

From the Editor:

Hey there! This is a special edition of the "Diggin's From Dakota", the bulletin that was once put out as a monthly newsletter from the Central Dakota Gem & Mineral Society. The newsletter has been retired for a few years, but has been resurrected for a special occasion: the CDG&MS is celebrating 50 years as a club! We thought this was a newsworthy occasion.

We want to thank our founding members - the original rock enthusiasts that got together and decided that Bismarck-Mandan, ND and surrounding areas needed their own rock club. From rockhounds, to wire-wrappers, lapidary specialists, jewelers, geologists, moms, dads, grandparents, and kids, the club has supported many people, hobbies, and interests over the years.

Maybe you're reading this because you are or used to be a member. Or perhaps you're reading this because you're interested in rocks, minerals, and fossils, and want to find like-minded people. Whatever your reason, read on! If you are interested in more information about the Society, you can visit our website: <http://ndrockclub.org>

-Becky Barnes

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DIGGINS FROM DAKOTA
BECKY BARNES, EDITOR
116 SUNFLOWER DRIVE
BISMARCK, ND 58503

DIGGIN'S FROM DAKOTA

CELEBRATING 50 YEARS
OF THE
CENTRAL DAKOTA GEM &
MINERAL SOCIETY



A Brief History...

The very first gathering of “interested persons, from Bismarck and Mandan,” met March 6, 1966, in the Hospitality room of the Capital Electric Building, in Bismarck, ND. Their intent was to form a club of rock hounds, and they invited Geologist Dr. Gordan Bell as a guest speaker. Nominations were held, and Bob Carlson was elected President, Harold Brady Vice President, and Mae Fairaizl Secretary- Treasurer of the yet-to-be-named club. Each of the 23 people in attendance were tasked with coming up with a name for the club, to be decided at the next meeting. Committees were formed to investigate ways to maintain the club. Letters from clubs in other States were read to see how their groups operated.

The second meeting took place April 3, 1966, in the same location. Four names were submitted for approval and vote:

- Sister Cities Gem & Mineral Society
- Missouri Slope Gem & Mineral Society
- Central Dakota Mineralogical Society
- The Marksman

In the end, the third name was modified, and chosen: Central Dakota Gem & Mineral Society. An annual due of \$5 per family was agreed upon. The following three months, those that wished to become Charter Members could pay their dues.

Charter Members:

Ray & Bertha Barnett	Dr. Gordan Bell
Harold & Emma Brady	Mr & Mrs Robert Carlson
Mr & Mrs Clark Crawford	John & Cecilia Dosch
Sebastian Dosch	Erwin Evanson
Stan & Mae Fairaizl	Mr & Mrs Mike Fischer
Mr & Mrs Elmer Fautz	Roger Frahlich
Theodore Giese	Mr & Mrs Dale Glover
Shirley Henderscheid	Mr & Mrs Adolph Herring
Mr & Mrs. Curtis Hintz	Mr & Mrs Richard Isaac
Mr & Mrs Lindy Larson	Theodore Letzring
Mr & Mrs Charlies Mandigo	
Mr & Mrs Harold Nordwall	Paul Paetz
Warren & Marjorie Pederson	
Verne & Elizabeth Peterson	
Joel & Ida Mae Ramberg	
Mr & Mrs Robert A. Ritterbush	
Mr & Mrs Oliver Roth	Philip Salberg
Henry Salberg	Mr & Mrs Jake Schlosser
Mr & Mrs Gus Sellan	Alfhild Smaltz
Ruben Stalberg	Burnaam Taepke
Earl Tanander	Mr John Tanander
Mr & Mrs James Tracy	Al White

Members and businesses gather each year to hold an annual Rock Show, where people demonstrate lapidary skills, show off jewelry designs, buy and sell minerals, build exhibit cases, educate the curious, and more. The club is always interested in having more education and demonstration booths - from fossils, rocks that glow in the dark, wire wrapping, or lapidary how-to, there is always room.

Field trips to visit museums, other States, and to collect rocks were frequent in the past. With the changing of land accessibility and rules, the amount of rock collecting has decreased. However there are still a few places that are frequented, including an annual “pine cone hunt.”

Younger members in the club are called “Pebble Pups”, in contrast with the adult “Rock Hounds.” Numbers of youth have fluctuated over the years, sometimes having as little as two, to over a dozen. Special events and demonstrations from our younger members are always encouraged!



National Park Service™ CENTENNIAL

North Dakota has one National Park, and if you haven't visited it, you should! Theodore Roosevelt National Park is located in the western edge of the state. It boasts the typical badlands atmosphere that ND is known for. Towering buttes in a multitude of colors, which only get brighter after a plains thunderstorm. Herds of wild horses, bison, and elk roam free throughout the park. Visitors should be cautious however - wild animals are WILD, and should not be approached!

The Painted Canyon offers an information area, as well as a great view. There are plenty of hiking and camping opportunities. Kids are encouraged to help protect our National Parks by joining as a Junior Ranger. Enjoy activities and learn about nature at the same time.

GEOCACHING

So if you are a rock hound you obviously like the outdoors, and looking for treasures. Well here is another hobby that is kind of like looking for rocks. Geocaching, some of you may have heard about it already and wonder just what it is. It is basically a hobby where you go out looking for treasure, however in this case it is manmade and hidden by folks, and your job is to find it.

To get started all you need is a smartphone or a gps unit, then you go to www.geocaching.com where you can read all about it and what you have to do. Basically you pick an item that someone has made and hidden, and you use your smartphone or gps to find it.

After you find it you open it up and you will find a small piece of paper where you put your name and date on, and repackage it and hide it again. Then you go to the website and enter that you have found it. Some are super clever and very hard to find. After you have mastered the art of finding them you can move on to the next level and make and hide some of your own. That is where the real fun is, waiting to see if someone can find yours. At the present time I have 4 hidden in the Bismarck, area and one of them has only been found once.

So check it out sometime, and if you cant find any wonderful rocks, maybe you can find some buried treasure.

Yours truly,
Tony Goldade



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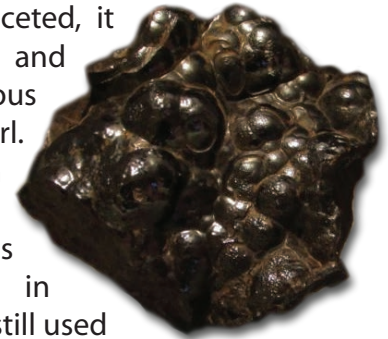
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North Dakota
LEGENDARY

painting of corpses in paleolithic cultures one hundred and sixty to eighty thousand years ago, and numerous cave paintings dating back as much as forty thousand years. Red chalk mines dates back as far as 5000 BCE.

Grey hematite, unlike the “bloodstone” variety that gave it its name, has a metallic luster, and can appear almost like a dark mirror when sufficiently polished. Faceted, it appears nearly black, and smooth, it has a gray, lustrous tone similar to a black pearl. Used as a gemstone in jewelry, for gilding, or for carved intaglios, it was especially popular in Victorian England, and is still used today, in part because it is common enough to be relatively affordable. In its more jewel-like form, it has been sought after for over two millennia, since the Etruscans found deposits of it on the island of Elba.



Hematite-

Hematite, famous modernly for the steel-grey jewelry often made from it, is more commonly a rust-red ore when found in mining iron. An iron oxide (Fe_2O_3), hematite's name comes from haema, the Greek word for blood, and most of its direct historical impact comes from that red form. While hematite is incredibly common - the most common form of iron ore - even in ancient times it was appreciated for itself, and not only for the metal it could produce. In modern times, magnets are used to harvest hematite from mine tailings.

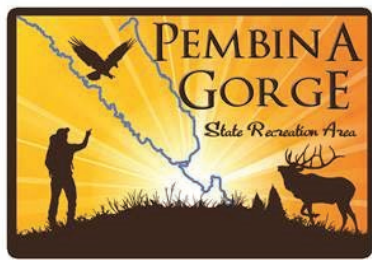


Red hematite most commonly possesses an earthy luster, appearing anywhere from rust-colored to powdered red. Hematite is also known as rouge. Perhaps most famous as a cosmetic used for centuries to redden the skin, it is the same substance as jeweler's rouge, used to polish metal and gemstones, and also frequently used to help strop a barber's straight razor. Red ochre and yellow ochre painting pigments also owe their color to a mixture of red hematite and clay - unhydrated in red ochre, and hydrated in yellow. Maybe most strikingly, hematite is the basis of red chalk, and red chalk drawings have many prominent places in human history and the history of art, including the sketches of Leonardo Da Vinci, the body

Outside of iron mines, hematite is commonly found in banded iron formations, hot springs, clay banks, and other places where iron interacts with water (or more rarely, without water, as a result of volcanic activity). Whether grey or red, it always leaves a red streak (and a grey stone leaving a red streak is often striking and startling to students in the lab seeing it for the first time). Hematite often contains enough inclusions of magnetite to appear attracted to magnets, however, hematite itself is only weakly ferromagnetic when encountered at room temperature. Its specific magnetic properties are variable in peculiar ways depending on the scale of the hematite crystal, and its small magnetic moment, as well as the temperatures at which it transitions from antiferromagnetic to paramagnetic, have been the subject of much discussion since the 1950s (and as such, could make up an essay - or many scholarly papers - of their own).

-Matt Doyle

<https://en.wikipedia.org/wiki/Hematite>
<http://www.mindat.org/min-1856.html>
<http://geology.com/minerals/hematite.shtml>
<http://www.mineralszone.com/minerals/ochre.html>
https://en.wikipedia.org/wiki/Pinnacle_Point
http://www.eurekalert.org/pub_releases/2007-10/asu-rfe101207.php
<http://mars.nasa.gov/mer/spotlight/hematite01.html>
<http://www.minerals.net/mineral/hematite.aspx>



My name is Benjamin Potts and I work for the North Dakota Parks and recreation Dept. as a Park Ranger in the Pembina Gorge State Recreation Area. The

Pembina Gorge is a shared river valley between Southern Manitoba and northeastern North Dakota. A couple of miles east you can view the Red River Valley and a couple of miles west is the typical prairie pot-hole region found throughout most of the mid-west. The region has a rich and diverse history from being part of the Pierre Interior seaway 80 million years ago, to the glaciers retreating creating Lake Agassiz roughly 10,000 years ago, and to the modern day Pembina Gorge.



Roughly 80 million years ago, the area was at the bottom of the Pierre Sea which was thriving with fish and reptilian species such as the mosasaur, Cretaceous tarpon, and giant squid. Today we can find remnants of this vast and thriving ocean through the many fossils collected by the ND Geological Survey. Roughly 10,000 years ago the glaciers retreated back north causing a rapid runoff of water. This rapid glacial runoff is what created the Pembina Gorge. In more recent history the nearby town of Pembina boasts of being the oldest town in ND. The driving economy of fur trading pushed trappers into what was then known as "Hair Hills" (Pembina Gorge). During this time period the gorge was ripe full of mammals such as wolves, beavers, mink and black bear.

The modern day Pembina Gorge consists of 12,500 acres of steep hills/cliffs overlooking the winding, slow moving Pembina River. The rim of the gorge is roughly 1500ft above sea level and the lowest point is at the mouth located on the South side of Walhalla, ND which is 950ft. We have a rich and diverse ecosystem of forest, wetland, and prairie biomes. The forest is primarily deciduous with Bur Oak, Green Ash, Quaking Aspen, Box Elder, Paper Birch, Cotton wood,

Bass wood and Iron wood. There are small prairies scattered throughout the valley consisting of both warm and cool season grasses such as Big-Blue Stem, Little-Blue Stem, and Smooth Brome grass. Prairie lilies, Black Eyed Susan among other native flowers can be found throughout the trails. If you are lucky, you may find a pincushion cactus or even a small grouping of Yellow Lady Slippers near the mouth of a fresh water spring.

The Pembina Gorge and the nearby sand hills boasts of having one of the few naturally occurring Elk herds in the state. They can be found in and above the Gorge throughout the summer. They migrate down into the sand hills in the winter, between JV Wessel's wildlife management area and Icelandic State Park. Other common mammals found are white-tailed deer, black bear, mountain lion, coyote, raccoon, skunk, beaver, badger, fisher, American martin, and various tree/ground squirrels. A great number of bird species can be found throughout the gorge. Some of the more commonly sighted species are red-tailed hawk, northern harrier, blue jay, turkey, crows, Baltimore oriole, American kestrel, and many others. The Pembina River is a slow moving river which can swell up to and beyond its banks in the spring time and nearly dries up in the late summer. The depth ranges anywhere from a few inches to several feet. Several fish species can be found such as catfish, walleye, Northern pike, goldeye, minnows, daces, darters, and several other small fish species.

The Gorge can be enjoyed a multitude of ways. The North Dakota Game and Fish manages 4500 acres of land which can be hunted, fished and trapped. The North Dakota Forest Service owns Tetrault State Forest which is 420 acres, with a 1.5 mile trail and newly developed overlook. The Pembina Gorge State Recreation Area is 1,200 acres with 15.1 miles of OHV trails, and 6 miles of non-motorized trails.



CDG&MS Fast Facts

Website: <http://ndrockclub.org>

Facebook: <https://www.facebook.com/CDGMS/>

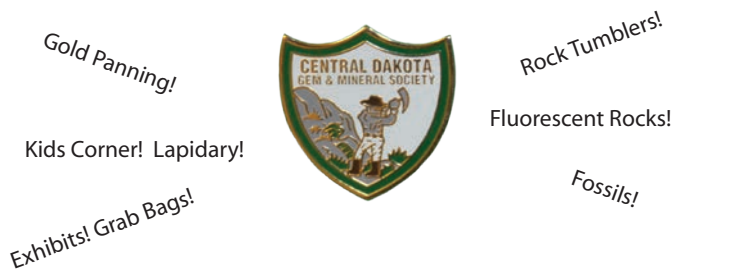
Annual Dues: \$15

Meetings: First Sunday of the Month, 2pm at the Bismarck Public Library. Date may change due to room availability. Visitors and prospective members are welcome to attend.

Mission Statement:

1. To further the study of mineralogy and geology
2. To arrange field trips to collect minerals, gems, fossils, and artifacts
3. To help its members improve the art of cutting, polishing and mounting, and identification of gem and mineral materials and to assist with other related artistic activities
4. To provide opportunities for gem and mineral education and the exchange, purchase, and exhibition of equipment, specimens, materials, and artifacts
5. To share knowledge about gems, minerals, fossils, artifacts, and activities of the Society with the general public.

Central Dakota Gem & Mineral Society 43rd Annual Rock Show



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Education Day

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GEOCACHING

Volunteering

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