

TO: Association of Professional Engineers and Geoscientists of British Columbia
200-4010 Regent Street, Burnaby, BC, CANADA, V5C 6N2

TO: American Society of Civil Engineers
1801 Alexander Bell Drive, Reston, VA 20191, USA

FROM: Hodge, 604-5411 Vine Street, Vancouver, BC, CANADA, V6M 3Z7

Dear Sir/Madam:

I feel it is my duty as a Professional Engineer to inform you that my work over the past 25 years has driven me to conclude that there is a fundamental error in geotechnical theory.

It is my opinion that geotechnical academia teaches a flawed notion of two-phase physics, and this must be challenged. They hold that soil-structure is weakened by increases in pore water pressure within the mass. This is incorrect; the truth is quite the opposite: Changes in pore pressures are due to deformation of the soil-structure. It is simply a confusion of *cause* with *effect*.

The consequences of this misconception are that our ways of protecting people and structures against ground failure, our ways of monitoring earthworks behaviour, and our ways of calculating vulnerability, are faulty, ineffective, and wasteful of resources.

Since your associations represent the integrity of the Civil Engineering community I believe you have a responsibility to investigate my criticism.

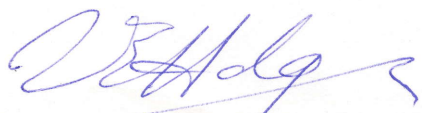
I have set forth my arguments in a series of six articles published in Geotechnical News, and duplicated on my website, with the following link being the most direct :

<http://www.phoenix-hodge.com/geotechnical.html>

It is remarkable that so far, only China and India have shown an open supportive response to my writings. Nevertheless, outside Asia, the University of Manchester in the UK is in agreement with my position and is offering my ideas and Ground Improvement equipment as topics to their students. Also, it seems Cambridge in the UK is considering this departure from orthodoxy. But America, apart from a single exception, remains silent.

My recommendation is that North American engineers pay attention to this issue, and engage structural engineers in tandem with practicing hydraulic engineers, to resolve this unbecoming anomaly.

Yours sincerely,



William E. Hodge, PEng, M.ASCE

July 23rd 2014