

Sanglerat, Guy; Olivari, G. & Cambou, B. Practical problems in soil mechanics and foundation engineering, 1. Amsterdam, Elsevier, 1984.

PREFACE

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O F E R E D
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In the continuum of persistent change which characterizes the professional quest for scientific and engineering solutions, there is an absolute need for pauses and movement by steps. Such a need is felt all the more intensely as all social and technological factors have made the continuum of change more and more accelerated.

Man, and especially the Engineer, cannot shy away from the discontinuity imposed by a *yes vs. no* decision: *maybe* does not exist, because its implementation would be as *maybe-yes* or *maybe-no*. Both right and wrong, however arbitrary and nominal, must be allowed to stand long enough to permit the experience cycle to close, starting with a given set of data, hypotheses, calculations and decisions, and reaching a certain set of observations on the constructed product under operational conditions.

Far too much of the modern production of technical literature is conditioned by the eureka complex, especially in the respected advanced technological centers. Yet, Man's and Society's time cycle of experience is still deeply conditioned by an animal life cycle, even if somewhat altered by physiological and social evolutions. A house is intended to be a home, and its life cycle should respect a span roughly between twenty and eighty years; public works should serve a couple of generations. It is not only materially but also socially that from the solutions of one generation or period arise the plagues of a following generation.

The appropriately named book, *Practical Problems in Soil Mechanics and Foundation Engineering* by Sanglerat, Olivari and Cambou, comes to fulfill a very important need of thousands of practicing engineers in the geotechnical profession. It sets a modern, practical milestone for reference, and is almost unique in doing this with its emphasis on calculations, the principal working tool of engineers. The analysis and calculation procedures presented, which encompass the great proportion of geotechnical problems, are simultaneously both the indication of accepted practice and the reminder that such accepted practice is based on hypotheses: both the hypotheses and the rules developed from them must always be clearly stated, not only so that exceptions may be distinguished, but also so that the consequences of a given practice may be used to establish a modicum statistical universe of

case histories for judging the results achieved and for subsequent iterative adjustment.

Solutions in engineering are immediately recognized to be wrong if a patent or catastrophic failure ensues. Time, however, reveals the other extreme of the histogram of failures of engineering solutions, when they conceal a condition of being too safe and relatively less economical than desirable or acceptable. The authors are to be thanked for having offered a good up-to-date reference for appraising both ends of the spectrum. Engineers should be enjoined to state clearly the design procedures according to which their projects of a given period were calculated. This book augurs well to stand as a guide for many, many such calculations.