OREGON CHAPTER OF THE ASSOCIATION OF ENVIRONMENTAL & ENGINEERING GEOLOGISTS

December 2018

Volume 3, Number 4

The Official

AEG Oregon Chapter Newsletter

http://www.aegoregon.org

MEETING DETAILS

Date: **Wed, Dec 5, 2018**

Location: **Old Market Pub**

6959 SW Multnomah Blvd
Portland, OR 97223

Evening Agenda:

6:00 pm Social Hour

6:45 pm Dinner

7:30 pm Presentation

Registration:

Web: **https://aeg-or-2018-12.brownpapertickets.com/**

Fees: **$25 Private Industry**

$20 Public Agencies

Free for Students

Deadline:

Noon, Monday, Dec 3, 2018

$2 surcharge for those who do not register by the deadline.

UPCOMING MEETINGS

Wed, January 16th, 2019
Doug Boyer (FERC)
(Joint AEG/ASCE Meeting)

Tues, February 19th, 2019
Weston Thelen (USGS)

Tues, March 26th, 2019
Debrah Green (Geologist Writer)
(Jahns Distinguished Lecturer)

Tues, April 16th, 2019
Bill Burns (DOGAMI)
Will Struble (UO - PhD Candidate)

Tues, May 21st, 2019
Student Poster Night

Will it Stay or Will it Go?: Use of Lidar to Assess Slope Instability Speakers: Dr. Ben Leshchinsky and Dr. Michael Olsen

Light detection and ranging technology, or lidar, is a promising tool for assessing unstable ground due to its resolution, accuracy, and the ability to process away visual obstacles, such as vegetation. In particular, laser scanning has significant utility when applied repeatedly over time, quantifying changes in terrain that may not be easily discernable to the eye. This presentation will touch on some ongoing research that employs lidar for (1) regional landslide inventorying and landslide susceptibility, (2) quantifying coastal retreat and its influence on landslide movements, and (3) evaluating potential rockfall risks. A semi-automated approach that uses lidar to recognize geomorphic features and supplement manual landslide inventorying is presented. Thereafter, an approach that uses landslide inventories to leverage region-specific, shallow landslide susceptibility is considered. An ongoing collection of lidar along the Oregon Coastline is used to better capture coastal erosion and its influence on slope instability. Lastly, a new rock slope assessment technique, the rockfall activity index will be presented. The increasing availability of lidar presents us with a unique opportunity to better assess the risk stemming from geohazards, enhance asset management, and understand geomorphic and geologic processes at a more refined level.

NOTE: MEETING IS WEDNESDAY, DEC 5TH

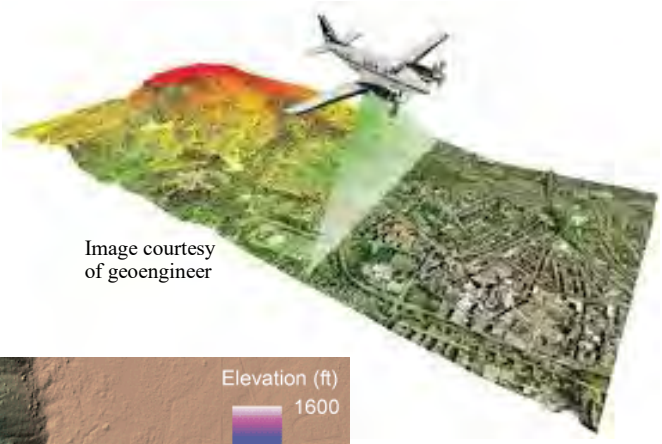


Image courtesy of geoengineer

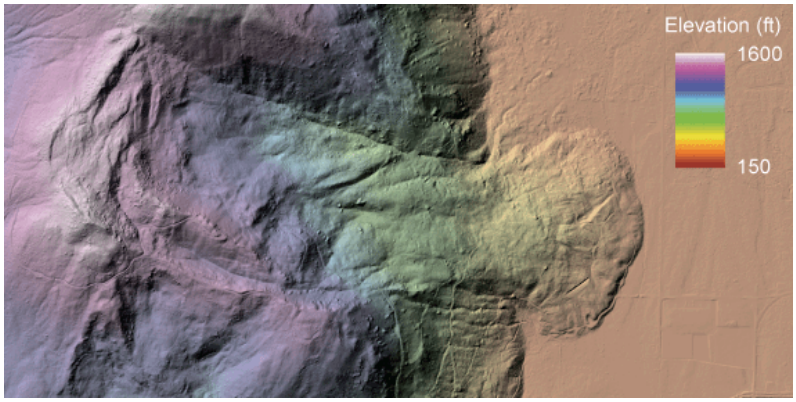
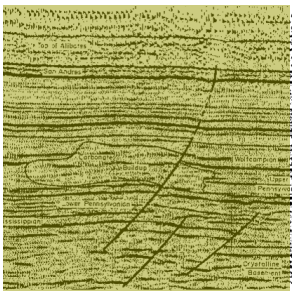
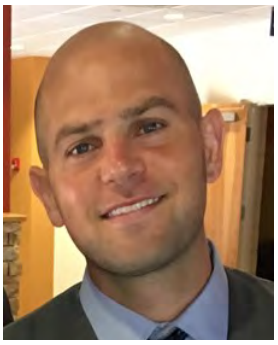


Image courtesy of Washington DNR



Bio: Dr. Ben Leshchinsky



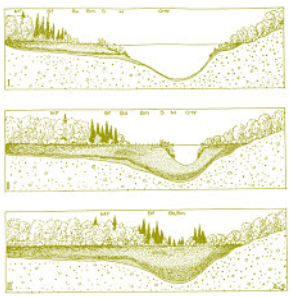
Ben Leshchinsky is an associate professor in geotechnical engineering at OSU. Research focus is on basic and applied geomechanics, soil reinforcement, slope stability, and in recent years, use of remote sensing technologies applied towards assessment of natural hazards. Ben received his BS from the University of Delaware in 2007, and his MS and PhD from Columbia University in 2008 and 2012, respectively. Ben is a registered professional engineer in Oregon, an editorial board member of the ASCE Journal of Geotechnical and Geoenvironmental Engineering and Geotextiles and Geomembranes. He is the recipient of 2018 International Geosynthetics Society Young Member Achievement Award, the 2016 International Landslide Symposium Young Paper Award, among other awards for research and teaching.

Bio: Dr. Michael Olsen

Dr. Michael Olsen is an Associate Professor of Geomatics in the School of Civil and Construction Engineering at OSU. He is currently serving as the Editor-in-Chief for the ASCE Journal of Surveying Engineering, the Technical Implementation Director for the NSF-funded NHERI Rapid Experimental Facility, and President-Elect of the Surveying and Geomatics Educator Society. He received BS and MS degrees in Civil Engineering from the University of Utah and a Ph.D. in Structural Engineering from the University of California, San Diego. His current areas of research include terrestrial laser scanning, GIS, earthquake engineering, geohazard mapping, and 3D visualization. He teaches geomatics engineering courses at OSU where he has developed new, ground-breaking courses in 3D laser scanning and Digital Terrain Modeling. Recent projects he has been involved with include: development of mobile laser scanning guidelines for transportation agencies, development of advanced point cloud segmentation algorithms, earthquake and tsunami reconnaissance (American Samoa, Chile, Japan, New Zealand, and Nepal), landslide and slope stability analysis, seacliff erosion, liquefaction hazard mapping, and modeling and studying historical buildings such as the Palazzo Medici and Palazzo Vecchio in Florence, Italy.

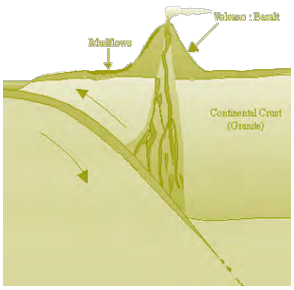
"Keen observation is at least as necessary as penetrating analysis"

Karl Terzaghi



Message from PSU Student Chapter President Jessica Moore

We have already had a great start to this school year at AEG PSU Chapter! We have very exciting events planned for 2019 such as events, field trips, seminars, and more. Please contact us at jlm29@pdx.edu if you're interested in speaking to PSU Students this coming Spring! We'd be happy to have you and our students are always eager to learn about life in Portland as a practicing geologist! We are able to provide compensation and cover any expenses you incur.



Message from the Chair

On behalf of the Oregon Chapter Board we wish you had a wonderful Thanksgiving and are looking forward to the holidays to come. This can be a very busy and stressful time of the year, so please pace yourselves and take lots of deep breaths. To help keep the holidays more relaxed, we have moved the December meeting to earlier in the month. Don't forget that THIS MONTHS MEETING IS **WENDESDAY DECEMBER 5TH** !!!

This is also a good time of the year to **renew your annual AEG membership**, due December 31st. Renew your membership and enjoy the rest of the season without worry!

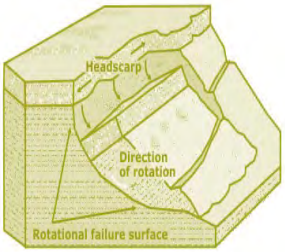
Looking into the past, it was about 4 years ago this month when the AEG Oregon Chapter (then Section) started thinking about submitting a proposal to host the AEG Annual Meeting in Portland. At the time we were looking to host the 2019 meeting. We were unsuccessful getting the 2019 meeting, but we were finally successful winning the 2020 meeting. It took a lot of work by our Chapter to finally get the 2020 meeting, but it will take even more work to make the meeting a success. As you may know, Mark Swank and Mike Marshall are the co-chairs of the 2020 Planning Committee and have done a great job in building the framework for the annual meeting planning efforts. However, they can't do this along. It takes a village to raise an AEG Annual Meeting to adulthood, and it will take many Chapter volunteers to ensure that Portland shines in September 2020. There are still many planning committee roles to fill (big and small), so please consider volunteering a little of your time in helping make a great Portland meeting.

Looking ahead, next month's meeting will be our annual joint AEG/ASCE meeting, that will be held at the Kells Irish Pub in downtown Portland on Wednesday January 16th. I always look forward to the joint meetings and the opportunities to see many of our geotechnical engineering friends and colleagues in a fun and relaxed setting. I'm especially excited this year because one of my very own work colleagues, Mr. Douglas Boyer (with FERC), will be presenting on the Oroville Dam incident in California. Doug has been intimately involved with the project from the initial failure, to the incident response, and throughout design and reconstruction. Even if you've heard other talks on the Oroville Dam incident, I think Doug will provide a unique perspective. Please put this meeting on your calendars. I would love to see a strong contingent of AEG Oregon Chapter Members and Students in attendance.

Christopher Humphrey, R.G., C.E.G.
Oregon AEG Chapter Chair

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

Karl Terzaghi

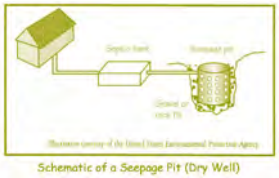


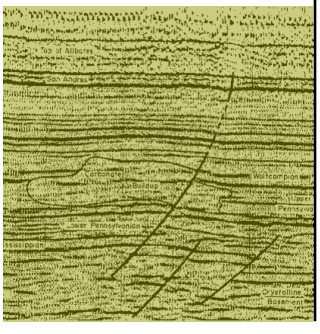
Free Journals Still Available

Courtesy of Scott Burns, PSU Geology Professor

I have been collecting journals at PSU over the past 20 years as our fellow engineering geologists retired and have given me their collection of journals. I need to clean out the storage basement at PSU and am offering them to anyone for free! I will deliver whatever you want. Some offices may want some for their libraries or your own personal libraries. Either call me (503-725-3389) or email me (burnss@pdx.edu) or talk to me at a monthly meeting! A list of available journals is offered below.

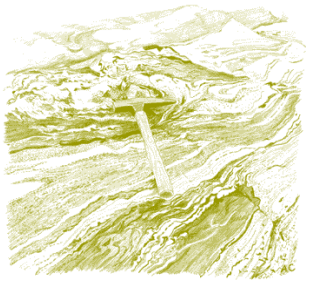
Publication	Available Dates/Volumes
International AEG (IAEG) Bulletin	1980's
AEG Bulletin	1972-1984
AEG Meeting Programs and Abstracts	1984-1986
Soil Science of America Journal	1937-2004
Journal of Environmental Equality	1975-2001
American Association of Petroleum Geologists (AAPG)	1970-1990
Geologic Society of America (GSA) Bulletin	1974, 1975
USGS Groundwater Papers	Vol 659-2040
USGS Bulletin	Vol 380-1457
USGS Circular	Vol 372, 726, 790, 838
USGS Reports	Vol 81-502, 98-4083
Military Engineering	1973-1982
Geothermal	Misc.
Mining Law	

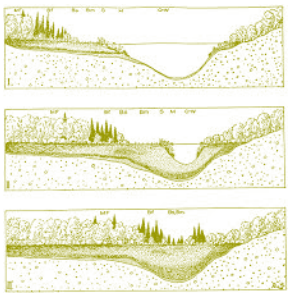

Schematic of a Seepage Pit (Dry Well)

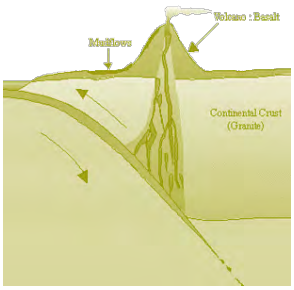


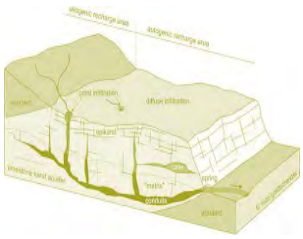
"The earth is large and old enough to teach us modesty."

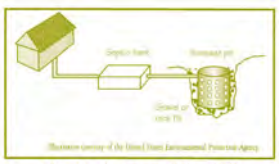
Hans Cloos











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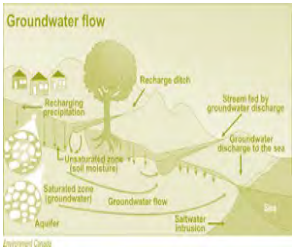

"A soil adapted to the growth of plants, is necessarily prepared and carefully preserved; and, in the necessary waste of land which is inhabited, the foundation is laid for future continents, in order to support the system of the living world.."

James Hutton

Chapter Officers & Committee

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Help us at AEG Oregon bring inspiring knowledge and ideas.

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

Subscribe to the newsletter by sending any e-mail to aegoregon-subscribe@groups.electricembers.net

Legislature Chair:
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Help AEG Oregon build community, this is a great expreience

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Thanks For Supporting AEG

Members, Volunteers, Aspect Consulting, Columbia Geotechnical, Cornforth Consultants Inc., DOGAMI, Earth Dynamics LLC., Federal Energy Regulatory Commission (FERC), Geobrugg, GRI, Hi-Tech Rockfall, Holt Drilling, NACSE, ODOT, Oregon State University, Pacific Geophysics, PBS Engineering & Environmental, PLI Systems, Portland State University, Western Oregon University

The AEG Oregon Chapter Newsletter

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.

AEG OREGON CHAPTER NEWSLETTER is published monthly from September through May. Subscriptions are for members of AEG affiliated with the Oregon Chapter or other Chapters, 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: Ben George, AEG Oregon Chapter Chair-Elect, Cornforth Consultants, Inc., 10250 SW Greenburg Road, Suite 111, Portland, OR 97223, e-mail: bgeorge@ccilt.com, phone (503) 452-1100. Electronic media is preferred. Deadline for submittal is the 25th of the month. Advertising: business card size $100/yr; ¼ page $200/yr; ½ page $350/yr; 1 page $450/yr.