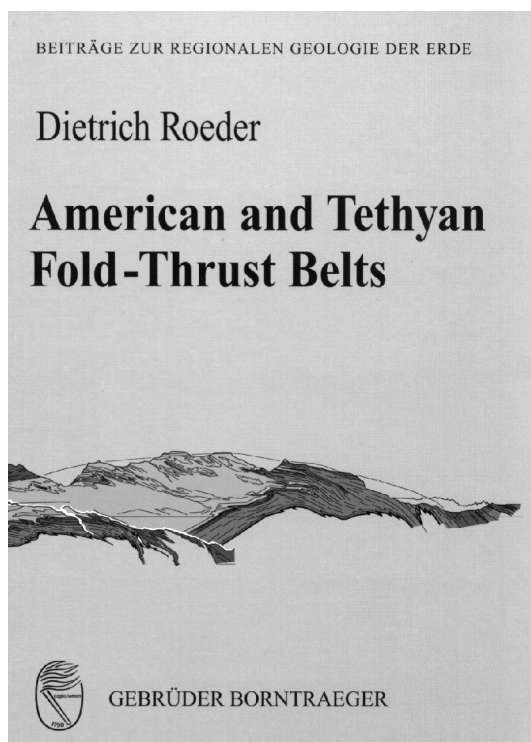


**American and Tethyan fold-thrust belts**, by Dietrich Roeder, 2009. *Beiträge zur regionalen Geologie der Erde* 31. Gebrüder Borntraeger, Berlin. Hardback, vii + 168 pages. Price EUR 84.00. ISBN 978-3-443-11032-1.



On the basis of his own field work in the North American Cordillera, the Andes, the Alps, the Himalayas and some more mountain ranges, in combination with a careful examination of available literature, Roeder reviews our current knowledge of the tectonics of fold-thrust belts, which are impressive scars on Earth's surface. His fascinating book is concise, but very comprehensive. Thirteen chapters clarify most, if not all, aspects of the structure and evolution of this type of active zones.

The book starts with an overview of the state-of-the-art regarding our knowledge of fold-thrust belts and the principles of their study. These belts are further described in the

terms of plate tectonics. The Cordillera-styled tectonics and orogeny growth enable the fold-thrust belt evolution. Roeder recognizes rift-fill/syn-rift, passive-margin, foredeep, and successor basins, and the oceanic accretionary wedge as the main depositional systems of orogens. Very interesting passages concern the stockwerk tectonics of East Greenland. Four styles of fold-thrust belts are described, namely the Dahlstromian style, the Biotian style, the style of basement upthrusts, and the slate-belt style.

It is stated that fold-thrust belts belong to externides. One chapter gives a synopsis of structural details of the externide fold-thrust belts, including flexures and duplexes. Roeder is absolutely right when emphasizing the great importance of major strike-slip displacements in the evolution of fold-thrust belts. Ruban (2007) postulated the same. However, some lateral displacement systems have a global extent and are therefore superposed orogenic structures. A collage of tectonic sketch maps depicting strike-slip structures in the fold-thrust belts (Figs. 105–108) provides powerful evidence of the need for more interregional comparisons. The significance of gravitational forces in the evolution of fold-thrust belts should have been discussed in a special chapter. The book ends with some notes on petroleum exploration. Although little or moderate in size, new oilfields can be discovered in fold-thrust belts.

Roeder is a really talented writer. He avoids lengthy, unnecessary physical explanations and redundant theoretical examples, but includes in their place simple remarks and examples from actual fold-thrust belts. His writing is

very personal and stimulating. Yet, he reviews the problems comprehensively, and a logical order of explanations stretches throughout the book. I admire the illustrations, which are numerous and detailed. Their uniform style strengthens the author's explanations and permits the reader to attempt some intriguing comparisons himself. I believe that this book should take a central place on the shelf of every geologist, if even he or she is not a structural geologist. This is an outstanding review, which shares all features of the classic never-outdated geological literature. Besides trained scholars, it will also be appreciated by students. I wait

impatiently for the announced publication of the next book by the same author.

## Reference

Ruban, D.A., 2007. The southwestern margin of Baltica in the Paleozoic-early Mesozoic: Its global context and North American analogue. *Natura Nascosta* 35, 24#35.

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