The Dutch telescope and the Italian scientist Galileo have long enjoyed a durable connection in the popular mind—so much so that it seems this simple glass instrument transformed a rather modest middle-aged scholar into the bold icon of the Copernican Revolution. And yet the extraordinary speed with which the telescope changed the course of Galileo’s life and early modern astronomy obscures the astronomer’s own curiously delayed encounter with the instrument. This book considers the lapse between the telescope’s creation in The Hague in 1608 and Galileo’s alleged acquaintance with such news ten months later. In an inquiry into scientific and cultural history, Eileen Reeves explores two fundamental questions of intellectual accountability: what did Galileo know of the invention of the telescope, and when did he know it? The record suggests that Galileo, like several of his peers, initially misunderstood the basic design of the telescope. In seeking to explain the gap between the telescope’s emergence and the alleged date of the astronomer’s acquaintance with it, Reeves explores how and why information about the telescope was transmitted, suppressed, or misconstrued in the process. Her revised version of events, rejecting the usual explanations of silence and idleness, is a revealing account of the role that misprision, error, and preconception play in the advancement of science. Along the way, Reeves offers a revised chronology of Galileo’s life in a critical period and, more generally, shows how documents typically outside the scope of early modern natural philosophy—medieval romances, travel literature, and idle speculations—relate to two crucial events in the history of science.

Book Information

Hardcover: 240 pages
Publisher: Harvard University Press (January 31, 2008)
Language: English
ISBN-10: 0674026675
Product Dimensions: 6 x 0.8 x 8.4 inches
Shipping Weight: 14.4 ounces (View shipping rates and policies)
Average Customer Review: 4.0 out of 5 stars 4 customer reviews
Best Sellers Rank: #2,870,763 in Books (See Top 100 in Books) #75 in Astronomy & Space Science > Telescopes #754 in Astronomy & Space Science > Star-Gazing #2774 in Textbooks > Science & Mathematics > Astronomy & Astrophysics
Galileo is mistakenly believed by many to have invented the telescope—a misconception that the scientist did little to correct in his own time. Rather, as Reeves, an associate professor of comp lit at Princeton, reminds readers in reviewing both the myths and facts of telescopy, Galileo perfected a relatively crude Dutch invention that he had gotten wind of. It was his improved version, which he christened a telescope, that he used to discover the four large moons around Jupiter and the topography of the Earth’s moon. However, as Reeves recounts, reports of magical mirrors and lenses dated back to the lighthouse of ancient Alexandria, which according to legend, was topped by an enormous mirror that could spy enemy ships and set them on fire. Stories circulated about other cultures, often Eastern, whose rulers used mirrors to keep a watchful eye on their citizens and spot invaders from afar. The English friar and scientist Francis Bacon intrigued generations with stories of marvelous looking glasses and a mirror that Julius Caesar supposedly used to observe the coast of England from France. In Galileo’s time, the author reports, many scientists and amateurs were experimenting with optics and purloining each other’s results in a complex game of cross-national thievery. Reeves’s study is a skillful interpretative blend of legend, history and science about lenses, mirrors and their conjoining in the telescope. 5 illus. (Jan.) Copyright © Reed Business Information, a division of Reed Elsevier Inc. All rights reserved.

The telescope was “invented” in 1608. But what about the events leading up to it? Galileo and his contemporaries were searching for a device with which “from an incredible distance we might read the smallest letters.” Eileen Reeves tells a story of “cultural optics:” magical mirrors and political intrigue, and investigators looking for magnifying power in all the wrong places, while the solution lay in the humble spectacle lenses on their noses. An excellent read, and an important contribution to the history of science. (Albert van Helden, Lynette S. Autrey Professor of History, Rice University)Eileen Reeves’ book provides us with a significant effort for a better understanding of the cultural features involved in the making of the telescope. Highly original and innovative, Galileo’s Glassworks paves the way for further inquiries that will deepen our knowledge of the relationship between well-established cultural models and technological innovations. (Michele Camerota, Professor of the History of Science at the University of Cagliari)In Galileo’s time, [Reeves] reports, many scientists and amateurs were experimenting with optics and purloining each other’s results in a complex game of cross-national thievery. Reeves’s study is a skillful interpretative blend of legend, history and science about lenses, mirrors and their conjoining in the telescope. (Publishers Weekly 2007-10-15)Scattered with intriguing nuggets. (Kirkus Reviews)
Fascinating...Eileen Reeves shows just how tangled with myth and legend the history of the telescope, and Galileo’s pioneering use of it, actually was...Ms. Reeves recounts this complicated history with great flair. She is more interested in the missteps and the stumbles that accompanied momentous discoveries than in their scientific significance, and rightly so. The tale of Galileo’s telescope is, as it turns out, an intensely human one. Sometimes, amid the intrigue and the campaigns of slander and distortion which surrounded Galileo’s discoveries, it seems as if the chief obstacle to a clear-sighted gaze at the heavens lay not in better optics but in piercing dense clouds of misconception. As Ms. Reeves shows, Galileo was no isolated genius; he built on the scattered findings of his predecessors. To certain contemporaries, he appeared as a modern Prometheus, but he was also a shrewd operator, as ambitious as he was inquisitive. There was something both sublime and stubborn in his nosiness, yet in the end it led him to the stars. (Eric Ormsby New York Sun 2008-03-12)Reeves’s splendid account is a cultural and social history that sets Galileo’s telescope in the rich landscape of optical science from the Middle Ages to the modern period. (Simon Mitton Times Higher Education Supplement 2008-05-22)

Not meant for those who want a systematic exposition of the technical development of the telescope. It is, however, a fascinating, detailed, deeply researched and novel approach to the history of the telescope. Conjures up and immerses the reader in the the complex zeitgeist of the 16th and early 17th centuries from which emerged the telescope. Sets the invention in the context of bitter scientific, religious and politic rivalry, scheming for patronage and superstition. The work emphasizes the role of slow and garbled communication of the time and the still rampant superstition, which combined to cause the conflation and confusion of rational and supernatural explanations of the telescope and other cotemporaneously emergent technologies (like the camera obscura and altimetry). The book is scholarly, but somewhat convoluted, at times testing the patience of the reader. In the end, it rewards the effort of the reader.

Great book for the amatuer astronomers library.

Although this book’s subtitle is “The Telescope and the Mirror”, there is very little discussion on the technical evolution and actual uses of these devices. Instead, the author focuses on the myths and legends about “magic mirrors” allowing the ancients to see what people were doing a great many miles away. The evolution of such myths over the centuries is also discussed, culminating with the invention of a real telescope, knowledge of which eventually reached Galileo. This is indeed a
scholarly work. It is focused and heavily annotated, i.e., 166 pages of main text are supported by 50 pages of notes/references. However, scholarly works that are also aimed at general readers should be written in a style that is accessible, friendly and engaging. In my view, this is where this book misses the mark. Although I found the writing style to be authoritative, I also found it to be rather dry and awkward, due in no small part to the many very long-winded and often complex sentences. Consequently, it is very difficult to say what the book’s target audience is. In my opinion, this is a work that should be studied rather than simply read for pleasure. It would likely be of interest to scholars who may be involved in research along related topics. However, I suspect that general readers, and even many history buffs like me, may find the book confusing and rather boring.

Actually, I was looking for a description of how Galileo was able to improve the telescope from 5x to 30x. There are no Glassworks in the book; no descriptions of how lenses were made. Galileo himself figures very little here: it is everybody else who had any claim to the invention of the telescope.

Download to continue reading...


Contact Us