

Chacoan Southwest, or be a purposeful archaism in a radically new order, as Alt proposes for the Cahokian world.

The volume represents a significant contribution to household archaeology in the Americas by highlighting issues of conscious decision making on the part of non-elites and how the “99 percent” within past societies created, adapted, or rejected more formal or institutional architecture as part of the trajectory of long-term societal change.

*Emergent Warfare in Our Evolutionary Past.* NAM C. KIM and MARC KISSEL. 2018. Routledge, London. xv + 217 pp. \$155.00 (hardcover), ISBN 978-1-62958-266-5.

*Reviewed by* George R. Milner, Pennsylvania State University

For hundreds of years, humans have been regarded as innately violent, especially toward members of other communities. An alternative view is that an originally peaceful nature was irredeemably corrupted once people settled down, started to rely on domesticated plants and animals, and developed organizationally complex societies. Diving deep into humankind’s evolutionary past, the authors explore the origins of the relationship between cooperation and competition, with the latter distressingly often devolving into outright warfare.

For archaeological purposes, warfare might be considered culturally sanctioned fighting between different communities in which individual and collective advantages accrue to the participants and anyone classified as an enemy is an acceptable victim. The size and structure of war parties, nature and duration of fighting, number of casualties, and weapons employed are not relevant to such a definition.

For the societies of the last several millennia, simply identifying warfare’s existence can be hard, although not nearly as difficult as estimating its frequency, intensity, and societal impact. Turning to anatomically modern humans dating to the Paleolithic, finding unequivocal signs of intergroup violence is the best that one can reasonably expect. Solid evidence is even harder to identify for our hominin ancestors, despite the prominence of their supposed behavioral repertoire in how we view our apparent propensity toward violence and the seeming impossibility of escaping it.

As Nam Kim and Marc Kissel point out, violence was part of our hunter-gatherer past, to judge from skeletal trauma. It is difficult, however, to determine how those injuries came about. Here it is useful for

archaeologists to draw a distinction between the cause and manner of injury or death, as is common in forensic work. That is, the nature of the trauma (e.g., an arrow wound) is different from the circumstances that resulted in the injury (e.g., homicide or combat).

Turning to our hominin ancestors, data in the form of skeletal trauma are too thin to address systematically the origins of intergroup conflict. Instead, Kim and Kissel use other indirect lines of evidence, notably primate behavior. Chimpanzees figure prominently here, especially their periodic hunting forays and attacks on neighboring groups.

Rather than cast competition in opposition to cooperation, the authors emphasize the need for individuals to work together when engaging in intergroup conflict. This “socially cooperative violence” (p. 113), labeled “emergent warfare,” likely originated in the Pleistocene. The option of attacking conspecifics was not a stand-alone and hardwired aspect of our distant ancestors’ psyche (if it could be called that). Instead, Kim and Kissel see it as part of a gradually developing capacity to recognize group identities, cooperate in various tasks, and communicate effectively. Such violent acts were one aspect of the behavioral adaptability, with its benefits, costs, and situational flexibility, that forms the basis of our species’ success. Our ancestors did not sit around campfires happily holding hands and singing “Kumbaya” until they were somehow undone by growing crops, tending animals, and living in chiefdoms or states.

The authors discuss how peace is not simply an absence of war, neither today nor in the past. It must be actively constructed and maintained, and it might be established through elaborate political mechanisms or uneasy standoffs between potential foes who find fighting more costly than not doing so. The purposeful creation of peace in the past demands the attention that warfare is already receiving.

Going beyond warfare and the principal topics covered in this book, more archaeological work should be directed toward violence within individual societies, including what took place and who was affected. Only recently has within-group violence gained traction as a focus of research, which has mainly involved skeletal remains. But even the significance of skeletal trauma needs rethinking. Survival from trauma, as marked by healed fractures and the like, is usually considered to be of little consequence, except as an indication of the accommodations, even compassion, that injured individuals received. For late Holocene sites where skeletal samples can be large, it is possible to estimate quantitatively the lingering effects of injuries in terms of lost years of life; that is, the cost of trauma

to households and communities. Further work on both issues, among others, will do much to extend our understanding of violence, in all of its various forms, deep into the past.

Of the numerous books published on warfare since it became a major focus of archaeological study about a quarter century ago, this one is among the first that should be read. Kim and Kissel's evolutionary perspective offers us much to think about, and in providing it they widen our horizons about what has been and continues to be a pervasive feature of human existence: warfare.

*Handbook of Evolutionary Research in Archaeology.* ANNA MARIE PRENTISS, editor. 2019. Springer, New York. xii + 443 pp. \$139.00 (hardcover), ISBN 978-3-030-11116-8.

Reviewed by Christopher Morgan, University of Nevada, Reno

A little over two decades ago, James Boone and Eric Alden Smith (*Current Anthropology* 39:S141–S173) asked, “Is it evolution yet?” as a critique of evolutionary archaeology's (Dunnell, *Advances in Archaeological Method and Theory* 3:35–99) decidedly selectionist and mechanistic means of applying evolutionary principles to archaeology; Boone and Smith argued instead for an evolutionary-ecological approach to archaeology's study of cultural evolution. Readers of this new edited volume might ask the same question, but in a different light: To what degree does twenty-first-century archaeological research capture the nuances and complexity of modern evolutionary method and theory and apply them, in meaningful and robust ways, to archaeological and anthropological research? The 20 chapters in the 400-plus pages of this book provide a complex set of answers to this question that are essential not only to the more evolutionarily minded among us but also to anyone who is serious about understanding people and the development of their diverse forms of behavior through time.

After a brief introductory chapter, the volume proceeds with four parts: there are four chapters on microevolution, five on macroevolution, seven on human ecology, and three on cognitive archaeology. The first part, on microevolution, addresses fundamental problems associated with integrating biological and cultural evolution, accounting for innovation in the context of different modes of cultural transmission and identifying processes of natural selection using archaeological data. The strongest chapter in this

part, by Anne Kandler and Enrico Crema, applies neutral theory—the idea that most genetic variation (and, by extension, cultural variation) does not affect fitness—to a multi-iterative quantitative assessment of cultural diversity. The second part of the book, on macroevolution, focuses on evaluating how Sewall Wright's (*Proceedings of the Sixth International Congress on Genetics* 1[8]:355–366) concept of fitness landscapes might be used as more than evolutionary metaphor, exploring how cladistics and other phylogenetic techniques can be used to identify evolutionary relationships, and deconstructing the relationship between historical and evolutionary processes. Erik Gjesfjeld and Peter Jordan's chapter on Bayesian modeling is particularly intriguing, in that it shows a very powerful and statistically robust way of elucidating historical and evolutionary relationships from fairly simple and straightforward archaeological data.

The third section, on human ecology, is the longest and most diverse. Its chapters run the gamut from zooarchaeological, botanical, and technological applications of human behavioral ecology (HBE) to treatments of costly signaling, population ecology, and niche construction. Readers interested in the debate between HBE and niche construction theorists on how best to explain human behavioral evolution in an ecological context will find some fresh new voices seeking more to synthesize than polemicize this debate. The chapter on population ecology, by Cedric Puleston and Bruce Winterhalder, is particularly engaging in that it shows how quantitative modeling can help develop surprisingly counterintuitive hypotheses (e.g., food storage is a risky strategy that makes populations more rather than less susceptible to famine) that are eminently archaeologically testable.

The fourth and last part of the book, which includes chapters on cognitive archaeology, tends more toward semiotic speculation than evolution and archaeology. Many of the ideas here consequently may not bear fruit in the long run, but some may (and may therefore be very important), making this section critical to exploring new avenues for evolutionary research in archaeology.

Clearly, this volume covers a lot of ground at considerable depth. Readers without a good understanding of Darwin, the modern evolutionary synthesis, economic modeling, statistics, and ecological principles will likely struggle with at least some of the material. In a class setting, it consequently might pair well with more fundamental texts or edited volumes. Other readers may struggle with at-times inconsistent terminology and repetition (a problem common to many edited volumes), as well as the occasional minor factual error. Putting these quibbles aside and answering the