

Keep a Sense of Humor, While Exploring Mars

Martian Summer

by Andrew Kessler

New York: Pegasus Books, 2011

Hardcover, 352 pp., \$27.95

Sending a spacecraft to Mars is hard. Landing it safely is even harder. Keeping the spacecraft's instruments working through bone-chilling temperatures and dust storms, and returning data to anxious scientists back on Earth, is harder, still.

Planetary scientists are serious people. They spend years, if not decades, designing a mission that will answer critical questions, writing proposals, designing and developing the scientific instruments, testing and retesting, and waiting to launch. There's nothing funny about Mars.

When NASA launched the Phoenix mission to Mars, on Aug. 4, 2007, as its name implies, it was the resurrection of a previous mission to Mars, which had failed. No one on the Phoenix team had to be reminded that two thirds of all of the U.S. and Soviet/Russian missions that have been sent to Mars have failed.

Phoenix was the first spacecraft successfully deployed to the arctic north polar region of Mars. It was expected to last only 90 days, before Martian weather would freeze the lander for eternity. And, as an added experiment, the Mars Phoenix mission team decided to allow a re-



porter—an outsider—access to the mission from the inside. For author Andrew Kessler it was a dream come true—to spend the Summer of 2008 on Mars.

Inside the Mars Mission

Throughout the 90-day primary mission of the Mars Phoenix polar lander, Kessler reported every (Martian) day (24 hours, 37 minutes) to Mission Control at the University of Arizona. He sat in on science debriefing and planning meetings, and talked and schmoozed with the scientists.

Kessler's book describes the trials and tribulations and frustration of managing a spacecraft tens of millions of miles away.

Invariably, some equipment does not function as designed. Mars, itself, comes up with surprises, such as sticky soil that would not budge from a scoop, or be dropped into an oven for chemical analysis. And just because they all see the same data, it does not mean the 130 scientists on the mission agree on what the data mean.

Then, there are the pressures from the space agency, which has expectations for mission results, and is paying the bills. And, if things go wrong, a Congress, which holds the purse strings, and expects accountability.

In retelling his experience through this densely packed summer on Mars, Kessler shares his sense of humor. So while the reader is learning about Mars, about why it is important that Phoenix found perchlorate, about how scientific pursuits such as these long-distance planetary missions are done, every few pages produces a chuckle.

One should not be discouraged by the numerous acronyms, or try to remember what each scientific instrument does. This is a story about the scientists, not the spacecraft.

This book would make a great gift for those excited about not only the results, but the challenges, of space exploration.

Near East Artifacts in Ecuador

by Charles Hughes

Atlantis in the Amazon

by Richard Wingate

Rochester, Vt.: Bear & Company, 2011

Paperback, 168 pp., \$16.00

This book is a controversial account of the discovery of ancient artifacts of Near Eastern origins, in South America. The author claims that the described artifacts are proof of the existence of a colony of the lost civilization of Atlantis, located in Ecuador, in western South America.

Reader beware: Author Richard Wingate is strongly opposed to nuclear energy technology, a belief he presents throughout the book. He also states that high-tech-

nology civilizations existed in the remote past, and became extinct because of nuclear warfare. Therefore, his ideas have a pronounced green tinge, bordering on the flaky. That said, his description and photos of the artifacts are most interesting.

Wingate tells the story of a Catholic priest from Italy, of the Salesian order, who migrated in the 1920s to the Ecuadorian city of Cuenca. Father Carlo Crespi was deeply interested in science, and held degrees in archaeology, engineering, and other disciplines. He used his personal fortune to build a high school and museum in Cuenca.

Cuenca is historically significant, as it was the capital of the northernmost ex-



tenation of the Inca Empire. The city has extensive building ruins from that period, and possibly older, predating the Incas. One such building possesses a true arch with a keystone.