

Introduction

Analytical methods and testing techniques in the field of soil and rock mechanics have become highly developed while the engineering techniques for site evaluation appear to have lagged behind. In most cases the problem is to decide when and where to obtain appropriate samples of the soil and how to obtain these samples in a relatively undisturbed condition.

Sampling has been probably neglected because it does not lend itself to refined research. The problem, nevertheless, is so important that Committee D-18 decided to devote a symposium to it.

As a preliminary measure members of the Committee and others interested in the geotechnical field were asked for advice on the merits of a symposium. Two replies in particular seemed to sum up the essence of all views. One said:

As time goes by I am more and more convinced that it is the defects in soils and rock which govern design, yet the emphasis seems to be on testing the material between the defects and the properties of this material are not necessarily the most important consideration.

The second reply was as follows:

Regretfully, so many people do not appreciate the importance of careful sampling but, rather, are concerned with intricate and sophisticated laboratory testing, irrespective of the quality of the samples. All sorts of explanations and theories are being presented to explain various testing inconsistencies, very seldom, however, are these ascribed to the disturbance of the sample.

As a result of this encouragement papers were solicited to discuss the need (or lack of need) for undisturbed samples of soil or rock in engineering practice, to explore the factors that affect sample disturbance and to compare conventional practice with the state of the art. More than twenty papers were offered for the symposium and of these twelve were selected because they fell within the purpose of the meeting. Dr. H. Q. Golder and Dr. J. O. Osterberg¹ were asked especially to prepare introductory lectures to each of the two sessions. After each lecture a selection of authors was assembled as a panel for discussion of various questions.

Attendance at the meeting was very good and the panel discussions provided a useful introduction to open discussion from the floor. This Special

¹ Dr. Osterberg was unable to submit a text for his paper; therefore, it is not included in this symposium.

2 INTRODUCTION

Technical Publication contains a collection of the papers and of the discussion. It is hoped that the material recorded here will aid in the development of improved standards and test methods associated with the general problem of sampling of soil and rock.

B. B. Gordon

Woodward Clyde and Associates,
Oakland, Calif.;
symposium co-chairman

C. B. Crawford

National Research Council of Canada,
Division of Building Research,
Ottawa, Ont., Canada;
symposium co-chairman