

## LITERATURE REVIEWS

*Readers are invited to submit reviews of current literature relating to origins. Mailing address: ORIGINS, Geoscience Research Institute, 11060 Campus St., Loma Linda, California 92350 USA. The Institute does not distribute the publications reviewed; please contact the publisher directly.*

### WHO CREATED ALL THESE?

**The Privileged Planet: How Our Place in the Cosmos is Designed for Discovery.** Guillermo Gonzalez and Jay W. Richards. 2004. Washington, DC: Regnery Publishing. 444 p. Cloth, \$27.95.

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This unique and interesting book is authored by an Iowa State University assistant research professor of astronomy (Gonzalez) and a former Discovery Institute vice president and senior fellow (Richards). Collaboration between a scientist and a researcher at an institute actively promoting Intelligent Design may appear unusual. Remember, though, that astronomy is a discipline that provides much evidence for design through the precise way many natural quantities seem to be fine-tuned in order to facilitate the origin and existence of life. However, this book is not about life *per se*.

The authors have set a novel goal that does not seem to have been pursued before using the direct approach adopted in this book. They contend that, beyond the remarkable signs of fine-tuning for life, there is another at least equally interesting, phenomenon. Our planet is not only a good place for life, it is also a good place for discovering the many and varied aspects of our Universe. In this sense, the coincidence on Earth between the presence of intelligent technological life — *habitability* in their jargon — and the best possible conditions for discovery of the wider cosmos — *measurability* — is to be noted, benefited from and meditated upon.

The text comes in three sections, the first dealing with our local environment. The near-equal angular sizes of the Sun and the Moon give rise to solar eclipses which form the basis of ancient chronology. They also allow us to study the Sun's outer atmosphere. The knowledge thus obtained can then be extended to understand the stars. The Moon is essential

for the stability of Earth's inclination (which assures regular seasons), the tides, ocean currents, Earth's magnetic field and plate tectonics. Phenomena like tree rings, layers in the (ant)arctic ice caps with the elements found therein, and coral reefs, among various others, give us insight in Earth's history. Geological research informs us about yet other aspects of the past of our planet.

Looking at our neighbors in the Solar System makes us realize their crucial importance. For example, Jupiter acts as a 'watchman' keeping the inner Solar System relatively free from major comet and asteroid impacts. And, while Earth's atmosphere may not always give astronomers a clear view of the cosmos, it does protect us against cancer-producing ultraviolet and other high-energy forms of radiation: another one of the many examples of how measurability and habitability go hand in hand.

Section 2 deals with investigation of the wider cosmos: stars, galaxies, and the large-scale structure of the Universe. Our location at the periphery of a spiral arm far from the center of the Milky Way is another indispensable requirement for maximizing our observational studies of the Universe as well as a safeguard for the existence and protection of life.

Observations of this type along with the fine-tuning of a host of physical quantities essential for the origin and existence of life are discussed along with concepts like the Circumstellar Habitable Zones, Circumstellar Continuously Habitable Zones, and Galactic Habitable Zones — all of which emphasize the close link between measurability and habitability. While some see these observations as a mere coincidence explained by the Anthropic Principle, others interpret them as a product of design.

The authors explain very well how the Big Bang theory gives an acceptable scientific picture of the cosmos. At first sight the time periods involved in the Big Bang theory are extremely long compared with the short time scale reported in the first chapters of the Bible. The authors seem to favor the picture of naturalistic science. I suggest that the reader do his or her own thinking about this issue by restudying the early chapters of Genesis and noting carefully how much the Bible says or does not say about the time involved in the creation of the Universe. Unfortunately the authors shy away from engaging on this issue.

Section 3 deals at length with subjects ranging from the history of science to questions about the existence of extraterrestrial intelligent life, arguing that the Copernican Principle — the notion that "we should assume that there is nothing special or exceptional about the time or place of Earth in the cosmos" — is a false premise. They present six predictions on the basis of the Copernican Principle that are not fulfilled in the

Universe. As a result, they maintain, Earth is not just an ordinary and insignificant planet in a very ordinary planetary system centered on a very ordinary star in a very typical region of a very common galaxy. In fact, Earth is a very special planet and quite possibly the only one harboring life in the Universe.

Those who find Biblical evidence for extraterrestrial life (other than angels) may find it useful to think in terms of other universes — hypothetical as these may be as our place in the Universe appears the best possible for a planet populated by curious intelligent beings. This is where Gonzalez and Richards' design argument is strongest and where a more direct statement about the nature of the designing intelligence and, maybe, why the design included placing life on the best observing platform in the Universe would be useful. Did the designer intend that we should find out about him through the study of the Universe? Texts like Psalm 19:1 and Isaiah 40:26 come to mind.

The authors have done a thorough job explaining scientific issues at a semi-popular level. Those who want to dig deeper will find much of value in seventy pages of bibliographical and other notes, and the 24-page index is very useful. One need not agree with everything the authors say, but there is much to ponder in this book. Surely, the Universe is not just fine-tuned to provide a habitat for human life; it is also designed to help us meet the Designer.