

Serving Professionals in Engineering, Environmental,
and Ground Water Geology

OREGON SECTION

NEWSLETTER

The Official Newsletter of the Oregon Section Association of Engineering Geologists

Feb. 1996

VOLUME 96, NUMBER 2

JOINT MEETING ASCE/AEG

Topic: ***“Lessons Learned From Missed Predictions
The Twenty-Ninth Terzaghi Lecture”***

Speaker: ***John A. Focht, Jr.***

Date: **Thursday, February 22, 1996**

Time: 6:00 Social
 7:00 Dinner
 8:00 Program

Location: ***Red Lion Hotel Portland Downtown***
310 SW Lincoln (between 1st, and 4th Ave.)
Telephone: (503) 221-0450

Cost/Menu: **\$18 per person, Vegetarian available if requested in advance**

Reservations: **Please call Thomas Wright at (503) 624-1468 by Tuesday,
February 20. ASCE must charge for all dinner reservations.**

ABSTRACT

“Lessons Learned From Missed Predictions The Twenty-Ninth Terzaghi Lecture”

By

John A. Focht, Jr.
Fellow, ASCE

This Terzaghi Lecture focuses on the broad factors critical to the prediction process that govern the quality of predictions of the geotechnical performance of completed structures. After a discussion of these critical factors, a series of examples is described to show performance that deviated from prediction, and the probable causes of the variances are discussed. The importance of judgment (i.e. the questioning of each aspect of the prediction process) and the intuition in development of geotechnical predictions is emphasized. Some kinds of predictions for which success is expected to be limited are identified. This lecture concludes with a brief discussion on the development of good judgment.

John Focht Jr. continues the long tradition of Terzaghi Lecturers who knew Terzaghi personally. As a freshman in civil engineering at the University of Texas in 1941, John Focht Jr. sat in on most of the lectures given by Dr. Terzaghi at Texas that semester. This exposure to Terzaghi led John to Harvard in 1946 for a master's degree, and to a successful geotechnical engineering career.

John has served ASCE in many ways. He has been President of the Houston Branch, President of the Texas Section, Director from District 15, Zone III Vice President, and was President of ASCE in 1989. He has served on many geotechnical engineering committees, including five years on the Executive Committee of the Geotechnical Engineering Division.

John is particularly proud of his ASCE publications record. One time he had five papers submitted to ASCE for publication. Not only were all five accepted for publication, all five won prizes - The Middlebrooks Award twice, the Laurie Prize, and the State of the Art Award twice.

AEG Case Histories Book News:

Call for paper titles for the AEG Book on the Case Histories of Oregon Engineering, Environmental and Groundwater Geology. We are off an running and I am very excited! Our time table is:

- | | |
|-----------------------|--------------------------------------|
| a) February 27, 1996: | All paper titles due |
| b) June 30, 1996: | All papers due |
| c) November 30, 1996: | All papers must have been turned in. |

The review process will commence as soon as papers are submitted.

If you have a paper title, please call Scott Burns (725-3389) or the chapter editor and give the title. We need to have an idea of what the book will look like by the end of February.

We have updated the outline and split the environmental chapter up and moved a couple of sub-headings around. Below is the latest outline with chapter editors and their numbers and email addresses:

1) Chap. 1: Geologic and Physiographic Provinces (Scott Burns, 725-3389; scott@chl.ch.pdx.edu)

2) Chap. 2: Geologic Practice (No editor yet)

- historical review, definitions of geologist, engineering geologist, hydrogeologist, project management, academic programs, affiliated professions, legal and regulatory

3) Chap. 3: Facilities: (Charlie Hammond, Cornforth Consultants, 503-452-1100)

- dams and reservoirs, power plants, tunnels, harbors, gas fields

4) Chap. 4: Transportation: (David Schofield, Squier Associates, 503-635-4419)

- highways, rail, lines, rivers, locks, bridges

5) Chap. 5: Geologic Hazards (Scott Burns, PSU, 725-3389, scott@chl.ch.pdx.edu; Ruth Wilmoth, Columbia Geotechnical, 360- 944-7397)

-flooding and erosion, landslides, seismic, volcanic,

6) Chap. 6: Landuse Planning and Environmental Protection: (Dave Michael, Oregon Dept.of Forestry, 503-359-7448, dave.l.michael@state.or.us)

- coastal, mining, urban development, forestry

7) Chap. 7: Water resource evaluation and management: (Tim Marshall, 541-687-1760), Land and Environmental Services; 73762.2062@compuserve.com

- aquifers, drainage basins, water supplies; mainly clean water

8) Chap. 8: Waste Disposal and subsurface contamination (hazardous waste: John Kuiper, AGRA E&E, 503-639-3400, jennasing@AOL.com); Solid Waste: Denise Mills, EMCON, 503-624-7200, 75402.620@compuserve.com)

- hazardous waste sites, superfund sites, solid waste disposal, cleanup of dirty soil and water

ENVIRONMENTAL , GROUNDWATER AND ENGINEERING GEOLOGY OF OREGON

PAPER TITLES AS OF FEBRUARY 14, 1996

(Please note - titles are tentative as are some of the topics & authors)

Preface: Scott Burns, PSU Geology

Chap 1: Geologic and Physiographic Provinces:

- 1) "Geologic and physiographic provinces of Oregon", Scott Burns, PSU Geology

Chap 2: Geologic Practice: No editor or papers yet

Chap 3: Facilities:

- 1) " An overview of engineering geology applied to facilities in Oregon", Charlie Hammond, Cornforth Consultants and Jim Griffiths, Army Corps of Engineers
- 2) "Engineering Geology of the Trask River Dam Raise", Charlie Hammond, Cornforth Consultants, Inc.
- 3) "Seismic design considerations of the Trask River Dam raise", D.A. Vessely, Cornforth Consultants, Inc.
- 4) "Engineering geology of the Rogue drainage projects", Tom Amundson, U.S. Army Corps of Engineers
- 5) "Engineering geology of the Santiam drainage projects", Chris Budai, U.S. Army Corps of Engineers
- 6) "Engineering geology of the McKenzie drainage projects", James Griffiths, U.S. Army Corps of Engineers
- 7) "Engineering geology of the Bureau of Reclamation structures in Oregon", Brent Carter, Bureau of Reclamation
- 8) "Slope stability at the Elk Creek Dam site, Southern Oregon", T. Amundson, Army Corps of Engineers; Chip Barnett, PSU Geology
- 9) "Seismic evaluations of Cougar, Blue River and Blue River Auxillary Dams", Richard Hannon, Army Corps of Engineers; Scott Walker, PSU Civil Engineering

Chap. 4: Transportation:

- 1) "Overview of engineering geology and transportation in Oregon", David Scofield, Squier Associates
- 2) "As-built geology of the Trimet westside light rail tunnel, Ken Walsh, Parsons-Brinkerhoff

Chap. 5: Geologic Hazards:

- 1) "Overview of engineering geology and geological hazards in Oregon", Scott Burns, PSU Geology and Ruth Wilmoth, Columbia Geotechnical
- 2) "Engineering geology of the Portland Highlands landslide" C.M. Hammond and D.A. Vessely, Landslide Technology
- 3) "Canyonville landslide, Douglas County, 1974" Ed Busby, GeoWest, Ashland
- 4) "Floodplain and bank erosion analysis in Oregon, James Kennedy, Dept. of Land Conservation and Development, Salem
- 5) "Landslides of the Rogue River National Forest", Bill Hicks, retired, Rogue River National Forest, USFS
- 6) "Cochran landslide, Timber, Oregon", Dave Michael, Oregon Dept. of Forestry; Erik Yingling, PSU Civil Engineering
- 7) "The Tooth Rock Landslide, Columbia Gorge, Oregon", Clarence Keech, Army Corps of Engineers; Barry Sanford, PSU Geology
- 8) "Sand dune stabilization in the Columbia Gorge", Randy Davis, Dale Allen, ODOT; Dixon Ward, PSU Geology
- 9) "Lost Creel Lake Needle rock slide, Oregon State Highway 62", Richard Hannan, U.S. Army Corps of Engineers; Larry Margolin, PSU Civil Engineering
- 10) "Ruckel landslide, Columbia River Gorge, Cascade Locks, Oregon" Richard Hannan, Army Corps of Engineers; Heather Devine, PSU Civil Engineering

Chap. 6: Landuse Planning and Environmental Protection,

- 1) "Overview of engineering geology and landuse planning and environmental protection in Oregon", Dave Michael, Oregon Department of Forestry
- 2) "Mitigating Natural Hazards Through Oregon's Land-Use Program", Jim Kennedy, Oregon Department of Land Conservation and Development
- 3) "Geologic hazards of development on sand dunes along the Oregon coast", Frank Reckendorf, Reckendorf Associates, Salem
- 4) "Case histories of landuse along the Oregon coast", Leonard Palmer, retired PSU Geology
- 5) "Bombastic beaches vs. rigid real estate", Leonard Palmer, retired, PSU Geology
- 6) "Airport Way wetlands mitigation", Tom Kuper, David Newton and Associates; Tim Barnes, PSU Geology
- 7) "Status and Use of Engineering Geology on Federal Lands", Daniel "Joe" Bailey, Region 6 Geologist, Department of Agriculture, USFS
- 8) "Application of Geotechniology to Intensive Forest Mangement - Oregon's Approach", Keith Mills, Oregon Department of Forestry
- 9) "Loading Induced Failures On Bedding Planes in Oregon Coast Range Sedimentary Rock Types", John Seward, Oregon Dept. of Forestry & Tim Blackwood, Weyerhaeuser Co.
- 10) "Watershed Analysis of Slope Stability in Forest Mangement Perscriptions", Tim Blackwood, Waerhauser Co.
- 11) "Mining Reclamation Act and Slope Stability", Frank Schnitzer, DOGOMI Reclamation Program
- 12) "Cohran Quarry, The Regulatory Position", Dave Michael for DOGAMI

Chap. 7: Water Resource Evaluation and Management,

- 1) "Overview of water resource evaluation and management in Oregon", Tim Marshall, Land and Water Environmental Services, Eugene
- 2) "City of Portland Wellfield", Jeff Leyton, Woodward Clyde
- 3) "Fish hatchery well relocation, Bonneville navigation lock, Columbia River, Oregon shore", Jim Griffiths, Clarence Keech, Army Corps of Engineers, Sean Rose, PSU geology

Chap. 8: Waste Disposal and Subsurface Contamination,

- 1) "Overview of hazardous waste disposal and subsurface contamination in Oregon", John Kuiper, AGRA E&E
- 2) "Salem waterfront hazardous waste site", Walter Burt, GeoEngineers
- 3) "Midland Marine hazardous waste site, Coos Bay", Larry Eaton, Geoengineers
- 4) "McCormick and Baxter Hazardous Waste Site, Portland", Paul McBeth, Pacific Northern Geoscience
- 5) "United Chrome hazardous waste site, Corvallis", Paul McBeth, Pacific Northern Geoscience
- 6) "Umatilla FUDS site" Paul Huebschman, U.S. Army Corps of Engineers
- 7) "Chlorinated solvent contamination of soils and groundwater beneath the Tacoma Street Overpass, Highway 99, Portland, Oregon", John Kuiper, AGRA E & E
- 8) "Vadose zone investigation of nitrate contamination, Ontario, Oregon" Paul Pedone, USDA NRCS, Scot Woodward, PSU Geology
- 9) "Overview of solid waste disposal and subsurface contamination in Oregon", Denise Mills, EMCON

Total = 46 papers (so far! - more to come!!)

SHORT NEWS ITEMS:

- 1) **DOGAMI talk:** On Jan.31, many AEG and ASCE members and other interested people heard the DOGAMI talk by "Dr. Brian Atwater "Recurrence interval of the Subduction Zone Earthquakes in the Pacific Northwest" Thank you DOGAMI
- 2) **ASCE Geotech Group:** NEXT MEETING
Date: Wednesday, March 13, 1996
Program: Debris Flow Experiments
Speaker: Dick Iverson (USGS)
- 3) **Rock Slope Stability** April 4, AEG Sponsored Course at PSU (more info soon) (Mike Long, Skip Watts, Larry Pearson & others)
- 4) **GSA Annual Meeting:** April 21 - 24 in Portland, AEG is Co-Sponsor Remember to circle AEG on Registration (we get \$)

LOCAL NEWS Please provide input to the next national newsletter. Send to:
Dave Michael, 801 Gales Creek Road, Forest Grove, OR 97116
Phone: 359-7448, FAX 357-4548, Internet: DAVE.L.MICHAEL@STATE.OR.US

Be sure to send me news from you or your firm!



MEMBERSHIP

For application forms for Membership in the National AEG, call Ed Stearns who is our membership chair at 661-0462 (h). He will also have copies at the monthly meetings. Membership is on a calendar year basis. Starting this year, if you are a national member, they will collect our local dues of \$10 which just covers our newsletter costs. If you would like to subscribe to the local newsletter (comes out 9 times a year) without being a national member, fill out the form below and mail to Charles Hammond. Note: the following form is only for people and organizations who wish to subscribe to the Oregon AEG Newsletter without being members of the national AEG.

APPLICATION FOR LOCAL MEMBERSHIP IN OREGON SECTION, AEG:

NAME _____

AFFILIATION: _____

MAILING ADDRESS: _____

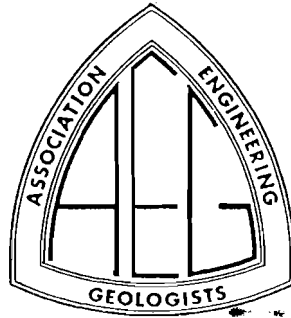
TELEPHONE: _____

Mail form and \$10 to Charles Hammond, Cornforth Consultants, Lincoln Building Suite 111, 10250 SW Greenburg Rd., Portland, OR 97223.

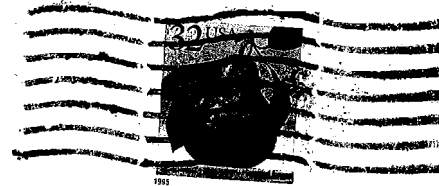
ANNOUNCEMENT OF OUR NEXT EXCITING MEETING

FEB. 22, 1996

AEG



*Dave Michael, Editor
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FEB 15 1996

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