

Winter 1982-83

NEWS

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✓ Ewingston
X Chaveller
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X Jorgensen
X Meyer
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MINNEAPOLIS, MINNESOTA



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GEOLOGICAL SOCIETY OF MINNESOTA

OFFICERS

Pres. Dick Uthe
 V. Pres. George Johnson
 Treas. Elaine Fink
 Sec. Eva Selander

DIRECTORS

Dale Johnson
 Marlys Lowe
 Conrad Nelson
 Liz Ooten
 Eva Selander

The President Notes:

The time for wrapping things up draws near. Some shudder with dismay. Where has the year gone so quickly?! Well it is not gone yet and GSM activity continues with the election of new officers from the Board of Directors and the recruitment of new committee members and chairs for 1983.

Committee membership is open to all. Involvement gives you the opportunity to challenge your skills and talents and take an active role in making GSM work. We need your ideas and enthusiasm. If you would like to get on board, call me or any of the Board of Directors, current committee members or chairs. They are listed at the front of your current GSM Membership Roster. We will be glad to get your input and tell you more about each activity. Now is the time to start planning for 1983-84, so hesitate no longer!

A president can only be as effective as the cadre of colleagues with whom he/she works. I honestly feel I have linked efforts with some of the best. My special appreciation to Elaine Fink (conscientious "keeper of the coin"), Bob Gunville (stimulating, enjoyable field trips), Marcia Gunville (great lecture series), Ethel Shimek (able, reliable newsletter production and public information service), Jay Hutchinson (creative input and board meeting notes), Richard Uthe (memorable spring workshop and able assist as Vice President), Liz Ooten (prize-winning State Fair exhibit), Henry Gangl and George Johnson (active, interested board members), Dale Johnson (audit of GSM finances; Dale and Wilma; lecture refreshments), Conrad Nelson (input to the Board and Membership Committee), Eva Selander (board input and meeting host), Marge McGladery (perhaps the best membership chair around), Mary Kimball and Bob Handschin (GSM's invaluable "all rounders") and finally but not least to all of you, the Members, whose generous support makes GSM possible.

Incidentally, GSM turned 44 last October 28, 1982. Many happy returns.

Dwight Robinson



EXPLORING THE MESABI IRON RANGE WITH DR. MARSDEN

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Luck was with the twenty-three GSM members and two foreign students from Australia and Egypt who made the two day trip to the Mesabi Range with Dr. Ralph Marsden on July 31 and August 1. Not only was the weather agreeable, but also we had a most experienced and knowledgeable guide, who had spent his career until recent retirement teaching UMD geology students about the Range, as well as many summers working for the mining companies. It was a dramatic trip giving insight into the geology and the practical problems of past and present mining.

Near the Gilbert high school we viewed the foundation lava flows, about 2.6 billion years ago, which underlay the iron formations, whose latest date is about 1.6 BY. These deposits extend for 110 miles in a narrow "shore line" band 1 to 3 miles wide and up to 800 feet thick plus the overlay. Similar deposits make up the chief mines on other continents, and seem to have been ancient sea shores, with some later dissolution of the silica content to give the rich, soft iron ores that have supplied the United States with most of its iron ore until 25 years ago. Since then ores with magnetic iron have been the basis of the new taconite industry, with these hard rocks coming from many of the earlier mines.

The highlight of the trip as an extended tour of the Thunderbird at Eveleth, the only mine then working on the Range. Here we put on hard hats and goggles and drove into the giant pit. We saw the alternating chert and slaty layers of magnetic ore, which are mined and mixed accurately to get the right qualities for smelting. Giant drills punch holes 30 feet apart, leading to million ton blast outs, which then must be hauled to the crushing plants.

The following day we made four stops to observe other mines. Near Virginia we looked at the Rochleau mines which are 1 x 3 miles in area and about 450 feet deep. About 1/3 billion tons of ore has been shipped from these mines to date. An excellent observatory has mining equipment to see.

NEW MEMBERS

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Mesabi Iron Range (con't)

Thence we proceeded to Chisholm to visit the new Iron Range Interpretative Center where we had a special Iron Range lunch. We skimmed through the large, very intriguing museum, easily worth a day's time, but we couldn't spare an hour. We heartily recommend it as a must for anyone going to the Range in the tourist season.

Then we went to nearby Hibbing to see the Hull-Rust-Mahoning mine, the biggest open pit mine anywhere. It is still shipping a little ore after yielding 1.2 billion tons between 1895 and 1957 when taconite mining took over. Here again is an excellently equipped observation center.

Our last stop was at the Hill Annex mine at Calumet, near Grand Rapids. It has recently been made into a State Park, with escorted tours into the pits and a view of the beneficiating machinery. Hill Annex is now the largest producer of ore owned by the State, with some still being taken out. Equipment for crushing large chunks is still in use.

Minnesota is fortunate in now having facilities available to tourists and students who wish to learn more about the Range. With the help of skilled guides such as Dr. Marsden, we can we can better understand the gigantic excavation and transport effort the mines required for profitable operation. Now an enormous investment has been made to the supply of iron ore flowing to the steel mills.

Some of the pluses for the field trippers was staying in dormitories at UMD, eating together at Duluth restaurants. Other members may now take advantage of of the new facilities on the Range and especially the Interpretative Center.

--Bob Handschin



WORTHY OF NOTE

Fair Booth Wins Award

Among the scores of displays in the Education Building at the 1982 Minnesota State Fair, the GSM booth received a certificate of excellence.

Liz Ooten designed our display which featured architectural stones produced in Minnesota as illustrated in the pamphlet "Rocky Roots, Walking Tours of Minnesota" by Sr. Joan Kain.

Downtown St. Paul" by Sr. Joan Kain. Further exhibits were samples of the granites marketed by the Cold Spring Granite Company, a selection of rocks for Fair goers to identify, maps showing the locations of quarries in the state, terraces where major rock formations can be found.

Visitors were numerous this year in the new location opposite the University of Minnesota booth.

Highlights of the BOARD

Marlys Lowe and Eva Selander were elected at the Annual Meeting September 27 for a first term and Conrad Nelson

term, Conrad Nelson and Liz Ooten for a second term.

For 1983 the following officers were elected: Dick Uthe, president; George Johnson, vice-president; Elaine Fink, treasurer; Eva Selander, secretary. at the October Board Meeting.

The December Board meeting included a potluck supper, which was super, and a Yule Tide Sing-along. A new version of the Twelve Days of Christmas (P.) written by Dwight Robinson. was acclaimed by the rock hounds present. The new Board, old Board and officers as well as committee chairs were in attendance.

Notice

Lectures will resume on January 17 and will continue through April 11.

Further - - -

The four lab sessions will be held once monthly in Rice Hall at Macalester College. There will be a fee of \$1.00 for each session.

More ----

Anyone who has neglected to pay dues should do so at once as Marjorie McGladery is compiling the roster at this time.

ACKNOWLEDGEMENT

GSM Thanks Bolger Publications!

Once again GSM can turn a fine-looking face toward the world at large in the form of our Annual Program Schedules. This publication forms our primary, public outreach vehicle.

Hundreds of copies were dispersed at the State Fair and many more have taken up residence in libraries and notice boards throughout the Twin Cities.

Printing this year ald last was done by Bolger Publications, 3301 Como Avenue S.E., Minneapolis - leaders in the field of creative printing. Our thanks to Jack Bolger and his able staff for their prompt, courteous service and the excellent quality of the paper and printing. Special thanks also to Marge Gangl whose generous assistance was invaluable in seeing the project through.

MINNESOTA'S GEOLOGY

A goodly number of GSM Members took advantage of the special offer for "Minnesota's Geology" by Ojakangas and Matsch.

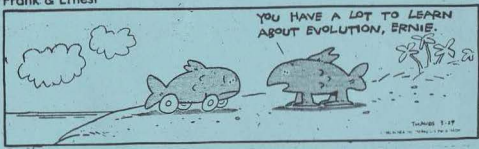
President Dwight Robinson negotiated this deal with the University Press.

The book will still be available at book stores at the regular price. (\$16.95 for the paperback)

IN MEMORIAM

A memorial service for Ruth Benson (89) long time member of GSM was held September 23 at the church of St. John, The Evangelist, in St. Paul. Surviving are a son, Roger D. Benson, Phoenix Ariz., and a brother Gordon Hartz, Forrest Lake, as well as two granddaughters. Old timers in GSM will recall Ruth as an enthusiastic field tripper.

Frank & Ernest



STAFF-- Jay Hutchinson, Dwight Robinson
Bob Handschin, Helen Woodward; writers
Eva Selander, Typing; Fern Belle Frost,
Conrad Nelson, Ann and Irene Jworski,
Catherine Keller-- production.

The 12 Days Revisited (as based on hard rock science!)

- On the 1st day of Xmas my rock hound sent to me...a rock from the nearest quarry!
- On the 2nd day of Xmas my rock hound sent to me...2 shiny shales and a rock from the nearest quarry!
- On the 3rd day of Xmas my rock hound sent to me...3 Morton gneisses, 2 shiny shales, and a rock from the nearest quarry!
- On the 4th day of Xmas my rock hound sent to me...4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 5th day of Xmas my rock hound sent to me...5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry.
- On the 6th day of Xmas my rock hound sent to me... 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 7th day of Xmas my rock hound sent to me...7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny and a rock from the nearest quarry!
- On the 8th day of Xmas my rock hound sent to me...8 ores a-glowing, 7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 9th day of Xmas my rock hound sent to me...9 glaciers flowing, 8 ores a-glowing, 7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 10th day of Xmas my rock hound sent to me...10 plates colliding, 9 glaciers flowing, 8 ores a-glowing, 7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 11th day of Xmas my rock hound sent to me... 11 mounts a-rising, 10 plates colliding, 9 glaciers flowing, 8 ores a-glowing, 7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!
- On the 12th day of Xmas my rock hound sent to me...a QUAKE 12 points Richter, 11 mounts a-rising, 10 plates colliding, 9 glaciers flowing, 8 ores a-glowing, 7 picks a-flailing, 6 faults a-failing, 5 Tourmalines, 4 fossil snails, 3 Morton gneisses, 2 shiny shales and a rock from the nearest quarry!

FAIR BOOTH HELPERS

Grace Benz
 Vern & Vivian Bloomquist
 Irene Carlson
 Les Collins
 Pearl Downey
 Elaine Fink
 Earl Fore
 Fern Belle Frost
 Henry Gengl
 Ray Gilles
 Al Hage
 Bob Handschin
 Walt Handschin
 Wilbur Hill
 Charles & Dorothy Howard
 Johan & Amanda Jenkins

Sister Joan Kain
 Sister Martha Kieffer
 Mary Kimball
 Alex & Marlys Lowe
 Dale & Wilma Johnson
 Marjorie McGladrey
 William Miller
 Conrad Nelson
 Jack Nesheim
 Liz Oten
 Dwight Robinson
 Ethel Shimek
 Mike Solveson
 Galen O'Connor
 Don & Betty Wheeler