

This book is written for advanced earth science students, geologists, petroleum engineers and others who want to get quickly 'up to speed' on the interpretation of reflection seismic data. It is a development of material given to students on the MSc course in Petroleum Geology at Aberdeen University and takes the form of a course manual rather than a systematic textbook. It can be used as a self-contained course for individual study, or as the basis for a class programme.

The book clarifies those aspects of the subject that students tend to find difficult, and provides insights through practical tutorials which aim to reinforce and deepen understanding of key topics and provide the reader with a measure of feedback on progress. Some tutorials may only involve drawing simple diagrams, but many are computer-aided (PC based) with graphics output to give insight into key steps in seismic data processing or into the seismic response of some common geological scenarios. Part I of the book covers basic ideas and it ends with two tutorials in 2-D structural interpretation. Part II concentrates on the current seismic reflection contribution to reservoir studies, based on 3-D data.

After gaining his geology degree, Dr Ashcroft worked with Seismograph Service Ltd on seismic parties in the Middle East and Nigeria, then went on to do research at Birmingham University. He joined the Department of Geology, University of Aberdeen in 1966, teaching Applied Geophysics to BSc students and to the MSc class in Petroleum Geology. His research interests included large-scale magnetic surveys in the Scottish highlands and studies based on seismic data released from the petroleum industry. He retired as Senior Lecturer in 1999, but has remained active, teaching geophysics at the University of Glasgow and carrying out magnetic surveys over the Rhynie Basin as well as writing this book and developing its tutorial software.

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*Files for computer-aided tutorials in the text are provided in the companion CD at the front of the book.*