THE MAIN THRUST

Geological Association of Canada
Association géologique du Canada

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

November 1995

Already November is upon us, and several hot news items need to be announced following the recent CTG meeting in Rawdon. This is also the last Main Thrust to be published by the current executive, and, as promised in the previous one, we can now announce the composition of the new executive. So let's roll the presses.

THE NEW EXECUTIVE

At the CTG meeting in Rawdon, Quebec, the outgoing executive was pleased to announce that Alexander R. (Sandy) Cruden of Erindale Campus, University of Toronto, Paula MacKinnon of Brock University, and Frank =46ueten of Brock University, will be assuming the responsibilities of the executive for the next three years. Their addresses, emails, etc. can be found at the end of this Main Thrust. Sandy, Paula, and Frank have been very active members of the division, and have contributed to the success of both the SGTD and the CTG through organization of meetings and field trips, wiring together the internet email list and WWW site, acting as councilors, and general supportiveness.

Simon, Cees and I wish to thank Sandy, Paula and Frank for taking on this new chore, and we wish them the best of luck and lots of stamina for the next three years.

CTG MEETING '95

The annual CTG meeting was held this year in Rawdon, Quebec, some 70 km to the north of Montreal, from October 13 to 15. The meeting was organized by Jacques Martignole, University of Montreal, Shaocheng Ji, University of Montreal, and Andrew Hynes, McGill University. There was a very healthy turnout for the meeting, with approximately 45 participants, including a large proportion of students.

Saturday was devoted to a very full slate of oral presentations and posters, and the full program is included at the end of this newsletter.

The weather was also well organized, as it rained cats and dogs on Saturday while we sat inside, but cleared up on Sunday when Jacques and Shaocheng led a field trip to examine a thick series of high-temperature mylonites near the margin of the Morin anorthosite complex.

Thanks to Jacques, Shaocheng and Andrew for organizing an excellent meeting and a very interesting field trip.

BEST PAPER FOR 1994-1995

The SGTD's Best Paper award is given for the best paper of the year by Canadian authors, or dealing with Canadian structural geology and tectonics. The winning paper is chosen by the Division Executive from short lists of papers submitted by the Division Councilors.

The councilors select eligible papers from eight journals: CJES, Tectonophysics, Tectonics, GSA Bulletin, Geology, CSPG Bulletin, JGR, and the Journal of Structural Geology.

The winning paper was announced at the CTG meeting. The award went to Dazhi Jiang and Joseph Clancy White, both of the University of New Brunswick, for their paper Kinematics of rock flow and the interpretation of geological structures, with particular reference to shear zones, which appeared in the Journal of Structural Geology. Congratulations!

A full list of all the papers compiled by the councilors appears further on. Many thanks to the councilors, Philippe Erdmer, Larry Lane, Willem Langenberg, Bill Fyson, Joe White, Frank Fueten, and Simon Hanmer for their continuing efforts.

BEST THESIS 1995

The SGTD also sponsors a Best Thesis prize. The executive relies on supervisors for submittal of theses which have been definitively accepted since the previous autumn. The deadline for submissions was October 6. As it turned out, several theses were submitted at the very last minute, which made it difficult to make a selection before the CTG meeting. Also, as one of the submitted theses was supervised by a member of the executive, we felt it would be unfair for the present executive to make the selection. The new executive has accepted to review the submitted theses, and an announcement will be made in the coming weeks.

GAC-MAC SPECIAL SESSIONS AND SYMPOSIA

The SGTD will sponsor a Special Session at Winnipeg '96 (27-29 May). The session is being organized by Colleen Elliott and Stephen Kumarapelli, both of Concordia University, and will be entitled "Reactivated Basement Structures: Recognition, Dating, Significance". If you are interested in participating, get in touch with Colleen and Stephen as soon as possible at: colleen@vax2.concordia.ca. The deadline for submision of abstracts is the usual GAC deadline, that is December 1.

Sandy Cruden, Ed Sawyer and Keith Benn will be organizing a symposium for Ottawa '97, entitled "Extraction, Transport and Emplacement of Granitic Magmas: Structural, Tectonic, and Geophysical Aspects". This will mark the 50th anniversary of an ealier symposium on "The Origin of Granite", which was held at the 1947 GSA meeting, in Ottawa, and during which papers were presented by such notables as H.H. Read and N.L. Bowen. Sponsorship of the symposium by the SGTD was accepted at the CTG meeting in Rawdon.

EMAIL, THE MAIN THRUST, AND THE WEB

On behalf of the incoming exectutive, the outgoing one wishes to very strongly urge all SGTD and CTG members, and all others who receive the Main Thrust and who wish to continue doing so, to join the CTG email list set up by Frank Fueten at Brock University. There are several reasons why we are urging you so strongly.

1) By joining the CTG email crowd, you will receive the Main Thrust very promptly. Once the newsletter is prepared on a word processor, it can be quickly sent by email to everyone who is included on the list, whereas hardcopy must be photocopied and stuffed into envelopes, which must then be addressed and mailed. Furthermore, any other messages sent to the email hub at CTG@spartan.ac.brocku.ca are automatically redistributed to all those who are on the email list. This provides a rapid, and also very cheap way of communicating with the structure and tectonics community, and it has already been used by several of us to advertise for students, post-docs etc. Furthermore, reminders of deadlines for submissions for Best Paper, Best Thesis, and Best Student Abstract competitions, and announcements of CTG meetings, are

regularly sent out only by email, not as hardcopy. 2) Times are tough. Budgets are shrinking. Staff are being laid off. This all means that it is no longer possible to rely on help from departmental secretaries with photocopying, envelope stuffing, and address label sticking. As I write these lines, I am reflecting upon the several hours that will be spent on these chores in order to send out hardcopy of this newsletter.

Please, if you have an email address, or if you do not have one but you can get access to this service, do it and send your address to Frank =46ueten (unless you already have done so). Our goal is to have every member of the SGTD, and everyone who wishes to be informed about SGTD and CTG matters, included in the email list.

If it is impossible for you to access email, then please fill out the address form included below and mail it or fax it to Frank. As of the next issue of the Main Thrust, hardcopy will only be sent out to those who have returned this form to the new executive.

As many of you may already be aware, Frank Fueten has also made another important contribution to the structure and tectonics community by setting up a World Wide Web home page for the CTG. At present, it provides access to, among other things, back issues of the Main Thrust. If you have your own home page, you can send the URL to Frank by email and he will place a hotlink in the CTG page. Find the CTG page on the web at http://craton.geol.brocku.ca/ctg.html

Well, that's it for now. Thanks for putting up with us over the last three years. Three cheers for the new executive. Merry Christmas and happy holiday season to all.

The former SGTD Executive

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CTG PROGRAM FOR 14 OCTOBER, 1995

F. Fueten, Geologic image processing using the rotating polarizer stage S. Goodchild* and F. Fueten, Edge detection with the rotating polarizer stage

J. Kraus* and P.F. Williams, Porphyroblast-matrix relationships and a simple answer to porphyroblast rotation from Snow Lake, Manitoba

P. MacKinnon*, F. Fueten and P-Y. Robin, A fracture model for quartz ribbons in straight gneisses

D. Jiang* and J.C. White, Microstructures of mylonites from the East Athabasca Mylonite Triangle, northern Saskatchewan: insights into deformation mechanisms of the lower continental crust

X-O. Zhao*, S. Ji and J. Martignole, Plastic deformation and crystallographic preferred orientations of plagioclase in the high-grade Morin Terrane (Grenville Province), Quebec

P. Zhao* and S. Ji, Refinements to the shear-lag model

B. Lafrance* and B.E. John, Emplacement history of the early Proterozoic Gunnison annular complex, SW Colorado

S. Cruden, P. Evins and D. Ciceri*, Multiple scales of granitoid sheet emplacement in the Winnipeg River Subprovince: implications for batholith assembly

L. Wilkinson*, J. Harris and J. Broome, Tectonic and structural data interpretation using GIS technology: Swayze Greenstone Belt

M.R. Ghassemi* and K. Benn, Tectonic evolution of the Pontiac metasedimentary Subprovince: obduction of an accretionary prism over an active arc system

S. Ji*, G. Senechal and S. Rondenay, Obliquity between seismic and electrical anisotropies as an indicator of movement sense for ductile mantle shear zones

W. M. Schwerdtner, Kilometre-scale shear in deeply-eroded orogens: suggested new strategies for field-based structural analysis.

J.F. Dehls*, J.R. Henderson, A.R. Cruden and M. Villeneuve, Late deformation in the northern Slave structural province: evidence from granite fabrics in the High Lake greenstone belt J. Ryan* and P. Williams, Shear zone deformation in the central Flin Flon belt

M. Sanborn-Barrie*, S. Hanmer and R.G. Berman, Kramanituar complex: a preserved portion of lower crust from the central Churchill Province, NWT, Canada

U. Riller* and W.M. Schwerdtner, Deformation of the Creighton pluton and its bearing on the tectonic history of the Sudbury Basin, central Ontario

C. Long*, S. Ji, M.H. Salisbury and A.J. Calvert, Seismic reflection characteristics of folded structures: a synthetic analysis.

P. Simony, Thrust propagation, footwall synclines and inverted horses

D. Johnston* and P.F. Williams, Eocene brittle-ductile thinning of the Monashee Complex, southern Omineca Belt, southeastern B.C.

P.F. Williams* and D.H. Johnston, Development of regional scale fold nappes: an example from the Monashee Complex, Canadian Cordillera

M. de Keijzer* and P.F. Williams, F3 fold geometries in the Teslin tectonic zone, eastern Lake Laberge map area, Yukon

R.L. Brown* and R.J. Scammell, Thick-skinned thrust tectonics in the southern Canadian Cordillera

POSTERS

L. Wilkinson*, J. Harris and J. Broome, Experimental data integration techniques for regional mapping and tectonic interpretation using GIS technology

R.N. Spark* and P.F. Williams, A view through Eocene isotopic resetting: Ar-Ar cooling ages from the Monashee complex, SE British Columbia

C. Elliott* and D. Giroux, Pinning down > 1.5 Ga of fault reactivation in southern Saskatchewan

K. Saruwatari*, K. Michibayashi and I. Shimizu, Shape preferred orientation of spinel within dunite: evidence of plastically deformed peridotite in the Yakuno ophiolite, Japan

L.B. Harris, The cyclic development of extensional and contractional structures in the lower crust at a Mesoproterozoic convergent margin (eastern Albany Mobile Belt, Western Australia)

M.L. Cote* and W.M. Schwerdtner, Shear-sense reversal in Clam Lake segment of the Birch Rapids Straight Belt, Trans-Hudson Orogen

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