Book review

Foundation engineering (*Developments in geotechnical engineering, volume 75*). *S. Hansbo. Amsterdam: Elsevier, 1994, 520 pp. ISBN 0 444 88549 8. Dfl. 325.*

Developments in geotechnical engineering is a remarkable publishing achievement—all the more so because, according to the list near the front of this the 75th volume in the series, 63 of the previous volumes are currently in print. It is therefore surprising that the latest volume should have such a general title. What emerges is a personal and very practical view of foundation engineering based on Professor Hansbo's 30 years of experience as an academic and a consultant in Sweden. The author has been highly selective in choosing what to include and what to leave out—clearly a good thing but one that makes it difficult to please all the readers all the time.

The preface states that this book is suitable as a textbook for senior undergraduates and graduates, and as a combined text and handbook for professional engineers. The first 104 pages deal with the fundamentals of soil mechanics, soil and rock classification, and soil investigation, the aim being to 'make it easier for the reader to grasp the context of the book without need of looking into reference books'. The approach is classical: Cam clay and all that goes with it is left out. There is, however, much which will not be familiar to many British readers. Unfortunately, trying to cover such a wide topic so briefly has produced some tantalizing statements that need further explanation. One example is a statement, 'The result [of measurements of organic content] is compared with electrical conductivity of ground water'. There is no further explanation. The inclusion of a list of symbols and the correction of at least one reference in the text to the wrong figure would make the material easier to follow.

The next three sections—approximately 160 pages—deal with shallow foundations, deep foundations and dynamically loaded foundations. There is more on the distribution of pressure under foundations than might be expected and much more on the interpretation of pressuremeter test data for design than is common in British practice. The SPT does not get a look in.

The book goes on to deal with retaining walls, embankments and fill on soft ground, slope stability, excavation and soil improvement. Numerous worked examples and case histories are included. A final section deals with aspects of geotechnical design, including accuracy, design criteria and international codes.

There is something refreshingly different about both the content and the approach. The final sub-heading within the section on dynamically loaded foundations—'Instructions for practical analysis'—emphasizes the nature of the whole book. It is not a standard undergraduate textbook but it will find a place on my bookshelf and go on my recommended reading list for final year undergraduate students.

—L. Davison

Corrigenda

Developments in wedge shear testing of unsaturated clays and gravels by T. Mirata (1991). *Géotechnique* **41**, No. 1, 79–100; Corrigenda **41**, No. 2, 296 and **41**, No. 4, 639

On page 85, left-hand column, line 19, 50 mm *should read* 70 mm.

On page 93, right-hand column, penultimate line, 10 mm *should read* 20 mm.

On page 95, in Table 5, the dry density for test series PW/GP/M *should read* 1·55 *not* 1·57.

Cracks, bifurcation and shear bands propagation in saturated clays, by A. S. Saada, G. F. Bianchini and Liqun Liang (1994). *Géotechnique* **44**, No. 1, 35–64

On page 60 the caption to Fig. 30 *should read*: Fig. 30. Shear bands and interaction of two cracks in the downstep position: $e = 1{\cdot}3$ cm; specimen 84-07-17-91.