

Birds

Dale Serjeantson

Cambridge University Press,
Cambridge, UK, 2009. 512 pp.,
61 tables, 1 map. \$43.00 paper.

This book joins several other zooarchaeology-related titles in the “Cambridge Manuals in Archaeology” series. This is not a guide for how to identify individual bones, nor is it a study of ornithology and avian paleontology; Dale Serjeantson’s focus is on the relationships between birds and humans through time. The use of birds as food of course receives much attention, but ritual, sporting (e.g., falconry and hawking), and pleasure (i.e., as pets) uses are given extensive coverage.

Taxonomy and early evolutionary history are handled briskly in less than a page, where the author alludes to controversy in bird taxonomy over the past 20 years or so but provides no details. Once past this, the reader will find a good, practical overview of avian skeletal anatomy with helpful tips on distinguishing bird bone from mammal, and bone-by-bone reviews of differences among different types of birds. A short section on pathology written by Tony Waldron (who has written a separate book, *Paleopathology*, in the same series) is also included.

There is a quite good use of illustrations, with clear, well-chosen drawings used to reinforce the skeletal distinctions highlighted in the text. These are very useful, since as Serjeantson points out, the identification of bird bones “often poses greater problems than that of mammals (though not more than fish)” (p. 63). Indeed, one gets the impression throughout the book that method and theory in avian zooarchaeology still lag behind mammalian zooarchaeology in some ways, presumably due in part to fewer archaeologists specializing in birds, but also to some characteristics of birds themselves. For example, the bird skeleton ossifies completely soon after fledging (i.e., within a few months) and birds have no teeth, so bird bones are less amenable to aging than mammal bones. Distinguishing between males

and females is also difficult, although two of the better markers, spurs on male Galliformes (chickens and related species) and medullary bone deposits in the internal bone cavities of egg-laying females are addressed in detail.

Serjeantson also covers well much of the recent, often innovative research on avian taphonomy conducted by Véronique Laroulandie and others. Topics addressed in the book include recovery techniques, natural accumulations, disarticulation sequences, water sorting, bioerosion (from cyanobacteria, algae, and fungi), and natural predation (including bone modification marks created by beaks and claws of eagles, falcons, hawks, vultures, and owls). Identifying human use of birds for food can be difficult. Skinning marks on bird bones tend to be rare because after birds are plucked the skin is usually eaten with the rest of the bird. In the Old World at least, cut marks of all kinds become less common on bones after the Paleolithic, possibly due to a change from roasting birds to stewing them in ceramic containers. Consequently, avian specialists have developed criteria for identifying both butchery without tools and human chewing marks.

A separate chapter deals solely with eggshell and includes interesting ethnographic and historical accounts of egg collecting. When whole eggs are recovered, simple measurements may be able to identify them to species, but identifying eggshell fragments to species usually requires a scanning electron microscope. The following chapter covers feathers, skin, and other products, which in some areas such as Egypt and the American Southwest, can be rather common archaeological finds. For the rest of the world, the author reviews proxy evidence for feather use including species and element representation, cut marks, and even siding: in England, a disproportionate amount of wing bones from the left side may indicate the use of feathers for quill pens. There is also a nice, if brief, discussion of feather taphonomy.

Bird fat has long been used for heat and light, most interestingly in the Faroe Islands where storm petrels were used as lamps by threading a wick through their bodies and then

lighting it. Serjeantson asks if any archaeological evidence of this has ever been identified, but apparently no one has yet looked. Bird bones have been transformed into a myriad of tools and ornaments including awls, pins, projectile points, needles and needle cases, tubes or straws, beads, flutes, and spoons. Unfortunately, it “remains true” (p. 228) that a comprehensive review of bird-bone artifacts has never been completed. This chapter is mainly descriptive; more guidance on how to analyze bird-bone tools, such as identifying and interpreting manufacturing techniques and use-wear, would have been welcome.

The use of wild birds as food, including a broad review of ethnography, hunting technology, and archaeological data is finally addressed in chapter 10. Although Serjeantson touches on foraging theory and nutrition she appears less comfortable with these types of analyses. While “in general, birds are difficult to catch” (p. 237), there are many exceptions to this rule. Island birds like the now-extinct great auk and dodo, who had no natural fear of humans; molting birds unable to fly; nesting birds; and flocking or migrating birds can provide attractive targets for human predation. The technology used of course also affected the type and numbers of birds procured; the greater availability of guns in Europe has been seen as the reason for an increase in the use of small birds in the late Middle Ages and postmedieval period.

Domestic birds, including turkey, goose, duck, and pigeon are reviewed, but *Gallus gallus*, the chicken, receives its own chapter, and rightly so. It is, according to Serjeantson, the “most widespread domestic animal in the world” (p. 267), and she reproaches other zooarchaeologists for not recognizing its importance. Significantly, the chicken may have been domesticated first

for feathers and cockfighting rather than for meat and eggs, which has implications for general theories of domestication. There are potential zooarchaeological indicators of cockfighting, but few unambiguous archaeological examples. Chicken can also have important symbolic or ritual uses: chicken heads and feet were apparently sacrificed at Pompeii, and at least 238 chickens were used in a feast at a Roman-period Mithraic temple in Belgium. In fact, archaeological evidence for symbolic use of birds is fairly widespread, as various species of birds have been found interred in human graves, intentionally mummified or included in medicine bundles.

Although Serjeantson does not delve too deeply into the subject, she does not see evidence of climate as a factor in bird extinctions, emphasizing instead human predation as a causal factor, especially on islands and with species like the moas, great auk, and dodo, while also noting the potential role of habitat destruction, introduced predators like rats and dogs, and disease.

This book is a comprehensive review of the literature on birds in archaeology with particularly strong sections on identification, taphonomy, domestication, and human nonfood uses of birds. Serjeantson makes an admirable effort to include all world areas, but there is a definite emphasis on Old World sites and ethnography. Anyone who deals with bird remains, whether an avian specialist or not, will want this book. It neatly summarizes much of the state of the art in avian zooarchaeology, should provide inspiration for future research projects, and is a valuable reference guide to keep around the lab.

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