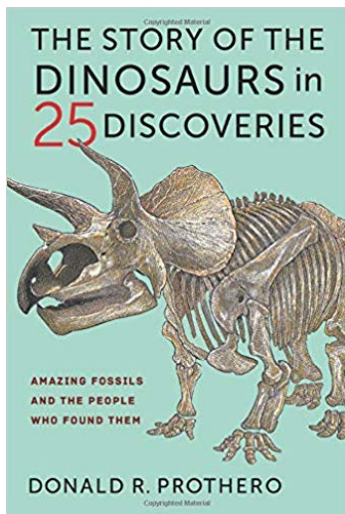


BOOK REVIEW

By A. Alessandro Chiarenza



The Story of the Dinosaurs in 25 Discoveries

Donald R. Prothero

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from the first discovery of dinosaurs during the Victorian Age, which triggered the first wave of Dinomania (more than 140 years before Jurassic Park came out), to the most recent news of unexpected new species from Asia.

One aspect I really appreciated is the continuous links between historical stepping stones that paleontologists have laid down discovering and understanding these amazing animals, and the way modern researchers are using new tools and methods to build on those discoveries. Standing on shoulders of giants can have an ambivalent meaning here. With each discovery, you learn how scientists worked through the decades to assemble knowledge on each particular dinosaur and the world it was living in. Interestingly, every chapter has an explicit narrative about how old and new facts can be integrated to understand a specific dinosaur species or group. By following the thread from the beginning of each chapter, page after page Prothero takes you by the hand through an accelerated, fast-paced crash course on dinosaur paleontology.

From the chapter on *Megalosaurus* (the first carnivorous dinosaur ever discovered and one of the very first dinosaur remains described), to understanding *Iguanodon* from Mantell's discovery to Dollo's reconstructions, to the most recent updates. A clear description of what we knew (or thought we knew right) and what we have now revised is presented with an engaging, non-pedantic narrative.

Very little shared consensus would emerge from a group of dinosaur paleontologists around a conference table considering the 25 discoveries that characterized their field of study. The best way to get the answer right, for the sake of impartiality, is to ask a mammalian paleontologist. That may be how we got Donald Prothero's "*The Story of the Dinosaurs in 25 Discoveries*". Dr. Prothero is a Professor of Geology and Paleontology at California State Polytechnic University, Pomona, and other than being a long time researcher in mammalian paleontology, is the author of several well-known earth science books that are particularly influential to young natural science students and prehistory aficionados everywhere.

He is already the author of "*The Story of Life in 25 Fossils: Tales of Intrepid Fossil Hunters and the Wonders of Evolution*", where each chapter highlights the role of paleontological discoveries in structuring modern evolutionary knowledge. Using the same basic format, *The Story of the Dinosaurs in 25 Discoveries* is a book on the history of dinosaur paleontology. Far from the classic book on dinosaurs for children, the book navigates through the stories of people that made discoveries and published research,

However, *The Story of the Dinosaurs in 25 Discoveries* is not only a book on new fossil finds; relatively complex concepts on dinosaur evolution, relationships, and biology are nicely outlined for a wider audience (other than the usual dinosaur geek). For example, in Chapter 5, the discovery of *Eoraptor*, one of the earliest dinosaur to appear on Earth, becomes the chance to discuss the origin of the group and the last updates and relative controversies regarding our understanding of dinosaur classification (Baron et al. 2017; Langer et al. 2017) and their early evolution. Other chapters briefly discuss concepts of comparative anatomy and systematics, including concepts that are usually treated (at least) at an undergraduate level class, here made accessible by Prothero to everyone. Instead of providing provisionary truths on this or that systematic position of a dinosaur, the book nicely conveys the dynamic changes that these topics encounter because of continuous research. A chapter on *Tyrannosaurus rex* even becomes an excuse to discuss the international fossil market and its controversies.

An apparent trivial issue, like the naming of the once obliterated and now resurrected name *Brontosaurus*, becomes a clever lesson to discuss taxonomy (the way names are given to species), the process and actions involved, and an introduction to important and deep ecological themes, like ecological niche segregation and competitive exclusion.

The book conveys an appreciation for historical information, which is usually restricted to a more

specialized audience. This includes a rich variety of anecdotes on the epic nineteenth century American West expeditions, to the meticulous work of influential workers like Colbert, to the recent risky enterprise in the Polar Regions.

The Story of the Dinosaurs in 25 Discoveries is a fascinating review of the history of dinosaur paleontology, which outside of the usual appreciation among academic and amateur paleontologists, may attain a wider audience. It's easy to imagine that this most recent book from Prothero to be a natural history museum bookshop's bestseller.

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