

Canadian Geoscience Education Network
Minutes for October 29, 1998 Meeting
Toronto

Present: Jennifer Bates, John Clague, Pat Dillon, Fran Haidl, Kathleen Kemp, Rob Lord, Alan Morgan, Dave Rudkin, Peter Russell, Pierrette Tremblay (Chair), Bob Turner, Christy Vodden.
Regrets: Vic Tyrer

1. Introductions

2. Approval of Agenda Geoscied IV, the Geoscape poster initiative, and Calgary 2000 were added to the agenda. The item on "Public awareness of science in Canada" was held for discussion at the next meeting.

3./4. Review of May 1998 Minutes/Business Arising Action items from last meeting were reviewed (minutes attached for reference, as Appendix A). Those still requiring action are:

- French version of GAC publication "The PAST is the Key to the Future" still to be completed. (Action: P. Tremblay)
- Update of CGEN Website: Done; a final check is required (Action: J. Bates)
- Prototype evaluation form for EdGEO workshops attached as Appendix B (Action: comments to F. Haidl). Gordon Domm is still finetuning his original design for the EdGEO logo. Missed deadline for renomination of EdGEO to 1998 Michael Smith Awards (Action: C. Vodden, F. Haidl, W. Neale to try for 1999).
- Non-profit status and incorporation of CGEN to be researched. (Action: P. Robinson and P. Tremblay respectively). Concept that other organizations buy CGEN memberships to be developed. (Action: V. Tyrer).
- Recognition letters for people/organizations doing public awareness activities to be prepared. (Action: P. Tremblay).

5. Chairman's Report Pierrette Tremblay reported that her term as Chair was nearing its end and that a Nominating Committee (Fran Haidl, Ward Neale, Graham Williams) was struck to choose her replacement. She has recommended that CGEN requires a Secretary-Treasurer as well. Ideas for candidates should be forwarded to the Nominating Committee.

6. EdGEO Report Fran Haidl reported that five workshops had been held in 1998, a decline from the past two years (interim financial report and updated national EdGEO committee list attached as

Appendix C).

Discussion focussed on ideas for reversing trend. Possibilities included using EdGEO funding for enhancements of existing educational outreach programs or for the development of lesson plans by teachers who have taken EdGEO training; a fieldwork program to be given at next Ontario Geography Teachers meeting (Rob Lord); an EdGEO workshop at Sudbury 1999; enhanced connections with student teachers (Christy Vodden) and faculties of education.

Publicity initiatives were also discussed, noting that the EdGEO newsletter would be available at the Science Teachers Association of Ontario (STAO) conference and widely circulated as an insert in the next edition of "Wat on Earth". CGEN members should continue to distribute promotional copies of the newsletter. (Action: all)

The next newsletter is in development, and Gordon Domm would welcome submissions as soon as possible. Articles in preparation are: report on the Toronto educational program linked to GSA (Kathleen Kemp); groundwater publications (Peter Russell); Geoscape Vancouver (John Clague and Bob Turner).

7. GeosciEd Because of a bid put forward by Alan Morgan the international education conference, GeosciEd, will be held in Canada in 2003. Alan described the past events (held in England and Hawaii), plans for the next GeosciEd to be held at Sidney, Australia, January 17-20, 2000, and expectations for the Canadian GeosciEd. He reported that USGS is putting out newsletter in support of this international initiative (copies are available from Alan at avmorgan@sciborg.uwaterloo.ca or from its editor, Laure Wallace at lwallace@usgs.gov). A write-up on CGEN will be submitted, along with the CGEN membership for the newsletter mail list. (Action: P.Tremblay/A.Morgan)

There was concern expressed by CGEN as to the amount of effort and resources required to put on this event, which has relatively low attendance (about 250), and whether this was a strategic use of these limited resources. There was agreement that the event should be structured to bring lasting benefit to Canadian educators, in line with educational and public awareness goals of the Canadian geoscience community.

Bids have been solicited to host this event (see Appendix D), and Alan asked CGEN to review the submissions at its next meeting. (Action: A.Morgan to send submissions to CGEN members in advance of meeting)

8. Geoscape John Clague and Bob Turner described this national initiative, being spearheaded by the Geological Survey of Canada, to produce a series of posters, overheads and Web-based educational tools that treat geoscience information/issues on a regional basis. The prototype, Geoscape Vancouver, has proved extremely successful

with B.C. teachers, and the model is being transferred to many other major population centres in Canada and the U.S. Both John and Bob are working as advisors to the various Geoscape projects underway. To date there are commitments, through GSC, to develop Geoscapes for Whitehorse, Victoria, Saskatoon/Regina, Winnipeg, Ottawa, Toronto and Halifax. Other groups, e.g. the University of Waterloo, are developing concepts for other areas.

In addition to its educational value, Geoscape Vancouver has attracted much local media attention, resulting in strong visibility for the geosciences. A comprehensive description of the Geoscape Vancouver project can be found in *Geoscience Canada* (Volume 24, Number 4). Web-based Geoscape products can be viewed at: <http://sts.gsc.nrcan.gc.ca/page1/urban/geoscape/geoscape.htm>.

CGEN commended this initiative, and the leadership and vision that John and Bob have brought to it. There was much interest in plans for the Toronto Geoscape project, with questions raised about the need for it given the recent publication of "Toronto Rocks" by Nick Eyles and Laura Clinton. CGEN strongly supported the development of Geoscape Toronto, which they saw as a complement to "Toronto Rocks", and asked that this message be carried to Dave Sharpe who is coordinating Geoscape Toronto. Connections between Geoscape Toronto and the Geoscape for the Waterloo area should also be made. (*Action: P. Dillon, C. Vodden, P. Russell, D. Rudkin to connect with D. Sharpe at STAO meeting*).

Timing for Geoscape Calgary was also discussed, with the recommendation it be released at Calgary 2000 with some sort of special ceremony (e.g. formal presentation to the Mayor) that would generate media interest.

9. Sudbury 1999/Calgary 2000 Sudbury 1999 will have a special weekend session for teachers, a general session on earth science awareness and a public lecture by Alan Morgan. CGEN members were encouraged to submit talks and posters. (*Action: all*).

John Clague and Bob Turner presented their proposal to put together a special session for Calgary 2000 that would focus on major geoscience issues relevant to metropolitan areas of Canada. The goal is to arm geoscientists with issue-oriented information that touches about 80% of Canadians. (*Action: J. Clague and B. Turner will submit proposal to Calgary 2000 as a CGEN initiative*).

Fran Haidl reminded CGEN that we were to recommend that one of the plenary speakers at Calgary 2000 focus on public awareness of science issues. (*Action: F. Haidl to send letter to organizers*).

10. EarthNet Jennifer Bates reported that EarthNet has received significant funding over the past year from the Geological Survey of Canada and the Canadian Geological Foundation. This has enabled the hiring of three fulltime contractors, allowing a great leap

forward in putting earth science resources online. There is still a large amount of earth science information to be captured. CGEN members were reminded of their commitment to submit materials from their area to EarthNet. As current funding for EarthNet ends March 31, 1999, there is some urgency to this task if CGEN wishes to take advantage of this window of opportunity for adding resources to EarthNet. Another goal is to set up teams of geoscientists and teachers for each province and the territories to ensure that resources are captured. Again, CGEN has a role to play in identifying appropriate teams for their areas. (Action: all).

She also noted the encouraging growth of teachers' computer literacy and the growing numbers of users of EarthNet (between 100-200/day). Regional usage patterns will be tracked. To make the site more user friendly, Jennifer is looking into a simpler URL.

Publicity of EarthNet is moving into a new phase, as the site becomes truly national. Recent efforts include presentations in New Brunswick, at GSA and at the upcoming STAO conference. A new handout "Teaching Tools for Earth Sciences", developed by GSC in conjunction with Geomatics Canada for STAO, features EarthNet (copy attached); about 25,000 copies have been distributed to teachers (includes those printed into STAO program). CGEN agreed that once EarthNet becomes bilingual, an official national launch should take place. (Action: J.Bates/C.Vodden to develop publicity strategy).

11. Reports of Activities of Member Societies and Institutions

CGEN members not present at future annual meetings are encouraged to submit written reports of their education and outreach activities. Reports tabled at the meeting were:

■ Atlantic Geoscience Society (Jennifer Bates): Main projects are EarthNet, the Nova Scotia EdGEO workshop, a popular book on the geology of the Maritimes (due out Fall 1999) and a video on Halifax Harbour.

■ Geological Society of America (Kathleen Kemp): The conference had a strong educational component. Attendance for the locally organized program, which included a field trip, hands-on workshops and speakers, was disappointingly low.

■ Geological Survey of Canada (Christy Vodden): See Appendix E. Bumper year for open houses, with over 40,000 people attending four events at GSC facilities across Canada. Excellent media coverage throughout year, with the highlight being the naming by Macleans Magazine of William Logan as the most influential scientist in Canadian history.

■ Mining Matters (Patrica Dillon): Mining Matters continues to build connections with Ontario teachers. To date 2,000 kits have been distributed. A new unit is being developed to meet the needs of Grade 4 teachers. The Mining Matters website contains updates

on recent successes and future plans (www.pdac.ca/miningmatters).

■ Ontario Science Centre (various, in Vic Tyrer's absence): The OSC is going through a program review, and Vic had sent out a request for external comments on the value of the Geofest program. Various CGEN members have already submitted letters of support on behalf of their organizations, but CGEN will send in a separate submission. (Action: P. Tremblay).

■ Ontario Assoc. of Geographic & Environment Education (Rob Lord): The OAGEE will hold its 50th anniversary meeting, October 22-23, 1999 in Orangeville, Ontario. The theme is "Mapping the New Millennium". Contact is Paul Van Zant, telephone: 905-846-6060, fax: 905-584-9823, email:vanzant@hurontario.net -- Rob is chair of field trips. The National Association of Geology Teachers annual meeting will take place at the University of Pittsburgh, Johnstown, Pennsylvania, May 20-23, 1999. Contact Steve Lindberg at srl@westy.jtwn.k12.pa.us.

■ Royal Ontario Museum (Dave Rudkin): New paleontology exhibit due to open in February 1999.

■ Saskatchewan Geological Society (Fran Haidl): See Appendix F, report on SGS's Geogardens Project.

■ Science Teachers Association of Ontario (various): CGEN will be well represented at this conference. Vic Tyrer was on technical program committee and was successful in building a strong geoscience component. CGEN speakers include J. Bates on EarthNet, D. Rudkin on paleontology, P. Russell on groundwater, P. Dillon on Mining Matters. GSC will have several other speakers. Conference report attached as Appendix G.

■ University of Waterloo (Peter Russell): See Appendix H. The Earth Sciences Museum has had extremely productive year. Good news for Wally and Deanna fans; "Wally and Deanna's Quartz Crystal Adventure" is about to be published.

12. Next Meeting To be held during Sudbury 1999.

Christy Vodden
December 7, 1998

EdGEO WORKSHOP, REGINA
17-19 SEPTEMBER, 1998

EVALUATION SHEET

Section 1: General Evaluation of EdGEO Workshop

NAME: (optional) _____

1. What was right about this workshop?

1. What was wrong about this workshop?

3. Overall Rating for Workshop

Outstanding Excellent Very Good Good Moderately Good Fair Poor

4. General Comments

NATIONAL EdGEO WORKSHOP PROGRAM

Interim Financial Report (April 1, 1998 - October 16, 1998)

Bank Accounts

Royal Bank (Opening Balance)	\$42,059.38
Royal Bank (Closing Balance)	\$25,871.42

Income

	DR	CR
Interest		\$58.44
Refund from Workshops		\$1,250.00
Quebec		\$36.17
SMA/SGS		\$262.54
Regina		
Total Income		\$1,607.15

Expenditures

Workshops Sponsored (1998)

Regina EdGEO	\$3,000.00
Nova Scotia EdGEO	\$1,940.00
Edmonton	\$1,290.00
Tyrrell Museum	\$2,000.00
Toronto	\$2,700.00
GAC/MAC Fieldtrip	\$3,000.00
Pacific Section GAC	\$661.83
Calgary Science Network	\$1,048.50
Total Workshops	\$15,640.33
Bank Charges	\$2.40
Travel	\$1,179.66
Advertising (Newsletter)	\$655.62
Field Trip	\$300.00
Photocopies	\$17.10
Total Expenditures	\$17,795.11



EdGEO

EdGEO, initiated in the early 1970s, is a Canada-wide program which supports local workshops on earth science for teachers. It is co-ordinated by the Canadian Geoscience Education Network of the Canadian Geoscience Council.

Statement of Purpose:

By providing educational opportunities for today's teachers and, through them, their students, EdGEO seeks to cultivate a heightened awareness and appreciation of our planet. The expected result is an improved capacity on the part of Canadians to understand the Earth and to make wise decisions especially with regard to the use of its mineral and energy resources, the maintenance and remediation of the environment, and response to geological hazards.

For further information:

Please contact:

Fran Haidl
 National EdGEO Committee
 c/o Saskatchewan Energy and Mines
 201 Dewdney Avenue East
 Regina, SK S4N 4G3
fhaidl@gov.sk.ca (306) 787-6116

or contact any member of the **National EdGEO Committee** listed below:

Name	Affiliation	Phone	FAX	Email
Jennifer Bates	Nova Scotia	902-426-4386	902-426-4266	bates@agc.bio.ns.ca
Kathy Bergman	Treasurer, Saskatchewan	306-585-4679	306-585-5433	katherine.bergman@uregina.ca
Tim Corkery	Manitoba	204-945-6554	204-945-1406	tcorkery@em.gov.mb.ca
Bernard Dewonck	British Columbia	604-681-0209	604-687-4670	bdewonck@ihermes.com
Gord Domm	Editor, Saskatchewan	306-751-0320	306-791-0000	gdomm@dlcwest.com
Jon Dudley	GAC	403-284-7403	403-284-7589	jon.dudley@iol.sprint.com
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Chris Gilboy	Secretary, Saskatchewan	306-787-2573	306-787-4608	cgilboy@gov.sk.ca
Fran Haidl	Chair, Saskatchewan	306-787-6116	306-787-4608	fhaidl@gov.sk.ca
Tim Howard	CSPG	403-264-5610	403-264-5898	cspg@cspg.org
Lynn Kelley	Fundraising, Saskatchewan	306-787-2646	306-787-2488	lkelly@gov.sk.ca
Henrietta Mann	Nova Scotia	902-420-7584	902-423-2423	hmann@is.dal.ca
Rob Lord	Ontario	905-793-2400	905-793-3682	rlord@cgocable.net
Godfrey Nowlan	Alberta	403-292-7079	403-292-6014	GNowlan@NRCan.gc.ca
Toon Pronk	New Brunswick	506-453-7947	506-444-4176	tgpronk@gov.nb.ca
Vic Tyrer	Ontario	416-696-3255	416-696-3197	vtyrer@osc.on.ca
Pierrette Tremblay	CGEN, Quebec	418-654-2650	418-654-2615	ptremblay@gsc.NRCan.gc.ca
Christy Vodden	Ontario	613-995-3084	613-996-8059	vodden@gsc.NRCan.gc.ca

NOTIFICATION OF THE FOURTH GEOSCIED CONFERENCE.

Dear friends and colleagues,

I am pleased to announce that Canada will be hosting the Fourth International Geoscience Education Conference in the year 2003.

As you are aware, the First Conference was held in Southampton, England in 1993 and the Second Conference in Hilo, Hawai'i, last July (1997). I wrote up an account of the First Conference with Laing Ferguson in *Geoscience Canada* (1994), and a synthesis of the second meeting has appeared in the June issue (1998) of *Geoscience Canada*.

The Third Conference will be in Sydney, Australia, in January, 2000. Canada was successful in a bid to host the Fourth Geoscience Education Conference in 2003. Obviously, the exact dates and location have to be decided very soon in order to get an Organising Committee in place.

Geoscience Education in Canada has come a long way in the last decade, and I know from frequent comments from many of you that interests in this area are high in various geographic regions across the country. For this reason I felt that it would be fair to solicit "bids" to host the Fourth GEOSCIED Conference. However, this task does carry some responsibilities.

The meeting is "International", and that carries the largest responsibility. Locations should be fairly easily accessible by air, particularly for "out of country" participants. The Organising Committee WILL HAVE A LARGE RESPONSIBILITY TO RAISE FUNDS. These funds will be (a) to run the conference and (b) produce the necessary publications (circulars, programme and abstracts, and (c) Conference Proceedings, and (d) TO ASSIST PARTICIPATION FROM REPRESENTATIVES FROM UNDERDEVELOPED COUNTRIES TO ATTEND THE CONFERENCE. The latter is particularly expensive.

From past conferences it is anticipated that the meeting will attract about 200 - 400 participants, so size IS a factor. Plenary sessions should realistically be able to host 350 participants (and possibly more). Good audio-visual facilities (or rental thereof) are essential. Break-out rooms for smaller group discussions and business meetings will be needed. Room for posters (and availability of Poster Boards) is also essential.

The setting must be conducive to field excursions, particularly one or two day excursions and possibly one or two longer field trips. Certain areas of the country lend themselves to this better than others. Field trip participants will average about 10 per cent of conference participants (30 - 40). In Hawai'i the organisers planned a one day field excursion for ALL participants (240+) in 5 vehicles (school buses).

I would appreciate receiving from your group an offer to "host" the 2003 Conference. This should include:

- Potential DATES for the meeting and associated field excursions in 2003.
- WHERE the meeting will be held and WHO will be providing the conference facilities.
- WHO will be on the LOCAL Organising Committee (a National Committee will help to provide guidance).
- What might be planned for the FIELD TRIPS (day and longer)with "guesstimates" of costs.
- What groups might be approached to provide FISCAL SUPPORT.
- What THEME might be associated with your bid. (The Hawai'ian theme was "Learning about the Earth as a System"). - Again there will probably be some National input to this area.

NEW DEADLINE!

All submissions should be sent BY OCTOBER 16, 1998, to:

Alan V. Morgan; Department of Earth Sciences,
University of Waterloo, WATERLOO, Ontario N2L 3G1
FAX: (519)-746-0183; E-Mail: avmorgan@uwaterloo.ca

(Please send at least one version via E-Mail)!

This matter will be discussed at the next CGEN meeting. It is important that we receive some idea of what you think about these suggestions, even if it is a negative response. "Great, but the (for example) Iqualuit group is too small to host this meeting and the field trip costs would be astronomical". In this way the CGEN can see who is responding. Remember, 2003 is only a little over 4 years away!

I look forward to hearing from you.

Sincerely,

Alan V. Morgan.

GSC Outreach Highlights, May - October, 1998

Web Sites

- Redesigned GSC Web site launched September 1998. Educational section revised and expanded.
- "Geoscape Vancouver" poster and "Si la Terre m'était contée...La Région de Québec sous la loupe des géologues" are now online.

Public Events

Open Houses

- Sidney, B.C.: At Institute of Ocean Sciences, October 1-4, attended by 6,000 people to open house, and 2,100 students and teachers taking part in tours program.
- Ottawa: National Science and Technology Week "Science Funfest", October 18, attracted 1,300 people (mainly families with young children). School visits attended by 400 students and teachers.
- Halifax/Dartmouth: At Bedford Institute of Oceanography, October 22-26, a mix of school visits, client events and a public open house attracted 28,000 people.

As a participant in community events

- Ottawa: DESTINY 2000 (a science, engineering and technology careers fair for Grade 7 students), May 1, about 2,000 students.
- Calgary: 1998 Hullabaloo, May 3, family fair, 10,000 attended.
- Québec: Third "Salon du monde minéral", part of "Quinzaine des sciences", May 14-16.
- Bancroft Gemboree, Ontario, August 1 weekend, 10,000 people.
- Nepean Mineral and Gem Show, September 26-27, 2,500 people.

GSC Educational Products

- "Geomap Vancouver": new GSC poster map; received strong media interest.
- "Natural Hazards of North America" map, published by *National Geographic*, was purchased as educational handout. GSC scientists advised on content. GSC helping develop French version.
- A new interactive digital "library" of information pulls together all existing geoscience information for southwestern B.C. Designed for educators, the CD-ROM contains an easy-to-use, searchable database.
- "Teaching Tools for Earth Sciences", gives key NRCan Web sites for earth sciences.

Connections with Educational Groups

- Science Teachers Association of Ontario, GSC presence at next annual meeting (November 1998) and in program volume.

Museum Connections

- The McMichael Gallery is working with GSC on new exhibit that will blend the art and geology of Inuit stone sculpture, scheduled for May 1999.

Media

- Richard Herd interviewed by CBC-Radio's "As It Happens", June 10, on meteorites.
- Sir William Logan, founder of the GSC, named the most influential scientist in Canadian history by *Macleans* magazine, in their Canada Day edition.
- "Nature of Things", one-hour segment on earthquakes, aired October 22, featured work of GSC seismologists.

Politicians:

- Bacon and Eggheads: GSC scientist, Harvey Thorleifson, gave talk on diamonds in Canada, June 4, at second of these breakfasts designed to increase parliamentarians' knowledge of the impact of science in Canada.

Christy Vodden
October 26, 1998
(613) 995-3084



Saskatchewan Geological Society
P.O. Box 234
Regina, Saskatchewan S4P 2Z6

Appendix F

SASKATCHEWAN GEOLOGICAL SOCIETY'S GEOGARDENS PROJECT



Campbell Collegiate, Summer, 1998 – home of the GeoGarden

Mission: To further the understanding and appreciation of Earth's history amongst Saskatchewan's students and within its wider community by landscaping areas around selected educational institutions with a variety of suitably annotated, geologically interesting boulders.

Implementation: These geological gardens will display igneous, metamorphic, sedimentary and mineralized rock which illustrate some of the fundamental geological events that have shaped Earth in general, Saskatchewan in particular. The boulders will be arranged aesthetically and may be supplemented by walls, seats and/or walkways made up of cut and/or polished rocks. In general, they will be professionally landscaped.

Work on the pilot project at Campbell Collegiate, Regina, began in summer, 1997 and, with the placement of the rocks in August 1998, is well into its development phase. Both staff and students at Campbell are heavily involved in the planning and creation of the gardens, and are supported by the school's administration and the Regina Public School Board. Vic Cicansky, a well known Regina artist, volunteered to design the layout. His proposal to have the rocks arranged as constellations (Cygnus, Lyra, Aquila and Ursa Minor) was adopted and superbly provides the aesthetic component of the GeoGarden as well as introducing an Earth Systems component to the GeoGarden.

Project Partners: To date, work has most actively involved Campbell Collegiate (CC), the Saskatchewan Geological Society (SGS), Saskatchewan Energy and Mines - Geological Survey (SEM), the Regina Public School Board (RPSB), the Saskatchewan Mining Association (SMA), and Dome Construction (owner of a large gravel pit in Moose Jaw).

Material Supply: All the rocks for the pilot project have so far come from Dome Construction's gravel pit, which has for the past four years been an important field-trip destination in SGS-sponsored EdGEO teachers' workshops. The SGS is not presently aware of any closer source to Regina which offers the size, variety, and condition of boulders available at this pit. Specialized rocks, such as those showing mineralization, and cut and polished stone, will have to come from other sources.

Please turn over

Other Logistical Factors: Dome Construction intends to break up their boulders in the near future for use in concrete. It has therefore been essential that work begin before the boulders are destroyed and, of equal concern to the project partners, before full funding was in place. Future plans include approaching mining, hydrocarbon and other resource companies to donate and transport large specimens of mineralized rock and other geologically interesting material as well as support the project in other ways. Weatherproof plaques close to each boulder will describe its geological age and significance. A plaque, probably metal, will also list major sponsors.

Pilot Project Costs: The major outlays involve with transport and landscaping as Dome Construction has waived charges on the rocks themselves. The cost of moving 32 large boulders (ranging in weight from 50 kg to 12000 kg) from Moose Jaw to Regina was \$10,000 and of preparing and landscaping the area another \$10,000. A further \$2000 will be used for signage. Funds raised to date amount to \$7000. In addition, a \$5000 interest-free operational loan has been provided by the SGS. Fund-raising for the \$15,000 needed to cover the remaining money due and the return of the loan is in progress. At this symposium, raffle tickets are on sale. Prizes are donated works by Vic Cicansky and other artists; Vic's contributions are specially made rock-and-vegetable ceramic pieces representing our dependence on rock and earth for food. If you consider this kind of public awareness/education initiative worthwhile, please consider buying tickets or making a tax-deductible donation (details below). Watch, too, for the slides showing the Regina GeoGarden; they will be shown in the Coffee Breaks on Monday and Tuesday, and on a tabletop viewer Sunday evening at the Ice-breaker.

Pilot Project Financing: Funding so far in place (raised by Campbell Collegiate) includes: a Canada Trust Environmental Fund Grant, \$2000; a Public Relations Grant (from the Public School Board), \$1000; Campbell Parents' Association Donation, \$1000; Saskatchewan Geological Association Grant, \$1000; Campbell students' fund-raising efforts, \$500; a Saskatchewan Outdoor and Environmental Education Association Grant, \$500; a contribution from 1998 Graduating Class, \$500 and other donations, \$500 (total \$7000). In addition to the \$1000 grant, the Saskatchewan Geological Society has provided a loan of \$5000. We are now campaigning to raise the \$12000 we need to make up the balance of the pilot project's costs, with additional funds going towards the next GeoGarden we hope soon to be creating.

Acknowledgements to Sponsors: We plan to display details of the major sponsors and of the project in general along with the geological features of each on a wall overlooking the geological garden or in some other appropriate and lasting fashion. We will also supply sponsors with before and after photographs of the rock garden areas as these might be useful for annual report or similar purposes. Further, we anticipate that the official opening ceremony will both create considerable media interest at which the community spirit of major sponsors will be given due recognition.

How to Donate

For tax receipt purposes, cheques should be made out to Regina Public School Division No. 4, with a note on the cheques that they are to be placed in to the Geological Gardens Project Account. Along with information about donors' full names and postal addresses, including postal codes, they should then be sent to the attention of Ms. Carol Casswell, Regina Public Schools, J.A. Burnett Education Centre, 1600 4th Avenue, Regina, SK S4R 8C8.

**MORE DETAILS ABOUT ANY ASPECT OF THE GEOGARDENS PROJECT,
PLEASE TALK TO CHRIS GILBOY OR FRAN HAIDL**

**RAFFLE TICKETS ARE AVAILABLE AT THE CAMPBELL COLLEGIATE TABLE AT THE ICE
BREAKER ON SUNDAY,
AND ON MONDAY AND TUESDAY FROM THE SGS BOOTH IN THE ROTUNDA AREA
AND FROM CHRIS OR FRAN (WHO WILL HAVE THEM ALSO ON WEDNESDAY)**



**Earth Sciences Museum
University of Waterloo**

1. Review of 1997 activities:

a) Major items acquired in 1997:-

2 dinosaur eggs on matrix from China - museum purchase

Model of fossil ammonite Placenticerias in life position - Waterloo Science Equipment Fund purchase

Dinosaur bones in matrix from Wyoming - Alumni Fund purchase

Whale bones and teeth from Calvert Cliffs, Maryland, USA - museum purchase

Large Fossil ammonite from Morocco - museum purchase

Schnapps Still - donation from the Seagram Museum, Waterloo on dispersal of collection.

Achievement and Challenges:

We had a good year for acquisitions and expect this to continue as we work towards the new building and museum.

2. Exhibitions.

Nine Frogs and a Toad Exhibition

Travelling exhibit from the Redpath Museum, Montreal. On display from September through November 1997

Environmental Science and Engineering Building

Work continued on planning for the Environmental Science and Information Technology Building. The museum is to be a part of this project when approved.

Achievement and Challenges:

The museum has limited times when travelling exhibits can be slotted into the timetable, mainly the summer months. Group tours to the Nine Frogs and a Toad exhibit

limited due to the Teacher's Strike.

3. Interpretation and Education Programs

120 group tours for visitors during the year.

March 14th 21st WaterCan Groundwater Festival in Ottawa, Ottawa - Carleton Regional Centre

March 16-17 Feature display of dinosaur casts and fossils at the Willowdale Gem and Mineral Show.

April 5-6. Dinosaur display to Paris Gem Show.

May 17 - September. Dinosaurs on loan to Woodstock Museum.

May 17-20 Geological Association of Canada. Curator gave a presentation on outreach programs. "Rocks and Water" music tape launched at the conference and singer Chris Rawlings sang for the 50th birthday of the Geological Association of Canada. Songs partly written by Peter Russell. "Encyclopedia of Mineral Names," published by the Mineralogical Association of Canada. This publication includes illustrations by Peter Russell, Earth Sciences Curator.

May - June Childrens' Groundwater Festivals in Peel Region and Waterloo-Wellington - Groundwater Displays on loan to Childrens Groundwater Institute.

May - June - Woodstock Museum and Wellington County Museum - Dinosaur specimens on loan.

3 weekends in May - June - October, and July 1st, displays associated with 40th Anniversary of the University of Waterloo, at area malls.

July 1st Canada Day Event - Museum sponsored the appearance of Chris Rawlings and his band to sing "Rocks and Water" songs at the Canada Day event. The museum also exhibited dinosaur specimens.

September - December - Dinosaur materials on loan to Hamilton Childrens Museum.

Sept 14-15 Display at the Scarborough Gem and Mineral Show. Curator identified mineral specimens for two days at the show.

September 20th - Display at the UW Distance Education Open House.

October 9 - 11 Display at the Detroit Gem and Mineral Show.

October - ECCO, two week environmental display at Oktoberfest - travelling groundwater exhibit used at this event.

October 26 Science Faculty Open House - 500 people attend, Museum open with many "hands on" activities. Curator is one of the main organisers of this event. Chris Rawlings, Toronto folk singer attended sponsored by the museum.

November 8-9 Burlington Gemshow - Dinosaur display.

Achievement and Challenges:

The museum provided tours for all groups requesting a visit and travelling displays were taken to places indicated. A higher level of activity is not possible with present staffing and funding.

4. Marketing, Promotion and special events.

Events such as those described above provide opportunities for promotion. Advertising in the Waterloo Museums and Galleries section of the K-W Record have also been used to promote the museum during the year. The museum participated in the production of a booklet describing educational programs at Waterloo and Wellington Museums and Galleries. This booklet was prepared as a resource for area schools.

The museum assisted with the production of a music tape entitled "***Rocks and Water***" this was produced in co-operation with the singer Chris Rawlings, Canadian Geological Foundation, Waterloo Centre for Groundwater Research and Edviro Enterprises Inc. The curator assisted with the lyrics for some of the songs on the tape. ***Chris Rawlings and the Spellunkers*** were part of the July 1st celebrations held on campus, around 50,000 people attended. This was partially funded by the museum, this was acknowledged in the program.

The curator is on the board of the Canadian Geological Education Network and the Mineralogical Association of Canada's Public Outreach Committee, and Waterloo Region Groundwater Guardian Program.

Achievement and Challenges:

We continue to have success in writing our own news releases and passing them through the effective communicators at the UW News Bureau.

5. Staff Development.

Curator attended special educational programs at the Geological Association of Canada Meeting in Ottawa and the Earth Systems Conference held at the Ontario Science Centre in December.

2. 1998 activities:

1. Research

Research to integrate new specimens into the museum collection. Research required to tie in to the new Ontario Science Curriculum for our schools programming.

2. Collections Management

Adding new specimens to the catalogue as they arrive.

Specimens expected during the year:-

Rocks for the Geological Garden:-

Serpentine from Timmins area - Donated by Michael Worry over 2 tons

Serpentine from Asbestos Quebec donated by J.M. Asbestos less than 2 tons

Sodalite donated by Andy Christy, Princess Sodalite Mine, Bancroft - 5 tons

A 2 ton rock from British Columbia - Peter Morris donated by in memory of Harry Warren - specimen yet to be identified.

Mastodon Head - ordered from Research Castings Inc., Beamsville. Delivery in late August.

4. Interpretation and Education Programs

March 13 WaterCan Groundwater Festival - celebration for International Water Day in Ottawa - Ottawa - Carleton Centre. The Earth Sciences Museum sponsors Chris Rawlings to sing "Rocks and Water" songs as part of the program together with presentations by Peter Russell.

March 21-22 Display at the Willowdale Gem and Mineral Show

April 4-5. Dinosaur display and gem carvings to Paris Gem Show.

May 14-21 Geological Association of Canada meeting in Quebec City. Groundwater displays at a Science Spectacular for the general public and school children at Laval University May 14-16 and at Ottawa Congress Centre 17-20. Curator co-chaired session on public awareness of Earth Sciences, presented a paper on Groundwater Outreach Programs and a poster on building your own geological garden.

May - June Childrens' Groundwater Festivals in Peel Region, Toronto and Waterloo-Wellington - Displays on loan to Childrens Groundwater Institute.

July 17-19 Sudbury Gem and Mineral Show, display of dinosaurs.

Biennial Conference on Chemical Education - August 9-12 childrens program on fossils.

October - Environmental display at Oktoberfest - travelling groundwater exhibit used at this event.

October 24 Science Faculty Open House - Museum open with many "hands on" activities. Curator is one of the main organisers of this event.

November 5-7 Science Teachers Association of Ontario, annual meeting in Toronto. Peter Russell to present a session on groundwater education.

6. Marketing, Promotion and special events.

Events such as those described above provide opportunities for promotion.

The donation of the Sodalite Syenite rock from Bancroft received lots of publicity in Bancroft and in local media.

Advertising in the Waterloo Museums and Galleries section of the K-W Record have also been used to promote the museum during the year. The museum participates in the production of a reprint of the booklet describing educational programs at Waterloo and Wellington Museums and Galleries. This booklet is prepared as a resource for area schools.

The museum participated in UW 40th anniversary displays at local malls, Canada Day and Science Open House in the Fall.

The museum is also producing a book for children called *Wally and Deanna's Quartz Crystal Adventure* with the assistance of the Geological Foundation, and others.

Science Teachers Association of Ontario 1998

The earth sciences were well represented at the annual conference of the Science Teachers Association of Ontario in Toronto, November 4-7. The STAO coordinators made a special effort to incorporate the earth sciences into both the technical and exhibits programs, with excellent success. They are to be commended. Overall, earth science topics and materials were of strong interest to the 2,600 teachers who attended -- the new Ontario science curriculum has a strengthened component for earth sciences at the junior and middle levels.

Booths with earth science themes included: Geological Survey of Canada/EarthNet and Geomatics Canada (Natural Resources Canada), University of Waterloo, Ontario Science Centre, and the Royal Ontario Museum. The exhibit hall was very lively, and provided excellent opportunities for networking with teachers. An excellent initiative of the organizers was to keep the hall open late on the first evening of the conference. All teachers in the Toronto area were invited to visit, resulting in a huge amount of traffic.

There was an impressive array of speakers on earth science topics, including global warming, groundwater issues, paleontology, EarthNet, tips and materials for teaching earth science concepts at different grade levels, the Canadian Communities Atlas, and Mining Matters.

For future events, CGEN should be aware of the publicity opportunity provided by the STAO conference program. In addition to being given to registrants, the program is sent to all science teachers in Ontario (print run 27,000). Placement costs are low, so the publication could be considered as a vehicle for increasing the visibility of key CGEN programs such as EarthNet and EDgeo. GSC placed a one-page listing of our Web resources, with very good feedback from STAO and excellent spin offs (the one-pager was turned into a bilingual handout, which has proved very popular).

As follow up to the Geoscape discussion at the CGEN meeting, a productive meeting was held with Dave Sharpe, coordinator of the Geoscape Toronto project, and Ed Freeman, a key contributor to the project. CGEN comments were discussed and connections made between the Toronto project and the Waterloo area Geoscape project.

Christy Vodden
Geological Survey of Canada
November 30, 1998