# THE VICTORIAN GEOLOGIST



March 2011

# THE GEOLOGICAL SOCIETY OF AUSTRALIA Victoria Division

## Next General Meeting for 2011

Thursday 24th March at 6:15 p.m.

## **Deep Lithosphere Destruction Beneath the North China Craton**

#### **Dr Roberta Rudnick**

University of Maryland

Fritz-Loewe Theatre, Earth Sciences Building, The University of Melbourne Preceded at 5:30 p.m. by drinks and nibbles in the tea-room, 4th floor. Cost \$2

The North China Craton is a prime example of an Archean craton that has become destabilized by post-Archean processes. The craton consists of three distinct regions, all of which initially formed in the Archean, as marked by the widespread occurrence of Archean-aged crust: the Western Block, the Eastern Block and the intervening Central Orogenic Belt, which formed when the Eastern and Western blocks collided during the Proterozoic; the exact timing of this collision is currently a matter of debate (~1800 vs. ~2000 Ma). Re-Os model ages for xenolithic peridotites document at least three episodes of removal of lithospheric mantle: 1) ~2000 Ma, within the majority of the Central Orogenic Belt, 2) ~1800 Ma, within the northern portion of the Central Orogenic Belt, and 3) during the Mesozoic, within the Eastern Block. The first two removal events are likely associated with the collision between Eastern and Western Blocks at 2000 Ma, followed by collision along the northern boundary of the craton during the amalgamation of the Columbia Supercontinent. While the cause of Mesozoic lithospheric removal beneath the Eastern Block is currently debated, the unusual compositions of high Mg lavas within the Eastern Block suggest that lower crust of the Archean Craton foundered into the mantle during this event, providing a source region for high Mg andesites and hybridizing peridotite that melted to produce high Mg basalts and picrites.

#### STUDENT FUNDING OPPORTUNITIES

## Geological Society of Australia (Victoria Division) Student Research Scholarships

The GSAV are pleased to offer up to \$10,000 per year in scholarships available to honours and postgraduate students for assistance with travel costs associated with conferences and field work.



The scholarship is valued at up to \$500 for travel within Australia and \$700 for travel outside of Australia. The number of and value of the scholarships awarded each year is made at the discretion of the GSA(Vic) committee.

Funding will not be granted retrospectively and applicants are asked to submit forms no later than 6 weeks prior to their trip to give the committee time to consider the application.

Students that receive this scholarship are required to submit a report for publication in the newsletter, "The Victorian Geologist", following their trip. A presentation may also be requested by the committee, which will consist of a short, 10-15 minute presentation prior to the monthly seminar.

Applications forms can be scanned and emailed to: secretary@vic.gsa.org.au

or mailed to:

Geology Research Scholarships Victoria Geological Society of Australia (Victoria Division) GPO Box 2355 Melbourne VIC 3001

More information including eligibility criteria can be found on the form and by contacting Barbara Wagstaff (wagstaff@unimelb.edu.au)

## Something interesting to share? Want to see your name in print?

Don't be bashful, contribute to the GSA(V) monthly newsletter!

If there are any events, happenings, news, or views that would be of interest to the membership, please send your details and information to Gemma Prata at gemma.prata@monash.edu

We'd be glad to hear from you

#### FORTHCOMING EVENTS

## **Upcoming 2011 Annual General Meeting**

The AGM will be held on the 28th of April. It is now time for all of our members to consider becoming involved in the GSAV for 2011/2012. We have a few committee positions that need to be filled, and are always welcoming and encouraging people of all ages to attend committee meetings to find out what goes on behind the scenes.

Nominations are now open for executive positions in the committee, along with general committee member positions (see back page). We encourage you to consider nominating yourself or someone else. If you have any questions about what the committee does and what the positions entail, please feel free to contact any of the committee members listed on the last page of this newsletter, or emailing our secretary Adele at secretary@vic.gsa.org

## 2011-2012 GSAV Committee Nomination Form

I nominate: For the position of:

Nominator: Seconded by:

All nominations will be presented and voted upon at the GSAV AGM on 28th April, 2011, commencing at 6:15 pm.

Please detach and mail this completed form specifying your 2010-2011 GSAV Committee nomination no later than 22nd April to:

The Geological Society of Australia Inc. (Victoria Division) GPO Box 2355 Melbourne VIC 3001

#### FORTHCOMING EVENTS

## **Monash University upcoming seminars**

Mon 14th March 2011, 4pm, S2, Building 25, Clayton Campus:

**Prof. Craig Manning**, UCLA:

"In Deep Water: New Insights into Geologic Fluids in the Deep Crust and Upper Mantle"
This talk is being given as part of the Mineralogical Society of America Distinguished Lecturer Program for 2010-2011

Tues 15th March, 12 noon, G76, School of Geosciences (Building 28), Clayton Campus:

Prof. Gordon Lister, ANU:

"Closing Tethys"

**Fri 29th April**, time and venue TBA:

Prof. Gordon Southam, University of Western Ontario

Fri 20th May, time and venue TBA:

Mr Richard Lane, Geoscience Australia

For more information contact:

Ben Gilfedder (benjamin.gilfedder@monash.edu) or Ph: 9905 1140

Or go to:

http://www.geosci.monash.edu.au/seminar/index.html

# Hawaiian Volcano Crater Floor Collapse Followed by Eruption in Fissue Along Kilauea's East Rift Zone

**Science Daily** 

A fissure that opened on Kilauea's east rift zone after the March 5 collapse of the Pu'u 'O'o crater floor continues to erupt lava. Activity along the fissure was sporadic overnight and throughout March 6, with periods of quiet punctuated by episodes of lava spattering up to 25 m (80 ft) high. The fissure is located west-southwest of Pu'u 'O'o in a remote area of Hawai'i Volcanoes National Park. Due to the ongoing volcanic activity, Park closures remain in effect in this area.

Live views of Kilauea's fissure eruption are now possible via a Webcam installed by the USGS Hawaiian Volcano Observatory (HVO) this afternoon.



The Webcam images, which are updated every five minutes, can be accessed at <a href="http://volcanoes.usgs.gov/hvo/cams/NCcam/">http://volcanoes.usgs.gov/hvo/cams/NCcam/</a>.

Daily updates about Kilauea's ongoing eruptions, recent images and videos of summit and east rift zone volcanic activity, and data about recent earthquakes are posted on the HVO Web site at http://hvo. wr.usgs.gov. Additional status reports will be posted as warranted.

U.S. Geological Survey/Hawaiian Volcano Observatory (2011, March 7). Hawaiian volcano crater floor collapse followed by eruption in fissue along Kilauea's east rift zone. ScienceDaily. Retrieved March 10, 2011, from http://www.sciencedaily.com/releases/2011/03/110306234145.htm

### FORTHCOMING SEMINARS AND EVENTS

to be presented at GSA (Victoria Division) meetings

Note: unless otherwise indicated, all 2011 talks will be held in the Fritz Loewe Theatre, Earth Sciences Building, University of Melbourne.

March 24 **Dr Roberta Rudnick**, University of Maryland

Deep Lithosphere Destruction Beneath the North China Craton

April 28 Annual General Meeting

May 26 TBA

Welcome to our new members!

Elaine Spence Lauren Wright Chris Jowsey Andrea Giuliani

Visit the GSAV on <a href="www.vic.gsa.org.au">www.vic.gsa.org.au</a> or the GSA on <a href="www.gsa.org.au">www.gsa.org.au</a> • Renewing your GSA membership is easy - it can now be done online. •

#### **CONSIDER CONTRIBUTING TO TAG!**

It is member contributions which make TAG a member magazine – please keep the contributions coming and assist with informing all of the membership (not just your Division) about your activities.

Please send your news to: tag@gsa.org.au



#### GSA (VICTORIA DIVISION) COMMITTEE

Please address all correspondence to the GSA Victoria Division GPO Box 2355, Melbourne, VIC, 3001 Internet address: www.vic.gsa.org.au

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OTHER CONTACTS Newsletter deadline:

Geology of Victoria: Bill Birch 9270 5049 (BH) First Friday of the month except Dec & Jan

gemma.prata@monash.edu

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