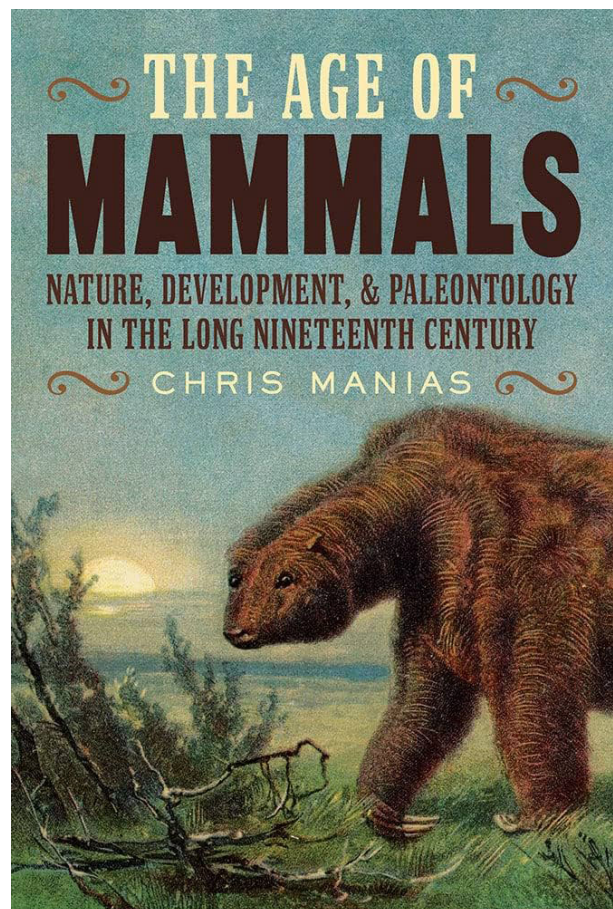


## **The Age of Mammals Nature, Development, & Palaeontology in the Long Nineteenth Century**

Reviewed by Travis Holland

Manias, C. 2023. *The Age of Mammals: Nature, Development and Paleontology in the Long Nineteenth Century*. University of Pittsburgh Press. Hardback. 473 pages. ISBN 978-0-8229-4780-6. US \$65.00.

The relationship between land, animals, and people has a deep history worldwide and, yet, is somewhat more salient for particular places and cultures. This was made especially clear to me while reading through Chris Manias' newest book *The Age of Mammals: Nature, Development and Paleontology in the Long Nineteenth Century* (2023). As I flipped through the early sections of the book, I experienced a surreal moment illustrating this salience. On Wiradjuri country in central New South Wales, I was reading Manias' account of the discovery by Western science of Siberian mammoths, then various fossils of the British Isles, and those of France and Germany when a colleague sent me a message wondering about the links between the First Nations peoples of Australia and the spectacular opalised fossils often found on this continent. Manias had observed already that "The deep-time sciences worked and reworked a range of pasts and traditions around the earth, and incorporated them within their concepts" (p. 9). Manias then turned his attention to the "strange and unfamiliar" animals - both living and extinct - of Australia, particularly the early European explorations of Wellington Caves and the vast collection of fossils within. Like my institution, these caves are within the lands of the Wiradjuri people. The



Travis Holland, School of Information and Communication Studies, Charles Sturt University, Australia. [tholland@csu.edu.au](mailto:tholland@csu.edu.au)

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description of their importance to the early palaeontological history of Australia - and the explanatory power to which they were put around the world - is an exemplary case of Manias' richly layered and carefully constructed account of the unfolding of palaeontological science around the world in the nineteenth century. It draws upon both antipodean and metropolitan accounts of the fossils and neatly sets up a later chapter more thoroughly addressing Australia's mammal palaeontology.

Manias has arranged the book into three main sections that proceed chronologically. The first section (1700s-1840s) deals with what might be considered the broad terms of engagement. In this section, he describes the earliest discoveries and circulation of fossil mammals, largely centred on much of science in Europe and the networks of knowledge and power it established around the world. These include accounting for the challenge that fossil discoveries posed to theologically-based accounts of the world, the role that extinct mammals played in reshaping the understood scales of life, and otherwise of the ordering of the newly discovered fossils themselves. The second section (1850s-1880s) presents more specific case studies of ancient elephants housed in museums in Paris and London - cementing those cities as powerful centres of palaeontological science - as well as the emerging palaeontological institutions and practices of North America. The third section (1890s-1914) accounts for developments further afield from these centres in South America, Australia, and Africa as well as the emergence and further consolidation of museums as distinct accumulative institutions. The book is concluded with a short fourth section that explores how the Age of Mammals has fallen away in the face of the Age of Man, a distinct cultural era in which questions about our broader relationship and inter-dependence with the natural environment dominate rather than earlier thoughts about our dominion over the world.

*The Age of Mammals*, like the zoological period whose science it recounts, reads as a corrective to dinosaur-centric accounts of palaeontology that have dominated since at least the 'dinosaur renaissance' which began in the 1960s (Bakker 1975; Currie 2023 March 1). In that regard, it sits in conversation with works like Lukas Rieppel's *Assembling the Dinosaur* (2019). Though the work is a deep and serious history targeted to the academic reader and focuses on the cultural elements of palaeontology, it nonetheless also sits among a trend of mammal-focused popular science books like Elsa Panciroli's *Beasts Before Us*



Image from original journal: 'Sketch showing the manner in which the Osseous Breccia occurs in the Cave at Wellington, in New South Wales', in Pentland, W. (1833). Observations on a collection of fossil bones sent to Baron Cuvier from New Holland. *Edinburgh New Philosophical Journal*, 13, 120–121. <https://archive.org/details/edinburghnewphil14edin/page/120/mode/2up>

(2021), Steve Brusatte's *Rise and Reign of the Mammals* (2022), and even Jack Ashby's *Platypus Matters* (2022).

Where Manias' work really excels is in reclaiming and redescribing the practice of palaeontology in the nineteenth century in all of its expansionist, political, and cultural complexity. He acknowledges the ways in which "Paleontology rested on patterns of power - although power that moved variably, and was often contested" (p. 383) while also acknowledging that for nineteenth-century scholars, their "modern world was as much an impoverished place as one where humans formed the 'crown of creation'" (p. 384). Along the way, Manias offers entertaining and enlightening observations such as:

The American fossils hunter was as much a scientific prospector testing his strength against the environment as a museum-based scholar (p. 227);

and

imaginative reveries, where the learned scholar traveled back through time to the ancient landscape through the powers of his own imagination were an important feature of the nineteenth-century paleontological discourse (p. 106).

After reading the book, I interviewed Manias on a podcast which serves as my own attempt to reckon with the cultural shape of palaeontology. There, he observed that nineteenth-century palaeontologists had their own notion of what we might

perceive as the more modern concept of the Anthropocene: “they have very similar ideas that the arrival of humans and particularly the arrival of large-scale human societies represents a new era of creation which exists on geological terms” (Manias in Holland 2023). And that perhaps is emblematic of the message of this book: that the Age of Mammals (including those pesky *Homo sapiens*) has deeply influenced the state of the world in ways now largely ignored in the popular understanding of palaeontology.

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