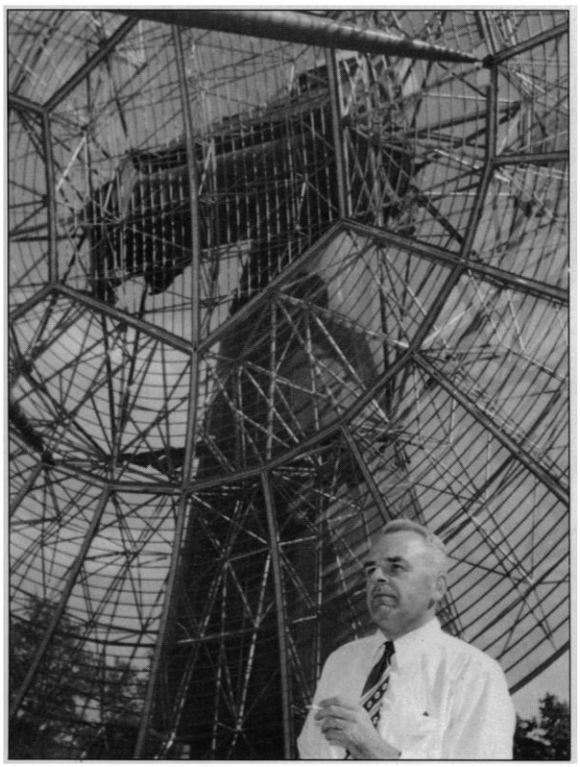
Galactic Enthusiast

The Man Who Sold the Milky Way. A Biography of Bart Bok. DAVID H. LEVY. University of Arizona Press, Tucson, 1993. xiv, 246 pp. + plates. $35.

Bart Jan Bok, a prominent observational astronomer and student of galactic structure, was certainly one of the most memorable personalities in 20th-century astronomy. David Levy's brief biographical romance, *The Man Who Sold the Milky Way*, amply bears this out and can be recommended for the focused impressions it provides of Bok's life.

Though Bok was too young to be a student of J. C. Kapteyn, leader of the Dutch school of statistical astronomy, he was much influenced by Kapteyn's writings and in the mid-1920s trained under his student Jan Oort at Leiden and then under Pieter van Rhijn at Groningen. Bok was typical of the young Dutch astronomers who emigrated to the United States in the second and third decades of the century; his goal was to exploit the observational resources available here for the study of the structure and kinematics of stellar systems. Indeed, along with A. van Maanen, W. Luyten, and P. van de Kamp among others, Bok helped to build the modern specialty of galactic structure research, combining the mathematical training and physical insight of the Kapteyn school with the programmatic data-gathering capabilities of American observatories.

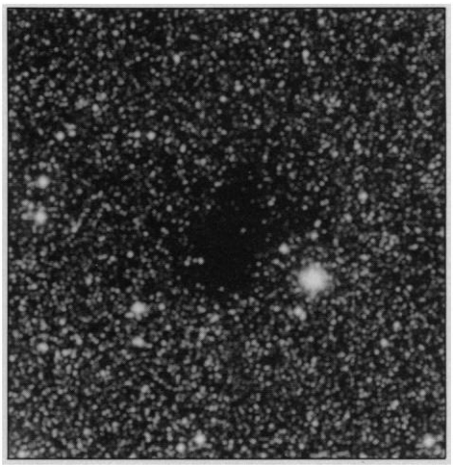


"Bart Bok next to the Agassiz telescope. Circa 1956." [From *The Man Who Sold the Milky Way*]

Bok's blunt and often abrasive style, tempered by his exuberance about astronomy and general love of life, comes through in Levy's biography. Accounts of his whirlwind marriage to the astronomer Priscilla Fairfield, whom he met at the 1928 General Assembly of the International Astronomical Union in Leiden, of his turbulent years at Harvard as a member of a highly capable yet idiosyncratic staff under the quixotic Harlow Shapley, and of his fascination with radio astronomy and subsequent disappointments at Harvard, which ended in his departure for Australia, map out a career laced with political intrigue, scientific ardor, and a zest for controversy. Bok's main legacy, however, seems to lie in his teaching, both public lecturing and at the undergraduate and graduate levels. Anecdotes throughout the biography support the theme suggested by the title—Bok's promotion of astronomy—as do numerous testimonials gathered by Levy through interviews.

Levy, best known as a writer, popular lecturer, and discoverer of comets, employs interviews as his primary documentation, mainly ones conducted with Bok in his last years (he died in Tucson in 1983 at age 77), as well as with students, family, and friends. Better than many writers of impressionistic history, Levy supplements his interviews with a scattering of correspondence and secondary source materials, and though he struggles for independence from his subject, ultimately he is captured by Bok, letting most of the testimony stand untested.

Though Levy's biography is reasonably accurate in the aggregate, there are problems with the details. These will be of concern mainly to historians, though astronomers will wince here and there at the gaffes. The author seems uneasy dealing with technical matters; for instance, he seems not to be able to decide if radio telescopes "see" or "hear" and seriously distorts the *Astrophysical Journal*'s reception of Meghnad Saha's early work. And though there are detailed descriptions of Bok's observing routine, there is little attention to his technique or style that would make the description useful for the historical record. Better editing and proofreading would have caught blunders such as textual material repeated word for word in an endnote.



"Barnard 335, a classic Bok globule. The globule is about four arcminutes in diameter, about a seventh of the diameter of the full moon. Bok discovered that globules represent an early stage in the formation of stars. Photograph by Bart J. Bok, using the 90-inch reflector at Steward Observatory." [From *The Man Who Sold the Milky Way*; courtesy of University of Arizona Library, Special Collections]

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Hörbigerism

Universal Ice. Science and Ideology in the Nazi State. ROBERT BOWEN. Belhaven, London, 1992 (to be distributed in the U.S. by Wiley, New York). xiv, 189 pp. + plates. $59 or £39.50.

In 1912 a successful Austrian inventor and engineer, Hanns Hörbiger (1860–1931), published *Glacial-Kosmogonie* ("The Glacial Cosmogony") in collaboration with Philipp Fauth (1867–1941), a teacher and amateur astronomer. This book outlined a heterodox general theory of astronomy and the earth sciences that Hörbiger had been working out since the 1880s—namely, that the universe was largely made of water ice and that ice infall profoundly affected the Earth and its climate. Hörbiger's cosmogony, which came to be known as the *Welteislehre* (world ice theory) or WEL, also claimed that the Milky Way was largely a ring of ice crystals surrounding the solar system. Using evidence from the Bible and traditional mythologies, plus a doubtful command of geology, Hörbiger further asserted that a number of icy moons had spiraled into the Earth, leading to a series of global catastrophes. In the interwar years, the WEL acquired many lay adherents (but little scientific support) in Central Europe, Britain, and