tion contains more than half the world's known cut diamonds of more than 100 carats, scores of emeralds more than 2 in. across, and a unique assemblage of rubies. Two of the most fascinating plates are of a tray of unmounted polished emeralds up to 188 carats laconically labelled Case 30, no. 24, and of the 18-in.-diameter Great Globe said to contain 51 000 gems, the oceans being represented by emeralds and the land by rubies and red spinels. The photographs of the incomparable Nadir Shah jiqa set with six matched emeralds, and of a stem-cup composed almost entirely of rectangular step-cut rubies graduated in size and set within vertical gold ribs, demonstrate the beauty and craftmanship which is evident throughout the collection. The text represents the results of the first scientific and gemmological study of these treasures.

R. A. HOWIE

GILLOTT (J. E.). *Clay in Engineering Geology*. Amsterdam (Elsevier), 1968, xv+ 296 pp., 118 figs., 18 tables. Price 155*s*.

This book will be helpful to civil engineers and geologists concerned with soil mechanics. The former will find particularly useful a summary of the 'state-of-the-art' concerning the physical chemistry of clays and the various methods now used to carry out mineralogical and physical analyses of clays. The latter will find more interest in the chapters on strength and rheology of clays and their engineering significance. This bringing together of civil engineering and geology is relevant and important and Dr. Gillott is to be congratulated on the fine book he has produced.

A true marriage is easier said than done, however, and it would have been more satisfying if the two sides could have been more closely fused together, rather than kept in separate compartments. Even cross-referencing within the book (except via the index) is minimal. Thus the Atterberg tests mentioned under engineering classification should surely be linked with how they are performed (Chapter 12), with plasticity and rheology (Chapter 7), and with the nature of water around the clay mineral (Chapter 6).

The bibliography is good, especially in obscure publications, but on slope stability surely something more recent than Taylor (1948) is required to be used with the results from the sophisticated shear tests with pore-pressure measurements described later. The illustrations are excellent and well chosen. J. K. T. L. NASH