

# CEDAR VALLEY GEMS

CEDAR VALLEY ROCK & MINERAL SOCIETY

CEDAR RAPIDS, IOWA

CEDAR VALLEY GEMS

SEPTEMBER 1995

VOL. 23, ISSUE 1, PAGE 1

THIS BULLETIN IS COMING TO YOU VERY EARLY IN ORDER FOR YOU TO HAVE THE INFORMATION ON THE AUCTION SEPTEMBER 30, 1995. PLEASE MARK YOUR CALENDAR FOR THE SEPTEMBER MEETING.

## SEPTEMBER MEETING

Cedar Valley Rocks and Minerals will meet at the AEGON/LIFE INVESTORS BLDG, on the NE corner of Edgewood Rd and 42nd St. NE, Cedar Rapids, Wednesday, September 20, at 7:15 PM

The program will be the last half of the video which we viewed last March - about the Collecting of Gems and Minerals. It is a great video with outstanding gems and minerals. If time permits, probably Marv will replay the first part for those who did not see it, and for those who would not mind seeing it again. Sorry, I do not have the title of the video and Marv is out of town as I am writing this.


Hostesses will be Dick & Millie Smouse and Marv & Sue Houg.

Hosts and Hostesses are needed for each month through next May. Please look at the hostess sheet and choose which month you can serve. It is easier if there are two couples. We do not need hostesses for the December meeting.

**FOLLOW THE CROWDS**  
TO:

**AUCTION**

**HUGE AUCTION - SEPTMEBER 30, 1995**  
**AMERICAN LEGION HALL, ELY, IOWA**



This will be a very large auction with some surprises. Alice is still unpacking material that has been packed so long that even she has been pleasantly surprised at some of the beauties she has found - things that are not on the auction list.

Norman and Alice started collecting back in the early 60's so there will be material that is no longer available. How about iridescent fluorite from Auglaise Quarry in Ohio. It fluoresces beautifully. Some other goodies she has uncovered - a dew drop geode, 2 or 3 more of the geodes with the black or smoky quartz crystals from Missouri, some real nice golden barite from South



Dakota, a couple Blue Barite specimens from Cave In Rock, a diopside specimen some half-breeds. There are hundreds of minerals, some very impressive Franklin, New Jersey fluorescents - a large collection of fluorescent specimens.

There are a number of books, some of which are now out of print. FOSSILS & ROCKS OF EASTERN IOWA, by J.N. Rose, INVERTEBRATE FOSSILS by Moore, Lallicker and Fisher, ROCKS & MINERALS by Paul Desautels, Fenton's FOSSIL BOOK, THE AGATE BOOK and lots more.

Please see the flyer for a more complete listing, for direction and hours. DON'T MISS THIS SALE !!

We will plan to load most of the rocks into cars and/or pickups Thursday evening. If you will be off on Friday and can go to Ely by 9 AM, please call Norman and Alice - 393-7193. Leave your name and number. When Alice knows a little more about how much help she will need and the exact time, she can give you a call. We will plan to move into the Legion Hall at Ely around 8:30 or 9 AM on Friday morning. We will need help to unload the cars and to set up the tables, so even if you can't haul rocks, there will be something for you to do. (you might want gloves for moving the tables) A couple of the people who will be taking a load down, will need to get unloaded soon so they can get back to town early. The club will provide sandwich makings, coffee, etc. for the workers on Friday.

Food will be available on Saturday



#### A WORD FROM OUR PRESIDENT

1995 - 1996 MEETINGS  
by Marvin Houg

Another summer has passed and we are starting into a new year of club meetings. I hope that everyone has had a good summer of collecting, sight-seeing, vacationing and whatever.

This year we would like to try and emphasize the programs at our meetings and make them the focal point of our meetings. This will require that we concentrate on finishing the business part of our meeting fairly quickly. To do this will require everyone's cooperation. Some of the steps that we plan on taking to accomplish this are to: Make more decisions at the board level and report results at the meeting. Limit the amount of time we will spend on any important topic to 5 minutes or less and on noncritical items to about 2 minutes. And we encourage people to call a board member prior to the meeting to bring up new items.

If anyone else has any ideas, please call me.

By implementing some of these ideas I hope we can allow more time for the program and socializing. We hope this will encourage more people to attend our meetings.

#### DUES

We have been sending out several complementary copies of the bulletin to folks that have inquired about our club through various sources. I have neglected to put in the information about the dues. Cedar Valley Rocks and Minerals Society dues are \$7.00 per member or family. Nine issues of the bulletin & 1 membership book per membership.

## HERE AND THERE WITH OUR MEMBERS AND FRIENDS

We extend our deepest sympathy to Robert and Barbara Barnett. Their son, Stephen Edward Saucer, age 31, passed away very suddenly July 3rd of a massive pulmonary embolism.

Betty DeSotel had hip surgery in July. She reports she is recovering quite well and is able to walk around in the house and has walked outdoors some. Hope you will soon be able to be back at the meetings, Betty.

Jerry and Helen Sullivan gave a very fine and informative program at the Nature Center Tuesday morning, August 15. They had a wide variety of materials on display, including agates, petrified wood, crystals, fossils and fluorescents. There was a good crowd of interested people in attendance. They came up with some very good questions. Gerry and Helen are very knowledgeable and did a great job of fielding their questions. Sharon Sonnleitner and Alberta Cray attended.

Mary Ann Owens had knee surgery either late July or very early August. She seemed to be getting along very well when we saw her at the August picnic. We wish you well, Mary Ann.

Bill Meyers had had back surgery the latter part of March. He is unable to walk very far and does not think the surgery helped very much. We hope in time, you will be able to get to the meetings, Bill.

Bill and Betty Husted have some rare 'show business' talent as observed at the Witwer Center volunteer recognition 'extravaganza', August 15. Bill represented the Board of Education in a skit entitled "Little Red School House." He wields a 'mean' board when discipline is required. Betty was one of the Andrews Sisters, a really swinging group. The theme of the program was MEMORIES OF WORLD WAR II, 1940's

I visited with Edith Nekola to check up on Jeff. She says he is getting more acclimated at Green Bay. He had been in North Carolina so long. He really missed all of his friends there. He will be teaching the same classes this year.

She said Jeff went to Decorah to the Seed Savers, where he got a lot of seeds (heritage type seeds) seeds that have not been developed, but have been saved and maintained by families. Edith says he has a huge garden - she thought he had planted about 40 tomatoes. His garden is about 10 miles out of town on a farm. He had expected to plant it at his place but found the ground to be too low and too wet.

He is very busy researching and writing in preparation for the publication of some papers.

It's Off to College -

Bill and Sharon Sonnleitner have 2 in college. Ann is starting her third year at the University of Iowa, majoring in music. Bill is starting his second year at Ames in engineering.

Josh Sova will be starting his first year at Augustana, Rock Island, ILL. in music. Julie says he plans to teach music - probably vocal music.

Dr. Harry Raplus, of Fayette, IA passed away Wenesday, Aug. 9, 1995. Harry was a past Iowa State Director for the Midwest Fededration. Some of you will remember Harry for the sheets of quotations which he liked to hand out. Harry's quotations have been seen in many of the exchange bulletins as well as our bulletin. We extend our sympathy to his survivors, two daughters

I had occasion to write to Sylvia Barnett - you will probably remember Babe better (about some items which she had donated to the Linn county Historical Society). Several of us had wondered what had become of Sylvia. She sent me a copy of her 1993 Christmas letter along with a brief note. Sylvia says, "After living thirty-two years in Marion, my Christmas Greetings come to you from Estherville, Iowa this year." ...

I have a lovely apartment with my own furniture and pictures. Looks just like HOME. I have a bedroom, bathroom, nice size living room, and a kitchen alcove with a sink, microwave and small refrigerator. I eat three delicious meals a day in the hospital cafeteria. ... Our floor also has a big, beautiful lounge and a big kitchen and dining room if we have guests.

My month of preparation and moving were not easy and there were times when I was sure I would never make it. My house sold the first day it was on the market. ...

I love it here! ... I can't believe how friendly everyone is. I am attending the Presbyterian Church with my apartment friends.

I do miss my dear, friends in Marion and elsewhere, but I'm only a phone call or letter away; so write, call or come to see me at 820 N. \*th St. Apt. 7, Estherville, Ia 51334." (Holy Family Hospital)

She added that she had cataract surgery recently so she can get her driver's license this fall. She has a daughter and son-in-law who live just 12 miles from her.

Sylvia Hinchliffe, a former member of our club, has a flat lap, some rocks, shells and fossils which she would like to sell. You may call her at 366-0629

### INDIAN CREEK NATURE CENTER

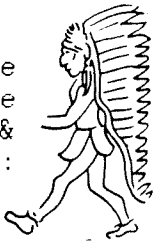
(A few of the events which you might find of special interest)

September 16 - 1-3:30 **THE EARLIEST IOWANS: PALEO INDIANS** Co-sponsored with The History Center. Join Julie and Toby Morrow, Project Archaeologists with the Office of the State Archaeologists. 1 PM Julie Morrow, slide presentation & talk: The Paleo Indian Occupation of Iowa. 2 PM - Toby Morrow, demonstration: The Atlatl & Prehistoric Hunting Tools. Memb. \$2.; non-memb. \$3.

September 17 - 2 PM **ANCIENT ENVIRONMENTALS AND PEOPLE OF LINN COUNTY.** Co-sponsored with The History Center, will feature State Archaeologist, William Green. A slide presentation and talk followed by optional prairie walk. Memb. \$2.; non-memb. \$3.

September 26 - 7 PM **FROM THE GREAT PLAINS TO THE ROCKIES.** Environmental educator Bill Desmarais will lead an armchair adventure of wildlife and spectacular scenery. Memb. \$1.; non-memb \$2.

(Sounds like great programs - something we might enjoy for some of our Cedar Valley Rock Club meetings.



## CONNECTIONS PROGRAM

The next Connections program is scheduled for Monday, October 23, 1995, at Coe College. Susan C. Morse will be the speaker and will discuss large carnivores and habitat concerns. The title of her presentation will be "Room for a Cougar and Me." In addition to the public presentation, Susan will also be speaking at local schools. Call Bill Desmariais at 398-2161 if you know of a teacher or student who would like to attend one of the school presentations. For additional information call Dennis Goemaat or Gail Barels at 398-3505.

IOWA

Celebrate  
Our State  
1846-1996

## CEDAR VALLEY ROCKS &amp; MINERALS SOCIETY 1996 SHOW THEME

CELEBRATING IOWA'S SESQUICENTENNIAL  
150 YEARS OF GEOLOGICAL CONTRIBUTIONS TO THE DEVELOPMENT OF IOWA

The contracts are out to the dealers. Several have already returned their confirmation for our March 23 & 24, 1996 SHOW. Now is the time to be thinking about which committee you would like to chair, or co-chair.



## HERE'S WHAT'S HAPPENING

- September 23-24, 1995 AUSTIN GEM & MINERAL SOCIETY - SHOW, St. Edwards Community Center, Austin, Minn
- September 23-24, 1995 GEM CITY ROCK CLUB - SHOW - John Wood Community College, Quincy, IL. Sta. 10-7; Sun. 12-5.
- September 30, 1995 AUCTION, American Legion Hall, Ely, Iowa. **PLEASE NOTE CHANGE OF DATE.**
- October 13-15, 1995 MICHIGAN MINERALOGICAL SOCIETY - MIDWEST FEDERATION CONVENTION AND SHOW, Detroit Light Guard Armory, 4400 East Eight Mile Road, Detroit, Michigan Fri. 9-7; Sat. 10-9; Sun. 10-6. Swapping all 3 days, Competitive and noncompetitive exhibits, noted lectures & demonstrations. See bulletin at the meeting.
- October 21-22, 1995 Des Moines SHOW - I have no other information
- October 27-29, 1995 AUSTIN & DALLAS PALEONTOLOGICAL SOCIETIES - FOSSILMANIA XIII, Somervell County Expo Center, Glen Rose, Texas. Fri. 10-6; Sat. 9-6; Sun. 9-2. This is a new, larger location. Tables are \$20. each.  
BUY SELL TRADE
- October 28-29, 1995 BLACKHAWK GEM & MINERAL CLUB - SHOW, Milan Community Center, Milan, Illinois. 2 miles south of Milan. Exit #15 off I-280

There are many other shows, swaps and field trips going on throughout the fall. It is impossible to list them all.

## 1995 REGIONAL FEDERATION SHOW SCHEDULE

MIDWEST FEDERATION  
 October 13-15  
 Detroit, Michigan

## FLUORESCENTS

by Phil Plimmer

The Texas Big Bend/Davis mountains area has a good variety of fluorescent rocks and minerals. The most spectacular specimen of this area is the Terlingua pink calcite, which is blue-green when mined, becoming pink, somewhat like rose quartz, after exposure to the sun's radiation. It fluoresces orange or peach under long waves, blue-white under short waves, phosphorescing blue-white. It has a relatively long phosphorescence so you may play catch with a piece in the dark.

The second most spectacular fluorescent specimen of the Big Bend area is the "coal of fire" calcite, which actually looks like the glowing embers of a dying fire. There are other calcites of the area that fluoresce various shades, including, but perhaps not limited to ...red, pink, yellow and orange.

Among the silicates of the Big Bend are agates, chalcedony, opal and petrified wood that fluoresce various shades of green, from dull to vivid bright, due to uranium content.

Other fluorescents of the area include arragonites, calcites and fluorites.

There are two types of fluorescent sources for hunting a displaying specimens...long wave and short wave. These are called "black" lights, or ultra violet lights. While the regular fluorescent lights will activate your specimens, you most likely will not be able to see the reaction because of the white light. There are quite a number of different "black" lights available for prospecting and for displaying your specimens. Many operate on 110-120 volts AC while others on DC (batteries)...some are adaptable to either source of energy.

Your fluorescent specimens may be displayed in a showcase with portable or permanently mounted fluorescent light. Also, your specimens may be stored and brought out to be handled and viewed under the "black" light. DON'T ALLOW THE LIGHT TO BE DIRECTED TO THE EYES...IT IS HARMFUL !

Most any size specimen may be collected, but larger the piece, the more spectacular. The most popular size seems to be around fist size but even down to thumbnail size...or even micromounts...are satisfying.

Franklin, NJ is noted for spectacular fluorescents and there are others from all around the world that you may buy, swap for, or even gather for yourself.

There are also fluorescents among the flora and fauna. For example...scorpions glow green and...if I'm not mistaken...at least some spider eyes fluoresce red.

As you view fluorescents you will probably become aware of the various other items that also fluoresce, such as shirts, blouses, T-shirts, socks, scarves, towels, bed sheets and pillowcases, Vaseline, paper, labels, oils, plastics and books. Some, if not all, of the fluorescence of fabrics is due to laundry additives that make clothes whiter and brighter.

Fluorescence is caused by activators, some of which are impurities in the specimens. The ultra violet radiations cause atoms to vibrate at the various color frequencies.

Thanks to The Big Bend G & M S to us via SHAWMISH ROCHTAWK

## THE ORIGIN OF THE PEACE PIPE

by Amy Rolfe Emerson

In the southwest corner of Minnesota, 1,700 feet above the level of the sea, lies the site of much of the action in Longfellow's *Hiawatha*. A half-mile north of the town of Pipestone are the famous American Indian pipestone quarries and the falls of Winnewissa.

The people of Pipestone have allowed some of the rock to be blasted, and a drainage ditch empties into the stream above the falls. The rock ridge, thirty feet high, over which the waters of Winnewissa fall, is the great divide of the Missouri and Mississippi watersheds. It stretches hundreds of miles to the northeast and the southwest.

In the valley below the falls are the pipestone quarries. Red cliffs overlay the pipestone, and five feet of rock must be removed before the real pipestone stratum is reached. The stone is brilliant red. When first quarried it is soft enough to be carved easily. It hardens upon contact with the air. The pits can be worked in the dry season only. They lie under water during the wet season. The Indians find the labor of digging with crude tools great; but as this is the only place in the world where true pipestone can be obtained, the effort seems justified. An Indian has been known to trade two horses for an especially fine fragment of pipestone.

George Catlin, the artist/explorer, was the first white man known to have visited the quarries. Near the carvings stands the Great Spirit shaft, a pinnacle of rock crowned with the rough likeness of a man. The Indians believe that the rock assumed its shape because the Great Spirit stood upon it when he addressed the assembled nations.

The tradition is that the first people to occupy the earth were Indians...the first man having been hatched from an eagle's egg by a clap of thunder.

According to the legend, the Great Spirit was angered by the warring of his people, so some time later, he again called all the nations of the earth together. They assembled in the valley of the pipestone for a third time. Standing on a pinnacle of rock, he bade them lay down their arms and live as brothers. As he spoke, water gushed from beneath his feet, and flowed over the precipice, forming the Winnewassa Falls. The penitent warriors threw away their weapons, plunged into the river at the falls, and washed the war paint from their faces. Then the Great spirit took a fragment of soft pipestone and made a huge pipe, turning it in his hands. He sent the smoke from the pipe over his people, then to the north, the south, east and west. He told them that the stone was their flesh, that they must use it for their peace pipes; that it belonged to them all; and that club and scalping knife must never again be used on its ground. Then he disappeared in flame. The heat was so great the surface of the rock was glazed. So, to this day, the Indians come yearly to the sacred spot to dig pipestone and bury their feud.

Taken from *The Mentor*, November 1922, thanks to Kay Bradford. Via The Shawmish Roktawk



## PETRIFYING WOOD

I had the pleasure last spring of visiting Arizona's Petrified Forest National Park. What an amazing site! Acres of huge logs, now made of quartz, weathering out of the hillsides, piling up in washes, and paving the ground with bits of agate. Such details of preservation! The wood grains, rings, knots and cell structures all still visible. One wonders about the geologic conditions that could form such a deposit.

The geological setting is fortunately well-explained to the general public in the Park's literature. During the Triassic Period, about 200 million years ago, the area was a complex of swamps, lakes and rivers. An active volcano belt to the south regularly showered the area with ash. The mud, sand and ash covered ancient log jams of conifers and cycads as well as other plants and animals that lived there.

But how did the logs get converted to agate? Where did the silica come from? Why was it deposited? How did it so delicately preserve the wood's structure? Why is it so colorful? Answers to these questions can be drawn from the work of Anne Sigleo, who studied on the geochemistry of the petrified wood while she was at the University of Arizona in Tucson.

Where did the silica come from? It came out of the volcanic ash. The ash, originally a glass, weathered easily to clays such as montmorillonite. The weathering released silica in a form which is soluble in ground water. The ground water percolating through the sediment brought the silica to the logs.

Why was the silica deposited? Decaying logs form a local area relatively low in oxygen. Ordinarily, ground water is at least slightly oxygenated. When it reaches an area of low oxygen content, it changes chemically and deposits silica.

How did the silica so delicately preserve the wood's structure? There are two possibilities. Either the silica replaced the wood chemically, atom by atom, or else it filled in the pores between the wood particles, a process called permineralization. Sigleo's work supports permineralization as the dominant process at work on the Petrified Forest. Her evidence was the details of texture seen under the scanning electron microscope and the discovery that original woody material (now degraded to lignin compounds) is still in the logs. The fact that the wood is full of open pores is known to anyone who slaps paint on a fresh piece of wood. The woody porous structure thus served as template guiding the details of silica precipitation.

What gives the petrified wood such an array of color, with regions of pink, tan, purple, yellow, brown and black? The same processes that freed, transported and deposited the silica also applied to chemicals such as iron, manganese, uranium and antimony. The varying concentrations of these trace elements from place to place colors the wood.

Thus, Arizona's Petrified Forest resulted from a happy combination of circumstances beginning with the deposition and preservation of log jams in stagnant lakes and swamps later covered by volcanic ash. Normal chemical breakdown of the ash and movement of the

chemicals by ground water into the wood's pores did the rest. Knowing this does not dim the appreciation of the startling vistas of agate-rich logs resting on Arizona badlands.

We can all be grateful for the foresight of people like John Muir and Theodore Roosevelt that allowed the features to be protected so that all may enjoy them.

**REFERENCES:** Long, R. A. and Rose Houk, 1988, *Dawn of the Dinosaurs: the Triassic in Petrified Forest*, Petrified Forest Museum Association, 92 p.

Sigleo, Anne, 1978 "Degraded Lignin Compounds in Silicified Wood 200 Million Years Old," *Science*, vol 220 p. 1054-1056

- 1979, "Geochemistry of Silicified Wood and Associated Sediments, Petrified Forest National Park, Arizona," *Chemical Geology*, vol. 26, p. 151-163

- Bill Cordua, University of Wisconsin - River Falls, *Leaverite News*, 11/92, via Rock Rustler's News, 1/94

via PEBBLE PUSHER 9/94

## MORE ABOUT CATLINITE

by Winnie Dalen Ketcham, member, Gem and Mineral Society of Franklin, NC, Inc

George Catlin gave up his profession as lawyer to become an artist specializing in painting portraits of Indians and their way of life. He was born in Pennsylvania in 1796. 500 of his portraits hang in the Catlin Gallery in the National Museum in Washington, DC. It was during his visit to Minnesota that he sent samples of the red clay-like stone to a friend in Boston for analyses. The friend, Professor Jackson, named the stone after the great artist, calling it catlinite. 400 of his great works also hang in the American Museum of Natural History. He died in New Jersey, 1872.

The catlinite or pipestone has been used by Indians for many centuries as material for their calumets or peace pipes. It is about 2.5 in hardness, making it ideal for carving. Such pipes had many different uses and ceremonial rituals by each tribe. Thus, many shapes evolved using pipestone.

The Mountain Gem 1/95 via Rock Rustler's News 4/95



**BRYOZOA AND CORALS**

Bryozoa are tiny colonial animals with stony skeletons of calcium carbonate. The skeleton has numerous tiny holes, each of which is the home of a minute animal. The skeleton can be mound-shaped, lacy, tree-shaped, or screw-shaped.

Bryozoa are common as fossils, so common that their broken skeletons formed entire limestone beds during the Mississippian Period. These animals are present today and spend their lives attached to the sea floor, to stones or to other marine animals.

Corals are small brightly colored marine animals that look much like flowers. The animal grows an external stony skeleton, connected on the inside with radial partitions which divide the body into chambers. The animal itself is called a polyp, and the skeleton is called coral.

Some corals live together in colonies made up of hundreds of individuals that are attached to each other by their outer skeletal walls. Some form coral reefs that are hundreds of miles long.

The skeletons of solidary polyps may be shaped as a cushion, a tube, or a horn, each with a depression in the top in which the animal lived.

The skeletons of the colonial forms may be branching or closely packed and massive. Corals live mainly in warm, shallow seas and are numerous today.

The animals were common throughout geologic time and fossils corals are most common in limestone. They may also be found in shale and sandstone. ❖

**Reference:**

Glossary of Geology, Bates & Jackson, 1987. Guide for Beginning Fossil Hunters, Chas.

C. Collison, III. St. Geo Survey, 1956. Pat. Gregory, Ed. of T-Town Rockhound, Dec. 1993 Issue.

FROM: Serendipity Gems 5/94



**BURIED TREASURE**

**A brief story of Agatized Coral**

by Wilma D. Bonar

Agatized coral, in many forms and colors, is found all over Florida. Sometimes these heads are solid; some, as around Tampa Bay, are hollow and properly called "geodes." Agatized Coral is scientifically identified as "Chalcedony Pseudomorph after coral" because one mineral has been replaced with another.

Millions of years ago these "rocks" were colonies of little animals belonging to the phylum coelenterata. One of the anthozoos – they grew as polyps. Coral is the name of the limy skeleton with which they encase themselves. It is also a fossil.

Diluvial action of some kind covered these colonies of animals. This water contained other minerals. Over a long period of time the carbonate of lime skeleton was replaced by the mineral quartz. This form of quartz is called 'Chalcedony' (cal-CED-ony). The geodes found in the Tampa Bay area may have centers colored red, blue or black or varying size quartz crystals. In the northern part of Florida solid heads of various shades of yellow, banded with blue or black have been found. Beautiful specimens have been found on the Caladesi

Causeway. Other beautiful specimens have been located in the Perry area – Econfina and Buckeye. The crystal heads of northern Florida differ from the Tampa Bay heads. While heads have been found in all areas, no fingers have been found in the northern Suwanee basin. Many enhydros are found, sometimes in salt water but the water contained in them is always fresh.

Heads and fingers are highly prized as specimens. Smaller pieces are made into jewelry. They have come to be called "Ballast Point Diamonds" because they were first found in quantity at Ballast Point – and to coral lovers their beauty rivals that of the diamond. ❖

Submitted by John Parsons

## THE FAIRBURN AGATE

### South Dakota's State Gem

Just like flowers and trees of a certain area, the agates are different in each region. The South Dakota State Gem is the Fairburn Agate – they are beautiful and highly coveted by rockhounds from all over the nation.

The Fairburn agates are found as far east as Kadoka, and as far west as Rapid City. Usually in the area of Highway 44 with the major beds being south of the highway. They can be found in Nebraska from the Chadron area westward to the Wyoming state line.

The favorite areas for local Fairburn enthusiasts are Wasta, Scenic and Conata in Pennington County or Interior, Weta, and Kadoka in Jackson County. Fall River County has areas of Fairburn beds nears Oelrichs and Ardmore.

Fairburns are a fortification agate, which refers to the assumed resemblance of the pattern of medieval fortresses. They are most often described as having "holly-leaf" shaped patterns.

Fairburns are a sedimentary agate. There are varieties of fortification agates called Teepee Canyon agates that are still found in their limestone matrix. Fairburns have been eroded from their rock formations by ancient rivers that no longer flow through the area.

Fairburns are now found in scattered gravel beds of the Oligocene, mainly in the Chadron Formation which is noted for its Titanotheres fossils. The soil is a sandy clay marked by beds of gravel. There is a great variety of gem material in the gravel, banded jasper, which is most often called prairie agate, chalcedony, carnelian, yellow agate, mass agate, and onyx banded agate. There are even pebbles of rose quartz, smoky quartz, rutilated quartz, and snow quartz.

They range from football size to as small as a pencil eraser. It is possible to find orange, yellow, white, black, brown, lavender and red all in one agate. A prize piece could have 50 to 100 narrow bands, and may have pretty "eyes", quartz crystals or amethyst.

Jewelry can be made from Fairburns but they seem to be more valuable as specimens.

Fairburns were named after the small community of Fairburn in Custer County, South Dakota. "Grandma" Kern lived on a ranch 14 miles east of Fairburn and loved the beautiful rocks that were found on her land. It was told that as Grandma Kern aged, she lost her vision. She followed rock collectors around with a nail pouch full of silver coins and bought every Fairburn that they would find.

In her later days she was almost blind but she still refused to part with her agates. It is rumored that the agate collection was eventually sold to the Kellogg Family of Battle Creek, Michigan.

A Fairburn is not a jasper, like prairie agates. It is agate and has translucent bands which belong to the chalcedony variety of quartz. The pattern of a good Fairburn is obvious at a glance. I have a good friend who says that if you have to ask if it is a Fairburn, it isn't. The bands are not *almost* there, they *are* there. The

fortifications are not *almost* parallel, they *are* parallel. The contrasting bands are not hazy or imagined, they are real.

A Fairburn's bands vary in size. Some bands are wide, some are narrow, unlike the Lake Superior agates that have evenly spaced bands. There is also a greater color variation, the Fairburn is quite colorful while the Lake Superior tends to be analogous. The Fairburn will have a more irregular shape to the bands, also.

Fairburn agates have been collected for many years and are becoming rare, although the continuous erosion keeps supplying new float for hunting.

It is not unusual to find that the hunt depends on the time of day, the angle of the sun, the shadow of the weeds and many other variables including the stories that sound too much like the fish stories of the one that got away.

**Reference:** *Facts About Fairburns*, by June Culp-Zeitner, Lapidary Journal, Aug. 1973

by Cathy Kjar-Schwafel, member of Oklahoma Mineral & Gem Soc., in their bulletin *Sooner Rockologist*, 10/94 via The ROCKPILE

### SHOP TIP

To get an extra high polish on a cabochon or a flat piece, first polish in the regular way, then buzz with a used sheet of "Bounce" fabric softener. A used sheet seems to work better, maybe it has been transformed by heat in the drying process. Any brand of sheet would result in the same manner. This trick has worked on lots of different materials. The higher polish is very noticeable.

Leslie Brooks, Border Gem Chatter  
via The Tulip City Conglomerate

### HINTS & TIPS

To protect your wheels in your shop, use old or new shower caps clearly marked to which wheel it belongs thus protecting your equipment from interchanging grits and dust in the air.

Reprinted from Chip 'n Splinters and SIES Club News 7/88 via The Tulip City Conglomerate.

A ROCKHOUND in Columbus, Ohio tried ~~soybean~~ oil as an alternative to petroleum in a slab saw. He reports it works as well as petroleum products & also has advantages. It doesn't give off a bad odor, it is non-toxic and it has a slower flash point. And lady lapidaries will like it 'cuz it's gentle on hands like cold cream.

via SHOP HELPS and AGATE PICKER  
5/95 via ACHATES

# CEDAR VALLEY ROCKS & MINERALS SOCIETY

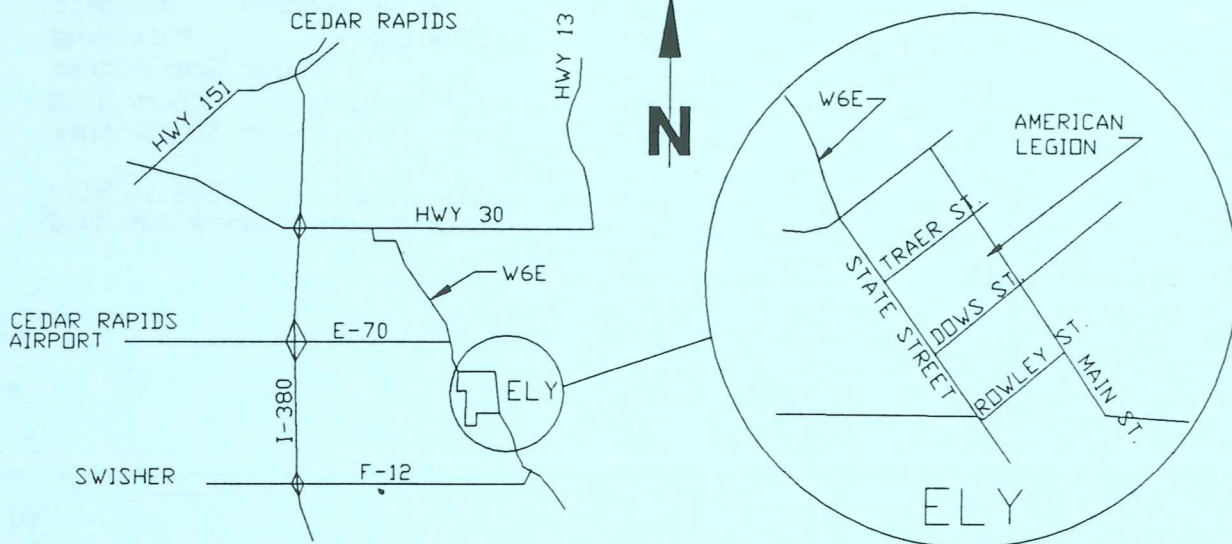
presents

## ROCK, MINERAL & FOSSIL AUCTION

SAT. - SEPTEMBER 30, 1995 9:00 a.m. - 5:00 p.m. (?)

Note: This is a change from original date of Oct. 21st

Open for viewing from 5:00 p.m. to 7:30 p.m. on Friday, September 29  
and starting at 7:30 a.m. on Saturday, September 30



Place: American Legion Building, Ely, Iowa

**FOOD AVAILABLE**

This sale represents the major part of the collection of Norm and Alice Brown (319-393-7193)

### THE FOLLOWING ITEMS ARE ONLY A PARTIAL LISTING

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| Abalone and petrified wood - tumbled   | Hard hats plus tools & bag   |
| Amethyst, large crystals, Canada   | Keswick Agate  |
| Ammonites, Scaphites, nautiloid & pelecypods - SD  | Lake Superior agates - 9 pounds polished   |
| Apache tears - tumble polished   | Lake Superiors agates with polished faces  |
| Bark specimens - lepidodendron, sigillaria,<br>bergia, caulopteris                         | Large collection of sea shells - over 100  |
| Biggs Canyon jasper  | Malachite  |
| Blastoids - Iowa & Illinois  | Millerite - Hells Gap, KY; Coralville and Olla, IA   |
| Books  | Minerals from Ohio - Lima City & Clay Center;<br>large cabinet specimens                     |
| Cabochons - many of different sizes - goldstone,<br>onyx, shell, obsidian, paula, tigereye | Minerals - thumbnail to cabinet  |
| Calcite, Oskaloosa - large cabinet specimens   | Orange coral   |
| Coal concretions - Illinois & Indiana  | Parts cases - various brackets & holders   |
| Coldwater Agate, Iowa  | Pectins and misc. brachs from Washington   |
| Copper   | Petrified wood-chunks, rounds, polished pieces,<br>limb sections-opalized, Blue Forest, more |
| Cycade - 1 from Montana and 1 from Texas   | Phantom Calcite, Mexico  |
| Dinny Bone   | Plant specimens - Cercidophyrum - MT and PA leaves   |
| Echinoids - Texas and others   | Pterodactylus - Jurassic from Bavaria - probably cast  |
| Fairburn agate - polished  | Receptaculites - Iowa & Nebraska   |
| Findings   | Rutilated Quartz crystal - large from Brazil   |
| Fire Agates - some polished  | Sand Calcite, South Dakota   |
| Fluorescent material - 100+ specimens  | Sand Selenite, Oklahoma  |
| Fluorite from Arizona  | Scrimshaw on tooth - old   |
| Fluorite & witherite, Cave In Rock, Illinois   | Scyphocrinites bulbs, Devonian - Oklahoma  |
| Fluorite (green) from Africa   | Small violin carved out of pipestone (approx 6")   |
| Fossil fish plate - Wyoming  | Starfish plate - Kansas  |
| Galena & Calcite, Shullsburg, Wisc.  | Tampa Bay Coral  |
| Garnets  | Templates & stuff  |
| Geodes - several nice, one with black & white xls  | Texas ammonite - large   |
| Gilmore City crinoid plates - 2 nice plates<br>with Cactocrinus and Rhodocrinites          | Timex Case   |
| Golden Barite from South Dakota  | Tri-State Minerals   |
| Grit - various sizes & final polish  | Trilobites - New York; Grafton, IL; Sylvania, OH; MO   |
| Hard hats plus tools & bag   | Vibrating tumbler with extra bowls   |
|  | Wavellite, Mt. Ida, Arkansas   |

I.D. will be required to obtain buying number. Cash or good check. Two forms of I.D. required for all checks. No items removed until settled for on day of sale. Not responsible for accidents, theft or damage. Announcements day of sale take precedence over advertising.

FOR MORE INFORMATION CONTACT:  
Marvin Houg, Cedar Rapids, Ia 319-395-0577  
Alberto Cray, Cedar Rapids, Ia 319-362-5530

Larry DeSotel, Cedar Rapids, Ia 319-364-8648  
Sharon Sonneleitner, Cedar Rapids, Ia 319-396-4016

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ALBERTA CRAY, EDITOR  
CEDAR VALLEY GEMS  
1125 J. AVE. N.W.  
CEDAR RAPIDS, IA 52405

