

Book review *

Reflections on Symmetry, E. Heilbronner and J.D. Dunitz, VCH, Weinheim, 1993, ISBN 3-527-28488-5, £ 22.00, pp. 154.

It seems a good idea for a reviewer to read the book before its preface so that an opinion can be formed prior to testing it against the authors' intentions. This was my strategy in the present case, not least because the book is a general one for a wide audience, looking at first sight more like a sophisticated coffee-table book than a scientific text book. It is very well presented with colour illustrations on every page and learned multilingual quotations introducing each chapter. The writing style is conversational with the advantage of being readable by a large audience, but the disadvantage for the more informed is that some time is taken to get anywhere. The book progresses from reasonably complex logical arguments through some very basic chemistry and onwards to physics (the beginnings of crystallography, Boltzmann distributions, and on to wave mechanics). For the first part some neat logical tricks are introduced to help get over the idea of symmetry. The chemical aspects are of course relevant to *Carbohydrate Research* — the higher symmetrical order of the chair over the boat of cyclohexane; ideas of chirality; the introduction by Emil Fischer of the nomenclature for enantiomers; and a discussion of the basis of the Woodward–Hoffmann rules. I agree with the authors sentiments, if not their wording, that we probably have “psychological symmetry fixations” (p 56) and, in general, enjoyed the book for rounding some of the corners of my preconceptions. But more generally who are the targeted audience? I think I agree finally with the following parts of the authors' preface that the book will “appeal to scientists in general, and indeed, to laymen with an interest in the development of science from its cloudy beginnings to its persuasive influence in modern society”, that the book describes “how symmetry concepts inherited from the early Greek Philosophers began to enter scientific thought” and that if any one feels that “their encounter with symmetry concepts during their student days was inadequate, the present book may help to fill the deficit”. Perhaps for the readers of *Carbohydrate Research* it is a book which should be bought for sons and daughters, nephews and nieces, but as in the good tradition of giving books as presents, I recommend that you have a quick read yourself before giving it away. At £ 22 for a glossy hard back it is remarkably good value.

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* This is the first of hopefully a regular book review column. Future contributions will be more in the main stream of *Carbohydrate Research*, except perhaps near Christmas when we could have a younger reader section to help with present buying and to introduce more teenagers into chemistry.