



The Palaeoartist's Handbook: Recreating prehistoric animals in art

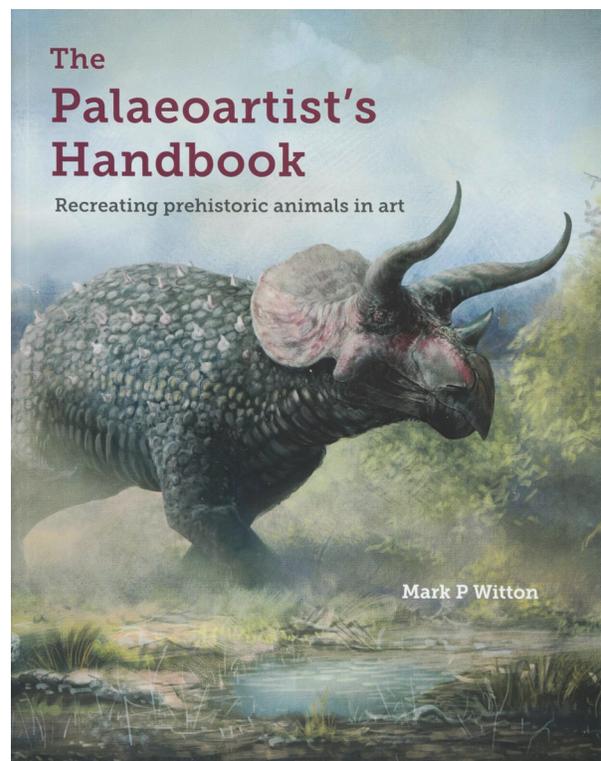
Review by Matthew D. Celeskey

The Palaeoartist's Handbook: Recreating prehistoric animals in art, by Mark P Witton. 2018. Crowood Press. 224 pages. £22.00 (paperback) £16.99 (ebook). ISBN: 9781785004612

From the earliest days of paleontology, artists have been inspired to render and sculpt the living forms of plants and animals known from fossil remains. As our scientific understanding of prehistory has grown more complex, a specialized field of 'paleoartists' has kept pace, developing a set of skills and knowledge in order to create the most accurate reconstructions possible. Mark Witton's *The Palaeoartist's Handbook* sets out to compile this information and present it in a clear and accessible format, not only for practicing and aspiring artists, but the researchers, advisors and patrons who collaborate with them.

Witton's background as both a vertebrate paleontologist and paleoartist underscores the main strength of the book—the art and science behind paleoart are treated as equally deserving of attention and equally necessary for successful work. The well-organized text is matched with relevant full-color images on every spread. These include example works of paleoart that highlight the topics of discussion as well as informational graphics, diagrams and charts that showcase key anatomical and scientific concepts. In addition to a significant catalog of Witton's own art, the *Handbook* showcases diverse works by eight contemporary paleoartists. This welcome inclusion highlights the volume's broad intent: this is not one worker's how-to guide, but an outline of background knowledge and best practices applicable to any paleoartist taking their subjects seriously, regardless of medium or style.

The first chapter provides an introduction to paleoart, tackling the question of how best to



define the genre while acknowledging the limitations imposed by missing data and shifting interpretations. Witton settles on a definition that leaves room for changing views and new discoveries, and includes similarly thoughtful discussions of the applications, biases, and importance of paleoart.

The next chapter is titled "A Brief History of Palaeoart," but one would be hard-pressed to find

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a more expansive or nuanced review of the field. Beginning with a critical look at claims of fossil-inspired reconstructions from antiquity, this chapter traces significant developments and artists through the 19th and 20th centuries into the 'post-modern' world of paleoart today. Although the beginning of the chapter includes several pieces of early and 'classic' paleoart, it is unfortunate that no pieces from the mid to late 20th century illustrate the discussion of dramatic changes in the field during that time. No doubt copyright issues complicate the inclusion of works from this time, and many readers will be familiar with these works already. However, it is a noticeable omission when compared with the well-considered pairing of text and images throughout the rest of the book.

With background established, the remaining chapters of the book offer extensive practical advice for artists, starting with the research and planning needed to create an original work of paleoart. Throughout the *Handbook*, the text does not assume the reader has previous familiarity with scientific terms or concepts. Witton defines terms clearly, discusses how they are used by researchers and explains why their understanding is important to artists. This chapter emphasizes the benefits of working directly from paleontological data, and discusses problems with the common practice of using previous artworks as primary sources.

The following chapters outline the process of restoring the overall life appearance of a fossil animal. Instead of providing a rigorous, step-by-step guide to fleshing out one particular taxon, these chapters present the process as a set of considerations and principles that should be applied to the reconstruction of any fossil organism, although the focus here is solely on tetrapods. This process begins with the general principles of reconstruction from the skeleton out, incorporating evidence from footprints and trackways, how masses of soft tissues like muscles and guts affect the external appearance of animals, and finally the surface elements of skin and coloration. Particular attention is paid to osteological correlates of different types of skin coverings, offering artists a framework for evidence-informed reconstruction of external tissues when only skeletal elements are known.

Subsequent chapters provide a detailed look at principles of restoring facial tissues, insights that can be gleaned from cave art and other ancient artworks, a discussion of the role of speculation in paleoart, and a thorough examination of tissue depth—when 'shrinkwrapping' skin over a skeletal

element is appropriate and when more extensive soft tissue is warranted. General guidelines for the life appearance of different fossil tetrapod groups are included to help artists avoid common reconstruction errors and provide references for readers wanting to explore a specific group. A chapter on the reconstruction of ancient landscapes offers a clear and well-illustrated introduction to sedimentary geology for paleoartists as well as advice on the appropriate flora for different paleoenvironments.

In reviewing those elements that elevate an image to a work of art—composition, mood, and intent, the *Handbook* does not linger on topics that would be commonly covered in other types of art instruction. Instead it focuses its attention on issues specific to paleoart: depicting animal behavior, how to impart a sense of scale to unfamiliar subjects, and how the quality of fossil data might impact stylistic choices made by the artist. The text closes with a chapter on professional practices and a few words of advice for aspiring paleoartists, which should resonate with practitioners at every level.

Although the scope of the *Handbook* is admirably broad, there remain a few areas which might benefit from further attention. Much of the text focuses on details relevant to tetrapods, and artists interested in reconstructing fossil fish and invertebrates will have to look elsewhere for comparable information. Fossil plants receive only a few pages of relatively general discussion. The professional practices chapter is rather brief and I found myself wanting to see more of how the guidelines discussed in the previous chapters applied to specific projects. Finally, the printing of this volume is handsome but not extravagant, and the details of some darker images reproduced at smaller sizes can be difficult to appreciate.

But these limitations pale next to the value of the information and images that are packed into this book, and I congratulate Mark Witton on creating what will undoubtedly become the standard reference for a new generation of artists. Those new to the field will not find a better summary of the information and processes that inform paleoart, and experienced artists will find much that is useful and inspiring here. *The Palaeoartist's Handbook* raises a high bar for the depth, breadth, and clarity in a practical guide for both working artists and for those who would appreciate the work behind the art.