



MONTHLY PUBLICATION OF THE CENTRAL DAKOTA GEM & MINERAL SOCIETY

BISMARCK-MANDAN AND SURROUNDING AREAS

NORTH DAKOTA

DIGGIN'S FROM DAKOTA
Gen & Bill Buresh, Editors
1527 N. 19th St.
Bismarck, ND 58501



Published by the CENTRAL DAKOTA GEM & MINERAL SOCIETY

Member

Rocky Mountain Federation of Mineralogical Societies

and

American Federation of Mineralogical Societies



- AIMS: 1. To encourage the study of mineralogy and geology.
 2. To foster field trips for collection of minerals, gems and fossils.
 3. To improve the skills of its members in the arts of cutting, polishing and gem mounting.
 4. To provide opportunity to exchange, purchase and exhibit specimens and other material.

MEETINGS: First Sunday of each month in the Hospitality Room, Capital Electric Building on Highway 83, north of Bismarck; 7:30 P.M. from April through October and 2:30 P.M. the rest of the year. VISITORS ARE ALWAYS WELCOME.

DUES: \$5.00 per family per year.

OFFICERS AND COMMITTEE CHAIRPERSONS:

President	Stanley Fairaizl	205 6th Ave. N.W.	Mandan	663-9712
Vice president	Harold Brady	1401 Sunny Road	Mandan	663-3904
Secretary	Mary Osborn	309 - 12th Ave. NW	Mandan	663-9603
Treasurer	Ted Giese	Route 1	New Salem	843-7005
Bulletin Editors	Genevieve L. & William A. Buresh	1527 N. 19th St.	Bismarck	223-0611
Parliamentarian	Genevieve L. Buresh	1527 N. 18th St.	Bismarck	223-0611
Publicity	Blossomae Campbell	1134 N. 28th St.	Bismarck	255-3658
Program	Ernest Knudson	2020 Catherine Dr.	Bismarck	255-4796
Librarian	Fred Springer	1119 S. 9th St.	Bismarck	255-4232
Field Trip	Gordon Bell and Larry Strand	515 N. 22nd St. 913 N. 19th St.	Bismarck	223-5146 258-5128
Annual Show	Earle Campbell	1134 N. 28th St.	Bismarck	255-3658
Pebble Pup Leader	Pat Brady	1401 Sunny Road	Mandan	663-3904
Historian	Emma Brady	1401 Sunny Road	Mandan	663-3904
Hospitality	Emma Fischer	501 S. 13th St.	Bismarck	223-4362
Membership & Subscription Agent	John Dosch	2118 Marian Dr.	Bismarck	255-1924
Federation Rep.	Ida Mae Ramberg	1325 N. 15th St.	Bismarck	223-6296
Refreshments	Emma Fischer	501 S. 13th St.	Bismarck	223-4362

Subscription rates for non-members are \$3.00 per year.

All members are encouraged to submit articles, etc., for publication during the year. All material for the bulletin should be received by the editor by the 10th of each month. Advertizing in the bulletin by members will also be accepted.

Other editors may reprint articles from this bulletin. A credit line would be appreciated.



North Dakota's Annual GEM AND MINERAL SHOW

Mandan Community Center

September 28 - 29, 1979

NEXT MEETING--December 3

The next regular meeting of the Society will be held at 2:30 p.m. on December 3 at the usual meeting place, Capital Electric Building, north of Bismarck on Highway 83.

The regular meeting will again be preceded by a beginners' class at 1:30 p.m.. For the benefit of the new members, these sessions are discussions on the basics of rockhounding and lapidary science. Everyone is welcome to participate.

The annual Christmas Dinner is scheduled after the meeting in lieu of a program.

The Fairaizls have generously offered to provide the turkeys, potatoes, and gravy. Other members will be bringing the "trimmings," as indicated below:

DATE: December 3, 1978

WHAT: 1:30, Beginners' class
2:30, Regular meeting and election of officers
After the meeting--Christmas Dinner

MENU: Roast turkey, potatoes, and gravy provided by Pres. Stanley & Mae Fairaizl
Members: Dressing, cranberries, sweet potatoes, salads, pumpkin pie
Club: Coffee

Each member bring:

Cups, plates, and silverware for your own family
Bread or rolls for your own family
Assigned dish for holiday menu above

(If you were not at the November meeting to sign up for food, call Hosp. Chr. Emma Fischer at 223-4362. If you can't get Mrs. Fischer, bring a pumpkin pie or enough of one of these items for your own family plus five other people--salad, sweet potatoes, or cranberries.)

Singles: 1 lb. margarine, $\frac{1}{2}$ lb. coffee, relishes--celery, pickles, olives, etc.

COME JOIN THE FESTIVITIES!!



HAVE A HAPPY,
THANKFUL
DAY



PRESIDENT'S MESSAGE--Stanley Fairaizl

Fellow Club Members: This letter will be very short. I will save the rest of my comments for the next, and the last, report as your president.

I believe this was a very successful year, and it is quickly drawing to a close. There is only one meeting left. This is always an important one, because it is the end and the beginning all in one. In December we will clean up any and all old business and then elect officers for 1979.

We should be thinking about our goal for 1979 and plan our work ahead. There will be a lot to do.

In each of my first-of-the-year letters I said, "We will make this year better than the last," and we did. I also said that each time we reach our goal and do better, it would be harder to better it the next year. Let's do it again.

All who attended the November meeting know that our annual dinner will also be better than before. The refreshment committee is going all out to have a good meal. Mrs. Buresh took hold and is already busy. So let's all come to the meeting and enjoy ourselves with a big meal and the good fellowship we always enjoy.

See you December 3rd.

Stanley

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AT THE LAST MEETING--November 5

Forty-eight members, ten children, and six guests were reported present at the November meeting.

The guests were Ron Wandler and daughters of Bismarck; Mike and Rose Wetsch of Mandan, ND; Charles and Carol Gilliland and children, Lisa, Amy, and Jeremy, of Bismarck; and Deloris Olson of Wilton, who was a guest of the Stavems.

Field Trip Chairman Larry Strand reported that a field trip to South Dakota has been arranged tentatively for May 25 through May 27.

Show Chairman Earle Campbell gave a detailed report on the show and stated that the dates for next year's show will be Friday, Sept. 28, and Saturday, Sept. 29, and if the law permits, possibly also on Sept. 30. He also stated that a committee is presently working on legislation to amend the present Sunday closing law.

Show Treasurer Bob Randall reported that although some final bills are not in, indications are that the show financial statement will show a small balance of about seven dollars in the black.

(cont.)

CALENDAR OF EVENTS

Dec. 3, 1978 Bismarck, ND. Regular Meeting, Central Dakota Gem & Mineral Society at 2:30 p.m., followed by Christmas Dinner. Beginners' class, 1:30. Site: Capital Electric Building, north of Bismarck on Highway #83.

1979

May 19-20 Guymon, Oklahoma. Gem & Mineral Show--Tri-State Rock Club

June 8-10 Rapid City, South Dakota. Rocky Mountain Federation Show--Rushmore Plaza Civic Center

July 19-22 Tampa, Florida. National Gem & Mineral Show

Sept. 28-29 Mandan, ND. North Dakota's Fifth Annual Show--Central Dakota Gem & Mineral Society

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HOSPITALIZED in October in Memphis, Tenn., was club member Lois Thiel, who was accompanying her husband Lawrence to a lumbermen's convention. She has recovered from emergency surgery and is back at home and on the active list again.

AT THE LAST MEETING, cont.

Don Campbell, on behalf of the Nominating Committee, reported the following slate of nominees for the year 1979:

President ----- Harold Brady
 Vice President - Mary Beth Osborn
 Secretary ----- Ted Giese
 Treasurer ----- Carol Hickie

The other members of the Nominating Committee are Walter Buck and Edna Mausehund.

President Fairaizl stated that additional nominations will be called for from the floor prior to the election at the Dec. meeting.

President Fairaizl also announced that in appreciation for the confidence and tolerance displayed by the membership during his twelve-year tenure as an officer of the Society, he was furnishing the turkeys, potatoes, and gravy for the Christmas dinner.

The door prize, a slab of plume agate donated by Julius Theis, was won by Viola Anderson.

A silent auction followed the business meeting. There was a considerable amount of good material available for the bidding.

Emma Richardson, Clara Muggli, and Donna Glazer served on the lunch committee for the evening.

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OTHERS COMMENT ABOUT SHOW

The November issue of the "Lake Agassiz Rock Hound," published by the Lake Agassiz Rock Club of Fargo, ND, has a very interesting and favorable report about our 1978 show. It was written by Art and Lucille Brown of Brown's Rock & Lapidary Supply, Moorhead, MN, who manned one of the dealers' booths at the show.

The publication will be filed in the club library for any interested members to read.

WELCOME NEW MEMBERS

The following guests at the last meeting have joined the club: Charles and Carol Gilliland and children, Lisa, Amy, and Jeremy, of 1512 Harmon Ave., Bismarck, ND; and Mike and Rose Wetsch, P.O. Box 5, Mandan, ND. John Campbell, 1020 Ave. C East, is a new junior member (age 9).

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ROCKY MOUNTAIN FEDERATION GROWS

The Rocky Mountain Federation has added four new clubs during 1978 and has increased the Federation's membership by 1200.--AFMS November Newsletter

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CHAROITE

Charoite is a new gem mineral from Russia. Named for the Chary River of Siberia, the mineral is a gorgeous lilac color with a silky luster. Occurring in a rock with canasite and tinaksite, it is associated with the potassium feldspars. The charoite rock is tough, hard, and dense and takes a jade-like polish. Inclusions of yellow tinaksite and green aegirine plus showy grains of quartz, and occasionally black metallic "feathers" make the gem unique and showy.

Charoite has been cut into vases, bowls, carvings and ornamental objects, and is already a choice collector's item. Very little was imported to this country, and most was imported as finished art objects. No one knows how large the deposit is and whether more of the material will become available to American lapidaries.

A few pieces have been exhibited and sold at shows. The Smithsonian has several excellent pieces, as have Midwest collectors Lawrence Stalling and Ed and Mary McNamar. Jack Greenspan has the most exceptional cabochon of the new gem.--AFMS Newsletter, November 1978.

ODDITIES OF THE MINERAL WORLD: FULGURITE

Have you ever heard of petrified lightning? That's the term sometimes given to the mineral fulgurite, because fulgurite occurs as lightning strikes loose sand causing the grains to fuse into narrow, hollow tuber or pipe quartz glass.

As might be expected, the tubes extend downward several inches, or rarely, they might extend downward a yard or more. "They often branch into fantastic shapes as they descend."

Interestingly, they often envelop rough pieces of sand or thin shells that were unaffected by the heat. They may also contain bubbles caused by the sudden expansion of moisture into steam. The tubes take on a bearded appearance as finer glass threads hang from them. While some are in the plastic state, they are pressed into ovals by the surrounding cylinders of sand.

A good place to hunt fulgurites is in an area of sand dunes. Sand dunes, while characteristic of deserts, may occur any place where there are strong winds and dry sand. The sand is in constant motion until a surface barrier eventually stops them. The fulgurites are uncovered as the sand shifts even slightly.

Some excellent specimens have been found in Wisconsin on beaches along Lake Michigan.

Another less common form of fulgurite occurs as lightning strikes rocks that are unprotected by vegetation--usually on the high mountain tops where lightning is common. The rocks are fused on the surface, and show a glassy spot or crust which looks like a film of varnish.
--From MOONSTONE CHIPS via LAKE AGASSIZ
ROCK HOUND.

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Editor's Note: Does any member have a specimen of fulgurite? If so, please bring it to the December meeting for others to see.

NEW SLIDE PROGRAMS

Three new slide programs will soon be available to clubs. The three winning programs in the AFMS Slide Contest are being duplicated and copies will be sent to Program Chairmen in each of the six Regional Federations. Program titles are "The Geology and Minerals of the Rutherford Mines, Amelia, Virginia"; "Introduction to Faceting"; and "Creative Lapidary with Reformed."

--From MWF Newsletter via LAKE AGASSIZ
ROCK HOUND.

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PAST OFFICERS AND EDITORS

In response to several requests expressed at the November meeting, a list of officers and editors since the beginning of the club in 1966 is printed on the following page. The editors wish to thank charter members Ida Mae Ramberg, Harold Brady, Stanley Fairaizl, and John Dosch for helping us fill in the names of officers and for providing other interesting information about the club.

There were 44 charter members when the club was organized in March, 1966. The name, Central Dakota Gem & Mineral Society, was chosen a few months later.

These sixteen charter members are on the current membership list: Harold & Emma Brady; John & Cecelia Dosch; Gordon & Beth Bell; Stanley & Mae Fairaizl; Vernie & Betty Peterson; Joel & Ida Mae Ramberg; John & Margaret Tonander; and Al & Marlene White.

The first club bulletin, called "The Tornado," was issued in March, 1968, with Ida Mae Ramberg as editor. In July of that same year the name of the bulletin was changed, as a result of a contest for that purpose, to "Diggin's from Dakota." In the eleven years of publication, six different individuals have served as editor of the bulletin. In 1978 a co-editor was added. They are all listed on the chart.

OFFICERS AND EDITORS, CENTRAL DAKOTA GEM & MINERAL SOCIETY

1966 - 1978

<u>Year</u>	<u>President</u>	<u>Vice President</u>	<u>Sec. - Treasurer</u>	<u>Editor</u>
1966	Robert Carlson Robert Carlson,	Sebastian Dosch	Mae Fairaizi	---
1967	Harold Brady	Sebastian Dosch	Stanley Fairaizi	--- March, 1968
1968	Ray Barnett	Jake Schlosser	Stanley Fairaizi	Ida Mae Ramberg
1969	Ray Barnett	Ole Stavem	Stanley Fairaizi	Ida Mae Ramberg
1970	Harold Brady	John Dosch	Stanley Fairaizi	Darlene Brown
1971	Harold Brady	John Dosch	Stanley Fairaizi	Stanley Fairaizi
1972	John Dosch	Earle Campbell	Stanley Fairaizi Secretary	Stanley Fairaizi, Jan.-Jn. Blossomae Campbell, July +
1973	John Dosch	Earle Campbell	Stanley Fairaizi Secretary	Blossomae Campbell
1974	Earle Campbell	Bill Buresh	Stanley Fairaizi	Delane Meier
1975	Bill Buresh	Duane Robey	Stanley Fairaizi	Blossomae Campbell Sally O'Neill, Jan.-Mar. Ida Mae Ramberg, Apr. +
1976	Bill Buresh	Duane Robey	Stanley Fairaizi	Dick Bergantline, Don Larson
1977	Stanley Fairaizi	Harold Brady	Don Larson	Ida Mae Ramberg
1978	Stanley Fairaizi	Harold Brady	Mary Beth Osborn	Bob Randall Bill Buresh Co-Editors
1979				Bill & Gen Buresh

IRON ORE MINERALS

"Steel is one of the metals in our everyday life that we take for granted. Our cars, homes, places of work and even what we do for recreation depends on steel in one way or another. Steel, as we know, does not come from the ground pure as native elements do--such as gold and copper. Instead we have to mine for ores. These are called iron ores. Steel is made from them.

"The origins of the large iron ranges such as the Mesabi date back to Pre-Cambrian time. The approximate age is about 1.7 billion years ago. There are a number of theories on how the iron-ore deposits were formed. One theory states that the iron was released during weathering on land and deposited in an ocean basin. Alternating layers of silica and iron were then deposited to form the familiar banded cherty iron formation. Another interesting theory brings out that simple one-cell organisms may have been a key factor in iron deposition. All theories agree that the iron formations were laid down in some kind of water environment and are a sedimentary deposit.

"When we think of iron ore we often associate it with a large massive amount of rather dull reddish material. But, have you ever stopped to think of the minerals themselves? One shovel full of iron ore could contain enough minerals for a complete collection. Let's take a shovelful of Mesabi Iron Ore and examine it to see what we find.

"The first three minerals would be rather easy to identify. They are Hematite, Limonite and Magnetite. Hematite (Fe_2O_3), a dark reddish mineral, is easy to identify because of its dark red streak made on a streak plate. Limonite, the second most common mineral, is actually a variety of rust. It has the same basic chemical formula as Hematite but it has a water molecule attached $\text{FeO}(\text{OH})\cdot\text{H}_2\text{O}$. This mineral makes a yellow streak on a plate. The 3rd mineral, Magnetite (Fe_3O_4) would appear a dark gray to black mineral. This mineral makes a black streak. This mineral has one interesting characteristic - it is magnetic.

"If we search further through our shovel of ore, we could uncover: psilomelane, pyrolusite, iron pyrite, jasper, goethite, taconite, manganese and even some quartz. These minerals all constitute the basic minerals of the Mesabi Range ore bodies. There are others.

"Some minerals in the ore body are metamorphic and were formed due to heat and pressure. Others are purely sedimentary, by being dissolved in water and redeposited to form a different mineral.

"Perhaps one of the more interesting formations of iron range rocks is the algeal jasper. Here we have large mats of algae living in colonies called stromatolites. These colonies of algae were then replaced with iron silicate leaving a permanent record of early life in Pre-Cambrian time. This is how the famed Mary Ellen Jasper was formed.

"When you think of the Mesabi Range in the future, don't think of it as being a massive ore deposit void of minerals and crystals. Instead a rock hound should think in terms of crystals, interesting mineral associations, minerals undergoing transformation, and a record of early life on earth. The Mesabi Range is all this plus more!!!--Charles Corwin, Mesabi Rock and Mineral Club, via LAKE AGASSIZ ROCK HOUND

Editor's Note: A streak plate is a piece of unglazed white porcelain, such as a tile used for bathroom floors and obtainable from builders' suppliers. The back side is unglazed.

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SHOP HINTS: To polish apache tears, try using chrome oxide. It's a lot faster than other compounds.

Mix the usual polishing powder with denatured alcohol instead of water--more effective for difficult polishing. --from JOLIET GEM STAR via LAKE AGASSIZ ROCK HOUND.