

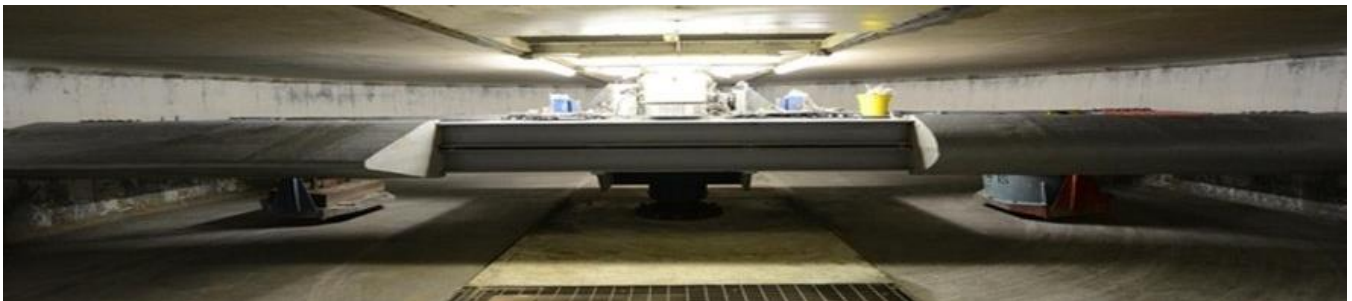
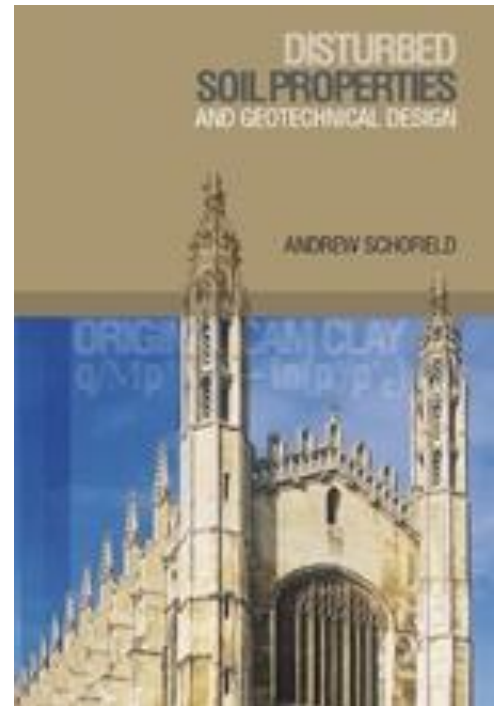
Critical States of Soil and Geotechnical Centrifuge Tests

Professor Andrew N. Schofield, FRS, FREng

Emeritus Professor at the University of Cambridge

Seminar overview:

The talk covers the whole span of Professor Schofield career (see short biography below). It will start with the development of the Critical State Soil Mechanics, starting with Coulomb's frictional laws and ending with the Original Cam-Clay model. This talk is a reminder of the fundamental ideas which drove Professor Schofield in establishing the 'modern' trend in geomechanics. It will also cover some aspects and illustration of centrifuge testing, which is Professor Schofield second contribution to 'modern' soil mechanics.



When and where:

Friday, 29 April, 13:00

Engineering Department, Lecture Room 5

Queries:

E. James Fern
jf497@cam.ac.uk

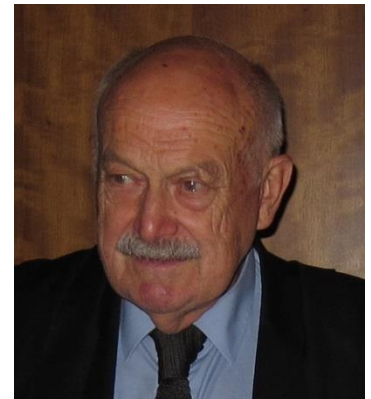
Critical States of Soil and Geotechnical Centrifuge Tests

Professor Andrew Noel Schofield, FEng, FRS

Emeritus Professor at the University of Cambridge

Short biography:

Professor Andrew Schofield studied engineering and graduated from Christ's College Cambridge in 1951. He worked in Central Africa with consultants Scott and Wilson using novel air photo interpretation to locate lateritic gravel for low cost pavement construction. He returned to Cambridge to work with Professor Kenneth H. Roscoe for his PhD which he completed in 1961. He became a Lecturer in 1961, was a Fulbright Fellow at Caltech in 1963-4 and on his return was elected a Fellow of Churchill College. After publishing Schofield and Wroth (1968) "Critical State Soil Mechanics" he accepted a Chair at the Institute of Science and Technology in Manchester (UMIST) where he built and developed an early geotechnical centrifuge.



Professor Roscoe had begun building a larger machine in Cambridge but at the time of his death it was not yet commissioned. Schofield returned to Cambridge in 1974, modified and commissioned that machine and used it until retiring in 1997. He then published Schofield (2005) "Disturbed soil properties and Geotechnical design". During a first part of his career up to 1963, Professor Schofield developed Critical State Soil Mechanics (CSSM). Unlike earlier conceptual frameworks, CSSM provided a theory for behaviour of soils that correctly predicted stress-strain behaviour. In the second part of his career he developed centrifuge testing of geotechnical models made of disturbed soil and introduced them into wide use in practice.

Professor Schofield was elected Fellow of the Royal Academy of Engineering in 1986 and of the Royal Society in 1992.

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