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REVIEWS

The Association for Symbolic Logic publishes analytical reviews of selected books and articles in the field of symbolic logic. The reviews were published in ***The Journal of Symbolic Logic*** from the founding of the JOURNAL in 1936 until the end of 1999. The Association moved the reviews to this BULLETIN, beginning in 2000.

The Reviews Section is edited by Alasdair Urquhart (Managing Editor), Lev Beklemishev, David M. Evans, Erich Grädel, Geoffrey P. Hellman, Denis Hirschfeldt, Thomas J. Jech, Julia Knight, Michael C. Laskowski, Volker Peckhaus, Wolfram Pohlers, and Sławomir Solecki. Authors and publishers are requested to send, for review, copies of books to *ASL, Box 742, Vassar College, 124 Raymond Avenue, Poughkeepsie, NY 12604, USA*.

In a review, a reference "JSL XLIII 148," for example, refers either to the publication reviewed on page 148 of volume 43 of the JOURNAL, or to the review itself (which contains full bibliographical information for the reviewed publication). Analogously, a reference "BSL VII 376" refers to the review beginning on page 376 in volume 7 of this BULLETIN, or to the publication there reviewed. "JSL LV 347" refers to one of the reviews or one of the publications reviewed or listed on page 347 of volume 55 of the JOURNAL, with reliance on the context to show which one is meant. The reference "JSL LIII 318(3)" is to the third item on page 318 of volume 53 of the JOURNAL, that is, to van Heijenoort's *Frege and vagueness*, and "JSL LX 684(8)" refers to the eighth item on page 684 of volume 60 of the JOURNAL, that is, to Tarski's *Truth and proof*.

References such as 49***5*** or 280***1*** are to entries so numbered in *A bibliography of symbolic logic* (the JOURNAL, vol. 1, pp. 121–218).

JAMES ROBERT BROWN. ***Philosophy of mathematics, an introduction to the world of proofs and pictures.*** Routledge, 1999, vii + 215 pp.

This book is a breath of fresh air for undergraduate philosophy of mathematics. Very accessible and even entertaining, Brown explains most of the issues without technicalities. The wide variety of topics, the nice examples, and the division of chapters into sub-headed sections makes it fun and easy to read.

The book includes both traditional/historical-based issues and more current topics. On the whole it works well, though there is no obvious organization of chapters in terms of these two themes. The introductory chapter, "The Mathematical Image," sketches what Brown takes to be ingredients in the common conception of mathematics such as the objectivity of mathematics and the certainty of its results. Chapter 2, "Platonism," includes an explication and a partial defense. Chapter 3, "Picture-proofs and Platonism," argues that pictures can be proofs, and that Platonism best accommodates this fact. "What is Applied Mathematics?" is the important question of Chapter 4, which also goes on to argue that Platonism has no trouble answering it. Chapter 5, "Hilbert and Gödel," explains Hilbert's program and the impact of the Gödel results on it, concluding with a brief endorsement of Penrose's interpretation (which Brown takes as another piece of evidence for Platonism). The role of notation in mathematics is the interesting topic of Chapter 6, "Knots and Notation," which compares mathematics with poetry (as two areas where innovation is closely tied to notation). Chapter 7 considers several answers to the question, "What is a Definition?"; and it

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