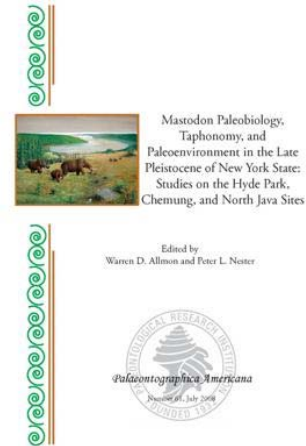




Mastodon Paleobiology, Taphonomy and Paleoenvironment in the Late Pleistocene of New York State: Studies on the Hyde Park, Chemung, and Java sites, edited by Warren D.

Allmon & Peter L. Nestor, 2008. *Palaeontographica Americana* 61. Paleontological Research Institution, Ithaca, NY. Paperback, 476 pages, 30 plates. Price USD 80.00; EUR 58.00. ISBN 978-0-87710-479-7.



North American mastodons are among the most famous fossils, but each new find increases our knowledge of the world populated by these 'Ice Age' giants. In this skilfully written book, an inspired team of authors tells us about mastodon remains found recently at the Hyde Park, Chemung, and North Java sites in the state of New York. The volume presents a description of the paleontological material from these localities; more or less complete skeletons of *Mammuth americanum* (Kerr, 1792) were excavated from all three sites. The outstanding paleontological material was collected and examined for about a decade, and many important conclusions are presented now in this volume, among others about the paleoenvironment. It is concluded, for instance, that the mastodons inhabited a rapidly deglaciated area where open woodlands and ponds existed.

The book is subdivided into four parts and twenty individual contributions. These do, fortunately, not present a random collection, but a well thought over synthesis of diverse data. The book starts with an outline of mastodon studies in New York, which is followed by a discussion of Late Pleistocene paleoenvironments. Some general considerations based on a summary of data from the studied sites are presented. The last three parts deal each with one of the investigated sites.

The various authors do not avoid generalization of the data. State-of-the-art paleontological interpretations like that by Fisher et al. (who identify both gender and age of a mastodon) form highlights of the volume. Apart from mastodons, also mammoths, mollusks, coleopterans, ostracods, diatoms, wood macrofossils, seeds, and pollen are considered and illustrated. Karrow & Mackie, for instance, give a comprehensive synthesis of data on fresh-water mollusks. A taphonomic approach is commonly used. I was myself fascinated learning about 'battles' between mastodons. Fortunately, the paleoenvironmental interpretations are very detailed, showing that geology received much attention. The detailed treatment of the deglaciation history and the (partly geophysically determined) stratigraphy support this view.

The "young" age of mastodons from all sites (ranging from 13.5 to 12.8 cal ka according to Miklus et al.) provides the basis for a discussion about the end-Pleistocene megafaunal extinction. Burney & Robinson specify 13 (!) hypotheses explaining this catastrophe. It seems, however, that their overview was finished before works in favour of an extraterrestrial trigger were published, which hypothesis they do not examine. I feel that some observations on charcoal made by Burney & Robinson can be used to evaluate the ideas about an impact.

In my opinion, the book is an important contribution to the end-Pleistocene paleontology and paleoenvironmental reconstructions. It can certainly be used to teach the principles of multi-dimensional research. In conclusion, this volume will undoubtedly attract many young people to the field of paleontology.

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