



The Official

# OREGON SECTION AEG NEWSLETTER

## March Meeting Details

Date: Tuesday, March 20

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

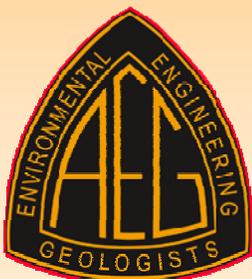
\$16 Dinner (\$8 Students)

Reservations:  
mwagner@cornforthconsultants.com  
with "AEG Reservation" in  
the subject line or 971-222-  
2047 by 4pm Thursday  
March 15th.

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

## Upcoming Meetings:

- 4/17/07 PSU Student Night
- 5/15/07 Rescheduled Joint AEG-ASCE Meeting



NOTE: Meeting is at the NEW Lucky Lab in NW

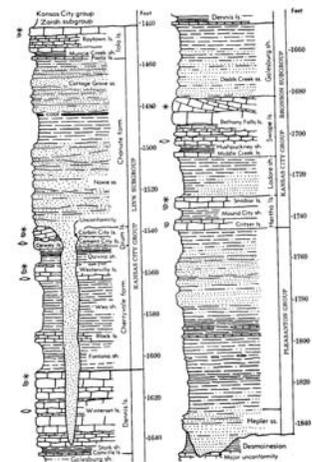
## March Meetings Guest Speaker is John E. Moylan Presentation: STRENGTH REDUCTION IN SHALES – CAUSES, EFFECT ON STABILITY, CASE HISTORIES, RECOGNITION

Shales have a wide range of physical properties and are among the most troublesome rock types with which we must deal. Because of their low shear strength compared to most other rocks, they have the potential to occur at less than their peak strength as determined from testing of intact specimens. This presentation will discuss the causes of strength reduction including; progressive failure, excess pore pressure, valley stress relief, tectonic stresses, and ice thrusting. Both the special class of shale known as clay shale as well as the other class, compaction shales, will be addressed. The most notorious clay shales are Cretaceous and younger and include the; Cucaracha, Pierre, Bear Paw, and Fort Union.

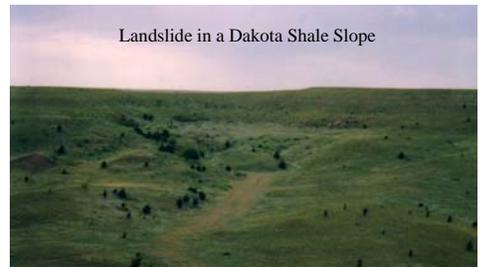
The clay shale case history discussion will include; the Panama Canal (Cucaracha), Waco Dam (Pepper) and Smithville Dam (shale seam in Raytown Limestone). Mid-Continent cyclic deposits provide many planes along which shear can occur.

One of the greatest challenges for the engineering geologist and geotechnical engineer working at shale sites is the recognition of pre-existing shear zones and whether the shale is losing strength due to weathering. The presentation will address some of the challenges to making the necessary determinations.

Geologic column showing the alternating limestones and shales



Landslide in a Dakota Shale Slope



## Bio: John E. Moylan, RG

John Moylan has a B.S. degree in Geology from the University of Kansas and did graduate study in Geological Engineering at the University of Minnesota. He retired from the Kansas City District of the Corps of Engineers in 1991 as Chief of the Geotechnical Branch after 33 years as an engineering geologist. Following his retirement from the Corps, he worked for Woodward-Clyde Consultants/URS until 2001. He is currently self-employed as a consulting geologist. He has over 48 years experience in the application of geology to civil engineering projects.

He either conducted or directed geologic design investigations on 12 of the District's 18 dams and conducted or directed numerous subsurface investigations and remedial designs at all 18 projects. In addition, he has had considerable experience conducting and directing geologic investigations for various military installations. During the past 27 years, his duties have included technical direction and review of hydrogeological investigations and studies for the remediation of contaminated groundwater sites. His work focused not only on the degree and extent of contamination but also on the site characterization needs for effective remedial design and remedial action.





## Message From The Chair

March is the month to prepare a poster for the student night or landslide symposium in April. The student night is sponsored by the PSU AEG student chapter and the Oregon Section of AEG. The posters are judged and scholarship prizes are awarded by the Oregon Section (students, this means money). The poster competition is open to geology students in geographic area covered by the Oregon Section of AEG. Poster subjects should be engineering geology or environmental geology.

A poster presentation will also be held for professionals and students in conjunction with the USGS / DOGAMI Landslide Symposium on April 26. Posters will be displayed during the day and at the social following the symposium.

The February meeting was the

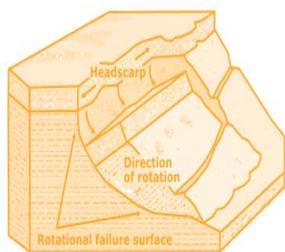
best attended AEG meeting I can remember. Over 40 people were present to hear Chris Goldfinger PhD of OSU share results of his ongoing research on sea floor turbidites triggered by large coastal earthquakes. The presentation tied the interval between earthquakes with magnitude. Earthquakes along the southern portion of the subduction zone appear to be more frequent than larger earthquakes involving the entire subduction zone. He has a tidy model for recurrence interval of Cascadia subduction zone earthquakes and is putting together a new structural model for the location of the locked zone between the two plates. A very convincing correlation between timing of earthquakes on the Cascadia Subduction Zone and the San Andreas Fault was presented. The bad news for Oregon is that our big

earthquake happens first. Thank you Chris Goldfinger for a great presentation.

Our meeting this month will feature the Jahns Lecture by John Moylan. He will speak on the characterization of shale sites. Causes of strength reduction in shale will be discussed. While this talk will highlight some of the classic shale sites such as the Panama Canal, the information should be applicable to local geology. This topic should be of particular interest to anyone working in the Coast Range. Of all the geology found in Oregon, the weak and weathered marine rocks of the Coast Range can be difficult and frustrating to work with.

See You There,

Michael Zimmerman, AEG  
Oregon Section Chair



## DOGAMI/USGS/ASCE/AEG Landslide Symposium Final Planning Meeting: Wednesday March 7, 2007

The final planning meeting will be held before the next ASCE geotechnical dinner meeting on **March 7, 2007 from 5-6pm at the Crowne Plaza Hotel, Lake Oswego**. The planning team will discuss symposium logistics.

The planning meeting will be led by Yumei Wang & Bill Burns in the area just outside of the bar in the plaza. NO RSVP is needed. Just show up!

The focus of AEG's support of the symposium is to lead the 2 field trips. Scott Burns is the lead organizer, along with Jason Hinkle and Bill Burns. These field trips will also act as the first AEG lead field trips in

a long time, so we are excited to get this portion of AEG back up and running!

**Save the dates:**

**April 26, 2007—Landslide Symposium**

**April 27-28, 2007—Field Trips**

AEG is a sponsor of the upcoming DOGAMI/USGS/ASCE/AEG Landslide Symposium to be held on Thursday April 26th, 2007. Jason Butler Brown (ASCE geotechnical, BrownJ@ci.portland.or.us) is soliciting sponsorships for this event. Two post symposium field trips will be held: Friday April 27th in the greater Port-

land area and Saturday April 28th on the Oregon coast. The symposium will discuss new tools and techniques for developing regional hazard maps and future risk management practices. The field trips will highlight some landslides in the Portland area and on the Oregon Coast.

Since AEG is a sponsor, members are encouraged to attend the symposium planning meetings. The first two were held over the last several months.

Registration information will be sent out via email from James Roddey of DOGAMI in early March 2007.



*“Keen observation is at  
least as necessary as  
penetrating analysis”*

*Karl Terzaghi*



## Annual AEG Student Night: April 17, 2007

Each year, the Student Poster Night comprises the April meeting. The structure of our event will be similar to the AEG Oregon Section along the lines that dinner and drinks will be served. However, rather than a single professional presentation following the dinner, a poster session will be held giving students a chance to shine. Students from all universities in Oregon and Idaho are encouraged to attend and submit a poster title. Participants are not required to be AEG members. Poster topics should preferably be within the field of applied geology (Note: applied geology can have a hazy line) and can range from term projects to thesis research for undergraduate and graduate students. The local AEG professional community will be attending the event; therefore a booklet of participants' resumes will be prepared and available for the professionals. A committee from the AEG Oregon Section will be judging and awarding a \$300, \$200, and \$100 prize for outstanding posters.

### Due Dates and Timeline: Submit to: [aeg.pdx@gmail.com](mailto:aeg.pdx@gmail.com)

March 30 (Friday): Poster Titles are Due  
April 1 (Monday): Announcement of Poster Titles  
April 10 (Tuesday): Reservations due for meal/attendance  
April 13 (Friday): Resumes are due for participants

### Event Details:

Date: April 17, 2007 at 5:30-9:00pm

Rooms: 296/297/298 of Smith Memorial Union at Portland State University

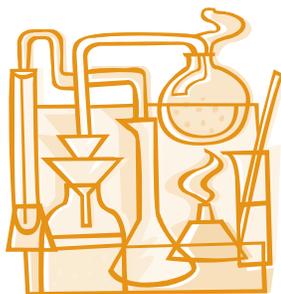
Costs for Dinner: Student - \$9.00 Non-student - \$18.00

Please contact AEG Student Chapter President Joshua Theule with any questions, [jtheule@pdx.edu](mailto:jtheule@pdx.edu)

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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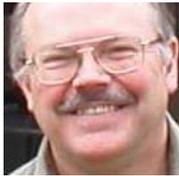
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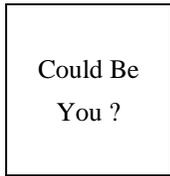
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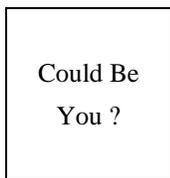
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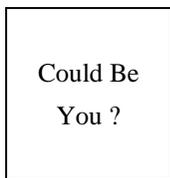
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dent: Josh Theule  
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## Photo of the Month

February's photo of the month of Rooster Rock in the Columbia River Gorge, submitted by Scott Burns at Portland State University in the Geology Department. Scott said, this famous monolith was indirectly named by Lewis and Clark in 1805 when they came down the Gorge. It's composition is the same as the basalt flow that makes up Crown Point. It was originally attached to the cliffs, but a large landslide (probably triggered by the Missoula Floods) brought it to its current position.

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