



MONTHLY PUBLICATION OF THE CENTRAL DAKOTA GEM & MINERAL SOCIETY  
 P.O. Box 2445, Bismarck, ND 58502  
 SERVING BISMARCK, MANDAN, AND SURROUNDING AREAS IN  
 NORTH DAKOTA

Gen & Bill Buresh, Eds.  
 DIGGIN'S FROM DAKOTA  
 44 Captain Marsh Dr.  
 Mandan, ND 58554

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## DIGGIN'S FROM DAKOTA

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P.O. Box 2445, Bismarck, ND 58502

Member of:  
ROCKY MOUNTAIN FEDERATION OF MINERALOGICAL SOCIETIES  
and  
AMERICAN FEDERATION OF MINERALOGICAL SOCIETIES



Organized March, 1966

- OBJECT: 1. To further the study of mineralogy and geology;  
2. To arrange field trips to collect minerals, gems, and fossils;  
3. To assist its members to improve in the art of cutting, polishing, and mounting gem material;  
4. To provide opportunities for the exchange, purchase, and exhibition of specimens and materials; and  
5. To share knowledge about gems, minerals, and activities of the Society with the general public. --Article, CDGMS Constitution

MEETINGS: First Sunday of each month in the meeting room, Capital Electric Building, Highway 83 north of Bismarck, ND; 7:00 p.m., April through October; 2:00 p.m., November-March. EARLY CLASS: One-half hour before meeting. VISITORS ARE WELCOME.  
ANNUAL DUES: Family - \$8.00; Individual Adult - \$6.00; Individual Junior - \$3.00

### 1992 OFFICERS:

President - - - John Atwood, 1026 N. 10th St., Bismarck, ND 58501 - - - 222-0389  
Vice President - Harold Brady, 1401 Sunny Road, Mandan, ND 58445 - - - 663-3903 or 04  
Treasurer - - - Lenora Opp, 3269 East Capitol Ave., Bismarck, ND 58501 - - 222-0679  
Secretary - - - Betty Mautz, Rt 1 Box 368, Garrison, ND 58540 - - - 337-5775

### COMM. CHAIRMEN: (1991)

PROGRAM: John Atwood	222-0389	EARLY CLASS: John Atwood	222-0389
Russ Oliger-255-6440/ Ray Oliger	223-4986	Harold Brady	663-3903
HOSP.--LUNCH: Nettie Nelson	462-3680	FEDERATION REP.: Melvin Anderson	223-3558
Carol Hickie	794-3342,	GREETER: Betty Mautz	337-5775
Emma Brady	663-3903 or -3904	LIBRARIAN/HISTORIAN: Sue Randall	223-1625
HOSP.--CARDS: Viola Anderson	223-3558	PARLIAMENTARIAN: Al Hartl	258-0761
FIELD TRIP: Norman Mautz	337-5775	PUBLICITY: Edna Mausehund	782-4291
John Campbell	223-6754	STAMP CHR.: Doris Hickie	794-3137
EDITORS: Gen/Bill Buresh	663-5397	DOOR COUNT: Betty Mautz	337-5775
ANNUAL SHOW 1991: Rodney Hickie	794-3342, Ray Oliger		
RMFMS-STATE DIRECTOR FOR ND: Betty Mautz,	Rt 1 Box 368, Garrison ND 58540		337-5775

All members are encouraged to submit articles/news for publication.  
Material for the bulletin should reach the editor by the 10th of each month.  
Advertisements from members will be accepted for the bulletin. (\$2.00 for 1/8 page)  
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**NORTH DAKOTA'S 18TH ANNUAL  
GEM AND MINERAL SHOW**  
Community Center - Mandan, ND  
SEPT. 26-27, 1992

# DIGGIN'S FROM DAKOTA

VOL. 27, NO. 2

JUNE 1992

NEXT MEETING July 5, 1992, 7:00 p.m. Capital Electric Bldg.  
Highway 83 North of Bismarck. Visitors welcome.  
PROGRAM: CLUB "SWAP MEET"  
EARLY CLASS: 6:30 p.m.  
LUNCH COMMITTEE: Verna Giese and Lenora Opp



## PRESIDENT'S MESSAGE

Greetings--

It's been a cool beginning for summer, but it's here. Time to get out those hammers and shovels. Just be careful and courteous.

For the July meeting I want to try something new. I want to have a "Swap Meet" instead of a program. They say that one person's garbage is another person's treasure. So get out not necessarily your garbage, but bring your duplicate material to trade for new things. Bring all your extras--fossil or mineral-- and prepare to share and be shared with

John Atwood, President

## CALENDAR OF EVENTS

- June 20 ND Paleontological Soc. Field trip. Members to be notified of time/place.
- June 20-21 BILLINGS, MT--SHOW, Billings Gem & Min. Club & Mont. Council of Rocks & Min.
- July 5 BISMARCK, ND--Central Dakota Gem & Mineral Soc., Cap. Electric Bldg., Hwy. 83  
N. of Bismarck. Early Class--6:30 p.m. Meeting, 7:00 p.m. Visitors welcome.
- July 18-19 RAPID CITY, SD--SHOW, Western Dakota Gem & Mineral Soc.
- July 18-19 RAPID CITY, SD--CDGMS Club Field Trip (Details later)
- July 23-26 BRUNSWICK, OH--SHOW & CONVENTION--AMERICAN and MIDWEST FEDERATIONS
- July 31-Aug. 2 BUTTE, MT--NORTHWEST FEDERATION SHOW & CONVENTION
- Aug. 2 PICNIC & MEETING--Central Dakota Gem & Min. Soc., Shelter #2, Hillside Park,  
Bismarck
- Aug. 14-15 WATERTOWN, SD--South Dakota State Gem & Mineral Show
- Aug. -16 MITCHELL, SD--Corn Palace Gem & Mineral Show

Central Dakota Gem & Mineral Society's 18th Annual Show  
THEME: "COME AND EXPLORE--EARTH'S TREASURES ON PARADE"

September 26-27, 1992

MANDAN COMMUNITY CENTER -- MANDAN, NORTH DAKOTA

SHOW CHR: RODNEY HICKLE, HC2 Box 176, CENTER, ND 58530 - (701) 794-334

**NEW ADDRESSES.** Please change these addresses on your membership lists included in the April newsletter. This is important, as the treasurer informs us it takes one week longer for her to get her mail if you don't use her new address. (Changes indicated in black type.)

Lenora Opp, **Box 307**, New Salem, ND 58563

**RENEWALS.** Please add these names to your membership lists.

Mike Brauer, **HC1 Box 53**, Baldwin, ND **58521**

Fischer, Pius A-- 501 S. 13th St, Bismarck, ND 5850      **223-4362**

Gerber, Eugene & Michael-- 1737 NE 5th Ave, Jamestown, ND 58401      252-3750

Mautz, Norman & Betty-- RR1 Box 368, Garrison, ND 58540

Randall, Bob & Sue-- 928 N 16th St., Bismarck, ND 58501

Rhonemus, Douglas & Janice--19935 - 159th St., Elk River, MN 55330      (612) 263-8097 ['93]

Warnke, Lester-- **Gen. Delivery**, Scranton, ND **58653**



# THE PERSPECTIVE OF THE HOBBYIST IN THE UTILIZATION OF THE FOSSIL RESOURCES OF NORTH DAKOTA

by Earle H. Campbell\*

P.O. Box 1921, Bismarck, ND 58502

North Dakota has an important resource of paleontological material that should be collected, researched, preserved, and displayed. The question is, who should do the work? Should these jobs be left solely to the few professional paleontologists available in North Dakota? Could the professional paleontologist use some help? There are over fifty thousand hobbyists who belong to organizations dedicated to rockhounding in the United States. There are at least twice that number who do not belong to any organized group dedicated to fossil and mineral collecting. Over 250 of these people live in North Dakota, and they could be a great resource to the professional paleontologist. Hobbyists can be the eyes, ears, and legs for the discovery and collection of localities. Hobbyists range in age from five to ninety-five, and their sphere of knowledge of paleontology ranges from knowing very little to the level of expert. These people should not be sold short. They are willing and eager to learn proper techniques for collecting, preparation, study, and display of their finds. Granted, there are those few hobbyists who feel that federal and state laws were meant for others. Those few have given the group as a whole, to some extent, a bad image, which has resulted in the heartburn and anguish (and disfavor) of professional paleontologists.

N. Gary Lane (1) has stated: "The interplay between scientific paleontology and amateur fossil collecting is complex and can be frustrating for both sides. We all know of fruitful cooperation between amateurs and professionals." Of course there are stories concerning the interaction between hobbyists and paleontologists and vice versa that could be classed in the horror category. If we learn from these experiences and continue to communicate we both will be much better for the experience. John Pojeta, Jr. (2) stated that "paleontology ends up speaking with many voices. The net result is that none of them are heard." To rectify this problem he added that the Paleontological Society needs to "accept a leadership role among the widest possible community of persons interested in paleontology, including amateurs and professional collectors."

Cont. p. 3----->

There are a great many people who collect fossils who do not make their living as professional paleontologists. In fact, the American Federation of Mineralogical Societies (AFMS) alone has over 50,000 members, of which as many as 15,000 are interested in collecting fossils. Until recently, this organization has had very little communication with the professional community that numbers only a few thousand. As an example of their commitment to scholarship in earth science, AFMS has provided 12 awards (of \$2,000 per year for two years) to graduate students in earth science programs. In making these scholarships, AFMS honor as well the educators, who are selected through a nomination and review process, to choose the students who will receive the award. Many other scholarships are granted by affiliated AFMS societies interested in the promotion of earth science studies.

The hobbyist is greatly concerned about the limited access to public land to search for and collect fossils. This problem is not limited to federal land, as many states have also considered or passed restrictions on access to much public land. These limitations will eventually take a toll on the entire paleontological community, hobbyist and professional alike. If allowed to continue, these actions could stifle the hobbyist's contribution to the research of the professional paleontologist. Hobbyists feel they should be allowed to surface collect, using hand tools, on state and federal public lands, without obtaining a permit. The question arises, because of what is considered to be a significant fossil, should the hobbyist be allowed to collect vertebrate fossils? Will their collections be the exclusive domain of the professional paleontologist?

The solution to most of the problems facing the hobbyist in paleontology is to have better communication with professional paleontologists and the regulators of state- and federally administered property. Mel Albright (3) wrote: "Far from being a danger to science, amateurs are the wellhead from which progress comes--including the science of paleontology. We simply cannot afford to leave science in the hands and minds of the experts alone. The influence and enthusiasm of amateurs is far too important."

1) Lane, N.G. (1989), *Jour. Paleont.*, 65 (3), pp. 259-260. 2) Pojeta, J. Jr. (1991), *Jour. Paleont.*, 65, (3) pp. 347-354. 3) Albright, M. (1991) *Osage Hills Gem*, 32 (7), p. 2 (*PaleoDiscovery*, 11 [12] p. 5)

Presented at the 84th Annual Meeting, North Dakota Academy of Science, Paleontology Section, University of North Dakota, Grand Forks, ND, April 30, 1992.

Printed by permission of the author, Earle H. Campbell, Bismarck, ND, North Dakota rock and fossil hobbyist and Past President of the Rocky Mountain Federation of Mineralogical Societies, Inc. He is also a member of the Central Dakota Gem and Mineral Society.

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#### FROM THE LAST MEETING---JUNE 7, 1992

The regular meeting of Central Dakota Gem & Mineral Society was held June 7, 1992 at the Capital Electric meeting room, President John Atwood presiding.

Dr. Bell was welcomed back to the club after an absence due to two surgeries.

The next meeting will be July 5. The program will be a "Swap Meet."

Minutes of the May meeting were approved as read. A treasurer's report was given.

Show Chairman Rodney Hickle reported the programs for the Show in Sept. will include talks on the Highgate Mastodon, teredo-bored wood, and slide presentations.

The August meeting is scheduled just before the annual picnic, which will be held at Hillside Park Shelter #2, on Sunday, August 2nd. The meeting will be at 12:30, the potluck picnic thereafter.

Communications included a letter from former club president, Doug Rhonemus.

Old Business Ray Oliger presented a quotation of \$330 for 200 pins. It was suggested that members pre-order pins at \$10.00 for 5 pins, to help defray the cost. (Five members had signed up by the end of the evening.) It was moved by Harold Brady to table the decision until the July meeting, seconded by Ted Giese. Motion carried.

Bill Buresh asked if he could try to sell the old mimeograph machine at a Community Auction. It was moved by Harold Brady, seconded by Bob Randall, that Bill Buresh dispose of the machine as he sees fit. Motion carried.

The "Diggin's" editor stated the newsletter will combine the July and August issues

A door prize was won by John Bell --a specular hematite specimen.

The business meeting adjourned. The program consisted of a "Show and Tell" session of items found during the May 24th field trip to Riverdale. Presenters were Ray Oliger, John Peterson; Mel Berg, Betty Mautz, John Bell, Rodney Hickie, and John Atwood. Lunch was served by Carol and Rodney Hickie.

The Early Class presenters were John Atwood and Harold Brady. --From notes from Betty Mautz, Secretary.

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GUESTS included Mrs. Gronfor and two sons, Christopher Delzer, and John Bell, Bismarck, and Lynn Opp, New Salem.  
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#### FIELD TRIP, MAY 24, 1992

by Betty Mautz

Eighteen persons braved a rather nasty day for the field trip to the Riverdale area. The gravel pits yielded some nice Montana agates, petrified wood, half a mammoth tooth, as well as other interesting material. After lunch we went to Government Bay, where many fine leaf fossils were found.

Despite the cold, sometimes rainy, weather, a good time was enjoyed by all.

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#### PROGRAM--JUNE 7

For the program, participants on the May 24th field trip showed some of their finds. Showing specimens were Ray Oliger--Mont. agate, agate, conglomerate, 1/2 of a mastodon tooth, small fossils, and very nice leaf fossils, some with dendrites, found at Govt. Bay; Christopher Delzer, leaf fossils (reported by John Peterson); Mel Berg--leaf fossils, ND moss agate, jasper; Betty Mautz--Katsura seeds. John Bell also showed clam shells, gastropods, loose and in matrix, Katsura seeds, fossil leaves, and a very nice ammonite from Beaver Creek. John Atwood had taken his class to Govt. Bay earlier and showed Katsura seeds, sequoia leaves, and an unusual lignite pine cone.

#### EARLY CLASS

John Atwood led a discussion on depositional environments, explaining the different types, how they were formed, and their composition. A question/answer period followed. The second leader, Harold Brady, spoke of the efforts to have Teredo-bored petrified wood named as the State Fossil. The consensus was that as an officially declared state fossil, it was not receiving due publicity and that club members should be proposing ways and means by which it could become better known.

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Man does not live by bread alone--he needs buttering up once in a while.--THE CYCAD 5/



## SHOW EXHIBITOR GUIDELINES

### CENTRAL DAKOTA GEM AND MINERAL SOCIETY

All members of the Society are encouraged, and urged, to prepare one or more exhibits to be shown at our annual shows. Non-members of the Society are welcome to exhibit when invited by a member in good standing. All exhibits must be of material directly related to our hobby (rocks, minerals, gems, fossils, jewelry).

Exhibitors are encouraged to use standard 48" or 36" upright display cases for their exhibits. Other types of cases will be accepted for display but may be placed in a separate section of the exhibit area. Each exhibitor will furnish his own display case and specimens. He will also provide his own three-wire grounded extension cord and connectors. A few Society-owned display cases are available for use by exhibitors on a "first-come, first-served" basis.

All exhibitors must complete an "Exhibitor Invitation form" and deliver it to the Show Exhibit Committee as soon as possible but at least ten (10) days before the show begins.

All exhibits will be entered as non-competitive. However, the Show Committee may have outside judges review the exhibits. When this occurs, judges may select a first, second, and third place winner, as appropriate, in each of the seven Divisions listed below. Each Division contains one or more Classes as used by the American Federation of Mineralogical Societies in its Uniform Rules. The Divisions are:

- |             |                         |
|-------------|-------------------------|
| 1. OPEN     | 5. EDUCATIONAL          |
| 2. MINERALS | 6. PETRIFIED WOOD       |
| 3. LAPIDARY | 7. FLUORESCENT MINERALS |
| 4. FOSSILS  |                         |

When exhibits are judged by outside judges at an annual show, the winners of first place in any Division may not enter that winning exhibit or another exhibit in the same Class, in judging, in the next two years.

Winners who have won a first place award are encouraged, however, to exhibit their winning exhibit or another exhibit in the same class at future shows. A special exhibit section for winning exhibits will be set aside where these exhibits can be shown until the exhibitor is again eligible to exhibit in that Division in the regular exhibit section for judging.

Proposed by Show Committee and approved, May 3, 1992.

### THE EQUATOR THROUGH THE AGES

Unless you know your geography very well, it may be helpful to get out a map of the United States to see just how much the equator has moved around the last 500,000 years. You may be surprised as you try to trace some of its locations.

Late Cambrian -- 480,000,000 years ago:

Big Bend National Park (Texas) through Bismarck, North Dakota, by way of Jal, New Mexico.

Late Ordovician -- 430,000,000 years ago:

Carlsbad, New Mexico, through Sioux Falls, South Dakota

Middle Silurian -- 410,000,000 years ago:

San Diego, California through Bismarck, North Dakota, by way of Tropic, Utah

Late Devonian -- 360,000,000 years ago:

Los Angeles, California through Grand Forks, North Dakota, by way of Price, Utah.

Middle Mississippian -- 330,000,000 years ago:

San Francisco, California, through Sault Ste. Marie, Michigan, by way of Moab, Utah.

Middle Pennsylvanian -- 275,000,000 years ago:

San Francisco, California, through St. Paul, Minnesota, by way of Eden, Wyoming.

Middle Permian -- 250,000,000 years ago:

Redding, California through Bismarck, North Dakota by way of West Yellowstone, Montana

Permian and Triassic -- 200,000,000 to 225,000,000 years ago:

Reno, Nevada, through Fargo, North Dakota, by way of Dubois, Wyoming.

Late Triassic -- 190,000,000 years ago:

San Antonio, Texas, through Fargo, North Dakota, by way of Wichita Falls, Texas.

Early Jurassic -- 175,000,000 years ago:

Mexico City, Mexico, through Havana, Cuba.

Middle Cretaceous -- 100,000,000 years ago:

Mexico City, Mexico, through Savannah, Georgia

Late Cretaceous -- 80,000,000 years ago:

It had moved so that Mexico City was on Latitude 30° North.

Late Cenozoic -- 20,000,000 years ago:

It had moved so the 30° North Latitude was about where it is today in Big Bend National Park in Texas. --From LAKE AGASSIZ ROCK HOUND via PALEODISCOVERY 10/88

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### MEGA - CRYSTAL

Possibly the largest doubly-terminated crystal yet known was found in the African territory of Namibia recently by a Tucson, Arizona-based wholesale gem dealer.

Zee Haag, who travels the world seeking rare gems for his business, uncovered a 17,622-pound, 8-ft.-long quartz crystal about 35 feet underground, surrounded by smaller crystals. He rescued the gem from quartz miners about to blow it up and moved it with a crane brought in through 50 miles of busy country. He named it "Ovombo," after a nearby tribe.

Both positive and negative charges come off each point of doubly-terminated crystals, so they are called generators. This one is so huge that if anybody can figure out to tap its energy, it might possibly be the most powerful crystal crystal on earth, Haag said. --From the PETRIFIED DIGEST via ROCK