Taponomy studies the transition of organic matter from the biosphere into the geological record. It is particularly relevant to zooarchaeologists and paleobiologists, who analyze organic remains in the archaeological record in an attempt to reconstruct hominin subsistence patterns and paleoecological conditions. In this user-friendly, encyclopedic reference volume for students and professionals, R. Lee Lyman, a leading researcher in taphonomy, reviews the wide range of analytical techniques used to solve particular zooarchaeological problems, illustrating these in most cases with appropriate examples. He also covers the history of taphonomic research and its philosophical underpinnings. Logically organized and clearly written, the book is an important update on all previous publications on archaeological faunal remains.
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To Barbara, John, and Michael
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PREFACE

When I started my studies of vertebrate faunal remains recovered from archaeological sites over twenty years ago, I had no idea what taphonomy was nor was I particularly concerned about what are today typically asked questions concerning the preservation and formation of the archaeofaunal record. But as I read the zooarchaeological literature while completing my doctoral dissertation in the mid-1970s, I found an increasing number of papers dealing with taphonomic issues. The fact that since then it has become increasingly difficult to keep up with the ever growing literature on taphonomy is something of a mixed blessing. It is a mixed blessing because (a) we are constantly realigning the relation between what we want to learn and what we think we can learn from the vertebrate faunal remains we recover from archaeological sites, and thus our conclusions tend to be much more strongly founded than even a decade ago (this is good), and (b) it is nearly impossible for any one analyst to conceive of all of the logically possible taphonomic problems that a single reasonably sized assemblage of vertebrate remains might present. The latter is not bad; it just means a taphonomist’s and zooarchaeologist’s (and thus my) job is much more difficult now than it was a mere decade ago. Simply put, the analysis of zooarchaeological remains is no longer the simple, straightforward task that it was in the 1960s or 1970s. Taphonomic research has found a home in zooarchaeology, and it is here to stay.

Today, the number of zooarchaeologists who simply identify the bones, tally them up, and write a report about what prehistoric hominids were eating, is diminishing. Most reports on zooarchaeological remains written in the past ten years contain a more or less detailed consideration of at least a few taphonomic issues. This book is about how taphonomic questions might be analytically addressed and, sometimes, answered. It is a book that I wanted to write ten years from now. However, when Ann Stahl talked to me in the Spring of 1991 about the possibility of writing it, I realized, upon reflection, that now (from May 1991 until January 1993) was just as good a time as later. In fact, the more I thought about it, the better the idea of writing it now became. Many of my friends and professional colleagues were working hard on important taphonomic problems, and virtually all of them were eager to tell me what they were working on and what they were learning. Writing the book would, I decided, be easy because of all of these wonderfully knowledgeable people, and there weren’t more of them than I could keep track of with a little effort. Any value
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