

Review of *A Brief History of Earth: Four Billion Years in Eight Chapters*. Andrew H. Knoll. Custom House. 260 pages. 2021.

It may be common for non-scientists to concentrate on the evolution of the animal world through millions of years. Andrew Knoll opens another door to a world that was inhabited long before animals roamed the planet. He has found microfossils, evidence of life in the sea and then on dry land, and concludes that “More than three billion years after life emerged, the age of animals was at hand” page 111. Evolution was occurring long before the appearance of mammals.

Andrew Knoll, who taught for nearly 40 years at Harvard, speaks the language of both the scientist and those of us who are interested in science and want to know more about our home, Earth. He restates in readable and understandable language what we have read in many resources or heard on the evening news, and puts those familiar stories into categories that provide for study and easy conversation. The format of *A Brief History of Earth* is somewhat unique. Rather than weaving together theories, discoveries, and accepted facts about the history of the planet into one continuous story, he divides the story of the Earth’s life into specific subjects, devoting a chapter to each: *Chemical Earth, Physical Earth, Biological Earth, Oxygen Earth, Animal Earth, Green Earth, Catastrophic Earth, Human Earth*. He introduces the reader to the science of each subject and how the disciplines are related.

Knoll extends our knowledge of our home planet, opening to the reader the distant past as he emphasizes that “Earth was a biological planet 3.5 billion years ago and perhaps much earlier” page 97. Our family tree began on a planet that was devoid of oxygen for essentially the first half of its history, until 2.4 billion years ago, “making organisms like you and me impossible” p. 97.

While *A Brief History of Earth* is a story of the past, the subtitle of the last chapter defines the present: “One Species Transforms the Planet.” Knoll reminds us that climate shifts have occurred in the past, but “Something else seems to have been afoot. That something was *Homo sapiens*” p. 210. He concludes that “the challenge of safeguarding our societal future while vouchsafing a natural world shaped by four billion years of evolution is daunting, and each year we do nothing makes the task grow larger and more urgent. Through global commitment, however, we have the capacity to bequeath a safe, sane world to our children” page 229. We had no control over the past events that shaped our home, but we have a responsibility for what the home will look like in the future.

As a gift to the non-scientist, Knoll, divides his “Future Reading” section into “Approachable Readings” and “More Technical References.”

*A Brief History of Earth* will offer a more complete view for our study and understanding of evolution.

Rev. Dr. Joseph W. Shook  
Albany, New York  
February 19, 2022