ceedings of the Cambridge Philosophical Society **31** (1935), 433–454. As Mac Lane explains (pp. 17–18, "Part I, History of Algebra: History of Abstract Algebra: Origin, Rise, and Decline of a Movement," in D. Tarwater, *et al.* (editors), *American Mathematical Heritage: Algebra and Applied Mathematics* (Lubbock, Texas Tech University Press, 1981), 3–35),

> In this paper, he proved what is now called Birkhoff's theorem characterizing varieties of algebras closed under (infinite) products, quotients, and the formation of subalgebras. Lattice theory, which had been extracted by Dedekind in 190 from the properties of ideas, was rediscovered by Garrett Birkhoff and also independently by Oystein Ore, who had been influenced by the Göttingen school and had just edited Dedekind's collected works, including the papers on dual groups (= lattices). Ore's emphasis was to apply lattice theory to groups and to ring theory, while Birkhoff was more concerned with a wider sweep including ordered systems. Birkhoff and Karl Menger contributed essentially to the description of projective geometires by lattices. . . .

Birkhoff also carried out research on scientific computing, reactor theory, differential equations, and the history of mathematics His history of the development of modern algebra, for example, is presented in the aforementioned "The Rise of Modern Algebra to 1936" and continued in the next pages in "The Rise of Modern Algebra, 1936 to 1950" in J. D. Tarwater, J. T. White & J. D. Miller (editors), *Men and Institutions in American Mathematics* (Lubbock, Texas Tech University Press, 1976), 65–85).

THOMAS TYMOCZKO

Philosopher of mathematics THOMAS TYMOCZKO died this past summer following a brief illness. His teachers included Hao Wang, Michael Dummett, Burton Dreben, and Hilary Putnam, as well as ethicist Phillipa Foot. He received his doctorate in 1971, after which he joined the philosophy faculty at Smith College, where he continued to serve as Professor of Philosophy until his death. His special concern was the re-introduction of the algorithmic — or what he prefered to call "quasi-empirical" — nature of proof as a result of the use of computers to test equations. Examples of his ideas in this regard are his papers "The Four-Color Problem and Its Philosophical Significance", which first appeared in 1979 in *The Journal of Philosophy* **76**, no. 2, pp. 57–83 and "Computers,