Book Review


When I began researching and writing about the history of comets over two decades ago, I was primarily interested in the visual study of comets. But, as I progressed through the various journals and periodicals, I eventually found that I needed to address other aspects of cometary astronomy. I then turned to my personal library and pulled out my copy of the 1981 edition of *Introduction to comets*.

What I most liked about this book was its style of writing and extensive use of graphics and photographs. Not having experience in the area of spectra or the gravitational and nongravitational influences on a comet orbit, among other things, this book provided a primer to help me with my research. In my mind, these factors easily lifted this book into the rare realm of a work that could easily be enjoyed by someone with a general interest in comets as well as by an amateur and a professional astronomer. That copy of *Introduction to comets* is now a bit dog-earred, and so I was very happy to hear that a second edition had been released!

One of the first changes I noted in the new edition is the format. The first edition was composed of ten chapters which were themselves divided into four sections. The second edition is composed of thirteen chapters that present an orderly discussion of cometary history, discovering and observing comets, the components of comets, and then theories about the origin of comets.

The book is not a simple update of the earlier book, but has been virtually re-written since 1981, and it is an excellent representation of cometary research as it is today. Considering all we have learned during the last two decades, an update would probably have been rather awkward.

The book contains excellent discussions of comet Shoemaker-Levy 9 and its impact with Jupiter in 1994, as well as provides details of what we have learned from comets Hyakutake and Hale-Bopp during the late 1990s. Chapter 7 discusses what we know about the comet nucleus and it is illustrated with Giotto images of periodic comet Halley from 1986 and Deep Space 1 images of periodic comet Borrelly from 2001. With a rewriting of the book, there are a number of minor omissions. The most interesting occurs in the area detailing the theories about the origin of comets. The first edition mentioned the theories of T. C. van Flandern and M. W. Ovenden who claimed that comets were fragments of a planet that broke up. This is left out of the new edition, but should it have been? It was controversial and has been largely discounted, but this particular section of the book is giving a historical perspective and still includes another discounted theory from the mid-20th century, which proposed that comets erupted out of Jupiter as a result of a volcanic process.

I will admit that the book is not perfect. Imagine my surprise while reading about periodic comet Swift-Tuttle on page 86: I learned that “Yao et al. (1994)…found two earlier apparitions—69 B.C. and A.D. 188 in Chinese records…,” when, in fact, it was I who made the discovery in December 1992, with the announcement appearing in *International Astronomical Union Circular* 5670.

I also have an issue with the index. After reading the book from cover to cover, I sat down to write the review.
There were things that came to mind that were not included in the notes that I had taken. Interestingly, both the Vsekhsvyatetskij reference and the Swift-Tuttle reference are not listed. It took me a few minutes to track down these references. After carefully checking, I noted that many proper names mentioned in the book are not listed in the index.

Despite these issues, I still am very happy with this book. Although it still has many of the likeable qualities of the first edition, this new edition is as up-to-date as one could get. It is still the great primer that it was back in 1981, and I recommend it to anyone with an interest in comets.

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