Afterword
Why Space Advocates and Environmentalists Should Work Together

Aerospace is not usually considered verdant. Jet aircraft emit tons of carbon dioxide into the atmosphere, the companies that make them are usually defense contractors, and nobody considers weapons of war, necessary or not, to be green. These companies are in business to make money for their shareholders and will only be green if it somehow benefits their bottom line or if law or mandate requires them to be so. This reality, and there are exceptions, also taints those involved in space exploration and development. But painting the entire canvas with the same brush is not only grossly unfair, it is also incorrect.

Many people who devote their lives and careers to the exploration of space are not in it for the money. Sure, they need to earn a living like everyone else. But that is not why the authors of this book chose their careers. Greg Matloff is an astronomer and astronomy professor. He lives, breathes, studies, and teaches about the heavens. He does this, in part, because studying the universe tells us something about ourselves. As we have explored the universe around us, we have learned how precious our planet Earth truly is.

C Bangs explores archetypes of Earth and depicts cosmological elements from an ecological and feminist perspective. One premise of her work is that we are part of Earth and all the elements of our bodies at one time were within a star. We contain both systems within us. Her art in a wide variety of media is informed by mythology and the hope for human evolution. Space is not only about individual heroics or national pride. Ultimately, it deals with the expansion of consciousness and the survival of the human species and other terrestrial life forms.

For example, by studying the climate of Mars, we have something to which we can compare Earth’s climate. This provides us with another data point, and that is vitally important because it is difficult, if not impossible, to explain anything generally with only one example. An analogy would be trying to draw a line using only one point. You are free to draw such a line in
any direction within a 360-degree angle. Making conclusions about any specific line that one draws as being “correct” is therefore impossible. With two points, you may draw a line. It may still not accurately describe the system, but it will likely be closer to correct than any other of the infinite set of lines that could have otherwise been drawn through a single point.

Les Johnson is a NASA physicist and manager. He dreamed of working for NASA since he was a 7-year-old boy in Ashland, Kentucky, and watched on television as Neil Armstrong set foot on the moon. He knew then that he wanted to be part of that great adventure and that he had to become a scientist in order to do so.

The three of us are not unique nor are we in the minority among those who work in the field of space exploration and science. Most of our colleagues with whom we have discussed career motivations (“Why did you study science and become an astronomer/physicist/engineer?”) share our fundamental love of knowledge and passion to explore, develop, and use space for the betterment of humankind. And this passion is not limited to scientists and engineers.

Businessman Robert Bigelow is using the fortune he earned in business to foster space development. He is the founder and owner of Bigelow Aerospace near Las Vegas, Nevada, which is building what may be the world’s first orbital hotel. Bigelow has already flown subscale prototypes in Earth orbit and has plans to loft full-scale pressurized modules within the near future.

Another businessman, Elon Musk, is using his dot.com wealth to develop a new generation of inexpensive rockets to carry machines and eventually people to space at a lower cost than is currently possible.

Environmentalists share the vision of protecting and preserving life on Earth. By working together we stand a much better chance of being able to make this vision a reality.

As we gaze skyward on a starry night, we are struck by how immense and seemingly lifeless the universe appears to be. If we are not alone among the stars, then we are among a very few civilizations likely separated by an abyss that will be impossible to cross. Hence the imperative that we preserve that which makes us unique: we are part of a living planet. Exploring and developing space will help us make this a better world.

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