

Book reviews

ROBERT CHAPMAN & ALISON WYLIE. *Evidential reasoning in archaeology*. 2016. ix+254 pages, 30 b&w illustrations. London: Bloomsbury; 978-1-4725-2527-7 hardback £60.



This book and its companion, the co-edited volume *Material evidence* (Chapman & Wylie 2015), are the result of a collaboration between Robert Chapman and

Alison Wylie, who define themselves, respectively, as a British, philosophically minded archaeologist and a North American philosopher of science with an archaeological background. Their cooperation started in 2010 when Wylie was a visiting professor at Chapman's home institution, the University of Reading. This visit involved several lectures and a seminar on 'Material culture as evidence'. *Evidential reasoning in archaeology* draws on these sessions and wider reflections to offer a much-needed re-evaluation on the fundamental question of how archaeologists build up their claims from the datasets they record and use as evidence of the past. Despite the centrality of this issue for archaeological practice, it has received little attention over the past two decades; only recently has it gained renewed interest with the intellectual turn to things and materiality.

The key ideas in this book are not new; most of them are synthesised by the authors in their introduction to *Material evidence* (2015), supplemented here, especially on the philosophical side of their argument, with material published elsewhere. These antecedents, however, do not diminish the value of *Evidential reasoning in archaeology*, which offers a detailed and worthwhile discussion of these important lessons in a cogent text. The book is a concise and insightful piece of work divided into an introduction, four chapters and a concluding section. The short introduction presents the paradox of material evidence—an enigmatic resource that combines a challenging equifinality and ambiguous

nature with an eloquence and robustness resisting appropriation. Indeed, this capacity of data as a social construct that can “bite back” (p. 31) is at the very heart of archaeological practice.

Chapter 1 exposes some of the misplaced assumptions that have characterised recurrent high-level theoretical debates between the two opposing camps, vividly depicted here as the two horns of a dilemma. Thus, on one side are pessimistic normative scholars aiming to provide a neutral description of past facts (the 'data-first' approach), and avoiding any untestable speculation; on the opposite side are optimistic archaeologists seeking deductive validity and advocating that the limits of knowledge are not inherent in the material record itself but rather lie in the mode of enquiry. Postmodern critics have contributed to this dispute, making clear that every observation is theory-laden; that scientific arguments are constructs facilitated and inhibited by contingent factors; and that deductive certainty in science is unattainable. The authors contend that beyond such maximalist and abstract terms, these divisive all-or-nothing positions, which persisted into the 1990s, make little sense. After the waning of these 'theoretical wars', more than 20 years ago, the challenge of inferring conclusions from material evidence remains far from resolved. But the issue has gone underground, internalised as tacit knowledge, leading to confusion.

In the absence of infallible self-warranting foundations or any truth to recover, the book's middle way proposes to distinguish between varying degrees of credibility in our inferential claims. There is a rich suite of possibilities on the spectrum between the two extremes, and the authors seek to identify the most plausible options. Consequently, the following chapters take real examples from the archaeological literature as the means through which to scrutinise how archaeologists do their best—and their worst—to draw provisional conclusions.

Chapter 2 shows that it is necessary to build inferential scaffolding to develop background knowledge. It is also crucial to mobilise disparate lines of indirect (proxy) evidence, as, according to Wylie's argument, they mutually constrain and reinforce

one another, thus providing evidential robustness—in her terms, cables are stronger than chains. Chapter 3, ‘Working with old evidence’, focuses on two examples of the iterative and continuous refinement of legacy data: the indigenous mound-building traditions in the central United States of America and the complex case of the Iron Age village of Glastonbury in southern England. This chapter clearly shows how evidential claims can be appraised and their varying credibility strengthened or undermined.

Chapter 4 discusses the idea of approaching the multi-stranded nature of archaeological research as a trading zone. It draws on several case studies: the three radiocarbon revolutions and two British-based research projects: a successful one (the ‘Diaspora Communities in Roman Britain’) and a problematic example (the lead isotope analysis of Bronze Age Mediterranean metal objects by Oxford scholars). Their review highlights some of the requirements to be met if we seek robust evidential reasoning: to bring together as many strands of evidence as possible with each line independently credible, adequately calibrated to avoid spurious convergence and without one regarded as superior or indisputable; and to foster reciprocal training and inter-disciplinary communication and competence, for we as archaeologists must bear the ultimate responsibility for interpretation.

In short, the particular expertise and shared interests of the authors complement their collaborative endeavour. The results are far richer than those that archaeologists and philosophers of science will encounter within their own individual disciplines. In contrast, the authors focus exclusively on their own national traditions, but the central message of this volume will affect the audiences in other nations in varied ways. Discussion of the limits of archaeological interpretation may be familiar in the Anglophone milieu, where such topics were debated up to the 1990s, but in other regions that did not experience similar disputes, such as South America or mainland Europe, practitioners have rarely benefited from these deliberations. The pragmatic and realistic alternative presented here will probably have a significant impact in years to come. Multi-faceted, interdisciplinary, science-based research programmes will increase in number in the near future, and this book offers good guidance for the design and conduct of high-quality evidential reasoning in archaeology.

References

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ANTONIO BLANCO-GONZÁLEZ
Department of Prehistory,
University of Salamanca, Spain
(Email: ablancoglez@usal.es)

PEGGY SOTIRAKOPOULOU. *The pottery from Dhaskalio (The sanctuary on Keros and the origins of Aegean ritual: the excavations of 2006–2008, volume IV)*. 2016. xvii+477 pages, numerous b&w illustrations, tables, CD. Cambridge: McDonald Institute for Archaeological Research; 978-1-902937-76-2 hardback £64.



The Aegean island of Keros, Greece, has long captured the interest of Aegean prehistorians and the general public as it is the alleged findspot of such famous Cycladic figurines as the

flutist and harpist held in the National Archaeological Museum of Athens (Koehler 1884: pl. 6), as well as the so-called Keros Hoard (Sotirakopoulou 2008). Since the 1960s, the island and its neighbouring islet of Dhaskalio have been investigated by several rescue and systematic programmes of archaeological exploration that have revealed that this now uninhabited set of islands was once a centrally located Cycladic sanctuary. The volume under review, the fourth in the series reporting the results of the Cambridge Keros Project, focuses on the Early Bronze Age pottery (third millennium BC) recovered during the 2007–2008 excavations on Dhaskalio. The settlement on the islet presents great interest not only because of its connection (and, to an extent, complementarity) to the two Special Deposits from Kavos on Keros (with which it was connected by a causeway in antiquity), but also because of its substantial size, on a par with or even larger than some famous contemporaneous sites in the Aegean.

The author, Peggy Sotirakopoulou, is a pottery specialist with an impressive publication record

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