

IMPROBABLE PLANET

HOW EARTH BECAME
HUMANITY'S HOME

HUGH ROSS



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Why Ask “Why”?

A few years ago I wrote a book called *Why the Universe Is the Way It Is* to show what the characteristics of the universe—its age, mass, dimensions, physical laws, and other physical features—tell us about humanity’s ultimate purpose and destiny.¹ I wrote it also as an appeal to those who reject the Creator on the basis that they, as mere humans, can conceive of a better universe than ours to reconsider their claim in light of new discoveries. My aim in that book was to demonstrate how our seemingly “imperfect” universe fits perfectly with what I describe as a two-creation model of reality. Rather than upholding Carl Sagan’s assertion that “the cosmos is all that is or ever was or ever will be,”² evidence supports the biblical assertion that this universe serves as a launchpad for the new creation to come—a reality more perfect than any of us can think of or imagine, one that fulfills all our greatest hopes and deepest longings.

In many respects the book in your hands is a sequel to that book—a *necessary* sequel, given popular notions about Earth as a not-so-special, often hostile, and, in a worst-case scenario, possibly replaceable home for humanity. Of all the things in life we tend to take for granted, our terrestrial

residence and its resources might be one of the biggest. We don't seem to be amazed and astonished by Earth's beauty and treasures, its capacity to support more than 7 billion people and even more billions of other creatures.

Most people I meet, including scientists, acknowledge that Earth has undergone some changes since it first coalesced from the disk of gas and dust surrounding our star, the Sun, but few can even imagine how radically different it is today. Many suggest that Earth's life-sustaining features are just "amazing coincidences" that somehow fell into place in a way that suits human needs and, at the same time, determines what life-forms exist.

Evidence and logic compel me to challenge such a notion. Ongoing research tells us that Earth has been shaped not only by an intricately orchestrated interplay of physical forces and conditions, but also by its vast abundance and diversity of life-forms. By means that no depth and breadth of scientific research can explain, life arose early in Earth's history under anything but the benign conditions it would seem to require and somehow persisted through multiple mass extinction events, always appearing or reappearing at just-right times and in just-right forms to meet the needs and demands of the revised environment.

The more thoroughly researchers investigate the history of our planet, the more astonishing the story of our existence becomes. The number and complexity of the astronomical, geological, chemical, and biological features recognized as *essential* to human existence have expanded explosively within the past decade. The importance of this new information cannot be overstated. An understanding of what is required to make possible a large human population and advanced civilization has raised profound questions about life, especially about our purpose and destiny. In other words, discovering at this level of detail why the history of Earth looks the way it does impacts all discussion of why you and I are here. Are we simply the result of a colossal matrix of innumerable, narrow coincidences, against all odds, or is there a more reasonable explanation? And if the world *is* the handiwork of a divine Creator, why is it so full of misery and danger for so many of its inhabitants?

The reason most reviews of Earth's history fail to arrest our attention and rivet our thoughts about humanity's purpose and destiny may well reside in the cursory manner whereby the subject is typically addressed.

Why Ask “Why”?

We all know—or at least think we know—what Earth’s history looks like. A bunch of dust surrounding the newly formed Sun clumped together by gravity to form a seemingly random set of planets. One of those planets, the one we call Earth, was the “Goldilocks planet,” a just-right place with just-right conditions and ingredients for a simple life-form to pop into existence from a conglomeration of chemicals and somehow manage to stay in existence. We learned in school that over a very long time and despite some occasional setbacks, Earth’s environment allowed for and produced progressively more diverse and complex life. We learned that this extended process eventually gave rise to human beings, endowed with the resources and capacities to launch, develop, and perhaps sustain advanced civilization.

What most of us do not know, however, is how radically Earth has changed since it first formed into a more or less solid ball. What’s more, even those at the cutting edge of research are just now gaining a glimpse at how many and what kinds of physical steps transformed that lifeless ball into our fully animated orb, our home.

One reason we don’t know is that this research and its findings are so new. Another is that the puzzle pieces that would help us bring the picture into focus come from a diversity of scientific disciplines: cosmology, astronomy, geophysics, atmospheric physics, geology, physical chemistry, biochemistry, and the whole spectrum of the biological sciences. A third reason, and perhaps the most significant of all, arises from what my friend Kenneth Samples would refer to as the *zeitgeist*, the spirit of the times. Through repeated misuses and abuses, scientific findings have lost much of their power to impact people’s view of reality and, thus, their thoughts about life’s biggest questions. While such questions are easy to postpone, they cannot be ignored. No matter how hard and how often we push them to the background, life has a way of propelling them to the forefront, often (but not always) in the face of life-altering and globally impactful events. So why wait? Let’s look together at the data scientists now have in hand and carefully consider what they tell us about how Earth, humanity, and civilization—and you and I—came to be. The story that emerges might just impact how you choose to live here and now.