



*Need May
June*

CEDAR VALLEY GEMS

CEDAR VALLEY ROCK & MINERAL SOCIETY

CEDAR RAPIDS, IOWA

CEDAR VALLEY GEMS

JANUARY 1995

VOL. 22, ISSUE 5, PAGE 1

JANUARY 1995 MEETING

The January meeting will be held January 18, 1995, at 7:15 P.M. at the AEGON/Life Investors Bldg. (Just 60 days until the show.)

Jeff Groff will give a program about digging geodes at Scheffler's Geode Mine, Wayland, Missouri, and will have his geode cracker there to crack geodes for anyone that wants to bring some. Should be a fun and informative program.

Hostesses for the meeting will be Julie Sova and Jeff Groff

Incidentally, we could use another volunteer for hostess for the February meeting.

Dues expired December 31, 1994. Dues are \$7. per family. See Dale Stout, treasurer.

CLUB LIBRARY

Leslie Blin says:

The club has a well stocked library with many magazines, books and maps which you may check out and read. Just call Leslie at 377-3339. She usually brings a few to the meetings. If there is something in particular that you are interested in, give her a call. Just to mention a couple, there is a book about Iowa, by an Iowa author, FROM RIFT TO DRIFT, also THE FABULOUS KEOKUK GEODES. There are many more.

CHRISTMAS PARTY

Leslie reports on the Sunday, December 18, 1994, Christmas Potluck and Party. There were 42 members and a few guests present for a great potluck and a 'fun evening'.

Following the supper, Sara Showman, Sharon and Theresa Sonnleitner on violins, Bill Sonnleitner on the French horn, and Jessi Sova on the flute, played many of the old familiar carols for a sing-a-long. They also played Happy Birthday to Bud Cray and Cindy Zobac who were celebrating their birthday that day.

Julie Sova, chairperson of games, etc. had some very clever, fun games to liven up the party.. We had many good laughs while several teams decorated their respective 'human' Christmas tree from bags of materials supplied by Julie. Following that there was lots of fun with the Twelve Days of Christmas, also some paper games. A fun time. Sara Showman and Theresa Sonnleitner capped off the program - each playing a violin solo.

HERE AND THERE WITH OUR MEMBERS AND FRIENDS

Mary McNamar, a member of the Central Iowa Mineral Society of Des Moines passed away Saturday, December 17, 1994, at Iowa Methodist Medical Center. Mary, a lifelong resident of Des Moines, was 78 years old.

Mary, and her husband Ed, were very popular dealers at a number of our shows quite a few years ago. They did beautiful gold and silver wirewrap and made beautiful cabs. They were instrumental in the promotion of Mojave Stone.

We extend our sympathy to Mary's relatives and friends.

(Look for an article about Mojave Stone elsewhere in this bulletin.

Bob Sweet has been doing a countdown of 'get-up' days. Bob has joined the ranks of the retirees. December 30, 1994, was his last day at ADM - Corn Sweeteners.

Robert Blin, who suffered a heart attack back in November, finally graduated from cardiac rehabilitation (therapy) January 6, 1995. He is feeling much better and anxious to get back to doing things he used to do.

Cleo Grisham will celebrate his 92nd birthday January 23rd. Let's surprise him with a card shower. If he is able and if we can get it set up, we may go in with cake and ice cream. If you are interested in taking part in this, please give Alice Brown or Alberta Cray a call.

Kathy Wolfert has a new address:

139 - 37th St. N.E. #5, Cedar Rapids, IA 52402

Phone 369-0582

We welcome new members:

Alma Kelmer

141 Clapp St.

Iowa City, Iowa 52245

Phone 337-3766

Ric Zarwell

P.O. Box 299

Lansing, IA 52151

HERE'S WHAT'S HAPPENING

- March 11-12, 1995 GEODELAND EARTH SCIENCE CLUBS - SHOW, Western Illinois University, Student Union, Macomb, Illinois
- March 18-19, 1995 CEDAR VALLEY ROCKS AND MINERALS SOCIETY - SHOW, Teamster's Hall, 5000 J. St. S.W., Cedar Rapids, IA Hours 9am - 6pm; 10am-5pm
- March 24-26, 1995 ROCK HOBBY CLUB OF GREATER ST. LOUIS - SHOW, Machinists Building Auditorium, 12365 St. Charles Rock Road, St. Louis, MO
- April 1-2, 1995 FULTON COUNTY ROCKHOUNDERS - SHOW, Wallace Park, 250 S Ave. D, Canton, IL
- April 7-9, 1995 MID AMERICA PALEONTOLOGY SOCIETY (MAPS), National Fossil Exposition XVII, Western Illinois University, Macomb, Illinois Fri. 8 - 6; Sat. 8 - 5; Sun. 8 - 3.
- September 23-24, 1995 AUSTIN GEM 7 MINERAL SOCIETY - SHOW, St. Edwards Community Center, Austin, Minn
- October 13-15, 1995 MICHIGAN MINERALOGICAL SOCIETY - MIDWEST FEDERATION CONVENTION AND SHOW, Detroit, Michigan
- October 28-29, 1995 BLACKHAWK GEM & MINERAL CLUB - SHOW, Milan Community Center, Milan, Illinois

FIELD TRIP AND LAPIDARY CLASSES

George Vacik will hold an OPEN HOUSE field trip for the club members just as soon as a date can be set. Probably we will try to set it up so some will visit IOWA HALL while one group is at George's. Then, because of space limitations, we will switch places. Details still need to be worked out.

George tells me he is teaching the lapidary art to three girls from the Scattergood School at West Branch. Their instructor, Ed Clopton, brings the girls to George's home, I believe he said, 3 times a week. He is really having a good time with this project. Probably George's favorite material to work with is petrified wood, but he works with all kinds of materials. He enjoys showing off his fine collection and will be glad to show you around his shop and teach you how to polish a stone. George enjoys polishing a face on a slab or a petrified limb cast. He usually has a load of rocks tumbling in the tumbler, or will be sawing something in the slab saw. George really enjoys working in his shop.

Alberta Cray

MORE LAPIDARY ART CLASSES

To All Members of the Cedar Valley Rocks and Minerals Society, both new and old:

In order to help the Club round out the area of expertise in the lapidary field, primarily cabochon and faceting work, I am offering my services to teach or help anyone who might be interested in taking advantage of it. I'm willing to teach a student one on one in my studio, or if you possess equipment, on your equipment in your studio. This would be set up as a school.

For any of you having difficulties or particular problems in ANY area of the lapidary field, let it be known that I am just a telephone call away. They say two heads are better than one. Also, I might add in closing, that I am still learning with every stone I cut and every time I work in the studio there is something new.

If you are interested in the schooling, please feel free to get in touch with me and we will discuss the details.

Thank you, one and all.

Milo Cervený. Phone 846-2245

THANK YOU

Dear Alberta,

Want to thank you, and your club, for sending me CEDAR VALLEY GEMS. As MWF Historian I appreciate being kept up-to-date on club activities and concerns. (An added bonus is hearing about my friends in the member news features). Wish my budget as AFMS Public Relations Chairman had been larger so more clubs could have been given national recognition for their work - yours does so much to promote our hobby. Congratulations on the award your bulletin got from MWF, and keep up the good work. Re your Dec. item, the Open House Field Trip sounds like a good way to relieve Cabin Fever! Best wishes to you all for a great year.

Diane Dare

MOJAVE STONE

by Clarence Smith

Beauty is everywhere, even in a barren desert where the midday sun turns the air temperature to 130°. The rock and sand floor even hotter than 130°. Only the hardiest vegetation survives. Lizards scurrying between shade is the only animal life. It is an awesome desolate beauty.

The Mojave Desert in the southwestern United States is the place. The beauty is a rock called Mojave Stone; crystals are called Mojave Royal Blue.

A few years ago Lawrence Stallings and his two sons seeking another mineral noticed the rocks had an unusual mixture of copper silicate with other minerals. The stones displayed a fascinating mineral pattern of brilliant blues and greens that they had displayed a fascinating mineral pattern of brilliant blues and greens that they had never seen before. They explored and found the remote area where the rocks came from. They took back enough material to analyze and produce a handful of polished stones.

The rocks came from the ruins of an ancient campsite, hinting it was used by the Spaniards centuries ago. We can envision that perhaps the Spaniards were looking for the treasure of the legendary Seven Cities of Gold "CIBOLA".

Pure copper, silver, and gold are scattered throughout both the Mojave Stone and the Mojave Royal Blue. I believe the copper and silver could have been discarded by the way of cooking utensils, armor, and tools used by the Spanish conquistadors. Over the centuries with the intense heat melting the metals and minerals into an awesome beauty of nature.

Mojave Royal Blue cabochons are typically brilliant mixtures of bright blue crystals in a reddish brown background. Mojave Stone is primarily a mixture of green and blue colored minerals swirled together in varied patterns. Both stones are derived from igneous silicates which have undergone pseudomorphic changes.

The Stallings organized Mojave Stone, Inc., to process and sell the stones. They will not sell in the raw state but only in highly polished cabochons. They guarantee all cabochons against breakage for up to two years. Most of the sales are made through dealers of lapidary supplies.

There is little doubt that the value of Mojave Royal Blue and Mojave Stone will continue to increase in value in the future.

via CHIP AND LICK, 9/1980

(This is the stone which Mary and Ed McNamar worked to promote. They wire-wrapped many of these, as well as other stones, at our shows, including our Midwest Federation show in 1978.)

DON'T KEEP IVORY IN THE DARK

Ivory is one substance that needs light. If you keep it in a dark location, it turns yellow. If it has started to yellow, you can retard this by taking 1/2 lemon, sprinkle it with salt, then rub it with salt, then rub it over the ivory object. The lemon will remove the yellow. After the ivory is dry, dampen a soft cloth with lukewarm water and rub the piece to give it a bright, shiny finish.

Thanks to The Agate Explorer, to us via The Shawmish Roktawk

GETTING TO KNOW COPPER

Those pretty blue and green stains you often see on rock outcrops when on a field trip are known as "copper bloom" and they can be a guide to finding copper and its associated minerals. Copper is usually found in rather distorted, perhaps rounded and complex crystals. The predominant crystal forms are cubes. Dodecahedrons and octahedrons however, sometimes are heckly masses which are equally interesting, for there are unusual shapes....sometimes a man laughing, a dog or any other identification you might choose to make.

Everyone is familiar with the lovely color of pure copper, in fact, it is often used as an identifying term for associated colors. It can have a metallic luster, and while the hardness is only 2.5-3, it is very heavy, with a gravity of 8.9...and like silver and gold, is malleable and ductile. Copper will lose the lovely "copper-red" color when exposed to the air...much the same as a copper penny dulls after a time, but you can always clean it and restore the beauty.

Copper is extremely important today as it has been since the earliest recorded history. Because of its excellence as an electrical conductor it is used in much of the electrical equipment so prevalent today. Can you imagine what it would be like not to have copper available for the power lines which bring the electricity into your homes from the generation source? How much we take for granted!!

When copper is alloyed with zinc you have brass and for bronze you combine copper with tin. Much of the popular magnesium metal is alloyed with small amounts of copper because it makes it more desirable. There are really too many uses for copper to attempt to name them all, but it can be fun for a Trivial Pursuit sort of game to see just how many you can name...or better yet...see if you can name more than your children.

The most famous area for large amounts of native copper is the Keweenaw Peninsula in Michigan. It has been mined for over a hundred years along the shores of Lake Superior. One huge mass was found which weighed about 420 tons. When copper is enclosed in calcite, it makes the calcite take on a beautiful bright red color. Native copper can also be found in shale in the Michigan area.

Copper glance, chalcocite, is a valuable copper ore, and when pure, contains about 80% copper. However, when processed on a large scale, a tremendous amount of rock must be mined to obtain even a pound of copper.

Most everyone has heard of peacock copper...but how about purple copper? All of these names describe BORNITE, which is named after the Austrian mineralogist Von Born. This is easily identified by the bright iridescence, that often brings exclamations of pleasure at seeing such beauty.

If you haven't seen a Half-Breed, you should! True, some of them are more like nuggets, but when you see a truly lovely Half-Breed, you will see copper crystals combined with silver crystals... and they are something to behold. Even those who claim to only like cutting material will appreciate such beauty...perhaps even want to decorate a table with a specimen.

Copper is widespread...and is always associated with various copper sulfides which can be administering in themselves.

FROM Serendipity Gems via several bulletins, to us via THE SHAWMISH ROKTAWK

A HELPING HAND

We certainly owe Darlene Sweet a hearty Thank You for all the time and energy she gave in preparation of the Christmas baskets.

The Sweets gave up a large portion of their dining and living room, to arrange numerous boxes marked for Family # 1, #2, and #3, for a few days.

Darlene had gift-wrapped a number of items, and had sorted groceries putting an assortment of canned goods and other staple items in each box as needed. When she had surveyed what was on hand, made a list of things to shop for to complete each basket. Rebate coupons were collected for possible use as we screened prices and brands of all kinds of grocery items. Then came the fruit and veggies, eggs, cheese and meat. Many of these things were purchased in the large economy size to return to the Sweet's home to be cut and divided as necessary. All packaging material, zip-lock bags, saran wrap, and foil was furnished by the Sweets for this operation, in addition to the generous contributions they had already made. In addition to all that, there was good hot coffee and 'goodies'.

All of this was followed by loading boxes in 3 separate vehicles and checking the city map for locations before heading out to make the deliveries.

Shopping and deliveries were accomplished by Marv Houg, Dale Stout, Papp Phillips, Darlene Sweet, Alberta Cray and Alice Brown. The shopping and delivery required about 5 hours. Whew!!

Alice Brown

FLOWERS of the IOWA SEAS

The State Historical Society of Iowa, Des Moines, has announced a major display of Iowa fossils. Opening on February 18 and continuing through September 30, 1997, a display in the first floor exhibit gallery, east wing, will feature the work of pioneering amateur and professional geologists in Iowa and will feature extensive examples of the LeGrand crinoids.

Currently, two of B. H. Beane's slabs are on display at the museum: a large crinoid slab and the famous starfish slab. The starfish slab contains 183 starfish, 12 sea urchins, two trilobites and a number of other marine fossils.

via CENTRAL IOWA MINERAL SOCIETY'S NEWS NUGGETS

A few years ago several of our members visited the museum, probably not too long after the new museum opened. We had driven over there following a trip to Oskaloosa to hunt for blastoids. We were extremely disappointed to find that there was not one of the beautiful fossils or any of the many Indian artifacts which we had remembered from the old museum, on exhibit. All I can think right now is HOORAY! It is so great we can once more enjoy viewing these beautiful specimens. If we could just depend on the weather, that would make a great winter field trip.

Incidentally, there is a booklet, CRINOID AND STARFISH FOSSILS FROM LeGRAND, IOWA, which was printed in July 1962, several pictures of Dr. Beane with some beautiful plates of crinoids. A niece of Dr. Beane's had the booklet reprinted a few years ago. I am guessing she might have some copies left. The last that we ordered for the club were, I believe just \$2. or \$2.50.

Alberta Cray

IF YOU COULDN'T SEE IT

Most of us know the hardness of the stone we're chipping. We also know whether it has hackly, conchoidal or splintery fractures - but are we respecting these scientific principles and realizing that each of these words also spells DANGER.

Many rockhounds have had a branch or bush smack them in the face while walking through a brush patch on a rock hunt. Branches and leaves can cause serious eye injury. Silicon carbide particles, flying off grinding wheels, a sanding belt suddenly breaking at 1725 rpm, a V-belt splitting, a cab flying off a dopstick, a sliver of obsidian flaking off when over heated, oxalic acid on a polishing buff, or cleaning specimens in acid.

There are lots of ways we can gamble with our eyesight in this hobby - and you are gambling if your eyes are not protected.

If you wear prescription glasses, ask your Optometrist or Ophthalmologist for his recommendation on protective eye-wear. Tell him you pound on rocks, grind rocks on rapidly turning wheels, perhaps all you need to tell him is that you are a rockhound. For those who do not wear glasses regularly, there are many protective goggles available that will give much needed shielding from these hazards.

Industry spends millions each year providing protective eye-wear for employees, and your hobby is more dangerous than many of these jobs.

Perhaps my training and experience in this field makes me more conscious of these hazards, but seeing too many eye accidents constantly reminds me of their presence.

I never sit at the grinder, or pound a rock without my safety glasses.

WHY SHOULD YOU?

Author unknown via Crystal Gazer, 2/93 to us via TULIP CITY CONGLOMERATE

THE TEN COMMANDMENTS OF USING ACID

1. Never add water to acid.
2. Never use acid with bleach.
3. Always use acids in well ventilated areas.
4. Always use inferior specimens for experimentation.
5. Always wear protective clothing and use proper equipment.
6. Always use and store acids carefully (well marked and out of the reach of children).
7. Always keep container of water nearby for neutralizing solutions when using acids.
8. Always treat a spill as if it is the worst acid you are using.
9. Always neutralize acid solutions before disposing of them.
10. Always practice common sense.

via ROCKHOUND RAMBLINGS VIA COBB-L-STONES to us via TULIP CITY CONGLOMERATE

VIKING MOORING STONE FOUND IN MINNESOTA

A Viking mooring stone and habitation site was located December 1993 on the Darrell Anderson farm between Riceville, Iowa, and LeRoy, Minnesota. This is the fifteenth Viking site studied in Howard and Chickasaw Counties, the two closest on the Gary Christensen farm southwest of Chester.

Anderson was aware of the boulder with the unusual hole, but did not know the origin. He referred the writer to Harold Jones, LeRoy, Minn., who told of his father's longtime interest in the stone and how he showed it to him in 1973. The mooring stone is about five feet high, 10 feet long, and 8 feet wide. The hole is about four inches deep and 1-1/2 inches in diameter, with indication of frost holes chipping at the lip.

Some geologists previously claimed these were blasting holes, a claim quickly proved false with observation. Mooring stones were used to anchor ships by placing into the hole a peg attached by line to the ship. Stones similar to the Anderson stone are found by the hundreds in west central Minnesota, and are even more plentiful in northern Europe.

Associated with the mooring stone is the appearance of a stockade with indications of structure similar to the Viking longhouse. These structures were about 14 feet wide and by 30 feet long, and are an open invitation for archaeological studies when found in virgin areas. Below the stockade is often found continuous elliptical shapes which we believe to be rotted or burned remains of ships. These features were not only found at the Anderson site, but at all 15 local sites under study.

via ACHATES 3/94

BIGGS JASPER

Biggs Jasper is one of the more recently discovered picture rock materials. The first piece was found about 1960 in a creek bottom south of Biggs Junction, Oregon. It is one of the more distinctive jaspers even though it lacks brilliant colors. Its design is unique among siliceous rocks. It takes an excellent polish.

Biggs Jasper seems to have developed from the muds of short-lived streams that evolved on the surface of a cooled basalt terrain. The raw materials (plastic colloids, silica, clay and iron) came from the weathering of recent igneous rocks and were deposited in the settling basins of stream channels. Heat and pressure from volcanic activity then served to form jasper, small creeping motions led to the marbled rosettes and picture designs.

Biggs Jasper is sandwiched between two basalt lava flows that cover Oregon, Washington, and parts of Idaho. That plants and animals inhabited the newly formed water courses is shown by the fossil fish found in the area.

from Breccia via G.I. Nugget, 5/94 to us via PEBBLE PUSHER

BRUNEAU JASPER

Did you ever wonder why you see so little Bruneau Jasper, and when you do, why it is so expensive? It is only found in Idaho's Bruneau Canyon. It occurs in only one area along the steep walls of the canyon and is commonly known as a "thunderegg" formation. This formation is extremely rare. Bruneau Jasper has beautiful designs, and ranges in colors of red, tan, and brown. It is a pleasure to work with and polishes to a high lustre. The claim where it is found is privately held, and permission to dig is rarely given. This makes the rock more valuable due to the demand.

from Chips 'N Splinters via G.I. Nugget 5/94 to us via PEBBLE PUSHER

(Some of both of the above jaspers were available at our auction last fall).

THE COLLECTOR

The February '95 issue of EARTH magazine has an article, THE COLLECTOR, by Liz Brosius telling about Frank Carpenter and his life's work with fossil insects.

Frank became the world's expert on fossil insects and insect evolution all the result of seeing a picture in the book, "FRAIL CHILDREN OF THE AIR," by Samuel H. Scudder, 1895. The picture was of a fossil butterfly from Colorado's Florissant Shales.

A wonderful inspiring story of how a young boy smitten by a picture became a professor at Harvard and shortly after his 90th birthday in 1992 his "long awaited summary of the classification of fossil insects was published in his TREATISE ON INVERTEBRATE PALEONTOLOGY."

Frank Carpenter passed away January 18, 1994.
from EARTH Magazine

Bud and I collected for a few hours in the Florissant fossil beds several years ago. Florissant is a fee area. We did not have real good luck. We also hunted at Douglas Pass, Colorado on several occasions. We were hunting for fossil plants; we also found quite a few fossil insects. Very interesting. I surely would like to go there again.

Ah yes, our show is listed in their calendar, thanks to Leslie Blin who took care of sending it in.
Alberta Cray

CRYSTAL INCLUSIONS

Almost every time nature grows a crystal she encases in it a variety of objects called inclusions. Not only solids, but liquids and gases are often trapped during crystal growth. The difference between the white, opaque variety of quartz and the clear variety is caused by multitudes of tiny bubbles of liquid trapped in the opaque quartz.

Frequently the inclusions will be of more than one kind, each called a phase. One of the most amazing sights to see under a microscope is the two-phase inclusion of a tiny bit of carbon in one of the liquid filled cavities found in quartz from Herkimer County, N. Y. The carbon can be seen jittering around bombarded this way and that by the ever-moving liquid molecules.

(From Oct/94 Palomar Gem via Pasadena Lapidary Bulletin CFMS Newsletter, July/94) to us via BELL NOTES November '94

(If any of you have some of the quartz from Herkimer Co, (I don't know if they mean the Herkimer diamonds, or not) and if you have access to a microscope, I'd sure like to see that. In fact I would guess many of the club members would like to see that) --Alberta

CHARCOAL - A HANDY MIRACLE

Have you ever wondered how charcoal is made, or perhaps even what it is? No. You don't care? Well, I'm going to tell you anyway.

Charcoal is really a sort of miracle material. It can be used to filter. Water purification is perhaps the most widely known result of charcoal use. It is also widely used to purify the air we breathe, in filters used in heating and cooling systems, and in gas masks. It filters most of the war gases and also industrial chemicals such as ammonia.

Charcoal was used to smelt iron before coke was discovered. When the cheaper and more abundant coke came into fashion, charcoal was relegated to only specialty irons, such as some cast-iron used in roller bearings. Charcoal has less undesirable by-product gas than coke and it makes a purer material.

You may have seen the word "activated charcoal". Have you thought, like me, that was only a come-on to grab your attention? It isn't. Because charcoal CAN be activated. By superheating charcoal to 300 to 400 degrees C, it becomes more porous and can absorb many times more than ordinary charcoal. It may be reactivated many times before becoming useless.

Bone charcoal is used to decolor glucose and sucrose (your sugar and some syrups). It contains about 75% Calcium Phosphate and is better than hardwood charcoal to decolor syrup.

Charcoal was first made commercially in the 1800's. It was then made by stacking hardwood in conical piles with a kindling pile in the middle. The wood was then covered with dirt, leaving air holes at the bottom and a flue in the middle top. It is still made in much the same manner, except the ovens are now concrete and have steel doors and shutters. When the internal temperature reaches 400 to 500 degrees F., the air holes at the bottom and the shutters at the top are closed. The temperature inside still climbs to 700 to 900 degrees F., although the wood can not burn from lack of oxygen, it "chars". Thus, the name Charcoal.

As much as 70,000 tons are made each year just for briquettes to use in our grills. Many more tons are used for filtering material (only the finest charcoal, gathered from the top of the pile, is used for filters). Probably most of us as lapidarists have used charcoal block to solder on. They range in price from \$3 to \$9 each, according to how many are bought at once and from which company.

Many municipalities use charcoal to filter the drinking water supplied to the people. You can readily see it takes a lot of charcoal to purify millions of gallons of water. All of us have seen the commercials on TV touting the charcoal water purifier we can keep in our fridge. Over all, I wonder where we would be if charcoal could not be made or was never discovered.

- By Jim Williams, Via The Arrastra and Via Flint Rock & Gem. To us Via THE PICA PICK 12/94

BEAD STRINGING

When using large beads, have you noticed that the thread will stretch and leave spaces between the beads? To prevent this, measure off a generous amount of thread the night before, and hang it up with a heavy fish sinker (or weight) on one end over night. Via: MGAGS, Fall 1990. via MWF Newsletter

NEW LOCATION
Cedar Valley Rocks & Minerals Society

NEW LOCATION
Cedar Valley Rocks & Minerals Society

Presents its

1995 GEM, MINERAL & FOSSIL SHOW

Saturday March 18 - 9:00 a.m. To 6:00 p.m.
Sunday March 19 - 10:00 a.m. To 5:00 p.m.

at
Teamsters Union Local No. 238
5000 J St SW
Cedar Rapids, Iowa

MAGNIFICENT MIDWEST MINERALS

Programs

Lake Superior Agates
Midwest Minerals

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Access show site
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NO PETS ALLOWED

DONATIONS

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Students (12-18)	.50
Children (under 12 w/adult)	Free
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NO CHILDREN WILL BE
ADMITTED UNLESS
ACCOMPANIED BY AN ADULT

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Gems	Pewter	Spheres	Book Ends

For Additional Information Contact: Sharon Sonnleitner at (319)396-4016
Marvin Houg at (319)395-0577

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