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Anticipated futures? Knowing the heritage of drift matter

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ABSTRACT

What might heritage in and of the Anthropocene look like? This article ponders this question by drawing on archaeological encounters with assemblages of drift matter (seaborne debris) in Norway and Iceland. Here, drift matter manifests evidence of both the relentlessly amassing material heritage of the Anthropocene and deep legacies of local engagement with this fluctuating resource. The tensions evoked along these coastlines therefore invite explorations of some of the challenges met in the current climate, problematizing conceptions of heritage and waste, wanted and unwanted, salvation and loss. Surely, drift matter is today largely perceived as not belonging in these natural environs. However, are there other thing lessons to be learned from taking seriously this heritage? Avoiding an interpretation of these things as out of context and a focus merely on what has been lost, this article asks whether it is possible that the sense of ambiguity, flux and drift emitted by this material may not only challenge but also enable alternative possibilities of knowing things – alternatives that may be of significance for a heritage in and of the Anthropocene.

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Prologue

On all these shores there are echoes of past and future; of the flow of time, obliterating yet containing all that has gone before; ... of the stream of life, flowing as inexorably as any ocean current, from past to unknown future
(Rachel Carson, 2015 [1955], 225)

Drift. As explained in dictionary verses drift is movement, constant and gradual, from one place to another. The deviation of an object from an anticipated and proposed course; a drive or development from one stage to another, and which is seen rather as unwanted.

Drift matter. Here, drift matter designates seaborne debris. Wood, plastic, seaweed and more, that travels with waters and washes on shores. Things from afar, vagabonds, braking on land and gathering in wavelike ridges in coves and inlets.

Drifter. While here referring to seaborne debris, *drift matter* may also be thought as a generic term; as denoting that phase where things exceed their forecasts. Things abandoned, lost, released and thrown away, that proceed via new conduites with their own lives, relations and doings – as *drifters*.

Introduction

This article was originally composed for the *Anticipation* conference held in London in 2017, and the session titled *Anticipating Loss: Towards a Heritage of Absence, Incompletion and Extinction*. The aim of the session was to explore various responses to a notion of future loss in the context of a changing climate and the destabilisation of ecological, political and economic orders. However, while loss and extinction constitute central leitmotifs of current environmental discourses, the Anthropocene (and the current climate) is in essence more complex and even controversial. This ‘age of man’ both centralises and decentralises human being, agency, and stewardship, and though extinction and loss do constitute central concerns the relentless accumulation of materials, waste and stuff in our environment is no less of a worry. Drawing on this tension this article discusses the heritage of drift matter, or seaborne debris, to consider how this material may suggest different ways of nearing and knowing things (as heritage) in the Anthropocene.

Drift matter in the geographical context here considered (the northern coasts of Norway and Iceland) makes manifest both the rather recent apprehension of a relentlessly amassing heritage of the Anthropocene – ‘the human footprint’ – and a long tradition of local engagement with materials washing ashore (see figures 1-6). The tensions evoked along these coastlines therefore invite interesting explorations of some of the challenges presented by the current environmental and theoretical climate. Not just in terms of problematizing our conceptions of heritage and waste, wanteds and unwanteds, or between salvation and loss, but also, and by resisting such classifications, this material can be said to afford certain thing-lessons and to confound ‘what we mean by knowing’ things (Bhangu et al. 2014; see also Hird 2012). That is, this matter forces a consideration of how we name things, define them and assimilate them to the domain of the familiar.

Questions of how the changes associated with Anthropocene affect heritage, physically and conceptually, have already been posed by several scholars (e.g. Solli et al. 2011; Harrison 2015; Olsen and Pétursdóttir 2016; Pétursdóttir 2017, and other contributions to this issue), suggesting,



Figure 1. Drift matter in Finnafjörður, east of Langanes, Iceland. Copyright: Þóra Pétursdóttir.



Figure 2. Pole photo of drift matter in Sværholt, Norway. Copyright: Þóra Pétursdóttir.



Figure 3. Harvested material, Omgang, Norway. Copyright: Þóra Pétursdóttir.



Figure 4. Beach harvesting, Melrakkaslétta, Iceland. Copyright: Þóra Pétursdóttir.



Figure 5. Beach cleaning, Finnfjörður, Iceland. Copyright: Þóra Pétursdóttir.

for example, that this new era may ‘foreground issues of sustainability and the role of “cultural” heritage conservation as part of a broader environmental agenda’ (Harrison 2015, 31), and provide ‘an appropriate banner under which to reconsider the prospects for heritage within an



Figure 6. Stacks of driftwood and sawing debris, Melrakkaslétta, Iceland. Copyright: Þóra Pétursdóttir.

expanded natural/cultural field of practice’ (Harrison 2015, 33). Troubled by anticipation of change, loss and extinction, there is also a conspicuous tendency in current thinking to emphasize heritage as a kind of ‘futurology’ (Harrison 2015, 35), a ‘futuristic activity’ that concerns the future as much as the past (Holtorf and Högberg 2015). Building on this work, this article considers what may be learned from concern for drift matter in this respect. That is, not merely from concern for how this material constitutes a threat to valued environments and fellow beings, but considering what it implies to take this material seriously, also as an example of heritage (of the Anthropocene) (Olsen and Pétursdóttir 2016). How do we grasp these things? And in what way does their drift challenge our knowing and notion of things more generally?

The article draws on archaeological encounters with assemblages of drift matter along the northern verge of Norway and Iceland. Along these coasts, waves and ridges of things and debris relentlessly wash in, build up and dissolve with tides and storms, forming fleeting coincidental mosaics of patterns and contacts. Driven about, inundated and revealed again, things are worn by sand and crushed by pebbles, becoming with every tide more bleached and brittle, but insistent still. Brought in from places near and far, they may appear unfamiliar, internally unrelated and at odds with the ideally pristine shores they have found. And yet, they blend in and merge so meticulously, carefully weaving into strange but firm conglomerates, familiar and unfamiliar at the same time. Seaweed, light bulbs, driftwood, fish boxes, pebbles, toothbrushes, buoys, dead birds and toy cars. Grains of Styrofoam, pumice, whalebone, polished glass, nylon threads, rope, shell sand, crab claws, car tires, and Christmas trees. And tethering stuff together is a mass of wreckage: netting, pebbles, sand, dust and fragments of various material, size and colour, unrecognisable as anything particular.

The initial connotation emerging from encounter with such masses may very well be one of utter and anticipated loss. Loss of path and origin, of function, form and meaning, of place, purity and ecological integrity. Loss of a future wanted and planned for. Things are seen as out of place, control, and context – as mistakes, intruders and pollutants overriding the trajectories and destinations defined and anticipated for them. The only viable approach to such unruly masses,

therefore, may appear to be curative; an approach that reverses the mess, reorders, and returns things to origins, functions, meanings and leaking sources. An approach that *cleans up* and *makes sense*. While reasonable and legitimate, however, this form of retrospective logic, which also underpins much environmental and heritage discourse, inevitably ignores certain central characteristics of the material (Pétursdóttir 2017). It will view things merely in light of past functions, of former names, of contexts where they once belonged, and in association only with whom they were anticipated to serve. Their apparent renunciation of this past, their drift and literally post-human presence on the beach is, in other words, seen as an *anomaly* – a non-being. Not merely unanticipated, but unnatural, meaningless and inauthentic.

One may argue that this dominant perception holds this material within a frame of consensus. There appears to be, as argued by Erik Swyngedouw for environmental issues more generally, ‘no contestation over the givens of the situation ... ; there is only debate over the technologies of management, the timing of their implementation, the arrangements of policing ...’ (Swyngedouw 2013, 6). There is, in other words, no care for what this material *is* or concern for what it has *become*. Its drift and accumulation is recognized neither as truthful or important (albeit terrifying), nor as something to be acknowledged in order to render the material knowable, but is instead reduced to a fault and consequence (cf. Hornborg 2017) of *our* failed policing.

This attitude may be claimed to be descriptive of how we think about things, their meaning and significance more generally, not least within heritage and archaeology where a culture-historical past is mostly constitutive of and even conflated with the whole repertoire of things’ meaningful being. Their trajectories and drift beyond such formative pasts are less cared for, while their yet unknown future is depicted mostly as endangered and fragile – which realization accordingly is reduced to a matter of management and conservation. While indisputably representing a genuine care for things, their well-being and future, this attitude seems underpinned also by a certain disbelief in and hopelessness for the prospects of things – the *future* of things – as well as a disregard for the wealth of stories their endurance and drift is (and will be) able to afford.

While acknowledging the urgent need to better manage and police things, waste, and pollutants in order to contribute to more viable futures for us and others, this article aims to explore a different, though no less future-oriented, quest. Thinking through archaeological engagement with drift matter, and attitudes to things reflected in traditions of beach harvesting and cleansing, the article poses the simple question: what are these things? What is this material assembled on this beach? Refraining from resort to obvious answers, the article ponders what may be learned from seriously considering the being and nature of such drifting things, as well as the traditions they have long nurtured. How does drift matter lend itself to our knowing? Letting go of an understanding that epistemic liability is found only in reverse, the article suggests a more future-oriented perspective, where the nature and prospects of drifting take the place of tracing and origin. That is, averting focus away from what has been lost, in terms of names and origins, the article asks whether it is possible that the sense of ambiguity, flux and drift emitted by this material may not only challenge, but just as well enable, possibilities of nearing and knowing these things? Moreover, is it possible that such blurred qualities – eminent also to the current climate – should be of concern to and even commissioned within a critical and ‘futuristic’ heritage in and of the Anthropocene?

Thinking the anthropocene with things

Heritage, in part, concerns a care for the stories vested in things and our tangible legacy. With reference to their biographies, diasporas and fate, things become mobilised in the accounts and the cultural histories of our pasts, of periods and places, people and events, change and continuity. However, more than stories *of* and biographies *of*, objects also afford stories *with*. As with what Donna Haraway (2016) refers to as ‘string figures’ or ‘wayfarers’, things like drift matter – things that have been around and endured – can invite and entwine you in the making of stories, in what

she names ‘speculative fabulation’ or ‘science fiction’ or simply ‘SF’. Attentiveness to such things or wayfarers can invite us, she explains, to drift and think along their paths, to gain other perspectives and construct critical stories not only of what has been but also of the possible and anticipated. This is of concern, she moreover contends, because we are living in ‘times of urgencies that need stories’ and in that context ‘it matters which stories tell stories as a practice of caring and thinking’ (Haraway 2016, 37). Or, in other words, with reference to Strathern (1992, 10), ‘it matters what ideas one uses to think other ideas (with) [sic]’. Because, how are we to think about Anthropocene and its challenges? How can we understand it and respond to it in a way that is both critical and engaging? How, in other words, do we tell that story, and what means can we employ in that endeavour? These are urgent questions, also for a critical and future-oriented heritage of a changing climate.

It has been widely discussed how the Anthropocene affects heritage and how heritage as a research field should respond to its challenges. In a somewhat generalized form, these discussions may be said to align along two main paths. Most responses, seem to be funnelled through tropes of risk assessment and preventive policies, mainly considering how to minimize negative impacts and how to secure and salvage an increasingly threatened heritage (e.g. Kaslegard 2011; Perry and Falzon 2014; Speer et al. 2017). Other responses rather consider how environmental unrest also unsettles understandings of heritage and even urges a profound rethinking of the ontology grounding it (e.g. Solli et al. 2011; Robin et al. 2014; Fredengren 2015; Harrison 2015; Olsen and Pétursdóttir 2016; Dawney, Harris, and Sørensen 2017). Here, an important trope is how the current climate unsettles rigid Cartesian oppositions, where the distinction between Nature and Culture is the most pronounced. This, and the need to consider object agency as a significant factor in the constitution and experience of heritage, is of great significance. At the same time, I believe such ontological rethinking needs to be accompanied also with alternative epistemologies. If heritage, as has been argued, is not so much about the past as about the present and the future, a project of assembling futures (e.g. Harrison 2015; Holtorf and Högberg 2015) – an argument I find rather plausible – how does this affect the stories told? Or the notion of heritage objects as epistemic figures of the future, so to speak?

As suggested by Jamie Lorimer (2017) the Anthropocene may indeed require an alternative to the retrospective chronologies traditional to the geo- and historical sciences. Or, in Haraway’s blatant words, ‘the need to change the story, to learn somehow to narrate – to think – outside the prick tale of Humans in History ...’ (Haraway 2016, 40). A speculative and futuristic approach that allows thinking beyond the culture-historical model as well as ‘the type of technical, “solutions-oriented” and “deficit-model” forms of knowledge practice that are to be found in some high profile responses to the challenges of the Anthropocene’ (Lorimer 2017, 133). Both Lorimer (2017) and Haraway (2016) draw on Anna Tsing’s mushroom-tales as an example of such alternative forms of knowledge production. In her tellingly titled book *The mushroom at the end of the world: on the possibility of life in capitalist ruins*, Tsing (2015) follows the ‘string figure’ of the matsutake mushroom to tell a story, a science fiction perhaps, about the possibilities of coexistence and collaborative survival of nonhumans and humans in a world of environmental disturbance and contamination. As explained by Haraway, Tsing’s story ‘is not a longing for salvation or some other sort of optimistic politics; neither is it a cynical quietism in the face of the depth of the trouble. Rather, Tsing proposes a commitment to living and dying with response-ability in unexpected company. Such living and dying have the best chance of cultivating conditions for ongoingness’ (Haraway 2016, 37–38).

What is significant about Tsing’s story, in other words, and Science Fiction and a speculative futuristic approach generally, is that it is hopeful in its critique. It is prospective rather than retrospective and defines the future not merely with reference to the past, or in terms of vulnerability and loss, but also in terms of possibilities of survival and becoming. And considering how the Anthropocene is made manifest not least through the relentless accretion of things and substances, of an unruly heritage that endures and outlives, I see it as extremely important for

a critical heritage (of the future) to further explore such prospective forms of knowledge and knowledge production. Because, and as I will discuss further by following the strings and spores of drift matter, I am not convinced that the unruly heritage of Anthropocene lends itself adequately to a retrospective or culture-historical approach and genre.

Drift matter

In the common story told, drift matter, marine debris, is a waste-problem, a material not belonging where it is found. It is defined as ‘any persistent, manufactured or processed solid material *discarded, disposed of or abandoned* in the marine and coastal environment’ (UNEP 2009, emphasis added; see also Coe and Rogers 1997, xxxi). It is a *problem* found all over the world, adrift in coastal and open waters, in lower levels of the pelagic zone, on the ocean floor, and gathering on beaches, from where it may travel further in or off land. The routs and origins of the material are various, though its designation as waste and pollution appears unanimous. However, because of its nomadic or *drifting* nature, things may spend a long time at sea, travel long distances from ‘deposition’ to shore(s) (Galgani, Hanke, and Maes 2015; Thompson 2015) and notions like source, origin and causality may appear rather abstruse, or even redundant in this context.

The material’s composition also varies, though plastics make up a considerable, and growing part of the anthropogenic debris currently abounding in marine environments. Synthetic polymers of various kind have been seen to account for up to 95% of locally documented debris (Galgani, Hanke, and Maes 2015, 30), whereof the bulk may be constituted of microscale particles (Eriksen et al. 2014), a ‘plastic smog’ coalescing in ‘natural’ environs. A conspicuous expression of this is the infiltration of plastic particles into faunal food chains, including our own (Galloway 2015; Lusher 2015), and the material’s sedimentation and fusion into plastiglomerates colouring futuristic coastal geologies (Corcoran, Moore, and Jazvac 2014; Zalasiewicz et al. 2016). This, and the materials tight entanglement and association with non-human phenomena – the gravity of sun and moon, currents, winds, UV-rays, driftwood, kelp, seagulls, salt – renders its solely anthropogenic origin somewhat inadequate and its *un-natural* being rather drifting, or incompatible with what it has become.

The coastlines of Melrakkaslétta and Langanes in northeast Iceland and Omgangslandet on Nordkynhalvøya in northernmost Norway are extremely rich in drift matter (Figures 1-3). Here scatters and ragged ridges of driftwood, plastic, and other material line the beaches of coves and inlets, constantly building up and shifting. Though sparsely- or unpopulated, marine debris, has been shown to be no less a growing problem in the Arctic and Sub-Arctic. Research has revealed how materials travel and circulate with dominating ocean currents, how particles even freeze into and travel with drift ice to eventually be released from it again, and how this is affecting fauna and flora (e.g. Lusher et al. 2015; Bergmann et al. 2017; Bråte et al. 2017; Halsband et al. 2018). Importantly, however, drift matter is far from being a new phenomenon on these northern shores (anymore than it is in other parts of the world). Up until recently, and even partly still, drift matter was here a much-valued resource (Kristjánsson 1980). In barren coastlands, driftwood was an important source of wood, and as such even considered a *natural* resource on par with meadows and peat bogs, salmon rivers and bird colonies. A fluctuating but expected part of the environment, which today is recalled in myriads of place names dotted along the coastlines of these regions; e.g. Rekvika, Rekavík, Keflavík, Viðvík.¹

Drift matter, driftwood, drift whale and other drift material, was so important, so valuable, that the earliest Icelandic law codes devoted special sections to this resource alone, and the rights and regulations surrounding it (Jónsbók 2004; see also Kristjánsson 1980). Unlike that of currently dominating discourses the vocabulary of these early decrees did not include such designations as ‘waste’ and ‘pollution’. In fact, in Norse mythology, the first of humans Embla and Askur, were created from driftwood found on the beach. Drift matter, thus, was in fact the matter of creation and becoming – a matter of the future – rather than of loss and devastation.

Much has changed in recent times, of course, and while viks, coves and inlets still live up to their old names attitudes to materials accumulating on their shores have changed drastically. Not only has driftwood become a mostly superfluous resource but also the composition of the stuff drifting ashore is radically different. And though wood is still a large proportion, other materials and other colours have increasingly come to tint beach assemblages, as well as our perspectives of them. Drift matter is today seen mostly as an anomaly in the coastal environ: unnatural, inauthentic and inept.

Nevertheless, a watchful eye may also notice along the coastlines of Melrakkaslétta, Langanes and Omgangslandet, phenomena recalling a very different attitude and perspective. Lined up like haystacks above the shorelines, sometimes partly collapsed and overgrown, are piles of material harvested from the beaches in previous years and decades (see Figures 3, 4 and 6). Wood and fish boxes, rope, plastics, metals and buoys. All carefully stacked and secured from storms and waters and sometimes sorted by kind, material and size. The wood, in particular, is prudently arranged in special ways, sometimes slightly elevated from the ground, with enough breathing space between each piece to allow the material to dry and possibly loose some of the salt it has devoured on its journeys. Some of the piles are sorted by size and even anticipated use, recalling a future in fence-posts, firewood and building material. In some places, a preliminary preparation of the material has also taken place, witnessed by weathered and grey wooden sawing benches surrounded by a thick and partly overgrown spread of debris.

Some of these hoards appear ancient, while other may have been harvested fairly recently. All of them, however, evoke a sense of future prospect – a museum collection rather of the future than the past. Carefully brought together, stacked and secured, and now ragged, overgrown and partly collapsed, they all seem to be patiently *waiting*. Like the journeys of the individual things themselves, their presence and gathering does not draw on past identities and functions but is rather directed ahead – into a future, or an unknown, yet not become present. And like the vocabulary that developed around this harvesting culture, where *waste* is not a due designation, the meticulous gathering and patient waiting of these things emanates a sense of humble anticipation. As if it is not yet known exactly *what they are* or where they come from, but rather that they may at some point reveal another side of their being; a not yet eyed potential.

Importantly, these speculations should not be seen as refining the phenomenon or saying that drift matter is not a serious problem, polluting coastlines and causing harm for us and others. It is rather to suggest that being attentive to the material, thinking with the archaeology and heritage of beach harvesting and the deep legacy of drift matter as resource, may invite alternative ways of *knowing* and making sense of the material, also as the serious problem it has become. While a retrospective approach underpinned by notions of loss and out-of-placeness may direct some of the stories told about this material, listening in on its quivering presence on the beach may inform other and no less significant lessons and tales.

Seeing things, naming things

Having witnessed and participated in beach clean-up missions I find it interesting how strikingly different they appear to be from the historic beach harvesting in this region. Driven by untiring enthusiasts which concern is the well-being of nature, clean-up programs see drift matter exclusively as waste, pollution and, importantly, as out-of-place and not belonging where it is found. Its gathering, thus, is conducted without much concern for the prospects of the material. In fact, simply comparing the piles of a beach clean-up expedition to that of a stockpile of harvested drift matter already tells that story (see Figures 3, 4 and 5). Unlike such carefully piled caches, things are here *cleared away*, thrown together with the confidence that what they are is irrelevant to their shared environmental givens as intruders and threats. They are wasted, lost and in themselves meaningless and empty – and thus deprived of any needed concern for what they may become beyond these givens. It is a gathering without hope. A clearing away.

Without disparaging this effort, I believe that a critical approach to this problem may need a rethinking of visions beyond clean-up programs and ‘solutions-oriented’ policing practices (cf. Lorimer 2017, 133; see also Swyngedouw 2013). One such rethinking is hinted at in the hoards of harvesters along the coasts of Melrakkaslétta, Langanes and Omgangslanget; the need to see things rather as prospects than givens, as *survivors* (even though fragile) that will exceed our momentary ideas of them. Sleeping giants (Harman 2016), monsters (Law 1991; Latour 2012) or *drifters*, which becoming otherness and agency needs to be accounted and cared for. And moreover, that *knowing* such things, like drift matter, must essentially imply acknowledging this excess; their always already dormant being out-of-hand (Pétursdóttir 2014), their drift and potential becoming other.

Archaeology and heritage studies are indeed used to dealing with such strange things. Ancient things that have drifted, weathered, transformed, crumbled, and yet endured. Things that may withhold much of their being, and which we may not always recognize or address directly by name, but which we nevertheless care for and invest in. However, most archaeological material still belongs to culturally specific and retraceable contexts, and the definition and value of the archaeological record and heritage more or less rests on such belonging; a geographically defined location, a certain cultural group, a specific settlement, structure, household, typology, a chronologically identifiable time, social dynamics, human intentions, and so on. In other words, distant yet traceable pasts, events, and intentions that render things intelligible – and their ambiguity and flux inconsequential and soluble.

In contrast to this, the drift matter of concern here washes in from a spatio-temporal distance. If it ever answered to such culturally definite designations as *waste*, which most associate this material with, these tumbled vagabonds are above all drifting, literally and conceptually. Far removed from ownership, belonging, function and use, these things are in essence neither from *here* nor representing a specific previous *elsewhere*. For this reason, their being comes close to a non-being, a mistake, something that ideally should not have become. However, walking these beaches, antagonized by the immensely heterogeneous presence and accretion of drift matter, the deep legacy of which is also recalled in the heritage of harvested caches, it becomes tempting to ask whether there are other ways of knowing these drifters? Other ways of approaching them, telling their stories and inquiring into what they *are* and have *become*.

Surely, many of these things are familiar. Some of them to the degree that one can tell them by name and brands; light bulbs and tooth brushes, footballs and fish boxes, sandals and shoes, toys and tin cans. Some of them reveal their origin also through signs and markings. Many of them could thus be traced back to places of production, previous functions, human relations, and possibly even sources of deposition. Nevertheless, even though familiar and Heimlich in that sense – indeed, because of their familiarity – when so far removed from their assumed ménage, these well-known things appear utterly Unheimlich, uncanny, and unknown (cf. Freud [1919] 1964). Thus, knowing them it seems, is not grasped by the semantics of naming, ‘light bulbs’ and ‘tooth brushes’. They have long outlived those past baptisms, aged, travelled and gathered in ways not foreseen in such labels.

The encounter with these things is strange, therefore, not least because of how their familiarity does not recall a known and familiar past but rather an utterly unexpected and unfamiliar *future*. Blasted out of their own-projected history (cf. Benjamin 2002, 261), out of any context, category and function prescribed for them, they appear to reside in a future not foreseen. They manifest the possibility of the impossible, so to speak. Their familiarity is strange while their strangeness is familiar (Morton 2012b, 277). Again, when neither from *here* nor representing a familiar *elsewhere* trying to make them known by retrospective means of recognition, origin, and causality, is in fact to ignore what they have become: *drifters*.

Afterlives or futures? prospects for a futuristic heritage

‘The desire to reduce uncertainty blocks environmentality’
(Timothy Morton 2012a, 100)

As already mentioned a prominent concern among many heritage scholars in the current climate is to understand heritage as a futuristic rather than past-oriented practice (e.g. Ost 2001; Solli et al. 2011; Holtorf and Fairclough 2013; Holtorf and Högberg 2014, 2015; Harrison 2013a, 2015; Harrison et al. 2016). In a sense this may always have been its undertone, as suggested by Holtorf and Högberg: ‘Heritage management is a futuristic activity because to a large extent it is motivated by the present-day desire to preserve the remains of the past for the benefit of future generations. This makes the heritage sector a future-targeting type of business’ (Holtorf and Högberg 2015, 510–511). Rodney Harrison also emphasises this in his delineation for a heritage in the age of Anthropocene, stating that one of the premises for alternative and more dialogical heritage ontologies, is to ‘recognize that “heritage” has very little to do with the past but actually involves practices which are fundamentally concerned with assembling and designing the future’ (Harrison 2015, 35). That is, a conglomeration of practices, domains, institutions, which in the prospect of endangerment and loss, and out of hope for more sustainable futures, engage in acts of ‘heritage-making’. Thus, as Harrison states, ‘We could almost say that the “new heritage” has nothing to do with the past at all, but that it is actually a form of “futurology”’ (Harrison 2015, 35)

Given this emphasis on future genealogies, it is interesting, though possibly not surprising, that Holtorf and Högberg’s (2015) scrutinizing of the notion of future in the heritage sector revealed that *the future* as such is rarely a matter of explicit discussion or debate. As they claim, ‘even though heritage management is pro-actively preserving heritage for future generations ... neither contemporary policies nor theories of heritage have given much attention to specifying or problematizing the future heritage management is about and, indeed, for’ (Holtorf and Högberg 2015, 519). Rather the future is incorporated as a more or less common sense ‘thought style’ and reproduced in utterings concerning our responsibilities as ancestors, the well-being of future generations, and hence the conservation ethos of *preserving for the future*. What the future is or implies for heritage is, in other words, rather unclear, which drives Holtorf and Högberg to suggest that action is needed; ‘Both national and international policy of heritage should make the futures they work for explicit’ (Holtorf and Högberg 2015, 519), and ‘We need to know more about how heritage contributes to shaping people’s future consciousness and how existing future consciousness, in turn, contributes to how people perceive heritage’ (Holtorf and Högberg 2015, 520). While this latter point is indeed important, it is doubtful that it can ever or should even strive to be about making futures *explicit*. I see that neither as doable nor as particularly helpful, a point I will return to.

Moreover, as they also point out, the conservation ethos underpinning the future perspective of heritage management mostly involves either ‘preservation in situ’ or ‘preservation by record’ (Holtorf and Högberg 2015, 510–511) – a paradigm which, I argue, is essentially rather *retrospective* and *sedentary* than open for potential change and drift. Surely, what we prefer to see as heritage can be redefined and rewritten at regular intervals (Holtorf and Högberg 2015, 515), and the unwanted even pruned to make room for the alternative (Harrison 2013b). However, it does not matter whether preservation is planned for futures 50, 100 or 500 years ahead, it will remain retrospective and determinate as long as it is underpinned by a traditional sense of conservation ethos, where objects of heritage are seen as the compliant subjects of stewardship, management and control – and the future, in turn, is seen as a matter of design(ation). Rather, for heritage to live up to such designations as ‘futurology’ and ‘future-targeting type of business’ this tradition would need to be exchanged for/supplemented with an emphasis on indeterminacy, impending change, nomadism and *drift* – also when it comes to naming and knowing things.

Indeed, resonating with an interdisciplinary material turn things' agency, autonomy and afterlives have lately been prominent issues of concern within the humanities and social sciences. There is a plea for an understanding of things that variously sees them as actants (Latour 2005), as withdrawn (Harman 2016) and alien (Bogost 2012), or as hyperobjects (Morton 2013); that is, as beings that exceed any human-centred measure. But what does it really imply to acknowledge the agency and 'afterlife' of resilient things? Things that outlive their human creators and companions, drift and spill over. How are such things rendered intelligible, beyond reduction? And, with reference to drift matter specifically, how can one react responsibly to such things?

Drift, drifting, drifter are concepts and phenomena often charged with negative or distrustful connotations. In Old Norse drift ('drif', 'drífa') refers to snow or other substances drifting, blowing about and gathering in waves and swells; a haze or obscuring mist that may lead to loss of direction and sense of place. Indeed, as a process and performance drifting also implies a passive and listless movement, an aimless wandering and driving astray; a loosing of path and meaningful course. The drifter, tramp, ranger, vagabond, is seen as unpredictable and vague. A stranger of indefinite terrain that is difficult to either locate or relate to place, origin and destination. Like the waves and swells of drifting snow, the drifter is boundless. He/she cannot be bordered or grasped in any determinate way without divorcing him/her from what he/she is. Drift and drifting, therefore, is difficult to manage, which makes it appear deviant, arbitrary and distrustful; a reckless and inherently suspicious behaviour in a world that subjects and objects should ideally inhabit in a predictable and calculable manner (cf. Malkki 1992; Carney and Miller 2009). A kind of non-being.

In a sense, this kind of driving astray is also what heritage management guards against. As discussed by Staffan Appelgren (2014) in relation to modern nomadism and Roma, such cultures of drift are not easily incorporated into the predominantly sedentary and territorialized tropes of heritage notions and management. In the hegemonic regime, he argues, heritage is a about stability where, 'Visible and visitable territorialized material heritage is engaged to stabilize the past, to stabilize places, and to stabilize communities' (Appelgren 2014, 249). Moreover, warding against change, deterioration, and loss, heritage management is also about stabilizing the future, or envisioning the future as something stable. 'In this way heritage is binding: it forms distinct objects and subjects, enrolling them into solid constellations, through stable linkages' (Appelgren 2014, 249). A similar politics of recognition and stability also underpin the way things become meaningful and valuable in this context, mostly through defined names, functions and human/cultural associations. As explained by Walter Benjamin, with reference to Marx, 'in the modern world an object is of value only when it exists as capital for us, or when we *use* it. Our physical and intellectual senses have been replaced by a simple alienation of all these senses, "the sense of having"' (Benjamin 1999, 209). Thus, one might argue that we have to a considerable degree lost the anticipation or hope for things' becoming. Not only have we become, as Marx contended, mostly alienated from the processes of production but, and far less recognized, we have also become estranged from the *future* of things, things out-of-hand, beyond our service. We accept them mostly as givens, as things-for-us, while redundant and superfluous things like drift matter, which unanimously designates waste, pollution and intrusion, are rendered more or less inauthentic, awaiting either *clarification* or a *clearing away*. Indeed, the way we often refer to the 'afterlife' of things is telling of this. Speaking of their afterlife makes us central in their being and becoming. We are the authors and axis of their lives. However, considering the durability, longevity, of drift matter on the beach, of plastic bags and bottles that have travelled long distances and been to places we have never heard of, an alternative truth may rather be that we only incidentally cross paths with them – that we happen to them rather than the other way around.

Keeping this in mind, one may ask to what extent the otherness, strangeness and unfamiliarity of drift matter is something awaiting explanation and identification, or whether it is actually something that needs to be acknowledged and retained in order to render the material knowable? Not merely as an epistemic drive that triggers curiosity, but as the very means of knowing

something significant about something significantly elusive (cf. Sørensen 2016) – something essentially *futuristic*. Like in Heraclitus' tale of crossing the river. According to him one cannot step into or cross the same river twice. That is, because everything is in constant flux neither the river nor we will remain the same. But he also said that it is through change and flux that the river remains; 'Changing, it rests' (Robinson 1987), he said. As such, one may also claim that the only way of knowing the river, to render it familiar and be able to cross it safely, is by retaining rather than reducing its elusiveness and drift and learning to trust its autonomy from our grasp. In other words, that knowledge of the river will have to be afforded by not knowing it, so to speak – by acknowledging and accounting for its perpetual change and drift.

If drift matter, with nuclear waste and other futuristic and unruly 'hyperobjects' (Morton 2013), is telling of heritage in the Anthropocene then it also appears pertinent that this requires, as claimed by Lorimer (2017), an alternative to the retrospective chronologies traditional to the geo- and historical sciences. While these have been based on and rendered customary a notion of time as sequential and the past as something left behind, what is different (or rather made explicit) in the Anthropocene is its conspicuous indeterminacy and unfolding nature. Hence, while humans have become accustomed to seeing themselves as coherers and observers of the earth and the past as orderly and unified bodies, the Anthropocene does not amply commit to that trope (Szerszynski 2017, 126). Through drift matter and other stubborn materials, things that outlive us and move on in ways that break with our anticipations, the Anthropocene rather makes manifest a past that is *potential more than actual, becoming more than ended*.

As much as we like to take on the role of coherers of pasts and futures things like drift matter will – if we are willing to cultivate an appetite for their unruliness – remind us that they don't submit to that agenda; that they 'don't just add up but take on a life of their own' as Kathleen Stewart points out, also as 'problems of thought' (Stewart 2008, 72). Thus, in order to render such drifters knowable, also as the environmental problems they have become, one cannot rely on a restorative approach alone, because referring to *loss* in this context does not explain their becoming – and even ignores it. Rather, what is needed is to see their drift as truthful and their becoming not as *misfortune* (reduced to our mistakes or unsuccessful design) but as a full-blown and always dormant and potential form of their being.

Discussing the challenges of understanding, or *knowing*, waste in landfills Mira Hird (2012) points out that the problem with this phenomenon, and which we mostly fail to acknowledge, is that its containment and control is forever temporal. As she explains:

The indeterminacy – the heterogeneous, unique mix of each landfill material intra-acting with seasons, weather, precipitation, the varying angles of the sun's rays bombarding landfill material and so on – means the management of waste ultimately fails. Fails to be contained, fails to be predictable, fails to be calculable, fails to be a technological problem (that can be eliminated), fails to be determinate. (Hird 2012, 465)

While her focus is on the category of waste specifically, I would argue that the same fortune could be claimed to hold for things, material culture and heritage, generally. As stated by Karen Barad, matter 'is always already radically open' (Barad 2012, 16), and for that reason, that is, 'when the conditions of im/possibilities and lived indeterminacies *are integral*, not supplementary, *to what matter is*' (Barad 2012, 16, emphasis added), closure and finitude can never be obtained. This is the 'trouble' I believe Donna Haraway (2016) is hinting at in the title of her book, and the trouble we need to acknowledge and stay with, in order to grasp phenomena like drift matter (and even things more generally). Things don't simply add up.

Knowing has mostly been seen as a process of enlightening the unknown and, thus, step by step 'bracketing out or minusing indeterminacy' (Hird 2012, 463). This understanding also underpins the technological rationality directing much of environmental discourse where the ambiguity and liveliness of waste becomes circumscribed and *managed* through a stewardship approach 'framed largely in terms of technological innovation, jurisdictions and diversion practices produced through education, surveillance, sanction and censure' (Hird 2012, 463). An

approach not alien to the stewardship practiced in the heritage sphere, and which in many instances becomes accentuated in discussions about how heritage should respond to challenges of the Anthropocene. However, and following Timothy Morton, I would suggest that the urge to eliminate uncertainty may rather serve to block ‘environmentality’ and environmental concern (Morton 2012a, 100). Things, the environment is not ours to master, design and steward and recalling Haraway’s claim, the stories needed in the current climate may not be the ones that centralize ourselves as stewards of pasts and futures, or those that see drift matter as lost and out of context, but rather the ones that *stay with trouble* (Haraway 2016) and become attuned to and by the rhythms and trajectories of such matter. Importantly, their *raison d’être* may neither be to evaluate and re-contextualize things nor ‘to somehow get their representation “right”’ (Stewart 2008, 73), but rather, through shedding suspicion for trust and affinity, to explore ‘what potential modes of knowing, relating and attending to things are already somehow present in them as potential or resonance’ (Stewart 2008, 73).

Conclusion

As I hope to have shown, the drift matter engaged with here constitutes the very conduit through which my inquiry and discussion has unfolded, rather than representing a ‘case study’ as such. I have attempted to approach the material not with a restorative cognizance but rather, as suggested by Kathleen Stewart (2008), with an attentiveness to its ambiguity as a truthful ‘problem of thought’ in its own right, and which therefore lends itself as ‘a generative topic for social epistemological analysis’ (Hird 2012, 465) – or, a different way of knowing things. I also suggest that this alternative approach is of importance to a heritage project of the Anthropocene. For one, it may be argued that unruly and persistent phenomena like drift matter, nuclear waste, and space debris in orbit, have and will make up such a prominent part of our legacy that it becomes inevitable to consider them as forms of heritage, albeit unintended and ostensibly unwanted. Equally importantly, however, these things offer an empirical ground for rethinking not only the ontology of heritage and the merging of nature-cultures, but also the onto-epistemology (cf. Barad 2007) of a heritage of and for the future.

Arguing for drift and misfits as the grounds for alternative ways of knowing and reasoning may appear utterly irresponsible. However, to reduce drift simply to indications of a wanting stewardship and management is to arrogantly overlook the unforeseen gravity and capacities of these things, also as troublemakers. Turning to things, to the non-human, and taking seriously such terrifying *futuristic* phenomena as drift matter or nuclear waste, ‘does more than expand the universe of things *we* must take *account* of’ (Hird 2012, 464, emphasis added) and *manage*. Rather, what becomes enlightened on the beaches and in the carefully piled caches of harvested drift matter on Langanes, Melrakkaslétta and Omgangslánda, are the prospects (and indeterminacy) ingrained in things; their buoyancy that far exceeds our agendas, management and constricted ideas of use and function. This is the important story they convey. Whether in transit in the intertidal zone or patiently waiting in piled caches, these things are directed ahead of themselves. They have already outlived us, so to speak.

Note

1. The ending ‘vík’ in all cases means ‘vík’ or ‘cove’ whereas the former parts refer to drift matter; ‘Reka’ refers to ‘drift’ or ‘drift material’, while ‘Kefla’ and ‘Við’ refers to ‘wood’ and/or ‘logs’.

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References

- Appelgren, S. 2014. "Heritage, Territory and Nomadism—Theoretical Reflections." In *Vägskälens Kulturarv – Kulturarv Vid Vägskäl: Om at Skapa Plats För Romer Och Resande I Kulturarvet*, edited by I. M. Holmberg, 243–256. Göteborg: Makadam Förlag.
- Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
- Barad, K. 2012. "What Is the Measure of Nothingness? Infinity, Virtuality, Justice." *dOCUMENTA* 13: 4–17.
- Benjamin, W. 1999. *The Arcades Project*. Cambridge, MA: Belknap Press of Harvard University Press.
- Benjamin, W. 2002. *Selected Writings, Volume 3: 1935–1938*. Cambridge, MA: Belknap Press.
- Bergmann, M., I. Peeken, B. Beyer, T. Krumpfen, S. Primpke, M. B. Tekman, and G. Gerdt. 2017. "Vast Quantities of Microplastics in Arctic Sea Ice – A Prime Temporary Sink for Plastic Litter and A Medium for Transport." In *Fate and Impact of Microplastics in Marine Ecosystems. MICRO 2016*, edited by J. Baztan, B. Jorgensen, S. Pahl, R. C. Thompson, and J. P. Vanderlinden, 75–76. Amsterdam: Elsevier.
- Bhangu, S., A. Bisshop, S. Engelmann, G. Meulemans, H. Reinert, and Y. Thibault-Picazo. 2014. "Feeling/Following: Creative Experiments and Material Play." *Anthropocene Curriculum*. Accessed 03 May 2018. <https://www.anthropocene-curriculum.org/pages/root/campus-2014/disciplinarity/feeling-following-creative-experiments-and-material-play/>
- Bogost, I. 2012. *Alien Phenomenology: Or What It's like to Be a Thing*. Minneapolis: University of Minnesota Press.
- Bråte, I. L. N., B. Huwer, K. V. Thomas, D. P. Eidsvoll, C. Halsband, B. C. Almroth, and A. Lusher. 2017. *Micro- and Macro-Plastics in Marine Species from Nordic Waters*. TemaNord 2017. Copenhagen: Nordic Council of Ministers. 549.
- Carney, P., and V. Miller. 2009. "Vague Spaces." In *Strange Spaces: Explorations in Mediated Obscurity*, edited by A. Jansson and A. Lagerkvist, 33–56. Farnham: Ashgate Publications.
- Carson, R. [1955] 2015. *The Edge of the Sea*. London: Unicorn Press.
- Coe, J. M., and D. Rogers. 1997. *Marine Debris: Sources, Impacts and Solutions*. New York: Springer.
- Corcoran, P. L., C. J. Moore, and K. Jazvac. 2014. "An Anthropogenic Marker Horizon in the Future Rock Record." *GSA Today : A Publication of the Geological Society of America* 24 (6): 4–8. doi:10.1130/GSAT-G198A.1.
- Dawney, L. A., O. J. T. Harris, and T. F. Sørensen. 2017. "Future World: Anticipatory Archaeology, Materially-Affective Capacities and the Late Human Legacy." *Journal of Contemporary Archaeology* 4 (1): 107–129. doi:10.1558/jca.32497.
- Eriksen, M., L. C. M. Lebreton, H. S. Carson, M. Thiel, C. J. Moore, J. C. Borerro, F. Galgani, P. G. Ryan, and J. Reisser. 2014. "Plastic Pollution in the World's Oceans. More than 5 Trillion Plastic Pieces Weighing 250,000 Tons Afloat at Sea." *PloS One* 9 (12). doi:10.1371/journal.pone.0111913.

- Fredengren, C. 2015. "Nature:Cultures: Heritage, Sustainability and Feminist Posthumanism." *Current Swedish Archaeology* 23: 109–130.
- Freud, S. [1919] 1964. "The 'Uncanny'." In *The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume XVII (1917–1919): An Infantile Neurosis and Other Works* edited by James Strachey, 217–256. London: Hogarth Press.
- Galgani, F., G. Hanke, and T. Maes. 2015. "Global Distribution, Composition and Abundance of Marine Litter." In *Marine Anthropogenic Litter*, edited by M. Bergmann, L. Gutow, and M. Klages, 29–56. Heidelberg: Springer Open.
- Galloway, T. S. 2015. "Micro- and Nano-Plastics and Human Health." In *Marine Anthropogenic Litter*, edited by M. Bergmann, L. Gutow, and M. Klages, 343–366. Heidelberg: Springer Open.
- Halsband, C., G. Broström, Ø. Andersen, S. Bourgeon, P. Graczyk, B. E. Grøsvik, I. Hallanger, et al. 2018. "Plastic in the Arctic." *Framsentret. FRAM- High North Research Centre for Climate and the Environment*. Accessed 5 December 2018. http://www.ifram.no/getfile.php/4306766.2368.usumpmn7mswzb7/Plast+i+Arktis+vitenkapelig+plan+2018-2023_published.pdf
- Haraway, D. J. 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- Harman, G. 2016. *Immaterialism*. Cambridge: Polity Press.
- Harrison, R. 2013a. *Heritage: Critical Approaches*. Routledge: Abingdon and New York.
- Harrison, R. 2013b. "Forgetting to Remember, Remembering to Forget: Late Modern Heritage Practices, Sustainability and the 'Crisis' of Accumulation of the Past." *International Journal of Heritage Studies* 19 (6): 579–595. doi:10.1080/13527258.2012.678371.
- Harrison, R. 2015. "Beyond 'Natural' and 'Cultural' Heritage: Toward an Ontological Politics of Heritage in the Age of Anthropocene." *Heritage & Society* 8 (1): 24–42. doi:10.1179/2159032X15Z.00000000036.
- Harrison, R., N. Bartolini, C. DeSilvey, C. Holtorf, A. Lyons, S. Macdonald, S. May, J. Morgan, and S. Penrose. 2016. "Heritage Futures." *Archaeology International* 19: 68–72. doi:10.5334/ai.1912.
- Hird, M. 2012. "Knowing Waste: Towards an Inhuman Epistemology." *Social Epistemology* 26 (3–4): 453–469. doi:10.1080/02691728.2012.727195.
- Holtorf, C., and G. Fairclough. 2013. "The New Heritage and Re-Shapings of the Past." In *Reclaiming Archaeology*, edited by A. González-Ruibal, 197–210. London: Routledge.
- Holtorf, C., and A. Högberg. 2015. "Contemporary Heritage and the Future." In *The Palgrave Handbook of Contemporary Heritage Research*, edited by E. Waterton and S. Watson, 509–523. Hampshire: Palgrave Macmillan.
- Holtorf, C., and A. Högberg. 2014. "Communicating with Future Generations: What are the Benefits of Preserving for Future Generations? Nuclear Power and Beyond." *European Journal of Post-Classical Archaeologies* 4: 315–330.
- Hornborg, A. 2017. "Artifacts Have Consequences, Not Agency: Toward a Critical Theory of Global Environmental History." *European Journal of Social Theory* 20 (1): 95–110. doi:10.1177/1368431016640536.
- Jónsbók. 2004. *Lögbók Íslendinga Hver Samþykkt Var Á Alþingi Árið 1281 Og Endurnýjuð Um Miðja 14. Öld En Fyrst Prentuð Árið 1587*. Edited by M. Jónsson. Reykjavík: Háskólaútgáfan.
- Kaslegard, A. S., ed. 2011. *Climate Change and Cultural Heritage in the Nordic Countries*. Nordic Council: Copenhagen.
- Kristjánsson, L. 1980. *Íslenzkir Sjávarhættir I*. Reykjavík: Bókaútgáfa Menningarsjóðs.
- Latour, B. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Latour, B. 2012. "Love Your Monsters: Why We Must Care for Our Technologies as We Do Our Children." *The Breakthrough*, winter. Accessed 8 June 2013. <http://thebreakthrough.org/index.php/journal/past-issues/issue-2/love-your-monsters/>
- Law, J., ed. 1991. *The Sociology of Monsters: Essays on Power, Technology and Domination*. London: Routledge.
- Lorimer, J. 2017. "The Anthro-Scene: A Guide for the Perplexed." *Social Studies of Science* 47 (1): 117–142. doi:10.1177/0306312716671039.
- Lusher, A. 2015. "Microplastics in the Environment: Distribution, Interactions and Effects." In *Marine Anthropogenic Litter*, edited by M. Bergmann, L. Gutow, and M. Klages, 245–307. Heidelberg: Springer Open.
- Lusher, A. L., V. Tirelli, I. O'Connor, and R. Officer. 2015. "Microplastics in Arctic Polar Waters: The First Reported Values of Particles in Surface and Sub-Surface Samples." *Scientific Reports* 5: 14947. doi:10.1038/srep14947.
- Malkki, L. 1992. "National Geographic: The Rooting of People and the Territorialisation of National Identity among Scholars and Refugees." *Cultural Anthropology* 7 (1): 24–44. doi:10.1525/can.1992.7.1.02a00030.
- Morton, T. 2012a. "Mal-Functioning." *The Yearbook of Comparative Literature* 58: 95–114.
- Morton, T. 2012b. "Thinking Ecology: The Mesh, the Strange Stranger and the Beautiful Soul." *Collapse VI*: 195–223.

- Morton, T. 2013. *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press.
- Olsen, B., and Þ. Pétursdóttir. 2016. "Unruly Heritage: Tracing Legacies in the Anthropocene." *Arkaeologisk Forum* 35: 38–45.
- Ost, F. 2001. "The Heritage and Future Generations." In *Keys to the 21st Century*, edited by J. Bindé, 152–158. New York: Berghan.
- Perry, J., and C. Falzon. 2014. *Climate Change Adaptation for Natural World Heritage Sites: A Practical Guide*. Paris: UNES.
- Pétursdóttir, Þ. 2014. "Things-Out-Of-Hand: The Aesthetics of Abandonment." In *Ruin Memories: Materiality, Aesthetics and the Archaeology of the Recent Past*, edited by B. Olsen and Þ. Pétursdóttir, 335–364. London: Routledge.
- Pétursdóttir, Þ. 2017. "Climate Change? Archaeology and Anthropocene." *Archaeological Dialogues* 24 (2): 175–205. doi:10.1017/S1380203817000216.
- Robin, L., D. Avango, L. Keogh, N. Möllers, B. Scherer, and H. Trischler. 2014. "Three Galleries of the Anthropocene." *The Anthropocene Review* 1 (3): 207–224. doi:10.1177/2053019614550533.
- Robinson, T. M. 1987. *Heraclitus: Fragments*. Toronto: University of Toronto Press.
- Solli, B., M. Burström, E. Domanska, M. Edgeworth, A. González-Ruibal, and C. Holtorf. 2011. "Some Reflections on Heritage and Archaeology in the Anthropocene." *Norwegian Archaeological Review* 44 (1): 40–88. doi:10.1080/00293652.2011.572677.
- Sørensen, T. F. 2016. "In Praise of Vagueness: Uncertainty, Ambiguity and Archaeological Methodology." *Journal of Archaeological Method and Theory* 23 (2): 741–763. doi:10.1007/s10816-015-9257-8.
- Speer, L., R. Nelson, R. Casier, M. Gavriilo, C. von Quillfeldt, J. Cleary, P. Halpin, and P. Hooper. 2017. *Natural Marine World Heritage in the Arctic Ocean*. Gland, Switzerland: IUCN.
- Stewart, K. 2008. "Weak Theory in an Unfinished World." *Journal of Folklore Research* 45 (1): 71–82. doi:10.2979/JFR.2008.45.1.71.
- Strathern, M. 1992. *Reproducing the Future: Essays on Anthropology, Kinship and the New Reproductive Technologies*. Manchester: Manchester University Press.
- Swyngedouw, E. 2013. "The Non-Political Politics of Climate Change." *ACME: an International E-Journal for Critical Geographies* 12 (1): 1–8.
- Szerszynski, B. 2017. "The Anthropocene Monument: on Relating Geological and Human Time." *European Journal Of Social Theory* 20(1) 111–131. doi: 10.1177/1368431016666087.
- Thompson, R. C. 2015. "Microplastics in the Marine Environment: Sources, Consequences and Solutions." In *Marine Anthropogenic Litter*, edited by M. Bergmann, L. Gutow, and M. Klages, 185–200. Heidelberg: Springer Open.
- Tsing, A. L. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton: Princeton University Press.
- UNEP. 2009. *Marine Litter: A Global Challenge*. Nairobi: United Nations Environmental Programme.
- Zalasiewicz, J., C. N. Waters, J. A. Ivar Do Sul, P. L. Corcoran, A. D. Barnosky, A. Cearreta, M. Edgeworth, et al. 2016. "The Geological Cycle of Plastics and Their Use as a Stratigraphic Indicator of the Anthropocene." *Anthropocene*. Accessed 8 June 2018. <http://www.sciencedirect.com/science/article/pii/S2213305416300029> doi: 10.1016/j.ancene.2016.01.002.