



Things in Action – Interpreting the Meanings of Things in Archaeology

Author(s): Marko Marila

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Things in Action – Interpreting the Meanings of Things in Archaeology

Marko Marila

ABSTRACT Archaeologists are above all interested in the past meanings of things. Problems arise when one realizes that the meaning of an archaeological object in the present may be very different from its past meaning. This has led to a variety of treatments of archaeological objects when it comes to studying their meaning. Some see them as historically important sources of knowledge, whereas others only acknowledge their importance in contemporary society and treat them as objects belonging only to the present. Some scholars, remaining loyal to the structuralist tradition, refer to meaning as inherently conceptual, whereas others see it as a more material aspect of the thing. The main thesis of this paper is that meaning is not an inherent quality of a thing nor simply a matter of relations; what a thing means is what habits it involves.

KEYWORDS

C. S. Peirce, habit, meaning, philosophy of archaeology, pragmatism, semiotics, things

Introduction

Archaeologists have always been interested in the past meanings of things. Problems arise when one realises that the meaning of an archaeological object in the present may be very different from its past meaning. This has led to a variety of treatments of archaeological objects in regard to meaning. Some see them as historically important sources of knowledge, whereas others only acknowledge their importance in the contemporary society and treat them as objects belonging only to the present¹. Additionally, the term meaning has been conceived in various ways in archaeology. Some scholars, remaining loyal to the structuralist tradition, have referred to meaning as inherently lingual (Hodder 1986), whereas others have seen it as a more material aspect of

the thing (see e.g. the papers in Dudley 2010).

In this paper, I address the problems involved in studying the meanings of archaeological objects, that is, how meaning should be understood and on what grounds the past meanings of things can be studied and reconstructed². My main thesis in this paper is that meaning is not an inherent quality of an object, nor an essentially social or ideal construction that can be subjected to constant renegotiation, but rather that meaning is equal to habits of action (EP 1:131; Lele 2006; Bauer 2013). In this sense, conceptualising objects as a network of habits rather than as a network of

¹ For a recent example of such an opposition see, for example, the so-called Holtorf-Kristiansen debate (Holtorf 2008; Kristiansen 2008). Kristiansen is worried about Holtorf's idea that the perceived pastness of things is more important than their real past (Kristiansen 2008:489).

² I use the word *reconstruct* in its liberal sense here. Therefore no attention ought to be paid to the ambiguity of the word. Reconstruction can be understood as a loose synonym for interpretation and the process of forming hypotheses. Reconstructions as hypotheses are always abductive inferences, or inferences to the best explanation (Shelley 1996; Fogelin 2007). In this sense, reconstructions should be treated as something contingent.



Figure 1. Charles S. Peirce (1839–1914).

relations helps us understand the nature of meaning as a long-term historical event (Lele 2006; Bauer 2013). Ultimately this leads to a view of meaning as processual rather than achieved, happening rather than made, and anticipated rather than cognised. This is far from the classic essentialist or idealist definition of meaning as something ideal and unchanging (see Johnson 1999:85–92).

The American philosopher and semiotician Charles Peirce (1839–1914, **Fig. 1**) remains a key figure whose texts on meaning, habit, and evolution are still cited regularly whenever these concepts are discussed (Waal 2001). This article makes no exception, as it draws heavily from Peirce's writings. By the same token, this article provides a rather philosophical take on meaning, and therefore lacks the usual and often tedious archaeological case study. In keeping with the ethos of pragmatism, however, a practical example is drawn from the history of archaeology. In his controversial 1954 article 'Archaeological Theory and Method: Some Suggestions from the Old World,' archaeologist Christopher Hawkes presented what could be

characterised as a protocol of archaeological inference, a model that was later dubbed Hawkes' ladder. Its main tenet was that archaeologists should begin by studying objects that are thought to be connected to technological activity and subsistence strategies, as those have likely changed less than the more immaterial aspects of a culture, like religion. Hawkes' approach, then, was inherently thing-oriented. It is, for example, possible to knap flint in many different ways, but if we take into account the fact that flint is likely to behave today as it did thousands of years ago, we have hard facts upon which to base our research. Furthermore, because it is more difficult to identify religious motives behind the archaeological record, questions related to them should only be approached once the more fundamental questions have been answered.

Today such an approach seems naive and reductionist. Hawkes' view of archaeological inference did not differ from what was typical of the era. Until the 1950s, the logic of archaeological inference can be characterised as naive and inductivist (see, for example, Wylie 2002; Lucas 2012; Marila 2013). The objective was to collect the archaeological record in its entirety. After all the materials had been brought to light, the truth about the past would reveal itself. For today's scientist, Hawkes' ideas present themselves as somewhat reductionist and dualist (Hodder 1989). Archaeology today is perceived as an open-ended endeavour rather than an inductive process with clear goals (Clarke 1973; Fogelin 2007). Furthermore, scientists today are, or at least they should be, ready to admit that science is fallible and even the most well-established ideas could be false. Hawkes' approach has been widely criticised (Hodder 1989; Graves 1994; Robb 1998; see Evans 1998 for a recap of the critique against Hawkes) for its naivety and as such is unsuitable as an epistemic guideline today. However, I use his ladder model as an example when discussing the key concepts of this article, namely meaning and habit. I argue that despite its shortcomings, the basic idea behind Hawkes' model is not totally misguided. Another concept deployed is evolution, which I use in order to further explicate the nature of meaning as habitual. Habit and evolution, I argue, are central to conceptualising meaning as an evolutive process rather than a static network of relations.

Meaning

Meaning became an ambiguous term when archaeologists in the 1980s realised that all ideas about past meanings were modern constructions (Shanks & Tilley 1987). Therefore meaning was mainly studied from an individualist point of view. The meanings of an archaeological object were usually taken to be those of the past individual or the person interpreting the archaeological record. No real continuity between the past and the present was acknowledged. This was especially the case with hermeneutic approaches in archaeology (e.g. Hodder 1986). Whenever a more systematic approach was adopted, meaning was taken to be structural (e.g. Gardin 1980; Hodder 1986; Shanks & Tilley 1987; Bapty & Yates 1990; Tilley 1990; 1991; Shanks 1992), an approach often credited to Ferdinand de Saussure (1990).

In this approach, studying the meaning of one thing meant studying what it is not, that is, what are all the other components of the conceptual system the object of study belongs to. An object therefore acquired its meaning in a complex system of ideas (Preucel 2006:30–31). This approach was based on the idea that the structural human mind governs all perception and interpretation and is ultimately responsible for the meanings given to things. Because the structure governing all human thinking was thought to be unchanging, the language used to express ideas should be equally structural. Therefore, according to this approach, the past meaning of an object (idea) can be known by studying the meaning of the object (idea) in this time period. The structure behind language was taken as the connecting medium between the past and the present. This notion led to the idea that past material culture was produced according to a universal grammar and could be read today like any text (e.g. Hodder 1986). This created one central problem. Just like letters and words, things were thought of as symbols for the deeper meanings and motives behind their production. The problems this idea led to have been extensively covered elsewhere (see, for example, Hodder 1989; Graves-Brown 1995; Preucel & Bauer 2001; Bauer 2002; Herva & Ikäheimo 2002; Preucel 2006). The common reaction against symbolic archaeology

was that meaning was something processual and relational rather than arbitrary and constructed.

During the recent twenty or so years the Saussurean model has been replaced by another type of semiotics in archaeology, namely pragmatic Peircean semiotics (e.g. Gardin 1992; Graves-Brown 1995; Preucel & Bauer 2001; Bauer 2002; Knappett 2005; Lele 2006; Preucel 2006). Archaeologists advocating Peircean semiotics often contrasted Saussurean semiotics with Peircean semiotics by comparing their model of sign, often stressing the dynamic nature of Peirce's tripartite model as opposed to the cumbersome and static two-part model by Saussure (e.g. Preucel & Bauer 2001: 86; Preucel & Mrozowski 2010:16). Adopting Peirce's model meant that instead of treating objects simply as symbolic signs, anthropologists now had a semiotics that accounted for iconic (connection by similarity) and indexical (connection by physical necessity) signs as well. An interesting change can be seen in the way archaeologists started thinking differently about archaeological evidence as signs. Post-processual archaeologists argued in the 1980s and the 1990s that the symbolic (social) organisation of an archaeological culture should often be easier to study than the functional traits of technological production (Hodder 1986:31; Graves 1994:167), while later archaeologists inspired by Peircean pragmatism would argue against such a view. Liebmann *et al.* (2005:48), for example, have argued that 'material culture [---] carries much of its meaning through iconic and indexical properties. These levels of meaning are often less ambiguous than symbolic properties. Many signs are not arbitrary because their elements have definite relations to their referents. While it is true that the meanings of signs may change, the iconic and indexical components of signs are more fixed than symbolic meanings.'

A more interesting fact that archaeologists often overlook is that Saussure's and Peirce's semiotics are based on a totally different kind of philosophy in general. The structuralist approach to meaning is based on Descartes' (1996) rationalist philosophy that became obsolete the day Darwin (1964) published his *On the Origin of Species* in 1859. Descartes' philosophy was based on the idea that the rational subject is unchanging and ultimately remains unaffected by the

material realm, which is an illusion, as he argued in *Meditations on First Philosophy* in 1641 (Descartes 1996). Evolution theory pointed out that as much as the environment affects an individual, individuals can equally well have an effect on their environment (Silva & Baert forthcoming).

It is interesting to see that the rationalist approach has been influential in archaeology until the recent decade or so. In fact, agency theories (e.g. Dobres & Robb 2000), for example, continue this very same structuralist tradition, although agency has been deployed in a somewhat post-humanist fashion as a term that aims at liberating individuals from the deterministic and structuralist models of human action (Dornan 2002:303–304) or consciousness for that matter. In this sense, the question of agency in archaeology has concentrated on the agency of non-human actors (Gosden 2005; Knappett & Malafouris 2008; Johannsen 2012; Silva & Baert forthcoming). That is the fundamental idea behind agency network theories (Knappett 2002) and thing theories (Brown 2001), as well as the notion of the social life of things (Appadurai 1986). What is common to all these ideas is that they are forms of projecting essentially human habits onto things that are not human³.

Lately, however, many archaeologists have become interested in studying the things themselves, not as part of a network⁴ or the social realm, but as

³ It can be said that to criticise these theories for their projecting human notions onto things is a form of anthropocentrism, a position that some archaeologists are doing their best to avoid nowadays. But it can also be said that any effort to avoid anthropocentrism is itself anthropocentrism (Morton 2010:76). Some philosophers, most notably Graham Harman (2005) and Ian Bogost (2012) claim that any attempts to understand other things are metaphorical in their nature and are based on analogies. Bogost (2012:66), for example, writes that all the metaphors we deploy in our attempt to understand things are necessarily anthropomorphic.

⁴ For recent critique of the term 'network', see, for example, Bogost (2012), Hodder (2012), Ingold (2008), and Morton (2010). The leading idea behind this critique is that networks imply overly rigid structures and do not allow room for the kind of contingency, differences, and 'messiness' that no doubt exist. According to the current consensus, things are not connected through immaterial network-like structures or powers, but rather, there are countless relations between objects and those relations in themselves are also objects. The aforementioned authors have replaced the term network with such notions as entanglement (Hodder), mesh (Morton), mess (Bogost), and meshwork (Ingold).

things in themselves in the sense that they are objects that have the ability to stand on their own, regardless of what any human being might think about them (Gosden 2005; Normark 2010; Olsen 2010; Olsen *et al.* 2012). In philosophy, this has come to be known as anti-correlationism. Correlationism is a term coined by the French philosopher Quentin Meillassoux (2008). It refers to the centuries-old idea that there is a necessary and inescapable correlation between reality and our knowledge of it. According to any correlationist, the world only makes sense as far as it is in relation to our thoughts and ways of thinking of it. Extreme forms of correlationism rule out the existence of reality as independent of our consciousness altogether. Meillassoux holds two traditions of 20th-century philosophy responsible for upholding a correlationist position, namely analytic philosophy and phenomenology: analytic philosophy with its preoccupation with language in particular, and phenomenology with its fascination with consciousness (Meillassoux 2008:6).

Lately a speculative branch has emerged in continental philosophy. The type of philosophy that has been labelled as *speculative realism* is based on the idea that there is no one fundamental correlation, but what is real consists of countless relations between real objects. In this sense what connects the different philosophies that can be put under the umbrella term speculative realism is their anti-essentialism. When it comes to objects, such philosophers as Graham Harman (2005), Levi Bryant (2011), Ian Bogost (2012), and Timothy Morton (2010) claim that what ultimately exist are objects: anything from atoms to kittens to universities. The point is that relations between objects give rise to other objects. Relations are objects. In this sense, the so-called object-oriented philosophy is not simply relationist in the sense that it would deny the essential qualities of an object, it is object-oriented by definition. The relational view of objects has been central in recent archaeological theory, and it is vital to understanding meaning from a non-dualist point of view (Gell 1998; Ingold 2006; 2007; Herva 2010; Herva *et al.* 2010; Hodder 2012).

While speculative realism provides a valid ontological starting point for the study of things in archaeology, it does not provide many viable trajectories to the

study of meaning. In fact, current continental philosophy (or at least its object-oriented branch) seems to be suffering from a type of academic crapulence caused by post-structuralism and too much meaning. While the same type of anti-essentialism is at the heart of classic pragmatism, it, as a semeiotic enterprise, can provide the philosophical starting point for the study of past meanings. A pragmatist might agree with the speculative realist and assert that objects exist as something real and material, but she would approach the *meaning* of those objects from an equally realist point of view⁵. Another thing that connects most speculative realists and pragmatists is their scepticism toward hierarchical classifications (e.g. Webmoor 2013). While differences surely exist, there are nonetheless countless connections between things. Furthermore, difference does not exclude continuity. To think in continuous terms is archaeologists' forte, and this is one point that continental philosophers often tend to overlook. In addition to the countless connections between things, there are countless connections running through all history.

There is a growing number of authors inspired by pragmatism in archaeology today, perhaps the most well-known of the recent ones being Robert Preucel (2006) and his pragmatist take on social archaeology. Timothy Webmoor and Christopher Witmore (2008) similarly provide a take on social archaeology and thing-human relations that combines elements of continental philosophy, speculative realism in particular, and classic pragmatism. Furthermore, Timothy Webmoor (e.g. 2007a) has written extensively on pragmatism and archaeology. Webmoor (2007a) argues for a pragmatic (Jamesian) epistemology of archaeology in the hope of a 'mediating archaeology.' Thus Webmoor astutely identifies the possibilities of a pragmatic approach in rendering archaeology a unifying enterprise between sciences and humanities, as well as archaeologists and non-archaeologists. Christopher Witmore (2012) provides an example of a somewhat pragmatist approach with symmetrical archaeology's notion of *pragmatology*, the idea that things, events, and circumstances are real and have real effects on each other and as such provide the starting point, as well as the

grounds, for speculation on what possible course action could take, what could happen at any given instance, or what possible relevance a thing could have on another thing. He does not, however, explicitly refer to any particular pragmatist philosopher. In fact, the notion of pragmatology was born out of the discussion revolving around symmetrical archaeology. The idea of pragmatology nonetheless adopts the speculative attitude that is vital for any realist archaeology.⁶ The examples mentioned in this chapter by no means represent a complete listing of pragmatic approaches in archaeology, but a collection of some writings where a pragmatic approach has been adopted in regard to studying the nature as well as the meaning of things.

If there is one trend or line of thinking to be seen in the way archaeologists have changed their ideas about meaning, it is the tendency to think in more dynamic terms. Whether inspired by continental realism or American pragmatism, the objective has been to abandon dualistic views and recognise the degree of entanglement (Hodder 2012) in everything.

Habit of acting as meaning

Material archaeological objects are the most important source material for archaeological investigation. In fact, things are the best witnesses to their past⁷. One of the first archaeologists to propose something along the lines of an object-oriented approach to deciphering past meanings was Christopher Hawkes. In his 1954 article, Hawkes wrote that he has 'often been embarrassed by the formal necessity of beginning the prehistoric narrative at its beginning, where we know least, and proceeding from that forward' (Hawkes 1954:167). He then went on to suggest that 'instead of proceeding from the unknown toward the known, one could proceed toward the unknown from the known' (Hawkes 1954:167). Hawkes (1954:161–162) proposed a four-level inference hierarchy that has later been referred to as *Hawkes' ladder*. Hawkes (1954:161–162)

⁶ For a Peircean approach to material agency, see Watts (2008). Also of interest to the reader may be the papers given at the 2010 TAG seminar session on pragmatism [<http://proteus.brown.edu/tag2010/8045>].

⁷ Or as Lucas (2012:24) writes, remains do not lie, because they had no intention to say anything in the first place.

⁵ For a concise introduction to pragmatism, see Shook & Margolis 2006.

wrote that archaeologists should start by studying first the technology or the techniques of production. He states that reasoning on this level should be relatively simple. The second easiest level of inquiry is related to past subsistence strategies and should also be more or less manageable. The third level involves inferring past social and political institutions. The hardest aspect of past society would be religious institutions and spiritual life.⁸

Hawkes (1954:156) made a distinction between *text-free* and *text-aided* archaeology and pointed out that the so-called text-free archaeology has always been concerned with materials and evolutionary theory. In that sense, text-free archaeology has concentrated on the study of *types* that express 'a consistent purpose on the part of its ancient makers' (Hawkes 1954:157, emphasis author's). Text-aided archaeology, however, has always been based on the connection between what can be read in historical texts and what can be known by studying archaeological remains (Hawkes 1954:158). The past meanings of a thing, then, can be fairly well known by studying the context in which it is being depicted in the text, or as Hawkes (1954:158) put it, *types* can be determined by 'textual statements guaranteeing that there were such types, standardised and varying only in detail' (emphasis author's). With the help of such 'guaranteed cases', one can advance and infer about the *types* that have not been guaranteed.

I must refrain myself from going into Hawkes' use of the term guarantee, but what does strike me as interesting is the way the term type is used as a synonym for style and, as I am about to propose, habit. As Hawkes (1954:158) wrote, the typology by guarantee of textual statements is similar to the typology of artifacts into types based on their materials and other functional traits in text-free archaeology; they are both based on the idea of human norms (or habits) in the activity responsible. There is a continuation to be found from prehistory to history, or from history to prehistory in the Hawkesian sense, and both periods are manifested

in things⁹. Since words and things come into relation with each other by similar processes of action (words are tools), there is a relation to be seen between texts and things mentioned in the texts, and things mentioned in the texts and things of the prehistoric period. 'Our awareness of that relation enters necessarily into our cognition of them, and conditions our archaeological interpretation of them' (Hawkes 1954:159).

Although Hawkes' inference hierarchy has been criticised for its shortcomings¹⁰, I find it interesting when examined from a pragmatist point of view. Hawkes' approach is consistent with the evolutionary idea of historical sciences of his time period. The study of the past was based on the idea that cultural progress takes place according to certain universal and evolutionary processes just as progress in nature does. This approach has later been criticised for the fact that no one was able to identify neither the processes nor the method by which one was to analyse cultural change (Lyman & O'Brien 2001:333). The problem is that biological evolutionary processes were thought to apply to human action in the cultural sense. This is, of course, true to a certain extent, but is as far from the truth as the more recent approach that makes a clear distinction between cultural and natural evolution (Kristiansen 2004:82).

Hawkes' somewhat simplistic view of the levels of archaeological inquiry may appear naive today and as such is disturbingly anthropocentric, as well as dualistic, in drawing such a clear distinction between the technological and spiritual realms (c.f. Hodder 1989; Graves 1994; Robb 1998).¹¹ John Robb (1998:330), for example, has pointed out that the reason Hawkes' approach remains popular in archaeology is that the ladder theorem is intuitive and commonsensical. In the

⁹ Following Timothy Morton (2013:112), '[e]very object is a marvelous archaeological record of everything that ever happened to it.'

¹⁰ For the misunderstandings of Hawkes' paper, see Evans (1998).

¹¹ Some of the critique against Hawkes remains equally anthropocentric, naive, and dualistic. Ian Hodder and Scott Hutson (2003:138), for example, claim that Hawkes' inference theorem is based on the false idea that 'there are places where time starts and from which beginnings emerge.' At the same time, Hodder and Hutson argue that time is created by people and does not exist independent of life. Unless Hodder and Hutson are arguing for a vitalist (everything is alive) approach, their philosophy remains inherently correlationalist.

⁸ The writer of this article does not agree with the sentiment that archaeology on any level would be simple. Hawkes' view should also be seen to reflect the attitude characteristic of naive empiricism typical of Hawkes' era.

same passage, Robb noted that Hawkes' dualistic view of material and symbolic realms as distinctive realms was incorrect. Robb's concern was whether archaeologists could ever detect anything cultural that was not symbolic (Robb 1998:331). Hawkes' ladders as such may not present themselves as an appropriate starting place for archaeological science today, but the basic idea, and the ladder of inference metaphor in particular, remains interesting (Graves 1994:167).

A more appropriate approach is to think of human action as a habit in the evolutionary sense. Just like any habitual action, evolution and physical laws, for example, are habits of acting¹². As I already mentioned before, for Hawkes, the study of type and style is based on the idea of human norms in the activity responsible. The idea of evolution and continuity can be seen in Hawkes' formulation, and it comes very close to Charles Peirce's idea of habit as an evolutive process. Peirce states that habits become general laws; every habit is a general law (CP 2.148). In this sense, it is not very far-fetched to link Hawkes' norms of human action to Peirce's habits. By the same token, one can now arrive at the conclusion (one that is central to my point in this paper) that both humans and non-humans are habitual and evolutive in this sense. Once we abandon the rationalist philosophy, things get more simple: Graham Harman (2010:146–147) has astutely noted that, as this traditional philosophy has treated humans and things as essentially separate, the relation between humans and things has become philosophically more interesting than that between things and other things, or mainly things that seem to be in close contact; and those relations have usually been dealt with by the natural sciences. This kind of debunking of traditional dualities leads to a completely different idea of meaning from those upheld by structuralist approaches to meaning.

With the so-called material turn in archaeology, we are faced with the possibility of the disappearance of interpretation, narratives, and meaning altogether. In the post-humanist world, the structuralist understanding of meaning should be replaced with a less

anthropocentric definition. Meaning is not something that humans give or make (meaning making is still a stock phrase in archaeology and anthropology). Meaning is what happens, or, better yet, becomes in material practices, like Karen Barad (2007:148) puts it in *Meeting the Universe Halfway*. Bjørnar Olsen (2012b:22) has astutely noted that in recent books and articles on Scandinavian rock art, things (pictures of things) are never taken as what they are, but are always interpreted as something else, 'a reindeer is never a reindeer; a river is always a cosmic river.' Olsen (2012b:22) is not abolishing interpretation in its 'modest and inevitable form,' but rather objecting to overtly flashy interpretations, where certain traits in the material are usually thought to be cosmological, liminal, or transcendental.

In his seminal *Material Culture after Text: Re-Membering Things*, Olsen wrote that '[i]f there is one history running all the way down from Olduvai Gorge to Post-Modernity, it must be one of increasing materiality – that more and more tasks are delegated to non-human actors; more and more actions mediated by things' (Olsen 2003a:88; see also Olsen 2003b).

While it is still possible to maintain that things as signs do not exist in any meaningful and dynamic fashion for us until they become interpreted by us, those meanings are often more varied and complex than we realise. A central point therefore is that things share countless connections with each other. Now, what is important for an archaeologist is that certain things have remained relatively unchanged throughout thousands of years. The lower levels of Hawkes' ladder should be thought of exactly in this fashion (c.f. Graves 1994:167). Flint, for example, behaves today in a very similar way to that of hundreds of thousands of years ago. The changes in the general technological characteristics of flint must have had an insignificant-seeming effect on tool production for as long as flint tools have been produced. The same technological procedures seem to have been in use for 0.5 million years during the Lower and Middle Palaeolithic (Wenban-Smith 1989 in Graves 1994:166). We are able to make this inference by using the same kind of raw material and the same type of tools as those found in past contexts relevant to our studies. By recreating the settings to the best of our abilities, we can start mak-

¹² I do not think a better definition of a law of nature can be given than this: it is a prognostic generalisation of observations.' (EP 2:68)

ing inferences to the best explanation. It is plausible to infer that the relationship between the gravitational forces effective on earth, a piece of flint, and human physiology has changed relatively little compared to how much the relationship between gravitational forces, flint, and subsistence strategies has changed. Keeping this in mind, it may not after all be totally simplistic to think that some traits of a culture should be easier to study than others. The slow change-rate of flint artefact production procedures surely constitutes such a habit (see also Lele 2006 for archaeological objects as habits).

In assessing which things have changed little enough for us to reconstruct their past meanings, human evolution becomes relevant. If we are able to show that the physiological and psychological grounds of human experience have remained relatively unchanged, we should be able to reconstruct past meanings more accurately. It seems likely that the organism we refer to as human has remained relatively unchanged for at least tens of thousands of years. But since human evolution - and evolution of the human mind - is evolutionary in the sense that it is not independent of its surroundings, there is no point in trying to look for the common ground of experience solely from *within* the human experience. Contrary to what the structuralist view of meaning suggests, meanings are not *in* humans (or the human mind). Meanings cannot be reduced to the level of concepts any more than they can be reduced to the level of single objects. Following the Peircean definition, what is meaningful is the process rather than the end product. In fact, the end product is never actualised. This applies as much to archaeological objects as it does to archaeological knowledge. Often a new piece of information tends to put things in a new light. As we have become more and more entangled with things (Olsen 2003a), more emphasis has to be put on how to successfully anticipate new connections between things. It is simply impossible for anyone investigating the past to ignore the future. Studying the past is a way of anticipating the future¹³.

The future is what connects the past and the present in any meaningful fashion (CP 2.148). In this

sense, things, as well as humans, are teleologically oriented. In fact all action is anticipatory. Teleology¹⁴ in its proper sense means that the *anticipated* future has implications at this point in time¹⁵. The basis of all meaningful action is in the anticipated outcome of the action. The past and the present are finite assemblages of things and events, or as Peirce writes, 'actual facts' (CP 2.148), and as such would fall outside the realm of meaning if it were not for the future. This is what Peirce refers to as being in the future, *esse in futuro* (CP 2.148).

In *How to Make Our Ideas Clear* (EP 1:131), Peirce writes that :

the whole function of thought is to produce habits of action. [...] To develop its meaning, we have, therefore, simply to determine what habits it produces, for what a thing means is simply what habits it involves. [...] What the habit is depends on when and how it causes us to act. As for the when, every stimulus to action is derived from perception; as for the how, every purpose of action is to produce some sensible result. Thus, we come down to what is tangible and practical, as the root of every real distinction of thought, no matter how subtle it may be; and there is no distinction of meaning so fine as to consist in anything but a possible difference of practice. (EP 1:131)

In the above quote Peirce's pragmatist approach to meaning underlines the historicity and continuous nature of meaning. This is a crucial notion in archaeology, as it stresses the irreducibility on meaning. The vagueness of Peirce's assertion ironically highlights the fact that what things mean is dependent on the countless, constantly changing relations they share with

¹⁴ In this sense, the pragmatist meaning of teleology is not far from the meaning the term has in action theory (see, for example, the works of Donald Davidson [e.g. 1980]). Davidson's philosophy of action, however, is rooted in analytic philosophy and Wittgenstein in particular.

¹⁵ Alfred North Whitehead (1978:214) referred to the present as 'the immediacy of teleological process whereby reality becomes actual'.

¹³ '[N]othing is harder to predict than the past' (Holtorf 2013:434).

each other (Ingold 2007; Webmoor 2007b; Webmoor & Witmore 2008; Olsen 2010; Hodder 2012; Olsen *et al.* 2012). The notion of things as habits, however, is an attempt to conceptualise material relations in a diachronic fashion rather than as a static network of synchronic relations. Furthermore, the idea that even the most habitual activity is deliberate and meaningful underscores the fact that what a thing means is not only dependent on how a thing can be used (Graves 1994; Olsen 2012a:212), but also how it has been used.¹⁶

If, as Peirce argues above, the meaning of a thing is equal to the habits it involves, and, furthermore, the nature of those habits is being *in futuro*, how does one begin to reconstruct past people's experiences? John Dewey (1895:32), another American pragmatist, refers to these non-referential or unconscious references as *Gefühlston*:

'Gefühlston represents the complete consolidation of a large number of achieved ends into the organic habit or co-ordination. It is interest read backwards. That represents the complete identification of the habits with a certain end or aim.' Following Dewey's point, it is evident that things alone cannot reflect the totality of our 'achieved ends'. Of relevance to archaeology are also oral history and folklore, as well as written sources (see Hawkes on text-aided archaeology above) and habits. In fact, what UNESCO calls intangible cultural heritage consists mostly of habits, like traditions, practices, and rituals, as listed in the second article of the 2003 *Convention for the Safeguarding of Intangible Cultural Heritage*. These types of nonmaterial aspects of history were an essential part of the subject matter of archaeology until the 1950s (Lucas 2012:21). Although the nature of archaeology as science has shifted to studying the more material aspects of history, the experiences of past people are embodied in us by their virtue of being teleological. No one person can

¹⁶ It should be noted that meaning and function are not synonymous. Paul Graves (1994:167) notes astutely that 'with respect to the ladder of inference, it is interesting to note that, while we can demonstrate that the handaxe is a product of tradition, we can say little of its technological function. In my view, there are no convincing explanations as to what the handaxe was used for (if anything). This suggests, then, that in some circumstances the level of social convention may be inferentially closer to the material record than are 'technological' considerations of function, inverting Hawkes' ladder of inference.'

remember all past experiences (not even their own), yet they have an impact on our experience as formed habits of action. Experiences are therefore not something belonging to the purely psychological realm, but they are bodily and evolutionary as well.

Epilogue

The hard part in studying the meanings of an archaeological object, then, is to assess what possible uses the object could have had in any number of situations. Following the flint knapping example I presented above, the purpose of making a stone tool may have been to use the tool to achieve any number of practical goals. To say that the meaning of a biface, for example, was to attach it to a shaft and use it as a hunting weapon would be a simplistic reduction, since a biface, like any tool, could have had an infinite number of uses (see, for example, Kauffman 2012:37). Was it used to hunt small or big game, was a particular type of weapon reserved for hunting particular species, for example? On the other hand, refraining from making a generalisation would most likely hinder scientific inquiry. In effect, it pays to make inferences of such general nature. Just like the past meanings of a thing were dependent on how it could have possibly caused those around it to act, the meanings of an archaeological object for the science itself are dependent on 'how it might lead us to act, not merely under such circumstances as are likely to arise, but under such as might possibly occur, no matter how improbable they may be (EP 1:131).' This ultimately not only renders meaning a matter of epistemology but it also subjects meaning to an activity of a totally speculative nature¹⁷.

Reconstructing the meaning of a thing would mean tracking it back through time, mapping all the possible uses it not only had but could have had, and mapping all the possible relations it has had¹⁸. Any thing has had multiple meanings in the past. Similarly, a thing may have many meanings in the present. A

¹⁷ See also Ingold (2013) on the importance of imagination in science.

¹⁸ In *Entangled*, Ian Hodder (2012:180) deploys a method of mapping connections between things he calls a tanglegram. A tanglegram is a complex drawing of connections between things.

thing can be put in a museum and treated as an exhibit piece, or it can be studied in a lab. Its meanings may be very different to different people. Furthermore, a thing could have meant different things to different people in the past. The fact that some meanings (habits) change relatively slowly (like the 'laws' of nature) means that we have some form of common ground for assessing meanings that change more quickly.

In the end, archaeologists are not left with things that have nothing to do with their own time but with things that are part of a chain of connections between the past and the present and the anticipated future. The fact that things are continuous makes action (as well as studying the past) meaningful. While the archaeological record is highly fragmentary (in fact this is the very reason we find the past so fascinating), the good thing is that past action (however teleological) produced and left behind material (or *sensible*, as Peirce wrote) parts. And since archaeologists are ultimately dependent on material things - archaeology is a discipline of things (Olsen *et al.* 2012) - it is worth keeping in mind Peirce's statement that '[w]hatever is continuous has material parts' (CP 6.174). The trick is to find the material parts that are continuous.

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