The Foundations of Cognitive Archaeology,
by Marc A. Abramiuk, 2012. Cambridge (MA): MIT Press;
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What *is* cognitive archaeology? Abramiuk's book seems to suggest that it is any archaeology that has a concern with symbols, meanings, ideas or beliefs — or what the author often refers to as 'mind frames'. This may come as a surprise to those archaeologists inclined to follow Hawkes's ladder of inference, or indeed die-hard processualists who remain sympathetic to Binford's 'palaeopyschology' taunt. Whether or not one is more historically or behaviourally inclined, many archaeologists probably still feel it is wiser to stick with 'practices', and not speculate too much on the ideas or beliefs that may have been behind them. Thus much archaeology remains un-cognitive, with cognitive archaeology reserved for the small minority who, some may feel, are inclined to indulge in speculation, or have had their heads turned by interdisciplinarity and the excitement of neuroscience.

This reviewer, for one, appreciates the wide net that Abramiuk casts for cognitive archaeology. With increasing evidence from a range of domains for the mind as embodied, extended and distributed, it seems we can no longer kid ourselves that the cognitive only concerns some realm at the top of the ladder of inference. The collapsing together of action, perception and cognition means we ought to acknowledge that the materials we study always have a cognitive element in them, not somewhere behind or beyond them. But in casting so widely Abramiuk has set himself a very tricky task. He has to reclaim a lot of archaeological theory and practice and recouch it in the terms of the cognitive. So, for example, many readers will probably not immediately associate post-processual archaeologies with the cognitive (despite Leone 1982; Renfrew *et al.* 1993, 253; see also Whitley 1998; and recently Shanks 2008, 134); and yet here from the very first chapter we find Hodder, Thomas and Tilley all repeatedly cited. It is quite stimulating to revisit the post-processual interest in symbolism, meaning and ideology as a cognitive turn happening coevally with Renfrew's early 1980s call for an archaeology of mind — but Abramiuk does not acknowledge the scope of the challenge, and takes this relationship as read, rather than as one that needs investigating at length. Beyond this particular issue, his reclaiming and recouching exercise does not feel especially successful. He actually uncovers six distinct practical approaches: conditional, materiality, direct historical, general comparative, structuralist and associative. Although the objective is promising — the author wants a broader, multi-pronged basis for cognitive archaeology — the execution is wanting. Take for example the case of the 'materiality' approach. First, materiality is anything but a single approach — it is actually used in quite a variety of ways in archaeology today, from more theoretical, 'thing-theory'

approaches (e.g. Olsen *et al.* 2012), to the more material-based approaches of archaeometry (see Jones 2004). Second, 'materiality' is only very loosely connected to a cognitive agenda. What the author presumably means here when he talks of 'materiality' is 'material engagement theory' (or MET), developed by Renfrew and Malafouris in a series of recent publications. This is what many archaeologists would probably recognize as the cutting edge of current cognitive archaeology, whether or not they agree with it. Perhaps it is too narrow, but Abramiuk is incorrect to equate it with a materiality approach. And unfortunately he does not enter into any explicit discussion of MET.

This omission is particularly problematic because MET is a strong statement of how archaeology can make a distinctive, positive contribution to cognitive science as a whole. Drawing on the extended mind and other related approaches, it emphasizes the need to conceive of mind as extended across brain, body and world. As such it engages especially with the work of cognitive philosopher Andy Clark and cognitive anthropologist Ed Hutchins (only bit part players in Abramiuk's narrative), but goes beyond them in focusing even more explicitly on the enactive role of artefacts in human cognition. I personally think this glossing over of MET and extended mind ideas is hard to explain in this book, but more damaging is that what the author proceeds to do in subsequent chapters is go back towards a very limited view of the role of archaeology: it's all one-way traffic from cognitive psychology to archaeology — archaeologists need to understand what memory, perception and reasoning are so that they can properly characterize evidence for each of these in the archaeological record. This recapitulates the premise that archaeology is the passive consumer of ideas generated elsewhere. The idea that archaeology has distinctive perspectives that can be turned back on cognitive psychology (notably material engagement) is barely credited. This is one of the most disappointing aspects of the book.

It is especially in Chapters 3–5 that we find this sense of archaeology as passive. Chapter 3, for example, provides us with a survey of memory, based largely around the division between working and long-term memory, so that we might 'understand how best to proceed in the reconstruction of the concepts — stored in memory — that informed people in the past'. What is worrying, as implied earlier, is that as archaeologists we should simply accept this research at face value and turn it upon the subject matter of archaeology. The next step is for the author to show how the 'direct historical' approach can be used to study past semantic concepts, with the example of Flannery and Marcus's analysis of ancient Zapotec religion, aided by recourse to ethnohistorical data. But where no such direct historical link exists, a different method is required, and here Abramiuk introduces us to what he dubs the 'associative' approach. With a dramatic and rather unexplained switch of setting to Neolithic China, he talks us through Kim's study of pigs in burials and how through association with various prestige objects such as jade and ivory he is able to argue that pigs too signified prestige. This seems to be a rather standard example of a contextual approach, however much one might wish to also connect it with ancient categories or concepts. And it also

seems likely that one might very well employ an associative approach in tandem with the direct historical approach, or indeed many of the others the author describes.

Chapter 4, 'Percepts and their Reconstruction in Cognitive Archaeology', follows the same structure as Chapter 3. We are given another survey from psychology, this time based around the distinction between direct and indirect perception, drawing on J.J. Gibson and R.L. Gregory respectively. This is then followed by a rather clumsy equation with archaeological approaches, such that the 'materiality' approach is argued to be compatible with direct perception, and the 'general comparative' approach with indirect perception (the main example of the latter being Lewis-Williams's work on Upper Palaeolithic cave paintings, in which he uses ethnographic accounts of shamanism). It all seems forced though. Abramiuk's example of the former is Barrett's work on mortuary landscapes; this is neither an especially good example of a materiality approach, nor is it much allied to J.J. Gibson. Abramiuk seems to see patterns that nobody else has seen, which arouses suspicions, for this reviewer at least, that perhaps they are not really patterns at all.

Chapter 5 repeats this by now familiar structure: a lengthy and not especially richly referenced section from cognitive psychology, this time on 'reasoning', split into inductive and deductive, followed by sections linking one of his six archaeological approaches to each, namely the structural and conditional approaches for inductive and deductive respectively. It is not very clear how inductive reasoning is borne out in the structural approach; neither is the relationship between the different approaches he defines. His main example for the structural approach is McGhee's work on Thule material culture, particularly the differential use of antler and bone/ivory according to the class of artefact. Abramiuk acknowledges that the structural approach builds extensively on the associative approach discussed in Chapter 3 (in the context of pigs and prestige in Neolithic China). But then McGhee also uses Inuit ethnographic evidence, so is he drawing too upon the direct historical approach? Are we to understand these approaches as hierarchically nested, or equivalent? The rest of the chapter concerns deduction and how the 'conditional' approach is used in relation thereto; it suffers from the same kinds of problems already identified.

Chapters 6 and 7 provide a survey of past mind frames over the long term of human cognitive evolution. Chapter 6 takes the reader from the earliest tool use, with comparative perspectives from primate tool use, through Acheulean handaxes to Mousterian tool traditions. There is a useful discussion of what Levallois means for the Neanderthal mind, but it is all rather derivative — it would come alive more if it was not all based on the work of others rather than any primary research by the author. The same holds true for Chapter 7, in which Abramiuk turns his attention to the 'modern' human mind, again through the prism of stone tools, with the Châtelperronian and Aurignacian used to compare the mental capacities of modern humans against Neanderthals. As in many accounts of cognitive evolution, the story rather peters out by the time we reach the Neolithic, meriting barely a couple of pages by way

of afterthought. There follows a short concluding chapter, which reviews the six approaches that are introduced in Chapter 2 and then discussed in pairs through Chapters 3, 4 and 5. That these approaches hardly feature in Chapters 6 and 7 seems peculiar, although a partial explanation appears in the book's last pages. The author suggests that most of the six approaches rely on 'the uniformitarian assumption that people in the past maintained the same kinds of minds that we do today'. This being so, if the human mind was thus categorically different before about 30,000 years ago, the approaches relying on the uniformitarian assumption 'may be ineffective' (p. 260). Certainly a vague conclusion to draw, but also one that throws into doubt the purpose of mapping out six approaches, only to then belatedly admit that they might not be at all relevant to much of early human cognitive evolution.

Overall it is hard to know quite what this book is for, as it lacks a thesis as such. Supposedly, it is to help us navigate our way around the discipline of cognitive archaeology by providing us with some epistemological bearings. As a kind of historiography of cognitive archaeology, though, it fails to hit the mark: the characterization of the six different approaches seems rather arbitrary, if not inaccurate in places. The whole venture feels isolated — and in this regard one can't help noticing the lack of acknowledgements, and the dearth of other publications on this subject by the author. Still, the aim of recommending a broader definition of cognitive archaeology is to be welcomed, and as such perhaps it will help us think a little more explicitly about what a cognitive archaeology could be.

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References

Jones, A., 2004. Archaeometry and materiality: materials-based analysis in theory and practice. *Archaeometry* 46(3), 327–38.

Leone, M.P., 1982. Some opinions about recovering mind. *American Antiquity* 47(4), 742–60.

Olsen, B., M. Shanks, T. Webmoor & C. Witmore, 2012. *Archaeology: the Discipline of Things*. Berkeley (CA): University of California Press.

Renfrew, C., C.S. Peebles, I. Hodder, B. Bender, K.V. Flannery & J. Marcus, 1993. What is cognitive archaeology? *Cambridge Archaeological Journal* 3(2), 247–70.

Shanks, M., 2008. Post-processual archaeology and after, in *Handbook of Archaeological Theories*, eds. R.A. Bentley, H.D.G. Maschner & C. Chippindale. Lanham (MD): Altamira Press, 133–44.

Whitley, D.S. (ed.), 1998. *Reader in Archaeological Theory: Post-Processual and Cognitive Approaches.* London: Routledge.