

# NEWS

**Geological Society of Minnesota**

FIRST CLASS

MINNEAPOLIS, MINNESOTA



Mr. and Mrs. R.M. Gunville, Editors  
1110 Gardena Ave.  
Minneapolis, Minn. 55432

RETURN REQUESTED

Fall, 1974

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We are thus led to see a circulation in the matter of this globe, and a system of beautiful economy in the works of nature. This earth, like the body of an animal, is wasted at the same time that it is repaired. It has a state of growth and augmentation; it has another state, which is that of diminution and decay. This world is thus destroyed in one part, and it is renewed in another; and the operations by which this world is thus constantly renewed are as evident to the scientific eye, as are those in which it is necessarily destroyed.

James Hutten, *Theory of the Earth*, Edinburgh, 1795

NEW LIBRARY BOOK AVAILABLE

Catherine McGough, Librarian at the St. Paul Public Library's Science and Industry Room, writes that a new book is available for lending:

NATURE OF EARTH MATERIALS by Anthony C. Tonnissen. (QE 364 T46)

Concise descriptions of mineral and rock specimens - atoms, ions, crystals, minerals, igneous rocks, sedimentary rocks and metamorphic rocks.

The St. Paul Public Library has reciprocal arrangements for lending with libraries in Hennepin, Anoka, Dakota, Washington, Ramsey and Scott counties, and also with the Minneapolis Public Library. You may use your card from any of these libraries. If interested in checking out this book, call 224-3383 ext. 43.

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## Lecture series

### 1974-75 LECTURE SERIES TO BEGIN OCTOBER 14

The 1974-75 lectures will begin Monday evening, October 14, and will be presented by Dr. Gerald Webers of Macalester College. He will be discussing the geologic history and development of landforms of Western United States. Many favorite vacation areas lie within these regions, and the series is designed to promote understanding of the geology in places many have visited or hope to visit in the future.

The schedule will be shared with Dr. Knuth of Macalester, who will give four lectures on the underlying concepts of the processes shaping the landscape. Because of conflicting obligations, Dr. Knuth will not present these four lectures on the announced dates, but instead will speak some time in the new year.

Dr. Webers has promised additional projects at Macalester on alternate Monday evenings for those who are especially interested. Further announcements will be made at the regular meetings.

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### MINNESOTA GEOLOGICAL SURVEY HAS MATERIALS AVAILABLE

The Minnesota Geological Survey now has available some materials which may be of interest to you.

The pamphlet, "Guide to Mineral Collecting in Minnesota", Educational Series #2, (75¢) has been reprinted.  
U.S.G.S. topographical maps of Minnesota (\$1. plus tax) — topographical quadrangles on three different scales. Order sheets and index maps also are available.

The map salesroom is open from 8 a.m. to 5 p.m. Monday through Friday. Or you may order materials by mail addressed to Minn. Geological Survey, 1633 Eustus St., St. Paul, MN 55108. If you would like more information, call 373-0223 and ask for Sue Brostrom.

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### INTERNATIONAL CONFERENCE HELD AT REDWOOD FALLS -- MINN. RIVER VALLEY ROCKS NOW DATED AT 3.8-4. BILLION YEARS

Redwood Falls, Minn. was the host area Sept. 29-Oct. 4 for an International Conference on Geology and Geochemistry of the oldest Precambrian rocks. Some 70 experts from all over the world assembled to discuss the earth's earliest rocks, including those found in the Minnesota River Valley and studied by the G.S.M. on a 1973 field trip led by Dr. James Grant.

According to a report in the Minneapolis Star Oct. 3, Samuel Goldich, former University of Minnesota geology professor, reported at the meeting that a 3.8 to 4 B.Y. age for these Minnesota rocks has been confirmed by the laboratory at Northern Illinois University, DeKalb, Ill., where he is now a professor of geology, and by the U.S. Geological Survey group at Denver.

Improved radiometric dating techniques have made possible this new dating. The Minnesota rocks displace the previous "oldest" 3.7 B.Y. Greenland rocks studied in Cambridge, Eng. and are the oldest earth rocks ever analyzed, dating back to within 500 million years of the estimated birth of the planet.

## WAYSIDE REST AREA TO HAVE GEOLOGIC EXHIBIT

The Public Service Committee is working with the Minnesota Highway Department to develop a geologic exhibit. It will be permanently displayed in the Wayside Rest facility about to be built on Highway 12 as it approaches the St. Croix River and crosses into Hudson, Wisc.

The Minnesota Highway Department would like to make available good geologic information on the state to the many travelers who stop at Wayside Rest Areas, and has encouraged the G.S.M. to work up texts and display ideas. The G.S.M. has long been interested in identifying geologic points of interest throughout the state, and would like to use wayside area displays as an extension of its Geologic Marker Project. The Highway 12 Rest Area exhibit will be first actual project to be undertaken, according to Sister Joan Kain, Public Service Committee chairman.

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### ROCK SESSION: by Ethel Shimek

After our trip to the Black Hills a couple of years ago, a few of us got together to compare notes and to attempt to identify specimens that weren't labeled.

By using the excellent trip guide "Bart" (Professor Bartels) had provided, we were able to review the trip and identify most of what we had.

For us the "rock session" was a worthwhile way to review our trips, identify samples we weren't sure of, and to have a social evening. We have repeated the get-together a couple of times.

For years I have kept my rocks in cartons and boxes, tucked away in the basement and garage. Many of them weren't labelled, so I really couldn't identify them.

I intend to have more "rock sessions" this winter. It is easier to have a small group that lives nearby. I recommend other geology folks doing likewise.

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### FIELD TRIP GOODIES

By popular demand, here is the recipe for Elmer Mangney's rhubarb cake. You non-field trippers especially should try this out to see what you have been missing.

#### ELMER MANGNEY'S RHUBARB CAKE

2 cups flour	$\frac{1}{4}$ tsp. cloves	$\frac{1}{2}$ cup shortening
$1\frac{1}{4}$ cups sugar	1 tsp. soda	2 eggs
1 tsp. salt	1 tsp. cinnamon	$\frac{1}{3}$ cup milk
	$\frac{1}{4}$ tsp. allspice	$\frac{1}{2}$ cup chopped rhubarb

Sift together dry ingredients. Add shortening, eggs and milk. Mix well. After topping is made add rhubarb - mix slightly. Pour in greased and floured 9" x 13" pan. Place topping and pat down with hand or spatula. Bake at 350° 50 to 60 minutes.

#### TOPPING FOR RHUBARB CAKE

$\frac{2}{3}$ cup flour	1 tsp. cinnamon	
$\frac{1}{2}$ cup brown sugar (packed)	$\frac{1}{2}$ TB margarine or butter	$\frac{1}{2}$ cup chopped nuts

Mix flour, sugar and cinnamon. Cut in margarine or butter. Add nuts. Mix well.

ANNUAL MEETING HELD SEPT. 30

The Annual Meeting was held Sept. 30 at the Viking Village restaurant. As the first event in the fall calendar, the evening was one of fun and remembrances of summer activities. Dr. Southwick and Bob Kadwell narrated slide presentations of their field trips. Dr. Webers gave us a glimpse of the coming lecture series.

Bernice Tepel, Treasurer, presented a financial statement of the G.S.M.'s accounts:

Checking.....	\$699.79
Savings 90-day.....	519.90
1-year.....	2117.47

The following people were elected to two-year terms on the Board of Directors: Sister Joan Kain, Dr. L.S. Lewis, Mrs. Sallie Lewis, Dr. Alex Lowe.

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ANNUAL DUES MAY BE PAID

Your 1975 Annual Membership Dues may be paid now. In these days of inflation, here is one bargain you can still obtain at the same old price.

Individual.....	\$ 7.00
Husband and wife.....	10.00
Student.....	2.00

You may pay any time at the lecture meetings, or you may mail your check to Mrs. Pearl Downey, 1855 Sargent Ave., St. Paul, MN 55105.

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PLANNING AND EVALUATION COMMITTEE VISITS BELWIN OUTDOOR EDUCATION LABORATORY

Belwin Outdoor Education Laboratory near Afton, Minn. was visited by the Planning and Evaluation Committee Sept. 4 for a picnic supper meeting. The Belwin Laboratory is used by the St. Paul and Stillwater Public and Parochial Schools for incorporating nature studies into all areas of the school curriculum. The Planning and Evaluation Committee was invited to see the facility, and would like to consider possible areas of volunteer assistance to its program by the G.S.M.

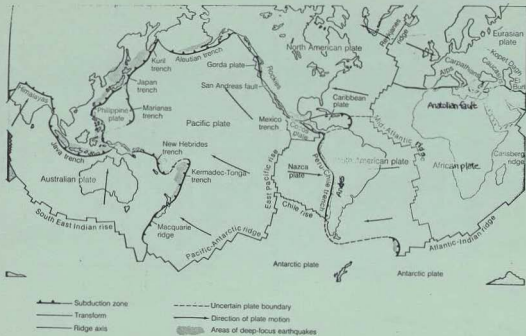
Rod Frye, Naturalist and Director, conducted the group on a tour of the grounds and explained Belwin's founding, its aims, and its operation. School children are bussed in daily. They work with their teachers in a natural setting on projects the individual groups have arranged, with the Belwin Staff acting in a supporting role. Projects can encompass any area of study and are not limited to the science field alone.

The Center is located beside the St. Croix River Valley just north of Afton. Glacial topography is evident. An abandoned gravel pit exhibits many types of rocks found in drift. Volunteers knowledgeable in geology are needed to chat with children and stimulate curiosity about what they see. The Planning and Evaluation Committee will consider whether other types of assistance could be offered.

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**FALL  
IS HERE**





The Plates of Earth's Lithosphere

GEOLOGICAL SOCIETY OF MINNESOTA

1974-1975 Lecture Series

All lectures are presented at 7:30 P.M. in Room 55, Ford Hall, University of Minnesota campus, Church Street and Washington Avenue, S.E., Minneapolis

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| September 30 | Annual Meeting, 7:00 P.M., Viking Village, 27th and Lake, Mpls.  |
| October 14   | Basic Concepts of Geomorphology<br>Rock structure, tectonic activity, rock types, processes of erosion and deposition time   |
| October 28   | Erosive and Depositional Processes<br>Contribution to landforms, hydrologic cycle and tectonic activity, mass wasting ground water, stream activity, glaciation, wind activity, oceanic processes  |
| November 11  | Continuation of Above  |
| November 25  | Theories on Evolution of Landforms: Davis: Penoplenation; Penck: Parallel Retreat of Slopes; Hack: Dynamic Equilibrium   |
| December 9   | Geological History of Western United States<br>Paleozoic, Mesozoic, Cenozoic   |
| January 13   | Tertiary Development of the Landforms of Western United States<br>Black Hills, High Plains, Northern Rockies, Central & Southern Rockies, Basin and Range Area, Colorado Plateau, Columbia Plateau, Sierra Nevadas, Cascades, Olympic Mountains, Pacific and Valley System, California Transverse Range, Penninsular Range |
| January 27   | Above Continued  |
| February 10  | Above continued  |
| February 24  | Above continued  |
| March 10     | Vacationland Western United States (specific field trips)  |
| March 24     | Above Continued  |
| April 14     | Above Continued  |
| April 28     | Spring Banquet   |

You may address any specific auestions to the society's president, Robert Gunville, 788-1421