Book Review


Half the way through the introduction, I wanted to take a day off to just read the book. I was holding in my hands the most up-to-date discussion of Mars that both lay audiences and researchers would enjoy.

As someone who is very interested in Mars, I have hard time finding enough books and magazine articles on this topic that can satisfy my "appetite" and provide well-written details at an adequate level. The news media brush over the subject with only a few paragraphs and the educational websites that I am familiar with only target children. The only reliable sources are scientific publications. Thus, I am delighted to see a competently written book that is “filled with geology” and is also fun to read. This book is an excellent example of high-quality scientific writing for the general public. It discusses the details of planetary science without graphs or equations. You would not expect less from the first recipient of the Carl Sagan Medal for public communication of planetary science.

Although this is not a book for beginners and it refers to various geological phenomena, it will be comprehensible to any interested reader. Approximately fifty geologic terms are clearly explained in the glossary section at the end of the book. For those who like graphs and equations, the author provided a list of selected sources and suggested additional reading. All for only $18.95.

As the title implies, the book is meant to look and read as a travel guide. Indeed, while reading it you may feel as if you were listening to Bill casually talking while walking from one martian location to another. He achieves this through his clear, relaxed, personal, and sometimes even poetic, style. His descriptions tease your imagination—a rare occurrence in popular science books which often read like oversimplified text books.

The book opens with two unfolding maps: the first shows the “classic” Mars as described by observers in the 1960s, and the second—probably more familiar map that one may find on the Web—is a topographic map based on the Mars Global Surveyor laser altimeter data. The author took time to clearly mark these maps with all of the locations that he mentions in the book. This seems like an obvious thing to do, but I have seen books and articles about Mars in which maps and illustrations are used to make a page look aesthetically pleasing rather than to convey information.

The text is divided into seven parts that mostly focus on martian geology. You learn about it while visiting about 40 different locations on Mars. Each part is subdivided into chapters of only a few pages in length, on average. The amount of detail and scientific information that the author managed to convey in simple words and fit in each of these short chapters is quite admirable. Having listened to Mars sessions at various meetings, I have to admit that Bill very accurately reflected the issues presented during those sessions. Having read the book, those who did not go those meetings will get the full flavor of what studying Mars is all about these days.

In the first part of the book, Bill outlines the history of Earth-based telescopic observations and early spacecraft exploration. He explains how the omnipresent martian winds...
shape the planet’s surface, how the atmosphere and wandering dust played tricks on observers who looked at Mars through Earth-based telescopes, and why these phenomena inspired the most outrageous interpretations of martian surface features. The following are parts of a venture through time: the trip begins at the ancient provinces of Noachian Mars: it includes a visit to Hellas basin and lessons about impact cratering and the martian stratigraphic timescale. A visit to valley networks triggers the intriguing issue of the history of martian climate and water. The travel continues to the regions of the Hesperian age, and finally, to the youngest Amazonian features. These include very young lava flows of Amazonis and Elysium and recently discovered hillside gullies. Bill also discusses successful and unsuccessful encounters and landings on Mars, the importance of martian meteorites to our understanding of the planet, and the potential for the existence of martian life.

The book is profusely illustrated with some of the best images of Mars ever taken. Being a regular visitor to the Malin Space Science Systems website, I still found images in this book that I had never previously seen. The enormous (yet wonderful) amount of data available via the MSSS’ website can be quite overwhelming though. And, as Bill rightfully points out, probably nobody has seen them all, except Ken Edgett.

Although orbital views of planetary surfaces can be difficult to interpret for professional geologists (not to mention lay readers), Bill skillfully uses them to make martian geology and the text more understandable. What helps even more, are reproductions of his paintings portraying anything from the Mars Observer’s launch at the Kennedy Space Center to unique solar halo phenomena in the polar regions on Mars. Also, various aerial and surface images of Earth taken by the author are an excellent way to highlight the similarities between the planets and appeal to the public by comparing martian features with familiar terrestrial landscapes.

Good jokes (the final one is my favorite), numerous anecdotes, and personal recollections make the book even more engaging. These are mostly collected in My martian chronicles, fifteen sections of 1–2 page length that take you “behind the scenes” to better understand how the planetary community works and how scientific ideas evolve. I very much enjoyed Bill’s reflections on several side topics. In one of the chapters, he lays out scientific evidence step-by-step to slowly take apart the “Face on Mars” (pp. 336–343). Any intelligent reader that has thought that perhaps “the Face” is real will no longer think so after reading this short section. His several comments on the news media (e.g., pp. 214–215) and a delightful story on the first reaction from the media to mankind’s first view of the martian surface, immediately reminded me why I ended my career as a journalist/science writer (p. 193).

I highly recommend this book to anyone interested in Mars. It teaches you more than countless news articles and NASA press releases can. It is fun to read. It is a feast to the eyes craving martian landscapes and to a mind that is open to the marvels of planetary geology. I would readily pay $40 for this book. Finally, if not for Mars buffs alone, the book will make great gifts for Mars buffs’ family or friends who may have been asking “What on Earth is so special about Mars?”

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