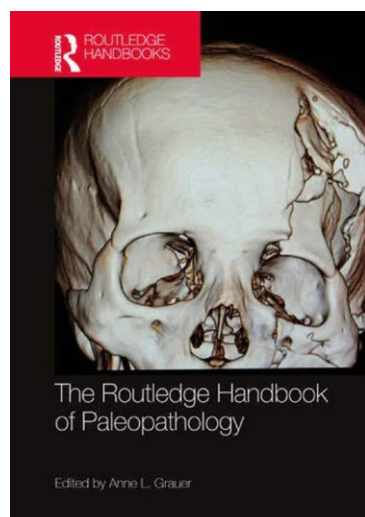


Book review

Anne L. Grauer (ed.), *The Routledge Handbook of Paleopathology*. London: Routledge (Taylor & Francis Group), 2023; ISBN 978-0-36764-067-5 (hardcover); ISBN 978-1-00313-099-4 (eBook); 692 pages, 44 figures

This edited volume by Grauer and colleagues marks an update on the state of paleopathology as a field of study. The intent of this handbook is not to assist in the identification of pathological conditions and differential diagnoses, a focus already well represented in numerous other recent publications, including *Ortner's Identification of Pathological Conditions in Human Skeletal Remains* (Academic Press, 2019) and *Paleopathology of Children: Identification of Pathological Conditions in the Human Skeletal Remains of Non-Adults* (Elsevier, 2018), but rather seeks to provide broader foundational discussions around paleopathology as a discipline along with theoretical syntheses focused on topics addressed by paleopathological research. This handbook primarily engages with pathological conditions among human populations, though contributions on the fossil record (Chapter 29) and zooarchaeology (Chapter 30) are also represented.

Adopting a tripartite division, *The Routledge Handbook of Paleopathology* utilizes a stepwise approach to introduce readers to the field of paleopathology: Part I—Applications, Methods, and Techniques in Paleopathology; Part II—Investigating Diseases and Conditions of the Past; and Part III—Theoretical Approaches and New Directions. This division of sections follows a logical progression of knowledge familiarization. Readers are first introduced in a broader sense to the field of



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paleopathology, its methods, and larger questions, before proceeding to focused chapters dedicated to pathological conditions, including trauma, treponemal disease, and dental disease, among others. Chapters in Part III demonstrate how the foundational frameworks established in Parts I and II can be operationalized in broader conceptualizations of what life was like in the past and how paleopathology can contribute to discussions of lived experiences such as stress, structural violence, and disability, among other areas, before looking to future directions of the field. The topics considered across the three sections of this volume are not as important for their novelty, as such topics in many ways are as old as the field of paleopathology, but rather for the discourse direction they provide around where the field has been and where it might, and perhaps should, go as it continues to develop into the future.

The combined voices of the global network of scholars represented in this volume create a dynamic point of intersectionality. The benefit of handbook volumes such as this one is the creation of an arena of dialogue. While each chapter stands on its own, advancing independent narratives, the sum of the collective parts creates an environment of synergy in which debate, advancement of methodologies across multiple lines of evidence, and problematization through various lenses act together in a singular, channeled effort, to establish benchmarks of the field. With each iteration of a handbook of this magnitude the breadth and width of a discipline are laid bare, allowing for a litmus test of the state of the field at that moment in

time, providing a useful accounting of avenues of research that will then trend on along different routes, spreading from this nodal iteration to develop further in their own avenues until the next compilation is realized in a future handbook. Accordingly, this volume provides a useful single-source tool for research guidance on manifold topics related to paleopathology that can aid in providing further direction as well as succinct syntheses of given aspects of the field.

The language utilized in this volume is overall quite accessible in tone. While not an explicit aim *per se*, the achievement of creating such a diverse volume with numerous authors across multiple technical fields that can be readily engaged with by novices and experts alike is a commendable accomplishment, making this volume useful to both those already familiar with the field as well as individuals who may be seeking to learn what the field is about and engage with broader ongoing debates.

Beyond simple benefits from signposting to other specialist literature, this volume seeks to update and further contextualize topical debates and themes within paleopathology. Chapter 16 on treponemal disease presented by Baker, for instance, further problematizes conceptions of the spread of treponemal disease, drawing attention to perceived shortcomings of the Columbian exchange model and the need to further investigate connections with the African slave trade and population mobility in relation to colonialism, as well as engaging with recent DNA evidence to further demonstrate the dangers of equating modern distributions of bejel, syphilis, and yaws with

premodern occurrences of treponemal disease. The discussion presented about treponemal disease also highlights several challenges faced by paleopathological research, namely that several global regions have been disproportionately investigated while others have yet to be investigated, and that integration of non-Western literature and oral histories has been comparatively limited to date.

Readers of this volume will notice, in particular, increasing engagement with genomic evidence for developing evolutionary models and further understanding experiences of pathological conditions in the past, with a dedicated chapter on paleogenetics and genomics presented by Sabin and Stone (Chapter 8). Advances in pathogen detection sensitivity coupled with exponential growth in analytical capacities, namely with the advent of high throughput next-generation sequencing (NGS), have provided unparalleled opportunities for advancing paleopathological discourses. Beyond refinement of taxonomic relationships and the global distribution of pathogens, advances in aDNA capacities have made it possible to further identify and quantify heritable conditions as well as the presence of pathogens in instances where skeletal alteration is not expected, such as smallpox and plague, and where impacts to the skeleton may not have developed by the time of death or developed in an unidentifiable configuration, leprosy and tuberculosis being prime examples. Advances in genomic analyses also bring additional opportunities for assessing the alignment of macroscopic lesions with DNA evidence of underlying pathogen loads.

Advances in imaging technology have played a revolutionary role in curation, allowing for virtual analyses and thus reducing the need for invasive sampling. Advances in imaging capacities have also widened the scope of paleopathological assessment possibilities, allowing for broader identification of soft tissue pathological conditions. Notably, the use of computer tomography (CT) has provided an avenue for identifying atherosclerosis among the mummified remains of past populations, a finding which has pushed back the antiquity of this previously proposed “modern” condition significantly.

A unique feature of this volume is the consideration of public perceptions of paleopathology. In an increasingly interconnected social media world, the question of “what do people think we are saying vs. what we are actually saying,” is all the more pertinent and impactful. Chapter 32 by Killgrove and Buikstra addresses this question head-on, pointing out the pitfalls of various “public” interpretations of nuanced research but also the benefits and impetus upon researchers to communicate clearly with broader audiences. The need to increase engagement through plain language venues and community-centered practices is a route forward that benefits both researchers as well as the communities they work within, creating opportunities for feedback and mutually beneficial returns on research investments.

Numerous challenges have faced the field of paleopathology since its inception, both in terms of theoretical frameworks and methodological approaches, as well as around questions of ethics and community engagement. As Grau-

er, among several other authors in this volume, points out, the early roots of both paleopathology and more broadly biological anthropology are steeped in a number of difficult legacies that saw social position and power differentially dictate what research was undertaken. Such social dynamics also played a role in the acquisition and research use of global skeletal collections from numerous questionable contexts, including the remains of individuals who had no known relatives to claim them, colonized and racialized populations, incarcerated individuals, skeletons collected through grave robbing, as well as exported skeletons from various global regions, most notably from India where thousands of skeletons per year were exported for scientific use over a 150 year period. As this volume points out, the only way to move forward

has been and continues to be recognition of instances of broader social injustice wrought upon various communities by earlier practices and seeking to do better in the future through ethically grounded and community-engaged research.

While suitably written for a broader audience, the core demographic that will find this handbook most useful is individuals and institutions engaged with biological, anthropological, and paleopathological research. Beyond the content of each contributed chapter, the cited sources provide highly valuable foundational literature, allowing this edited volume to serve as a starting point for delving deeper into additional areas of paleopathological inquiry. A welcome addition to research and university libraries, this updated volume will remain a key reference resource for quite some time to come.

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