Disturbed Soil Properties and Geotechnical Design

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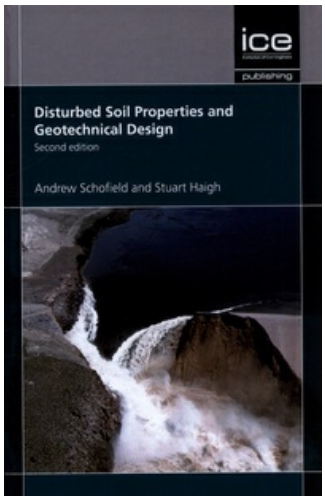

About the Book

Disturbed Soil Properties and Geotechnical Design, Second edition describes the developments leading to the Original Cam Clay model, focusing on fundamentals of the shearing of soil. The first edition explained and illustrated fallacies in past work of engineering geologists, and laid groundwork for the understanding that should form the basis of modern geotechnical design.

With the changing environment, and the increasing size of construction projects, engineers now need a better understanding of ground behaviour to prevent future catastrophes such as the 1976 Teton Dam failure shown on the cover. The further additions in this book will help geotechnical engineers acquire this knowledge.

Disturbed Soil Properties and Geotechnical Design, Second edition

- provides an outline of the energy-based Cam-clay approach that can predict geotechnical deformations
- illustrates further fallacies in commonly used c-φ Coulomb soil mechanics
- describes the use of centrifuge modelling in geotechnical design, based on examples from the last four decades

Once armed with the simple concepts of wet/weepy and dry/thirsty sides of the critical state line, readers will better understand if soil will tend to contract or dilate in drained shearing, and if pore pressures caused by undrained shearing will be positive or negative

Full of technical and personal insights, this is a rewarding book that forces the rethinking of modern geotechnical engineering. Much like the first edition, this book remains an invitation for the unconverted to re-examine the basic understanding of soil behaviour, and for the converted to ensure that the teaching, vocabulary and nomenclature used in describing strength models for soil, accurately reflect the underlying concepts.

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