

most valuable addition in making these books more useful. Both books deal with modern karst as presently exposed on the surface of the Earth. In the rock record many ancient karsts form unconformities at the tops of limestones. Although such palaeokarsts may be important economically, for instance as traps for oil, gas, lead or zinc, they are not covered in these two books.

The chapter headings of Jennings's book include nature of karst and its study, karst rocks, karst processes, minor solution sculptures, drainage, surface landforms, karst caves, cave deposits, influence of climate and rates of denudation, influence of geologic structure, historical geomorphology of karst, and present state of karst geomorphology and its value. The book is well written and well planned. Some of the material that is covered in this book leaves one hanging. Why, for instance, has Jennings reviewed several petrographic classifications of limestones when nowhere in this book is a relationship shown between the fabric of the limestone and the development of karst?

In addition to the chapters on karst regions the book edited by Herak and Stringfield includes two historical chapters and a joint chapter by the editors reviewing general concepts. As the Anglo-American literature has not loomed as large in this field as in most other fields of geology, Anglo-American students of karst will be grateful to the authors of these chapters who have made available in the English language much information which lies behind a very real language barrier. As the original manuscripts were written by scientists from several different language groups, the writing and presentation are uneven. The true student in this field, however, overlooks this disadvantage; he realizes that it is unavoidable.

GERALD M. FRIEDMAN

## Rock Mechanics

*Rock Mechanics and Engineering.* By Charles Jaeger. Pp. x+417. (Cambridge University: London, August 1972.) £10.50; \$25.

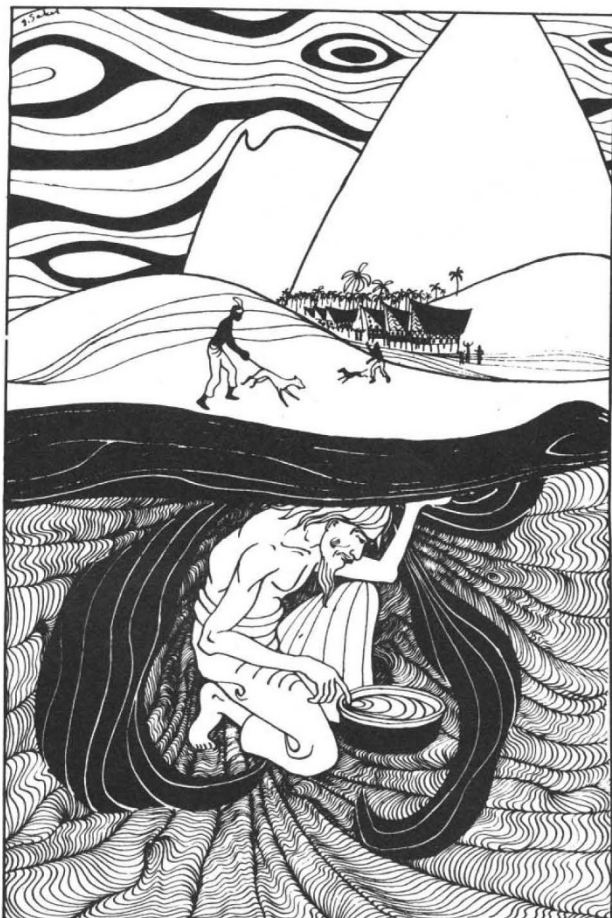
UNTIL 1967 there was no authoritative

textbook in English on the new science of rock mechanics. Since then a number have appeared and this latest, by Dr Charles Jaeger (not to be confused with his Australian namesake, working in the same field), is a valuable addition to the library of the engineering geologist and the civil engineer who are concerned particularly with the field of large dams or underground openings.

Dr Jaeger paints his canvas with a big brush. In the fourteen chapters of the book we start with a history of how rock mechanics has developed and end with a case history of the disastrous 1963 Vaiont rock slide in Northern Italy which displaced the water from the freshly filled reservoir and in turn caused the death of nearly 3,000 people around the small town of Longarone. The other sections of the book deal with rock material and rock masses, the stability of rock slopes and dam foundations, and the stresses in tunnels. These are the core of rock mechanics.

It is difficult for a book to be everything. Any one of the sections in the stress analysis portion could be enlarged and treated in greater detail, as for example the finite element method which is given only five pages. Nevertheless the book gives an excellent overall view of the state of rock mechanics today from an engineer who has been closely involved with theory and practice. Many of the references do not appear to have been checked: thus "Professor Bjerum representing the Chairman of the International Conference on Soil Mechanics" should in fact have read "Professor Bjerrum, Vice-President for Europe of the International Society for Soil Mechanics and Foundation Engineering", and Arthur Casagrande is consistently referred to as H. Casagrande. KEVIN NASH

## Roof of the Earth



Maradika Pudu, Indonesian Spirit of the Earth, as drawn by I. Sakri. When he puts his finger in the bowl of water, an earthquake results. Reproduced as the frontispiece of *The Upper Mantle*, Volume 4 of *Developments in Geotectonics*, edited by A. R. Ritsema (Elsevier, Amsterdam, 1972). The book describes, among other things, some alternative explanations of earthquakes.

## Slope Forms

*Slopes.* By Anthony Young. Edited by K. M. Clayton. Pp. vii+288. (Oliver and Boyd: Edinburgh, March 1972.) £5.

*Hillslope Form and Process.* By M. A. Carson and M. J. Kirkby. Pp. viii+475. (Cambridge University: London, June 1972.) £6.60; \$19.50.

GEOMORPHOLOGY is gathering unto itself an ever increasing body of specialist literature. Now two books have appeared almost simultaneously which from their titles would seem to cover the same general ground. The similarity, however, largely ends at that point.

Dr Young's is a well conceived and ably presented review of much of the important work done on slope analysis, with a special emphasis throughout on the explanation of slope form. Some