

Cedar Valley Gems

Cedar Valley Rocks & Minerals Society Cedar Rapids, Iowa

CEDAR VALLEY GEMS MAY 2014 VOL. 40, ISSUE 5

May 20 Meeting - 7:00 PM

Regular meeting: Cedar Valley Rocks & Minerals Society will convene on Tuesday, May 20, at 7:00 pm at the Science Center, 5824 Council St NE, Cedar Rapids.

Program: Due to a last minute cancellation, the program will be a surprise.

Board Meeting: The next meeting will be held Tuesday, June 3, at 7:15 pm at the home of Marv and Sue Houg.

Board Meeting Minutes

May 6, 2014, 7:25 p.m. at the home of Marv & Sue Houg

Present: President Marv Houg, Dale Stout, Bill Desmarais, Tom Whitlatch, Sharon Sonneitner, Dave Roush, Jeff Kohl

SHOW: A letter with three show suggestions from member Clarence Burns was discussed: (1) Clarence suggested next year's theme be Agates or a popular geology theme and that we invite Scott Wolter, a noted authority on agates, to the show. It was noted Lake Superior Agates was part of the theme in 2011 and the complete theme in 2005, and Scott was a speaker at our 2004 MWF show as well as a previous show. The complete list of previous themes was reviewed, the subjects of Pseudo fossils, Quarrying, and Minerals were put forward, but no action was taken. (2) Based on comments in the minutes about future changes in the show, Clarence offered his services in helping the club with the methodology and tools that might assist with "improving an already super show." Because the Board does an evaluation after each show and fixes problems and/or considers new ideas, we did not feel that was necessary at this time. Although a survey of the dealers was done about ten years ago, and while we talk to the dealers both during and after the show, we would be open to a new dealer survey and will invite Clarence to design one. (3) In response to April's minutes question on low-priced items for kids, the Board agreed with Clarence that most dealers do have low-priced items, but perhaps we could encourage dealers to have better signs.

Suggestion: Jeff suggested posting a map of lowa and letting attendees mark where they are from.

AUCTION: The following are on the auction list: Darren Cruse (400), Allyn Adams (25-50), Phil Oliver (100), Bruce Birkemeyer (50), Larry Lavine (75-100), Glen Steelman (25-30), Larry Krohn (100), Tim Thye (100-150), Wes Greenfield (100), Gerry Pogue (20), Dave Malm (75), Blins (25-50). Marv will confirm with Gerry and Dave, check with Doris Juhl (75?) to see what she has decided, and talk with Cindy Zobac about the Zobac collection (no room this year). Sharon will send out contracts and ask for lists of items so a flyer can be made.

CORRESPONDENCE: Marv received thank you notes from the VAST Center and the University of Iowa for the scholarships/ financial aid we gave them. Bill confirmed the VAST Center will continue to put our show flyers in the kits they send out to the entire AEA area and beyond.

SUMMER PICNICS: June – Noelridge (to be confirmed), lapidary activities; July – Squaw Creek, geode-cracking; August – Morgan Creek, bingo.—all Cedar Rapids locations.

MISC.: Bill Desmarais submitted a letter of resignation effective December 2014. Bill & Karen will be retired as of January and plan to do lots of traveling. Bill is very willing to help his successor and help with club activities when in town. He has been Vice President (Program Chair) for a decade and has done an outstanding job securing quality programs for club meetings.

Monthly meeting room will change to Classroom #1 near the entry of the Science Station.

Meeting adjourned at 9:25 p.m.

Respectfully submitted, Sharon Sonnleitner, Acting Secretary

Cedar Valley Rock and Mineral Society Monthly Meeting — April 15, 2014

Location: Science Center, 5824 Council Street N.E.,

Cedar Rapids, Iowa

Call to order: 7:05 p.m. by Marv Houg, President.

Introduction of new members or guests: Mark Reagan, Luan Heywood, Eric McDonald

Minutes: Motion to approve as written by Julie, 2nd by John P. Approved.

Treasurer's report by Dale: Checking account balance \$10,083.57 Final tally of show expenses not yet complete. Report filed.

Correspondence: Condolences to the family and friends of Michael Sincak.

Monthly Program: University of Iowa students Luan and Eric presented a review of their studies and future plans.

Door Prize Winner: Luan Heywood chose an agate.

New Business:

1. Recommendation with second by AJ for allotment of scholarship awards for 2014-2015:

U of I \$3,000
 Cornell \$1,500
 VAST \$1,000
 Science Center \$1,000

Discussion regarding the board's reasoning for these

amounts. Motion approved.

- 2. Discussion regarding including the dowser group in the upcoming show. Membership agreed to not include them next year. Marv will inform the appropriate people.
- 3. Julie and Tom suggested that members may want to attend the Gold Prospectors meeting in Malcolm. They are an active group in our shows.
- 4. Discussion regarding the "rules" for show cases at the next show. (See Board meeting minutes from April 1, 2014.) Julie suggested we have a sign that says "Display Only".

Field Trip: May 4, 9:00 a.m. Conklin Quarry, Coralville, Iowa. Same rules as usual apply. Watch for Dale's e-mails and newsletter for more info.

Other Business: Reminder that summer picnics are coming up. A great big thank you to Dave Chase for volunteering to take over the editor duties. Great newsletter.

Adjournment: Motion made by A.J., second by Shelly. Meeting adjourned 9:05 p.m.

Respectfully submitted,

Dell James, Secretary

A Spring Day at Conklin Quarry — Coralville, Iowa

By Marv Houg, President

Our May 4th field trip started out on a cloudy day with a threat of showers but rain never materialized. The morning was cloudy for the 33 people who attended the field trip but by afternoon the sun came out. As is the norm for our field trips, people from quite a distance (Illinois and Missouri) joined local collectors from lowa. Many first timers joined us on the outing with at least 6 new members. The field trip to the quarry lasted from 9:00 a.m. to 4:00 p.m. with about a third of the people leaving at noon.

There was no new blasted material since quarrying operations have not resumed. We searched through material left from last year. Obviously the advantage is that the material was cleaned fairly well and had a chance to weather some. Fossils were the majority of items collected although some calcite, millerite, and barite was also found. Most people collecting fossils searched for the elusive trilobite and many were found. Some trilobite finds required breaking rock which provides for good exercise. Other fossils such as corals, brachs, and gastropods were also collected.

While it may not have been the best collecting trip, everyone enjoyed the weather and the good natured kidding and fellowship of being on a field trip together. We hope that everyone has a chance to join the club on one of our field trips this summer.

SHOWS & CONVENTIONS

May 16-18 JOPLIN, MO. Tri-State Gem & Mineral Society's Spring Rock Swap; Schifferdecker Park, 7th & Schifferdecker Ave.; Fri. & Sat. 9-6, Sun. 9-3; Contact: Chris Wiseman, 417.623.1180, jmc-cwiseman@sbcglobal.net.



May 17-18 NORTH OLMSTED, OH. Parma Lapidary Club's Annual Show; Soccer Sportsplex, 31515 Lorain Rd.; Sat. 10-5; Sun. 10 -5; Contact: Sue Zaborowski, 440.213.1153.

October 17-19 DES MOINES, IA. Midwest Federation (MWF) Convention. Paul Knapp Animal Learning Center, Iowa State Fairgrounds, 3000 East Grand Avenue, Des Moines, IA 50317

WEBSITE OF THE MONTH

The mineral collection of the Smithsonian is known for having the best of the best. Many of their spectacular specimens have been photographed and are available for viewing on the internet. View remarkable mineral images here:

http://geogallery.si.edu/

PETROLOGY

is the branch of geology that studies the origin, composition, distribution and structure of rocks.

Chunk of Africa Found in Southeastern US



A University of Georgia geophysicist's study of rocks shows that a piece of Africa was left in the southeastern United States when the supercontinent of Pangea broke up more than 250 million years ago, according to ScienceDaily.com.

The Brunswick Magnetic Anomaly – which stretches from Alabama through Georgia and offshore to North Carolina's Outer Banks – is a fault zone that formed when parts of Africa and North America were one continent before a plate tectonic event separated them, LiveScience.com reports.

LiveScience explains that "anomalies in Earth's magnetic field are caused by structures such as faults, and by the varying magnetic intensities of different rock types. These slight differences in rock magnetism can be measured and mapped to find hidden geologic structures."

Georgia Geophysicist Horry Parker set out to determine if the Brunswick Magnetic Anomaly represents the long-held belief that the split between North America and Africa was created when Pangaea broke up about 200 million years ago, or if it is actually millions of years older and represents the original collision area between the two tectonic plates, an event that formed the southern Appalachian Mountains. His research concluded the latter, LiveScience reported.

Interpreting magnetic data in the southeastern U.S. is challenging, Parker told Fox News, because of the terrain's deep faults and shallow features.

Parker's findings are published in the April-May 2014 edition of GSA Today, a product of The Geological Society of America.

Edited from 4/26/2014 Newsmax.com

Rediscovering Lisbon, Iowa's Historic Standing Rock — a Gigantic Glacial Erratic

Years ago while sitting through a college lecture on lowa geology I learned of various house size boulders that lay scattered around the state, courtesy of the last glacial advance. Interesting I thought, and mentally filed it away.

Fast forward to the present Unrelated to anything geological in nature I looked for a location near Lisbon, lowa by using a detailed map on my Smartphone. The map contained names of county roads. There it was, Standing Rock Road. Suddenly the long ago college lecture came roaring back. After a quick aerial map search of the road and farm properties I came up empty with the location of the boulder. Determined to find the rock, I went to Lisbon, found Standing Rock Road, traveled the entire length of the road four times, but the boulder remained elusive.

Finally after receiving some guidance from members of the Lisbon Historical Society I discovered the large granite structure for myself.

Standing Rock is located on private property in the middle of an active farm field and is situated on the slope of a small hill. It is located about a mile or so west of Standing Rock Road. There must be a story there as to why the road and the structure don't more closely relate. The best time to see the rock is before planting or after harvest.

Standing Rock has been used by humans for a long time. The well rounded grey granite was purportedly used as a marker to define a boundary of the Black Hawk purchase by the U.S. federal government of lands owned by the Sac and Fox tribes in 1832. This long standing belief was investigated at the National Archives



collection but without actual confirmation documentation - yet.

Still, it is an imposing sight to see a two story, house size boulder resting on fertile lowa soil.



Standing Rock is a glacial erratic located just southwest of Lisbon, Iowa. The granite boulder rests on private property and can be seen from the gravel road and on internet aerial maps. For decades Standing Rock has been a landmark and according to local lore, may mark a boundary for the 1832 Black Hawk purchase of land by the federal government. Photo taken on May 4, 2014.

Discover Standing Rock Yourself

Take Iowa State Highway 30 to Lisbon. On the south side of town along Hwy 30 is a golf course named Hillcrest Country Club. Turn south on Country Club Drive for about a mile, then veer right on Standing Rock Road. You are traveling south on that road until



it ends in a couple of miles. Turn right (west) at the intersection onto Day Road. Travel about a mile and a half west. Standing Rock is located in a field on the left, just a short distance from the road. It is

located across the road from a property filled with many old vehicles and machines. A word of caution—the field where Standing Rock sits is surrounded by what looks to be an electric fence.

GPS Coordinates for Standing Rock

Aim your GPS device to these coordinates: 41°52\(\mathbb{2}7\mathbb{Z}\mathbb{N}\), 91°24\(\mathbb{Q}47\mathbb{Z}\mathbb{W}\).

Article by David Chase, Editor

A Peek under Iowa's Rich Topsoil in the Driftless Region

Within the fringe landscape between rolling farmland and northeast lowa's driftless area, where the most recent glaciers missed scouring the land, there lays a variety of topography. An example is just north of Fayette, lowa where this limestone quarry operation carves rock product out of small hills. Notice the relatively thin soil supporting prairie grass vegetation.

Most of the Hawkeye state is built upon sedimentary layers like this exposed rock strata from ancient shallow ocean deposits.
These layers are the source beds of many shell, coral and marine bottom creature fossils found between the Mississippi and Missouri Rivers.

Today this solidified mud and ooze from shallow seas makes a great crushed rock product that is used for road maintenance, building material and ag lime. So the next time you take a drive near Fayette you will know where the source material is found, mined and distributed.



This active quarry northeast of Fayette, Iowa produces limestone product primarily for roadway use. Side cuts in the quarrying process expose strata detail revealing nearly continuous source material and conditions below while the top one-quarter layer displays an alternative source composition.

Getting Involved in the BLMs Special Recreational Permit System

by Shirley Leeson, ALAA President

Following a fatal accident during commercial racing competition in Johnson Valley (California) a few years ago, the Bureau of Land Management (BLM) established a subgroup to review their process of issuing Special Recreation Permits (SRP) and to create a new booklet for use with respect to competitive events. That process is now complete, and the focus is now on Special Recreation Permits for noncompetitive events. Because this would encompass rock/gem/mineral field trips, I have been very concerned and expressed my interest in being involved, and I offered to chair the subgroup when the previous chair stepped down.

Dee Holland and I attended the Desert Advisory Council subcommittee meeting in December, 2013. First on the agenda was to consider permits for "others" using the California desert. (The commercial permits have been finalized and now they are searching for "others" to control and contain.) The contents of their recreation permit proposal are taken from one written for Moab, Utah (they didn't write their own), but it was easily adapted to cover the California desert.

While rockhounds in the past have been lumped under "recreation, casual use, and casual rock collecting," the proposal suggested that we now come under "special permits." So, instead of going to the desert whenever we want, we'd have to apply for a permit 60 to 90 days ahead of time and, after jumping through all the many hoops listed, we could be turned down by the BLM for any number of reasons. Also, we were told on a number of occasions during that meeting, by the BLM district manager, that using our public lands "is a privilege, not a right," and a group has been defined as "one or more." If this is to pass, the days of field trips to the southern California desert by clubs from anywhere would seriously be jeopardized.

—Edited from the ALAA Newsletter (Jan-Mar, 2014)

ALAA is the lobbying arm of the American Federation, working on behalf of rockhounds to keep public lands open and accessible to all, including the elderly and handicapped. Entire newsletter is available at amlands.org

University of Nebraska State Museum

by Donald Phillips, From Your Paleontological Society Newsletter, Mar. 2014, D. Phillips, Ed.

The State Museum's exhibits are housed in Morrill hall on the campus of the University of Nebraska in the State Capital of Lincoln, located about sixty miles west of Omaha on Interstate 80. The state is famous for its fossils, especially mammals, and if you would like to see a sampling of fossils from around the state at one museum, this is the one to visit. You are greeted at the main entrance by a life size bronze Columbian Mammoth. Once inside a mural of prehistoric life looms over your head.

Most of the fossils are housed on the main floor of the museum. To your left as you enter is the Toren Gallery of Ancient Life, which contains fossils and dioramas of Paleozoic life, mostly invertebrates. The dioramas depict life from the Cabrian through the Permian Periods. The fossils include a three-footlong nautiloid from 500 million years ago (ma) from Minnesota, a slab full of trilobites from Oklahoma dated 450 ma, a beautiful 300 ma slab of crinoids from Iowa and a labyrinthodont amphibian trackway. There are wall panel exhibits discussing nautiloids and ammonites, and below these are drawers which visitors can open to see more examples of fossils.

The next hall is the Mesozoic Gallery, dominated by marine fossils from the Cretaceous interior seaway. These include an *in situ* tooth assemblage of the shark *Cretoxyrhina*, the skeletons of the giant fish *Xiphactinus* and the mosasaur *Tylosaurus*, and nice specimens of the ammonite *Placenticeras* and a huge inoceramid clam covered with oyster-like shells. A number of specimens are housed below the floor in glass-covered compartments. These include fish, shark, a slab of gastropods and the neck and head of the long-necked plesiosaur *Thalassomedon* from Nebraska. There is also a magnificent specimen of the pterosaur *Nyctosaurus*. Finally, there is a hall of Cretaceous dinosaurs. Although Nebraska is *not* known for its dinosaur finds, this hall contains a skeleton of the horned dinosaur *Chasmosaurus* and the thighbone of a hadrosaur or iguanodont which was the first dinosaur bone found in Nebraska (1928).

The "must see" exhibit in the museum is the Elephant Hall, which houses about 11 full skeletons of mastodonts, mammoths and elephants, and is said to be the largest collection of fossil proboscideans in the U.S. Many of these specimens were described by Dr. E. H. Barbour between 1891 and 1941. The earliest one, at 12.5 ma, is of the four-tusker *Gomphotherium osborni*. Other "four-tuskers" include *Megabelodon*, *Embelodon* and *Stegomastodon*. These three animals have shortened lower jaws and reduced lower tusks, believed to be an evoluntionery adaptation to allow for a longer trunk. The Ice Age "elephants" include an American Mastodon, a Jefferson's Mammoth

Mammuthus jeffersoni_and a huge Columbian Mammoth Mammuthus columbi, the latter thought to be one of the largest mounted specimens anywhere. It is now believed that the Imperial and Columbian mammoths are the same species. A specimen of the Dwarf Mammoth Mammuthus falconeri from the Mediterranean is thought to have become extinct only a few hundred years after the arrival of humans in the area. Some scholars think that the remains of this diminutive mammoth may have inspired the Greek myth of the Cyclops.

Finally, there are skeletons of the modern African and Asian elephants (the latter both a juvenile and an adult) for comparisons, as well as two stuffed African elephants in the center of the gallery. At the back of the room is a wonderful mural by artist Mark E. Marcuson entitled "Nebraska in the Ice Age," depicting Imperial mammoths along the Platte River shedding their winter coats of fur. At the far left of this gallery is an exhibit covering 45 million years of proboscidean evolution, from *Moeritherium* to the present.

To the left of the museum entrance are specimens from the 23 ma Harrison Formation in the famous Agate Fossil Beds in northwestern Nebraska. These include a rare skeleton of the four-horned antelope *Syndyoceras*, a number of oreodonts and a bonebed of the small two-horned rhinoceros *Menoceras*. The largest skeleton is of the curious "clawed ungulate" *Morophus*. The skeleton of the huge pig-like entelodont *Dinohyus hollandi* is said to be one of the best specimens ever found of this creature. Finally, the *in situ* fossil skeleton of the burrowing beaver *Paleocastor* is found near the bottom of its long, spiraling fossil burrow. These fossil ground burrows were originally described as "devil's corkscrews" or *Daimonelix*. To the left of the Agate exhibit are a number of skeletons of Miocene pronghorn antelopes, an oreodonts, horse and a short-legged rhinoceros.

In the Hall of Rhinos and Horses, one side of the room contains five fossil horses, from the 4-toed *Hyracotherium* through a number of 3-toed fossil horses and finally the Pleistocene 1-toed horse *Equus excelsus*. On the other side are the rhinos, including the small rhinoceros *Menoceras* with two horns side by side, the short-legged rhino *Teleoceras* and the giant rhino *Peraceras*, considered the largest mounted skeleton of an American rhinoceros. In the middle of this room is a beautifully preserved baby rhino *in situ* from the well known Ashfall Fossil Beds in northeastern Nebraska.

On the right of the entrance hall are Pleistocene fossils.

They include a saber-tooth cat, dire wolf, the giant sloth *Megalonyx* and a glyptodont. The Nebraska finds include a *Bison antiques* from Scottsbluff, Nebraska, and the giant beaver *Castoroides*. This beaver is the size of a small bear.

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Megalonyx and a glyptodont. The Nebraska finds include a Bison antiques from Scottsbluff, Nebraska, and the giant beaver Castoroides. This beaver is the size of a small bear.

There is an interesting exhibit in the hall called "Highway Paleontology." Along one wall are the skeletons of modern barnyard animals. Birds include a chicken, turkey, duck, goose and ostrich (yes, they are raised on many American farms today). The mammal contingent include a pig, goat, sheep, cow, dog, horse and the farmer him/herself. There is even a skeletal domestic cat chasing a skeleton of a house mouse. In the center of the room is a skeleton of the giant camel *Gigantocamelus spatulus* from 3 ma. This Nebraska giant is twice as heavy as any modern camels. Camels evolved in North America and radiated from there to much of the world.

Behind a wall containing thousands of *Elrathia* trilobites, a newer hall, entitled "Bizarre Beasts," highlights some of the more unusual fossil animals. The information, provided in this hall is a bit brief, aimed at people new to fossils. There are large eurypterids, flying reptiles (including a cast of *Icarosaurus* from New Jersey), the giant frog *Beezlebufo* next to a diminutive modern bullfrog and the curious digging quadruped *Stylinodon*. A cast of the curious strange tooth whorl of the Permian shark *Heliocoprion* is on display, as is a reconstruction of what this shark may have looked like in life.

The last fossil hall, Jurassic Dinosaurs, is located on the third floor. Nebraska is not known for its dinosaurs, but here Utah contributes two allosaur skeletons and a stegosaur. There is also a restored *Allosaurus* here, which, like the others, is mounted "old style" - the tails dragging on the ground.

Main Strengths of Exhibit: This is one of the largest collections of

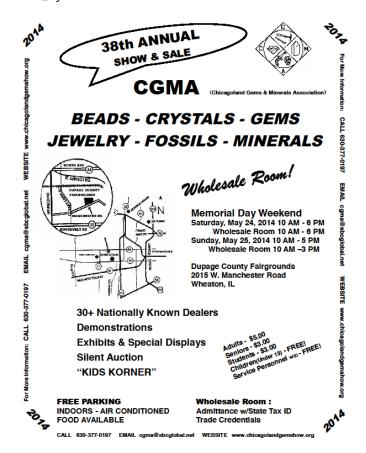
North American mammals in the country, many of which are from Nebraska itself. Most are original specimens. The Hall of Elephants, with its 11 skeletons, is a must see.

Comments: The signage is good., listing the specimen, age and location of discovery. There is also a good collection of Paleozoic invertebrates on display. Almost all the mammals on display are full skeletons, not just skulls or individual bones. The main halls are slightly dated and will someday need a renovation, but are good as they are at the moment. This is one museum where dinosaurs do not dominate—Cenozoic mammals own the museum.

Other Exhibits: There is a hall of modern Nebraska wildlife, a hall that explores evolution and a nice hall of rocks and minerals. There are also halls emphasizing Nebraska's history and historical artifacts.

Research/Collections: The University and museum continue their research work, focusing on Nebraska fossils.

Further Information: The museum is located on the campus of the University of Nebraska in Lincoln. For GPS use, Morrill hall is located at 645 North 14 Street, Lincoln. There is limited parking in front of the museum, but you may have to park off campus and walk in. Admission is \$6, with discounts for children and families. For more information, you can call 402-472-2642 or visit their website at http://museum.unl.edu/museum_info.



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Club meetings are held the 3rd Tuesday of each month from September through November and from January through May at 7:00pm at the Science Center, 5824 Council Street NE, Cedar Rapids, IA. The December meeting is a Christmas dinner held on the usual meeting night. June, July, and August meetings are potlucks held at 6:30pm at area parks on the 3rd Tuesday of each month.

CEDAR VALLEY ROCKS & MINERAL SOCIETY

CVRMS was organized for the purpose of studying the sciences of mineralogy, geology, and paleontology and the arts of lapidary and gemology. We are members of the Midwest (MWF) and American (AFMS) Federations. Membership is open to anyone who professes an interest in rocks and minerals.

Dues are \$15.00 per family per calendar year. Annual club dues can be sent to:

Dale Stout, 2237 Meadowbrook Dr. SE, Cedar Rapids, IA 52403.

CVRMS website: cedarvalleyrockclub.org



