

scrutinizes its contents: both the novel “thing,” as well as its invention, adoption, and transmission into eventual archaeological visibility. Her grilling is necessary and welcome. From the explicit identification of the Western presumption that “innovation” equates with “good” to the unsupported stance that only males are the innovators of the past, Frieman leaves few stones unturned.

In terms of production, *Innovation* is praiseworthy. Clear figures ( $n = 24$ ) and tables ( $n = 2$ ) and lucid chapter titles and section headings, end-of-chapter notes, and a comprehensive index all make for an enjoyable reading experience.

One issue I have is *Innovation*'s depiction of cultural evolutionary theory, which is vastly different today than even a couple of decades ago, much less from the mid-twentieth century or the late 1800s (see Stephen J. Lycett, “Cultural Evolutionary Approaches to Artifact Variation over Time and Space,” *Journal of Archaeological Science* 56, 2015; Alex Mesoudi, *Cultural Evolution: How Darwinian Theory Can Explain Human Culture and Synthesize the Social Sciences*, 2011). For example, Frieman writes that “the social element of technological systems means that technological change cannot be a product of evolutionary development or the steady improvement of functionality, but instead must reflect human choices, values, and the wider social context in which it occurs” (p. 24). In another instance, Frieman writes that “social factors” are “not narratives that dominate the field [of evolution-based research]” (p. 20). Yet when considering modern cultural evolutionary theory and its literature, such statements do not acknowledge cultural evolutionary theory's own evolution—not only because “culture” is today defined operationally and explicitly as “socially transmitted information” (e.g., Mesoudi, *Cultural Evolution*, 2011, 2–3; Peter J. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution*, 2005, 5) but also because modern cultural evolutionary theory eschews “progressive” or “linear” interpretations. Furthermore, rather than reducing understanding of human behavioral variation and diversity, there are now countless examples in which modern cultural evolutionary approaches regularly use or assess individual agents; human biases, values, and choices; and (nonfunctional) cultural drift as explanations. Modern cultural evolutionary studies also regularly acknowledge that functional and nonfunctional sources may or may not be simultaneously contributing to technological variation and change. There is little in *Innovation* that could not be profitably explored through a modern cultural evolutionary lens, and I think if Frieman and modern cultural evolutionary theorists sat down together, they would find more in common than not.

Whether one agrees with all of *Innovation*, some of it, or none of it, I recommend that it be read—for nothing else than to spend time giving a good, hard think to a concept regularly used by archaeologists. But I suspect the reader will get much more out of Frieman's work than this. I certainly did, and I applaud her for her own innovative contribution.

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***Wood in Archaeology.* Lee A. Newsom. 2022. Cambridge University Press, Cambridge. \$110.00 (hardcover), ISBN 978-1-10705-206-2. \$29.99 (paperback), ISBN 978-1-10766-689-5.**

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Lee A. Newsom is one of the foremost experts on archaeological wood analysis in the world. With her 2022 Cambridge manual, *Wood in Archaeology*, Newsom's goal is to provide a basic introduction to woody plant development, physiology, and anatomy with particular attention to how this information can be applied in archaeology and paleoecology. The manual also provides detailed instructions, based

on decades of experience, about how to recover and analyze various kinds of archaeological wood. This book fills an important gap in the current literature on paleoethnobotanical methods. Deborah Pearsall's classic textbook on the subject covers wood only briefly, as a subsection of the macroremains chapter (Pearsall, *Paleoethnobotany: A Handbook of Procedures*, 2015), and a more recent edited volume, *Method and Theory in Paleoethnobotany* (edited by John M. Marston, Jade d'Alpoim Guedes, and Christina Warinner, 2015) does not cover wood analysis explicitly.

The general position taken by paleoethnobotanists is that students should seek specialized training if they want to learn how to analyze archaeological wood. This would include courses in woody plant anatomy and physiology and, ideally, mentorship with one of the few specialists in this field. Although Newsom agrees that wood analysis requires specialized training beyond reading this manual, she correctly points out that formal training in plant systematics and anatomy is increasingly hard to find. Her book is an introduction to the many overlapping fields of knowledge that are necessary to analyze and interpret archaeological wood. Reading it will allow students and professional archaeologists alike to recognize the many applications of wood analysis in archaeology and to decide whether to pursue further study. It will also enable paleoethnobotanists who do not specialize in wood analysis to teach the basics to students at all levels. I will add it to my laboratory library and use it to add a wood analysis module to my graduate-level paleoethnobotany course.

The manual can help field archaeologists apply effective methods to recover, store, and transport archaeological wood in ways that maximize its analytical potential. These methods are often not the same best practices that would be used for paleoethnobotanical sampling in general, and they vary depending on the kind of wood artifact to be studied and its state of preservation. Chapter 2 is the most useful part of the manual for this purpose. It provides an overview of the history of wood analysis in archaeology, a typology of wood artifacts and states of preservation, and a comprehensive guide to sampling and recovery by type.

Newsom begins by tying together the functions of wood as both a part of a plant body and a raw material in human cultures. All the specific properties of wood that humans have found useful, beautiful, or spiritually significant have their origins in biological functions and developmental processes within plant bodies. Newsom uses this key insight to effectively make the point that an analyst of archaeological wood must also learn something about trees and forest ecology. In Chapter 3, she discusses how wood anatomy reflects not just taxonomy but also development, the growth environment, and human management. The following chapter introduces wood anatomy with useful illustrations and references to online resources that can be used to begin identifying and analyzing archaeological wood. Chapters 5 and 6 provide specific guidance on how to identify archaeological wood and on data analysis and interpretation.

*Wood in Archaeology* is clear and concise, with helpful figures and illustrations throughout. Brief case studies from Newsom's career are useful for understanding the application of various techniques and as teaching tools. In short, it is an excellent reference by a respected expert that would be a valuable addition to the library of any archaeologist.

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