



AUSTRALIAN GEOMECHANICS SOCIETY

VICTORIA CHAPTER

Evening Technical Meeting:

46th Terzaghi Lecture **GEOSYNTHETIC REINFORCED SOIL:** **FROM THE EXPERIMENTAL TO THE FAMILIAR**

Presented by

R. D. Holtz, PhD, PE, D.GE, Professor Emeritus, University of Washington Seattle, USA

Synopsis

The lecture begins with a historical review of reinforced soil technology, from the ancients, the developments by H. Vidal and K. Lee on Terre Armée and Reinforced Earth, the early uses of geosynthetics for soil reinforcement in France (Bidim), Sweden (Wager and Broms), and the USA (USFS, FHWA, J. R. Bell, T. A. Haliburton, B. R. Christopher and others). The advantages and basic behavior of geosynthetic reinforced soil (GRS) are presented along with an overview of current design procedures, and with reference to UW analytical research results. Practical suggestions are given for dealing with creep, pullout, and backfill drainage. Geosynthetic properties are then discussed, again with reference to UW research results. Although GRS is quite a mature development, a few technical and professional issues remain; primarily, too many failures of these structures occur. Reasons for these failures and some suggestions as to what the profession can do about them are presented. The lecture ends with several examples of successful applications of GRS and reinforced soil technology.

Presenter

Bob Holtz, PhD, PE, D.GE, is Professor Emeritus of Civil Engineering at the University of Washington in Seattle. He has degrees from Minnesota and Northwestern, and he attended the Special Program in Soil Mechanics at Harvard under Professor A. Casagrande. Before coming to the UW in 1988, he was on the faculty at Purdue and Cal State-Sacramento. He has worked for the California Dept. of Water Resources, Swedish Geotechnical Institute, NRC-Canada, and as a consulting engineer in Chicago, Paris, and Milano. His research interests and publications are mostly on geosynthetics, soil improvement, foundations, and soil properties. He is a Distinguished Member of ASCE, was President of the ASCE Geo-Institute 2000-1, and currently serves as the International Secretary for the Geo-Institute. He has presented numerous short courses and lectures, including the 46th Terzaghi Lecturer in Feb. 2010.

Monday, 13 February 2012

Time : Commencing at 6:00 pm (refreshments at 5.30pm) and finishing at 7:30 pm

Venue: Theatre C1, 4th Floor, Department of Infrastructure Engineering,
The University of Melbourne (Enter via Gate 10 off Grattan Street)

Cost: Free, refreshments provided – please register online

Registration: <https://www.engineersaustralia.org.au/events/46th-terzaghi-lecture>

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Attendance at this seminar contributes towards the EA's requirements for Continuing Professional Development

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