

May

# **NORTHWEST GEOLOGICAL SOCIETY**

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

May, 2016 Newsletter Volume 30, Number 5



May 10 Program Speaker Speaker: Matthew Taylor, UW Anthropology

<u>Title</u>: Stones and Bones and Brains: the Role of Tool Making in the Emergence of Humans

Abstract: Stone tools are not unique to humankind. Otters, Capuchin monkeys, and Chimpanzees use stone to procure 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

food. However, only humans purposefully modified stone to make sharp-edged tools. What does this tell us about early hominins? The manufacture of stone tools can give insight into the evolution of the mind. We can infer where and when great cognitive leaps occurred that define human evolution. Changes in mind and in the body led to the emergence of the genus *Homo* around 2.5 million years ago. By 1.8 million years ago *Homo erectus* emerged as the first "biocultural" creature. The interplay between biology and culture, which is symbolized by increasing complexity in stone tool manufacture, is the hallmark trait of modern *Homo sapiens*. Other advances in stone tools, especially during the Late Pleistocene, demonstrate the remarkable cognitive ability of early humankind.

**PROGRAM DINNER RESERVATIONS:** NWGS members: **\$40**; Non-members: **\$45**; Full-time students : **\$20**. Add \$5 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 Secretary Beth Tanner with questions about dinner reservations.

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 <u>Talaris Conference Center</u>, 4000 NE 41st St., Seattle, WA., 98105. Directions: See <u>on-line directions with map</u>, 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 <u>Talaris Conference</u> <u>Center</u> entrance on the north (left) side. We meet in the Pacific Dining room on the left (SEE MAP ON P. 3).

## **Upcoming Speakers and Field Trips**

Spring, 2016: Field trip to one or two quarries near Granite Falls, May 7 or 14, lead by quarry personnel. Fall, 2016 Field Trip: Eric Cheney, Geology of the Republic area and the Okanogan Metamorphic Core Complex, October 14-16. Details TBA.

October 11: Ned Brown (WWU Retired), The San Juan Islands and the Northwest Cascades Thrust System. November 8: Joint meeting with AWG- Speaker and topic from AWG.

December 13: David Williams, Geological and Geomorphic Controls on the Historical Development of Seattle.

If you would like to volunteer to give a talk or lead a field trip for NWGS, please contact President Jim Miller.

#### Announcements

- The 2018 NWGS Symposium will be in early May, 2018. It will likely be 2 days, with technical sessions the first day and public presentations the second day, plus a one-day field trip either before or after. The USGS and AEG are considering involvement. Please consider volunteering for a position on the organizing committee. Contact President Jim Miller.
- The GSA Rocky Mountain Section Meeting will be held in Moscow, Idaho this year, May 18-20. See their web page for details.
- If you have an unusual rock, please bring it to show!

### Photo Spotlight



Left: the skull of KNMER 1813, a <u>Homo habalis</u> specimen (and one of the first species to make flaked tools). Right: these points (upper made of Tecovas Jasper, lower made from Edwards Chert) are symbolic of the great variety of sophistication of stone tools from the Late Pleistocene/ Early Holocene. Photos submitted by M. Taylor.

YOU would like to be involved!

### **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 geologemphasizing the Pacific Northwest ic topics, those of of fundamental scientific interest. YOU would like to be involved! Program meetings: 2<sup>nd</sup> 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 1<sup>st</sup> 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 Beth Tanner, 4616 25th Ave NE #397, Seattle, WA. 98105. 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**

Callaway, Ewen, 2015, Oldest stone tools raise questions about their creators, Nature News, Vol. 520, p. 421, <u>http://www.nature.com/news/oldest-stone-tools-raise-questions-about-their-creators-1.17369</u>.

Stout, Dietrich, 2016, Tales of a stone age neuroscientist, Scientific American, vol. 314, pp. 28-35, <u>doi: 10.1038/scientificamerican0416-28</u>.

Zimmer, Carl, 2016, Unappetizing experiment explores tools' role in humans' bigger brains, New York Times, March 9, 2016, <u>http://</u> www.nytimes.com/2016/03/09/science/evolution-meat-stone-tools-cookingbrains-hominins.html?\_r=0.

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 Membership Chair George Bennett . Questions or comments? Contact President <u>Jim Miller</u>.

### NWGS Board

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