## The Earth as a Cradle for Life: The Origin, Evolution and Future of the Environment

## A book review



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The subject matter of this book will be very familiar – perhaps depressingly so – to most readers. It documents the intricate and, at times, highly fortuitous series of events that lead to making the Earth into a cradle for life, as the authors describe it. It then documents the effect that man has had in interfering with this finely balanced and inconceivably complex system, and its catastrophic outcomes: namely, a rapid and most likely irreversible warming of the Earth's atmosphere, ocean acidification and rapid ecosystem destruction.

There are many books that cover this precise subject, yet this volume can still be considered highly original. Much of this relates to the tone of the text. The authors adopt a far more conversational language than that found in other similar books, closer in style to Kant than to a textbook. Indeed, from the opening preface to the conclusions at the end, the book reads more like a grand thesis, with arguments built up point by point, with evidence and explanations given to support each statement. This is not to say that the grand conclusions are particularly unusual: though an Edmund Halley quote in the preface alludes to a "new and so bold a supposition", the authors' interpretations of the evidence are broadly similar to those of the recent report by the Intergovernamental Panel on Climate Change. The sense of seeking to convince the reader, however, lends the book a clear, decisive and ultimately highly readable tone. The grand theme at the centre of the book is that man can be viewed as a product of his environment, and consequently, as the Earth has grown, we have evolved in tandem with it. It is laid out chronologically, with the genesis of the Earth as a planet in the first part, Earth processes and cycles in the second part, and human influences in the final section. Each part has five major chapters, and the book concludes with some thoughts by the authors, a concise summary and a subject index.

The Earth as a Cradle for Life benefits from being highly subdivided, with each section being only two or three paragraphs long. This compartmentalised style makes the book very easy to skim through and quickly understand the basics of its particular subject. It is even possible to understand the rationale by reading the subject headings. It also affords the book an incredibly large breadth of subject matter for such a short volume. The downside to this style, however, is that some subjects are not dealt with in as much depth as perhaps is necessary, and others are just mentioned in passing. In fact, there are some important topics whose absence almost seems like something of an oversight. In particular, I was surprised at the lack of a section about ocean circulation, which underpins the climate and governs the cycling of nutrients.

The book is punctuated with frequent and well-chosen figures. Though the diagrams themselves are well designed, the quality is surprisingly poor. Often the scale is unnecessarily stretched, or too small, but in general, the resolution is so poor that the text can be difficult to read. This makes them often difficult to interpret and certainly unsuitable for reproduction.

There will be few readers who are not at least moderately familiar with many of the concepts covered in this book, yet this volume offers a fresh take on the science, and contains material which is certain to be new to many. This book straddles the line between a textbook and a general-interest volume quite comfortably, making it suitable for anyone with a basic understanding of science that wants to place modern climate change in the context of the Earth's history.

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