



Book Reviews

EVIDENTIAL REASONING IN ARCHAEOLOGY BY ROBERT CHAPMAN AND ALISON WYLIE

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This co-authored book by Robert Chapman and Alison Wylie explores the epistemological issues at the heart of archaeology – how we understand the evidence our methodologies reveal or generate, and how we make statements (authoritative or otherwise) about such evidence. This brings into question key considerations of objectivity and subjectivity, and of interpretation and inference. It builds on some earlier published articles and books by them.

After a brief introduction, Chapter 1 tackles these key debates head-on by outlining the history of archaeological considerations of the remains of the past and its original socio-cultural contexts, and the anxieties expressed by many when trying to propose hypotheses based on such a partial, incomplete 'record'. This is a useful historiography, demonstrating that such concerns existed well before the crises in confidence during the 1960s and early 1970s that led to the development of the New Archaeology. The authors reject any narrow empiricism, epistemic pessimism or unfettered relativism. Instead, utilising the 'inferential warrants' (p.34) of the British philosopher Stephen Toulmin, the authors propose intellectual and inferential 'scaffolding' (p.45) that can stabilise (or critically destabilise) the empirical and conceptual reasoning behind evidential reasoning.

This metaphor of scaffolding is pursued further in Chapter 2, which deals with archaeological fieldwork practice. Here, the work of Augustus Lane Fox Pitt Rivers, Gerhard Bersu and Philip Barker is placed in its wider methodological and philosophical significance, but other pioneers of open-area excavation practice such as John Collis and Martin Biddle are ignored. The development of stratigraphic matrixes by Edward Harris and colleagues, and related single-context recording by the Department of Urban Archaeology (now Museum of London) and other urban archaeological units, are both given due prominence, but the latter is stated as being 'widely accepted as a best practice among UK archaeologists' (p.80), whereas it is hardly ever used in its original form as intended by Harris and others, with every deposit within cut features such as wells or pits getting its own plan. Outside urban or deeply-stratified sites, it is also rare to encounter its use on most of the open-area 'strip and record' sites that characterise much developer-funded archaeological projects in Britain today, apart from particularly complex areas or structures.

Chapter 2 notes critiques of aspects of such increasingly standardised methodologies by Lucas and others (e.g. Lucas 2002), and then goes on to outline attempts to 'design recording systems that preserve the integrity of complex archaeological features and structures, rather than reducing them to their discrete, constituent components' (p.81). This ignores what those other critiques were actually attempting to highlight or address. One attempt to experiment with alternative recording that is apparently used in Spain is then described. This more 'top-down' approach to interpretation assigns complete structures to 'historical, socio-economic units' termed 'conjuncto', themselves comprised of 'subconjunctos' such as hearths, walls or floors (p.82). This interpretation appears to proceed prior to recording, not during the process, and appears to be an odd mish-mash of phase planning and culture-history ideas (though without any supporting details of how such units are planned or recorded, it is difficult to be certain). Chapman and Wylie do not seem aware of the numerous methodological and interpretative problems that would result from such an approach, however, which is essentially the same as the 'phase' strategy widely used in Britain during the 1960s and 1970s until the development of stratigraphic approaches (and which Barker was also prone to

do). If subsumed into larger units from the outset, it becomes far more difficult to unpick different contexts later on if artefactual or stratigraphic evidence throws doubt on the initial phasing, which is why this was abandoned in Britain.

This example illustrates that there is sometimes a lack of more detailed, critical analysis in the book. Still in Chapter 2, the well-known research project at Çatalhöyük in Turkey is cited as an example of reflexive excavation that explored the subjectivities of archaeological practice and knowledge creation, and the many positive outcomes that resulted from the work are of course emphasised. Yet the book only touches upon a few of the problems that were experienced at Çatalhöyük (p.83). It largely ignores the more serious underlying contradictions and tensions, such as the widely varying excavation standards and approaches of the different field teams, and events in 2010–2012 that saw many of the project team dismissed at relatively short notice, with other key team members subsequently resigning (Balter 2010; Farid 2012; 2015).

The developer-funded project by Framework Archaeology at Terminal 5 at Heathrow in Britain is also rightly proposed by Chapman and Wylie as another interesting example of the foregrounding of interpretation and multi-vocality during fieldwork (e.g. Andrews *et al.* 2000; Framework Archaeology 2006), but the book fails to mention that most of the excavators' and supervisors' interpretations and narrative accounts were 'written out' of the final published volume (Evans 2007). According to several of the project officers and supervisors who worked on the project, some of their ideas and text were adopted by others with no credit, or ignored altogether in favour of those of some project directors. All the original pro-forma record sheets and specialist data are archived and available to view via the Archaeology Data Service (ADS), with site plans and distribution plots that can be interrogated according to date, area and material type. All of this is excellent. Unfortunately, however, the original digital site diaries of the excavators and supervisors were not migrated across to the ADS, and apart from edited highlights most of the interpretative site narratives now appear to be missing, and do not seem to have been adequately backed-up. Chapman and Wylie were probably unaware of this though. The similar approach that Framework Archaeology adopted at Stansted (Framework Archaeology 2008) seems to have escaped many of these latter problems, although sadly that more successful outcome is not explored.

Why should the T5 project have evinced such a 'yawning chasm' (Evans 2007, 809) between its admirable theoretical aspirations and its published outcomes, and why did Çatalhöyük become so politically fraught? Much as Adams & Brooke (1995) rather presciently noted, these are often not problems with epistemological or methodological issues *per se*, but rather the management structures that archaeologists create when carrying out fieldwork or research, and in managing data. To some extent it is also dependent on the individual identities, goals, ideas and whims of the project directors. The ways in which data are obtained and interpreted thus also depend on factors such as the nationalities of the archaeologists, their own institutional and intellectual traditions, and the political, economic, administrative and legislative frameworks within which they operate (see also Thorpe 2012 for an excellent analysis of the situation in Britain, once again not referenced by the authors). Evidential reasoning therefore also depends on power and agency, in all of their multifarious forms, but these are never really considered in any depth by this volume.

Chapter 3 takes the ideas of 'warrants' and 'scaffolding', and uses them to examine a 'cold case' of the re-interpretation of older primary data. The examples used are other teams' work on North American Mississippian Moundbuilder excavation archives and at the Romano-Egyptian site of Taranis, though sadly neither of these are illustrated in any way; Meso-American archaeology in the Oaxaca Valley, and the Iron Age site at Glastonbury in the Somerset Levels. This forms the most substantive part of the chapter, yet in the main merely repeats the evidence and initial claims made by Arthur Bulleid and Harold St George Gray, and the subsequent re-interpretations by David Clarke, John Barrett, and John Coles and Stephen Minnitt. Oddly, this section contains the only site plans, sections,

and photographs in the entire book (perhaps because the examples used are out of copyright?), but it does not really add anything to the debate surrounding the settlement, and could have been summarised more succinctly.

The book moves on in Chapter 4 to discuss 'robustness reasoning', radiocarbon dating, and lead isotope and stable isotope analyses, highlighting the difficulties of working with multiple lines of evidence and interpreting results of scientific techniques. These are regarded by the authors as intellectual 'trading zones', a term devised by Peter Galison to describe interdisciplinary contacts and communication; and they also draw upon Helen Longino's notions of methodological practices or norms when striving for procedural objectivity (p.145). Radiocarbon dating and isotope analysis of metals have proved to be far more complex and problematic than originally supposed. The chapter provides useful (though still quite lengthy) summaries of the developmental hurdles and debates surrounding their use and the inferences drawn from them, but once again these have been critically discussed elsewhere. It might have been more interesting to assess the increasingly dramatic claims and counter-claims made by those engaged in aDNA studies, which would have bookended well with the authors' overview of the Roman Diasporas project and its more nuanced analyses of stable isotope evidence, which concludes the chapter.

The final, short concluding chapter attempts to draw these strands together to consider the 'paradox of interpretation'. Utilising those notions of scaffolding and trading zones, the authors propose a pragmatic approach to interpretation involving as many different theoretical and empirical methodologies as possible. They identify four characterisations of objectivity (p.208), some of which are more realistically achievable than others – for example, unbiased and impartial detached observation, the existence of 'real' objects and data independent of human agency and knowledge, procedural integrity and practices that seek to counteract or minimise individual or institutional distortions of results, and epistemic virtues that depend on robust inferences, empirical results and internally coherent hypotheses. This is similar to the 'infrastructure' proposed by Adams (1991, 10), to increase the reliability of inferences generated from archaeological data. Ultimately, Chapman and Wylie are proposing a situated, self-critical practice based on rigorous empirical enquiry, one that avoids sweeping statements, and is able to embrace contingency, ambiguity, and reflexivity.

The volume is relatively well produced with a suitable index and bibliography, but one might have expected that a book dealing in part with the materiality of archaeology would be better illustrated. There are no photographs of past or contemporary archaeological practice, for example, which seems a curious oversight given the emphasis the authors place on this at various points within the text. Some of the illustrations such as those dealing with the Glastonbury Lake Village are merely adaptations of older published figures. Some chapters/sections are also more readable than others, with Chapters 1 and 4 being somewhat dry and dense at times, and this might reflect the contributions of one author over the other. The book sometimes has the feel of a lecture or seminar series that has been quickly stitched together, with perhaps too much emphasis on certain subjects and examples, and nowhere near enough detail on others. Some of the chapters have large numbers of footnotes, which again suggests a lack of considered, integrative synthesis. The histories of investigations of sites such as King Arthur's Round Table henge in Cumbria, and the Glastonbury and Meare 'lake villages', and the debates concerning scientific techniques such as radiocarbon dating and lead isotope analysis, have already been thoroughly explored and critiqued by previous authors. It is rather puzzling that they have been re-hashed in so much detail here.

The authors do not seem all that familiar with contemporary practices routinely utilised in developer-funded or Cultural Resource Management (CRM) archaeology, nor of the many discussions regarding recording and interpretation that have taken place for many years well before and outside of projects such as Çatalhöyük and T5, as in the Stratigraphy conferences held in Britain during the 1990s for example. There are some puzzling omissions from the volume – in particular, there is no mention of Max Adams' seminal 1991 article *A logic of archaeological*

inference. That paper presages many arguments in this book, as well as those in other works that have considered such issues (e.g. Hodder 1998). Other key works by Adams & Brooke (1995) and Thorpe (2012) are also overlooked.

Overall, this book is not an easy read, but then the subject itself is far from easy and straightforward. It is a pity that the language and style could not have been made more accessible in places, to attract a wider readership. This is also yet another volume published in hardback only, and at an exorbitant price. Even the online price of £54.00 will undoubtedly put many archaeologists off acquiring it. This is a shame, for though rather uneven, it should nonetheless be read by anyone interested in philosophic and scientific reasoning, how archaeologists think about the past, and how inferences and conclusions are drawn from archaeological evidence.

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