A Life Among Stars

Edwin Hubble: The Discoverer of the Big Bang Universe. ALEXANDER S. SHAROV and IGOR D. NOVIKOV. Cambridge University Press, New York, 1993. xvi, 187 pp. + plates. $34.95 or £19.95. Translated from the Russian edition (Moscow, 1989) by Vitaly Kisin.

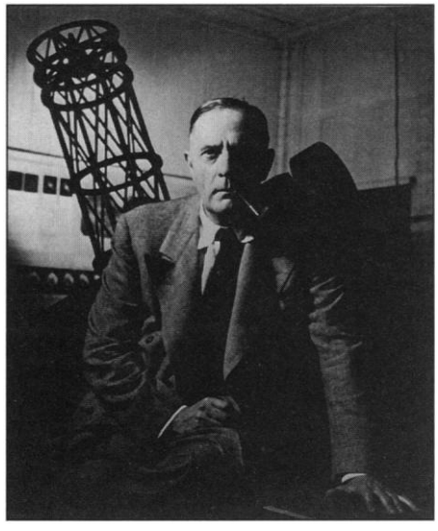
Edwin Hubble: Mariner of the Nebulae. GALE E. CHRISTIANSON. Farrar, Straus and Giroux, New York, 1995. xiv, 402 pp. $25.

The biographies reviewed here take very different approaches to the collection and analysis of material pertaining to the life of the American observational cosmologist Edwin P. Hubble (1889–1953). Russian astronomers A. S. Sharov and I. D. Novikov provide what the publisher describes as "the first complete account of the scientific life and work of Hubble." In fact, what we have is a pastiche: highly selective and often incorrect biographical information and a telegraphic discussion of cosmology since Hubble. The latter section has no direct connection with Hubble and, given his limited grasp of modern physics and reluctance to employ theory in explaining observations, would hardly be to his liking. The book's subtitle is never defended, but then how could it be?

In spite of helpful librarians and astronomers on this side of the Atlantic, doing historical research on an American topic without leaving Europe poses insurmountable problems. Knowing little about general American history or the history of American astronomy compounds matters. From page 1, where we are told that Hubble's earliest American ancestor immigrated from England to the state of Kentucky in the 17th century, through a blundering discussion of Hubble's Rhodes scholarship to Oxford (why not Cambridge to study science, the authors ask), to the confusion over the Barnard Medal (named for astronomer and sometime Columbia University president Frederick A. P. Barnard, not the Yerkes astronomer E. E. Barnard) awarded to Hubble in 1935, these Russian astronomers simply are not up to the task of collecting and analyzing historical data. Add to these unsettling errors of fact a poor English translation of the original Russian text and the reader is left with only one question. Why did Cambridge University Press publish this book?

Gale E. Christianson, a biographer with a number of books to his credit, presents us with a very different product. His biography rests on considerable archival research but leaves readers awash in a sea of facts. Christianson has not provided a context in which to place Hubble. He venerates the astronomer yet presents evidence that suggests an arrogant man of overbearing ego, self-centered and self-serving, who after Einstein and Madame Curie became one of the great scientist-superstars of the first half of the 20th century. The process by which Hubble became a superstar could have provided a unifying theme for the book, but Christianson did not select this option.

Christianson is not primarily interested in Hubble as a scientist; his book is not a traditional chronicle of the genesis, development, and reception of scientific ideas. Rather it is Hubble the man that intrigues him. But it is precisely here that we come to the heart of the matter. Who was Edwin P. Hubble?



Edwin P. Hubble. [Carnegie Observatories and AIP Emilio Segre Visual Archives]

A product of main street on the middle border, Hubble, in concert with his wife Grace, constructed a complex and many-layered persona: the tweedy, pipe-smoking anglophile of military bearing, who fought a duel in Germany before World War I; the young man who sacrificed a lucrative law practice to return to Chicago for a Ph.D. in astronomy; the lonely scientist struggling against the odds, who singlehandedly solved the riddle of the nebulae and discovered the expanding universe. Indeed, Hubble's in-laws knew so little about the man their daughter married that when one of Edwin's kinsmen came to Pasadena he was pumped for information. Hubble kept his family at arm's length, apparently ashamed of his background. The astronomer may have feared that his family would expose him.

Much of the immediately available historical record (the Hubble papers in the Huntington Library in San Marino, California) must be used with great caution. The collection was carefully edited by Hubble's widow. A major item in the Hubble archives is Grace Hubble's journals, which were themselves reviewed and edited by Hubble as she wrote them. Though there are materials related to Hubble in many other archives, Christianson apparently had little interest in sampling the opinion of contemporaries unless it was favorable to the astronomer. Arguably, the biography is most successful in reconstructing Hubble's life through the Oxford years. Beginning with Hubble's graduate education, lack of knowledge of the history of science becomes a serious liability for the author.

Inevitably, biographers must work out a relationship with their subjects, but it is not clear whether Christianson ever made peace with Hubble. On the one hand he seems to agree with the canonical interpretation: Hubble is one of the greatest astronomers of all time; on the other, he provides a wealth of information about Hubble's personality and character that enables readers to decide what kind of man he was. Consider the following examples.

Apparently Hubble and his wife had no friends at the Mount Wilson Observatory and only a few at the California Institute of Technology. Successful Los Angeles businessmen and anglophiles at the Huntington Library made up their immediate circle. Not satisfied, Edwin and Grace turned to Hollywood: Charlie Chaplin, Walt Disney, Anita Loos, Helen Hayes, Igor Stravinsky, and, perhaps most important, the English novelist and screenwriter Aldous Huxley and his wife. The Hubbles were entertained at the finest clubs and restaurants and in return frequently gave tours of Mount Wilson for Hollywood friends and let them look through the great telescopes.

Perhaps the archetypal moment occurred at the 1937 Academy Awards ceremony at the Biltmore in Los Angeles. As guests of Academy president Frank Capra, Grace and Edwin were at the head table. But let Christianson describe the scene: "Capra began the ceremonies at nine o'clock by introducing the world's greatest living astronomer and asking Hubble to rise. As he did so, three huge spotlights converged on him, while the auditorium resounded to applause. 'Next to invoking the Deity,' a star-struck Grace gushed, 'this seemed for some mysterious reason the correct way to begin.' "

As Christianson describes a seemingly endless round of parties and weekends at the homes of the rich and famous, Edwin P. Hubble the scientist slips from view, replaced by a scientific *nouveau riche*. The darling of Hollywood society, his picture on the cover of *Time*, Hubble became as much a media figure as any movie star.

As a historian of science, I would have preferred to know more about such topics as why Hubble selected extragalactic astronomy for his research field. How did he bal-

ance a demanding research program with extended trips to Europe and active participation in Hollywood social life? Why was he so conservative in interpreting his observations concerning the recession of distant galaxies? What is the real story of his relations with his scientific colleagues at Mount Wilson and elsewhere?

If we do not get answers to these questions, we can at least ask for Christianson's moral assessment of Hubble. Does the author condone Hubble's behavior when he retained a public relations agent to enhance his image in the popular press in hopes of gaining a Nobel Prize or in giving credence to the tale of a German submarine slipping up the Chesapeake Bay under orders from Hitler to liquidate Hubble and destroy the Aberdeen Proving Ground, where the astronomer worked during World War II? The successful biographer interprets and explains; often-credulous reportage is simply not enough.

Christianson has collected many facts and faithfully reproduced the portrait that Edwin and Grace planned, but the results are distressing. Perhaps the carefully constructed persona has miscarried. Perhaps the arrogant anglophile in tweeds with his Hollywood friends is not the Hubble history should remember. Somewhere in this morass of frequently unsavory facts is hidden one of the century's most important astronomers. Whether Hubble was a great scientist in spite of himself remains an open question. At all events, he deserves better.

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Vignettes: Illiterature

My aunt belonged to the generation of educated people which took it for granted that scientists were essentially uneducated, as well as barely literate. (I would not deny that a brief scan of professional scientific journals is likely to confirm her view, but how did she know?)

—*John Postgate*, in *The Outer Reaches of Life* (Cambridge University Press)

Scientists nowadays rarely know how to read seriously. They are accustomed to strip-mining a paper to get the facts out and then moving on, not to mollycoddling the thing in search of nuances; there probably aren't any.

—*David Gelernter*, in *How Things Are: A Tool Kit for the Mind* (John Brockman and Katinka Matson, Eds.; Morrow)

Books Received

Abductive Inference. Computation, Philosophy, Technology. John R. Josephson and Susan G. Josephson, Eds. Cambridge University Press, New York, 1994. viii, 306 pp., illus. $49.95.

The Academy in Crisis. The Political Economy of Higher Education. John W. Sommer, Ed. Transaction, New Brunswick, NJ, 1995. xiv, 329 pp. $34.95; paper, $19.95.

Basic Medical Microbiology. Robert F. Boyd. 5th ed. Little Brown, New York, 1995. xvi, 642 pp., illus., + plates. $53.95.

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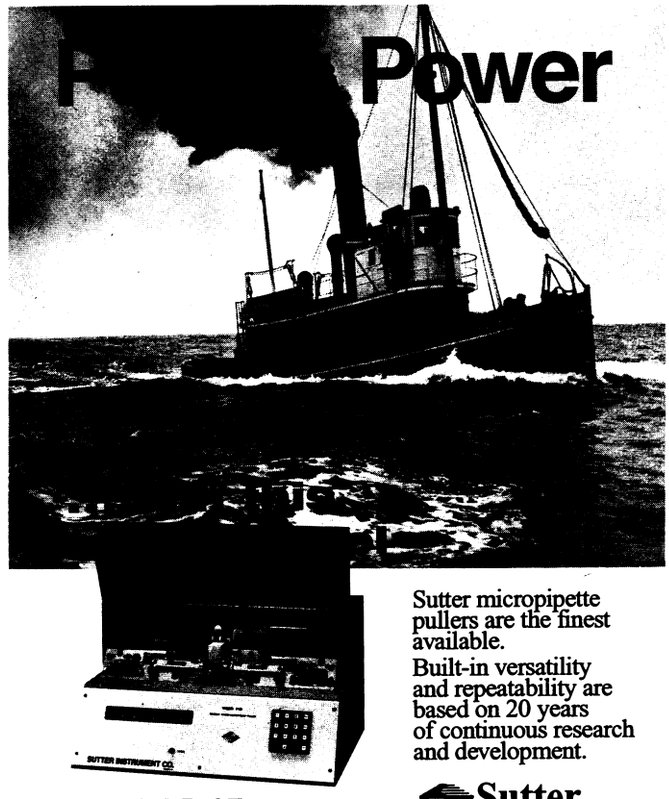

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