

## NEWSLETTER OF THE STRUCTURAL GEOLOGY AND TECTONICS DIVISION GEOLOGICAL ASSOCIATION OF CANADA

**June 1994**

Greetings. This newsletter follows directly on the heels of Waterloo '94 and the SGTD Annual Business Meeting that was held there, on May 17. Though attendance at the ABM was a bit lower than at the 1993 meeting, twenty or so Division members were present and took part in lively discussion of a number of items including Special Sessions at upcoming GAC-MACs, membership numbers, how to spend money, and the upcoming CTG meeting. All will be revealed for those who read on, but first this announcement ...

### **BEST STUDENT GAC-MAC ABSTRACT AWARD**

This award consists of a \$150. cash prize. Ten abstracts were submitted for the competition this year. This is a 250% increase in participation over last year, and let us hope that the trend will continue into 1995. Thanks to all the students who participated and congratulations on the quality of their work. The 1994 prize was awarded at the ABM to Matthew L. Manson of Erindale Campus, University of Toronto, for his abstract entitled The closure of the mid-continent rift through Grenville compressive tectonism: evidence from eastern Lake Superior. Bravissimo! If the number of student abstracts submitted continues to increase, perhaps more than one prize should be awarded?

### **THE DIVISION MEDAL**

As all faithful readers of this newsletter are aware, the SGTD will soon be endowed with a medal to be awarded annually to the authors of the Best Paper. Planning is now at the stage where a logo and a name must be chosen for the medal. A call for logo designs went out last autumn, and the deadline for submissions corresponds to the CTG workshop this autumn (see further on). By default, if no other logo is proposed, then the Main Thrust logo will be used for the medal too.

At the ABM, Andrew Hynes proposed that the medal be named for F.D. Adams (1859 - 1942), a native of Montreal and an eminent Canadian geologist whose research included Grenvillian geology, structural and microstructural geology, metamorphic petrology and experimental deformation. Following is a brief summary of F.D. Adams' professional career and his remarkable accomplishments.

- 1878 - At age 19, he was the first graduate of the Department of Chemistry and Mineralogy, McGill University. Following graduation he joined the Geological Survey of Canada.
- 1881 - Travelled to Heidelberg on a leave of absence to study the new technique of thin section petrography using the polarizing microscope. This led to pioneering work on the geology of the Grenville presented in numerous publications.
- 1889 - Joined McGill University as lecturer.
- 1893 - Became Logan Professor in the Department of Geology, McGill University. Spent the following eight years studying metamorphic processes and the metamorphic history of the Grenville in eastern

Ontario. While a professor at McGill, Adams was also a pioneer in the discipline of experimental plastic deformation of rocks. He designed and built an experimental rig, and carried out experiments aimed at understanding the structural and microstructural features he observed in Grenvillian rocks. Adams' experimental work was highly original and at the forefront of geological research.

- 1908 - Was appointed Dean of the Faculty of Applied Science at McGill.
- 1910 - Published a milestone paper, entitled On The Flow of Marble
- 1913 - Was elected president of the 12th International Geological Conference.
- 1924 - Retired from McGill after serving as lecturer, professor, Chairman, Dean, Vice-Principal and Acting-Principal.
- 1929 - After three field seasons in Ceylon, he published a complete treatise and the first geological map of the island.
- 1938 - Published a book based on his research into the early history of Earth Science, entitled The Birth and Development of the Geological Sciences.

The logo and the naming of the medal will be confirmed at our next business meeting at the CTG workshop.

### **GAC-MAC SPECIAL SESSIONS**

The time is well upon us to submit proposals for Special Sessions at upcoming GAC-MAC meetings. The following proposals were presented and discussed at the ABM. For Victoria '95, a special session entitled Accretionary Complexes Through Time was proposed by Jim Monger and Fried Schwerdtner. This session would focus on accretionary complexes as a key tectonic terrane element, on whether they vary in structure and composition through time, and on whether they are in fact represented in the Archean. Also for Victoria '95, a session entitled Magnetic Anisotropies Applied to Tectonic Problems was proposed by Keith Benn. This session would welcome papers illustrating how the study of anisotropies of magnetic susceptibility and of magnetic remanence are applied in solving tectonic problems, e.g. magnitudes, kinematics and timing of deformations, transport directions in sedimentary basins, pluton emplacement, rotation of paleomagnetic vectors by tectonic strains or compaction, and magma flow patterns in dykes and sills. This session would be jointly sponsored by the SGTD and the Geophysics Division. For Winnipeg '96, a special session was proposed by Colleen Elliott that would deal with reactivation of basement faults in shield areas, evidence for reactivation, and consequences. These proposals will be submitted to the meeting organizers for their consideration.

### **INTERNATIONAL PRECAMBRIAN MEETING - MONTREAL '95**

An international meeting on the "Tectonics and Metallogeny of Early Precambrian Orogenic Belts" is to be held in Montreal, in 1995. The organizers are expecting a very large number of participants, and numerous field trips will be offered. Many organizations and industry have already pledged financial assistance to help get the preparation of the meeting into full swing, and a request from the organizers for some help from the SGTD was discussed at length at the ABM. It was decided that given the international stature and the large tectonics component of the meeting, and also taking into account the large number of Division members working in the Precambrian, it would be appropriate for the SGTD to also offer financial support, in line with our annual budget. The discussion then hinged on the critical question of "how much?", and a consensus was reached that \$1000. would be a reasonable contribution.

### **DECLINING MEMBERSHIP - A WAKE-UP CALL**

While the financial situation of the Division is still healthy, inspection of our current accounts (see below) reveals a startling decrease in membership dues received. Please note that this is our principal source of revenue. While some of this decline in revenue may be offset by investment of part of our current balance in bonds (a proposal made by the Treasurer and accepted at the ABM), if the decline in membership were to continue, the Division would find itself in a critical financial crunch. This would mean that we would no longer be able to do the good deeds which, to a large extent, represent our *raison d'être*. This includes prizes for Best Paper, Best Thesis, and Best Student Abstract, and financial assistance for students travelling to the CTG meetings. In the future, it is hoped that this might also include some financial help for invited speakers to GAC-MAC Special Sessions sponsored by the SGTD.

All of these actions represent an investment in the future of the Structural Geology and Tectonics community in Canada, by fostering communication and participation. The precise reason for the decline in our paid membership is not clear. Is there a segment of the community which has felt poorly served by our Division? Do a few dollars in dues represent too much of a burden in these recessionary times? The Executive will in the near future be comparing membership lists for 1993 and 1994, in an effort to find some clues.

In the mean time, it would appear that the mailing list for the Main Thrust is much longer than the SGTD membership list. It may be that the Main Thrust mailing list includes some people who are no longer active in the community and who no longer belong to our Division. There may also be people who are active, and who read this newsletter, but who are not paid members of the SGTD. PLEASE, if you are not currently a paid member of the SGTD, but if you are interested in benefiting from, and in participating in, a viable SGTD (even if only by continuing to receive the Main Thrust), and if you are interested in maintaining and promoting a vibrant Structural Geology and Tectonics community in Canada, then join, or rejoin, the Division for 1995.

## **CTG MEETING '94**

CTG '94, the 14th Annual Workshop of the Canadian Tectonics Group, will be held on the week-end of the 14-16 October, in Belleville, Ontario, at the Quality Inn just south of Hwy 401. The field trip will be in the Clare River Structure, near Tweed, Ontario, some 35 km to the north of Belleville. Prepare to gather at the Quality Inn on Friday 14 October, and to take a packed lunch into the field on Sunday morning. Except for the distance from Belleville to Tweed, the field trip will involve lots of rocks with little transportation in between. We will look at granite intrusion mechanics, multiple folding and deformation, marble tectonics, and the development of tectonic layering in low P / high T metamorphosed turbidites.

Send Simon Hanmer (1) the notification that you are coming, preferably before 1st October, and (2) your abstract(s), preferably by ascii / txt, Microsoft Word, WordPerfect, Mac, DOS or Windows format file (whatever you've got, we can handle it!) through e-mail ([shanmer@cc2smtp.emr.ca](mailto:shanmer@cc2smtp.emr.ca)), or on diskettes (Simon Hanmer, Geological Survey of Canada, 601 Booth St, Ottawa, Ontario K1A 0E8; tel 613 992-4704; fax 613 234-8951), preferably before 8th October.

For transportation between Toronto and Belleville, talk to Pierre-Yves Robin (Rm. 3004, U. of Toronto - Erindale Campus, Mississauga, Ontario L5L 1C6; tel: (905) 828-5419; fax: (905) 828-3717; e-mail: [probin@credit.erin.utoronto.ca](mailto:probin@credit.erin.utoronto.ca)). Between Ottawa and Belleville, talk to Simon (see above). Between Montreal and Belleville, try Normand Goulet (we haven't warned Normand about this yet, so don't be surprised if he wonders why you are calling!).

We hope to keep the price under \$200, everything included, for fortunate professors and other duly employed citizens, and less than that for graduate students. Remember also that the Structural Geology and Tectonics Division is offering some funds for partial subsidy of needy graduate students. An SGTD

business meeting is held at the CTG workshop each year, and the Best Paper and Best Thesis prizes are awarded there as well. Come, meet old friends, make new ones, and learn the latest things in structure and tectonics. If you really are too busy to come yourself, send your students!

## FINANCES

Here is our financial situation to date. 1993

### INCOME

Balance from 1992	\$3811.59
CTG profit lent to SGTD	\$1655.06
Membership dues	\$ 910.00
Interest	\$ 21.10
<b>TOTAL</b>	<b>\$6397.75</b>

### EXPENDITURES

Prizes	\$ 350.00
Students subsidies (CTG)	\$ 800.00
Edmonton '93	\$ 92.45
Banking charges	\$ 19.50
<b>TOTAL</b>	<b>\$ 1261.95</b>

**BALANCE**            **\$ 5135.80**

## 1994

### INCOME

Membership dues	\$ 680.00
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### EXPENDITURES

Best student abstract	\$ 150.00
Current balance	\$5671.12

## UPDATES

This is a new section of the Main Thrust which is intended to keep our membership up to date on the evolution of the Structural and Tectonics community in Canada. In it, we would like to include any news of hirings, retirements, or movement of structuralists and tectonicists within academia, government agencies and industry, and of awards granted by organizations other than the SGTD. We could also include any other news that you may wish to communicate to us.

Professor W.K. Fyson. At the end of the 1993-1994 academic year, Bill Fyson will be retiring from the

Geology Department at the University of Ottawa, after 33 years of service. Originally from New Zealand, Bill spent several years as a geologist in the petroleum industry in western Canada, before completing his PhD at the University of Reading. During his long academic career, Bill has carried out and supervised research in the Appalachians of Nova Scotia, the Grenville, and for most of the past 20 years in the Slave Province, where he and his students have made major contributions. Three of Bill's former graduate students are today professors of Earth Sciences. Bill also served as chairman of the Department of Geology from 1984-1990.

While Bill is officially retiring, he will still be active within the Department, and we know that he will continue to contribute to the Geoscience community. Thanks to Bill for the many years of service rendered, and all the best in present and future endeavors. - submitted by Keith Benn

## **CLOSING REMARKS**

To finish up, one more reminder about the Division's very own link to the information superhighway. By sending an email message to CTG@spartan.ac.brocku.ca, it will be redistributed to all those who are on the SGTD emailing list set up at Brock University. If you wish to be included on this list, send your name and email address to Keith Benn (see email address below).

Of course, any comments, suggestions or questions for the Executive are, as always, welcome. See you in Belleville.

## **THE CLASSIFIEDS**

Looking for a PhD project in Neotectonics - Mountain Building. Will soon complete MSc in Applied Structural Geology and Rock Mechanics at Imperial College, London. richard.holmes@ic.ac.uk

SGTD Executive

### **Simon Hanmer, Chairman**

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