ternary phase diagram to aid identification and understanding of feldspars. Phase equilibria involving hydrous minerals are introduced, explaining why we often see hornblende in andesites. There follows a description of steep-sided lava flows and domes, and then a discussion of the controls on magma viscosity and the importance of volatiles and degassing for crystallisation. The origin of the calc-alkaline and low/high K trends are discussed and finally, the different tectonic settings in which silicic volcanic rocks might be found, with reference to their distinctive geochemical signatures. In other words, observations first, interpretation last. This textbook will be an invaluable guide for undergraduates in the laboratory and will allow them to develop their interpretative skills in petrology in the most intuitive way. The breadth of topics, clear layout and level of detail will no doubt lead it to become an essential, always-on-hand reference for students.

Marie Edmonds

CLARKSON, E. & UPTON, B. 2009. *Death of an Ocean. A Geological Borders Ballad.* xiii + 210 pp. Dunedin Academic Press. Price £25.00, US$39.95 (HB). ISBN 978 1 90671 602 8.
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Death of an Ocean is the geological history of the Scottish Borders whose rocks were mostly laid down in the Iapetus Ocean of Palaeozoic times but also includes Upper Palaeozoic and Quaternary episodes. In telling this story the authors extend well beyond the geographical confines of the region to give an overview of the development and demise of the Iapetus Ocean and at the same time detailed evidence as found within specific Borders sites such as Dob's Linn. Additionally, they explain for the general reader the geological and palaeontological background to the processes and biota involved in this remarkable story and short vignettes of some of the historically important geologists who pioneered our understanding of this complex terrane. So there are concise introductions to a variety of topics such as plate tectonics, turbiditic sedimentation, volcanism and the Hirnantian glaciation as well as palaeontological topics such as graptolites, their palaeobiology and use in biostratigraphy.

The authors are both very experienced geologists who have spent a considerable portion of their academic careers tramping over the rocks of the Scottish Southern Uplands. Consequently, they are very well placed to recount the events and describe the sites and geological phenomena from which the story has been reconstructed.

Death of an Ocean is far more than just a geological guide. With its numerous coloured maps, diagrams, pictures of fossils and excellently reproduced colour photographs of the rocks and landscapes of the region, it provides a really useful introduction for students, the informed amateur and anyone who wants a good up to date synthesis of this important part of the geological history of the British Isles.

Douglas Palmer