

AUTUMN 1989

Geological Society
of Minnesota

NEWS

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Minnesota Geological Survey
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Geological Society of Minnesota

MINNEAPOLIS, MINNESOTA



FIRST



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5146 - 197th Avenue N. E.
Wyoming, Minnesota 55092

PLEASE FORWARD

MINNESOTA GEOLOGICAL SURVEY
2642 University Ave W
St. Paul, MN 55114



Geological Society of Minnesota

1711 Marshall Avenue, St. Paul, Mn. 55104

FALL

Every fall when I start thinking about bringing along a jacket for an evening stroll, I start thinking about going back to school.

OFFICERS:

Pres. Fran Corcoran
V. Pres. Walt Blowers
Sec'y. Janet Mitchell
Treas. Ed Huppler

DIRECTORS:

J. Allen Cox
Goldie Johnson
Dorothy Kuether
Bruce Leiding

NEWSLETTER: AUGUST, SEPTEMBER, OCTOBER



FROM - -
- YOUR -
PRESIDENT

MY SUMMER VACATION

I found a shark's tooth!

Actually, I found a larger tooth with 2 tiny teeth along side. Charlie Matsch (our fearless leader) eyeballed it at 65 million years old and said the dentures were from a baby shark. Boy, was I thrilled.

There were about 40 of us out there in the near rain intently scratching around in the sand and gravel washes at the lip of a quarry near Ortonville. Charlie advertised shark's teeth on this field trip, and Charlie doesn't lie. Among us, we found 4-5 specimens - parts or whole shark's teeth. Enough, anyway to convince me that the drought of 1988 was a sometime thing and not the whole story of Minnesota's checkered past.

Then we rounded up more fine fossils along the road to Red Wing with Connie Sansome. This time it really rained. We also took in some of Minnesota's most breathtaking high summer scenery and aromas from the top of Barn's Bluff in Red Wing. When it cleared that day we could almost see Glacier River Warren, bank to bank, barreling through the valley.

And there's still one field trip left!

Fortunately, the Geological Society lures me harmlessly into this fall compulsion to improve my mind by starting the lecture series. I don't know about you, but I can hardly wait to find out about Caribbean coral reefs in the December snow. I also expect to pick up some practical tips on landscaping (economy size) in Dick Uthe's renowned 3-D labs.

We hope you can join us on our deluxe trip around the world in twelve lectures. Fasten your seat belts. Who knows where we'll go next year!



Annual Meeting

GEOLOGICAL SOCIETY OF MINNESOTA ANNUAL MEETING

Monday, September 25, 1989
Old Country Buffet
3000 White Bear Avenue
Maplewood Mall
(about 2 blocks south of I-694)

Dinner Buffet begins - 5:00pm
Cost: \$6.00 per person
Evening program and business meeting
begins at 7:15pm

EVENING PROGRAM

7:15pm Annual Meeting

- Introduction/Minutes
 - Treasurer's Report
 - Audited Treasurer's Report
 - Election of new board members
- Nominees: Dee Schmalz and Allen Smith

The program following the meeting will be a slide show of the Summer's Field Trips presented by Warren Mitchell.

GEOLOGICAL SOCIETY of MINNESOTA



BEDROCK INFORMATION

WANT TO LEARN MORE ABOUT GEOLOGY?

- History and the structure of the earth
- Surface features and movements
- Fossils and mineral resources
- Minnesota's place in earth history
- Human impact on geology

The GEOLOGICAL SOCIETY OF MINNESOTA presents professional, illustrated lectures for amateurs from all walks of life.

Our lecturers share their enthusiasm for all aspects of geology from the "Big Bang" up to the present . . . and beyond. Lectures are free and open to the public.

- . We share a common interest in geology.
- . Expertise is strictly optional!

WE MEET: OCTOBER - APRIL

7:30 P.M. Mondays
University of Minnesota, Minneapolis Campus
Physics Building
DETAILS: Sunday Star Tribune Outdoor Calendar

IN ADDITION, WE OFFER:

- Thirty-three geological markers throughout Minnesota
- Lab sessions for hand-on learning experiences
- Metro mini-tour guides of geological features
- Annual exhibit at the State Fair

MEMBERS ENJOY:

- Guided field trips - state-wide and national
- Fall annual meeting and spring banquet
- Quarterly newsletter
- Annual roster of members
- Opportunities to meet others who share your interest

PLEASE JOIN US!!!!

OFFICIAL ADDRESS: Geological Society of Minnesota
1711 Marshall Avenue, St. Paul, MN 55104
(612)644-6429

	Period or epoch and its length	Beginning years ago		
Cenozoic Era	Quaternary Period	Holocene Epoch 10 thousand years	10 thousand	
		Pleistocene Epoch 1 1/2 million years	2 million	
	Tertiary Period	Pliocene Epoch 4 1/2 million years	5 million	
		Miocene Epoch 19 million years	24 million	
		Oligocene Epoch 13 million years	37 million	
		Eocene Epoch 12 million years	58 million	
Mesozoic Era	Cretaceous Period 78 million years	Paleocene Epoch 8 million years	66 million	
		144 million		
	Jurassic Period 64 million years	208 million		
		Triassic Period 37 million years	245 million	
	Paleozoic Era	Carboniferous Period	Permian Period 41 million years	286 million
			Pennsylvanian Period 34 million years	320 million
Paleozoic Era		Mississippian Period 40 million years	360 million	
		Devonian Period 48 million years	406 million	
		Silurian Period 30 million years	438 million	
		Ordovician Period 67 million years	505 million	
Precambrian Time	Cambrian Period 65 million years (1)	570 million (1)		
	Almost 4 billion years (1)	4 1/2 billion (1)		

MEMBERSHIP:

Our membership year begins on October 1.

GEOLOGICAL SOCIETY of MINNESOTA

Individual	\$ 15	<input type="radio"/>
Couple	\$ 20	<input type="radio"/>
Sustaining	\$ 30	<input type="radio"/>
Supporting	\$ 50	<input type="radio"/>
Guarantor	\$ 100	<input type="radio"/>
Student (Full time)	\$ 5	<input type="radio"/>

SEND TO: Walt Blowers
2040 Laurel Avenue
St. Paul, MN 55104
(612)645-3553

Name _____ Phone _____
Address _____ Zip Code _____

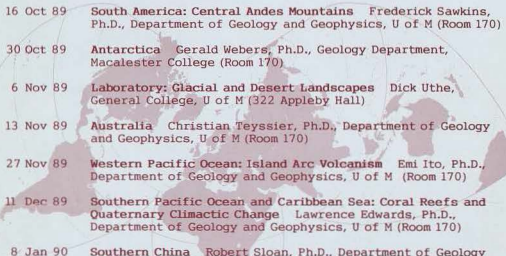
GEOLOGICAL SOCIETY of MINNESOTA

Program 89 / 90

7:30 Monday Evenings
U of M Minneapolis Campus
Physics Building - Except as noted

25 Sep 89 Annual Fall Meeting - Old Country Buffet, Maplewood

AROUND THE WORLD IN TWELVE LECTURES - OVERVIEW OF WORLD GEOLOGY

- 
- 16 Oct 89 **South America: Central Andes Mountains** Frederick Sawkins, Ph.D., Department of Geology and Geophysics, U of M (Room 170)
- 30 Oct 89 **Antarctica** Gerald Webers, Ph.D., Geology Department, Macalester College (Room 170)
- 6 Nov 89 **Laboratory: Glacial and Desert Landscapes** Dick Uthe, General College, U of M (322 Appleby Hall)
- 13 Nov 89 **Australia** Christian Teyssier, Ph.D., Department of Geology and Geophysics, U of M (Room 170)
- 27 Nov 89 **Western Pacific Ocean: Island Arc Volcanism** Emi Ito, Ph.D., Department of Geology and Geophysics, U of M (Room 170)
- 11 Dec 89 **Southern Pacific Ocean and Caribbean Sea: Coral Reefs and Quaternary Climactic Change** Lawrence Edwards, Ph.D., Department of Geology and Geophysics, U of M (Room 170)
- 8 Jan 90 **Southern China** Robert Sloan, Ph.D., Department of Geology and Geophysics, U of M (Room TBA)
- 22 Jan 90 **Laboratory: Stream, Shoreline, and Volcanic Landscapes** Dick Uthe, General College, U of M (322 Appleby Hall)
- 29 Jan 90 **Northern China** Robert Sloan, Ph.D., Department of Geology and Geophysics, U of M (Room TBA)
- 12 Feb 90 **USSR: Geologic Highlights of Lake Baikal** Priscilla Grew, Ph.D., Director, Minnesota Geological Survey (Room TBA)
- 26 Feb 90 **Scandinavia and Great Britain** Peter Hudleston, Ph.D., Department of Geology and Geophysics, U of M (Room TBA)
- 12 Mar 90 **France and the Alps** Christian Teyssier, Ph.D., Department of Geology and Geophysics, U of M (Room TBA)
- 26 Mar 90 **South Africa** Frederick Sawkins, Ph.D., Department of Geology and Geophysics, U of M (Room TBA)
- 9 Apr 90 **India: The Darwar Craton** Richard Ojakangas, Ph.D., Department of Geology and Geophysics, UMD (Room TBA)
- 23 Apr 90 **Spring Banquet: Diamonds in Siberia** Priscilla Grew, Ph.D., Director, Minnesota Geological Survey (Location TBA)

There will be Door Prizes, a Guess-the-Number-of-Rocks Contest, and a take-home surprise for everyone.

If you have any questions, please call Jan Mitchell at 224-3242 evenings.

It will be a Grand Evening - Don't Miss It!!

Also - your dues for the following year may be paid at the Annual Meeting. Walt Blowers, who is serving as our Membership Chairperson, will be at the meeting ready to re-sign up all our wonderful members.

Why not bring a friend along to join too! Let's make our next 50 years the best ever.

No reservation is needed. There is ample parking space in the parking lot. If you need transportation, please contact Jan Mitchell at 224-3242, and she will try to obtain a ride for you with other members of the Society.

Jan Mitchell, Secretary



STATE FAIR A

GREAT SUCCESS

Once again the STATE FAIR BOOTH was a GREAT SUCCESS. The 29th edition of the GSM State Fair booth attracted many fair-goers. An attractive "Explore the World of Geology" map and photos of GSM events were featured. The display was artfully constructed. Enlargements of photos taken on our field trips attracted much attention as well as the piece of morton gneiss, basalt containing thomsonite, iron ore, and volcanic rocks. The books on display were also viewed by many who visited the booth.

Again many thanks to Dorothy Kuether, Chairperson of the Exhibits Committee, and her committee of Eva and Dick Selander, Bob Handschin, Warren Mitchell and Bruce Leiding. We are also grateful to Jeff Garry whose enlargements showed the fair-goers that GSM members not only attend lectures but are interested enough in the history and structure of the earth to go and see for themselves and have a good time doing so.

Also many thanks to Allen Cox who took over from Walt Blowers the job of arranging and scheduling the booth attendants. A super job was done by Allen and the attendants.

Besides the display one of the objectives of each State Fair event is to promote GSM membership. This year a special printing of the 1988-89 GSM program was given to those interested in becoming members. We wish to thank Fran Corcoran for an outstanding job on the 1989-90 program.



LECTURE

PROGRAM

FOR

1989-90

NEXT YEAR'S PROGRAM:

The lecture series for the 1989 - 1990 program has been established. The theme will carry us Around the World in Twelve Lectures - Overview of World Geology. This series will be of interest to non-members as well as our present members. Here is our opportunity to introduce friends and prospective members to the geology of our world.

Two labs are also being planned and will be centered around glacial and desert landscapes and stream, shoreline, and volcanic landscapes.

Outstanding speakers have been obtained, and we all are looking forward to the next season of lectures.

PUBLIC INFORMATION:



Notices for the lectures have been published in the Twin Cities Sunday newspapers, the Minnesota Daily, Minnesota Public Radio and the Minnesota Monthly. Calls of interest are continuing to be received regarding our lectures by their reading our publicity.



NEWS

FROM

MEMBERS

Several cards were received from our traveling members this summer. Its good to hear from you as travel throughout the land.

On a beautiful card showing Mount St. Helens, Conrad Nelson reported from Portland. He and Dick and Eva Selander

drove up to Mount St. Helens. Conrad and Dick visited the Geology Department at Portland State University where they saw the original print for the card. Eva was out having lunch with their daughter.

On an interesting card showing a generalized geologic map of Utah, Mary Kimball writes that she and Dick Uthe were having a great time scouting out the geology in Missouri after having been back in Wyoming, Utah, and Colorado earlier. She reports that Dick has been getting together a great trip in parts of this area. We look forward to hearing more about it.



Our membership year of 1989-1990 will begin October 1, 1989. We need your dues as early as possible so that the GSM may continue to meet its expenses for lecturers, program printing, rosters, newsletters, the State Fair booth, and other activities and services. Without your dues, these things would not be possible.

There will be no increase in dues this year. They will remain as follows:

Regular Members - Individual	\$15.00
Couples Membership	20.00
Full-time Students Membership	5.00
Associate Members	7.00
Sustaining Members	30.00
Supporting Members	50.00
Guarantor Members	100.00

Our dues are a great bargain considering the lecture series, lab sessions, and field trips.

This year, as in the past, you will have an opportunity to become a member, or to renew your membership, at the annual meeting on September 25. Early payment of dues saves time and money for reminders.

It is you who have given the Society fifty years of life, and for that you are to be congratulated. With your continuous membership and support we shall enjoy another fifty.

Walt Blowers, Membership Chairperson



The GSM Board is in the process of purchasing additional projection equipment for use at our lecture series this year. For a long time we have been using borrowed equipment, which can be difficult at times. What we are planning are the following.

- A slide projector and accessories
- An overhead projector

Careful research on brands, accessory equipment we need, and costs, has been done, so that what we would buy would fill our needs at the best possible price.

Donations from you, our members, toward the purchase of this equipment would be tax deductible, would make the obtaining of this equipment possible, and would be greatly appreciated.

If you want to make a donation to GSM for this purpose, send your check to our Treasurer, Ed Huppler, 2495 Canabury Drive, # 123, Little Canada, MN 55117. Please make your checks payable to the Geological Society of Minnesota and indicate that your contribution is for the purchase of projection equipment for GSM.

Deaths

In August of this year Dr. Harold E. Harbo, Minneapolis died at the age of 96. Dr. Harbo had been an active member up to just a few years ago.

NOBEL CONFERENCE XXV
at Gustavus Adolphus
College, St. Peter, MN



Last year many members attended the Nobel Conference at Gustavus Adolphus College and reported that they had a good time at the conference. This year's conference "END OF SCIENCE?" although not geologically oriented like the last conference may also prove to be interesting. For additional information and conference registration material, see insert.