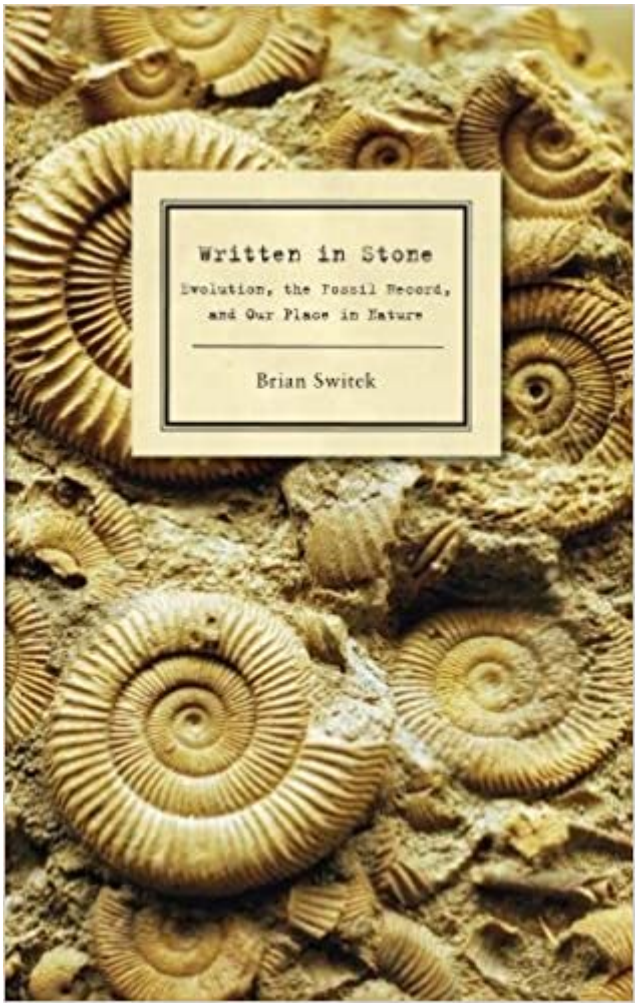
Written In Stone: Evolution, The Fossil Record, And Our Place In Nature



Synopsis

“Switek seamlessly intertwines two types of evolution: one of life on earth and the other of paleontology itself.Ã¢â ¬Â•—Discover Magazine““In delightful prose, [Switek] . . . superbly shows that ‘[i]f we can let go of our conceit,Ã¢â ¬â„¢ we will see the preciousness of life in all its forms.Ã¢â ¬Â•—Publishers Weekly (starred review)“Highly instructive . . . a warm, intelligent yeomanÃ¢â ¬â„¢s guide to the progress of life.Ã¢â ¬Â•—Kirkus Reviews“Magisterial . . . part historical account, part scientific detective story. SwitekÃ¢â ¬â„¢s elegant prose and thoughtful scholarship will change the way you see life on our planet. This book marks the debut of an important new voice.Ã¢â ¬Â•—Neil Shubin“Elegantly and engagingly crafted, Brian SwitekÃ¢â ¬â„¢s narrative interweaves stories and characters not often encountered in books on paleontology—at once a unique, informative and entertaining read.Ã¢â ¬Â•—Niles Eldredge“If you want to read one book to get up to speed on evolution, read Written in Stone. Brian SwitekÃ¢â ¬â„¢s clear and compelling book is full of fascinating stories about how scientists have read the fossil record to trace the evolution of life on Earth.Ã¢â ¬Â•—Ann Gibbons“[Switek's] accounts of dinosaurs, birds, whales, and our own primate ancestors are not just fascinating for their rich historical detail, but also for their up-to-date reporting on paleontologyÃ¢â ¬â„¢s latest discoveries.Ã¢â ¬Â•—Carl Zimmer"After reading this book, you will have a totally new context in which to interpret the evolutionary history of amphibians, mammals, whales, elephants, horses, and especially humans.Ã¢â ¬Â•—Donald R. ProtheroSpectacular fossil finds make today's headlines; new technology unlocks secrets of skeletons unearthed a hundred years ago. Still, evolution is often poorly represented by the media and misunderstood by the public. A potent antidote to pseudoscience, Written in Stone is an engrossing history of evolutionary discovery for anyone who has marveled at the variety and richness of life.

Book Information

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Customer Reviews

Starred Review. Beginning with a recently discovered 47-million-year-old primate fossil, Switek effectively and eloquently demonstrates the exponential increase in fossils that have been found since Darwin first published On the Origin of Species.Ã Â In delightful prose, he blends information about fossil evidence with the scientific debates about how that evidence might be best interpreted. Switek, who writes the Smithsonian's Dinosaur Tracking blog, focuses on evidence for the evolution of major lineages, from reptiles to birds and from fish to tetrapods. He also explains at length how whales, horses, and humans evolved, marshaling compelling fossil evidence and combining it with information from molecular biology; at every step, he makes clear what is still unknown. He underscores that life forms have not "progressed" through evolution to end with Homo sapiens as the highest life form; rather, evolution has produced "a wildly branching tree of life with no predetermined path or endpoint." He superbly shows that "f we can let go of our conceit," we will see the preciousness of life in all its forms. 90 b&w illus. (Nov.) (c)

In this thoroughly entertaining science history, Switek combines a deep knowledge of the fossil record with a Holmesian compulsion to investigate the myriad ways evolutionary discoveries have been made. Just one chapter encompasses an 1817 expedition, Richard Owen and LondonÃ¢â ¬â„¢s Natural History Museum, the musings of Darwin, an array of late nineteenth- and twentieth-century naturalists, some digs in Greenland, and paleontologist Jenny ClackÃ¢â ¬â„¢s 1980 research in old field notebooks and a trip to the Sedgewick Museum basement. All of this leads in a roundabout way to the 2006 discovery of Tiktaalik: a fish with a critical position in the record between fins and fingers. From there Switek moves on to Ã¢â ¬Å“footprints and feathersÃ¢â ¬Â• and a dozen other topics that all further his mission of exploring natural history and portraying the scientists who spent their lives asking questions and finding answers. ItÃ¢â ¬â„¢s poetry, serendipity, and smart entertainment because Switek has found the sweet spot between academic treatise and pop culture, a literary locale that is a godsend to armchair explorers everywhere. --Colleen Mondor

This excellent book covers a lot of ground, in more ways than one. Part science and part history, "Written in Stone" by science writer Brian Switek offers an overview of how men of science came to understand the Earth and its myriad life forms. If you are an experienced reader of the Earth Sciences some of this material may already be familiar to you but Switek presents it in a fresh, informative manner. Starting in the 15th Century, and probably before, men of science noticed how the landscape was arranged in layers and some of those layers contained rock formations that looked a lot like the remains of living things. If these were indeed traces of long dead plants and animals, how did they come to be entombed in solid rock and why were the shells of sea creatures often found so far inland or in high mountain locations? Early studies of Geology and Evolution were often hampered by Religious Doctrine that teaches a strict interpretation of Scripture that often ran contrary what science had to say on the subjects. Throughout the book Switek introduces you to some of the scientist who shaped our understanding of the world around us. Men like Charles Lyell, Thomas Huxley, Alfred Wallace and, of course, Darwin himself. What they discovered and what they proposed was controversial to say the least and has remained so, to this very day. For me the most interesting parts of the book dealt with the history of life as we understand it today. The transition of fish to tetrapod, how birds may have learned to fly, why whales and elephants got so big. Then there’s Man’s story, tracing our journey from the trees to the ground and why "Homo sapiens" is probably the last of a varied group. This book may not be for everyone but if you’re at all interested in prehistoric life and the geological history of our world then "Written in Stone" may be just what you’ve been looking for. This is Switek’s first book and it’s a good one, a little technical in parts but clearly written for the layman reader. Both the print and e-reader editions are illustrated with archival photos, numerous charts, graphs and animal reconstructions. I had no technical or downloading problems with this Kindle edition.Last Ranger

Fascinating and very well written; for the biologist, geologist, or anyone interested in anatomical science and evolution. To my knowledge, all this information hasn’t been well integrated and described until recently, and isn’t taught anywhere I know (I wonder why?!) except maybe select universities. A collection of well-documented FACTUAL stories masterfully by Switek-- much of the painstaking evidence gathered by naturalists of the 1800’s and early 1900’s and how they gradually pieced together (and still are adjusting based on new evidence) the evolutionary tree of life--includes accounts of paleontological, anatomical, and DNA/genome evaluation of humans, whales, elephants, and many other genera/species. I always wondered about the details of

evolutionary theory, and this is a great book to get you going. A MUST READ, along with Prothero's book for anyone with a curious scientific mind free of religious dogma. Especially enlightening when read before a visit to any natural history museum...Houston, Denver, Washington DC, etc.

I had to read this book for a paleontology course. Overall, it was enjoyable.Pros:-Interesting topic overall, and put together pretty well-Switek turns the entire thing into a decent narrative--he's telling the story of the evolution of evolutionary theory-The whale, horse, and elephant chapters were pretty awesome-Some neat illustrationsCons:-For a book written by a professional writer and published by a reputable, non-vanity publisher, it contains a surprising number of misspellings and/or grammatical errors-As someone else said, there are several pages of notes in the back of the book, which should have instead been included as footnotes throughout the book

The stone has kept a fairly decent record about life in the past, but I think it is far from telling us the whole story. Of course the fossil record is subject to mountain ranges being destroyed by erosion, Oceanic plates being destroyed at the trenches along with other factors of nature that keeps it's fossil record history to itself. But, there is an adequate fossil information to confirm Charles Darwin Evolutionary Theory along with Transitional forms from free swimming worms to fish, fish to amphibians, amphibians to reptiles and from reptiles to mammals and birds as Charles Darwin predicted. In the last 50 years, the fossil record has clearly revealed the Evolution of the Human species (Homo Sapiens) going back at least 6 million years. Those that deny Evolution are quickly losing there fall back position of insufficient fossils for Evolution and/or Transitional forms.I would recommend it anyone that wants to know how Earth and Life sciences get there information in which to tell the story of the history of life and earth.

Record Rereading the Fossil Record: The Growth of Paleobiology as an Evolutionary Discipline New Approaches to Speciation in the Fossil Record Paleontology and Geology of Laetoli: Human Evolution in Context: Volume 2: Fossil Hominins and the Associated Fauna (Vertebrate Paleobiology and Paleoanthropology) Nahuatl as Written: Lessons in Older Written Nahuatl, with Copious Examples and Texts (Nahuatl studies series ;) The Star-Crossed Stone: The Secret Life, Myths, and History of a Fascinating Fossil The Written Works Of Graeme Edge: The Written Works of Graeme Edge The Story of Life in 25 Fossils: Tales of Intrepid Fossil Hunters and the Wonders of Evolution The Fossil Trail: How We Know What We Think We Know About Human Evolution Tahiti Beyond the Postcard: Power, Place, and Everyday Life (Culture, Place, and Nature)