



Settlement, Society and Cognition: Landscapes in Mind

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Book Review

Fiona Coward, Robert Hosfield, Matt Pope and Francis Wenban Smith, eds. *Settlement, Society and Cognition: Landscapes in Mind* (Cambridge: Cambridge University Press, 2015, 414pp., 93 figs., 25 tables, hbk, ISBN 978-1-107-02688-9)

Clive Gamble is a scholar of the Palaeolithic. Over the last forty years he has provided the archaeological community and the educated public with arguably the most insightful and profound accounts of the human deep past that have ever been proposed. Deetz (1968) once observed that the archaeological record of hunter-gatherers provides a relatively clear signature of hunting camps, but little else. Palaeolithic specialists only rarely venture outside of this limited view. They invest a great deal of time and resources in placing these camps in time, space, and environment, after which they add a few more arcane details to a narrative which, to be honest, is rather dull—an account of hunter-gatherers' hunting and gathering for two million years. Even self-styled theorists such as Lewis Binford have relied almost exclusively on insights drawn from the ethnography of modern hunter-gatherers. Gamble's vision of the Palaeolithic is far more expansive. From the beginning of his career he has understood that Palaeolithic archaeology can be much more than a story of hunter-gatherers struggling with the natural world. Two insights have guided his perspective. The first is that the Palaeolithic record presents patterns at a variety of temporal and geographic scales, from the debris left by an individual making a single tool to continent-wide patterns spanning tens of thousands of years. The second insight is that in order to understand these patterns Palaeolithic archaeologists need more and better ideas—ideas about social life,

cognition, skill, and gender roles, to name just a few.

Though never explicitly identified as such, *Settlement, Society, and Cognition: Landscapes in Mind* is a celebration of Gamble's influence on Palaeolithic studies. The authors are colleagues and former students, and the aggregate result is a volume that reflects the lasting influence that Gamble has had on Palaeolithic research, and our understanding of human evolution in general.

Chris Gosden (Ch. 1) begins the compilation with a general overview of Gamble's perspective on the Palaeolithic that sets the tone nicely, mentioning several of his more influential books. But this volume is not a retrospective. Instead it is a showcase for some of the best minds currently working in Palaeolithic studies. Several chapters tackle the entire sweep of the Palaeolithic in attempts to document important trends in hominin evolution. For the last decade or so Gamble, Robin Dunbar, and John Gowlett have piloted the British Academy's Research Project *Lucy to Language: The Archaeology of the Social Brain*. The results of this large-scale project have been amply published, most recently in a summary compilation of important papers (Dunbar et al., 2014).

In the current volume two chapters derive directly from the project. Chapter 2, by Matt Grove and Robin Dunbar, is a brief and readable synthesis of Dunbar's Social Brain Hypothesis (SBH) integrated with one of Gamble's interpretive

concepts, the ‘release from proximity’, which is a particularly productive way to conceive of long-range social networks. In Chapter 13 James Cole takes a key cognitive component of the SBH, Theory of Mind, and traces its development in hominin evolution by applying a model of social identity to the analysis of lithic remains, handaxes in particular. This chapter is a *tour de force* of cognitive archaeology, and is a prime example of what can be achieved by focusing on large temporal scales and applying novel analytical concepts. Chapter 3, by Dwight Read and Sander van der Leeuw, takes a similarly broad scope by tackling the entire range of hominin evolution. Like Cole they emphasize Theory of Mind, but also attribute it to developments in a specific cognitive ability, something they name short-term working memory, based on Baddeley’s (2007) very influential cognitive model. One can argue that they have perhaps distilled Baddeley’s model too much by extracting one component—simple short-term memory—to the exclusion of the critical cognitive control components. Work by others suggests that the control components of working memory were more important than simple short-term storage (Wynn & Coolidge, 2010; Hecht et al., 2014). Nevertheless, Read and van der Leeuw are able to make a provocative case for an important component of cognition. On a slightly smaller temporal scale, Paul Pettitt (Ch. 14) summarizes some of his work on the Palaeolithic mortuary treatments used by pre-modern hominins. He proposes a five-stage sequence of mortuary treatment for Palaeolithic Europe beginning with Gran Dolina at *c.* 800,000 years ago and extending to El Sidrón at about 38,000 BP. Pettitt, too, invokes cognitive components such as Theory of Mind, but also discusses how mortuary treatment was undoubtedly a component of perceived landscapes.

Several of the chapters analyse Palaeolithic landscapes, which is a scale of analysis favoured by Gamble himself. Three chapters provide authoritative views of settlement history and landscape use in northern Europe. Nick Ashton (Ch. 8) reviews the evidence for early occupation (pre-MIS13 and MIS 13) in his discussion of the handaxe-*heidelbergensis* hypothesis. He considers the challenges faced by early hominins in northern latitudes and how these challenges might have been mitigated. The handaxe-*heidelbergensis* hypothesis itself suggests that the earliest pioneers were smaller brained *Homo antecessor*, who made and relied upon simple flake tools, and had limited ability to cope with the extremes of northern Europe. These were replaced after 600,000 years ago by larger brained *Homo heidelbergensis*, who were more effective hunters, had better means of coping with the cold, and made handaxes. Mark White (Ch. 9) also focuses on northern Europe in the Middle Pleistocene, with special attention to sea levels and the status of Britain as a peninsula or island. He summarizes his arguments about handaxe variation within the English Acheulean, revisiting Roe’s classic account (Roe, 1968) and including the probable social role of handaxes in expressing identity, a discussion that meshes nicely with Cole’s account of the Acheulean Theory of Mind. Wil Roebroeks and Corrie C. Bakels (Ch. 10) tackle another long-standing ‘truth’ of Palaeolithic studies, the supposed inability of Neanderthals to conquer forested landscapes. They review the archaeological evidence for Neanderthals living in forested environments, review ethnographic evidence for fire management of forests by modern hunter-gatherers, and make the provocative suggestion that Neanderthals may have managed landscapes with fire (acknowledging that there is no direct evidence or even much suggestive evidence). They do not convince, but it is a provocative account nonetheless. There is actually an

important point at stake here. [Villa & Roebroeks \(2014\)](#) have made a spirited defence of the 'indistinguishability' position, that Neanderthals and modern humans were indistinguishable behaviourally (despite clear differences in brain anatomy). If Neanderthals did, in fact, use fire to manage landscapes, their hunting and gathering would be more in line with modern hunter-gatherers than many have supposed. Steven Mithen (Ch. 17) applies Gamble's concepts of 'landscapes of habit', 'gatherings', 'paths', and 'social occasions' to the Mesolithic occupation of islands in western Scotland. The result is a delightful account that breathes life into a relatively impoverished archaeology signature that in other hands would be a dull description of pebble cores and lithic scatters.

Also at the scale of landscape analysis are Ofer Bar-Yosef's Chapter 12 on Late Pleistocene foragers in northern China, Paraskevi Elefanti and Gilbert Marshall's Chapter 11 on Late Pleistocene hominin adaptations in Greece, and John Gowlett and colleagues' account of the early Acheulean landscape at Kilombe, Kenya (Ch. 5). Boxgrove in England is arguably the most famous Acheulean landscape ([Roberts & Parfitt, 1999](#)), but Kilombe appears equally deserving, and it is several hundred thousand years earlier. Gowlett has always had a keen sensitivity to the 'otherness' of the Acheulean archaeological signature ([Gowlett, 2006](#)), and the chapter makes a nice contrast to the chapters on Middle Pleistocene Europe.

At the smallest scale of analysis are chapters that focus on single technologies or artefact types. Rebecca Wragg Sykes (Ch. 7) provides a comprehensive description of Neanderthal hafting using Miriam N. Haidle's method of coding object related behaviour in cognigrams ([Haidle, 2009](#)). Wragg Sykes makes a convincing case that Neanderthal hafts were as complex as anything proposed for early

modern humans. She also places her analysis within the context of a number of different theories of memory, including Read and van der Leeuw's short-term working memory (Ch. 3), Coolidge and Wynn's more comprehensive working memory account ([Wynn & Coolidge, 2010](#)), and Ambrose's use of constructive memory ([Ambrose, 2010](#)). Anthony Sinclair (Ch. 6) borrows an analytical concept from cognitive science, the concept of expertise, which is a style of thinking that relies on deliberate practice and observational learning, but only minimally on language ([Gobet, 1998](#)). It powers a number of human domains, including unusual examples such as chess but also, and more importantly, almost all aspects of tool use. It is also a model that accounts for differences in skill, and is an ideal model for studying skilled lithic production. Sinclair demonstrates its power in an analysis of Solutrean expertise.

Three chapters deal specifically with Upper Palaeolithic portable art and its implications for symbolism and social networks. Margherita Mussi (Ch. 15) examines variations in the execution of Gravettian female figurines, arguing that there appear to have been quite different levels of familiarity with the model type, with attendant implications for social networks. Sabine Gaudzinski-Windheuser and Olaf Jöris (Ch. 16) contrast Gravettian style female figurines with those of the late Magdalenian, and make a convincing case for a significant change in function, with possible implications for changes in gender roles. But the most ambitious treatment is Martin Porr's discussion of Aurignacian figurines (Ch. 4). Porr reminds us that cognition is not simply in the head, but engages resources in our daily lives, including landscapes and artefacts. He explicitly invokes the perceptual psychology of [Gibson \(1986\)](#) and the ethnography of [Ingold \(2000\)](#), but could

just as well have turned to Malafouris (2013). Porr argues that figurines of mammoths and lions enabled Aurignacian people to think through identity relationships. Thus, they were static symbols of abstract concepts, but active components in social life.

Settlement, Society and Cognition in Human Evolution presents the archaeology of the human deep past as a lively and innovative field of study. It is not simply a compendium of hunter-gatherer camps. The Palaeolithic presented in this volume was occupied by thinking individuals living in dynamic social groups conquering some truly forbidding landscapes. The volume exemplifies the best in Palaeolithic research, and is a worthy testament to Clive Gamble's insights and influence.

REFERENCES

- Ambrose, S. 2010. Coevolution of Composite-tool Technology, Constructive Memory, and Language: Implications for the Evolution of Modern Human Behavior. In: T. Wynn & F.L. Coolidge, guest eds. *Working Memory: Beyond Language and Symbolism*. Chicago: Chicago University Press. *Current Anthropology*, 51, Supplement 1 (Wenner-Gren Symposium Series), pp. S135–47.
- Baddeley, A. 2007. *Working Memory, Thought, and Action*. Oxford: Oxford University Press.
- Deetz, J. 1968. Hunters in Archaeological Perspective. In: R. Lee & I. DeVore, eds. *Man the Hunter*. Chicago: Aldine, pp. 281–85.
- Dunbar, R., Gamble, C. & Gowlett, J. eds. 2014. *Lucy to Language: The Benchmark Papers*. Oxford: Oxford University Press.
- Gibson, J. 1986. *The Ecological Approach to Visual Perception*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Gobet, F. 1998. Expert Memory: A Comparison of Four Theories. *Cognition*, 66:115–52.
- Gowlett, J. 2006. The Elements of Design Form in Acheulian Bifaces: Modes, Modalities, Rules and Language. In: N. Goren-Inbar & G. Sharon, eds. *Axe Age: Acheulian Toolmaking from Quarry to Discard*. London: Equinox, pp. 203–22.
- Haidle, M. 2009. How to Think a Simple Spear. In: S.A. de Baune, F.L. Coolidge & T. Wynn, eds. *Cognitive Archaeology and Human Evolution*. Cambridge: Cambridge University Press, pp. 57–74.
- Hecht, E., Gutman, D., Khreisheh, N., Taylor, S.V., Kilner, J., Faisal, A.A., Bradley, B.A., Chaminade, T. & Stout, D. 2014. Acquisition of Paleolithic Toolmaking Abilities Involves Structural Remodeling to Inferior Fronto-parietal Regions. *Brain Structure and Function*, 220 (4):2315–31.
- Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.
- Malafouris, L. 2013. *How Things Shape the Mind: A Theory of Material Engagement*. Cambridge, MA: MIT Press.
- Roberts, M.A. & Parfitt, S.A. 1999. *Boxgrove: A Middle Pleistocene Hominid Site at Earham Quarry, Boxgrove, West Sussex*. London: English Heritage.
- Roe, D. 1968. British Lower and Middle Palaeolithic Handaxe Groups. *Proceedings of the Prehistoric Society*, 34:1–82.
- Villa, P. & Roebroeks, W. 2014. Neanderthal Demise: An Archaeological Analysis of the Modern Human Superiority Complex. *PLoS ONE*, 9(4):e96424. doi:10.1371/journal.pone.0096424.
- Wynn, T. & Coolidge, F.L., guest eds. 2010. *Working Memory: Beyond Language and Symbolism*. *Current Anthropology*, 51, Supplement 1. Chicago: Chicago University Press (Wenner-Gren Symposium Series).

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