

INTRODUCING TECTONICS, ROCK STRUCTURES AND MOUNTAIN BELTS

The key concepts of tectonics and rock structures are described for students and the interested non-specialist, especially those without a strong mathematical background. The study and understanding of geological structures has traditionally been guided by the rigorous application of mathematics and physics but, in this book, Graham Park has avoided mathematical equations altogether and has kept complex geometry to a minimum.

The application of plate tectonic theory has revolutionised structural geology by giving the study of rock structures a context in which they may be explained. The study of tectonics is thus the key to understanding rock structures. For this reason, large-scale Earth structure and the theory of plate tectonics are introduced before smaller-scale structures, such as faults and folds. Studies of the movement history of rock masses relative to each other, as revealed by fault systems and shear zones, has helped to integrate rock structures with plate tectonics and this aspect has been emphasised in the book.

One of the most exciting aspects of geology is the study of the great mountain ranges, or orogenic belts. The final three chapters of the book explain how knowledge of plate tectonic theory, geological structures and the processes of deformation may be employed to understand orogenic belts.

Whilst excessive use of terminology is avoided, all technical terms are in a Glossary and, as with all books in this series, the text is illustrated profusely.

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