

Disentangling Entanglement

Archaeological Encounters with the Concept of Entanglement

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The concept of entanglement has a varied theoretical and archaeological pedigree. Though the notion of entanglement has been latent in anthropological theories relating to relationality for some time (see especially Tim Ingold's concept of meshwork 2011:67–75, but also the work of Descola 2013 and Viveiros de Castro 1992 amongst many others), the concept has a very specific genealogy in archaeology, mostly having derived from the work of science studies scholars. Here I will focus on the work of two specific science studies scholars, Bruno Latour and Karen Barad. It is my intention to show that while encounters with the work of Latour, in the form of 'entanglement theory', have led archaeologists into a blind alley, the work of Karen Barad offers much greater subtlety and freedom of movement in terms of the concept of entanglement.

In their work Ian Hodder (2012, 2018, 2020) and John Robb (2013) have both sought to explain long term changes in material culture, particularly the shift from hunter-gatherer populations in the Epipalaeolithic or Mesolithic, associated with few material accoutrements, to farming societies in the Neolithic using ever more complex arrays of material culture (Hodder 2006). Both authors draw on Bruno Latour's discussion of the entangled relationship between humans and material things as the basis for their arguments (e.g. Latour 1993, 2005). While Hodder adopts Latour's concepts, he also acknowledges criticism's of Latour's work. For example, the notion

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that networks are composed only of things and humans; as Tim Edensor (2011) discusses in his analysis of a Manchester Church, networks may also be composed of other elements, including salts, weather and chemicals. Despite the recognition of the fluidity of networks, ultimately Hodder distills from Latour the notion of a dialectical dependence between humans and things (Hodder 2012:94). Rather than viewing things and humans as being in relational networks he prefers to discuss them as being caught: ‘humans and things are stuck to each other. Rather than focusing on the web as a network we can see it as a sticky entrapment’ (Hodder 2012:94). John Robb (2013) takes a similar stance, focusing on Latour’s (2005) notion of Actor Network Theory as a means of foregrounding ‘the causal potential for action in the mutually constitutive relationship between humans and material things’ (Robb 2013:661).

The ultimate interest of both authors is long-term evolutionary history (Hodder) or Deep Time (Robb). In his most recent work, Ian Hodder (2020:404–405) discusses a directionality for human evolution based upon the human dependence on things. By contrast, Robb’s interest lies in the ‘mutual dependencies which might lead to emergent effects among an ensemble of practices or institutions’ (Robb 2013:661). Both authors wish to examine changes in human societies on an expansive scale, though curiously both adopt a narrow theoretical scope – namely the relationship between humans and things – as a means to carry out this analysis. What emerges in both cases is a strangely pre-determined outcome in which humans will always remain entangled with things, a Neolithic in which human societies find themselves ever more entrapped. This seems to be an idealized Neolithic, a central European (?) Neolithic, in which settling down appears to be the inevitable and logical outcome of long processes of change; an inexorable shift towards entrapment. However, as we know, this characterisation of the Neolithic as solely concerned with agriculture and sedentism is itself a fairly narrow description of Neolithic lives in Europe. For example, it is not borne out by the Neolithic of northern Europe, particularly Fennoscandia where hunting and gathering continues to be practised many centuries after first contact with Neolithic things in Scandinavia – down to the Middle Neolithic, *c.* 3300–2300 cal. BC in northern Scandinavia – (see e.g. Björck 1997 for a discussion of the Pitted Ware culture of Northern Sweden; see Herva & Lahelma 2019:51–54 for the Comb Ware culture of Finland). Nor is it evident for the Iberian Peninsula, where in some regions like Vasco-Cantabria it seems ‘foragers and farmers possibly interacted for a long period of time’ (Lillios 2020:157). Meanwhile the evidence for Britain and Ireland suggests shifts and changes in settlement (Smyth 2014) and agriculture (Whitehouse et al. 2014), with periods of intensity and collapse over the course of the Neolithic. Added to this, the

idea of a materially impoverished Mesolithic which contrasts with a materially rich Neolithic, as posited by Robb (2013:661–662), is not upheld by recent finds of hunter-gatherer pottery across much of Northern Europe and Eurasia (e.g. Jordan & Zvelebil 2009; Hommel 2013).

The idea of a symmetrical relationship between humans and things was originally proposed by Latour (1993) as a means of recasting the relationship between culture and nature, or humans and the natural world; in effect decentering the human and unsettling the dominance of humans by foregrounding the important role of things (for an exposition of this in archaeology see Olsen 2010). In the guise of ‘entanglement theory’ the relationship between humans and things becomes a means not of decentering the human, but of re-centering the human as the locus of dependency; a move that shifts us from the non-representational back to the representational. Fixed entities like ‘humans’ are pitted against other fixed entities called ‘things’; parallel in many ways to the structural opposition between ‘culture’ and ‘nature’ that was the animating force behind Ian Hodder’s earlier work, *The Domestication of Europe* (Hodder 1990).

That networks of relationships between humans and things are more open and fluid is acknowledged by Hodder (2020:408–409) when he invokes the work of Alfred North Whitehead to discuss the series of forces and flows at play within fields of interaction. The discussion of fields of interaction is a useful cue for considering our second philosopher of entanglement: Karen Barad. Karen Barad is an American academic who began their academic life as a particle physicist, later turning to feminist theory. Arguably, it is the fruitful encounter between these starkly different fields of study that lends Barad’s work such force.

Karen Barad’s work engages with Niels Bohr’s account of quantum mechanics to argue for the inseparability of matter and meaning. Barad (2007:140) proposes that entities (such as materials and humans) do not pre-exist relationships, rather they emerge through specific intra-actions. Whereas the term ‘interaction’ implies action linking pre-existing entities, ‘intra-action’ implies action that connects, entangles, and co-constitutes entities. This is a quite different conceptualisation of entanglement from that proposed by Ian Hodder. Matter is not distinct from human agency and discourse as traditional representational approaches would have it, instead matter is substance in its intra-active becoming. Matter is not a thing, but a doing, it is a congealing of agency (Barad 2007:151). Central to Barad’s analysis is that matter is a dynamic and shifting entanglement of relations, rather than a property of things (Barad 2007:224). The entanglement of relations depends on the dynamic of these relations; different encounters produce differing outcomes as relations intra-actively ‘cut’ each other.

Mattering is therefore a process of differentiation, a way in which the world is dynamically articulated and configured. In Barad's account there are no fixed or dependant relationships between humans and things; indeed the entities 'humans' and 'things' only come into being through relation (see also Fowler 2013).

Barad's work presents a dynamic and contingent way of considering human intra-actions with their past environments, and I believe Christina Fredengren is correct to stress the importance and value of Karen Barad's work in her contribution.

Granted, Barad has not presented us with an all-encompassing theory which we can readily apply to an archaeological problem, such as the Mesolithic–Neolithic transition. However, Barad's work, with its roots in quantum theory, is all-encompassing – it has the potential to unlock the secrets of the fabric of the universe – while also being multiscalar and multitemporal (Barad 2017). In that sense it has the potential to enable us to understand various forms of entanglement in a variety of different contexts, whether past human-environment relations (see Fredengren this volume), the formation of past bodies (Marshall & Alberti 2014), the processes involved in the making of ancient imagery (Jones & Cochrane 2018; Back Danielsson & Jones 2020) the ontology of the digital images used in the study of the past (Dawson et al. forthcoming) and even the study of change itself (Crellin 2020).

While Barad's work has not yet had the impact of 'entanglement theory' in archaeology, nevertheless their account of entanglement is both generous and multitudinous and offers far greater potential for the study of the multiple worlds of the human past.

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