

BOOK REVIEW

"A second Genesis – Stepping-stones Toward the Intelligibility of Nature"

by Julian Chela-Flores

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The borderline and possible interactions between science and religion are becoming problems of increasing importance today. This is particularly true in the case of Exobiology. Born only 40 years ago, Exobiology (also called now Astrobiology), has drastically expanded during the last decades. The very interdisciplinary aspects of this new science, as well as the development of space sciences and space exploration are likely to be the main reasons of such an expansion. The key questions approached by exo/astrobiology are focused on two major ones. What is the origin of Life on Earth? Is there Life elsewhere? Human kind has always been puzzled by these two fundamental questions. Many have found answers in the religion, whatever it is. In fact, when science started to approach these problems on a more rational way, then came the potential difficulty of compatibility between, on one side, religion and theological aspects, and on the other side, science and rationalist approaches. The problem is even more important today with the expansion of creationism movement and intelligent design activities, which inadequately try to mix religious believes and scientific observations. But the question still remains: can science and scientific approaches be compatible with religion and theology?

Exobiology has already been the subject of many books. However, only a very few have been written on these subjects and none recently by scientists working in the field. Julian Chela-Flores's book is really filling a large lack in this domain. It provides many interesting views to answer these questions and many others related to science, philosophy and theology, in relation to our understanding of life in the universe and the intelligibility of nature. It undoubtedly gives rise to philosophical thoughts across the frontiers of science and the humanities.

This 229 pages book is structured in 14 chapters. The two first ones give a general presentation of the content of the book and on the western civilization view of the intelligibility of the universe, as seen by philosophy, science and theology. Many historical aspects are raised and illustrated with selected quotations. Then the question of the second genesis and its implications is discussed. Chapters 5 and 6 deal with the destiny of the universe in general and destiny of life in particular. The two following chapters are devoted to the question of evolutionary convergence from astrophysics to biology. Darwinian evolution as a universal process is also examined. Is Life present everywhere in the cosmos? Are biology and biochemistry universal? Is intelligence an obligatory step in biological evolution? These questions, at the borderline of science, philosophy and theology, are approached in chapters 9 to 11. The three last chapters discuss the possible dialogue between science and religion,

and science and the humanities, with special attention to Darwinism, before concluding on the question “Can nature be intelligible?”.

In this very well written book, Julian Chela Flores is really exploring “the fitness of the universe for the origin and evolution of Life”, and giving his thoughts on the philosophy of biology and exobiology. The book is based on a very impressive bibliography. A very useful glossary and short biographies with cross-references is provided at the end, which is of great help to the reader.

In summary, this book provides a very original approach to the question of the origins, evolution, distribution and destiny of Life in the Universe. It should lead to create exciting interdisciplinary exchanges between different branches of knowledge usually separated, such as observational and experimental sciences and philosophy or theology. It is expected to be a reference in the future, for scientists already working in or entering the field of exo/astrobiology, as well as for philosophers and theologians interested in the ways to solve the problem of life in the universe.

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