OREGON SECTION OF THE
ASSOCIATION OF ENVIRONMENTAL &
ENGINEERING GEOLOGISTS

September 2006

Volume 7, Number 1

The Official

OREGON SECTION AEG NEWSLETTER

September Meeting Details

Date: Tuesday, September 19

Location: Lucky Lab Beer Hall

1945 NW Quimby

Portland, OR

6:00 pm Social

7:00 pm Dinner

8:00 pm Presentation

Dinner:Chicken or Veg. Bento

$16 Dinner ($8 Students)

Reservations:
mwegner@cornforthconsultants.com
with "AEG Reservation" in the subject line by 4pm Thursday September 14.

There is a $2 surcharge for those who do not reserve by the deadline.

Upcoming Meetings:

- **October 17th, Tom Archer from PBS Engineering and Environmental**
- **November 14th, Paul Trone and Craig Ware from GeoDesign**

NOTE: Meeting is at the NEW Lucky Lab in NW Portland

September Meetings Guest Speaker is Cynthia L. Hovind from Terra Dolce Consultants, Inc.

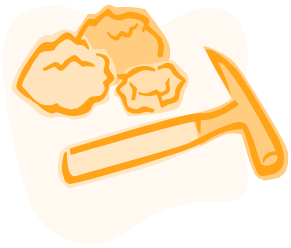
Presentation: Geology of the Lower Mustang Region, Nepal

The Himalayan Mountains are the quintessential example of plate tectonics and the forces behind mountain building activities around the world. Over 50 million years ago, the northward moving Indian Plate collided with the Eurasian Plate, closing and displacing the Tethys Sea that separated them. The Tethys Sea was once an expansive ocean that separated Gondwana and Luraisan plates of Pangea. Sediments, ranging from 1800 to 40 million years old, eroded off the Indian Plate and deposited along the continental edge. As the two plates collided, the sediments and the underlying plates began to deform and uplift. At an average uplift rate of 2 mm per year, over 40 kilometers of uplift has occurred over the last 20 million years. Faulting, folding, and mass wasting, however, has removed over 31 kilometers of material resulting in the Himalayan Mountain Range, which at is highest peak is almost 9 kilometers high.

The Himalayan Mountains are 2,500 kilometers long and 300 kilometers wide. The range is separated into four tectonic zones bound by east-west trending fault systems. From north to south, oldest to youngest, the zones are known as the Tibetan-Tethys Zone, the Higher Himalayan Zone, the Lesser Himalayan Zone, and the Silwalik Zone. The faults that separate the zones are the Southern Tibetan Detachment System (STDS), which is a normal fault; the Main Central Thrust (MCT) fault; The Main Boundary Thrust (MBT); and the Main Frontal Thrust (MFT). The zones and the faults that bound them formed over the last 20 million years as the Himalayans uplifted into the mountains they are today.

Nepal is situated the middle portion of the Himalayan Mountain Range. Bound by the Tibetan Plain of China to the north and Indus-Gangetic Plain of India to the south, Nepal is approximately 200 kilometers wide and 800 kilometers long. The elevations of this narrow country range from 100 meters above sea level at the boarder with India and 9 kilometers with the boarder with Tibet. The four tectonic zones and faults of the Himalayan are contained within this country.

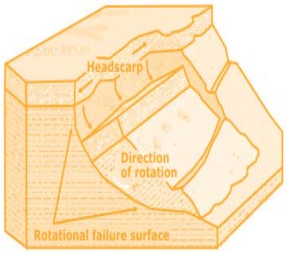
In central Nepal, the Kaligandeki River has flowed from Tibet to India, through the Annapurna Region of the Himalaya, for over 100 million years. As the Himalaya began to uplift, the river continued to cut through the mountains exposing up to 40 kilometers of mountain roots to unmetamorphosed sediments. In the northern reaches of the Kaligandeki River Valley, between the villages of Kobang and Mukitinath, the river has exposed the 1800 million-years-old rocks of the Higher Himalayan Zone and the adjacent 150-million-year-old folded and faulted sediments of the Tethys Sea. The Southern Tibetan Detachment System separates the two zones in dramatic fashion. Recent terrace deposits from glaciers, lakes, and rivers provide horizontal platforms on which the villages and Buddhist Monasteries of the region are built on.



Bio: Cynthia Hovind

Cynthia L. Hovind, P.E., G.E., is the principal Geotechnical Engineer and owner of Terra Dolce Consultants, Inc. in Portland, Oregon. In 1977, Cynthia started studying geology at Santa Barbara City College and later transferred to the University of California Santa Barbara, where she received her Bachelor of Arts in Geology in 1984. After finishing her B. A., Cynthia moved to Alaska where she worked for Anadrill Schlumberger on several exploratory oil rigs on the North Slope of Alaska. In 1987, Cynthia moved to Pullman, Washington to study for a Master of Science Degree in Geotechnical Engineering at Washington State University. In 1990, Cynthia received her MSCE and moved to Portland, Oregon where she has worked for EMCON, Newton Consultants, and AMEC before starting Terra Dolce Consultants, Inc. in 2002.

Message From The Chair



Welcome to the 2006-2007 season for Oregon Section of AEG. We will be having a meeting in September due to the later than usual date of the AEG national meeting. Lisa Glonek has put together a full schedule of meetings for the year. We can look forward to a variety of interesting topics for this year's presentations. The responsibility for the AEG Oregon Section newsletter and web site has changed hands. Bill Burns has taken over as the newsletter editor. Thank you to Charlie Hammond for years of assembling and distributing great newsletters. Darren Beckstrand has taken over the Section web site. Thank you to Jane Feinberg for creating and maintaining the web site. Oregon AEG is fortunate to have dedicated and talented people who have created the group we have today. The 2006 Annual Meeting for AEG will be held in Boston from October 30 to November 4. Registration is still open. If you are on the fence, consider signing up. Hopefully there will be a good turnout from the Oregon AEG group. While traveling this summer, I was reminded of the great variety of geologic features found in the Pacific Northwest. Geology is part of what I do for a living, and I could try to not think about work during my free time. However, an understanding of geology provides an exciting way of looking at the world. It is amazing to drive a new stretch of road and see evidence of past glaciers or ancient lakeshore in what is now a desert basin. An understanding of the processes that created the landscape makes for a deeper appreciation of the natural beauty. My wife doesn't seem to mind the unexpected stops on the dusty shoulder of the road to admire some newly found piece of the geologic puzzle. She even seems to appreciate the impromptu geology lessons as we cruise the highway. I am sure than many of you have similar experiences providing quick and excited roadside geology lessons for friends and family. I look forward to hearing stories of summer adventures at the next meeting.

Michael Zimmerman, AEG Oregon Section Chair

Fall Quarter Classes at Portland State University

Fall Quarter Classes at Portland State University (mainly graduate level) - September 25 - December 8, 2006

G560: Soil Geomorphology (field based), MW 16:40-18:30; F 15:00-17:00; 4 hours; Scott Burns, Cramer Hall S 17

G523: Statistics and Data Analysis in the Geosciences, MW 11:30-12:20 and lab: Tu 14:00-16:00 or F 11:30-12:35; 4 hours, K. Cruikshank, CH 69

Geog 588: GIS W 17:30-21:10 and one lab (M 14:00-16:00, tu 16:40-21:00, W 14:00-16:00; CH 418; Bosworth, 4 hours

CE 569: Groundwater hydrology, MW 14:00-16:00, MW EB 310, G. Johnson, 4 hours

CE 576: Environmental Fluid Mechanics, MW 12:00-14:00; EB 350, David Jay, 4 hours

CE 579, Toxics in the Environment, MW 18:00 - 19:50, PSC 219, Bill Fish, 4 hours

CE 546: Numerical methods of Geotechnical Engineering, TuTh 16:00-18:00, EB 260, T. Smith. 4 hours

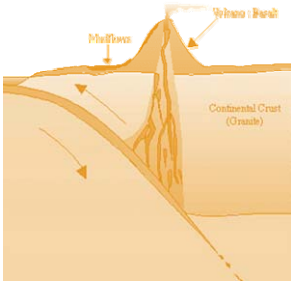
For any questions, call Scott Burns (503-725-3389 or burnss@pdx.edu)

New AEG Newsletter Column "Photo of the Month"

The newsletter is going to run a "photo of the month" column (see page 5). These photos should highlight some of the work being performed by Oregon Section AEG members and student members. The photos do not have to be taken during the month of the newsletter release.

In order to submit a photo, please email the picture in a JPEG or TIF format to bill.burns@dogami.state.or.us. Also include a short paragraph explaining the photo and project.

Oregon's Earth Science Week Meeting



What: Earth Science Week Meeting. If you plan to participate in ESW (October 8 – 14), this is the only planning meeting you need to attend.

Come to pick up your ESW packet and discuss ideas for ESW presentations, including visual aids and rock samples. If possible, decide on your school(s) or speaking venues before this meeting.

Who: ESW Volunteers (those of you who signed up, want to volunteers, and potential volunteers)

Where: New Lucky Lab at 1945 NW Quimby, Portland, OR

When: Meet at 5:00 pm before AEG Dinner meeting

Description: Oregon geologists are planning the first annual Kick-Off to celebrate Earth Science Week for this October 8 – 14th. The Oregon Department of Geology and Mineral Industries, the Association of Engineering Geologists Oregon Section, and others will co-host Earth Science Week (ESW) education activities to occur on the second week in October every year. Oregon has captivating geology with picturesque volcanoes, massive flood basalts, the scenic Columbia River Gorge carved by glacial floods, an offshore subduction zone, too many landslides and much more exciting geology.

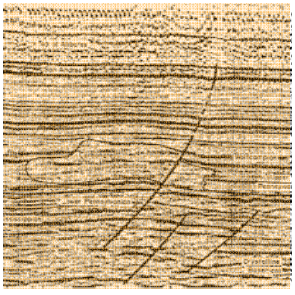
In preparation for the first annual Earth Science Week, we hope for many enthusiastic volunteers to help promote our profession. At the May 16th AEG dinner meeting, about 20 volunteers from industry, academia, non profit and government signed up!

Volunteers will receive an Earth Science Week Information Kit(s) at the meeting on September 19th and will share the kit and their first-hand geology knowledge in a classroom(s) of their choice during the week of October 8 – 14th. . Each are encouraged to locate a classroom (e.g., your child's or neighbor's child's class) or community organization (e.g., Rotary, neighborhood organization, etc.) to speak to or DOGAMI and AEG can assist by providing contacts.

The Kits will be supplied by the American Geological Institute (AGI) and supplemented with materials by DOGAMI and the USGS Cascade Volcano Observatory in Vancouver, WA. For more info, check out www.earthsciweek.org

If you have questions, please contact Drew Harvey (503-417-7693; andrew_harvey@pbsenv.com) or Yumei Wang (971-673-1551; yumei.wang@dogami.state.or.us)

Job Opportunities



GeoEngineers, Inc., a leading national environmental and engineering consulting services provider, is seeking a talented Senior Environmental Engineer/Geologist for our Portland, OR location. Quals: BS in Hydrogeology, Geology, or Environmental Engineering; MS pref. 10+ yrs related environmental experience; working knowledge of OR environmental regulations; and RI/FS and site remediation experience. Successful candidates will also have strong project management, technical writing and budget skills, experience with data analysis and proven problem-solving skills. GeoEngineers offers a unique environment that fosters individual growth and development, promotes teamwork and rewards performance. Our employees are our most valuable asset: Our competitive salary and benefits package includes med/den/vision/life ins, 401(k) with matching contribution, profit sharing and merit-based bonus plans, paid holidays, vacation and sick leave, wellness programs, relocation assistance and professional development. This is an exciting opportunity to work in a challenging and dynamic environment for a growing company! To learn more about this position and to apply, please visit our website at www.geoengineers.com. EOE

PBS Engineering and Environmental has openings in the Geotechnical Divisions of our Bend and Seattle offices for Geologists or Engineering Geologists. Prefer 3-5 years experience and state registration; experience in environmental assessments is a plus. Please send resume to Drew Harvey by email at: andrew_harvey@pbsenv.com. Visit our website at www.pbsenv.com.

The Oregon Department of Transportation (ODOT) will be recruiting for a Project Geologist position in the Headquarters Geo-Environmental Section in Salem. Information regarding this position will be posted at www.odotjobs.com.

For details and latest up to date information on job opportunities, check out the national AEG website http://careers.aegweb.org/

To submit a job announcement, just send an email to bill.burns@dogami.state.or.us. Announcements will only be posted for one month and should be resubmitted if continued monthly posting is requested.

"Keen observation is at least as necessary as penetrating analysis"

Karl Terzaghi

The Oregon Section Newsletter

OREGON SECTION AEG NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Section or other Sections, and other interested people who have requested and paid a local subscription fee of $10.00. E-mail subscriptions are free. News items are invited and should be sent to: Bill Burns, OR Section AEG Newsletter Editor, Oregon Department of Geology, 800 NE Oregon Street, Portland, OR 97232, e-mail: <bill.burns@dogami.state.or.us>, phone (971) 673-1555. Electronic media is preferred. Deadline for submittal is Friday three weeks before each meeting. Advertising: business card $10/mo, $100/yr; ¼ page $30/mo, $200/yr; ½ page $35/mo, $350/yr. Please notify Bill if you have a change to your email or mailing address.

The Association of Engineering Geologists (AEG) contributes to its members' professional success and the public welfare by providing leadership, advocacy, and applied research in environmental and engineering geology. AEG's values are based on the belief that its members have a responsibility to assume stewardship over their fields of expertise. AEG is the acknowledged international leader in environmental and engineering geology, and is greatly respected for its stewardship of the profession.

The Oregon Section is also on the web at http://www.aegoregon.org
National AEG webpage: http://aegweb.org

Thanks For Supporting AEG !

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Oregon Department of Geology and Mineral Industries (DOGAMI)
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GRI
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Oregon Department of Forestry (ODF)
PBS Engineering and Environmental
PSI
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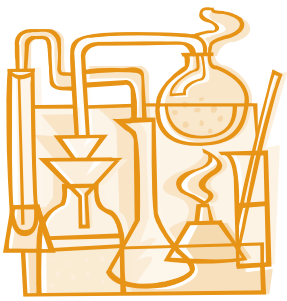

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Photo of the Month

The September photo is of **Bill Burns** from the **Oregon Department of Geology and Mineral Industries (DOGAMI)** collecting data on the Paisley School in Central Lake County, Oregon. DOGAMI is conducting rapid visual screenings (FEMA 154) for seismic performance in Oregon's public schools and emergency facilities, including fire and police stations, and hospitals. Results from this study are due out in the summer of 2007. For more information visit www.oregongeology.com/sub/projects/rvs.

To submit a photo, please email the picture in a JPEG or TIF format to bill.burns@dogami.state.or.us. Also include a short paragraph describing the photo and project.