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From 'things' to archaeology's artifacts: A reformed empiricist argument

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I have enjoyed Yiorgos Hourmouziadis's intellectual company on few occasions – too few, I'm afraid –, mainly between 1999 and 2010. In those occasions I managed to bore him as often as to excite him. We were exploring each other's intellectual limits (what more can I ask for?), myself approaching him as a scholar of an older generation, he treating me as equal: a 'mutual admiration society', in short (a state not too frequent among Greek academics). Would what I have put together here engage him? Would he remain largely unconcerned? Probably the latter, but, no doubt, he would still have an observation or two to offer.

What I have put together is inspired by work done since the 1980s in the field of Science Studies, especially by Bruno Latour and Andrew Pickering. About five years ago it dawned on me that archaeology's artifacts and our work with them fit nicely several of the notions advanced by those historians/philosophers of science. They fit, first of all, the notion of 'collectives' ('assemblies', 'societies', or 'gatherings').[1] They also fit the notion of 'things' (as precariously distinguished from 'objects') and the thought of the transformation of 'things', or 'matters of concern', to 'objects', or 'matters of fact' (as well as the inverse transformation, from 'matters of fact' back to 'matters of concern'). Further, they fit the idea that, as soon as they are picked up by the archaeologist, artifacts enter a new 'mode of existence'. All this requires explanation, and that is what I mainly do in this paper.

I begin with 'things', in their slippery distinction from 'objects'. The latter in archaeology's case are *named* (labeled) artifacts (e.g., 'transverse arrowhead'), and I will come back to them below. But what are 'things'? Let us attend for the moment to basics: 'thing' is "the before and after of the object… the not yet formed or nor yet formable," and also what remains of an object when it is no longer serviceable (e.g., a broken knife). "The story of objects asserting themselves as things, then, is the story of *a changed relation to the human subject* and thus the story of how *the thing names less an object than a particular subject-object relation*" (Brown 2001, 4-5; emphasis mine). Archaeology is of course about things as objects that are no longer serviceable. As it aims at reconstructing the forms and careers of those things, however, it finds itself dealing with the "not yet formed or not yet

[1] These words are interchangeable in the relevant literature I am familiar with. 'Collective' harks back to Ludwik Fleck's "thought collective" (*Denkkollektiv*; see, e.g., Latour 2008a, 92-93), "society" to Gabriel Tarde ("everything is a society and … all things are societies" ["*toute chose est une société* … tout phénomène est un fait social": Tarde 1893, chapter 4; Tarde's italics], quoted in Latour 2008b, 5), and 'gathering' points to Heidegger (see below).

formable." It is this latter sense of 'things' that concerns me here. But before getting to this, I need to say a little more about the meaning of 'thing'.

According to the *Oxford English Dictionary* (*OED*), the Old English word 'thing' pertained to "A meeting, or the matter or business considered by it, and derived senses." The meaning of 'thing' as "a meeting, an assembly; *esp*. a deliberative or judicial assembly, a court, a council" (*OED* again) is now buried under more recent meanings, but derived senses such as "A matter with which one is concerned (in action, speech, or thought); an affair, a business, a subject [of/for discourse]" are very much alive.[2] Heidegger too noted that, beginning with '*thing*' as "a gathering, and specifically a gathering to deliberate on a matter under discussion, a contested matter," Old German '*thing*' and '*dinc*' came to "denote anything that in any way bears upon men, concerns them, and that accordingly is a matter for discourse." But Heidegger went beyond Old German and considered Roman Latin as well. The Roman words '*res*' and '*causa*', he observed, also designate "what concerns men … an affair, a contested matter, a case at law."[3] This is an important observation: from '*res'* and '*causa'*, remember, we have an army of derivatives in many modern languages, e.g., '*real*', '*cosa'*, '*chose*'. By the Middle Age, Heidegger went on, '*res*' designates "every *ens qua ens,* that is, everything present in any way whatever… The same happens with the corresponding term *thing* or *dinc*; for these words denote anything whatever that is in any way."[4]

In short, 'thing' is a complex, multi-layered word. What I retain here from its brief history as just outlined is that (1) 'thing' denotes entities of any kind, whether material entities or abstractions, substantial beings as well as spirits and ghosts; and (2) it also designates matters of concern to one's affairs, matters that need to be deliberated, disputes to be arbitrated and settled. Furthermore (3) the sense of 'thing' as 'gathering'/'assembly', obsolete for centuries, seems to me worth revisiting and rehabilitating (as Latour did about a decade ago[5]); and, if so, then (4) the adjudication of matters of concern to one's affairs is the affair of a gathering/assembly.

But back to archaeology. Now, archaeology's artifacts are material things that, *especially* when you first pick them up from the ground, you may not know what they really are. You may only know, or just suspect, that *Homo* (or was it another primate genus?) did

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[2] "Thing n. 1" and "Thing n. 2". *OED Online*. December 2014. Oxford University. http://www.oed.com/view/Entry/200786 and http://www.oed.com/view/Entry/200787 (both accessed February 23, 2015).

[3] Heidegger 1971 [1950], 272-73.

[4] Heidegger 1971 [1950], 274.

[5] Latour 2004, esp. 245-246.

something to them, e.g., moved 'these stones' away from their source in nature.[6] But for what purpose? And did s/he ever put them to that (or to another) purpose? Or did attention drift to other things, and the stones were forgotten, dropped, and were allowed to rest idle on the spot, until some day when no living creature was any longer around they became buried and were thus preserved, in a curious arrangement, until now?

For an archaeological team coming across such things, these are questions of professional interest: the stones encountered are a *thing*, a *matter of concern*. At first, nothing is secure: no factual claim of any significance can be made on behalf of the stones, and even thinking of them as 'artifacts' could be an illusion. The circumstance, 'the whole thing', is indeed replete with possibilities and uncertainties. Later on, however – that is, once the stones are closely examined (and here equipment may be enlisted, at least a loupe), once their spatial distribution is plotted on paper (more equipment needed here, from the total station to computers and printers), once the geological experts on the team are consulted (here colleagues are enlisted), once the team revisits the findspot and returns with more things (*time*, therefore, is also important), once a member of the team (it could be the draftsperson, the photographer[7] or a sharp-eyed student trained in art school) calls attention to something no one had noticed up to that point… in short, *once a degree of intimacy develops between team and thing – then*, some of the initial possibilities seem no longer viable, while others gain in plausibility: the team can now make a few factual claims on behalf of the thing.[8]

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[6] When you happen unexpectedly upon artifacts during archaeological exploration, you may not be prepared to acknowledge them, and you may in fact be tempted to dismiss them as non-artifacts. If your specialty is things made of natural materials (stone, bone, antler, etc.), you will have frequently found yourself in this situation. Unanticipated artifacts, things that encounter you where and when you do not expect them, can disturb your consciousness, shock you – like the *objet trouvé* is said to do the artist *it finds* (see Mitchell 2005, 114). Let me put this matter another way: the artifacts you unexpectedly came upon may be 'singing a tune' too strange for you to pick up and sing along. My musical metaphor here owes much to Andy Pickering (e.g., 1995, 6), but, as Pickering noted (1995, 22, n. 15), the metaphor first occurred to Ludwik Fleck some 80 years ago (Fleck 1979 [1935], 86). See also Latour 2008a, 94-95.

[7] For a recent example where photography unexpectedly and by chance led to an important discovery see "430,000 year old shell engravings by *Homo erectus* from Trinil, Java," *Anthropology.net,* 5 Dec 2014 (accessed March 5, 2015).

[8] Fleck (1979 [1935], 96) put comparable matters with great clarity: "This is how a fact arises. *At first there is a signal of resistance in the chaotic initial thinking, then a definite thought constraint, and finally a form to be directly perceived* (Fleck's italics).

These may be as simple and crude as, for instance, "the stones brought onto the spot were picked up from the bed of a nearby water course, and were built into some kind of structure, which eventually perished in a conflagration." Actual scenarios are routinely much more detailed and exacting than this (and contain images, for they take account of *local* circumstances that cannot be effectively rendered in propositional language).[9] The simplicity of the scenario I outlined should not, however, detract attention from the main point: as the outcome of the sequence of interactions I outlined, some of the archaeologists' original matters of concern have now been transformed to *matters of fact*. But more needs to be said about this transformation, and I turn to it immediately.

First of all, it is clear that the transformation is the work of a *gathering* of agents ('actants' in Latourian parlance[10]): a *collective* that includes humans (experts such as the archaeologists and geologists) as well as *material* agents, such as the instruments employed and, of course, the original 'thing', the stones themselves.[11] The list of agents, or actants, should furthermore include *institutions* of several kinds, e.g., supporting academic departments, state offices and funding agencies, without the succor of which the team's work would never materialize. The product (the "structure that eventually perished in a conflagration") is the gathering of all those agents, even though it may now pose as a fact in the world 'out there': a thing fully emancipated from the collective of actants that gave rise to it (but see below, my fifth point).[12]

Second: things, you will remember, are in a crucial sense amorphous, indeterminate, the 'not yet fixed' and the 'no longer in order' (see Brown 2001, 4). That is not at all the case with what emerges from the encounter of team and stones. Instead, the enigmatic stones are, as a result of that encounter, reassembled to form something definite and firm, an object of concrete, if still imprecise, dimensions. But how sturdy is that object after all? Answer: as sturdy as the ingredients of the collective that constitute it. If, for example, the instruments employed are corrupt, so too will the object. But there is no room here for skepticism of the

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[9] Thought is infinitely faster than words, especially when it is attuned to what lies before the senses and is guided by intimacy with its context.

[10] Call them what you will, the point is *not* that they are all endowed with intentionality (some are, others aren't) but that *they produce effects in the world*. For example, they make you do things in ways you would not follow otherwise.

[11] For material agency see Pickering 1995, and "Discussion Section on Andrew Pickering's *Mangle of Practice*" in *Studies in History and Philosophy of Science* 30 (1999), 139-171, articles by Pinch, Schatzki, and Rheinberger.

[12] I cannot help but be reminded here of the Marxian wisdom regarding commodity fetishism. This passing thought requires substantiation, which I cannot provide here.

philosophical (epistemological) sort;[13] rather than embarking on an epistemological meditation ('how do I really know that I am not deceived…'), you better check and recheck the performance of your instruments, make sure that the specialists' expertise is up to date, that the supporting institutions are not prejudiced in amoral ways (e.g., favoring self-serving conclusions or discriminatory practices) and, above all, that the chains of human experience leading from chaotic thing to determinate object remain continuous throughout, each step following on the step before.[14]

Third and most crucial: in the process of the transformation, a good deal has been added to the original thing. At the end of the day, the stones are no longer mere physical things ('plain' or 'just stones') but they have become inhabited instead *by the sequence of actions to which they had been subjected in the past*: they are now the stones that were brought up from a nearby stream channel, were used in building a structure, were physically altered in a conflagration, etc. Perhaps you expected me to say 'at the end of the day, the stones have become inhabited by ideas derived from the archaeologists' minds'. This, however, would be making the wrong turn along the argument: it would take us down the idealist path that was favored by post-processual iconoclasts some decades ago. And, before we knew it, we would be once more discussing the merits and demerits of constructivism over realism, of skepticism and of the relativist critique over empiricist orthodoxy. In doing so, we would inevitably resort to the representational idiom that flourished under the sign of the 'linguistic turn' in the human sciences.[15] In short, we would soon be back to questions of the epistemological tribe. If you say 'why not? What is wrong with that?' I would direct you back to the second point above and, better, to Latour 2008a, part II.

Fourth: clearly, the transformation from 'plain stones' to the 'structure', from mysterious, formless thing to determinate artifact, does not happen instantaneously but has *duration*, i.e., *it unfolds in time*. It comprises in fact *a sequence of steps* or *actions*, running parallel to the sequence of actions I outlined in my third point, but, obviously, unfolding in a different temporal frame and having a distinctly different texture: the stones are now photographed and drawn in their in situ arrangement, samples are taken to the project base, they are cleaned, labeled, sorted and inspected in proper light, some stones are thin-sectioned and examined under the petrographic microscope, select specimens are stored and designated 'reference collection', and examples are shown to visiting colleagues from whom opinions are solicited (the list could be longer, of course). With each of these steps the team's intimacy

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[13] See Latour 2008a, part II.

[14] The last stipulation is an important lesson from Latour (2008a), who adopted from William James the notion of "chains of experience." For a brief summary see also Fotiadis 2015a.

[15] See Pickering 1995, 5; 2010, 25-26; 2011, 3.

with 'the thing' grows, albeit it does so in a meandering rather than linear, additive fashion: some ideas are dropped along the way, new ones are tried in their place. Knowledge at any time along this sequence is *emergent*, in other words;[16] or, in Latour's (2008a) terms, knowledge is *a trajectory*, *a vector* – better yet, *a mode of existence.* The last expression is meant to emphasize that, when obtained through "continuous chains of experience" (see above, second point), knowledge has as much ontological weight as the epistemic object to which it pertains: it transforms that object, its very nature (its identity, its constitution, if you will), to something that it was not before archaeology happened to it. If so, we would further need to conclude that our *epistemic objects themselves*, not just our knowledge of them, have histories.[17] This also follows from the third point above.

Fifth and last (and this may not be easily digestible by those among us still with a strong aftertaste of twentieth-century empiricist wisdom): in the course of its new career our fact still does not stand in the world 'out there' all by itself. To suppose that it did would require us to ultimately appeal to some kind of divine providence, a power that fixed the world in advance of humanity and its quests and contrivances. I am not prepared for this. Even after it gains acceptance (e.g., is published in a refereed journal, is cited by colleagues), our (arti)fact still does not emancipate itself from the web of institutions, experts, instruments and the like that brought it forth. On the contrary, it continues to depend on them for its existence, forming a collective with them. In short, *matters of fact never cease to be matters of concern*, no matter how sturdy and durable may seem the moment of they emerge.[18] If you have doubts about this, think of the enormous institutional and technological infrastructure (preservation societies, museums, conservation labs, etc.) and the scholarship and teaching (e.g., review articles, textbooks, university courses) dedicated to keeping archaeology's matters of fact in existence.[19] Take that infrastructure away, allow it to erode, and our facts

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[16] See also Pickering 2001, 164: "mangling [i.e., the intertwining of human and nonhuman, or material, agency] is a *temporally emergent* process" (Pickering's italics).

[17] Latour 2008a, part III and p. 89 ("why is it difficult to have a history *of science*? Not a history of our representation but of the things known as well, of epistemic things?" Latour's italics). I confess, however, that Latour's notion of "knowledge as a mode of existence" continues to exercise me. His piece on Etienne Souriaux, from whom Latour acquired the notion of modes of existence, is no help (Latour 2011).

[18] See also Fotiadis 2015b. For dramatic examples of determinate artifacts (matters of fact) suddenly turned to things, maters of great concern, see Pickering 2011, 6-7 and 2013, and Latour 2004, 234-235. I can think of countless archeological examples that illustrate the transformation from fact to thing: compare, e.g., Scott and Gilbert 2009 with Jimenez et al. 2011, concerning the 'first' appearance of Acheulean-type hand axes in Europe. But the archaeological examples have none of the drama of the examples related by Pickering and Latour.

[19] The above point has been argued by Latour on several occasions (e.g., 2000, esp. 253-255; 2008b, esp. 38-49;

will soon turn to dust.

As indicated above, this last point is difficult to reconcile with the empiricist wisdom most of us alive today grew up with. The logic of the difficulty, however, is rather easy to pinpoint, and that is what I want to do here. The empiricist wisdom I have in mind tendered the idea that the great virtue of facts (facts in general, not just the facts of archaeology) is that they are *immutable*: they remain what they are no matter what you and I think or say about them. They live in their own mode of existence – independent, self-sufficient, capable of 'speaking for themselves', period. Why, then, would anyone want to call attention to the importance of the moderns' apparatuses (instruments, experts, institutions, and the like; see above) in keeping facts alive after they have been 'discovered', 'acquired', 'retrieved, 'captured', 'tested', 'established' by modern, state-of-the-art techno-science? To broach that issue could after all cast doubts on the very factuality of facts, for it would insinuate that their self-sufficiency and autonomy from human affairs might be illusions.[20] In short, the fascination with facts as immutable, things that live in a mode of existence impervious to human affairs, discouraged consideration of the infrastructure that keeps 'discovered' ('established', etc.) facts alive in the present. And so, the relevance of that infrastructure to the longevity of facts has been rendered practically invisible.[21]

The above paragraph also highlights some sides of traditional empiricism that the reformed version (what Latour has at times called 'second empiricism'[22]) leaves behind. Most salient among those sides are (a) that facts are fixed/immutable (the reformed version's counter-proposal here is that facts are *transmutable* and have therefore histories; see the fourth point above, and also my crude archaeological example of natural-stones-turned-artifact); and (b) that established facts survive in the long-term 'all by themselves', and, at any rate, without succor from human, modern contrivances (to which the reformed empiricist version I have been outlining says flatly 'no'; see the fifth point above and references in note

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2004: 246-247), and it has also been noted by Pickering (e.g., 2011, 5: "dances of agency never quite go away." For Pickering's conception of "dances of agency" see below).

[20] The constructivists' response to the empiricist doctrines I outline above is irrelevant to my point, for constructivists rarely heeded Thomas Khun's observation "you constructivists are very good on the social dimensions of science, but how does the world get into the story?" (preserved in Pickering 2011, 2-3). Indeed, it is fair to say that, when constructivists took Khun's observation to heart, they were no longer constructivists but reformed empiricists. Pickering is a good example of this mutation.

[21] See also Pickering 2010, 20-21.

[22] 'Radical empiricism' (after William James, from whom Latour has draws much inspiration) would be equally, if not more, appropriate; see Latour 2008b, 24, and footnote 14 above. Pickering (2010, 380) has also acknowledged his encounter with James's pragmatism as a turning point in his intellectual life.

19). Needless to say, my (a) and (b) here are hardly the only differences between traditional empiricism and the reformed version I favor in this essay. I apologize but cannot delve deeper into such matters here.

A few last remarks. I have omitted consideration of "dance of agency," a key conception in Pickering's version of reformed empiricism, and arguably relevant to my theme. I now need to explain this omission. Pickering introduced the collocation "dance of agency" in *The Mangle of Practice*.[23] "Dance of agency" was meant as a shorthand for the "dialectic of resistance and accommodation" that obtains as material and human agencies encounter each other during experiments in the scientific laboratory; it pertained, that is, to fields for which experimentation is an everyday affair – biology, chemistry and physics of every sort. In later work Pickering extended the scope of dance of agency, rendering it to something like a TOE, a 'theory of everything', from ways of containing slope erosion and controlling the proliferation of intrusive eels in Midwestern ponds to cyborgs and interactive installation art.[24] Let be that "we can understand the world as built from performative dances of agency," as Pickering has recently suggested (2013, xx), still, I am not sure we can understand much of archaeology that way, and here is why. I think that dance of agency works fine for laboratory practice (its original domain of pertinence) and works equally fine for contexts beyond the laboratory where sustainable solutions are sought to complex, multi-layered, large-scale problems, normally at once of ecological and social-political nature; problems, that is, for the negotiation of which no secure path is in sight in advance (or, to put it another way, problems for the solution of which existing recipes/protocols are from adequate). These conditions, however, are marginally met in today's archaeological practices. You may, for instance, need to secure a six-meter high scarp from collapsing on your head while you excavate, and experiment with various ways of preventing the catastrophe – and this would, by the way, be a fair illustration of material and human agencies encountering each other and engaging in negotiation: an unmistakable case of dance of agency. Yet the collapsing scarp hardly qualifies as a "complex, multilayered, large-scale problem." It is, in fact, too banal a problem to require invocation of a theoretical concept such as dance of agency.[25] Better, more balanced examples can be drawn from experimental archaeology,

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[23] See Pickering 1995, 21-22 and *passim*, and, for a succinct summary, Pickering 2013. Let me add that the *Mangle* was my introduction to the reformed, post-James empiricism as practiced in Science Studies.

[24] See Pickering 2008, 4: "I think it makes sense to say that everything in the world is engaged in dances of agency—cats and dogs, rock and stones, all engage in performative and adaptive interactions with their environments." For concrete examples beyond the laboratory see Pickering 2010 and 2013.

[25] For another banal example of dance of agency, critically addressed to Pickering's argument see Pinch 1999, 145.

especially from replication experiments that involve long sequences of steps (e.g., making polished stone axes from chunks of raw material, or smelting lumps of copper ore in primitive installations). But come to the standard archaeological procedures of examining artifacts in the archaeology lab: the only dance in the case is that of the archaeologists and related specialists, hovering around the autopsy tables, but there no material agency here. That is why I suggested that Pickering's dance of agency is of marginal relevance for understanding the work of archaeology.

'Optimistic!... but perhaps also one-sided', Hourmouziadis would, I imagine, have remarked with regard to this essay. 'Optimistic, because it draws us away from the relativism (indeed, quasi-agnosticism) of the post-processual, promising us instead that knowledge formation in archaeology is not an enterprise that requires constant self-questioning of the epistemological sort (how do I really know…). But the real world and life are not so straightforward. In fact, the only way you can be so optimistic is by bracketing ideology, by side-stepping, that is, the effects of *idées reçues* in knowledge formation, and here is your one-sidedness: there are complex political issues to be addressed before you dismiss epistemological concerns as useless, as you did in your second and third points above'. I find little to offer in my defense here, except maybe that I have dealt with ideology, *idées reçues* and their effects on the formation of archaeological knowledge in one too many papers published since the 1990s (most recently, in Fotiadis 2015a). Now, concerns with matters ideological are, to my mind, concerns of the epistemological sort; but they also are contiguous with concerns about ethics and morality, about right and wrong, and I have neglected those issues too. Clearly, the reformed version of empiricism I articulated above does not by itself guarantee that archeological practice will be good, ethical or politically progressive (see also Lucas 2015, esp. 181). It will have to be supplemented by concerns of the epistemological sort, in the broadened sense I just gave to such concerns.

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