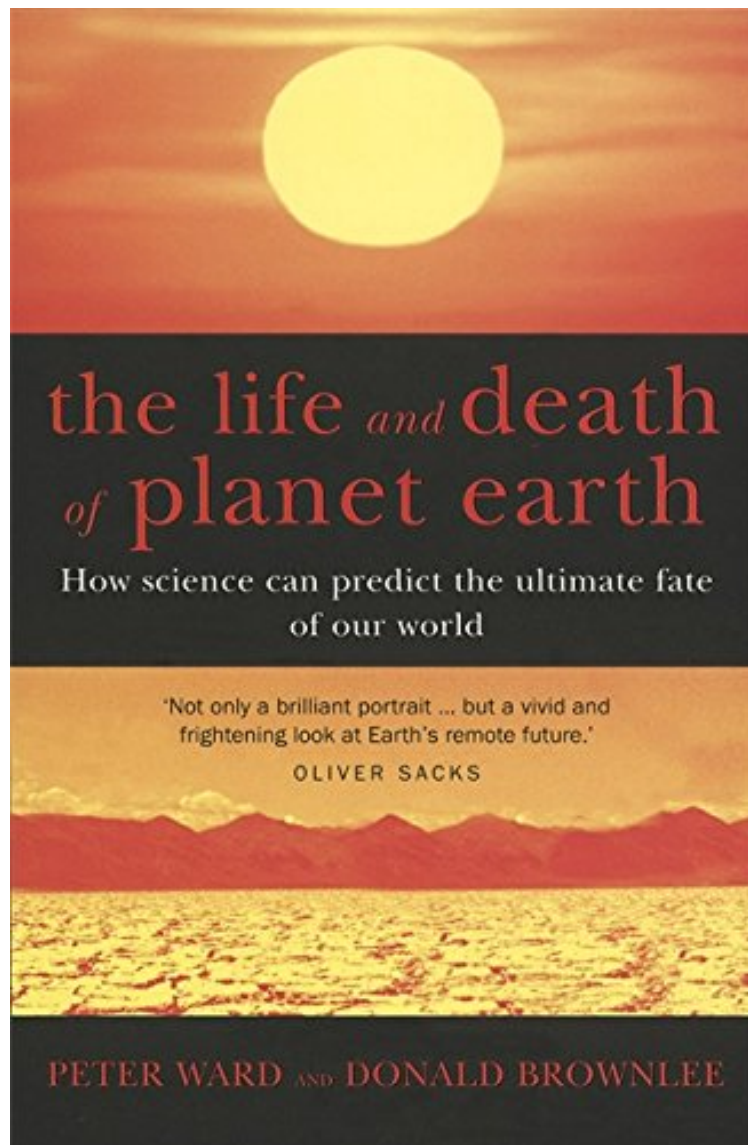


(Mobile pdf) The Life and Death of Planet Earth: How the New Science of Astrobiology Charts the Ultimate Fate of Our World

The Life and Death of Planet Earth: How the New Science of Astrobiology Charts the Ultimate Fate of Our World

Peter Douglas Ward, Don Brownlee
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Peter Douglas Ward, Don Brownlee : The Life and Death of Planet Earth: How the New Science of Astrobiology Charts the Ultimate Fate of Our World before purchasing it in order to gage whether or not it would be worth my time, and all praised The Life and Death of Planet Earth: How the New Science of Astrobiology Charts the Ultimate Fate of Our World:

1 of 1 people found the following review helpful. How the Earth will end. The past and deep space viewing used to predict the earth's future. By Thomas Erickson. Just got done reading Rare Earth (5 stars see my review) by the same authors. Peter Ward is a Paleontologist and Donald Brownlee is an Astronomer. Together they use their collective expertise to create 2 great books. Both books read well, have no boring parts and are page burners. The reader wants to learn more. Read both books in two days each. We see in The Life and Death of Planet Earth the different past ages and how long it took for primitive one cell life to evolve and then the great difficulty for planets and animals to evolve and last man. We see how fragile the planet is and the past extinctions where up to 90% of life at that time became extinct. We see ice ages and glaciers cooling the earth and greenhouse gases from Vulcanism and Plate Tectonics to keep earth warmer. We see a series of warming and cooling with different plants and animal becoming extinct. Later we see the loss of CO2 in the atmosphere, death of plants and animals. Finally only bacteria and single cell organisms left. We see the loss of the oceans until finally the earth is so hot all life perishes. Much later the sun expands into a red giant and swallows and destroys the Earth. Peter shows us the different cycles the earth has...CO2, water, Continent development and weathering and how each contribute to keep earth's climate in a range for liquid water to exist and plants and animals to survive. Lots more! Donald shows use the death of stars, our sun becoming a red giant and swallowing up most of the inner planets including Earth, super novas, gamma ray bursts and more. Lots of ways our fragile Earth can be destroyed. Later the authors tell us different ways we might try to escape Earth's final destruction. One go to Mars and terraform it. Two, move the Earth by deflecting comets and using their gravitational assist to move the Earth into Mar's orbit but first moving Mars out of the way. Seems far fetched to me. Then seeding different far away planets with our DNA and lastly the difficulty in stellar rocket travel. I liked the part where we are told yes the world will end just like every human being. Enjoy, protect and cherish the planet while we can. A very interesting book, on a fascinating subject with input from a paleontologist and an astronomer. 5 stars and recommended.

0 of 0 people found the following review helpful. If you love this planet, here's Earth's history. By peachtree. Deceptively short: Brownlee Ward pack so much information into a compact, well-written book--I'll be re-reading it at least two more times.

0 of 1 people found the following review helpful. Metric Conversion Chart. By Slo-Hand. I had a dream that I was transported 30 million years into the future but there were no humans; not anywhere ! Compared to 'Rare Earth' the writing is more general in nature, almost as if the book were written very quickly. I wanted the english measurements vs the metric ones being the layman that I am which I on occasion got but I'm too lazy to make conversions. ie: -65 degrees celsius is the temperature of the stratosphere when it begins but -65 degrees celsius has no meaning to me. I want to know the fahrenheit degrees and since I'm lazy, I still haven't done the conversion because I'm not a college student. Comparing the death of planet earth to Peter's dying grandmother was very sad and a little creepy. The analogy may turn out to be right on the money but writing about it even now I'm feeling creeped out. There are a good number of ideas presented but not in any real detail. An example would be the intriguing notion of when plate tectonics might end due to a slowing of upwardly rising heat. A little more background would have been appreciated because the idea is so interesting but these are the kind of things that happen when you're writing to a strict deadline. I'm giving the book 4 stars because it's a decent generalist read. If you're not lazy like me you might even consider doing the conversions and following up the sections of interest with further research.

This is the first real biography of the Earth - not only a brilliant portrait of the emergence and evolution of life on this planet, but a vivid and frightening look at Earth's remote future. Peter Ward and Donald Brownlee combine storytelling power with extreme scientific care, and their narrative is as transfixing as any of H.G. Wells's fantasies, but more enthralling, for Ward and Brownlee have real power to prognosticate. This is a book that makes one shiver, but also inspires one to wonder how humanity (if we survive in the short term) will fare in the distant future." Oliver Sachs. Peter Ward and Don Brownlee, a geologist and an astronomer respectively, are in the vanguard of the new field of astrobiology. Combining their knowledge of the evolution of life on our planet with their understanding of the life cycles of stars and solar systems, the author's tell the awe-inspiring story of the second half of Earth's life. The process of planetary evolution will essentially reverse itself; life as we know it will subside until only the simplest forms remain. The oceans will evaporate, and as the sun slowly expands, Earth itself will eventually meet a fiery end.

From Publishers Weekly. According to the authors—who argued in their previous book, Rare Earth, that the complex life found on earth is probably unique in the vast expanses of the universe—our planet has a pretty bleak future ahead of it, one that is a mirror image of its past. Ward and Brownlee, a geologist and an astronomer respectively, claim that human civilization has flowered during an 11,000-year warm interlude in a recurring cycle of ice ages. In their view, "global warming," while possibly harmful in the short term, may help postpone the return of the ice. But not too many thousand years from now, skyscraper-high glaciers will again grind across North America as far south as New York City, and civilization will be driven toward the equator to survive, if not into space. Further into the future, the authors argue, the complex give and take between carbon trapped in rocks, water and oxygen in the sea, and carbon dioxide in the atmosphere—the latter playing the most important role in climatic change—will eventually turn earth into a barren sibling of Mars. While the authors don't make an airtight case for their claims about how our planet's climate and

geology will begin to rewind, they do deftly bring together findings from many disparate areas of science in a book that science buffs will find hard to put down. 15 bw illus. Copyright 2002 Reed Business Information, Inc. From Library Journal The science of astrobiology attempts to answer some of the big questions that have long engaged the imagination of the human race. In this fascinating follow-up to *Rare Earth*, geologist/zoologist Ward and astronomer Brownlee, both of the University of Washington, draw an analogy between the planet's development and the human cycles of birth, growth, maturity, and death. They explain the Earth's natural aging process over eons by looking at changes in land formations, oceans, climates, plant and animal life, and the stars. Although the authors are adamant that human recklessness is hastening Earth's demise, it is just as apparent that this ultimate fate is inevitable. Given that the time frame is millions, if not billions, of years, it is difficult for the reader to feel a real impending sense of doom. Still, the authors effectively communicate their knowledge and sense of wonder while making the scientific evidence clear to readers of even limited science backgrounds. Thought-provoking and philosophical questions throughout ensure that this work never reads like a textbook. Readers interested in the environment and "the big picture" will enjoy. Recommended for public libraries of all sizes. Denise Hamilton, Franklin Pierce Coll. Lib., Rindge, NH Copyright 2002 Reed Business Information, Inc. From Booklist The strange attraction we have to apocalyptic stories, whether told by seers or scientists, stokes this compellingly grim scenario of terra firma's fate. After a new ice age destroys human civilization in the geological near term, a reassembly of the continents, combined with a brightening sun, inexorably extinguishes plant and animal life in about 250 million years. A few billion years on, the sterilized planet vaporizes as it spirals into a red giant. How science can confidently prophesy doomsday emerges in the authors' explanation of what makes Earth a habitable cosmic oasis in the first place. Brownlee, a geologist, and Ward, an astronomer, zero in on the processes, biological and geological, that cycle the elements carbon and oxygen through the atmosphere. Elaborating on the evidence that carbon dioxide peaked about 200 million years ago and will decline toward zero, they imagine how life will look as it evolves to escape the hostilities of a radiation-blasted desert world. Creative but scientifically grounded, the authors' prognostication of the ultimate environmental disaster is morbidly enthralling. Gilbert Taylor Copyright American Library Association. All rights reserved