

## President's Message

by  
Joe Kelley

Harvard geologist, Stephen Jay Gould, in a recent editorial in the journal *Science*, eulogized Carl Sagan, the well known astronomer from Cornell. He noted that, through his many books, magazine articles and a popular television video, Sagan's greatest contribution to science may have been his popularization of it. Sagan's success in this area apparently came with the bitter pill of rejection by many of his peers who considered such activities as non-scientific or trivial. Gould correctly notes that this attitude is unfortunate, and that many renowned scientists went to great lengths to take their understanding of nature to the people.

I remember being interviewed several years ago by a reporter from a large New England newspaper about beach and salt marsh erosion in Maine. During our discussion it became apparent to me that the reporter did not have much of an appreciation of geological time. I asked her how old she thought the Wells salt marsh was: 400, 4000, 40,000, or 400,000 years. She answered 40,000 years old, and when I started to correct her, she quickly replied that she knew the earth was old and that the marsh must be 400,000 years old. The lesson from this experience is that even science reporters from large newspapers do not have a

very good temporal context for geological events such as the timing of the last ice age or the longevity of our beaches. Yet, it is most often through such reporters that scientists reach the public. Is there a better way?

At the past several board meetings of the Geological Society of Maine, we have talked about better ways to bring geology to the people of Maine. We have flirted with the thought of a book on the subject, but time constraints by possible authors require that we postpone that for now. Another idea that did take hold was to conduct a short course on the geology of Maine similar to the other short courses we have held on more narrow topics. This course would be one day in extent, and cover the bedrock, glacial, marine and water resources of the state. We would like to aim the course at an audience of non-professional geologists. This would not preclude certification test takers, undergraduates or even graduate students from taking the course, but our hope is that we will subscribe reporters, lawyers, legislators and governmental officials with an interest and a need to know more about the geological resources and processes that define our state. In restricting the course to four subdisciplines of geology we acknowledge that people can only absorb so much information in a day, and that two days in a row is too much to expect from busy professionals. Thus, other

subjects like economic geology and all of the environmental aspects of our science remain for a possible follow-up short course next year.

I have given many marine geology talks to non-geologists and always found that audiences love the subject when it is explained to them at their level. At the Natural Resources Information and Mapping Center (nee the Maine Geological Survey) we have also found a warm and waiting audience for publications that explain geological phenomena at an introductory level. Our new seafloor atlas, the Rockland landslide report and information available at our website have proven immensely popular. So, at our spring meeting we will discuss the short course format, and I welcome comments from anyone on how to better reach the public with geological information. Let's face it; the public pays for all the fun we have doing science, let's tell them about it.

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**GEOLOGICAL SOCIETY OF MAINE  
SPRING MEETING  
Friday, April 11, 1997  
U of Maine at Farmington**

1:00 - 4:30 p.m. *Student  
Talks and Poster Sessions*  
4:30 - 5:30 p.m. *Social Hour  
and Business Meeting*  
5:30 - 6:30 p.m. *Dinner*  
7:00 - 8:00 p.m. *Keynote Speech:  
"Health Effects of Radon on  
Homes"* by Dr. Bernard Cohen,  
Professor Emeritus, Dept. of  
Physics, University of Pittsburg

*Look for more details in an  
upcoming mailing from UMF.*

**Call for Abstracts  
Geological Society of Maine  
Spring Meeting  
Friday, April 11, 1997  
U of Maine Farmington**

Students in Maine colleges and universities and students from other schools working on projects in Maine are encouraged to present papers in oral or poster form at the spring meeting of the Geological Society of Maine, University of Maine at Farmington, on Friday, April 11, 1997.

This program gives students working on senior theses, independent studies or master's theses an opportunity to discuss their research before a professional audience. Abstracts will be published in the issue of the Maine Geologist following the meeting.

Oral presentations are 20 minutes in length which includes 5 minutes for questions. Slide and overhead projection facilities with multiple screens will be available. It is recommended that students choose to use one slide projector and an overhead projector, or two slide projectors. Those presenting in poster format will have available one poster board with a dimension of 8 feet x 4 feet.

Abstracts must be written in accordance with the Geological Society of Maine format and must not exceed 250 words. All of the text must fit within a column measuring 3-1/2" in width. A sample abstract is available to serve as a guide in preparation. The original and two copies must be mailed flat in camera-ready form. For more information,

please call David Gibson at 207-778-7402. **Abstract deadline is March 28, 1997.** Mail abstracts to:

David Gibson  
U of Maine at Farmington  
Preble Hall  
39 High Street  
Farmington, ME 04938-1987

**GEOLOGICAL SOCIETY OF MAINE  
SUMMER FIELD TRIP  
July 26-27, 1997**

The 1997 Geological Society of Maine summer field trip will be headquartered at Sebago Lake State Park in Naples with camping on Friday and Saturday night and a cookout on Saturday evening. Bedrock and surficial geologists working in the area have been contacted and asked to put together a few stops of interest to the group. At this point possible stops include: the Late Pleistocene and early Holocene history of the Songo River; the bedrock geology along the hiking trail up Douglas Mountain in the Saddleback Hills; the geology of the Sebago pluton and associated metamorphic rocks; the deglacial history of the Naples, North Sebago and Sebago Lake quadrangles; and finally, a trip inside the dry channel of the Saco River in Buxton looking at interesting rocks and discussing a local arsenic problem. We certainly won't be able to visit all of the sites listed above but it should prove to be an interesting two day trip. Please mark your calendars for the last weekend in July. More information will be made available at the spring meeting in Farmington.

**8th Maine Mineral Symposium  
May 2-4, 1997  
Augusta, Maine**

The 8th annual Maine Mineral Symposium will be held in Augusta on the weekend of May 2-4, 1997. Indoor activities will take place at the Senator Inn and Conference Center, located just off I-95 on Western Avenue.

On Friday evening, Ray Sprague will give a workshop in mineral photography. Dealers will have a large selection of minerals and gems for sale at the Senator beginning Friday afternoon. The Saturday program will include mineral exhibits and talks. Talks include the history of the old Bristol Copper Mine in Bristol, Connecticut by Jay Lininger; mining in Maine during the 19th century by Vandall King; two presentations on the origin of granite pegmatites by Dr. William Simmons of the University of New Orleans and Dr. Michael Wise of the Smithsonian Institution; and a new program and slide show on mines and minerals of northern New Hampshire and western Maine by Alan Plante. The Sunday program includes field trips to quarries where you can find your own specimens.

The registration fee which includes all indoor activities and access to the field trips is \$8.00 per person. For details and a registration form, contact:

Robert Hinkley  
Yarmouth Road  
Route 115  
Gray, ME 04039  
207 657-3732

## **DEP-CP Task Force Update**

by  
Carolyn Lepage

Commissioner Ned Sullivan has met with the Task Force on two occasions recently. In October, he provided us with an overview of some DEP programs that are due to end in the near future or are in need of funds. These include the NPDES delegation from EPA, Solid Waste programs, and the Groundwater Fund. In response to funding problems, the Department has organized stakeholder groups to review the situation with an eye to generating funds and maintaining staff levels. (I can provide a summary of the stakeholder groups to anyone interested.)

The Commissioner also attended our February meeting to discuss the governor's bill on dioxin and look for support from the outside groups represented on the Task Force. He also informed the group that the technical forum on dioxin issues he had described at the October meeting was on hold. Individuals wanting more information should contact the DEP's point person for dioxin issues, Micky Kuhns, at 207 287-7045.

A copy of the Professional Signing and Registration Seal Requirements for Submittals to the DEP document has been sent to the Boards of Professional Engineers and Certified Geologists and Soil Scientists for their review and endorsement. Anyone interested in obtaining a copy of the document should contact me.

The Task Force has been discussing new topics to focus on, including the electronic transfer of data submitted to the Department and the development of guidelines or guidance documents.

For those of you who noticed the name change in the title, the CP stands for Consulting Professionals. I would be happy to receive other suggestions for training opportunities or topics for the Task Force to pursue. Please give me a call at 207 777-1049, send me a fax at 777-1370, or e-mail at clepagegeo@aol.com.

### **\*\*GSM Member News\*\***

**Ellen O'Brien** (Northstar Hydro) was elected to the Winthrop Board of Education last fall.

**Art Hussey** reports the Bowdoin Geology Department is getting ready to move to the new science building - the move is scheduled for July. Bowdoin has 5 students presenting posters at NEGSA. Art also announced the inaugural of the Kibbe Science Lectures on cutting edge topics in astronomy and geology. Heidi Hammel, principal research scientist at MIT, will speak on "Exploring Giant Planets with the Hubble Telescope" on March 11 at 7:30 p.m. in the Kresge Auditorium of the Visual Arts Center.

**Dale Doughty** is the new hydrogeologist at the Maine Department of Transportation.

**Lois Ongley** (Bates College) is looking forward to two more years of funding for the "Research for Undergraduates" program. Twelve undergraduate students will

continue the study of an arsenic-contaminated municipal water supply in Mexico. Lois notes that five of last year's participants will be presenting posters at NEGSA.

**Lois Ongley** and **Bob Nelson** (Colby College) are in the process of forming an Association of Women Geoscientists chapter in Maine.

**Richard** (Maine DEP) and **Barbara Heath** are the proud parents of **Adrian Davis John Heath**, their second son, born December 16th.

The Edward T. Bryand Global Sciences Center at the University of Maine is scheduled for completion this spring. **Marty Yates** has been serving on the Building Committee, and anticipates the Geology Department moving in during spring/summer.

**Don Koons** was recently honored at a Blaine House reception for former Commissioners of the Maine Department of Conservation.

**Kathy Bither** left Robert G. Gerber, Inc. in January to spend more time with her family.

**Dyke Eusden** received the Hughes Student Faculty Grant from Bates College to continue bedrock studies of the Presidential Range in New Hampshire.

**Brenda Hall** (University of Maine) was the 1996 winner of the J. Hoover Mackin Award to study "Geological assessment of abrupt climate change and ice-sheet stability hypothesis from an Antarctic perspective". The award is presented by GSA's Quaternary Geology and Geomorphology Division for outstanding student

research by a Ph.D. candidate.

**Correction: Andrew Reeve** is the new hydrogeology professor at University of Maine.

Send your news to Carolyn Lepage at clepagegeo@aol.com or PO Box 1195, Auburn, ME 04211-1195 or by fax to 207 777-1370 or just call at 207 777-1049.

#### GSM TREASURER'S REPORT 3/5/97

**Balance on Hand 10/5/96 \$8891.50**

Receipts Subtotal	\$836.78
Dues	686.00
Anderson Fund	122.78
Education Fund	28.00
Publications	0.00

Expenses Subtotal	\$961.92
Bank Charges	7.94
Printing	179.65
Postage	49.95
Fall Meeting Expenses	724.38

**Balance on Hand 3/5/97 \$8766.36**

General Fund	3649.30
Education Fund	658.70
Anderson Fund	4558.76

<b>Membership Total</b>	<b>337</b>
Regular	269
Associate	25
Student	29
Institutional	14

Members Paid Through 1996  
187

Members Paid Through 1995  
58

Members Paid Through 1994  
47

Members Paid Through 1993  
45

*Submitted by Martin Yates,  
Treasurer*

**Secretary's Report  
GSM Fall Meeting Minutes  
U of Maine, Orono, Maine  
November 1, 1996**

The Fall meeting began after completion of the afternoon speakers - Doug Reusch, Stewart Sandberg, Stephen Norton, and Joe Kelley. Joe Kelley, vice-president conducted the meeting. (Fred Beck, President could not attend.) The items listed below were discussed at the meeting.

1. Bob Johnston read off the "Proposed GSM Slate of Officers" listed in the October 1996 newsletter. The Society membership voted in the proposed officers.

2. Groundwater Bulletin #4 is done and ready to print at a cost of \$2,700 for 200-250 copies. The cost for this bulletin will be \$15. The Society membership approved publishing Bulletin #4 after the Treasurer's report was given.

3. Treasurer's report was given by Marty Yates. As of October 5, 1996, the balance is \$5,000+ (this has been the approximate balance for the past three years). The Walter Anderson Fund (WAF) is doing well, over \$4,400 invested in a CD and earning interest. The Education Fund has \$643. Membership: a number of members have updated their membership.

4. Spring 1997 Meeting: University of Maine at Farmington will host.

5. Summer 1997 Meeting: Annual field trip. Acadia and Sebago Lake areas were suggested.

6. Short Course: Geology of Maine will be held during the fall of 1997. Pairs of people are to cover five topic areas and the plan is to videotape it. The

short course will probably be held in the Augusta area. Ollie Gates suggested also providing 3-4 page papers to go with the presentations, at least an outline and references.

7. Student undergraduate awards: Do at the Spring 1997 meeting held at UMF. We will use the Walter Anderson Fund to award two \$100 awards, one for a poster presentation and one for an oral presentation. A certificate will also be given. At least three participants are needed in each presentation (poster and oral) for the poster and oral presentations to be given.

8. Certification Board: Andy Tolman gave the update. Certification board has been very active. Looking into national affiliation, which accepted us as associate members. The exam looks like a real exam. The local (Maine Certified Geologist) exam is getting tattered around the edges. Do we adopt the national test?

9. Summer 1996 Meeting Minutes: accept as is.

10. Meeting adjourned.

Following the social hour and dinner, Dr. John Armentrout, national SEPM president and a geological consultant at Mobil's Exploration and Producing Technical Center in Dallas, gave a talk titled "Geology in the 21st Century: Exciting Opportunities for Creative Geoscientists".

Where is earth science? Dr. Armentrout has a positive message. Earth science is going well. It is a growth industry and has been since World War II. There have been two anomalies. We need to avoid focusing on the anomalies and take the long view. For example, if we look at trends

from 1985 to 1990, the geoscience field declined. However, if we look at geoscience trends from 1975 to the present, the geoscience field has constantly been a growth discipline. It all depends on which perspective we take. As an earth scientist, Dr. Armentrout invites us to take the long view.

Dr. Armentrout shared five points with the audience and showed many slides to illustrate statistical support of the five points. The points are as follows:

1. In the long view, geoscience is a healthy career decision. Do not be misled by shortsighted pessimists.

2. Prepare for cyclic trends in employment. This means you have to plan adaptability.

3. Adaptability necessitates a broad-based education and an ever expanding set of geoscience skills.

4. Education and retraining are continuous. If you have sufficient motivation and perseverance to weather constant change, you will survive.

5. A future in geoscience belongs to those who are creative both in the practice of geoscience and in their career planning. Do not expect your employer to develop your career plan. It is your job to develop your career plan.

What are companies looking for in employees today? Companies are looking for people with a broad-based education, so that as the corporate needs shift, the employees can move into new areas. Also, earth science has gone into a service sector, therefore, scientific writing and speaking skills are needed.

Employees must be able to communicate their science and market their skills to satisfy the customer and retain their job.

Dr. Armentrout suggests that employers expect their employees to be self-motivated, computer literate, well-educated, adaptable to change, team players, and excellent communicators. Also, they expect employees to come on board with an immediate impact (no on-the-job training period), focus on the bottom-line, have high productivity, take charge of their own training, and be problem solvers (not just be able to manipulate data).

When people ask Dr. Armentrout if they should go into geology, he tells them that they need to meet the following criteria:

1. love for geology,
2. can do attitude,
3. team player,
4. perseverance and flexibility,
5. realistic appraisal of the career market,
6. strong basic geological training with constant updating and expansion of skills and knowledge,
7. excellent written, oral and graphical communication skills.

Finally, Dr. Armentrout believes as an absolute certainty that "The earth sciences/geosciences community as a whole has been and continues to be a growth industry with career potential. If properly prepared you can take advantage of that by being creative both in science and in your career planning."

*Submitted by Rebecca Hewitt,  
Secretary*

## MEMBERSHIP DUES STATEMENT

The **GEOLOGICAL SOCIETY OF MAINE, INC.** is a non-profit corporation established as an educational Society to advance the professional improvement of its members; to inform its members and others of current and planned geological programs in Maine; to encourage continuing social contact and dialog among geologists working in Maine; and to further public awareness and understanding of the geology of the State of Maine; and of the modern geological processes which affect the Maine landscape and the human environment.

The Society holds three meetings each year, in the late fall (Annual Meeting), early spring, and mid-summer (usually field trips). A newsletter, *The Maine Geologist*, is published for all members three times a year. The Society year runs from August 1 to July 31. Annual dues and gift or fund contributions to the Society are tax deductible. There are three classes of memberships:

- \$7.00 REGULAR MEMBER Graduate geologists, or equivalent, with one year of practice in geology, or with an advanced degree.
- \$6.00 ASSOCIATE MEMBER Any person or organization desirous of association with the Society.
- \$4.00 STUDENT MEMBER Persons currently enrolled as college students.

A \$2.00 APPLICATION FEE is a one-time fee for all new members, payable when applying for membership.

### THE GEOLOGICAL SOCIETY OF MAINE ANNUAL RENEWAL / APPLICATION FOR MEMBERSHIP

Application Fee	\$2.00	\$ _____	Name _____
Regular Member	\$7.00	\$ _____	
Associate Member	\$6.00	\$ _____	Address _____
Student Member	\$4.00	\$ _____	
Contributions to GSM		\$ _____ (gift or fund on check)	
<b>TOTAL ENCLOSED</b>		\$ _____	

**Checks payable to:**

Geological Society of Maine  
 Martin Yates, Treasurer  
 c/o Dept. Geological Sciences  
 5711 Boardman Hall  
 University of Maine  
 Orono, Maine 04469

(Geological Society of Maine funds include the Walter Anderson Fund, the Education Fund, and discretionary gifts as noted by contributor)

### 1996/97 SOCIETY YEAR BEGINS AUGUST 1 - PLEASE SEND DUES TO TREASURER

**THE GEOLOGICAL SOCIETY OF MAINE**

c/o Arthur M. Hussey, II, Postal Chairman  
 Department of Geology  
 Bowdoin College  
 Brunswick, ME 04011

*THE MAINE GEOLOGIST* is published three times a year, in early fall, mid-winter, and summer, for members of the Geological Society of Maine.

Correspondence about membership in the Society should be mailed to Martin Yates, Department of Geological Sciences, 5711 Boardman Hall, University of Maine, Orono, Maine 04469.

Items for inclusion in the newsletter may be directed to Susan Weddle, 11 Beech Drive, Brunswick, ME 04011.

- President Joseph Kelley
- Vice President Walter Anderson
- Secretary Rebecca Hewett
- Treasurer Martin Yates
- Newsletter Editor Susan Weddle
- Postal Chairman Arthur Hussey
- Directors Marc Loiselle (94-97)
- Carolyn Lepage (97-98)
- Fred Beck (97-00)

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