

## REVIEWS

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### *Zooarchaeology and Field Ecology: A Photographic Atlas*

Jack M. Broughton and Shawn D. Miller,  
Salt Lake City: University of Utah Press, 2016,  
224 pp., ISBN 9781607814856, \$40.00 (paper).

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Zooarchaeological research is expected to strike a balance between understanding the behavioral ecology, evolutionary history, biogeography, etc., of past non-human animals and their incorporation into past human lifeways; after all, zooarchaeology is a contraction of the terms zoology and archaeology. Of course, any given case study cannot be expected to fully unite these two broad disciplines. It is common, therefore, for zooarchaeological research—and researchers—to be thought of as championing either the zoological or anthropological side of the zooarchaeological continuum. There seems to be two groups yelling at each other across a divide among zooarchaeologists. One group is screaming, “Where are the people!?” and the other group is shouting, “Where are the animals!?” Does, however, a detailed focus and interest in the zoological side of the zooarchaeological continuum negate or detract from the anthropological goals of archaeology? Hardly. In fact, it strengthens them.

Jack Broughton’s and Shawn Miller’s recent book, *Zooarchaeology and Field Ecology*, clearly demonstrates this point. The book was written for a very specific purpose: as a lab manual for introductory zooarchaeology classes. Ultimately, however, *Zooarchaeology and Field Ecology* is more than a lab manual. This text incorporates evolutionary and ecological information on a taxon-by-taxon basis, something no previous zooarchaeological guide or key has done as explicitly. The crucial addition of taxon-specific evolutionary and ecological information does two special things. First—as Frank E. Bayham touches on in the insightful foreword to the book—the incorporation of evolutionary and ecological information provides clear links to the paleontological and ecological

intellectual traditions that have turned zooarchaeology into a strong subdiscipline. Second, the book provides a disclosive perspective for zooarchaeologists: “An... explanation [that] tells you what the crucial dimensions and forces of the world are, and it tells you or at least suggests how to find your place and come to be home in the world” (Borgmann 2000:101). A disclosive perspective transcends the simple ordering of facts and information; instead, it adds a sense of reverence for the intricate levels of depth and of contingency that occupy the interstitial spaces of the material world.

What this ultimately means for zooarchaeologists is that the faunal identification process is never just a means to an end. Rather, the identification process is fundamentally about assigning tangible animal remains into a vast network of intangible evolutionary and ecological relationships. The philosophical depth of this act cannot be understated.

The disclosive evolutionary and ecological perspective offered by Broughton and Miller has very real implications for data quality in zooarchaeology. Grappling with the myriad evolutionary and ecological relationships woven into animal remains is pivotal to the faunal identification process. Coping with the multitude of ways that animals relate to each other in time and space leads to more accurate identifications—i.e., identifications normally to higher taxonomic categories. Knowing exactly how all diagnostic criteria for identifications change on a fragment-by-fragment basis through time among different species, sexes, age classes, and geographic regions is an almost impossible task. A detailed focus on the zoological side of the zooarchaeological continuum puts the data that zooarchaeologists generate on firmer ground. In turn, this enhances the validity of zooarchaeological interpretation regardless of whether such interpretations stem from more social or zoological frameworks.

It should come as no surprise that I would highly recommend this book to both zooarchaeological novices and experts, no matter what facets of zooarchaeology most interest them. For zooarchaeological newcomers, the beginning and end of the book provides clear explanations of taxonomy, systematics, osteology, anatomical termi-

nology, and taphonomy. Most of the book explicates diagnostic criteria used to distinguish broad taxonomic groups. These criteria are illustrated in high-quality photos that are well labeled, which will undoubtedly serve to alleviate ‘bone quiz’ anxiety for students ~~who are just learning the ins and outs of faunal identification and who are in introductory zooarchaeology classes~~. For more experienced graduate students ~~in zooarchaeology~~, the layout of this book is a perfect model for the structure of a systematic paleontology—an underutilized way to report protocols for taxonomic identifications. Writing a thorough systematic paleontology can significantly assuage concerns related to faunal identification quality (Wolverton 2013). Writing out protocols for taxonomic identifications in a systematic paleontology puts zooarchaeology firmly outside of what some refer to as ‘silo science’ (Speakman and Shackley 2013). And for all zooarchaeologists, *Zooarchaeology and Field*

*Ecology* helps to disclose a broader set of evolutionary and ecological values that we would all be wise to keep fresh in our minds.

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