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Nov  
Sept

# CEDAR VALLEY GEMS

## CEDAR VALLEY ROCK & MINERAL SOCIETY

CEDAR RAPIDS, IOWA

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CEDAR VALLEY GEMS                      JANUARY 1994                      VOL. 21, ISSUE 5, PAGE 1

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CEDAR VALLEY ROCKS AND MINERALS SOCIETY will meet January 19, 1994 at the AEGON Bldg, corner of Edgewood Rd. and 42nd St. N.E., Cedar Rapids, IA at 7:15 P.M.

Sharon Sonnleitner reports our program will be presented by our two scholarship recipients from Cornell College, Mt. Vernon, IA, Norman Nondorf of Spring Green, Wisconsin and Daniel Miller of Longmont, Colorado.

Norm has worked with Dr. Paul Garvin in the Linwood Mine, and will tell us about his experiences in the mine.

Dan attended Arizona States field course, which will be the subject of his presentation.

Hosts and hostess will be Jeff Groff and Jim and Myrna Shetterly

All are welcome. We will be looking for YOU!

### SHOW MEETING & WORKSHOP

We will have a show meeting at Bill & Sharon Sonnleitner's, February 19 at 3 P.M.

The main purpose of the meeting will be to fill egg cartons with small specimens - common fossils and minerals - specimens that children may have seen or studied or will be able to find in books available to them. The specimens need not be perfect but should be identifiable. We will glue the specimens in the egg cartons. It works best if we have a quantity of each fossil or mineral. Strips of labels will be printed on the computer and glued in the lid of the egg carton, identifying each specimen. Remember the specimens must be small - agates, calcite, corals, geodes, shark's teeth & brachiopods, are some possible suggestions.

Don't miss this fun event. It's a good chance to get acquainted so come on out all you new people. We will enjoy a potluck supper around 5 or 5:30. If you can't come for filling the egg cartons, come later and join us for supper. The meeting will be held in the downstairs 'rec' room. Please dress casually and comfortably.

We will have a bit more about this in the February bulletin.

FROM THE MAILBOX -

"Hi Alberta - Just a note to thank you and the club for continuing to send me the GEMS. I really appreciate it. As the new Public Relations Chairman for AFMS, I especially want to commend you on the Christmas Basket project. Thank you, too, for the compliment you gave me by reprinting one of my articles in your November issue.

My best to you and your family, and all the club members for a great year in '94."

Sincerely, Diane Dare

Now wasn't that nice? Diane is one of those special people that seems to be able to do six things at once, and do them well. She is also the MWF Historian & Archives Chairman. Diane is a very prolific writer. I have seen her by-line in many of the exchange bulletins.

#### HERE AND THERE WITH OUR FRIENDS AND MEMBERS

Norman and Alice Brown are the happy grandparents of a new granddaughter, Carrie Elizabeth Brown, born December 4, 1993. Parents are Steve and Kathy Brown. Congratulations to all.

Norman Brown was admitted to St. Lukes Hospital, Dec. 31, with kidney problems. He underwent dialysis January 2nd. The 3rd it was determined he had some kidney stones and some other problems. He returned to his home January 9th. It is expected he may need to go on a dialysis program later.

Our sympathy goes out to Mary Stark of Riceville, Ia. Her husband, Ken, passed away December 30, 1993, after a long battle with cancer. Some of you will remember camping in the Stark's yard and enjoying their hospitality while we were on a two-day field trip in the area. Ken and Mary lived on a farm out of Riceville. It was a real treat for us 'city kids' to get to spend some time in the peace and quiet of the country. Our sympathy is also extended to the members of Mary's family and their many friends.

#### CHANGES OF ADDRESS -

Ron Robinson  
2908 Schultz Dr. N.W.  
Cedar Rapids, IA 52405-2120

Octavia Moore  
1225 Pine Street  
Iowa City, IA 52240

#### IT'S GOOD READING

On another page you will find some articles from the Linn County Conservation Department, about the 2,000 acre Greenbelt near Palo. You may also want to look at the article in the Sunday, January 9th Gazette, page 15 A, entitled "Greenbelt Survey Seeking Artifacts."

The January 1994 issue of DISCOVER, labelled 'Special Issue'. There is an article on Earth Sciences, Human Origins, Paleontology and more. I only got a brief look at it while in a doctor's office. Also, if anyone has the October 1993 issue of Smithsonian, I would like to borrow it to finish reading an article - also started in the doctor's office.

SECRETARY'S REPORT - SHOW MEETING, Christmas Potluck and Party, Sunday, December 16, 1993, at the AEGON Building

The show meeting started at 4 PM. Show coordinator Marv Houg presided. Twenty members were present at 4; more arrived as the meeting progressed.

Dealer Chairperson Alberta Cray reported we have 7 dealers and 5 demonstrating dealers under contract. Mark Anderson will be here demonstrating flint knapping, however, he is not a dealer and does not sell his product. It was agreed that Alberta should invite the dealer from Manchester, the Hardgroves.

Marv asked for opinions on a change of the theme for the show, citing that since the 1993 floods have brought much attention to the Coralville Dam Spillway fossils, he would like our show theme to tie in with that. Everyone agreed. Suggested themes were numerous. After much discussion, "FLOOD OF 1993: Iowa's Geological History Exposed" was chosen as a theme. Marv will make up the flyers. He also suggested we use a film of the flood at the Coralville Dam for a program. Dale suggested we might see if we can borrow the large bison bones found along Indian Creek for a display.

Advertising and parking was discussed. Leslie suggested we might check around for another parking space for the workers. Someone (?) said they would check on the CRST and the new motel parking lot.

Marv passed around the 'sign-up' sheet for members to sign up for which committee, or job they would like to do at the show.

A workshop for putting together egg cartons will be held February 19, at 3 PM at the Sonnleitner home. We will need small specimens to put in the egg cartons. (more about this on another page)

Darlene Sweet ask that we consider inviting a dealer in glass sculpture from the Ozark, Mo area, to demonstrate at the show. She thought an 8 foot table would fill their requirements.

The 1995 Show date was discussed. We need to decide on a date so we can rent the Teamster Hall for the 1995 Show. (This building is larger and there is more parking.) First choice is the second weekend 11 & 12 of March. Second choice 18 & 19. Dependent upon other nearby club shows.

Adjourned at 5:15 P.M. for the potluck. Forty-eight members and guests attended. Following the potluck, Teresa and Sharon Sonnleitner and Sara Showman played their violins for a Christmas carol sing-a-long. Teresa closed the program with several solos. (It is great to have these young people share their talent with us.) The rest of the evening was spent socializing and viewing micro-fossils from Rockford, IA through Sharon's microscope

Respecttfully submitted, Secretary, Leslie Blin

FOUND - 1 TABLESPOON AT THE POTLUCK.

A container was passed for cash donations for the needy baskets. More than \$150. was collected.

WOW!! What a delicious supper we had. I really really tried. I just could not eat some of everything. There were some dishes there which I would surely like the recipes for. Mmm. Good.

Alberta

## CLUB LIBRARY

Robert and Leslie Blin have the club library stored at their home. Leslie usually brings a selection of books and magazines to the meetings. There are stacks and stacks of all of the various magazines related to rocks. She says if there is any magazine or subject you are looking for, please call. There are also many books, some tourist information and geological maps from nearly every state and Canada. Blin's telephone number, if you would like to call regarding any of this material, is 377-3339. If you let her know in advance, she will bring what you would like to the meeting to be checked out, or arrange for you to come to the house to see what is there.

BEEN WONDERING WHAT TO DO WITH ALL  
YOUR OLD "ROCK MAGAZINES"

(This came to us via the MWF NEWSLETTER. I am not sure which club originated this article.) Used in part.

"HELP is on the way!!!

Our club has recently received material from 3 or 4 different collections. Among this material were several different kinds of agate. So, your first thought is to take any books on agates out of the library to help identify the agates. Sounds like a good idea doesn't it? Well the agate books in our library all have black and white pictures, and the ones that do happen to be in color are not too clear, and the colors are not too bright,

Neil Morris, a member of my club, came up with a 'great' idea!

As most clubs, and most members all have back issues of 'rock' magazines, Neil has suggested that the members go through their old issues, and take out any and all colored articles, agates, minerals, etc. The articles will then be separated by category, and each put in a folder for reference.

As we are starting mineral classes again very soon, this material will be very helpful for study purposes." ...

Cedar Valley Editor's note. As the club has considered disposing of the stacks and stacks of magazines at the Blins. This idea might have some merit. The articles could be assembled in three-ring note books. One for LAPIDARY, FOSSILS, MINERALS, etc. So very much of the material in the old magazines is obsolete and does take up a lot of space. Also much time is lost locating a particular article or theme.

Depends if they would be used enough to merit the time to go through them and organize the articles.

CEDAR VALLEY GEMS - This probably comes under a similar heading. What do you want to read? Are you looking for an article about???? We have so much material to share with you, it is difficult to know what you would like to read. Yes, we are still thinking of making a book, or booklet of some of the better articles. In any case, we need your help and your input. We need articles written by YOU. If you would like to help with the bulletin, or help sift through articles for the bulletin, or the booklet, please call. We will try to set up a committee and discuss what we have and what we can do.

The following two articles come to us via The OAK HICKORY NEWS, a publication of the LINN COUNTY CONSERVATION DEPARTMENT, Winter of '94

## Friends Announce Project

The Friends of the Linn County Conservation Board has announced a \$300,000 fund raising effort. The project will include a variety of public use facilities at the Cedar River Greenbelt near Palo. Numerous opportunities exist for public use of the publicly owned land along the Cedar River.

The project will include development of an outdoor learning area with educational trails. Each trail will have a theme and relate to a particular ecosystem in the Greenbelt. In addition, the Native American use of the area will be highlighted.

Archaeologists have identified numerous significant sites in the area including two Native American village sites, a maple sugar camp and many burial mounds. Indian use in the area dates back at least 2000 years and is a very interesting and significant component of the Greenbelt.

An archaeological investigative survey will be conducted in the Greenbelt during the spring and early summer of 1994. This investigation will be open to participation by school groups, educators and the general public. If you are interested in learning more about the opportunities for participation in this archaeological project, see the article on page 5 of this newsletter for more information.

The Greenbelt is an important resource for Linn



County. During the flooding of 1993, the floodplain stored excess water which helped minimize the impact of flooding on Cedar Rapids. In addition, the aquifers along the Cedar River are critical to Cedar Rapids as a source of drinking water. The wetlands along the river help to filter out possible contaminants and improve the quality of the water.

The Friends plan to assist the Conservation Board in developing this already important resource into a truly significant and recognized community asset. The development plan includes construction of an access road and parking area, a drinking water supply, a covered amphitheater for use by education groups, self-guided educational trails, a camping area for use by groups on educational outings and restrooms to name a few.

The Friends are planning to develop partnerships between local businesses, foundations, individuals and government to accomplish the outdoor learning area goal. Work is scheduled to begin in 1994 with a projected completion in 1997.

If you would like to learn more about the Friends or the outdoor learning area, call Dennis Goemaat at 398-3505. Contributions to the project may be sent to:

**Friends of the Linn County Conservation Board**  
1890 County Home Road  
Marion, Iowa 52302

The Friends are a non-profit 501(c) (3) Corporation so donations are tax deductible.

use along a self-guided trail within the Greenbelt and to aid in the future management of the area.

The schedule of field schools includes three weekend sessions and two, one-week sessions. The schools will be held on the following dates in 1994:

April 23-25  
April 30-May 2  
May 9-13  
May 21-23  
June 13-17

The first four sessions are open to the public to anyone 12 or older. The June session is reserved for teachers. The cost for the field schools is \$15.00 per day. The minimum attendance is two days for the general public. Special arrangements can be made for school groups. Please contact the Conservation Department at 398-3505 for more information.

## Greenbelt to be Site of Archaeological Field Schools



A series of Archaeological field schools will be held from April to June 1994 at Wickiup Hill Natural Area near Cedar Rapids. Activities will include instruction in archaeological site survey and excavation, artifact identification, and site interpretation. This project is funded through a REAP Conservation Education Program grant and is a joint undertaking by the Linn County Conservation Department and the University of Iowa.

The information obtained from the workshops will be used to develop educational materials for

If Winter comes, can Spring be far behind? Tonight with the wind chill factor down to 44 degrees below zero, spring seems like a far away dream. Everywhere around our nation Rockhounds are busy planning and preparing for that BIG ROCK SHOW. Spring must be coming.

#### HERE'S WHAT'S HAPPENING

- February 18 - 20, 1994 CABIN FEVER PRODUCTIONS - SHOW, Kirkwood Community Center, Kirkwood, MO
- March 12 - 13, 1994 GEODELAND EARTH SCIENCE CLUBS - SHOW, Western Illinois University Student Union, Macomb. IL
- March 18, 19 & 20, 1994 GREATER KANSAS CITY - SHOW, 1775 Universal Ave., Kansas City, MO
- March 19 - 20, 1994 CEDAR VALLEY ROCKS & MINERALS SOCIETY - SHOW, IBEW HALL, Cedar Rapids, IA
- March 25 - 27, 1994 ROCK HOBBY CLUB of GREATER ST. LOUIS, Machinists Auditorium, St. Louis, MO
- March 26 - 27, 1994 DES PLAINES VALLEY GEOLOGICAL SOCIETY - SHOW, Rand Park Field House, Des Plaines, IL
- March 26 - 27, 1994 RIVER VALLEY ROCK HOUND CLUB - SHOW, Iowa Central Community College, Fort Dodge, IA

#### NEEDY BASKETS

Dale Stout, Larry Desotel, Pappé Phillips, Marv Houg, Bob & Leslie Blin and Alberta Cray met at Darlene Sweet's, Wednesday, December 22nd a little after noon.

Darlene had sorted all of the groceries, which had been donated, into 3 groups for the 3 families. She had made a list of the groceries needed for each family, and had also picked up some of the special request gift items.

At the ECONO we started out with 3 carts - one for each family. We created quite a parade - and sometimes an obstacle, as we 'weighed' pros & cons of which size, best buy, etc. Some items were purchased in bulk, which we took back to the house and divided according to the need.

We loaded up the boxes and boxes in to 3 of the cars and were off on our route. We finished our deliveries in record time and were home by 5 o'clock. It was a cold day, but it was a very satisfying trip as we brought food and Christmas to these less fortunate people.

Our special THANKS to Darlene, for her hospitality, for plenty of hot coffee and snacks and for all the preliminary work.

#### EPOXY HINT

After a tube of epoxy has been opened, dab a bit of Vaseline on the threads. The cap will not stick and mess up your tube. Vaseline around the rim of your tumbler before bolting on the lid. It makes a tighter seal and it will be easier to remove the lid.

PETROGRAPH, via PEGMATITE, 11/92 via THE ROCKPILE 1/94



## THE CRATERS OF THE MOON NATIONAL MONUMENT

The Craters of the Moon National Monument, about 18 miles southwest of Arco, Idaho, has to be one of the weirdest natural phenomena in the world. The National Monument itself is an area of 83 square miles of basaltic lava set in hundreds of square miles of lava wasteland ranging on either side of the Great Rift Zone to the Snake River. The Great Rift Zone is a weakness in the earth's crust that can be traced more than 60 miles across the Snake River Plain. Volcanic eruptions in the last 2,000 years mark most of its length.

Before I first saw it with Gilbert last fall, it was impossible to anticipate the impact of all these hundreds of square miles of lava--ropy surfaces, wildly sharp surfaces, craters, cinder cones, spatter cones, tree molds--but none of the traditional volcanoes one might expect from having seen Hawaii or the Cascades. To quote one Craters of the Moon park service guide, "First impressions are misleading; one needs a little time to explore this landscape, variously described as weird, barren, exciting, awe-inspiring, monotonous, astonishing, curious, bleak, colorful, and mysterious." Actually, all these adjectives fit.

Basaltic lava is a dark-colored lava with a composition largely of calcium and sodium, as opposed to the lighter-colored lavas rich in silica. Basaltic lava flows more rapidly and covers more ground before it solidifies than a lighter-colored lava would.

All three types of lava flows are present at Craters of the Moon: pahoehoe, the ropy kind; aa, with a rough and jagged appearance; and the blocky lava, which is made up of large, smooth-sided, slightly glassy boulders which differ from the other two. Because basaltic lava frequently contains much gas, the dark, heavy rock is often honeycombed with small cavities, or vesicles, left as the rock solidified. In places the iron content of the basalt has "rusted" and there are hills of orange-red and purple-red cinders. On some of the lava flows in the park, such as the Blue Dragon Flow, a thin glassy film gives the rock surface a beautiful cobalt blue color, unusual among lava flows.

Naturally, one of the most pressing questions is how and when did all this come about. One likely theory holds that the lava of the Snake River Plain has risen from the earth's upper mantle to penetrate the earth's crust and cool upon its surface. As the earth's crust slowly (over a period of millions of years) drifted toward the west, a great upwelling from the mantle, called a mantle plume, would be passed over, heating the rock to around 2,000° F. Increasingly younger flows would form eastward. Possibly Yellowstone may be a part of this same system.

There seems to have been three separate epochs of lava activity in Craters of the Moon, the most recent having been about 2,000 years ago, around the time of the birth of Christ. Geologists have collected carbonized roots of plants buried by the lava and have dated them by the Carbon-14 method. Counting the annual growth rings in an ancient limber pine has given an age of 1,650 years since these trees colonized the lava flows.

Craters of the Moon is obviously a barren, inhospitable place. It is not surprising that the Apollo astronauts came here for training in

geology and map reading before their historic flights to the moon. However, life here does go on as the result of remarkable adaptations by plants and animals. About 300 species of plants live here. Fissures and crevices in the lava trap blown dust. The scant 17 inches of annual moisture, falling mostly as winter snow and late spring rains, sinks quickly into the porous lava. Seeds are blown in or carried by birds.

Plants may evade the burning hot dry season by springing to life, growing, blossoming, producing seed, and dying back in the few weeks of a little moisture and moderate temperatures. Or, like the dwarf buckwheat, those little white blossoms that dot the lava in amazingly regularly spaced ranks, they may tap water deep underground while exposing only a minimal growth above. A dwarf buckwheat plant only two inches tall may have a slender taproot four feet long.

Trees are limited to the limber pine, which grows largely on the north side of cinder cones and so is sheltered from the prevailing winds; and a few stands of Douglas fir and quaking aspen, also on the leeward side in slightly more moist pockets. The limber pine is the best adapted because it has fewer stomates (openings through which water can be lost) than other pines have. Here and there, like stark, bleached bones against the black "moonscape" are the skeletons of limber pines that have given up the struggle. One of the favorites, now dead but not yet bleached, is the Triple Twist Tree, so often photographed. The bitterbrush and rabbit brush shrubs, which can withstand harsher environments than the trees, are vital in support of the surprisingly abundant animal life.

A fine Visitor Center contains exhibits that explain the geology, plant and animal life, and history of this National Monument. The Center is open year round, except holidays, but the seven-mile loop drive, which takes visitors past the more important and accessible features, closes from mid-November until late April. Despite the rough and jagged lava everywhere, the drive is easy and the walking paths are comfortable. Among the more unusual experiences are the lava tubes, where the hot interior lava has continued to flow after the surface has cooled, leaving the interior empty; the ice caves, where the basalt lava walls insulate so well that water remains frozen all year long, and the Indian Tunnel, where stone windbreaks were constructed so long ago that their history is lost in antiquity.

These vast lava beds were described in the diary of U.S. Army Captain B.L.E. Bonneville, who had explored the region in the early 1800's. In the 1830's Washington Irving wrote The Adventures of Captain Bonneville, describing the region as "an area of about 60 miles in diameter, where nothing meets the eye but desolate and awful waste, where no grass grows nor water runs, and where nothing is to be seen but lava." But the place does have its own beauty; and, fortunately, in 1924 Craters of the Moon National Monument was established by proclamation of President Calvin Coolidge. In 1965 much of the park was designated a wilderness area, to be kept free and undeveloped. This, too, is fortunate, for the area is surprisingly fragile--and surprisingly unforgettable.

Florence (Boring) Lueninghoener  
via THE PICK AND SHOVEL 1988



# the old copper culture \_\_\_\_\_ Dan Seurer



Awl



Fish-hook



Serrate-Rang Point



Knife



Harpoon



"Rat-tail"  
Spearpoint

Common forms of copper implements associated with the Old Copper Culture

Starting around 3000 B.C., a totally different people appeared in Wisconsin. Actually, they did not "appear"; they were descendents of the Paleo people who acquired new techniques for making a variety of new material objects. They were far more advanced than their Paleo ancestors, and their material remains attest to this. Stone was no longer the only material from which tools were made. Copper was used extensively by the Indians of this period. Many items such as fish-hooks, spear points, knives, axes, and awls were produced by a method known as "cold hammering" and "heating and hammering". The copper was never melted and cast into molds.

Until 1945, the only thing known of this culture was the copper artifacts found only as surface finds. In May 1945, the Osceola Site on the Mississippi River in Grant County was brought to the attention of archeologists. Copper items for the first time appeared in association with stone objects and human burials. Before the discovery of the Osceola Site, it was believed by some people that the people who had made these ancient copper items had abandoned stone chipping in favor of the copper implements. This belief was rapidly disproved upon the discovery of the Osceola Site when finely made stone projectile points and drills as well as polished bannerstones were discovered with the copper implements. The bannerstones, which are spear thrower weights, often are made of materials obtainable in states as far east as Kentucky. The people at this time had no knowledge of pottery or the bow and arrow.

Since 1945, many sites belonging to the Copper Culture have been discovered. The sites include the Reigh Site on the southern shore of Lake Butte de Morts and the Riverside Site near Menominee, Michigan.

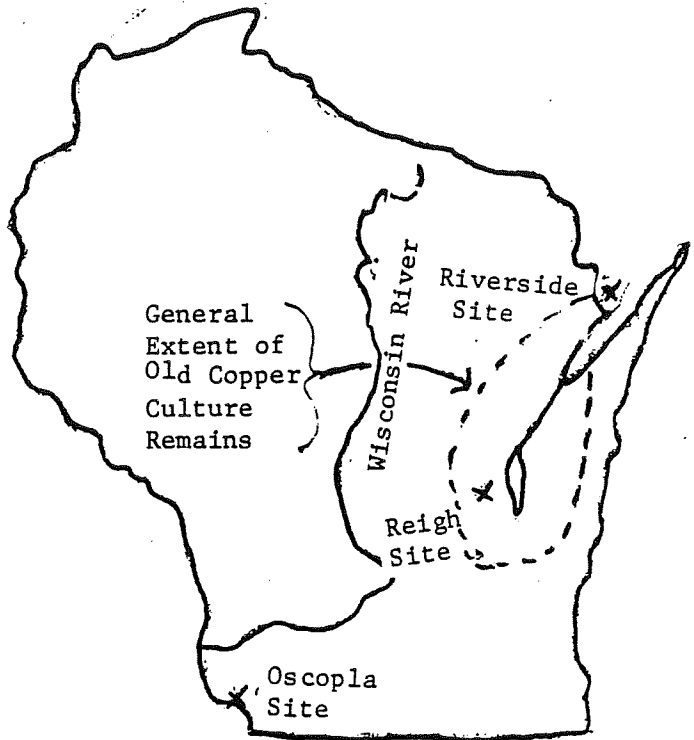
Much work was involved in extracting and transporting the native copper. The copper used for producing these ancient objects was obtained from two areas -- the Upper Peninsula of Michigan and Isle Royale. In addition to the abundant wildlife on Isle Royale, there are many archeological sites and copper mines belonging to the Old Copper Culture period. At present it is believed that all copper that was traded southward came from the Upper Peninsula, and all the copper from Isle Royale went north.

In the thousands of years to come, copper was to become a rare and traded-for commodity. Some copper items have been found in the form of flat, hammered human and animal forms as far south as Missouri and Oklahoma. A picture of one of these fetishes can be seen in the December 1972 issue of the National Geographic Magazine.

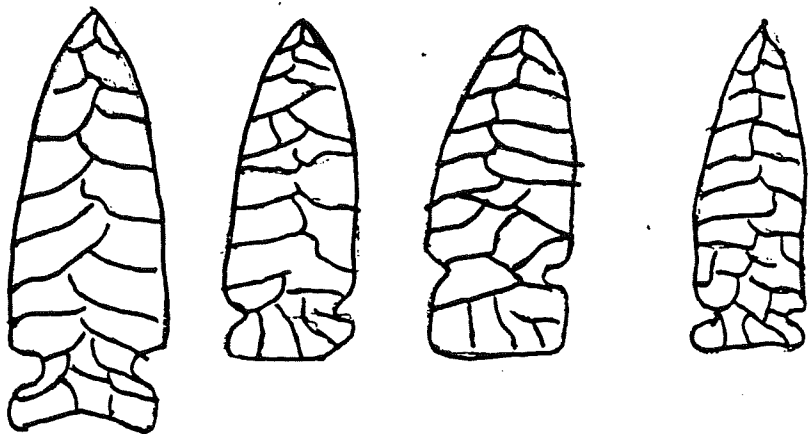
Today, Old Copper Culture objects are hard to find and are greatly treasured by many collectors. The years have taken their toll on all the copper pieces, as all of them have heavy thick

green patina, due to the carbonation of the copper. This gives the copper a very old look.

Along the West Branch of the Fond du Lac River here in Fond du Lac County, a survey I have conducted failed to yield any copper implements associated with the Old Copper Culture. Although no copper items have yet been found, a few stone projectile points similar to those found with the copper implements have been found along the river at some old sites.



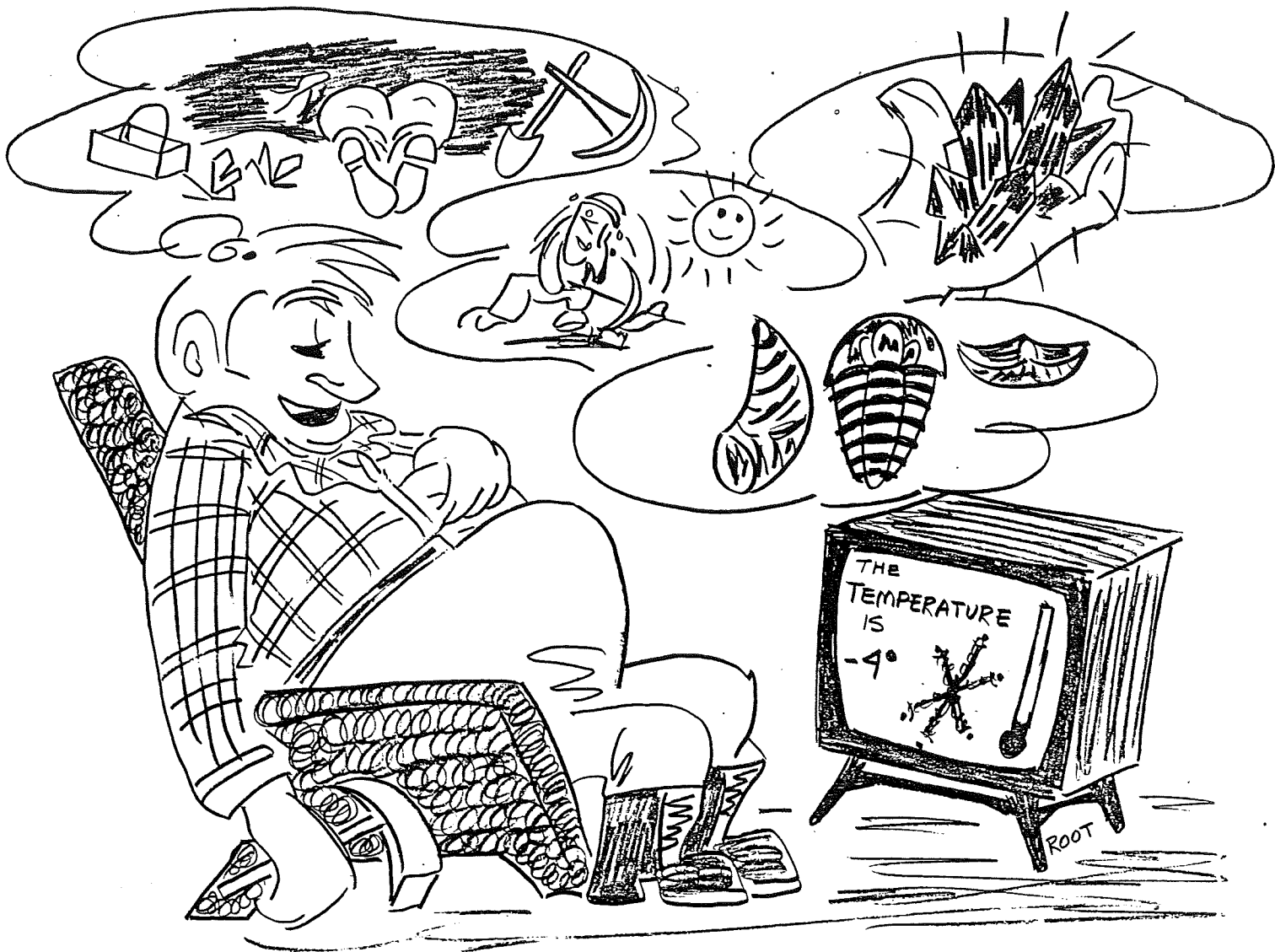
Major Copper Culture sites in Wisconsin, and general location of the Old Copper Culture materials



Common forms of stone projectile points associated with the Copper Culture

via NIAGARA LEDGER  
to us via THE GEODE

## WINTER DREAMS



Thanks to Jan Root for this cartoon.....and we hope to share more in the future.

via THE GEODE 1971

## REMEMBERING "TEE JAY"

Mary Stark, editor of ACHATES, ran this in her December bulletin. We had used it in January 1970. Seeing the name TEE JAY always brings back many pleasant memories. Thought maybe you would enjoy reading this poem of TEE JAY's again.

I guess I feel resentful of the Rockhounds in warmer climes,  
When winter's blast of Frost - Snow curtail my field trip times.

When the temperature has dropped way down & chills you to the bone,  
Then to the basement, I must go to check each rock and stone.

These I did gather in warmer days, brought home to store or hide,  
For just those days I knew would come when I couldn't get outside.

I check them over one by one for a type of each I strive,  
The best I display in a case, the "culls" build up my "drive".

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ALBERTA CRAY, EDITOR  
CEDAR VALLEY GEMS  
1125 J. Ave. N.W.  
Cedar Rapids, Iowa  
52405

