

NEW BOOKS & MEDIA



Apollo

Missions to the Moon

National Geographic Channel, 2019.

Director Tom Jennings (*Challenger Disaster: Lost Tapes*) combines restored archival audio and film footage in this new documentary about the history of the Apollo missions. Space history enthusiasts will appreciate that Jennings discards modern talking heads and background narration in favor of letting the historical film and audio tell the story; that choice allows the film to capture the feeling of watching these events unfold over the course of the 1960s. Overall, *Apollo: Missions to the Moon* is a solid and interesting documentary. However, it suffers in comparison to *Apollo 11*, released in theaters

and IMAX earlier this year (see PHYSICS TODAY, May 2019, page 63), which also combines recovered archival film and audio but tells its story in a more engaging and technically detailed way. That said, Jennings does emphasize some themes missing from *Apollo 11*, including the experiences of NASA civilian employees and the astronauts' families along with public criticism of the space program. The film will air on the National Geographic Channel at 9pm EDT on 7 July. —MB

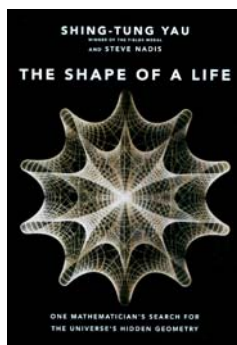
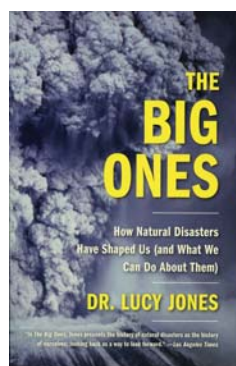
The Big Ones

How Natural Disasters Have Shaped Us
(and What We Can Do About Them)

Lucy Jones

Anchor Books, 2019. \$16.95 (paper)

From Mount Vesuvius erupting over Pompeii in AD 79 to the 2011 Tohoku earthquake in Japan, natural disasters are an inevitable part of life on Earth. Earthquakes and other geologic phenomena occur daily, yet they can prove catastrophic in heavily populated areas. Seismologist Lucy Jones, a 33-year veteran of the US Geological Survey, discusses some of the world's greatest catastrophes and how people have dealt with them. By looking at the past, Jones says, we can better plan for the future. —CC



The Shape of a Life

One Mathematician's Search for the
Universe's Hidden Geometry

Shing-Tung Yau and Steve Nadis

Yale U. Press, 2019. \$28.00

Mathematician Shing-Tung Yau won the Fields Medal in 1982 for, among other achievements, his proof of the Calabi conjecture, which has formed the basis for much of modern string theory. In this readable new autobiography, cowritten with science writer Steve Nadis, Yau tells the story of his personal and intellectual journey. The book covers

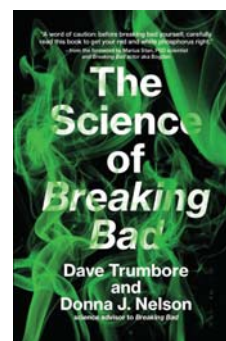
his childhood in China and Hong Kong; his education at the Chinese University of Hong Kong and the University of California, Berkeley; and his eventual path to Harvard University and the work that won him mathematics' most prestigious prize. Yau and Nadis dive into explanations of some extremely complicated math and do so with an enviable clarity and precision. The book also offers a compelling portrait of the intellectual life of a mathematician. *The Shape of a Life* frequently talks about the conferences and colleagues that inspired Yau and influenced his work, a welcome antidote to the stereotype of the solitary theorist locked away in his office. —MB

The Science of Breaking Bad

Dave Trumbore
and Donna J.
Nelson

MIT Press, 2019.

\$19.95 (paper)



Based on the popular TV series, *The Science of Breaking Bad*

focuses on the many ways in which real-world chemistry is presented in the show. The premise of the series is that a mild-mannered high school chemistry teacher diagnosed with a terminal illness is driven to manufacturing methamphetamine to secure his family's financial future before he dies. Although the program is not a how-to guide for illicit drug making, it does present numerous instances of ad hoc chemistry, such as explosions, poisonings, and gassing of rival drug dealers. Co-author Donna Nelson, a chemistry professor who served as science adviser for the series, not only fact-checked the science for the book but also shares insider information and anecdotes about her personal experiences from the show. —CC

A Year Without a Winter

Dehlia Hannah, ed.

Columbia Books
on Architecture
and the City,
2019. \$23.00
(paper)



This collection of scholarly essays, visual art, and science fiction explores humanity's place in the environment in the

context of climate change. Editor Dehlia Hannah brings together a fascinating collection of contributors, including literary scholar Gillen D'Arcy Wood, geochemist Hilairy Hartnett, and Hugo Award-winning author Nnedi Okorafor. The text also includes excerpts from older fiction and poetry about nature and climate, including several passages from Mary Shelley's *Frankenstein*. —MB

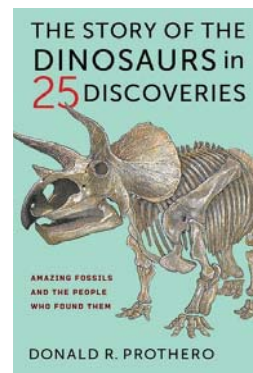
The Story of the Dinosaurs in 25 Discoveries

Amazing Fossils and the People Who Found Them

Donald R. Prothero

Columbia U. Press, 2019. \$35.00

Donald Prothero, author of *The Story of the Earth in 25 Rocks: Tales of Important Geological Puzzles and the People Who Solved Them* (2018), returns with another entertaining trip through the history of science, this time focusing on paleontology. *The Story of the Dinosaurs in 25 Discoveries* recounts major fossil finds, including well-known species like *Triceratops* and more obscure ones like *Patagotitan*. He also tells the stories of the people who made those discoveries; his account of the feud between Edward Drinker Cope and Othniel Charles Marsh is especially entertaining. Readers interested in the latest paleontological literature will appreciate the list of references at the end of every chapter and Prothero's readable discussions of important papers and arguments in the field. —MB

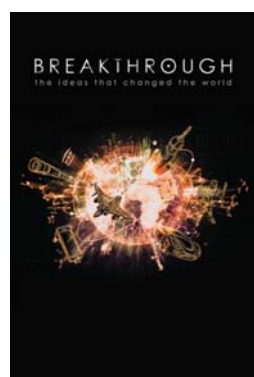


Breakthrough

The Ideas That Changed the World

PBS, 2019. \$34.99 (DVD)

This six-episode PBS miniseries takes a fine-grained, fascinating look at the history of important technologies. Each episode focuses on an invention or object, such as the telescope, the car, or the rocket, and looks at both the object's historical significance and the scientific advances that went into its development. Actor Patrick Stewart narrates, but unfortunately the lines he's given are often pretentious and clunky: The first episode opens with the words "since the dawn of humankind," a painful cliché that never should have made it past a first draft. The background music is also heavy-handed and distracting. But the interviews with researchers and the broad-ranging perspectives on the history of the objects are informative and interesting. The series will be released on DVD and via digital download on 9 July. —MB 



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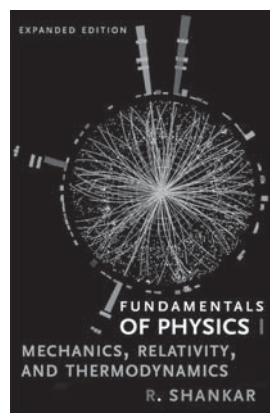
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