



Book Reviews

SETTLEMENT, SOCIETY, AND COGNITION IN HUMAN EVOLUTION: LANDSCAPES IN MIND EDITED BY FIONA COWARD, ROBERT HOSFIELD, MATT POPE, AND FRANCIS WENBAN-SMITH

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There are multiple sources of variability that shape Palaeolithic archaeological record (Lycett and von Cramon-Taubadel 2015): culture and social learning; individual preference and behaviour; function; prehistoric resource availability; past geology and environment; as well as taphonomic and post-depositional processes. Here, in *Settlement, Society, and Cognition in Human Evolution*, editors Coward, Hosfield, Pope, and Wenban-Smith assemble some of the best minds British Archaeology can offer (with a peppering of contributions from notable scholars beyond Blighty) to tackle a 'social and ecological narrative of early hominin evolution' (page xxiii). All of this, of course, is inspired by an archaeologist who has had substantial influence on the unique British approach to construing the Palaeolithic past, Professor Clive Gamble, and the volume and its contributions serve as a Festschrift to him.

The 17 chapters can be grouped in three broad categories provided by the volume's title, although often chapters may fall in more than one category. Six chapters thus broadly focus on Palaeolithic settlement. Gowlett *et al.* (Chapter 5) provide arguably the strongest chapter in the volume with their synthesis of the Acheulean at the Kenyan site of Kilombe. The authors here masterfully weave together archaeological sites, geological observations, and handaxe morphometric analysis from this East African locality to present a landscape perspective on Acheulean variation at the local level from 'a single surface' (page 87). Ashton (Chapter 8) reviews sites dating before and during MIS-13 in Northern Europe. Although there is by no mean a consensus on the validity of some of the earlier sites (e.g. Happisburgh, Pakefield), Ashton manages to present a scenario in which multiple hominin incursions into Northern Europe resulted in various degrees of success depending in part on species, technology, as well as the retention or re-development of functional body-hair. White (Chapter 9) examines the later Lower and early Middle Palaeolithic. Here, he paints a picture of multiple hominin colonisations and abandonments of Pleistocene Britain, dictated predominately by cooling or warming conditions. However, his conclusion, following Dennell *et al.* (2011) and Gamble (1999) that these conditions 'rarely allowed stable long-term adaptations' (page 163) really depends on the scale of analysis and the definition of 'long-term adaptation', and is not convincingly demonstrated by the artefactual record. In other words, what may seem like a 'very short period of residency' on a geologic time scale, may not in reality have seemed that short to multiple generations of hominins actually living within that geologic scale. Roebroeks' and Bakels' (Chapter 10) conjectural discussion of Neanderthal settlement and possible landscape engineering via fire also takes the opportunity to review the debate between those authors and Gamble upon Neanderthal use of forested environments (in which Roebroeks and Bakels make a point of emphasising that their view was ultimately supported). In Chapter 11, Elefanti and Marshall provide a much welcome overview of Palaeolithic sites across Greece. While previous coverage has focused primarily on documenting material from cave sites, the authors here include findings from surface surveys and open-air sites and discover an intriguing pattern in which more than 50% of sites occur in western Greece while sites in the northern portion are underrepresented. While geological factors or modern research efforts may be influencing this pattern, it is possible that there was

differential use of the Greek landscape by hominins. If this latter explanation proves true, it generates a multitude of further research questions related to why early humans exhibited differential exploitation of the Greek Palaeo-environment. Finally, Mithen (Chapter 17) uses residues from Mesolithic sites found along the coast and on islands in western Scotland to compare and contrast the Gamble-influenced 'society' approach with the Binfordian 'settlement' framework. The limitations of each approach are addressed – Binford's settlement framework creates static, immutable designations for how the landscape was utilised during the Mesolithic while Gamble's society approach, which focuses on the individual, emphasises prehistoric human agency and highlights dynamic ongoing change in how Mesolithic people interacted with the environment. Although Mithen states that Gamble's approach faces issues when confronted with limited archaeological data sets such as those found in Mesolithic western Scotland, he goes on to suggest that a fusion of the two approaches – both settlement and society – will provide the most accurate interpretation of prehistoric lifeways.

Six chapters primarily engage with Palaeolithic society. Jumping ahead slightly, three chapters under this heading examine the famous Venus figurines. Porr (Chapter 4) proposes the use of interpretive lenses borrowed from non-western and indigenous world-views for explaining Paleolithic lifeways in lieu of traditional cost-benefit frameworks. His approach to material culture interpretation is one in which archaeologists regard artefacts as 'active expressions' of human engagement with an ever-changing environment. For example, Venus figures act as metaphorical representations of women as leaders, protectors, and care givers. Consistent with this idea is the common association of Venus figures with mammoth bones; the central placement of the statuettes within living areas; and the suggestion that some of the figurines may be older, mature women. Porr notes that ethnographically, knowledge is commonly associated with maturity, age, and the bodily experience of older females. This notion provides the basis for a conceptual connection between Venus figurines, the social roles of mature women, and mammoth as matriarch. Mussi (Chapter 15) analyses Gravettian female figurines to assess degree of variability in formal qualities, anatomical traits, and decorative motifs. Although these statues are often considered to be a homogenous group, and her data suggest the presence of a broad uniformity in production style and normative rules governing their manufacture, Mussi's analysis suggests that deviation in form does exist. Mussi explains the variation between the Venus figures to be a result of misunderstanding during the transmission of production knowledge. She concludes that Paleolithic sculptors were attempting to achieve a standardised form and that the variation present in the sample is likely caused by copying error resulting from a linguistic barrier, or from an elongated temporal break in communication. However, in contrast to Mussi's analysis, Gaudzinski-Windheuser and Joris (Chapter 16) conclude that the variation in Venus figures reflects intentionally individualised nature of each statuette. Stylistic changes apparent in late Magdalenian female depictions represent the changing roles of women in Upper Paleolithic society. As such, the contrast between the Willendorf Venus figurines versus the Gonnersdorf engravings is interpreted to be a reduction in emphasis on the individual and an increased emphasis on the social sphere.

The last three chapters falling under the 'society' theme touch upon diverse topics. Gosden (Chapter 1) concurrently reviews Gamble's work on the subject while pondering questions about how 21st-century archaeologists think about long-term histories, human diversity, and identity. In Chapter 6, Sinclair describes his approach for identifying craft specialisation, an element primarily associated with complex state-level societies, in Upper Palaeolithic stone tool technologies. Beginning with a discussion of current research on expert performance, Sinclair emphasises the importance of deliberate training, intensive practice, tuition, group support, and social recognition in order for specialists to develop an advanced skillset. Sinclair admits challenges exist for identifying expertise and/or practice from Palaeolithic material remains, although sites like Les Etioilles and Les Maitreaux may represent training areas. Bar-Yosef (Chapter 12) provides a discussion of Western versus Chinese definitions of Palaeolithic sequences, subdivisions, and stone tools. He uses this terminological introduction to leap head-on into the thorny issue of identifying Palaeolithic foraging societies and their 'core areas' via stone tool technology. He concludes by admitting that current evidence is too 'scanty' (page 233) to find the social groups responsible for producing microliths in Northern China.

The final broad theme encompassing the volume's title, cognition, is also well represented in five chapters. Grove and Dunbar (Chapter 2) examine fission-fusion processes in modern human societies. Touching upon all major periods of the Palaeolithic, the authors make a number of important conclusions, including that a 'release from proximity' (page 29) is a hallmark of modern society, and that this is facilitated by material culture. Read and van der Leeuw (Chapter 3) present their perspective on the development of conceptual relations and how this fostered the growth of complex social systems. The authors suggest that the evolution of hominin advanced short term working memory, along with the capacity to process multiple domains at once, were the prerequisites for developing the ability to conceptualise emotions of others and thus anticipate their actions. Following this, Read and van der Leeuw assess three key phases in hominin evolution: 1) biological cognitive evolution and transmission skills that allowed for the proliferation of stone tool technologies; 2) the origins of 'idea systems' that allowed the existence of conceptual connections between groups, across time and space, *without* continual face-to-face interaction; and 3) the development of even more complex social systems to maintain social order and to negotiate the shift of risk management from the individual level to the community level. Wragg Sykes (Chapter 7) tackles Neanderthal hafting and its implications for cognition. Via a detailed discussion of birch pitch and its production sequence (page 124, table 7.1), the author provides an interesting and well thought out discussion of a number of important topics such as Neanderthal sexual division of labour, behavioural complexity, and composite tools. Although some assertions are left unsupported (e.g. comparisons between birch pitch and MSA heat-treatment), Wragg Sykes identification of them provides fruitful avenues for future research. In Chapter 13, Cole explores handaxe symmetry. He concludes after an assessment of the oft-used but rather-questionable 'Eyeball Test for Symmetry' that 'symmetry as a marker of culturally mediated artefact manufacture in handaxe production does not seem to increase over time, or indeed to relate to overall handaxe form' (page 256) (but see Shipton 2013 for comparison). The latter statement about overall handaxe form, and the discussion that follows about handaxe standardisation (or lack thereof), while intriguing, does not seem to be supported by the presented analysis. In our view such a conclusion would depend upon comparisons of symmetry between handaxes and older, non-handaxe artefacts and assemblages; comparisons that are not presented in the current work. Finally, Pettitt (Chapter 14) covers a topic that has received much ink and controversy – Neanderthal burial. He proposes that as populations increased and human interaction became more complex, selective advantage would have been given to more imaginative children, as these children would mature into more socially skilled adults. In his conclusion, five phases are identified in the evolution of mortuary practices, the first of which begins in the Miocene and argues for the evolutionary fitness of more creative individuals. It is through this continuation and elaboration of human cognitive capacity for abstraction and creativity that ultimately led to the highly complex mortuary programs present by the fifth phase, which occurred during the Epipalaeolithic.

On balance, *Settlement, Society, and Cognition in Human Evolution* is full of thought-provoking ideas. It is well edited, and the editors deserve full credit for the lack of typos or other grammatical errors. The figures are clear and stylish, the tables are easily readable, and the index is comprehensive. That said, two separate, but related deficiencies to the volume stand out. First, in the preface the editors state that the volume seeks to promote an 'empirically based' (page xxiii) narrative of early hominin evolution. Many of the papers, however, do not follow suit, and rightly provide caveats (e.g. 'regarded as speculative', page 73; 'exercise in speculation', page 174). Second, it is curious that despite the social and cultural emphasis present throughout the book, there is little reference to the current 'culture evolutionary synthesis' and the tremendous, powerful theoretical and methodological advances made in cultural evolution and social learning over the past two decades (Mesoudi 2011; Lycett 2015). But given the intriguing ideas present in this volume, surely application of these current scientific theories and approaches will undoubtedly be the next step forward. It certainly is an exciting time for Palaeolithic research in Britain and beyond.

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