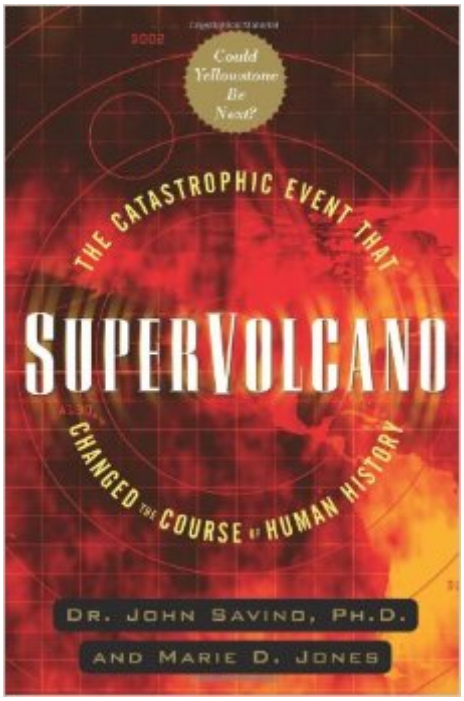
Supervolcano



Synopsis

Approximately 75,000 years ago, an event occurred that almost wiped out human life. According to a stunning new theory, this singular event may also have completely altered the genetic evolution of humankind. It was an event that released 3,000 times the energy of Mt. St. Helens. The new book, Supervolcano, explores this eruption of the Toba supervolcano in Sumatra, Indonesia, its far-reaching impact, and the strong possibility of another supervolcano eruption in our lifetime. Supervolcanoes are considered one of the five biggest threats to humankind, along with asteroids, nuclear war, disease, and global warming. But of those, supervolcanoes are the only threat that cannot be prevented. And their effects are catastrophic. So devastating was the Toba eruption and the sheer amount of ash it released into the atmosphere, it altered the global climate for years, creating a mini Ice Age that obliterated massive amounts of plant, animal, and human life. A new theory claims this earth-shattering event also caused a severe "population bottleneck" in humans, leading to the eventual extinction of all other branches of our species with the exception of one...the branch that survived Toba and became modern humans. Supervolcano will explore: -What supervolcanos are, where they are found, and why they are so deadly to life on earth. -Toba, the largest of the known supervolcanoes in the past 27 million years, and how its catastrophic environmental aftermath brought humanity to the brink of extinction. -How genetic, geological, and computer studies show that each human today is related to a survivor of Toba. -How we can prepare for the next supervolcano, which many earth scientists believe could be right here in our own backyard--Yellowstone National Park. And why they believe an eruption at Yellowstone could be as catastrophic for humanity as Toba.

Book Information

Paperback: 288 pages
Publisher: Career Press (October 9, 2008)
Language: English
ISBN-10: 1564149536
ISBN-13: 978-1564149534
Product Dimensions: 6 x 0.6 x 9 inches
Shipping Weight: 1 pounds
Average Customer Review: 3.6 out of 5 starsÂ Â See all reviewsÂ (24 customer reviews)
Best Sellers Rank: #1,612,473 in Books (See Top 100 in Books) #86 inÂ Books > Science & Math > Earth Sciences > Geology > Volcanology #214 inÂ Books > Science & Math > Earth Sciences >

Seismology #335 inÂ Books > Science & Math > Earth Sciences > Earthquakes & Volcanoes

Customer Reviews

This book is the first well-researched, well-written volume I have seen on supervolcanoes, i.e., resurgent ash-flow calderas. These monsters do not make conical mountains, but scatter ash and other pyroclastic debris over thousand of square kilometers, change climate and incoming solar radiation, and can wipe out species and civilizations in an instant.The present book discusses these phenomena as well as recent large scale eruptions in the near past, such as Thera, Crater Lake, and Tambora, for purposes of comparison. This is necessary, inasmuch as record-keeping people have been fortunate enough never to experience a true supereruption. It does appear that mankind was nearly driven to extinction by the Toba supervolcanic eruption in 74,000 B.P., however, and much of the book is laudably devoted to an excellent collection of information on this event, and what its repetition, either at Toba or elsewhere, would portend for our civilization. The news is far from encouraging.My only complaint about the book is the poor reproduction of the black and white photographs. Much important detail that would have greatly aided the written presentation is just simply missing or greatly disotrted. There are no color photographs.However, the written presentation is superb. The book is filled with interesting details that follow well as a unit. Especially apt is the notation that the largest ash flow caldera known, La Garita, is located in Colorado. FORTUNATELY, that one is extinct.The book closes worth a narrative of a hypothetical supereruption of Californi's active Long Valley Caldera in 2015, which largely destroys the Southwest and ruins agriculture in the Great Plains.

When I saw this book advertised here on , it seemed like the kind of book I enjoy reading, so I ordered a copy. At first glance, this book seems a little lightweight. It is full of pictures, diagrams and scary-looking fonts of the type that tend to fill the pages of speculative books. In addition, although the author is a geophysicist with a Ph.D. he seems to refer to more articles in popular publications such as USA Today and Readers' Digest and abstracts of papers than you would expect of an expert in the field. These limitations aside, the book is actually an interesting read and seems to reflect pretty solid science in most cases. It includes an interesting history of volcanoes and supervolcanoes and the impacts they have had as well as special coverage of the main topic of the book, the Toba supervolcano that created an evolutionary bottleneck about 70,000 years ago. There are interesting references to some of the latest discoveries and developments in a number of fields and fairly even-handed coverage of topics that are still somewhat controversial such as the

cause of prior mass extinctions and the so-called KT impact event. There is only one chapter that is very strange. In chapter 8, the author delves into the highly speculative idea of cellular memory, or the suggestion that memories of traumatic events can be stored at the cellular level outside of the brain and thus be passed on. Beside the fact that this is a very controversial area of inquiry, he fails to adequately explain why he even brings up the topic. In addition to the physical effects of a supervolcanic eruption, the author seems to be highly interested in the psychological effects.

I teach college-level science, including a course on volcanoes. I must say that this is one of the most poorly-written science books that I have ever read. This book looks like a vanity-press product that has undergone essentially no editing. Interestingly, one of the specialities of the publisher is paranormal phenomena. To be sure, there is interesting content in the book if one can sift it out. There are many errors of grammar, punctuation (way too many commas!), and spelling; they even misspelled the name of noted volcanologist Haraldur Sigurdsson! The writing style is extremely wordy with much redundancy (annoying strings of alternate descriptions or synonyms for well-known terms or concepts, repetitions of catch phrases) and clumsy sentence construction. After a while I found myself so annoyed at the writing that it was difficult to focus on the science content. Another major annoyance is the authors' method of "citation" of sources, listing date, article title, periodical name, authors' names, and authors' affiliations right in the text; surely, use of footnotes or a standard citation style would have been a much better way to cite source material without breaking up the flow of the narrative so much. As another reviewer noted, many of the sources mentioned in the text are not scientific research journals, but rather popular media, web sites, and television programs. A rather long discussion simply summarized a PBS television program about supervolcanoes. The production values of this book are also very amateurish. A cheesy "explosion" font is used for chapter titles; likewise, an "LED" font is used for section headings and page numbers. Diagrams are all taken from other sources and are in many cases reproduced at too small a size to see details.

Supervolcano