

NORTHWEST GEOLOGICAL SOCIETY

A regional association of professionals, students & others interested in geology
Please browse www.nwgs.org for more about us



February 2013 Newsletter

Volume 27, Number 2



February 12 Program Speaker

Speaker: Dr. Joshua Banfield, UW ESS Dept

Title: Postcards from Mars: Geologic history revealed by spacecraft images

Abstract: Spacecraft images and other remotely sensed datasets have shown us a Martian history that is both familiar and exotic. This presentation will show evidence for a variety of geologic processes on Mars and the remarkable landscapes that they create. We will also use visible and infrared images to focus on a basic question: What makes up the Martian crust? The images show that many older regions of Mars are composed of weakly consolidated materials that are similar to volcanic ash rather than lava flows. Explosive volcanism may be a defining characteristic of early Martian history. By making connections between a simple set of observations, we can reveal a surprising amount of detail about the basic workings of an entire planet.

5:30pm: No-host social hour

6:30pm: Buffet dinner

7:30pm: Speaker program

All are welcome to attend – reservations are required if coming for dinner.

► [Reservations here](#) 

PROGRAM DINNER RESERVATIONS: NWGS members: **\$40**; Non-members: **\$45**; Full-time students : **\$20**. \$45 for LATE REGISTRATION. Make your reservation and payment on-line at www.nwgs.org (or mail your payment to *Northwest Geological Society, 4616 25th Ave NE #397, Seattle, WA. 98105* (must be received by Thursday prior to meeting)). Contact [Dan Smith](mailto:Dan.Smith@nwgs.org) at 206-937-5313 or nwgeo@yahoo.com.

If attending the speaker program only, a \$5 voluntary donation to help defray the meeting room cost is requested.

Location: Pacific Dining Hall at the [Talaris Conference Center](#), 4000 NE 41st St., Seattle, WA. Ph 206-268-7000. **Directions:** See [on-line directions with map](#), or: from I-5 northbound or southbound in Seattle, take Exit 168B (NE 45th St.). Drive east on NE 45th St. past UW down the hill and past University Village. Turn south (right) onto Mary Gates Memorial Drive at the 5-way intersection. MGM Drive will curve east (left) and become NE 41st St. Continue several blocks to the [Talaris Conference Center](#) entrance on the north (left) side. We meet in the Pacific Dining room on the left.

Upcoming Speakers and Field Trips

March 12: TBA

April 9: TBA

May 3-5: Second NWGS Symposium. See more in the *Announcements* section on the next page.

Spring, 2013 Field Trip: May 5, Eric Cheney, UW ESS, Fidalgo Island, associated with the Second NWGS Symposium. See more in the *Announcements* section on the next page.

Fall, 2013 Field Trip: TBA

If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President [Kathy Troost](#).

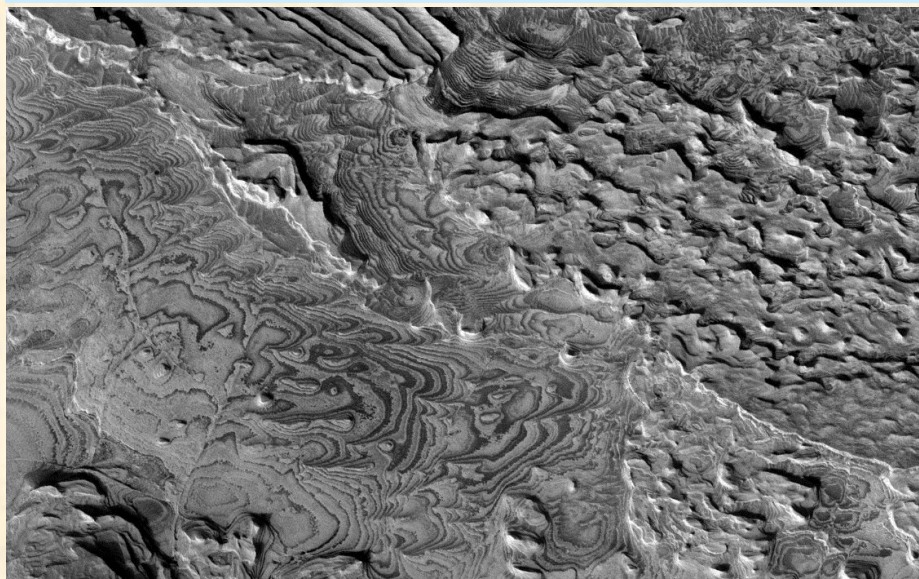
Please see the [NWGS website](#) for detailed announcements.

Contact webmaster [Julie Masura](#) if you have any announcements to post on the website.

Announcements

- The **Second NWGS Symposium, *The Paths Ahead for Northwest Geosciences*** is scheduled for **May 3-5, 2013** at the University of Washington:
 - * **May 3:** dinner for speakers, past & present NWGS officers, & organizing committee members;
 - * **May 4:** symposium main event at Kane Hall, UW, with 11 speakers, coffee service, lunch, and reception afterwards;
 - * **May 5:** symposium field trip to Fidalgo Island led by Eric Cheney, UW Dept. of Earth and Space Sciences;
 - * Please contact [Dave McCormick](#) (206-838-5834) if you would like to **contribute to the symposium as a sponsor**;
 - * Details will be posted at [NWGS web-site](#) as they become available.
- **Next Board meeting:** TBA, 4:30 P.M., Talaris Conference Center.
YOU would like to be involved!

Photo Spotlight



Layers of material within Becquerel Crater, Mars. Mars has extensive layered deposits, but many details of their formation remain a mystery. This image was collected by the HiRISE camera on the Mars Reconnaissance Orbiter. The image covers an area about 5 km across near 22° N, 352° E and individual layers are several meters thick (NASA/JPL/UA). Photo submitted by J. Banfield.

About NWGS

[NWGS](#), a regional association of professionals, students & other persons interested in **geology**, provides a forum for the presentation and discussion of a wide range of geological topics, emphasizing those of the Pacific Northwest of fundamental scientific interest.

YOU would like to be involved!

Program meetings: 2nd Tuesdays, October through May in the Pacific Dining Hall at the [Talaris Conference Center](#) in Seattle (see 1st page). Anyone may attend the speaker program, but a reservation is necessary for those wanting dinner (see 1st page). **Field trips (members only):** one in late spring/early summer and one in late summer/early fall, usually of 1-3 days in length. **Membership** is open to anybody with a professional or amateur interest in geology. **Annual dues:** Professional: \$30; Student: \$5. **To join or pay annual dues:** send a check payable to NWGS to Secretary [Dan Smith](#), 10203 40th Ave SW, Seattle, WA. 98146. Please include your name, address, home phone, email, and employer/affiliation (if any). Professional dues may now also be paid at www.nwgs.org.

YOU would like to be involved!

Recommended Readings

Bandfield, J.L., C.S. Edwards, D.R. Montgomery, B.D. Brand, 2012, The Dual Nature of the Martian Crust: Young Lavas and Old Clastic Materials, *Icarus*, 10.1016/j.icarus.2012.10.023.

Bandfield, J.L., R.R. Ghent, A.R. Vasavada, D.A. Paige, S.J. Lawrence, M.S. Robinson, 2011, Lunar surface rock abundance and regolith fines temperatures derived from LRO Diviner Radiometer data, *Journal of Geophysical Research*, 10.1029/2011JE003866.

Bandfield, J.L., A.D. Rogers, C.S. Edwards, 2011, The Role of Aqueous Alteration in the Formation of Martian Soils, *Icarus*, 10.1016/j.icarus.2010.08.028.

Please send your reading recommendations to Newsletter Editor [Tom Bush](#).

To report a change of email or postal address or request to be removed from mailings, notify Secretary [Dan Smith](#) at 206.937.5313. Questions or comments? Contact President [Julie Masura](#).

NWGS Board

President [Kathy Troost](#)
Troost Geol. Consult.

President **Open**
Elect

Past President [John Balla](#)
CEM Minerals Ltd

Secretary [Dan Smith](#)
King County

Treasurer [Carla Whittington](#)
Highline Com. Coll.

At-Large Board Members [Lars Gilmour](#)
Univ. of Washington
[Grace Winer](#)
S. Seattle Com. Coll.

Other Personnel

Field Trip Coordinator **Open**

Publications Director [Tom Bush](#)
Pierce College

Poster Competition Co-chairs [Brittany Brand](#)
Univ. of Washington
[Maura O'Brien](#)
Wa. Dept. of Ecology

Webmaster [Julie Masura](#)
Univ. of Washington

Newsletter Editor [Tom Bush](#)
Pierce College