dobecki came and I heard he really enjoyed himself. Sorry we did not get to see him. We had a call from the Heynessens and had supper with them while they were here. We hope to see them in Utah.

So, until the meeting or sometime in November, good luck and stay well. November already? Christmas will be here before we know it.



#### FIFTH-PLACE AWARD TO ROCKFINDER

Congratulations to editor Tom Noe and to all the intrepid staff of our club publication *The Rockfinder*. It won the fifth-place award in the 2000 Bulletin Editors Contest sponsored by the Midwest Federation of Mineralogical and Geological Societies, in the category of Small Bulletins. The judges commented that it is "a very good bulletin" and pointed to the illustrations for special comment.

Tom thanks Herb Luckert for his generous computer help and reminds members that submissions are always welcome. Club members have won awards for their articles in the past, so send them in!



### What is Quicksand?

Quicksand is sand saturated with water plus the pressure of water exerted from below. This pressure tends to suspend the grains of sand,making them practically frictionless, therefore they will not support weight. However, objects "float" in quicksand with 1/7 the buoyancy that they do in plain water, so if you're caught in the stuff, lie on your back and carefully swim out.

Glacial Drifter via Rockwood via Gem City Rock News 4/99



### Newsletter of the Michiana Gem & Mineral Society

Volume 40, Number 8

October, 2000

Meeting: Sunday, October 22, 2000

Doors open at 1:30 p.m. Meeting starts at 2:00 p.m. Guests are always welcome.

Place:

Our Redeemer Lutheran Church

805 S. 29th St. (29th & Wall)

South Bend, IN

Program: Heidi Santarelli will demonstrate

beaded gemstone jewelry.

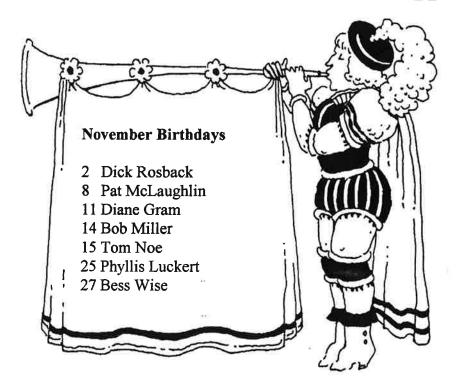
Hosts:

Pat and Tom McLaughlin

Sam Shapiro

#### **VOLUNTEER NEEDED**

The Elkhart County Historical Museum needs a knowledgeable volunteer to identify rocks and fossils from a newly donated collection. Already on display in this museum near Bristol are a mastodon tusk found in Elkhart County and an artifact collection. To volunteer please call Gary Richards at 219-848-4322.



#### **ROCKS IN ELKHART**

Jane Finney has some obsidian, agate and geodes to sell, collected by her late husband while he lived in New Mexico. If you are interested, call her at 219-522-8595.



#### **UP AND COMING**

Oct. 20-22: Three Rivers Gem & Mineral Society show, Allen County Fairgrounds, Fort Wayne, IN. Oct. 27-30: Central Michigan Lapidary Society Show, Marshall Street Armory, Lansing, MI.

#### **ELD TRIP HIGHLIGHTS**

By Kathy Miller

Bob and I enjoy our club year round, but the time I always look forward to are the club field trips.

Mother Nature really smiled on us September 15-17. Saturday the 16th we boarded the bus for the Michigan Natural Storage Co., or "the mine." After a small delay down we went, 20 people geared up and ready to collect. It was educational and fun, and everyone brought out good specimens. As Bob and I looked down the tunnels branching off the main avenue, we could see lights bobbing in the dark and hear the sounds of hammers and chisels against rock.

We had to laugh as we heard Gordon and Jessie, who paired up, arguing over who got whose piece of gypsum, etc.

With our schoolteachers along, we knew what they would be doing. Sure enough, Ed was hunkered in along the ceiling trying to get specimens for his classes. This wasn't easy, since the floor, slopes and des were covered with a sticky clay.

David and Don paired up and they didn't mess around. Both brought out huge pieces, really beautiful. Our new member Joe had the same luck: he brought along a light that lit up the whole area he was working in.

The Nelson boys, as usual, are guaranteed to find great stuff. We have yet to see them bring back anything that could be called "leaverites." I think Bill Jr. has a built-in homing device.

Emily and Sam went as a team and found something of everything the mine offered. We could hear them chatting away as we walked by them.

The sisters, Alice and Linda, were having a great time, with lots of laughing from their tunnel, but they still brought out lots and lots of rock.

As the time got closer to going up Hal and Bonnie came out carrying two large chunks of rock. Bonnie was very pleased with their finds, Hal just smiled because he had to do the carrying.

Todd and Lynn disappeared the moment we went in and came out very happy with both large and nall specimens they found in back tunnels and far down the main avenue.

Tom was pleased with his find. It was a very large rock of two different materials, both the

beautiful salmon and the creamier white. Pat (who almost decided not to go down) was very happy with what she found.

When we arrived on top we found our courteous bus driver had taken the remaining people to a donut shop while they waited for us. Yvonne, Gloria, Sally, Jeanne, Lois and Marsha also had a chance to visit with the mine owner, who told them stories of the mine.

From there we went to the Frederick Meijer Gardens. Everyone had enough time to enjoy the Da Vinci horse, the gardens, the boardwalks and cafe. Again, our teachers were busy. Bonnie took numerous pictures of the many sculptures found throughout the gardens to show her classes. Ed and Marsha gave us a brief history of the famous Da Vinci horse, since Ed was gathering material for his students.

Don and Yvonne, David and Sally, Bill, young Bill and Emily rode the tram and said the guide did a good job on information.

Sam and Gloria were seen taking many pictures of the horse. In fact, Gloria decided good angle shots could be taken while lying on the ground looking up at him! Sam chatted with people while Gloria snapped away.

As we left the gardens, Sister Jeanne had her radio with her and gave the end results of the Notre Dame game. The bus, passengers and driver weren't moving until the final score came in.

After a nice meal, with all of us eating together as a group, sleep came readily, getting prepared for the next day.

Sunday, September 17, on the bus again with the Churches following behind in their truck. (Here I would like to say a special thanks to them. They brought extra equipment, and helped in so many different ways.) We left for the Cheney Quarry after a good breakfast at Denny's.

Again, the day was delightful, with good collecting weather. After only an hour's drive we were out of the bus collecting again. For the folks who didn't want to collect or collect for a short time, lawn chairs were provided where they could sit in the shade of the bus and enjoy drinks and snacks.

David and Sally started out together, as did Todd and Lynn, but eventually I saw David at the top of different levels and the same for Todd (both are avid fossil collectors). Lynn and Sally collected on their own for a while then I saw them visiting with others. Later I saw David and Todd comparing notes.

Joe and Bill Jr. found beautiful specimens from the quarry floor, while Don and the others had good luck on the walls or piles. Bob found one area that we hadn't been to that was promising, so needless to say we accumulated lots of material.

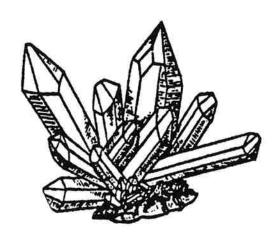
As I looked over my shoulder I saw Jessie. What was she doing? Jessie was busy pulling up cattails by the roots. She just laughed. "I have a pond and these are just what I need for it!" Gordon decided to check out other areas to do his own collecting . . . for rocks.

Lois was able to walk about and observe different ones working away with picks and hammers. Of course, Sister Jeanne by tradition was the first to get off the bus and find a beautiful piece of pyrite (remember the trilobite!).

Alice and Linda had a good cache of material that they found. I didn't see much of them because I was busy doing my own collecting.

Time to go, we said goodbye to Don and Yvonne and headed home. Thanks to Ed and Marsha, we enjoyed a good movie, too. I hope that everyone will take a few minutes to clean up a specimen or two and bring it to the October meeting to show what we found to the folks who couldn't make it.

Thanks to all of you who went on this field trip. It is people like you who make our hobby so great. Next year I hope everyone in our club will be able to participate in another MGM adventure.



# A ROCKHOUND'S SPIN ON GETTING GYPPED

By Pat McLaughlin

The September field trip was a grand trip in every respect. Kathy Miller, our tour director, had a detailed itinerary planned well in advance. The only requirement for the club members was to board the bus. How easy is that?

Personally, I had qualms about going underground in the gypsum mine. Previous experiences in caves, lava tubes, tunnels and submarines had evoked uneasy feelings of being "TRAPPED"! After a quick lesson in operating the mine elevator (knowing how to exit made a huge difference) I joined the group 85 feet below the earth's surface.

We were told where to dig for gypsum and alabaster. The areas were lit only by our flashlights and the whites of our eyes. Bill Nelson Jr. quickly disappeared into the six miles of tunnels. He has the faculty of a divining rod for locating the most sought-after specimens.

The three hours we were allotted flew by as we chipped and dug into the walls and roof of the mine. It was eerie, hearing echoes of voices in the nearly pitch-dark blackness. Jackets and sweatshirts were stripped off in the 52°F. temperature as the chase heated up.

It became strangely interesting working below ground, even comfortable. My thoughts went to miners who spend their working lives underground. My hard hat is off to them.

Our next stop was to view the surface treasures of Meijer Gardens The famed DaVinci horse sculpture was superb. It was an added bonus to walk the trails through woods and wetlands. The various theme gardens, additional sculptures and conservatories were one delight after another

Grand Rapids was surprisingly sophisticated. We drove through a large Hispanic community with many stores and cafes. We also saw many new commercial buildings. (The Grand Rapids city museum or Gerald Ford Presidential Library were our alternate plans in case of inclement weather.)

The Wyoming Cattle Co. was a terrific choice for our group dining. The evening was spent with great food and interesting conversations. Bill Nelson

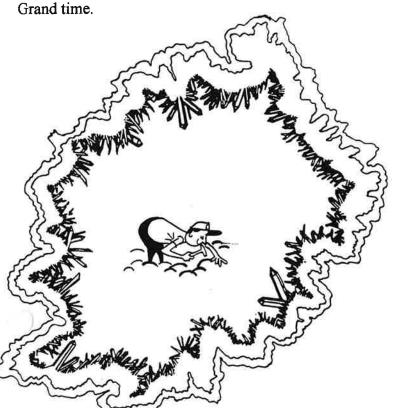
took our table on a verbal trip to India, shared his che-keeping savvy and the bird-sightings in his back yard. Bill Jr. added his expertise in the field of fishing lure collecting.

We boarded the bus on Sunday like eager kids heading to Disneyworld. The quarry was our claim, the pyrite the aim. Sister Jeanne once again found the first prime piece. "I just looked down and see what I found." Remember the gorgeous trilobite she found in the first five minutes on our last trip? The eye of an eagle, with such a modest demeanor. The bright sun and cloudless sky helped reveal the telltale glint of gold/silver pyrite and calcite crystals in limestone

I noted where the "divining rod" was located and followed his tracks. As usual he was surrounded by clusters of great specimens. Todd Miller found horn coral as he climbed up and down banks that only the young, restless and fit would attempt.

It was another successful road trip and highlight of the year. We missed several of our usual crew and wished they were with us to join in the fun. It was great having Gordon back from Oregon, new limber Joe, and Linda and Lois as guests.

Thanks a million, Kathy, for all your time and effort. Your cheerful, smooth coordinating of time and events makes these trips so enjoyable. Kudos to Kathy! We didn't visit the Rapids but we sure had a



#### ZINC

All you may never have wanted to know about zinc and more! Zinc is never found in a pure state, but its ores are found in most parts of the world. The main ore mineral of zinc is sphalerite, a compound of zinc with sulfur. A less important ore is smithsonite, a compound of zinc, carbon and oxygen. These principal ores and some of the lesser ores are collected by rockhounds because of their beautiful crystals and colors. Some of the lesser ores are calamine, willemite, zincite and franklinite.

Calamine? Yes, it is the pink lotion you have in your first aid supplies. Calamine is a pink powder composed of zinc oxide and ferric oxide. It is a mild antiseptic astringent and, as you know, is used to treat rashes and other skin disorders.

Deposits of zinc ore are found in dolomite and limestone rock. They may be found in deep or shallow lodes or veins. The chief U.S. mines producing zinc ore are in the eastern states, the Mississippi Basin and Rocky Mountains.

Zinc was discovered in 1746 by Andreas Margoraf, a German scientist. When heated to a temperature of from 212 degrees to 300 degrees, zinc softens and becomes malleable and ductile. Moist air forms a self-protective coating of tarnish, which does not deteriorate and therefore is used to coat (galvanize) iron and steel.

Zinc is readily alloyed with copper to form brass, with copper and tin to form bronze and with copper and nickel to form German silver.

— Bill Beranek in Little Gems via Pegmatite, 1/97.

#### **GEM HUNT - HOW MANY CAN YOU FIND?**

A lady wanted to brag to her friend about the gems she had bought on a trip. However, she feared the message might be intercepted and someone would steal her gems. So, she hid their names in an innocent letter. Her friend has a problem—there is a gem name in every line of the letter, but she can't find them all. Can you help her?

I promised to drop a line to you soon,
We arrived in India Monday at noon;
The robbery last night left me short of things,
So I had to shop early for gloves and rings;
When the plea of a beggar nettled Paul,
He bought rutabaga, tender and small,
We tried to stop a zebra from running amok,
And had to rub your rabbit's foot for luck,
On paper I do try, but somehow it all fails,
Whenever I spin elaborate tales.

### Color Enhancement Of Topaz By Dee Purkeypile, AGMS Member

Topaz is one of our most popular and affordable colored gemstones. Blue topaz is one of the most beautiful and commonly marketed colors of this remarkable gem. Although topaz naturally occurs in many different colors, blue topaz has dominated the jewelry market since the 1970's when a large number of deeply colored blue topaz crystals started appearing on the market. At that time there were no new mines or developments in existing mines to explain the sudden availability of this abundance of blue topaz. The production of blue topaz from colorless topaz with irradiation was first reported in 1957 by F.H. Pough, who was a contributing editor of many articles on minerals in the Lapidary Journal until only recently. Kurt Nassau, a research scientist residing in Bernardsville, New Jersey, rediscovered this information in 1974 when he was analyzing a faceted topaz that had been purported to be quartz. Since that time many hundreds of thousands of carats of treated blue topaz have been marketed by many sources. Nassau's research revealed that both natural blue and irradiated blue topaz is stable to light. This may account for its popularity with both jewelers and the buying public since of the three types of yellow to brown topaz, two fade in sunlight, Natural pink topaz is stable in sunlight but is extremely rare.

The ancient historian, C. Plinius Secondus (born 23 AD and died 79 AD during the eruption of Vesuvius) wrote an epic account of all that was known in his time end which entailed 37 volumes. Plinius reportedly gained his information by traveling and by reading over 2000 books. Some of these books discussed gemstone alterations. "Moreover, I have in my library certain books by authors now living, whom I would under no circumstances name, wherein there are descriptions as to how to give smaragdus (emerald, in part) to crystallus (rock crystal) and how to imitate other gems: for example, how to make sardonychus (sardonyx) from sard (carnelian, in part sard): in a word, to transform one stone into another. To tell the truth, there is no fraud or deceit in the world which yields greater gain and profit than that of counterfeiting gems."

With the detonation of the first atomic bombs in the deserts of the American west the course of human civilization was irrevocably changed. That change also brought along with it much experimentation as regards the effect of radiation on all objects precious or common. It was only natural that man would attempt to alter precious stones with this incredible energy source. None of the many gemstone enhancement processes used on other gemstones appears to have been used on topaz except for the dyeing of water-worn pebbles in indigo dye pots.

Typically, colorless or pale-colored topaz is heated to 200 to 300 degrees centigrade for several hours. The longer the stone is heated the deeper the color change will occur in the stone. The stones will turn to a yellow to brownish green to a dark brown color. These colors, however, are not stable and will eventually fade to clear unless the stones are irradiated. The irradiation process essentially eliminates the yellow-brown and green colors and leaves a stable blue color, which will not fade unless subjected to temperatures of 500 to 600 degrees centigrade.

Topaz is irradiated by one of three energy sources: gamma rays from the mass 60 isotope of cobalt (Co-60), high-energy electrons from linear accelerators, and neutrons from nuclear reactors. Gamma irradiation is the most common and least energy costly method. The other sources of irradiation can produce deeper blues; however, they are very energy consumptive and in the case of neutron irradiation, most often unavailable to commercial interests. Gamma cell devices are commercially available, require little upkeep and continuously produce rays over many years as the Co-60 slowly decays. The gamma rays penetrate the stone very deeply and produce uniform coloration if the stone is uniform. What little heat is generated by the exposure to Co-60 is distributed uniformly throughout the stone, which significantly reduces the chance of cracking the gem material. The heat generated is a function of the time of exposure and the dosage of the radiation source. Cracking will usually be prevented if the dose is kept to less than 5 megarads per hour. The longer the topaz is exposed to the gamma source the deeper the blue can be obtained. However, the typical light blue color is the most often seen result of gamma exposure. The cooling down time for gamma irradiation is on the order of several weeks to several months as opposed to electron or neutron irradiation which may take up to a year and a half to cool down to safe handling levels. Irradiated topaz is so common that it is one of the only gemstones that is consistently checked at U.S. Customs for excess radiation. Unfortunately, other irradiated stones have been allowed to enter the U.S. simply because Customs has not been aware of the massive abuse of irradiation with other gemstones in foreign countries that do not properly control their irradiation sources. All in all, topaz is one of our least expensive precious gems that is still in high demand because of its intrinsic and enhanced beauty.

# FNALI, ALASKA. A SAD, BUT TRUE, STORY By Mel Anderson, former resident of Alaska

I don't really know much about the actual history of the mining town of Denali, Alaska, but several personal visits over the years shed quite a bit of light on this old village located about 6 miles north of the Denali Highway, at the crossing of the Susitna River. The Denali Highway is only 136 miles long between Cantwell and Paxson, Alaska. Reita (my wife) and I were on a wholesale tip, covering areas of Alaska which we had not reached before. We had sent our catalog to these remote lodges, but had never met these folks in person. It was a little out of the way for us to reach on most of our selling trips, so this was a first for us.

Whenever we traveled, selling our jade products, we tried to make the extra effort to see as many of the sights as we could. It was always a great education, not just for the kids, but for us as well. Our normal method was to follow the "Milepost" book as close as possible. Denali was listed as an "old mining

wn" established in 1907. That was enough to get our attention enough to tackle the rough six-mile trail! We were driving our 4x4 pick-up, so we weren't worried about problems.

When the buildings of Denali came into view our first stop was at "Shorty's" cabin. Shorty was sort of a "gatekeeper," but there was no gate! We spent several hours inside the small, dimly-lit log cabin. Shorty was full of stories and we were all ears. As our eyes adjusted to the dim light we saw what we had heard was to be expected in miner's cabins of long years ago, plates, bowls, fruit jars and other objects, full of raw gold! We had often bought and sold gold, but I could hardly believe my eyes. We had never seen so much gold in one place! We talked of gold, of miners, mining and other gems found with the gold.

When we seemed to tire of his stories, Shorty suggested that he give us a tour of Denali. He directed us around cabins, over hills and through valleys. At one stop there was a huge sluice box—but we were not allowed to go near it. It hadn't been "cleaned up" yet.

t we did get to pick through some of the tailings at me end of the box.

What did we find? Garnets, millions of tiny garnets. They were worthless to the miners, and more trouble than they were worth. These tiny

garnets would plug up the riffles in the sluice box. We found an empty coffee can and scooped up a can full of garnets and black sand. Later, at home, Reita hand-sorted these tiny garnets out one by one, to make a new jewelry item. It turned out like a lot of our items, not worth the trouble, but we had had a fantastic day with Shorty. As we left we yearned to come again--and did a few years later--but to a different Denali!

About a year after our first visit it appears that someone from the National Park Service visited Denali. The word got out! They wanted to denote Denali as a National Historic Site! But everyone in Alaska knew "Historic Site" equals no mining!

The Denali mining claims had been staked out in the early 1900s, and the many cabins, still standing, had been built by the miners. (One of those cabins carried a sign reading "Post-Office.") The claims had changed hands many times. Most of the easy gold had been washed out of the gravel but because of poor equipment and mining methods there was still a great deal of gold waiting to be found.

When the remaining miners heard the pronouncement by the National Park Service, they got together and held a meeting. They knew what had happened at other "historic" mining towns and claims. When they became historic, the remaining miners lost all the land they had worked so hard to buy or claim!

That night someone -- "no one knows who"--cranked up several of the D-9 cats and leveled the town, except for the cabin marked "Post Office." When the Park Service people returned, they found only one cabin and a few modern mining shacks. The real town of Denali was no more!

It is a shame that the American people had to resort to such drastic methods simply to preserve their own private poperty. Unfortunately, this had appeared to be the only way left to prevent the Park Service from taking the very properties to which the government had given the right of possession.

Today you'll have to search through old mining pictures to see Denali as it once was. The last time I was there, the post office was still standing, but most of the small claims had been sold to a large mining corporation. There were several earthmovers, cats and huge trucks, with the largest sluice-

box I've ever seen. A huge metal shop, dorm and dining-room buildings had been built.

Shorty was still his same old self, even with the changes. Sad to say, he know his job as Denali caretaker was coming to an end. I consider myself fortunate to have had the privilege of seeing Denali as it was in its heyday--and to have met Shorty, one of its long-time residents.

Today, as I understand it, the trail to Denali has been improved to a well-kept gravel road, with a "NO ADMITTANCE" sign.

Arrowhead News (Oct., 1999)

### AN INGENIOUS WAY TO PRESERVE AN OLD GYPSUM MINE

By Regina Gigowski

The Alabastine Mining Company, located in Grand Rapids, Michigan, opened up in the 1890s in search of gypsum to be used for plaster material. They discovered rich gypsum deposits and began full-scale mining in 1907. The mining lasted for 36 years until the company was forced into bankruptcy.

In 1946, Bert Kragt bought the mine with the hope of using it for a furniture manufacturing facility, but with no success. Having an entrepreneurial spirit, Kragt decided to turn the old mine into a storage facility after the local wholesale produce market relocated nearby. The mine held a constant temperature of 50 degrees Fahrenheit, creating a perfect environment for storing produce.

Kragt and his son, Paul, cleared tunnels, poured cement flooring and prepared part of the six miles of tunnels to become the Michigan Natural Storage Company (MNSC), which was established in 1957. Additional refrigerated space was added in the 1960s and by the 1980s a new elevator was installed to handle the great capacity of commodities being stored underground.

Presently, the third generation of Kragts runs the 5,200,000 cubic foot facility with 17 additional employees. MNSC is capable of serving all forms of storage needs with its frozen storage space above ground, as well as cooler space and dry storage 85 feet below ground.

MNSC allows supervised school-group tours. It is a real treat to be able to tour the facility, and better yet, to explore the undeveloped tunnels for the

rock and fossil treasures they hide — gypsum, selenite, alabaster, Pennsylvanian ferns and coprolites.

Remnants of the mining past are seen, but scarcely - old mining cart tracks and the wooden ties that supported them, sinking slowly into the mud of ages. Mining drill marks can be seen on the rock walls. The original elevator shaft, used over 50 years ago, has been closed up, creating an eerie feeling of danger. There are traces of old support beams, and a rusted pulley, still suspended in the ceiling, never again to feel the tension from a rope pulling a loaded mining cart.

During the Cuban missile crisis of the early 1960s the Kent County Civil Defense Department designated the mine as a shelter for 11,000 persons. Civil Defense medical supplies can still be found in their original containers, expired from days gone by. The way in which the Kragt family has preserved the old gypsum mine was an ingenious one, and I am thankful that they allow our rock club the opportunity to explore the catacombs unsupervised, and for so little money. When was the last time you've heard of a "big business" doing that?!

Arrowhead News (Mar., 1999)

