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Aesthetic Appreciation of Nature and the Global Environmental Crisis

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ABSTRACT

Global climate change has been characterised as the crisis of reason (Val Plumwood), imagination (Amitav Ghosh) and language (Elizabeth Rush), to mention some. The ‘everything change’, as Margaret Atwood calls it, arguably also impacts on how we aesthetically perceive, interpret and appreciate nature. This article looks at philosophical theories of nature appreciation against global environmental change. The article examines how human-induced global climate change affects the ‘scientific’ approaches to nature appreciation which base aesthetic judgment on scientific knowledge and the competing ‘non-scientific’ approaches which emphasise the role of emotions, imagination and stories in the aesthetic understanding of environment. The author claims that both approaches are threatened by global climate change and cannot continue as usual. In particular, he explores aesthetic imagination in contemporary times when our visions about environment are thoroughly coloured by worry and uncertainty and there seems to be little room for awe and wonder, which have traditionally characterised the aesthetic experience of nature. Finally, he proposes that art could stimulate environmental imagining in this age of uncertainty.

KEYWORDS

Environmental crisis, aesthetic appreciation, knowledge, imagination, anxiety

1. INTRODUCTION

Environmental aesthetics within the analytic tradition is ironically one of the last places on Earth which human-induced global climate change has not yet

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significantly affected.¹ Philosophers studying the aesthetic appreciation of nature have been mostly theorising on an abstract, ideally ‘unspoilt’ nature.² Outside the philosophical realm, we live in an uncanny world in which our traditional notions of beauty and our knowledge of environmental change draw us in opposite directions. Environmental attitudes and conceptions of nature are radically changing in various fields. For example, many biologists ponder synthetic biodiversity conservation and weigh a move from the preservation of species to their aided adaptation and migration or ‘assisted colonisation’;³ the Anthropocene has become a central concept in the humanities; a growing army of thinkers examine the role of arts in promoting sustainable environmental attitudes; and artists, in turn, sketch new, posthuman ways of relating to nature.⁴ Overall, climate change permeates the (once) ordinary life and is a fundamental issue already in various preschools in Finland and Sweden, for instance.⁵

Although anthropogenic environmental degradation has been aestheticised and explored in the arts for a long time, in philosophical aesthetics questions related to global environmental changes have been mostly neglected; they are mentioned passing by, abstracted into conceptual questions (what ‘pollution’ is), or turned into moral philosophical issues, such as the autonomism vs. moralism debate on whether moral considerations on human impact on nature affect its aesthetic value. Questions about the aesthetic appreciation of impoverished or spoiled nature have not been much studied. And while there

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1. ‘Global climate change’ is here used as an umbrella term for human-induced global environmental change.
 2. After Carlson’s (1984) theses on positive aesthetics; Carlson keeps defending his position in Carlson (2018: 401–402).
 3. For discussions on synthetic biology and conservation, see e.g. Redford, Adams and Mace 2013; Redford et al. 2014; Science for Environment Policy 2016; Piaggio et al. 2017; IUCN 2019; Redford and Adams 2021. The literature on assisted migration, in turn, is much broader. For an overview of the topic, see e.g. Griffith et al. 1989; Mueller and Hellmann 2008; Vitt et al. 2010; Ste-Marie et al. 2011; Fordham et al. 2012; Chauvenet et al. 2013; Hagerman and Satterfield 2014; Hällfors et al. 2014; Ferrarini et al. 2016; Charles and Stehlik 2021.
 4. I expect that this is a commonplace for everyone working within the academy or simply following their time. If not, for an overview of the extensive and ever expanding discussion on Anthropocene in the humanities, one could look at e.g. Oppermann and Iovino (eds) 2017; Heise, Christensen and Niemann (eds) 2017; Horn and Bergthaller 2019; Merchant 2020. The literature on environmental awareness in contemporary art and art theory is also vast; for an overview, see e.g. Spaid 2002; Strewlow, Prigann and David (eds) 2004; Kagan 2012; Weintraub 2012; Demos (ed) 2013; Brown 2014; Nisbet 2014; Davis and Turpin 2015; Neal et al. 2015; Demos 2016; Tsing et al. (eds) 2017; Toland, Noller and Wessolek (eds) 2018; Reiss (ed.) 2018; Weintraub 2019; Demos 2020; Westley, Scheffer and Folke (eds) 2020; Aloï and McHugh (eds) 2021. For the central role of environmental sustainability in contemporary art, one can look at virtually any major art school, museum or funding institution website. For some popular references, see e.g. Brooks 2014/2017; Shaw 2016; Tsui 2019; Tugend 2019; Parletta 2019; Wilson 2019.
 5. See e.g. Chela 2019; Givetash and Banic 2020; see also BBC News 2019.

AESTHETIC APPRECIATION OF NATURE ...

is a growing field of climate ethics in philosophy, aestheticians have not paid much attention to climate change.⁶

The disparity between aesthetics and a changing cultural notion of nature can be seen in practices too. While news broadcasts on natural disasters, together with weather forecasts, remind us daily about human-accelerated environmental change, and while global climate change is mentioned if not taken into account in nearly all kinds of planning and decision-making, aesthetic appraisal of nature that manifests in nature documentaries and nature travel, for example, has been after a wild, untamed nature until very recent years. As George Monbiot put it in his influential critical comment in 2018:

For many years, wildlife film-making has presented a pristine living world. It has created an impression of security and abundance, even in places afflicted by cascading ecological collapse. The cameras reassure us that there are vast tracts of wilderness in which wildlife continues to thrive. They cultivate complacency, not action (Monbiot 2018).

Nature documentaries have valued ‘authenticity’ and ‘naturalness’ so as to even fake it by framing or making.⁷ The tourism industry, in turn, likes to advertise natural locations as unspoilt, and travel journalism seeks the ‘hidden gems’.⁸ Some randomly picked, yet representative examples: ‘The Vallon de They is a hidden gem. An oasis of tranquillity surrounded by unspoiled nature’ (*My Switzerland*); ‘Wild Taiga’s untouched land, clear lakes and rapids will tempt you to treks with authentic experiences’ (*wildtaiga.fi*); ‘The unspoilt and unexplored terrains of the country leave one in awe of their breathtaking splendour’ (*Incredible India*); ‘Essential Costa Rica is about promoting organic ingredients, unspoiled nature and authentic experiences’ (*Essential Costa Rica*).

Aestheticians have, of course, understood problems related to the notion of ‘virgin nature’, although they have spoken of, on a relatively high level of abstraction, the pristine state of Earth and its ecosystems as an ideal nature. Such a nature is projected so that we can ask: What are the principles of nature appreciation, as nature has no human maker, meaning or frame of interpretation?⁹ On the other hand, Anglo-American philosophical theorisation on the aesthetics of nature has its historical baggage and an implicit notion of

6. For pioneering work in climate aesthetics, see Brady 2014; Brady 2017; Ciccarelli 2014; Nomikos 2018; Auer 2019; and Richardson 2019.

7. See e.g. Woodford 2003; Mendick and Malnick 2011; Singh 2011; Lopez 2017; Sweney 2018; Street-Porter 2018. See also the confessions of cameraman Doug Allan (2012) and filmmaker Chris Palmer (2015).

8. See e.g. Fitzgerald 2018; Rodriguez 2020. Nonetheless, the exploration and (aesthetic) appraisal of degrading built environment (*urbex* and *rurex*) has gained popularity both as a hobby and visual representations shared on the Internet.

9. Of course, ‘natural environments’ are also many and can be classified in various ways, for example, with reference to the kinds and intensity of human interference (indigenous forest management, modern forestry), ecosystem state or functions attributed to the environments (nature reserves, city parks).

nature characteristically deriving from German Romanticism that was born during the nineteenth century urbanisation: cultural nature here, natural nature there. Further, Anglo-American environmental aesthetics has its roots in the wilderness philosophy and conservation ideology, with Thoreau, Muir and Leopold being central figures in the tradition.

Contemporary environmental aesthetics, understood as the movement woken by Ronald Hepburn in the 1960s, was born at a time of rising environmental awareness: a growing concern of air and water pollution, waste disposal, poisonous agricultural chemicals, and the like. A classic question in environmental aesthetics has been: Can we consider a sunset beautiful still after we have learnt that the colours are enhanced by pollution?¹⁰ Now we must ask – allow the dramatisation – how to appreciate *nature* which is undergoing a drastic, unstoppable change and altering its character to something unknown. An ‘environmental problem’ is no longer only the smog caused by the local factory. Global climate change is something much more wicked.

First, it is global. It is not caused by an individual factory or city or certain technology. It impacts the whole planet; yet, many environmental disturbances are not only spatially and temporally far from the originating cause but also their complex cause and effect chains are difficult for laypersons to grasp. Second, it is progressive and lagging. Atmospheric carbon dioxide concentrations stay high even after emissions cease. Oceans warm slowly, and sea levels rise long after global temperature stabilises; glaciers melt gradually. Third, it is grounded on the manipulation of natural processes. It is not caused by a poison, but because a fundamental thing in nature, carbon cycle, is being altered. Fourth, it is bound with human behaviour, as our modern economy is largely based on the use of fossil fuels. Fifth, the study and comprehension of its mechanisms depends on professionals; for a layperson, it is something indirect, largely invisible and most characteristically abstract.

At the same time, our folk conception of nature seems to be in transition. If positive aesthetics once maintained that all untouched nature is beautiful, today natural environments carry (unintentional and indirect) marks of the human hand. Where negative human intervention is not directly perceived, it is present as worrisome thoughts about the condition of environment.¹¹ Environments change – and the various meanings and values associated with

10. Benjamin Richardson (2019: 246), for one, updates this question and touches the aesthetic implications of (largely speculative) geoengineering: he mentions solar radiation management projects in which sulphur particulates or aluminium oxides could turn blue skies redder and ocean iron fertilisation which would spawn algae blooms and make the water greener.

11. Again, I am asked to provide references for claims about *Zeitgeist*. I think that thoughts and feelings expressed in influential works such as Elizabeth Kolbert’s *Field Notes from a Catastrophe* (2006), Edward O. Wilson’s *Half-Earth: Our Planet’s Fight for Life* (2006) and David Wallace-Wells’ *The Uninhabitable Earth* (2019) both represent and shape a common worry about environment. Also, the growing literature on climate anxiety manifests the discomfort toward the environment that permeates the life of many; see e.g. Grose (2020); Salamon and Gage (2020); and Ray (2020).

AESTHETIC APPRECIATION OF NATURE ...

them also change.¹² As for aesthetics, the question is: How do we look at nature which we know is undergoing a rapid, human-accelerated change?

In what follows, I will argue that global climate change will transform the practice of aesthetics of nature and philosophical theories on nature appreciation. In section two, I will argue that global climate change poses a threat to scientific approaches to nature appreciation, for our scientific understanding and human comprehension of environmental change is limited. Section three argues that global climate change also challenges non-scientific approaches that highlight the role of imagination, as global climate change sets psychological obstacles to imagination and wonder. In the fourth section, I will propose that we need a new aesthetics of strangeness and uncertainty and argue that environmental art could help us in refining environmental imagination and providing new ways to aesthetically interpret and characterise environment.

2. KNOWLEDGE OF THE UNKNOWN

Contemporary environmental aesthetics has largely concerned itself with the principles of the aesthetic appreciation of nature. The proponents of ‘scientific approaches’ maintain that nature appreciation is to be based on our scientific knowledge about nature. Allen Carlson, the originator of the enterprise, famously claims that natural historical and natural scientific knowledge should guide the aesthetic appreciation of nature the same way that art historical and art theoretical knowledge guides art appreciation – namely, by providing us the frame and concepts of interpretation (Carlson 1979: 273; Carlson 1981: 25; Carlson 2008: 225; Carlson 1995: 393). In scientific approaches, natural sciences are seen to inform the appreciator about natural objects and environments. The object of science-based aesthetics is ecological processes and ecosystems, and their appreciation largely an intellectual affair (Rolston 1995: 377; see also Rolston 1998: 162). The proponents of scientific approaches treat aesthetic judgements about nature in terms of appropriateness and even truthfulness (Carlson 1981: 25; see also Carlson 2008: 225 and Carlson 1995: 393¹³). They are after objective aesthetics and often justify their enterprise with a moral and ecological reason, as they claim that scientifically misguided aesthetics may harm environments and ecosystems, making the charismatic

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12. A key challenge which climate change presents for aesthetics is, as Emily Brady (2014) suggests, the aesthetic appreciation of landscapes, species and processes affected by climate change understood as a form of environmental harm. Climate aesthetics has begun as such an aesthetics of loss, in which it is assumed that degrading environments lose their ecological and also aesthetic richness. On the face of it, this is easy to accept. But can there be something aesthetically fascinating (or even beautiful) in the changes? Does not anything good follow from longer growth periods, for instance?
13. The standards of ‘appropriateness’ and ‘truthfulness’ which scientific approaches advocate have been much debated; for an overview of the criticism, see e.g. Mikkonen (2018: 7–12)

species flourish and the ugly and the insignificant species suffer (Carlson 1979: 274; Eaton 1998: 152).

The scientific approaches have emphasised the value of natural historical knowledge and our understanding of the past of an environment.¹⁴ Certainly, the backward looking scientific approach has value in informing us of environment's genesis to date. For instance, from a geography textbook I can learn how my beloved nearby pond is formed by a glacier some 13,000–10,000 years ago. Moreover, science can also predict the likely development of an environment. I may learn that the given pond will eventually turn into a wetland, as peat mosses slowly occupy it, and that its 'pondness' is just a short moment in natural history. I may also learn that the Bothnian Bay, the northern part of the Baltic Sea, was produced by glaciation and, further, that the isostatic land uplift will eventually turn it into a great lake; its being part of a sea hence being just transitory.

Environments will change 'on their own' on large time scales. Today, what seems most relevant is the anticipation of anthropogenic and accelerated alteration, the impact which global warming has on nature. Nature, whether understood as global biosphere or a given environment in our immediate reach, is undergoing a rapidly developing, human-induced change.

Global climate change will radically affect our familiar nature. For instance, the relative prevalence of Finland's most common species of trees – pine, spruce and birch – will probably change because of global warming. Conditions for oak, maple, ash, elms, hazel and lime, species more common in Central Europe, will improve in Southern Finland. According to one scenario, the spruce and pine forests of Southern Finland are likely to turn into beech and oak forests in the next hundred years (assuming that they are let to develop 'on their own' – in which anthropogenic global warming is a part of 'their own').¹⁵

Future changes are however challenging to predict. There are so many variables involved, and the coupling between different climate components, for instance, are not fully understood; the climate system is extremely complex

14. Environments change all the time, and these changes may be examined from various perspectives and temporal and spatial scales. In addition to large-scale natural historical changes, we may look for more recent local cultural impact. In a forest one with sufficient training can see traces of the ice age, signs of slash-and-burn cultivation and later grazing, and so on. Lay people may be unable to see that the places they consider 'natural' or 'wild' carry thousands of years of human intervention (which, of course, does not mean that the places are 'unnatural').

15. This future scenario might be difficult to visually imagine, just as the past. After all, spruce is a newcomer and has spread to Finland some 6,000 years ago – and there have already been oak forests in Finland after the ice age some 7,000 years ago. A *sub specie aeternatis* aesthetics based on such knowledge, with its geologic timescale, ought to be distinguished from an aesthetics that relates to our personal encounters with nature. Aesthetic experiences, traditionally understood, begin from the senses and occur within human experiential and cognitive frames.

AESTHETIC APPRECIATION OF NATURE ...

and difficult to model. There is a constant quandary about a future situation in a certain place at a given time. Further, living nature systems are complex systems themselves.¹⁶ Ultimately, the biggest uncertainties in climate models come from emission scenarios: the future depends on matters such as today's international climate policy and our ability to reduce carbon dioxide emission.

Perhaps a bigger challenge than the limits of contemporary scientific understanding relates to the limits of human comprehension. We lay people do not understand 'complex systems' or compound causal changes, such as the temporal and spatial distance between a cause and its effect in global warming.¹⁷ We do not grasp their scales which go far beyond human experiential and cognitive frames. This incomprehension, and the unforeseen character of natural powers, could link us to Romantic sublime. The difference is however that the Romantic *Wanderer* was safe in his cave in which he could appreciate the storm that was only passing (cf. Brady 2021).

One might argue that scientific approaches to nature appreciation are not about forecasting but genesis and causation, that is, how an environment was brought to be as it is. As such, they definitely have their place. Also, science can inform us about changes in an environment that are (partially) attributed to climate change, and arguably thus – more or less – contribute to our aesthetic judgments about that environment. In turn, the emerging climate aesthetics has been characterised as an aesthetics of future, and one of its key questions is, according to Emily Brady, how we should predict the future aesthetics of environments heavily altered by climate change (Brady 2014: 555–559; see also Richardson 2019: 136).

Climate change is however an ongoing phenomenon and its future impact highly relevant for today. Neither is the aesthetic appreciation of nature limited to the present moment (immersion and fancy put aside). Brady (2014: 557), for one, remarks that the aesthetic effects of climate change are situated within narratives that look both backwards and forwards in time. Arguably, such a temporal dimension is central to our aesthetic practices and aesthetic understanding of an environment, especially when conceived as a place. Our expectations about future pervade our present experiences, just as our history with a place affects our engagement with it. For instance, annual variation is a key part of the lifeworld of an aesthetic wanderer. In gardening, in turn, anticipation and planning are the heart of the pleasure.

Of course, we predict and observe environmental change – and plan and manage environments – within different timescales. The relevant 'futures' in gardening and forest conservation, for example, are different. As said earlier,

16. Of course, the uncertainty partly depends on the level of description we want to make predictions about future; moreover, there is more research-based predications and models on some regions of the world than others.

17. As Timothy Morton, for one, has demonstrated in his theory of 'hyperobjects' (see Morton 2010; Morton 2013).

science may help us in predicting a future appearance and character of an environment in a given timescale. Nevertheless, a problem is that the possible futures are innumerable. In his *Second Nature* (1991), the author Michael Pollan writes about Cathedral Pines, an old-growth white pine forest in Cornwall, Connecticut, which was mostly destroyed by tornadoes in 1989 and whose preservation stirred much controversy, as people debated whether the forest should be left in a 'state of nature' or whether the pines, dating back to around 1780s, ought to be cleared and replanted in order to remake the semblance of an 'untouched New World forest'.

After immersing into forest ecology and consulting environmental professionals, Pollan learns that Cathedral Pines may next turn into an oak or hickory forest, or taken over by a neighbouring planted, exotic species – all depending on chance. As he puts it, 'forest succession, it seems, is only a theory, a metaphor of our making, and almost as often as not nature makes a fool of it. The number of factors that will go into the determination of Cathedral Pines' future is almost beyond comprehension' (Pollan 1991). Moreover, Pollan notes that instead of a single 'future':

an incomprehensibly various and complex set of circumstances – some of human origin, but many not – will determine the future of Cathedral Pines. And whatever that future turns out to be, it would not unfold in precisely the same way twice. Nature may possess certain inherent tendencies, ones that theories such as forest succession can describe, but chance events can divert her course into an almost infinite number of different channels (Pollan 1991).

Today, even short-term changes of conditions are more difficult to anticipate, as global warming accelerates the spread of new invasive pests and pathogens, for instance.

More problematically, a large part of the impact of global climate change goes beyond our perception. We notice a winter without snow, but we do not directly perceive ocean warming or sulphur dioxide in the air and their impact on different ecosystems. Much of the impact of global warming is beyond *aisthesis*, slow or underway, and such phenomena are also aesthetically challenging.

For us lucky ones, climate change is not necessarily perceptible as abrupt or dramatic local changes in the near future. For instance, degradation of environments and the loss of species caused by global warming are difficult to notice. We perhaps see the arrival of new plant and animal species but might not notice the disappearance of the familiar – perhaps unless people with relevant training and attention will inform us. People living in the periphery of the Roman Empire did not notice its fall, and the same arguably goes for many other collapses, such as a mass extinction. The baseline constantly shifts, and we adapt to gradual worsening. Unusual weather conditions become usual as they continue.

While we might not directly perceive much of the impact of global warming in our environment, our thoughts about and emotions related to future

AESTHETIC APPRECIATION OF NATURE ...

environmental change – human-induced indirect and unintentional environmental change – permeate our experience of environment. The biggest change, and the greatest challenge for environmental aesthetics today, is ultimately a conceptual change: our notion of nature. We know about global human-induced environmental change and find it difficult to look at nature without thinking of it, even though we might be equally inclined to put non-present matters aside and seek relief from unpleasant reality. Arguably, this conceptual change affects on how we interpret and appreciate nature. Of course, it is difficult to estimate the exact reason for changes in a natural environment, or the human role in the link of causes and effects, for example, to say how specific weather events link to global climate change. And it is precisely this uncertainty that opens a door for imagination.

3. REVISING IMAGINATION

Defenders of ‘non-scientific’ approaches to nature appreciation have emphasised the role of emotions (Noël Carroll), bodily engagement (Arnold Berleant), imagination (Ronald Hepburn, Emily Brady), stories (Thomas Heyd) and mystery (Stan Godlovitch) in our engagement with natural environments. Most often, scientific knowledge has been challenged by imagination which is seen to provide us relevant metaphors, analogues and affective and symbolic meanings, a ground for perceiving and appreciating nature.¹⁸ I will focus on that strand.

Traditionally, aesthetic imagination has been connected to wonder (which has a conceptual history of its own). Kant famously distinguished between two forms of wonder: astonishment (*Verwunderung*) caused by novelty that exceeds expectation, on the one hand, and admiration (*Bewunderung*), that is, amazement that does not cease once the novelty is lost, on the other hand.¹⁹ Holmes Rolston III has championed this latter form of wonder in environmental aesthetics, asserting that ‘science removes the little mysteries (how acorns make oaks which make acorns) to replace them with bigger ones (how the acorn-oak-acorn loop got established in the first place)’ (Rolston 1998: 165). Rolston’s miracle-like wonder is undoubtedly important in the aesthetics of nature. Yet, wonder – awe, amazement, admiration – is a pleasurable emotion generally caused by something unfamiliar and beautiful. Global climate change is, in turn, an existential risk and a dreadful phenomenon which might render wonder and other positive emotions psychologically challenging.

Global climate change has been characterised as the crisis of reason (Val Plumwood) but also of imagination (Amitav Ghosh) and language (Elizabeth

18. See Brady (2003: 150–172) for different modes of imagination that are, in her view, required in perceiving and comprehending natural objects.

19. Kant 1998: 5: 272.

Rush).²⁰ It also threatens escapist aesthetic imagination and non-scientific approaches with their fairy woods. The situation seems paradoxical: On the one hand, scientific knowledge is not enough for a ground for aesthetics nor can aesthetics be derived from knowledge. On the other hand, knowledge seems to take wind out of imagination and wonder's sails: there seems to be little space left for wonder, as our minds are increasingly filled with worry. Instead, changes in nature seem to provoke anxiety and eeriness for many.²¹ Also the sort of Romantic metaphysical imagination, in which the horizon, for instance, represents purity, freedom, possibilities and future – or infinity, mystery and transcendence – is today considered obsolete. Above the sea of fog, the wanderer sees condensation trails in the sky and telecommunications towers in the horizon; in the night, city lights glow somewhere.

It is important to notice however that imagination and wonder have not gone anywhere – only their character has altered.²² Here, I address only one, yet arguably common, form of perplexity that is caused by alienness or strangeness in nature. For instance, in a foreign land, natural environments easily appear as both familiar and strange. Yrjö Haila, an ecologically trained researcher in environmental politics, once visited a North American coniferous forest which he described as 'secretive'. For him, the forest was 'almost familiar, yet not' (Haila 2004: 117; author's translation):

Two spruce species ... about [!] three pine species ... few birches and an innumerable amount of willows ... A Northern European visitor does not distinguish the species from each other. Further, the forest is thicker than those in Northern Europe; the reason for the difference is not known. ... Also the smell of the forest is odd and resembles the aroma of North American root beer (Haila 2004: 117–188).

20. Plumwood 2001; Ghosh 2016; Rush 2018.

21. In climate and environmental psychology, emotions associated with climate change include worry, despair, anger, grief, melancholy, solastalgia, guilt and hope, to mention some. As Katie Hayes and her colleagues (2018: 2) report in their survey, research literature on the impact of climate change on mental health includes evidence that extreme weather events may trigger 'post-traumatic stress disorder (PTSD), major depressive disorder (MDD), anxiety, depression, complicated grief, survivor guilt, vicarious trauma, recovery fatigue, substance abuse, and suicidal ideation'. Further, they suggest that 'the overarching threats of a changing climate can also incite despair and hopelessness as actions to address the "wicked problem" of climate change seem intangible or insignificant in comparison to the scale and magnitude of the threats'. However, they note that disastrous circumstances 'may also inspire altruism, compassion, optimism, and foster a sense of meaning and personal growth ... as people band together to salvage, rebuild, and console amongst the chaos and loss of a changing climate'. For a rough overview of the growing psychological research on emotional impact of environmental change, one can look at Clayton et al. (2017); Clayton and Manning (eds) (2018); and Hoggett (ed.) (2019).

22. Even though we are living an exceptional time, we ought to call in mind that the Romantics, for instance, also had their presentist worries related to their modern science and the loss of spell of nature it seemed to cause.

But one can also encounter ‘alien nature’ in one’s immediate environment. Imported ornamental plants, for instance, unfortunately do not stay in one’s garden. In Finland, the giant hogweed (*Heracleum mantegazzianum*) is one of such fugitives. As an escapee, the plant is disliked because it is poisonous, it spreads quickly and is difficult to remove. But also its size stuns one. Its scale is threatening, as it exceeds what one is culturally accustomed to (in this case, the common hogweed).²³ A familiar environment, now populated by the plant, looks odd; more like a prop of a cheap sci-fi movie than nature. This sort of change, the arriving of non-native plant and animal species, has occurred as long as people have travelled, and extensively all since the so-called age of exploration. In today’s globalised world, it happens more and more, because of the movement of people and goods and as global warming helps the progress of certain non-native species. What is new is the accelerated rate of invasion. Ecosystem changes related to invasive species are easier to notice within the human lifespan.

Today, many describe the feeling of strangeness in environment in terms of *uncanny* (*Unheimliche*). In environmental uncanny, something strange and unfamiliar unexpectedly arises in a familiar natural context. The author Amitav Ghosh remarks in his influential work *The Great Derangement* (2016) that ‘it is surely no coincidence that the word uncanny has begun to be used, with ever greater frequency, in relation to climate change’.²⁴ As an environment changes, or strange objects or phenomena appear in it, aesthetic imagining cannot rely on traditional guidelines, such as meanings derived from fictional and non-fictional representations, but we need new ways of characterising, interpreting and appreciating the environment. To exaggerate: coniferous forests have been represented, thematised and aestheticised in Finnish literature for some 150 years, but for the appreciation of oak forests we have little of such cultural guidelines. A future aesthetics needs new models for appreciation that are able to account for environmental and conceptual changes.

23. The folk aesthetics of non-native species is an interesting field of its own. In Finland, many have expressed their like for bigleaf lupine (*Lupinus polyphyllus*) that fills the roadsides and near meadows. For the ecologically informed, in turn, the plant is a disaster, as it replaces all the native meadow species. Benjamin Richardson (2019: 160) aptly speaks of the ‘terrible beauty of invasive plants’.

24. As Ghosh (2016: 30) sees it, ‘no other word [than uncanny] comes close to expressing the strangeness of what is unfolding around us. For these changes are not merely strange in the sense of being unknown or alien; their uncanniness lies precisely in the fact that in these encounters we recognise something we had turned away from: that is to say, the presence and proximity of nonhuman interlocutors’. See also the works Ghosh refers to, namely, Morton (2013: 50, 132–133) and Marshall (2014: 95). Of course, strangeness has been a central theme in nature writing for ages, as in Finnish literary depictions of forests. Actually, there is a phenomenon of ‘forest’s cover’ in Finnish folklore, in which people ‘covered by the forest’ no longer recognise the (possibly familiar) terrain around them.

4. FUTURE AESTHETICS

Because of its character, we approach climate change largely via natural scientific experts. Nonetheless, it just does not sink in.²⁵ This is often explained by referring to studies in the sciences of the mind which suggest that scientific information, statistic and rational argument are not efficient ways to affect people's attitudes (whereas anecdotal evidence and emotional stories, for instance, are).²⁶ Likewise, scientists' declarations of climate emergency and open letters warning about the catastrophic dangers of climate change have had worryingly little impact: desperate declarations of a deadline – ten years to act – have experienced inflation. Could aesthetics provide an opportunity for us to explore the effects of climate change deeper, more effectively, more personally?

Many of us feel lost and hopeless in the contemporary world. We know that we have to abandon the old and the customary, but we are unable or unwilling to imagine the new. We hesitate to imagine an unfavourable future or radically different lifestyles that we are forced to live in the future; we have no idea of what our identities, work, daily tasks and hobbies will be like, so we proceed as usual. Nevertheless, a growing number of artists and art scholars have proposed that art could help us in our encounter with climate change and adopting to future. After all, science has told us what it knows; exploring the experiential and affective dimensions of climate change – what it will be like to be a human being in a radically different world – has been delegated for art and humanities.

Typical suggestions include that art, environmental art in particular, could make climate change conceivable, as it may, for instance, bring spatially or temporally distant things into our sensory reach.²⁷ Let us think, for instance, about Edward Burtynsky's impressive photographic series from *Breaking Ground: Mines, Railcuts and Homesteads* (1983–1985) to *Anthropocene* (2014–2018) which depict the material basis and impacts of our lifestyles; or Eve Mosher's 'HighWaterLine', in which the artist drew a chalk line around Brooklyn and Manhattan to indicate the areas that would be underwater as the sea level rises; or Olafur Eliasson's installation 'Ice Watch', in which he brought free-floating glacial ice from Greenland to melt in Place du Panthéon,

25. In climate communication, our unwillingness and inability to 'take climate change seriously' (that is, to deny or ignore it) is explained by pointing to the abstract, distant and invisible character of the threat (see e.g. Marshall 2014).

26. In reality, the matter is trickier. A recent meta-analysis (Freling et al. 2020) proposes that when it comes to issues associated with a severe threat or which involve health or affect us, we tend to be more accepting of anecdotal over statistical evidence. In opposite cases, statistical evidence fares slightly better.

27. 'Environmental art' may be considered an umbrella term which includes, at least, land art, art in nature, ecological art, bioart and art (literature, performing arts, visual arts, music) that explores environmental themes, such as human–nature relationships. These – partly overlapping – genres are defined and classified in various ways; in this article, I will speak of environmental art in a broad sense.

Paris (2015) and outside London's Tate Modern (2018). Also, art is regularly celebrated for its ability to make things visceral. Artworks may, at least temporarily, significantly affect one's emotions and attitudes, which the Chinese artist Cai Guo-Qiang, for one, might have gained in his work 'The Ninth Wave' (2014) in which he sent a fishing vessel packed with replicas of endangered species down the Hangpu River.

However, we ought not to be overly optimistic about art's ability to change the world in a straightforward manner. First, the actual impact of an artwork may radically differ from its intended purport. An audience may find a didactic piece dismaying because of its patronising tone, and perhaps even arrive at the opposite of what was intended (Pettersson 2016: 239). Radical or ostentatious imagery, for instance, may induce refusal and encourage fatalism.²⁸ Even when art leads to changes in the audience's beliefs and attitudes, political and societal obstacles may block behavioural change. Rather, it is hoped that environmental art could affect broader culture attitudes about environment and thus gradually impact on politics. Second, and more importantly, one ought not to instrumentalise art and see it as an illustration or dramatisation of a univocal point made elsewhere. Art is characteristically ambiguous, open-ended and unpredictable; works that drum a message and allow no room for different, even mutually incompatible interpretations, fall short as art. Aesthetically valuable works rather reveal unforeseen connections between things and aspects of the world that were previously unnoticed or accepted without question. Third, climate change sets challenges for arts too. As for literature, for example, climate change resists customary frames of storytelling, the human perspective and even the narrative form because of its complexity and scale.

Ideally, however, art may encourage us to rethink our being in the world and the complex interrelation of human and non-human life. It may foster our sensibility and imagination, provide us a place where we can go through various sorts of emotions, some genuinely new; and it may produce new collective identities and communities. Art may propose alternative ways of living and, in the end, call us to think how to live respectably even when there is nothing to do and no place for hope.

Art may enhance aesthetic imagination in nature appreciation in various ways.²⁹ To begin with, artworks may provide us new, creative ways to interpret and characterise environment. For instance, instead of looking at nature the way we are accustomed in contemplative aesthetics, contemporary works of art often invite us to take on non-human perspectives (imaginary or speculative, of course), thus leading us to imagine different *umwelts* or to ponder the non-human world with regard to agency and interaction (and culture as for

28. For a survey on 'Anthropocene art' and a discussion on the possible cognitive gains of works in the genre, see Welsch (2019).

29. See Heyd (2001) for the value of artistic and non-artistic stories in guiding and enhancing nature appreciation.

non-human animals). Such is the intent of the *Tree Opera* (2019), an opera piece performed in an art event in a Finnish forest, which lets a forests tell ‘its own story’ (by vocals performed by human singers);³⁰ Anette Arlander’s artistic project, in turn, goes further in performing with plants and participating in vegetal processes.³¹

Further, art may help us to reconsider and revise our gaze, experience, concepts and attitudes. For many contemporary thinkers and artists, for instance, ‘wild’ nature is no longer something that humans have conserved and left in peace, as in Yellowstone, but something that has escaped from human hands. For example, after the Chernobyl disaster, the area of Pripjat has become an object of both biological and aesthetic fascination.³² If the Romantics used to dream of a golden past, a time when humans had not spread everywhere, the ideal of today’s aesthetic radicals is temporally in another direction: a nature that has overcome human control, if not a nature in a future after humanity.

Finally, much of environmental art is participatory, inviting the audience to enter into an aesthetic community and to participate in meaning-giving. This is important, as imagining how future conditions will be experienced and felt is not achieved by scientific speculation, but in a creative, emotional and characteristically social affair. The uncanny is less frightening when encountered together.

5. ENDWORD

In this paper, I have argued that global climate change significantly affects how we aesthetically perceive, interpret and appreciate nature. I have attempted to demonstrate that global climate change poses a challenge for both the ‘scientific’ and ‘non-scientific’ approaches to nature appreciation. Nonetheless, I have argued that the non-scientific approaches might fare better in confronting the rapidly changing environment and the perplexity we feel in engaging with it. It is not part of my intention, however, to dismiss natural scientific knowledge in nature appreciation; rather, I claim that we ought not to limit ourselves to such knowledge. We need a place for bafflement and insolubility. If there is no room for the free play of imagination in aesthetics, I would certainly like to know where, then?

30. See <https://mustarinda.fi/program/tree-opera>

31. See <https://www.researchcatalogue.net/view/316550/316551>

32. Respectively, see e.g. Møller and Mousseau 2006; Webster et al. 2016; Marder and Tondeur 2016. Interestingly, the scenery-oriented Instagram generation has found many toxic industrial wastelands, such as ‘Novosibirsk Maldives’ – a coal plant waste dump – beautiful.

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