NATURE:CULTURES
Heritage, Sustainability and Feminist Posthumanism

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This paper makes use of feminist posthumanism to outline how a range of heritage policies, practices and strategies, partly through their base in social constructivism have a clear anthropocentric focus. Not only do they risk downplaying materiality, but also a number of human and non-human others, driving a wedge between nature and culture. This may in turn be an obstacle for the use of heritage in sustainable development as it deals with range of naturalized others as if they have no agency and leaves the stage open for appropriation and exploitation. This paper probes into what heritage could be in the wake of current climate and environmental challenges if approached differently. It explores how a selection of feminist posthumanisms challenge the distinction between nature:culture in a way that could shift the approach to sustainability in heritage making from a negative to an affirmative framing.

Keywords: New materialism, Posthumanism, Nature:culture, Sustainability, Value of heritage, Environmental Humanities, Anthropocene, Landscape, Multi-species and Green heritage

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Through research on discourses, ideology and representations, post-modern feminism has revealed how gendered dichotomies structure western thought and logic. It has been recognized that divisions into male/female also format a range of other dichotomies such as mind/body, subject/object, rational/emotional and in effect also the distinction nature/culture (Alaimo & Hekman 2008:2). Efforts have been made to unhitch "women" from notions such as essentialism, inaction, primordialism and unruly emotions, i.e. terms often linked to nature (Kirby 2008:215). However, the distancing from nature in postmodern feminist theory, and the embrace of the discursive, has also had the result that "nature", or conceptions thereof, has become a location where misogyny continues to thrive. By arguing that nature is constituted through social constructions of language, this approach has inadvertently supported a nature/culture divide that has left the way open for practices that handle nature as "the inert ground for the exploits of Man" or as a blank space for projections of meaning, which has proved damaging to a range of oppressed and naturalized human and non-human others (Alaimo & Hekman 2008:4). An alternative approach, examined in this paper is posthumanist feminisms (cf. Haraway 2008; Braidotti 2013; Barad 2012), that within the field of environmental humanities investigate human-animal-nature relations with tools that acknowledge the environment as having agency, challenges essentialism and where the notion of nature:cultures or naturecultures (Haraway 2008: 15) works to perforate the boundaries between the two spheres. Another theoretical angle that could have been used in this paper is the holistic geo-centred deep ecology of Arne Naess. However, while Naess critique of consumerism is welcome, it does not come to terms with a range of important dualisms that feminism confronts (Braidotti 2013:84–85).

With the climate challenges and the debate about the Anthropocene, where the human is understood as a major geological agent (Crutzen & Stoermer 2000), there is a need to scrutinize the human within nature and in history (Chakrabarty 2009). However, possibly also the human in heritage research and policies need to be re-worked in order to mobilize for more sustainable pasts, presents and futures. This means to change the humanities and the natural sciences by adopting an approach that deals with the alienation, intangibility and the negative framing of environmental change, the post-political situation and how "the environment" is compartmentalized from other matters of concern (Neimanis, Åsberg & Hedrén 2015).

This paper deals with how heritage policy (and archaeology) could work with sustainable development if there was an openness to more symmetrical relations not only to things (cf. Olsen 2010; Solli 2011; Pétursdóttir 2013), but also between human and non-human others and the environment (cf. Armstrong Oma 2010; Jennbert 2011; Hamiliakis & Overton 2013; Edgeworth 2014). It also deals with what it would be like if ethics of posthuman feminisms (cf. Haraway 2008; Barad 2012; Braidotti 2013) was enrolled to provide alternative approaches to nature:culture, heritage and sustainability, as these theories can be used to make a case for a more-than-human definition of sustainability. Here the links between heritage, often compartmentalized into natural and cultural, and sustainable development are discussed. This is done against a background showing how cultural heritage documents are situated in a social constructivism that separates representation from represented and culture from nature in unproductive ways. These documents, and even versions of the landscape concept, privilege the immaterial aspects of heritage, and human perception is the main tool to capture the world. They also assume a generalized human being as the beneficiary of heritage of all kinds. As will be argued, this excludes not only materiality and things from the analysis, but also the relationships between human and non-human animals as well as the environment.

How does a focus on relations between human and non-human others provide an alternative to the anthropocentrism prevalent in many heritage documents? How would a decentring of an idealized human subject affect the divide between natural and cultural heritage? In what way would such a move change how the link between heritage and sustainability is understood to work? This paper probes into what heritage could be in the wake of current climate and environmental challenges if approached differently.

HERITAGE AS CULTURE WITH CAPITAL C

The gap between natural and cultural heritage and how cultural heritage play a role in an integrated environmental approach to work for sustainability has been dealt with before (cf. Storbjörk & Hedrén 1998; Solli 2000, Byrne & Ween 2015). Sustainability (social, economic and environmental) can be defined as in the Brundtland Report, where the needs of present generations should be met, but without compromising the needs of future human generations (United Nations 1987). While the World Heritage Convention of 1972 does not include a statement on

sustainable development, it is on the upcoming agenda.[1] Recent strategy documents from the Swedish National Heritage Board such as "Tänka i Tid" i.e. Think in Time (Riksantikvarieämbetet 2011) envisioned that in the years to come, social actors will be aware of how heritage is valuable for a sustainable society. The more immediate goal was to increase insights into how heritage has a meaning for "människans livsmiljö", i.e. the environment that humans live in (Riksantikvarieämbetet 2011). How heritage is connected to sustainable development is a major issue nationally and internationally and has been on the agenda for a while (cf. Solli 2000; Riksantikvarieämbetet 2005) but has come back on the agenda with a new urgency.

Research in the growing field of critical heritage studies scrutinizes heritage policy and practice. How heritage is formed, valued and selected and how "heritagization" comes about is a part of major debates (see Harvey 2001; Smith 2006; Harrison 2013). Almost anything has the potential to be labelled heritage, and it has been central to outline how heritage is selected and produced due to political pressures in the past and present. In the book *Uses of Heritage* Smith (2006) gathered a series of trends in heritage thinking. Through discourse analysis Smith argues that heritage is constructed by a number of legitimizing processes that confirm Western elitist values, stories of nationhood and class, and make these into global truths. Such values gain acceptance through a series of bureaucratic practices. This is called the authorized heritage discourse (AHD) (Smith 2006:11–12; cf. Harrison 2013:15). It has been pointed out that natural heritage can also be socially and culturally constructed and serve national agendas and value systems (Olwig & Lowenthal 2006) and hence also natural heritage is a part of the AHD. However, as an effect of the AHD way of reasoning, heritage is no more than intangible values ascribed by humans to materiality (cf. Solli 2011). In the extreme, both cultural and natural heritage is created in and for the representational sphere of the human mind and primarily an asset constructed for the benefit of the human being, with no acting back or benefit for either things or the environment.

Olsen (2010), Solli (2011) and Pétursdóttir (2013) have recently dealt with how the linguistic/social constructivist turn within archaeology and heritage studies has alienated things by focusing on issues of perceptions, concepts and interpretation. This has meant that such research has underestimated how things co-work with humans in bringing about reality. Things provide a range of capacities and could facilitate, suggest, permit or hinder action. Solli (2011:43–47) has pointed out that the lin-

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1   See http://whc.unesco.org/en/sustainabledevelopment/ and the Hangzhou declaration.

guistic turn represented in Smith (2006) has been a major problem as heritage is turned into narratives, thereby under-articulating the interrelationship between human- and thing-agency. There is also an increasing archaeological emphasis on human-animal-nature relations (cf. Armstrong Oma 2010; Jennbert 2011; Hamiliakis & Overton 2013; Edgeworth 2014) as a part of the so-called animal turn (cf. Haraway 2008). Not only things but also phenomena classified as nature have become marginalized under the constructivist turn. Furthermore, the social constructivist position may, following the reasoning of Alaimo and Hekman (2008:4), alienate a range of naturalized others from the analysis and thereby play right into the hands of misogynistic and exploitative forces. If these insights, where not only things but also a range of non-human others are acknowledged as having agency, the anchoring of heritage approaches in social constructivist theories comes loose. Neither approaches that promote nature with capital N (cf. Morton 2010), nor those that strive for culture with capital C, may be optimal for dealing with current sustainability challenges.

ANTHROPOCENTRIC HERITAGE POLICY

Pétursdóttir (2013:35) argued that the AHD identified by Smith has been replaced with a discourse partly of Smith's own making. This could be labelled *the intangible heritage discourse*, where heritage value primarily is produced through meaning making and narratives (see above). UNESCO's Convention concerning the protection of the World Cultural and Natural Heritage (1972) also deals with the protection of intangible values such as "human perception, experience and attachment" (Pétursdóttir 2013:36–37) and hence place the human appreciation in the centre. As claimed by Pétursdóttir (2013:36) such a discourse is present in UNESCO's Convention for the Safeguarding of Intangible Cultural Heritage, which values meaning making over materiality. Here, Pétursdóttir argues that *things*, in these discourses become by-products of human processes and in that way *things* are no longer seen as the origin of value. They should not be condensed or domesticated to sameness, but has rights to remain in their pre-discursive silence, i.e. not always be interpreted or curated and sometimes be let go of without conservation (Pétursdóttir 2013:46–48). However, both Smith's arguments and Pétursdóttir's critique need to be understood against the background of how heritage-thinking developed over the 20th century, when there was a need to put people back into the equation. In earlier approaches both natural and cultural heritage places and objects were preserved

due to their assumed inherent essences and values. This was a trait also in World Heritage nature conservation that sometimes worked to keep people away from nature (cf. Byrne & Ween 2015:95–99). The route presented in the current paper is not a return to that position.

Besides UNESCO's conventions discussed above, other major treaties and documents, such as the European Landscape Convention (ELC), bear similar traits and privilege anthropocentric perspectives. The convention is an important instrument that manages human impact on the physical landscape. The first article of ELC[2] states that:

> "Landscape" means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.

While the ELC makes an effort towards integrating nature and culture (see Olwig & Lowenthal 2006:4), it still privileges and values human perception above tangible natural and cultural heritage. On the one hand, the landscape concept brought people back into what had been seen as pristine natural landscapes and thereby enabled an extended context for these sites. On the other, landscape thinking has conceptualized the human as separated from nature and thereby downplay other agencies as well as push such a division onto indigenous groups with different ontologies (Head 2012:65–69). An alternative would be to handle landscapes as interactions between human and non-human actors and living webs with relationships of reciprocity (Harrison & Rose 2010:251).

However, by making human perception the bridge between nature and culture, the landscape concept become a part of the *intangible heritage discourse* and risk colonizing nature:cultures through an unproblematized human gaze. Instead there may be a need to work with a more dynamic landscape concept that acknowledges the workings of materiality and more-than-human others.

The anthropocentric focus is also present in national heritage strategies in Sweden such as Agenda K, "Människan i centrum", i.e. the human being in the centre (see Blank *et al.* 2004). This programme for the heritage sector in Sweden developed from 2001–2004 and concluded that there is a need to focus more on human beings than on physical objects. Importantly, this strategy deals with how heritage is selected and probes into who has a privileged position in the historical narratives in order to challenge power imbalances in heritage formation, while also stating the importance of heritage for sustainable development. However, by placing the human being and her meaning-making in the centre,

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2   Article 1 – ELC. http://www.coe.int/t/dg4/cultureheritage/heritage/Landscape/Publications/Convention-Txt-Ref_en.pdf

it downplays how materiality contributes with a range of capacities and action possibilities.

These reports, policies and strategies from international to national play a role in the immaterial heritage discourse. What can be emphasized and drawn out further beyond Pétursdóttir's analysis is that this *intangible heritage discourse* works anthropocentrically, as it privileges human perception as a means to approach landscape reality, it also creates values primarily for human beneficiaries in terms of meaning and narratives, while the needs and capacities of a range of more-than-human others are left unacknowledged.

HUMAN, ALL TOO HUMAN

To feminist posthumanists like Braidotti (2013) and to Haraway (2008, 2011) policies that place the human being in the centre would be seen as challenging for a number of reasons. Braidotti puts forward similar arguments to those in post-colonialism (see Bhabha 1996; Chakrabarty 2012) where it is clear that the human being accounted for is most often located in an already privileged situation, and where the notion of *Universal Man* has been a complex instrument for pushing hegemonic societal models onto a variety of communities (Braidotti 2013:25, 39, 50–54). Here, the critique is shared with that of the AHD, where heritage is understood as a vehicle for pushing Eurocentric political agendas. It needs to be recalled that the critical heritage perspectives of Smith (2006) have made efforts to question who is and who is not represented in heritage making, which has laid a foundation for focusing on identities and the development of methods for social inclusion and participation in heritage making.

Braidotti (2013:67–69, 80–81), however, takes the discussion further and challenges the anthropocentric proposition of the human as being "the measure of all things" first of all because any efforts to set standards for who is and who is not considered to be a full human being are controversial. Secondly, there exists no self-contained human being that thrives without relationships to its surrounding contexts which makes it hard to draw such boundaries, making the human with its relations, more-than-human. Furthermore, efforts to define a standard human would maintain a phallogocentric taxonomy and create dialectics of otherness. Such definition could work to fence in an elevated and normative "abstract masculinity" by defining and sharpening the boundary to excluded others (note here the historical connection made between females as nature discussed above). Efforts that focus on marginalized groups, however, also bear with them the emblem of stigmatization

and can make permanent both labelling and hierarchies, and Braidotti critiques practices that produce subcategories of others. Here the division into nature or culture, or the subsuming of nature into discourse analysis or into social constructivism, is yet another strategy that brings about such othering. Tsing (2012) also questions anthropocentric exceptionalism as it feeds narratives of human mastery, impact and control of nature and fails to investigate multi-species interdependencies. That reasoning builds on Haraway (2008:32, 41, 244), who describes approaches built on human exceptionalism as narcissistic and foolish as they fail to acknowledge how a variety of actors, human and non-human, play an active role in co-creating the world. Thereby, the policies that place the human being in the centre risk underestimating the potentialities for building more sustainable, inter-species, nature:culture relationships as they erase a number of actors from the stage.

What is proposed by Braidotti is instead a perspective that traces subject positions, not as identities but as figurations (2013:163–168), i.e. cartographies in geological, ecological and deep time-space. Hence, human nature is imaginable as "webs of interspecies dependence" that vary over history (cf. Tsing 2012). The human is always a more-than-human being, situated in an embodied geography that comes into being through a variety of nature:culture entanglements. Bodies of animals, humans and materialities knot together and come about (Haraway 2008:250, 262) through relations that differentiate and change over time. For Braidotti (2013:3) various embodied subjects are connected in a nature:culture continuum, being a part of self-organizing, living matter in an unfolding world. In a similar vein to Bennett (2010), Braidotti argue that ranges of non-human forces are "vital players in the world" and these must be acknowledged as a part of the political web. If this critique is taken on board in working with heritage, it would imply a need to acknowledge how nature:cultures are "vital" co-workers in the making of the world that need to be acknowledged in political and bureaucratic practices. Whilst the landscape concept could be made to include interaction of natural and human forces, posthuman reasoning would add crucial aspects on how such interaction comes into place and focus attention on how more-than-human agency facilitates and alters the way landscape comes into being.

MORE-THAN-HUMAN PERCEPTION

Certainly, it is important to involve "nature" by accounting for how it is perceived by humans, as shown by Midholm & Saltzman (2014). How-

ever, the appropriation of all "nature" as perceived in culture would work to push the anthropocentric perspective even further and may not work in sustainable ways as it under-articulates all liveliness that goes on without human notice. Also policies that start in notions that landscape is perceived and hence constructed by humans may drive a wedge between nature and culture. In an extreme take, the landscape concept can be used to argue that all nature is culture, i.e. formatted through human gaze or action, and in effect that nature is socially constructed. This makes "nature" a dead and inactive surface onto which human meaning can be projected and places this human-meaning-making as the object of valuation.

Such an argument could be classified as *correlationist* thinking. This is a legacy from Kant in postmodern thinking and means that only that which is possible to capture in human thought is acknowledged as existing and having a value (Meillassoux 2009:36). Correlationist thinking only allows for capturing "nature" in a cultured way. Thereby it hides the fact that everything could be rather different. By downplaying the complex mesh-like interconnectedness between all living and non-living things, such thinking hinders ecological actions (cf. Morton 2010:28). The reason for this is that, whilst making culture the norm, such thinking refuses to acknowledge how nature and culture are enmeshed through a series of not fully comprehensible creatures, things and relationships and alternative potentialities. Morton's ecological thinking urges us to be aware of a world outside human perception and meaning-making, i.e. outside that which is usually captured in heritage discourse.

Furthermore, a too innocent view of human perception, as Haraway (2008:262) notes, underestimates the apparatuses that, for example, non-human animals bring into the equation. Human perception is never human perception alone, but formatted through the agencies of a range of materialities and non-human others. This insight can be used to trouble human perception in landscape approaches.

Recently, it has been argued that there are reasons to learn "thinking through the environment" (Rose *et al.* 2012). What this implies is that new parts of reality may unfold through acknowledging shared human and non-human ontologies by engaging with and paying close attention to those that may have been classed away as the environment or nature. Hayward (2010:592–593) has reflected on the "zoo-indexicality" of, for example, corals and starfish and how their senses and perception emerge through their encounter with the environment. In this case they lack eyes, but their arms become like "finger-eyes" and constitute their sensorial capacities for taking in their world. By the scientific observation of this phenomena of coral perception, the researchers' perception is

also sharpened and changed and there is a merger so that they together shape "a sensorial ensemble, becoming more than ourselves"; they provide an affordance of "intercorporeality" which also could retune human perception (Hayward 2008). Likewise, there is an urge to think through things (cf. Henare, Holbraad & Wastell 2007) which could be understood as a type of "material-indexicality" where heritage sites and monuments can be understood as assemblages that gather the world around them in situated ways. This in turn could encourage heritage practitioners to move beyond human perception and to see how material heritage, but also how living together with animals and vegetation in a historic environment indexes and point to intricate ways of inter-species co-habitation embedded in the environment. Hence, heritage can be used as apparatuses to re-shape thought and bring inspiration to alternative practices and relations to be enrolled in sustainable action.

One example is the wetland hay-barns that can be found in the north of Sweden. Even without their narratives (which are important too), these barns gather a series of relations around them that provide a range of *more-than-human indexicalities* that signpost possibilities of how to intra-act with nature:culture in this geography. By thinking through these barns and their geographies, they indicate how strand-near grass contributes agencies, capacities and potentialities for feeding animals; grass can be cut in the summer and saved in more fire-proof locations away from the main farm buildings to provide fodder for cattle, therby the locality provides a risk-reducing facility. The barns and their relations also draw a variety of temporalities around them, linking seasonality and climate, where the frozen winter wetlands ease transport back to the farm, over ice. The location of historic settlement may index favourable dwelling places that become obvious for the materially tuned-in observer, and thereby present an ontology, but they also provide (so to speak) mind-altering material tell-tales of climate change.

There are also a number of nature:culture historical and systemic possibilities and challenges that have deep historical roots. Alaimo (2010), in the book *Bodily Natures*, has discussed how, for example, toxic waste runs as networks through human and animal bodies, making them both natural and cultural at the same time. Morton (2010) has tried to capture how historical processes have interacted on the phenomena of the climate as a hyperobject and how plutonium is good to think with, since it widens the understanding of truly long-term cause and effect (Morton 2010:128, 130). It is important to trace how various substances or materials, such as deep-time toxic ecologies track through townscapes, ecosystems and bodies alike and could be considered as heritage.

HERITAGE AS DEEP-TIME PHENOMENA IN THE WAKE OF THE ANTHROPOCENE

There are major challenges ahead with climate alteration, species extinction, environmental degradation and increasing social inequalities. A range of indicators show a great acceleration of unfavourable change, at least from the period of industrialization onwards (Steffen *et al.* 2015). The term Anthropocene has been suggested to label the geological epoch after the Holocene when humans have become the main geological actor in earth system change (Crutzen & Stoermer 2000). It is a term for anthropogenic presence in biotic, climatic and geological strata. Hence, as discussed by Chakrabarty (2009, 2012), it is time to align natural history with human history in ways that approach consequences through deep time. When human action is embedded in the earth's surface, the landscape concept needs to reflect on humans and non-human co-constitution (cf. Head 2012:74) as well as structuration processes of deep time past, present and futures.

Deep time is a concept that relate to geologist James Hutton's 18th century understanding of the age of earth. Edgeworth (2014) has considered the role of archaeology in the Anthropocene, where the archaeological material can provide stratigraphic information on human impact over time, climate events and thereby supply a platform for meetings between the natural and humanistic sciences to address issues of long-term development of social and political affairs. However, deep-time heritage can contribute with more than that, this is however not only hinged on a re-working of the term landscape, or acknowledging the more-than-human indexicalities of built environments or tracking the deep-time knotting of figurations. There is also a need to move the heritage concept beyond social constructivism, in a way that perforates the boundaries between nature and culture and place the focus on ethics and material intra-action and effects.

One possibility is to make use of Barad´s process ontology, that provides an alternative to social constructivism (where words and concepts are taken to represent reality). Here, reality/ontology come into being through actions and practices also of non-human and material origin. In what is termed *agential realism* the mutually transformative interplay between different actors emerge out of local enactments and creates new phenomena. Barad argues, that what exists in the world is a conglomerate of materialities, ethics, actions and practices of knowing, which cannot be separated. However, a variety of apparatuses, such as theories and scientific methods, work as boundary makers and make

agential cuts in an interconnected world, which has material and ethical effects (Barad 2012:30–33).

Thinking through Barad, heritage can be understood as a phenomena, a doing, that results from differentiating, intra-active processes, where a range of agencies nature:culture ones, concepts and ethics merge. *Heritage as phenomena*, as different to *heritage as a social construct*, come into being due to the intra-activity of the world, where a series of boundary making processes, such as divisions between humans and non-humans, or bureaucratic practices provide apparatuses that makes agential cuts in an inter-connected world. Heritage come into being both due to selection procedures that distinguishes heritage from non-heritage, but also "matter" matters in heritage formation. To work with *heritage as phenomena* is not a return to an essentialism, it is rather an acknowledgement of how a variety of actors, actions and apparatuses contribute to the rise of heritage. This approach may provide possibilities to meet the challenges presented by the Anthropocene and handle issues around human impact by also letting a range of naturalized others in on the stage and consider how the intermingling of deep time processes have material effects for a range of human and non-humans connected through a variety of meshworks.

POSTHUMANISM AND AFFIRMATIVE SUSTAINABILITY ETHICS

Braidotti (2013:138–142) has outlined a feminist sustainability ethics that questions the idealized human being, which is often white, male, able-bodied and Eurocentric. Instead, in this ethos of generative differences, it is necessary to trace the acting subjects from their multiple belongings, where nature, culture and materialities are mixed. What drive such interconnected subjects to act are not always rational calculations but their desire, emotion, flows and transformations and their life-force, *zoe*. Here Braidotti (2013:139) describes the human subject, as well as other subjects, as finite entities "plugged into a variety of sources and forces", historically formatted, territorially and environmentally connected.

These ethics urges towards an exploration of what life forces, relations and assembled networks such situated subjects consists of and how these are stretching across time and nature:culture boundaries. This needs to be done in order to investigate what such life forces could become if they develop to the limits of their potentials and how this would affect their fellow subject's sustainability. Haraway (2008:134)

points out that ethics need not only traces "co-constitutive" alliances, but also draw out the dynamics of relationships-in-progress. Herein lies also to see what other paths and developments could come about and flourish, live well and thrive (Haraway 2008:134; Braidotti 2013:139). Another important aspect is to discover how these alliances could be useful "in the search for more livable 'other worlds'" as a kind of alter-worlding (Haraway 2008:41).

In a heritage setting such ethics call for contemplating what roles nature:culture heritage has in the present. This means transgressing the division into nature and culture heritage and examining what part heritage could have in future figurations and meshworks to enable the flourishing of a range of human and more-than-human beings. This would imply the need to make situated cartographies of what interactions take place in a particular environment and to what extent these are conditioned on relationships and materialities forged through times past with the aim of looking at multi-species flourishing. This would also mean that heritage policies need to deal with what relationships could emerge from such places in the future and to judge what is necessary for the well-being of a range of subjects. Here it is important to take into account how subjects are differently situated and exercise both productive and restricting powers (potentia and potestas, see Braidotti 2013:136–138). This entails tracing the cartography of subject formations in different places, across species and time boundaries and exploring its possibilities for future development, but also formatting potentia in durable ways. There is a need to address issues of where the limits of sustainability go for both the subjects and the systems they live in, but also to exercise solidarity between generations of more-than-human others in order "to actualize sustainable posthuman futures" (Braidotti 2013:185).

It has been debated if heritage is really a diminishing or an abundant resource (see Brattli 2009). What Braidotti's ethics importantly propose is to move away from an understanding of the world as a place of lack and loss to one of desire and overflow (2013:100, 137). While Braidotti (2013) acknowledges that knowledge is situated and politically structured, this is an ethics that makes use of critical perspectives on power formations, but also takes one step beyond the critical perspectives of the constructivist turn. In heritage studies, such critical perspectives are exemplified in the writings of Smith (2006). Braidotti (2013:190–195) instead proposes working affirmatively and ascending from negativity by mobilizing resources in creative ways to regain hope in multi-species communities.

For the handling of heritage this would mean that choices are not pitched against the melancholy of loss, but rather move towards various future potentialities as choices in a world of plenty. Here it would

also allow the field of critical heritage studies to move from mainly delivering critique to working with alternative affirmative action oriented research, while retaining ethics, accountability and discussions of boundary-making practices. For heritage, this approach could mean figuring out long-term chains of cause and effect, or providing materials for alternative storytelling or apparatuses to imagine that everything has the potential to be rather different. It also inspires discussion of how nature:culture heritage ranging from animals to buildings and even substances provides *more-than-human indexicalities* that alter as well as challenge human perception of the world. This in turn would require different approaches to landscapes in order to encompass and acknowledge the contribution of more-than-human to perceptions, relations and phenomena. Heritage can furthermore, as art or aesthetics, reveal the world with its entanglements in potentially unexpected ways, but also be important allies in working out affirmative paths of hope and alternative life-worlds.

HERITAGE AND SUSTAINABILITY

There are two major routes for how heritage is connected to sustainability aspirations. One sees heritage as a diminishing resource, given climate changes and deals with how it can be preserved for the future. How may, for example, archaeology, historic towns and landscapes be protected from acid rain, rising sea levels or desertification and how can damage be mitigated (see Barthel-Bouchier 2013)? While these are important issues, heritage and sustainability is here set within a negative frame against the climate. It is a resource under threat. Parallels can be drawn with the framing of endangered species, where Haraway (2008:145) notes apocalyptic tones. Haraway (2011:5, 8) instead advises against catastrophe and salvation histories, and advocates focusing on care between multi-species generations over time. What is proposed by Haraway (2011:8) is to move from paternalist and protective visions for conservation, to a parentalism which brings on attachment and care in various situated places. A parentalist perspective may inspire heritage policy and conservation, that both estimates risk and takes care of heritage, but that also practices the art of letting go of some nature:culture heritage in due course (while not necessarily arguing for thing rights).

The second route to sustainability provides a more affirmative frame and sees heritage as a means to deal with broader challenges, and that heritage can be used to improve social, environmental and economic conditions (see Riksantikvarieämbetet 2005) thereby working to mobi-

lize heritage for a bettering of primarily human living conditions. Published in Fredengren (2012) – here with amendments – is a mapping of some of the links between heritage and sustainability sorted under social, environmental and economic sustainability as in *Our Common Future* (United Nations 1987). Among the arguments for *social sustainability* were, for example, associations between heritage and place/identity making as well as the use of heritage in peace and reconciliation efforts or as a way of mobilizing people into participating in taking care of their neighbourhoods. Thereby an involvment in heritage would would empower people, facilitate dialogue and engage them in local democratic movements. The use of heritage in regional development, place-branding or the establishment of micro-businesses can be used in arguments for *economic sustainability. Environmental sustainability* is often discussed by referring to measures that increase awareness of, and lessen the use of, damaging substances in the conservation process or by increasing energy efficiency in old buildings. However, it was pointed out in that paper that both the arguments themselves and the effect on sustainability needed to be tested and discussed further.

The feminist sustainability ethics presented above would provide alternative links to heritage as it places human well-being in relation to a range of non-human others. This would make a case for more-than-human sustainability. Furthermore, instead of envisaging sustainability compartmentalized into economic, environmental and social factors, it tests the edges of sustainability and flourishing for interconnected meshworks. It would also deal with how to move from a negative framing of heritage to more affirmative frames, where intra- and inter-generational multi-species care and justice were brought to the forefront and that heritage would meet the needs of more-than-human in terms of living conditions and capability building.

However, it is unclear how, if at all, the boundaries for such meshwork are to be drawn, how ethical conflicts and tensions between nature/culture sectors are resolved and how such ethics can be handled in the bureaucracies of heritage practice. However, there is a need to discuss ethics for valuing heritage or heritage activities in relation to their role for sustainable development. However, to make evaluations according to such an ethic may be rather complex and based on a large set of assumptions about the state of the world now, in the past and in the future, and also hinging on a multitude of versions of what sustainability is or could be in the future. Also, it is mainly human subjects that perform heritage classification and verbalized ethics deliberations, although, as discussed above, these subjects are extended through range of more-than-human relations and apparatuses.

DEEP TIME FUTURE AND PRESENT PASTS

The time perspective of the heritage sector is managerial, and at the same time it is one of the few societal agencies that handle deep time with a remit to take responsibility for resources from the past, passing them on to present and future generations. However, it is not always clear to the people working in the heritage field what type of futures heritage policy deals with. Is it a future within the next 10 years or some 10,000 years or eternity (see Holtorf & Högberg 2014)? Heritage policy and practice work and rework what is remembered from the past, but they work with more than that. These policies instruct actions that have real material consequences in the landscape and on the earth's surface, with bearings on what pasts, presents and futures will be materialising and become available for a more-than-human congregation. Hence, heritage agencies deal directly with intra- and intergenerational justice and care, where there are possibilities of engaging in such deliberations with material effects.

What the ethics presented above advise is to take into account the agencies of more-than-human others and to start to think about how to use heritage to inspire de-colonizing practices; these may involve actions to lessen the impact on strained mesh-works, but also to see alternative potential uses. Heritage agencies are important actors in the practice of care and deliberations around intra- and intergenerational justice, and that also have the possiblities to build alternative and differentiated life-worlds that include a range of naturalized others. This may mean enrolling heritage affirmatively, where the recycling of traditional buildings is a way of making better use of resources or making something else out of a given thing or building, i.e. up-cycling, but there is also a need to reflect on toxic or sustainability reducing heritage. Heritage matter could also give opportunities to index alternative lifestyles involving human-animal relations and practices or provide grounds for reflecting on deep-time structuration, difference and change. There is also a need to produce deep-time narratives of alter-worlding that engage and may inspire hope and action.

Heritage studies can also trace phenomena through a variety of mesh-works, such as the heritage of fossil-fuel dependency, which has a history based on American 19th-century lifestyles, but where petrol and oil have effects that reach far beyond the use of cars. Oil infiltrates a range of products as well as mobilize global networks (see LeMenager 2014). This points towards a necessity to highlight the sustainability challenges of present-day living conditions and to expose the material infrastructural underpinnings for present-day and future living. Here a variety of heritage phenomena enable as well as restrict the action capacities of

future multi-species communities, which indeed point out areas where the heritage sector could make substantial contributions. As Morton (2010) notes, plutonium is good to think with as it exposes the structuration of deep time-pasts and futures and provides opportunities to problematize issues of intra-generational justice and care. Holtorf and Högberg (2014), in their investigations of nuclear power stations and waste, have highlighted how these nuclear materialization processes, with extensive deep-time effects, on the one hand have slipped outside the classification of heritage, but, if included, would show that heritage is not always of the wanted kind – or of the type that lead to a more sustainable future. This also brings on further reflections on heritage as resources. If issues of how subjects form as a result of the intermingling of "human and natural" forces, there may be a need to rework heritage policies and practices in order how to mobilize deep-time heritage in more sustainable ways.

CONCLUSION

In the light of the challenges of the Anthropocene, how to activate heritage for sustainable development is a pressing issue. The selected international and national heritage policies and documents analysed in this paper have an anthropocentric focus. This focus works through the intangible heritage discourse, which privileges humans' meaning making and perception, and places the human being as the main beneficiary of heritage and sustainable development. However, neither the universal human nor human perception are innocent concepts. As argued by Braidotti (2013) and Haraway (2008), they carry a narcissim that obstructs work towards more sustainable futures. It is particularly important to challenge the division of heritage into categories of nature and culture, where the heritage policies and practices discussed here, despite purporting to deal with both, privilege culture over nature. For example, a landscape constructed through the human gaze colonizes nature and materiality by depriving materiality and a range of naturalized others of an active role in the co-creation of events. In order to bring other actors on to the stage and to reflect on ethics, the heritage concept needs to be reworked. Instead of viewing *heritage as social construct*, it could be framed in *heritage-as-phenomena*. This move would acknowledge how a range of agencies and boundary-making apparatuses contribute to heritage; they are a part of the political web, and that the practice of heritage-making has distinct material effects. Heritage come into being by the performance of onto-ethic-epistemologies. However, far from all

materiality classified as heritage has clear sustainability effects, and not all deep time materiality with sustainability effects is seen as heritage; this needs to be reflected on.

If Braidotti's (2013), posthuman sustainability ethics were enrolled in the discussion, this would allow shifts in the approach to sustainability in heritage making. First of all, this would mean working with affirmative, extended, situated and differentiated notions of subjects (perforating the nature/culture boundary), where a human is always more-than-human and comes into existence through a range of relationships to a myriad of non-human others, including those formed over deep time. This is not a way to devalue humans, or to work with nature with a capital N, but to meet across sector boundaries, as a way for to deal with issues of alienation, where the environment is understood to be working through our bodies and practices, rather than displaced somewhere out there. This paper represents a curiosity in how sustainability could work if it acknowledged how more-than-humans are entangled in relations that differentiate over time, across nature/culture boundaries. There may be a need for a more-than-human definiton on sustainability, that brings in consideration for a range of naturalised others.

Secondly, the feminist posthuman standpoint might alter and critique too innocent notions of human perception, where reflections on extreme correlationalism are needed. In turn, this could alter how heritage is surveyed and understood to work. For example making use of the *more-than-human indexing* methods described above would map what subject formations are brought into being in places through nature:culture heritage agencies. Here, such subjects formations have multiple belongings, where the distinctions of nature:culture:material:immaterial may be more hindering than helpful, as that reduces the understanding of the role of heritage as a part of interconnected meshworks.

Thirdly, these ethics would also work on issues of intra- and intergenerational multi-species solidarity and care. This would mean exploring what future would be in the making if a variety of extended subjects flourished to their full potential and to what extent their thriving is dependent on heritage materialities. This standpoint also means examining where the borders of sustainability go for a variety of subject-meshwork formations, and bringing about a discussion of both heritage figurations potentia and potestas, i.e. positive and negative power formations. Whereas these perspectives are based on critiques of negative power formations, they also promise to move beyond critique. This means working affirmatively in the building of alternative lived environments and could inspire critical heritage studies to take the step from being mainly critical to encourage creative work and actions.

Fourthly, these sustainability ethics would mean focusing less on strategies that deal with how to ration limited heritage resources, or those that deal with heritage critique only and move from a negative to affirmative framings of heritage. Such approaches would consider heritage-as-phenomena; as a set of historically structured possibilities. An affirmative frame may also transfer the rationale for conservation from arguments based on melancholy and loss towards affirmative action that focuses on life forces and aspirations, that make use of heritage and research as relationships-in-progress that could be useful in testing a variety of solutions in action-based, collaborative research and beyond.

Instead the focus would be placed on what agents can be mobilized in productive ways as well as how heritage resources could be used to decolonize, learn and unlearn, entangle and detangle practices that would better intra- and inter-generational flourishing. This could be a way of opening up a multitude of nature:culture landscapes that can be used in more sustainable ways, but also telling deep-time stories about other ways of living in this world as a way of imagining that everything could be rather different. Heritage could then contribute to *alter-worlding.* However, such moves would question the division of natural and cultural heritage and could undermine some of the arguments that the heritage sector rests on.

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