

February 2004
VGP Section Newsletter#15

Dear Colleagues,

Happy New Year to you all. Here is the February issue of the AGU Volcanology, Geochemistry and Petrology Newsletter. As always, comments and suggestions for future newsletter items can be sent to Sarah Fagents at fagents@hawaii.edu.

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(1) MESSAGE FROM VGP PRESIDENT-ELECT: CALL FOR VOLUNTEERS

As your President-elect, my primary task this spring is to set up VGP committees for the 2004-2006 term (July 1, 2004 through June 30, 2006). VGP has committees for meetings, publications, education and outreach, officer nominations, VGP's Bowen Award, the AGU Macelwane Medal, and AGU Fellows. The Executive Committee, consisting of VGP officers, committee chairs, meeting chairs and press officers, newsletter editor, and web coordinator, is considering establishing a small committee to encourage nominations of VGP members for AGU medals apart from the Macelwane. You will find descriptions of committee duties and lists of 2002-2004 committee members at the VGP web site (<http://vgp.agu.org/committee.html>). Most committee work can be carried out by email. This is your chance to make a contribution to VGP, to fix perceived problems, to promote VGP members for AGU honors, and to add innovations! If you are interested in serving on any of our section's committees, please contact me directly at cbacon@usgs.gov by February 23.

Charles R. Bacon, VGP President-elect
cbacon@usgs.gov

(2) SPRING MEETING DALY LECTURER

This year, Michael Manga, UC Berkeley, will deliver the AGU Spring Meeting Daly Lecture in Montreal. Michael is a fluid dynamicist who works on a wide range of geophysical problems, including many related to volcanology. He received a Macelwane Award from AGU in 2002 and the Donath Medal from GSA in 2003. The location and time of the Daly Lecture will be announced in the next newsletter.

(3) 2004 IAVCEI GENERAL ASSEMBLY, PUCON, CHILE

A reminder to VGP members that the next IAVCEI General Assembly will be in Pucon, Chile from November 14-19, 2004. The theme of the meeting is "Volcanism and its Impact on Society"; abstracts are due May 15. Details can be found on the IAVCEI web site <http://www.iavcei.org/>.

(4) BOOK REVIEW DIRECTORY

The Education and Outreach committee has started the initiative to create a directory of book reviews which will be available on the VGP portion of the AGU website. We will restrict ourselves to books concerning general earth sciences (like introductory text books) and, of course, volcanology,

geochemistry and petrology. We will link to reviews where possible, but for copyright reasons we cannot include all reviews on the website. It will depend on what publishers allow. The directory would be especially useful for those that look for new textbooks for a course and can easily compare textbooks this way. The directory will be organized based on author and title.

To facilitate the start of the list we would like to ask our members to please provide us with information on book reviews you have done in the last two years. Also, when writing a book review please copy VGP so we can keep the directory current. Information can be send to vgpreview@gly.fsu.edu.

Vincent Salters

Education and Outreach Chair

(5) THE SPRING 2004 JOINT ASSEMBLY

The spring 2004 joint assembly is a partnership between CGU, AGU and SEG, and is being held in Montreal, Canada [17-21May 2004 (Monday through Friday), Palais de Congres]. The VGP Program is listed below; details are available on the AGU web site (<http://www.agu.org/meetings/sm04/>), and the deadline for online abstract submissions is 19 FEBRUARY 2004, 2359 UT.

V00 Open Session

V02 Compositional Variation in Metamorphic Accessory Phases: A Multi-Faceted Petrogenetic Recorder

V03 The Time Scale of Magmatism

V04 Influences on Continental Rheology in Zones of Plate Convergence

V05 Volatiles in magmatic systems

V06 Nature and Origin of Earth's Early Crust: Integration of Field Studies, Petrology, Mantle Dynamics and Comparative Planetology

V07 From magma to pyroclasts; flow, vesiculation, solidification and fragmentation.

V08 Occurrence and Origins of Small-scale Isotopic Heterogeneities in Igneous Rocks

V09 Siderophile and chalcophile elements: analysis and interpretation

V10 Ore deposits and metamorphism: their role in the study of high-grade metamorphic terranes and in the diversification of mineral exploration

V11 Magma Reservoir Hydrothermal Circulation: Structure, Fluid Properties, Transport Processes and Evolution

V12 Magma mixing and mineral chemistry: Probing the dynamics of magma chambers and volcanic eruptions

V13 Dynamics of caldera systems

V14 Archean Geodynamic Processes

V15 Anorthosites, searching for the root of the problem.

V16 Geophysical observations of volcanic processes: linking surface, air, and space based measurements

V17 Fluid/melt migration in the upper mantle

In addition, VGP is sponsoring 2 field trips, as follows:

VGP FIELDTRIP 1: 15-16 May, 2004 - Thetford Mines Ophiolite, Quebec, Canada

Leaders: *Jean H. Bédard* (GSC-Quebec, Canada) and *P. Pagé* (INRS-ETE, Canada)

The Thetford Mines Ophiolite is located about 1.5 hours drive from Montreal,

and hosts two Pt-Pd showings. The 2-day pre-meeting fieldtrip will show the principal features of this well preserved, well-exposed boninite-dominated ophiolite. Although we will spend some time looking at features specific to Pt-Pd mineralization (related to Special Session V09: Siderophile and Chalcophile Elements: Analysis and Interpretation), the fieldtrip will be of interest to attendees of other sessions, including V11 (stops # 5, 8, 9, 12), V12 (stops # 4-13), V14 (all stops: for comparison with putative Archean ophiolites), and V17 (stop # 3).

Stops will be made at representative examples of most important facies in the ophiolite, but special emphasis will be put on the PGE-enriched zones. Stops will include: 1) the Laurentian margin (mylonitic contact with the mantle rocks and migmatized metasedimentary rocks); 2) the amphibolite sole, including lineated hb-plag-ep-rutile-qz amphibolite and high-P garnet-bearing metapelite; 3) the mantle, including typical harzburgite, intrusive dunite and chromitite pods; 4) dunitic to harzburgitic lowermost crustal cumulates with interbedded PGE-poor chromitites; 5) intra-oceanic normal faults with prominent syn-magmatic breccia complexes and feeders to overlying lavas; 6) middle-crustal pyroxenites hosting an unusual potharite-bearing (PdHg) Pd-Pt-rich chromitite vein system (Starchrome showing), surrounded by orthopyroxenitic reaction rims; 7) a discordant mid-crustal dunitic pipe containing a platiniferous chromitite breccia-filled core (Hall deposit); 8) hydrothermally altered and veined layered gabbroic rocks; 9) an apical trondjemite breccia complex transitional to the sheeted dykes; 10) sheeted dykes; 11) spectacular boninitic pillow lavas; 12) subvolcanic explosion breccias at the base of the supracrustal section; 13) rhyodacitic pyroclastic deposits; 14) an overlying fore-arc flysch deposit grading from debris flows dominated by ophiolitic detritus, to sediments dominated by Laurentian margin debris.

The fieldtrip will start in Montreal early morning on Saturday 15 May (participants must take care of their own lodging on Friday and Sunday nights). The meeting point will be a central location in Montreal; the party will drive directly to the Thetford Mines outcrops (by prior arrangement, participants may rent their own cars and meet the main party in Thetford Mines). Depending on the number of participants, rental minivans or cars will be used (gas and rental costs around \$75-100/attendee). Saturday night will be at the Balmoral Hotel/Motel (shared accommodation, around \$50/person), with the return to Montreal on Sunday evening. All meals, beer and wine will be at attendees' expense. A fieldtrip guide will be available at modest cost. Total cost per participant will be around \$200-250 Can. The number of participants will be limited to around 15. To keep costs down, this is an informal fieldtrip. The leaders will deal directly with participants.

To express interest in taking part in or to register for this fieldtrip, please contact Jean Bédard (jbedard@rncan.gc.ca) and not AGU or VGP directly.

VGP FIELDTRIP 2: 21-24 May, 2004 - Ossipee Ring Complex, New Hampshire, USA

Leaders: *Ben Kennedy & John Stix* (McGill University, Canada)

A weekend fieldtrip is being arranged for May 21-24, after the Joint Assembly in Montreal. The Ossipee ring complex is an eroded caldera with a beautifully exposed ring dyke. The ring dyke, which channeled magma to the surface during caldera formation and resurgence, contains syenites with inclusions of pyroclastic and porphyritic rhyolite, abundant inclusions of a hornblende-rich syenite, and basalt dykes. The different inclusions have distinctly different compositions, shapes, and abundances. Some inclusions are seen “dissolving” into the syenite, and the syenite contains varying percentages of xenocrysts which originated from these inclusions. Some areas of the ring dyke acted as eruption conduits, and rhyolite mingled explosively with basalt producing intrusive pyroclastic rocks with mingled textures. Also, exposed within the caldera are ignimbrites, a variety of breccias and the floor of the caldera. VGP sessions at the Joint Assembly that are directly relevant to this field trip include: V13 Dynamics of caldera systems; V07 From magma to pyroclasts: flow, vesiculation, solidification and fragmentation; and V12 Magma mixing and mineral chemistry: probing the dynamics of magma chambers.

Ossipee is a four hour drive from Montreal. We will leave Montreal in the afternoon or evening of Friday, 21st of May. We will return to Montreal on Monday, 24th of May. We will travel in minivans and spend 3 nights in a motel next to the ring complex. We will spend Saturday, Sunday, and half of Monday in the field. The price of the trip will be around US \$200, which is based on the cost of 3 nights in the Motel (two persons to a room), printing a field guide and hiring minivans. The number of participants will be limited to around 20. To keep costs down, this is an informal fieldtrip. The leaders will deal directly with participants.

To express interest in taking part in or register for this fieldtrip, please contact either Ben Kennedy (Ben@eps.mcgill.ca) or John Stix (Stix@eps.mcgill.ca) and not AGU or VGP directly.

*Michael Brown (mbrown@geol.umd.edu)
VGP Spring Program Chair*