

'Crafting Agency': An Inquiry into Symmetrical Human-Thing Assemblages

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Introduction

By seeking to redefine the boundaries of the human, posthumanism has promoted approaches that bring focus to non-human entities (Braidotti 2013). Within this framework, many forms of posthumanism have developed. The new materialisms question a human-centred ontology by conceiving matter as self-transforming and self-organising (Coole and Frost 2010). These include, for instance, Bennett's (2010) theory of vital materialism and Barad's (2007) agential realism. Assemblage theory analyses the ontological way material systems self-organise (DeLanda 2006; Deleuze and Guattari 1987). These philosophical theories have made their way into archaeology.

Since Gell's (1998) anthropological exploration of art, especially visual artefacts, as an entity acting upon its own use, perhaps the most structured attempt to introduce posthumanist thinking to archaeology has been symmetrical archaeology. Initially, symmetrical archaeology was influenced by Latour's (1993, 1999, 2005) exploration of the

shifting networks of relations between entities in Actor-Network-Theory (ANT). Here, societies are formed by objects and people, acting together in equal capacities and forming networks. Early ideas of symmetrical theory focused on removing human primacy over agency and understanding the world as a shifting flow of ‘agents’.

However, in a ‘second wave’ of symmetrical archaeology, Olsen (2010) developed these ideas further (Harris and Cipolla 2017). Influenced this time by Harman’s (2011) Object-Oriented Ontology, Olsen (2010) moved beyond relational association to focus on the qualities of things in themselves. This paper will focus on this last perspective and the issues with its approach to the agentic relations within archaeological networks.

Symmetrical Archaeology and Human-Thing Mixtures

Pioneered in *World Archaeology*’s 2007 issue, with contributions from Olsen, Shanks, Webmoor and Witmore, symmetrical archaeology introduced the concept of ‘symmetry’ as a road towards impartiality in the study of the past (Shanks 2007). Symmetry recognises the ontological equality between things and other entities. The understanding of things as active participants in the world alongside humans is what creates this ‘flat ontology’ (Webmoor 2007; Witmore 2014). Here, things and humans coexist at an equal level, both participating and engaging in webs of affect. These inseparable and fluid collectives of things and humans make up the world and society (Olsen 2007; Webmoor and Witmore 2008). These collectives are known as assemblages, imbroglios or mixtures (Olsen 2010; Webmoor 2007).¹ Entities form temporary arrangements, fluid and self-sufficient. A flat ontology and fluid relational collectives reject traditional dichotomies between the material and the social. This was the ‘first wave’ of symmetrical theory.

¹ In order to avoid confusion with other uses of the term ‘assemblage’ in new materialisms throughout the discipline of archaeology, I will henceforth use the term ‘collectives’ throughout this paper (Jones and Hamilakis 2017).

In a ‘second wave’ of symmetrical archaeology, Olsen and, to an extent, Witmore (2015) went beyond relational associations to focus on things and their individual properties (Harris and Cipolla 2017). The premise of this framework is a “call for a care for things themselves, their properties and their differences” (Olsen 2010: 38). Here, ‘things’ are material entities and equate to ‘material culture’. Things are participants in the world with a dynamic presence in the webs of affect between entities. Largely derived from Gell (1998) and Schiffer (1999), this agency is understood as relational and extended; the world is a compound of interactors working together, where things have an ability to act and mediate. As such, things can be studied ‘qua things’, as concrete beings and indispensable constituents of society (Olsen 2010).

Symmetrical Collectives: The Hunting Inuit

This ‘second wave’ framework is exemplified in Olsen’s book *In Defense of Things* (2010). Although many of his symmetrical illustrations focus on ruins, some analyse the webs of affect in thing-human collectives. These include a modern fisherman assemblage at Lofoten, Norway (Olsen 2010, fig.7.1) and a late-nineteenth/early-twentieth-century hunting Inuit (Olsen 2010, fig.7.3). The latter draws attention because kit, gear and situation could be easily extrapolated to Palaeo-Eskimo groups, as has been done ethnographically with contemporary Inuit artefacts, and by analogy to other prehistoric societies (Gadoua 2013).

Inuit, kayak and hunting gear work together to achieve a specific task, the hunt (Olsen 2010). The Inuit’s suit (*tuilik*) accommodates both Inuit and kayak: its hood and sleeves fasten around face and wrists; its bottom secures to the coaming of the kayak’s cockpit. The boundaries between entities become blurred. All hunting gear also fits on either kayak or Inuit. When the Inuit is seated and all the gear in place, all three units become one, an association of actants performing an action. This distributed series of practices is the prime

mover of the action, and the Inuit's will and goals could not happen without "the delegation, transformation and swapping of properties with nonhuman actors" (Olsen 2010: 142). Agency is thus dispersed into the kayak and hunting gear, which could continue to act without the direct action of the human: the kayak would keep drifting or the net fishing (Olsen 2010). All of this leads us to question imposed agentic categories (Webmoor and Witmore 2008).

Things are Material Culture

This focus on the network of relations of the hunting Inuit where there is a delegation of human tasks to things, inevitably undermines the importance of human attributes other than action. These human attributes are present within things because they are material culture, as Olsen (2010) defines them. Things are products of human craft. Their role as 'actants', in turn, encompasses a range of human attributes in themselves. Olsen acknowledges that the Inuit is practically and skilfully involved with the things, and does not just 'witness' them (2010). However, the depth of this human practice and skill is overlooked.

The relational associations that take place when the Inuit, kayak and gear launch to engage in the hunt has been planned, created and organised to happen this way. The Inuit themselves might be the makers or repairers of some, many, or all of these things, or could have helped during any stage of their collective production process. Historic Alaskan Eskimo groups are known to have grouped themselves in compound local families and relations of friendship or political alliances, with territorial organization centred around a capital village (Harritt 2013). This kind of small-scale society encompasses a variety of crafting activities in which most people partake; these can be individual, like knapping, weaving or small-scale forging, communal, such as smelting or building, or a combination of both. Kayak and gear in the Inuit collective result from these crafting processes. Thus, there is unique human

knowledge behind the existence of each of these things: of their raw materials and composition, the way they work and why they work that way, their strengths and faults, their possibilities of use and repair, and, ultimately, their value—effort, skill, time and resource investment. This does not necessarily emphasise that humans are more important, rather that these qualities need to be taken into account when exploring the relational associations of the collective.

The human in the Inuit assemblage is overly static because Olsen does not take this knowledge into account. Instead, there is a modern conception of, relation to, and association with, things. In the current globalised world objects are bought, used and soon thrown out; there is little engagement with things beyond their use (Jameson 1985; Kasser and Kanner 2004). Things are outsiders, thus easily ascribed with an equal footing in the webs of affect of the collectives that make up the world. This has led some posthumanist studies to focus on science, media, cybernetics, advanced technology or sustainability (e.g. Appadurai 2015; contributions to Coole and Frost 2010; Haraway 1985; Wolfe 2010). Instead, the Inuit collective reflects a society that relies heavily on its environment to create everything necessary for survival. Overlooking the human attributes that have contributed to creating the Inuit artefacts produces a thing theory detached from human practice. This is ultimately detrimental not only for the Inuit, but also for their things, as the former loses some of their unique qualities and the latter their composite properties.

Issues of Symmetrical Relational Agency

Acknowledging the consequences of things being human-made highlights larger issues within the approach of symmetrical theory to human-thing collectives. The problems with posthumanist philosophies and how they are prone to removing social and individual human attributes have not gone unnoticed (e.g. Fernandez-Martinez 2007; Ingold 2014; Russell 2007). Thus, first, there is a loss of—no exploration of—human attributes taking part in the

active association. These include memory (procedural, semantic and episodic), perception (as an integrative process: Núñez-Partido 2012), abstraction, creativity and choice within an action.

Second, because of this loss of the unique human attributes, the de-centring of the human is too harsh, to the extent that human and thing qualities have become almost homogeneous. Witmore (2014: 218) has argued that humans were never the only ones “with action, memory, interpretation, subjectivity or perception”. It is not only a bold statement to grant things such unexplored qualities, but also an erasure of difference. Surprisingly, the notion of a heterogeneous world is at the core of the original symmetrical theory and its mixed collectives. Shanks (1998) showed that archaeology deals with heterogeneous mixtures. Webmoor and Witmore (2008) argued that mixtures are not undifferentiated, but varied, complex and entangled. Webmoor (2013) stated that these differences are what allows mixtures to be bundled together. Even Olsen (2010) explains that entities have a variety of properties, which make relations possible, as well as change or stability, but only explores these relations within the material. However, their focus on ‘things are us’ prevents authors from engaging with the diversity of human attributes and the consequences these have on things and assemblages (Webmoor and Witmore 2008). Thus, this is not a flat ontology, rather an almost-homogenous one. Homogeneity is not equality. Equality is not the equivalence of beings achieved by ascribing the properties of humans to things or simply erasing the unique qualities of humans altogether. Equality does not erase difference.

A few avenues towards the development of thing agency have already been suggested. Mediation brings the focus to participation, instead of agency, which could highlight individual properties (Appadurai 2015; Russell 2007). For instance, when excavating a fallen building, wall collapse and person mediate the choice of a pick over a trowel. Witmore (2007) calls this an archaeologist-with-a-pick association, and argues this is where the action rests. A structural framework sees humans and things transforming at the same time, each with their own attributes and agencies (Hernando-Gonzalo 2007). Lazzari

(2014) has emphasised ‘assemblage’ heterogeneity; looking at a clay motorbike from northwest Argentina, she blends the objects’ qualities with those of the human potter, their motor skills and bodily habits.

A Crafter’s Perspective

This paper proposes to reclaim this heterogeneity in symmetrical collectives through the crafting process. Although as Marchand (2016) has shown ancient crafts are of complex nature and definition, it could be said that they encompass families of manual practices or skills. They easily overlap with ancient technologies, which archaeologically aim to explore the research and execution of these techniques. Crafts are of varied nature, including knapping, basketry, blacksmithing, smelting, glass-making, or wood-working, among others. They require a level of craft skills, which can be understood as the “motor and cognitive skills required for the production of end products through the manipulation of raw materials by the use of tools, including the hands” (Hosfield 2009: 4). These include memory, perception and abstraction. An understanding and grasp of these skills will affect the relations within any assemblage that contains crafted things.

The crafting process is the series of steps taken during any craft, from the procurement of raw materials to the final product. This action ‘creates’ a thing through a ‘hands on’ process. The crafting process requires certain attributes from the human actor. Memory and perception develop alongside essential mental and motor craft skills, almost through kinaesthetic learning (Peatfield 2007). As the crafter learns these skills, their creative possibilities multiply and they become their own tutor (Kuijpers 2012; Thomas and Harri-Augstein 1978). This leads to independent thinking and demands abstraction of combined know-how and know-what (Bentz 2009). The crafter must visualise the shape, process and function of the artefact before bringing it to life. Crafted things are no longer a single entity, but rather an aggregate of techniques, production stages and

raw materials, including the human crafter; they are multifaceted and dynamic. This abstraction also relates to choice and creativity. Within a range of conceptual possibilities, which are greatly determined by the material, the crafter may choose which to follow, and always has the potential for innovation. These attributes are in constant flow throughout the process and continue to affect in later relations between crafter and crafted thing.

As part of his theory of material engagement, Malafouris (2013) has explored action relations through crafts by looking at potters. He has argued that perception and cognition are interlinked with action, and that planning, decision-making, behavioural control, and memory contribute to the experience of agency. Within this action, the creative process becomes a binding of materials, a dynamic flow of throwing and shaping. Consciousness differentiates the human sense of agency, consisting of the above attributes. Skill and practice generate a situated body enmeshed in the mediated practice of the pot's becoming. This creates relations of situated agency, which are extended, mediated, and shaped by the relevant tools and technologies (Malafouris 2013). The conscious human sense of agency, then, attempts to include human attributes in the relations within the crafting process. A similar attempt follows, looking at the attributes of memory, perception, abstraction, creativity and choice, and focusing on the crafted dimensions of tools and technologies and the associations formed once the thing has been crafted.

Relational Instances in the Crafting Process: Blacksmithing a Knife

Palaeo-Eskimo and Inuit knives have varied in shape and material over time, from flaked-stone, antler or ivory blades to cold-hammered meteoritic iron and steel *ulus* (Buchwald 1992). The smithing process of a knife—wrought iron with a blister steel edge—will now be followed to illustrate some of the human attributes and associations

of a crafting process collective, which are not accounted for in a symmetrical archaeological approach.

Taming the Fire

To work wrought iron and blister steel the fire's temperature must be 760–1200°C (Bealer 1995; Budd 2003). The temperature is reached by pumping additional air into the fire through bellows. The fire exists in a contained space, the forge, and is sustained with charcoal, the most common fuel until the nineteenth century (Pleiner 2006). Each of these things—bellows, forge and fuel—influences the way the smith moves or works and, when seen as an assemblage, associates with the smith to create a fire. Yet all three things also require human memory, perception, abstraction, creativity, and choice to exist and function. The forge has been built with an understanding of clay and fire properties. Charcoal requires a complex controlled process of wood burning. Bellow technology combines several crafted materials, including wood, leather and metal.

Raw Materials and Tools

The type of metal will determine the temperature and conditions it is worked at—for instance, wrought iron can be worked at a wide temperature range but its impurities make it prone to straining and splintering. Human memory of these properties allows the smith to control the metal's transformation, for instance, understanding the relation between colour and softness, or how the material expands or contracts when beaten. Blacksmithing tools (anvil, hammer, tongs, chisel, punch) are not numerous or complex (Coghlan 1977). The smith makes these tools, and can fix or alter them while working. The association between smith and smithing tools is then similar to that between crafter and crafted (explored below) and more complex than a human-thing one.

A Smithing Instance

Fire, raw materials and tools have already shown a complex web of relational affects, thing agents and human attributes in any blacksmithing setting. What associations form at a specific moment in the crafting process, where setting, smith and crafted thing come together? Fig.1 examines some of the thing-human associations taking place during a cycle of heating and hammering of a knife's blade, deriving from the author's personal experience. It recreates the first-person perspective of a smith throughout the process in order to help the reader understand the complexity of this process and, more importantly, to explore associations at specific moments in time. Through this, it aims to highlight instances where human attributes of memory, perception, abstraction, creativity and choice take part in the assemblage.

Human memory, perception, abstraction, creativity and choice are as much part of this collective as any of the qualities of its non-human entities. This does not diminish the role of the latter. Things make possible the collective and the associations within it. Tools allow the smith to handle the material. Both tools and material influence bodily movements, the smith's physical shape, and the range of possibilities within the crafter's mind and actions. The tools do become an extension of the smith's body (Marchand 2012). It is only when smith, tools, crafted thing and setting work together that the action can take place. However, by acknowledging the crafted dimensions of the tools and the role of the smith in shaping the knife, human attributes have found a way into this collective, revealing new associations. Although the above recreation has looked at a moment in the hammering of the knife's blade, similar explorations could be carried out during later stages: heat-treating—normalising, quenching and tempering the metal to cause controlled changes in its crystalline structure (Cottrell 1975; Pleiner 2006)—grinding, honing, polishing, and hafting.

*Judging from the time passed and the colour of the flames, you know it is time to remove the metal from the forge's fire (**perception**). As you hold the tongs in your left hand, your fingers adapt to their handle. Your grip softens, so that the tongs open as you grab the end of the iron bar, and it tightens to hold the metal in place. The tongs connect your hand to the bar, and your movement adapts to the grip they hold; your fingers tense to the shape of the handle and your wrist moves according to the tongs' grip. However, your hand leads the metal, you decide to take it out of the fire, you know you need to move fast because time is sparse and the metal will not retain heat for long (**semantic memory**). As you settle yourself in front of the anvil, your hips sink and your feet widen to adjust your height; this changes your whole posture. But it was you who set the anvil here for a reason! It is the most comfortable position to work in—if this is your own forge, it was probably set up to fit your height (**perception**). You place the steel bar on the anvil, your grip still tight; your shoulder now relaxes, your left arm almost blending into this tongs-metal composite assemblage. Your right arm lifts, hand holding the hammer, fingers wrapped tight around the handle, which, unlike that of the tongs, fits perfectly in your palm. You let the hammer fall, the weight of it leads the blow, falling exactly where you aimed, that soft yellow patch, like so many times before (**procedural memory**). Your handling this material many times before has toned your muscles to perfection; this blow has become easy. The metal flattens slightly. Was it your blow or the hammer's blow? Perhaps both. You lift the hammer again, the bar flattens, your shoulder relaxes, your grip tightens, the tongs move slightly. You hit again, and again, and again. The tools are almost part of you, telling your body how and when to move, to balance, to strike. And yet... you have a concept in mind, the knife (**abstraction to concrete construction**), as well as a breakdown of this knife into isolated stages and shapes that need to be covered before the end result (**memory**). You know you want the metal to change, you know where and how to hit to achieve this. You choose to do so and your bodily movements respond to this knowledge (**memory**). Each time, you see in your mind the possibilities of each blow, with the range of the material you are working, and its consequences (**choice as forethought, forward planning and decision-making**), you are ready to adapt if these blows do not turn out as expected (**creativity**), and each new blow adds to your experience, understanding and control of the process (**memory**). The metal stops glowing. It is time to put it back into the fire and wait until the next round.*

Fig.1. Exploration of thing-human associations during a cycle of heating and hammering of a knife's blade. Human attributes have been highlighted in bold and parentheses.

The Finished Knife

Once the knife is finished, new associations appear between crafter and crafted. The crafter knows the tool's intrinsic strengths and faults and average life span, due to their insights into the raw materials and crafting process. They are probably also familiar with where it is sharpest or which angle is the best to use it at. The blade might have been made for a specific activity they wish to pursue, and the handle has been shaped to fit especially their own hand. Even if the knife was used by someone who had not made it, but was a smith or crafter themselves, many of the above associations would also happen. The relation between crafter and crafted is different than a human-thing one because there is a unique understanding of the dimensions and properties of the thing. There is an association with the thing as materials, shapes, production stages, a composite piece integrating several material and social attributes. In a way, the thing is a collective itself, including the human processes behind its creation. Latour's (1999) gun would not enable and instruct action and mediation in the same way if its user were also its maker.

Where to Now? The Inuit Assemblage as a Crafted Collective

Now it is possible to look at the Inuit assemblage as a crafted whole. Within the Inuit-kayak-gear group, similar associations to the ones explored during blacksmithing are taking place. Each item is a collective itself. For instance, the kayak is made of a complex wooden framework of gunwhales, crosspieces and ribs (Walls 2012). This wood forms a structure to hold the skin cover, as in open boats (Anichtchenko 2012; Walls 2012). The wood has been carefully collected and chosen, worked, bent and held in place. The skin cover is made of rawhide, worked wet from a large animal or smaller ones sewn together with a waterproof stitch and sinew. A whole other hunting assemblage must have taken place before this, alongside the skinning, de-fleshing and drying of the hide. The kayak comprises

complex crafting processes of different raw materials, each of them imbued with human attributes of memory, perception, abstraction, creativity and choice. Similar relations appear within the gear: the sealskin coat has been hunted, processed, tanned, and sewn; hunting weapons have been crafted from varied materials: bone, caribou antler or ivory harpoons and spears, stone-tipped arrows, or nets and lines of gut (Gronnow 2012); the remaining equipment might include leather bags, knives, repair kits with raw materials, additional points, or a fire-starting kit.

All these things encompass the human attributes of a crafter's perspective. The Inuit, as part of a small self-sufficient society, would have an understanding of the technology and techniques to create these things, even if they were not the maker themselves. This would bring new associations to the collective. Considering the human attributes of crafted kayak and gear does not diminish the possibilities of things, but rather enriches their complexities, highlighting their differences with the Inuit and embracing some of the unique agencies and mediations of the latter.

Sharing the Centre

Crafting processes can shed new light on thing-human collectives, especially for small-scale, generally prehistoric, societies. On the one hand, they can help reclaim a dynamic human by including attributes of memory, perception, abstraction, creativity and choice. On the other, they can help understand things as complex collectives in themselves. Reclaiming these qualities enriches and restores the heterogeneity of thing-human collectives, and the hope of developing a true flat ontology. The symmetrical focus on 'de-centring' the human might have been the cause of this loss of heterogeneity. A centre cannot exist as a vacuum: when something is de-centred, another entity must take its place for the centre to continue existing. With the second wave of symmetrical archaeology, things have occupied the centre instead. Perhaps then, the answer could be found in trying

to share the centre, in humans and things embracing each other and their differences within each collective. This cannot be done without understanding the crafted qualities of each thing when understood as material culture.

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