ship. They not only feature the classical pragmatists, but also include discussions of the work of many contemporary pragmatists and philosophers. Chapter 6, "Rorty As Elvis," is an especially engaging discussion of Rorty's misreading of Dewey. Peirce scholars will be most interested in chapter 11, where Stuhr criticizes Peirce's account of the normative sciences. He considers Peirce's view that the ideal of conduct is to contribute to reasonableness and attempts to identify some practical consequences of this view "for individual and social action." Stuhr paints Peirce as hopelessly entrenched in a fundamental dualism of theory and practice (and also of means and ends, facts and values, and logic and inquiry) but draws out some important practical lessons nonetheless. Peirceans will want to challenge some of Stuhr's interpretations, and well they should, but it would be a shame to lose track of the main thrust of Stuhr's message. This is an important book.

## Catching Up with the Vision, A Supplement to Isis, Vol. 90

Margaret W. Rossiter (ed.) University of Chicago Press, 1999, 359 pp.

This supplement to the journal *Isis* contains a selection of essays written in celebration of the 75th anniversary of the History of Science Society's founding. The volume includes a paper by Mary Louise Gleason on the metropolitan New York section of the society, in which she gives a detailed account of the role of Carolyn Eisele. Roger Hahn's paper on Berkeley's History of Science Dinner Club devotes some attention to the role of Victor Lenzen.

# Modern Logic 7

Irving Anellis (ed.), January 1997, 108 pp.

This issue of *Modern Logic* is largely devoted to computers and logical machines. It contains a number of historically significant texts in this area, including Charles Peirce's "Logical Machines" (which is also published in volume 6 of the *Writings*), Benjamin Peirce's "A New System of Binary Arithmetic," and James

Mark Baldwin's entry for "Logical Machine" in his *Dictionary of Philosophy and Psychology*. The issue opens with Irving Anellis's article on the place of John Vincent Atanasoff in the history of computer logic and technology. Atanasoff is credited with building the first full-size electronic digital computer. In his paper Anellis traces the development of computer logic in both the United States (giving due attention to the two Peirces) and Russia, drawing heavily on original Russian sources.

## "Charles Sanders Peirce and the Principle of Bivalence"

#### Robert Edwin Lane

Dissertation, University of Miami, 1998, 261 pp.

In 1909, Peirce defined the first operators for three-valued logic, thus rejecting the principle of bivalence. Lane challenges the way commentators have interpreted Peirce's reasons for this move. Lane rejects in particular the following interpretations of Peirce's third value: objectindeterminate propositions, indeterminate predications, modal propositions, and lawful generalizations of future directed subjunctive conditionals. Instead, Lane argues, Peirce intended this third value to be taken by so-called "boundary propositions"; that is, propositions which predicate of a continuity breach one of the properties that is a boundary property relative to that breach. Lane concludes his argument by considering how Peirce's rejection of the principle of bivalence affects his pragmatic account of truth.

Products as Representations: a semiotic and aesthetic study of design products.

#### Susann Vihma

Dissertation, University of Art and Design Helsinki, 1995, 209 pp.

Vihma uses Peirce's semeiotic to analyze the different ways in which designed products can act as signs. In addition to a study of the literature, and a theoretical chapter on the application of semeiotic for design products, Vihma concentrates on four such products: the steam iron, the exercise bike, the telephone kiosk, and the bicycle helmet. Vihma makes good use of Peirce's distinction between icon, index, and symbol. Early electric irons, for instance, had to resemble the old models that worked with coals; steam irons often have pilot lights to indicate they have reached the right temperature; and irons generally contain symbols such as the famous "Made in Germany." According to Vihma, this triadic division becomes an exceptionally useful tool when comparing, for instance, the various steam irons that come on the market-a tool far richer than traditional approaches that seek to examine designed objects only within the context of cultural history, or in terms of social power structures, or according to their ergonomic aspects.

## The Peirce Seminar Papers: Essays in Semiotic Analysis, Vol. 4

Michael Shapiro and Michael C. Haley (eds.)

Berghahn Books, 1999, xi + 637 pp. ISBN 1-57181-732-8 (cloth), \$69.95

This volume constitutes the proceedings of the International Colloquium on Language and Peircean Sign Theory held at Duke University in June 1997, and contains 22 papers by linguists and philosophers working together to understand the relevance of Peirce's "semeiotic" to contemporary linguistics. From among the papers worthy of Peirce scholars' attention, let us single out the following eight. Tony Jappy demonstrates the superior analytical power of Peirce's theory of iconicity over categorically degenerate versions such as some Jakobsonian models. Tom Short offers an important study of Peirce's conception of teleology, contrasting it with that of purposefulness. Joëlle Réthoré shows how a semiotics steeped in pragmaticism overtakes traditional linguistic methodology when it comes to analyzing discourse, especially assertions. Jim Liszka clearly explains the three necessary conditions that allow a process to become meaningful: directedness, mediation, and interpretation. Dan Nesher shows the relevance of Peirce's pragmaticist semiotics for learning theory. Michael Haley teaches George Lakoff a good lesson in Peircean philosophy. Robert Innis

# **BOOK NOTES**