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# **Peatland Restoration as Aesthetic Engagement**

#### Abstract

In the ongoing ecological crisis, mere conservation of ecosystems in their current state proves insufficient; a pressing need to restore degraded ecosystems arises. Such restoration efforts challenge traditional conservation paradigms and the prevailing norms of environmental aesthetics. Reconceptualizing restoration as a co-produced ecosystem service fosters a paradigm wherein a symbiotic human-nature relationship is central, potentially transforming perceptions towards what might be termed 'awkward restoration aesthetics.' This paper focuses explicitly on forested peatlands, examining the evolving perceptions surrounding them in the context of ecological restoration. By integrating insights from environmental philosophy, this analysis aims to illuminate the nuanced interplay between ecological integrity and aesthetic valuation in restoration practices.

#### Keywords

Aesthetic Engagement, Ecosystem Services, Peatland Restoration, Relationality, Restoration Aesthetics

## Introduction

Despite commitments under international agreements such as the Paris Agreement and the Convention on Biological Diversity, ecosystems continue to deteriorate. Merely conserving the remaining ecosystems, which are currently in a relatively undisturbed state, is insufficient; restoring ecosystems that have already deteriorated is imperative. This restoration is crucial for mitigating climate change, conserving biodiversity, and maintaining the Earth's habitability. The mainstreaming of ecological restoration marks a profound shift in conservation thinking, moving away from traditional

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preservation approaches towards active rehabilitation and sustainable management of natural resources (Higgs 2003). Whereas two decades ago, conservationists were concerned about whether restoration is a way to avoid conservation and expand human technoscientific domination of nature even further (see Gobster & Hull 2000), now the United Nations (2019) General Assembly has proclaimed the years 2021–2030 as the Decade on Ecosystem Restoration. In practice, ecological restoration means measures designed to help ecosystems that are impoverished, damaged, or destroyed due to human activity to revert to their natural state or as near to their natural state as possible (Similä *et al.* 2014). What it entails more concretely depends, among other things, on the ecosystem and the type of land use in question.

William M. Jordan (2003), credited with coining the term "restoration ecology," perceived restoration not merely as a means to aid nature but as a crucial step in mending the problematic relationship between humans and the natural world. Jordan posited that restoration transcends the sentimentalization of untouched nature, advocating instead for a paradigm of caring stewardship. His vision of restoration encompasses a blend of technoscientific knowledge, human experiential understanding, and an element akin to performing art. Over the past two decades, restoration science has significantly matured. The techniques and benefits of ecological restoration are now well-established and documented extensively in best practice manuals, reflecting the field's evolution from Jordan's foundational ideas (see Similä *et al.* 2014). For example, stakeholder engagement has become the state-of-the-art in conservation, restoration, and ecosystem management, a matter emphasized earlier by Eric Higgs (2003).<sup>1</sup> Uncertainties naturally remain and will never be erased due to the complexity of eco-social systems.

However, I think the potential of restoration in reconfiguring humannature relationships remains unfulfilled. As we have entered the era of the Anthropocene, transformative changes to human-nature interactions for creating resilient development pathways are called for more than ever (Pörtner *et al.* 2021). Yrjö Haila (2012) has formulated this as the need "to get human-induced change in the environment to parallel with natural dynamics that take place without human influence." New social-ecological approaches and transdisciplinary collaboration are thus needed (Fischer *et al.* 2021).

<sup>&</sup>lt;sup>1</sup> Higgs (2003) emphasized the importance of engaging communities and local people in the practice for restoration to be successful.

Ecosystem restoration also presents challenges to the aesthetic appreciation of natural environments. Traditionally, there has been a tendency to value 'untouched' environments, which have thus been prioritized in conservation efforts. Restoration requires changes in aesthetic appreciation and engagement: the Kantian tradition of disinterestedness in aesthetic appreciation does not work with hands-on restoration, which is all but a disinterested practice. Thus, ecological restoration may challenge people to cultivate aesthetic sensibility.<sup>2</sup> So far, discussion on restoration aesthetics seems virtually nonexistent. I posit that a focus on aesthetics offers a promising avenue for enhancing ecological restoration efforts. By appealing to the aesthetic sensibilities of individuals and communities, we can potentially upscale restoration activities and engage a broader spectrum of society. This approach could tap into the emotional and cultural dimensions that shape our interactions with the natural world, fostering a deeper, more meaningful connection. Moreover, such an aesthetically driven engagement might pave the way for a transformative shift in human-nature relations.

I discuss restoration aesthetics in the context of peatlands. Wetlands, including peatlands, are one of the most critical ecosystems on Earth, but at the same time, they are among the most degraded habitats and require restoration (Similä *et al.*, 2014). In Finland—my geographic context—over a quarter of the land area is covered by peatlands. In addition to their ecological importance, the rich cultural history and diverse land uses of peatlands make them aesthetically especially interesting. Currently, peatland restoration is discussed mainly in terms of technoscientific expertise (also Ruuskanen 2016), referring to, for example, tons of carbon dioxide equivalents or species of soil microbes. These discourses exclude many people's experiences and may obscure restoration aims. I claim that connecting the restoration of peatlands with their aesthetic appreciation may generate understanding and support for the sometimes aesthetically awkward peatland restoration.

Finnish and international environmental policies are closely linked to the ecosystem services approach, aiming to ensure nature's contributions to humans (Similä *et al.* 2015). Like the earlier restoration idea, the concept of ecosystem services has faced many criticisms (see Schröter *et al.* 2014). To date, many conservationists refuse to use the term due to its anthropocentrism. The ecosystem service concept seems to render human-nature

<sup>&</sup>lt;sup>2</sup> Noora-Helena Korpelainen (2021) has discussed cultivation of aesthetic sensibility as a sustainability transformation.

relationships one-directional and exploitative. As such, the concept contradicts notions of ecological restoration that emphasize caring stewardship of nature. In reference to Robert Fish *et al.* (2016), I propose conceptualizing ecosystem restoration as a relational cultural ecosystem service, pointing to human contributions to ecosystem service production. Restoration as a relational ecosystem service could, at best, entail notions of playfulness, productivity, and artful aesthetic engagement. The reconceptualization may allow the reframing and broadening of the peatland restoration discourse to achieve broader resonance in society.

My approach in the paper is theoretical and exploratory, inspired by anecdotal observations and reflection on restoration aesthetics. I draw on multidisciplinary research literature to address the aesthetics of peatland restoration and to conceptualize restoration as a relational cultural ecosystem service. I will next discuss the context of peatland restoration in Finland before moving on to awkward peatland restoration aesthetics. After that, I will introduce the concept of ecosystem services and its critiques and discuss how the formulation of relational cultural ecosystem services may allow restoration to fulfill the task envisioned by Jordan (2003): to repair problematic human-nature relationships. I will close with a brief discussion on the timescales of awkward restoration aesthetics.

#### 1. Changing Perceptions on Peatlands

Wetlands are home to approximately forty percent of the world's species and are crucial against the effects of climate change. They retain and purify water, remove pollutants and excess nutrients, store atmospheric carbon, moderate flooding and coastal storms, support a variety of wildlife, and offer recreational, well-being, and economic benefits to surrounding communities. At the same time, wetlands are globally the most degraded habitats, facing numerous pressures. Finland is an especially wetland-rich country: whereas internationally, circa five percent of the land is mire, in Finland, peatlands cover almost a third of the land surface. Peatlands have been, however, overexploited and damaged due to drainage, agriculture, forestry, and mining for fuel and horticultural uses (Similä *et al.* 2014).

Furthermore, there is no one kind of peatland habitat, but based on the degree of tree cover and other vegetation, peatlands in Finland have been classified into seven main categories. Over half of the mire habitats in Finland are threatened. The diversity of peatlands and their uses means that there is no one format for peatland restoration either, but the costs and benefits of restoring a given area must be weighed, and the restoration mea-

sures must be carefully planned. Scaling up is difficult as restoration builds on place-based practices, situated knowledge, and local socio-ecological histories.

In general, restoration of wetlands strives to re-establish an ecosystem's natural hydrological conditions to improve the quality of species' habitats and biotopes and to reduce carbon emissions from the organic soil. The biodiversity and emission reduction targets may conflict and must be prioritized case by case. Globally, wetland restoration has taken place slowly and locally, and the areas restored are fragmented—international policies like the United Nations's Decade for Restoration aim to scale up restoration efforts. In Finland, the peatland restoration history goes back to the 1970s. Initially, drainage ditches were blocked manually, but from the mid-1990s, the peatland area restored annually has increased, and since then, peatland restoration work has usually involved machinery. Scaling up the restoration as large-scale works require various expertise—a concern already raised by Andrew Light (2000) and Eric Higgs (2003). Also, the result of large-scale nature restoration may appear different from that of small-scale restoration.

The perceptions and appreciation of peatlands have varied significantly over time. Esa Ruuskanen (2016) describes how for centuries bogs and mires were perceived as unhealthy areas where diseases, disease-spreading mosquitoes and rotten water originate. Ruuskanen describes how peasants feared mires (also Laurén et al. 2023) but at the same time utilized them as natural pastures, as hunting places, by digging peat for heating and roofing, and for harvesting herbs and berries. From the 18<sup>th</sup> century onwards, peatlands were considered useless pristine wastelands to be tamed and made valuable. Large-scale drainage of mires started in the early 19<sup>th</sup> century as extensive areas of peatlands were converted into agricultural land. In the late 19th century, peat was exceedingly extracted for fuel, and the growth of the forest industry resulted in draining peatlands into productive forestlands. Ruuskanen (2016, 132) writes how "bogs and mires as such were hardly ever conceived as aesthetically valuable and inspirational in the ways that conifer forests and pastoral landscapes were in the nineteenth and early twentieth cultural contexts. Quite to the contrary, they were regarded as forbidding and disturbing places." Drainage for forestry peaked in Finland relatively late, between the 1960s and 1970s. Ruuskanen (2016, 129) writes, "Finland holds the unofficial world record when it comes to peatland drainages for forestry in the postwar era." Some mires were earmarked for recreational use, but other interests did not interfere with economic priorities until the rise of conservationism in the late 1960s.

Anne Tolvanen, Artti Juutinen, and Rauli Svento (2013) studied residents' opinions toward different peatland use options in peatland-rich Northern Finland: timber production, peat production, protection, restoration, and recreation. Across different stakeholder groups, there was a preference for increasing the protected peatland area and a disagreement on reducing the restored peatland area. Hence, the authors concluded there was a common understanding of the ecological values of peatlands and management methods such as restoration. When there is no trade-off between use and existence values and provisioning services, the public commonly accepts restoration.

Kirsi Laurén et al. (2023) have studied changing mirecultures: during the current ecological crises, people's attitudes and perceptions of mires are changing again, "with a greater emphasis being placed on more-than-human aspects." The authors conceptualize the changing mirecultures as living heritage and highlight the importance of communities constantly recreating their traditions in relation to the peatlands. Laurén et al. describe how, in modern societies, mires have long been places to seek counterbalance to everyday life—peace, quiet, and enjoyment of nature. Common recreational uses of peatlands include berry picking, hiking, camping, different forms of exercise, and hunting. The new mireculture has introduced carnivalistic and art events, such as swamp soccer and floral-dress-and-high-heels-skiing. The common characteristics of the mire trend of the 21st century are, according to Laurén et al., a sense of community, experientiality, affectivity, and ethics. The difference from former recreational use is that the peatlands are considered to provide not only a place for peace and quiet but also a social space.

Parallel to the emergence of the new mirecultures, increasing understanding of peatland ecology, and appreciation of peatland aesthetics, the need to scale up restoration is emphasized, for instance, in the European Union (2020) Biodiversity Strategy for 2030. In June 2022, the Commission proposed the EU's first-ever Nature Restoration Law (NRL), with binding restoration targets (EC 2022). The proposal became highly contested in Finland and elsewhere due to foreseen economic impacts. In Finland, the NRL was discussed primarily regarding forest policy and even called, erroneously, Forest Restoration Law. Considering that the peatland area to be restored in Finland is twice as large as forests needing restoration (Räsänen *et al.* 2023), the proposal could have better been called Peatland Restoration Law. The focus on forests can be partly explained by the number of forested peatlands in Finland: approximately a quarter of forest growth occurs in peatland forests.

Considering the changing mire perceptions, restoration aesthetics may pose an additional challenge to upscaling peatland restoration. For most people, peatlands are not part of their everyday environments anymore, and the experience of mires is limited. Peatlands are places for recreation, cultural experiences, and beauty, to which restoration may bring an undesired disruption. The recovery of a drained peatland takes time after restoration. Furthermore, the peatland type and its earlier uses affect the post-restoration aesthetics. In a peat mining site, restoration measures, such as rewetting, afforestation, or paludiculture, are probably perceived as an improvement to the landscape. If the peatland has been drained for productive forestry, restoring it may not make sense, whereas a not very productive peatland forest may be restored. When the water level rises, the trees start to die if they are not cut down and left to decay. In Finland, peatland restoration is carried out mainly in conservation areas, which are also popular places for recreation. Stumbling upon a recently restored site may be an aesthetically unpleasant surprise (Laurén 2021). Against this background, I will next discuss the awkward restoration aesthetics, especially in the case of forested peatlands.

### 2. Awkward Aesthetics of Peatland Restoration

The aesthetic pleasures derived from appreciating natural environments constitute significant cultural ecosystem services. These services are not merely incidental but crucial in shaping human attitudes and behaviors toward the environment. Aesthetically pleasing environments often inspire greater care and stewardship among humans. However, in discussing aesthetic sustainability, Sanna Lehtinen (2021) writes, in reference to Yuriko Saito (2019), that in contemporary theories, the aesthetic is not understood to refer only to aesthetically positive qualities such as beauty, picturesque, or cute but also to aesthetically negative qualities such as ugliness and grotesqueness, as long as they raise some level of attention and interest. Peatland perceptions are ambivalent and multifaceted: they can be "good, bad, and ugly" at the same time (Byg et al. 2017).<sup>3</sup> People may perceive peatlands as bleak wastelands, beautiful, wild nature, and cultural landscapes. The multiplicity of views seems compatible with Lehtinen's formulation of the aesthetic, and it may be fruitful for learning and tolerating awkward restoration aesthetics. As Anja Byg et al. write, it is vital to understand and manage ambivalent views towards landscapes.

<sup>&</sup>lt;sup>3</sup> Byg et al. (2017) have studied public perceptions of peatlands in Scotland.

Ecosystem restoration can be done on a small or large scale, but in any case, it means human intervention in the natural landscape, and it may be aesthetically awkward. In the case of peatland restoration, the activities entail, for instance, cutting trees, building dams, and filling up ditches to enable the recovery of the ecosystem. In current restoration practice, some attention is already given to aesthetics. Pekka Vesterinen *et al.* (2014) write how decisions on collecting and removing logging residues such as branches and small-diameter trees from restored peatlands should primarily be based on the ecological objectives of restoration. However, in areas widely used for recreation, it may be necessary to clear away such residues for aesthetic reasons.



Fig. 1. Restoration may resemble destruction Source: This is Finland, Bird 2021. Photo: Philippe Fayt/Metsähallitus.

Restoration may be done using heavy machinery (Fig. 1), often associated with heavy land use, commercial logging, and violent environmental destruction. The traces of restoration can be seen as scars in the landscape for a long time. It may take decades for the vegetation to grow and for the peatland to become aesthetically pleasing. For the untrained eye, it may be challenging to distinguish commercial logging from cutting trees for restoration purposes or draining peatlands from building dams for restoration with the same excavator. When the use of heavy machinery and the resulting disruption in the landscape is perceived as aesthetically unfavorable, negative responses may be alleviated by providing information and opportunities for engagement in restoration. Awkward restoration aesthetics requires understanding and appreciating restoration work's future ecological and aesthetic potentials. In line with this, Kate Flood *et al.* (2021) have proposed a process perspective for understanding the cultural services of ecosystems: people attach values to ecosystems by engaging with natural environments in different practices over time, and it is important to recognize a broad range of values and new associations between people and peatlands.

Green aesthetic thinking emphasizes aesthetic experience as multisensory engagement and bodily and spatial involvement with the environment (Berleant 2010). Similarly, Roberta Dreon (2023) has emphasized living beings' structural embeddedness and situatedness in their environment and discussed aesthetic engagement as fully embodied and embedded perception. Aesthetic sensibility requires cultivation (Korpelainen 2021). For most people, however, peatland restoration does not fall within the realm of the everyday, and they may not have opportunities to cultivate their aesthetic sensibilities embedded in the environment. The aim of upscaling restoration efforts introduces distinct challenges, particularly in aesthetic engagement. Small-scale restoration projects, often involving volunteers, tend to provide more opportunities for direct, multisensory, and bodily interaction with the environment. These intimate experiences are crucial for cultivating aesthetic sensibilities based on personal and communal engagement with nature; in contrast, large-scale restoration, frequently reliant on machinery, may diminish these sensory and aesthetic experiences. Therefore, exploring and implementing strategies that facilitate aesthetic engagement in tandem with the upscaling of restoration efforts is imperative.

Much of the peatlands in Finland have been drained for forestry purposes, and thus, people enjoying recreation in natural environments have become accustomed to the appearance of tree-growing mires. If a peatland was drained long ago, the ditches may be partly overgrown and do not stand out in the landscape as a disruption. A problem with the aesthetic appreciation of forests is that people do not necessarily know anymore what an old forest looks like in its natural state (Elonen 2019). Untouched, old forests are so scarce that most people have never seen a forest that is left to natural succession. People's experiences of forests are often from a nearby, accessible forest that is managed either for recreational or commercial purposes, and they usually appreciate a forest that is easy to walk in and where the tree canopy allows light to enter the ground. A forest in a more natural state, with lower visibility, may induce insecurity and fear. The same issue may be encountered with peatland restoration. Since so much of peatland is drained, people do not necessarily have the aesthetic experience of a natural mire or cannot imagine the appearance of a mire after restoration. Familiar, drained peatlands may be perceived as safer and more accessible.

An example of a restoration conflict due to cutting trees is the so-called "Chicago Restoration Controversy," described by Paul H. Gobster (2000). The debate concerned a Natural Areas Management Programme designed to restore seven thousand acres of forest around Chicago to the oak savanna and tallgrass prairie the area had been before European settlement. As the plans were publicized, there was strong community opposition against clearing the forest, as the people felt excluded from the process. Even though public engagement is the state-of-the-art in restoration projects today, it is not unimaginable that people oppose a radical change to a familiar land-scape.

Studies in environmental aesthetics have shown that aesthetic values may change with knowledge and awareness and are closely connected to ethical and epistemic values important for ecological understanding (Lehtinen 2021). Aesthetic appreciation may slowly change when people learn to appreciate natural environments formerly perceived as aesthetically unfavorable, such as wetlands (Saito 1998). Tolerating the awkward aesthetics of peatland restoration requires that people know why restoration measures are taken and understand their importance for humans and nonhuman nature. As Lehtinen (2021) writes, ideas of green aesthetics, such as cultivating flowering meadows to help pollinators instead of short-mown lawns, have already become mainstream. What was previously perceived as neglect in care is now understood as a valuable ecosystem service benefiting both humans and other-than-humans and, vice versa, what was previously understood as caring aesthetics—the short green lawn—is now increasingly seen as a biodiversity-poor "green desert." From the perspective of human-nature relations, however, there is a significant difference in learning to appreciate the flowering meadows and the restored peatlands. The former means not doing something, leaving nature to take its course-perhaps with some human aid in spreading the seeds. Letting the meadow grow is compatible with conventional conservation thinking, excluding human interference. On the contrary, restoration is an active human intervention in nature; as such, the aesthetic changes may be perceived even more negatively as environmental destruction.

Restoration literature also considers cultural ecosystem services provided by peatlands, besides other ecosystem services. Cultural ecosystem services of peatlands include diverse benefits such as recreation, aesthetic experiences, and identity formation (Waylen *et al.* 2016), and peatlands also serve as a material memory of past livelihoods. Pirjo Rautiainen and Henrik Jansson (2014) discuss the cultural heritage of peatlands, including artificial landscape values such as long abandoned peat excavation pits that have become essential elements of the landscape. These ambivalent examples human-made scars in the landscape now valued as cultural heritage—may pave the way for appreciating awkward peatland restoration aesthetics. To fulfill the potential of restoration to repair problematic human-nature relationships, I propose conceptualizing restoration *as* a relational cultural ecosystem service, including humans in its production.

## 3. Restoration as Relational Ecosystem Service

Ecosystem services are the diverse services and benefits ecosystems and natural environments provide humans. The concept was popularized by the Millennium Ecosystem Assessment (2005) which grouped ecosystem services into four broad categories: provisioning, regulating, supporting, and cultural ecosystem services. The ecosystem service concept has faced many critiques, summarized by Matthias Schröter *et al.* (2014). The concept has been criticized as being anthropocentric, promoting an exploitative human-nature relationship, focusing on economic valuation, and even conflicting with biodiversity conservation targets. According to counterarguments, however, the ecosystem services concept may be used to reconnect society and nature by highlighting human dependence on Earth's life support systems.

Cultural ecosystem services entail ecosystems' life-enriching and lifeaffirming contributions to human well-being, such as spiritual and recreational benefits. Scholars, policymakers, and practitioners have struggled to incorporate cultural services into ecosystem management because they seem to lack clear boundaries to allow us to measure them. The perception has been that dimensions of lived experience, such as spiritual enrichment or aesthetic pleasure, cannot be neatly linked with changes in natural environmental processes (Fish *et al.* 2016, in reference to Cooper *et al.* 2016). Cultural ecosystem services are commonly perceived as non-material and intangible, obscuring the material cultural dimension of human-ecosystem relationships. To amend this, Fish *et al.* (2016) advance a relational understanding of ecosystem services, starting from the perspective of peoples' interactions with and understandings of places, landscapes, and species, which allows exploring human meaning and experience in material contexts. The framework advanced by Fish *et al.* understands the cultural ecosystem services as co-produced and co-created outcomes of peoples' interaction with nature (also Flood *et al.* 2021).

Cultural ecosystem services are about understanding modalities of living that people participate in that constitute and reflect the values and histories people share, the material and symbolic practices they engage in, and the places they inhabit. These practices may be creative, ceremonial, celebratory, but also everyday and routine (Fish *et al.* 2016, 210).

Another issue with cultural ecosystem services research, from the perspective of ecosystem restoration and caring stewardship, is its tendency to discuss the services in terms of non-work activities, especially recreation (Fish *et al.* 2016). As such, cultural benefits from nature are easily understood as something "extra," even luxury, and subordinate to other ecosystem services vital for human well-being, making valuing them increasingly difficult. Nonetheless, conceptualizing cultural ecosystem services as non-work opens restoration for volunteers and various expertise, allowing diverse engagement with peatlands.

The relational cultural ecosystem framework presented by Fish et al. (Fig. 2) points to contributions that humans necessarily make to ecosystem service production, not being just recipients of the benefits, allowing the conception of ecosystem restoration *as* cultural sustainability. Fish *et al.* argue that environmental spaces and cultural practices should be considered mutually reinforcing cultural ecosystem services through which cultural benefits to well-being arise. Furthermore, the framework distinguishes four—often interrelated—cultural practices: 1) playing and exercising, 2) creating and expressing, 3) producing and caring, and 4) gathering and consuming. Producing and caring entail activities that span and blur work and non-work engagements with the natural environment; for example, diverse land-based professions and more informal conservation and management of the natural environment, such as citizen science, gardening, and participation in environmental stewardship. Human participation in the provision of ecosystem services allows us to develop solutions to environmental problems and shows that the human place in nature may be ethical, sustainable, and honorable; understanding restoration as a co-produced ecosystem service opens space for caring material cultural practices.



#### **Cultural Values**

Fig. 2. A relational conceptual framework for cultural ecosystem services Source: Fish *et al.* 2016, 211.

Ecosystem restoration is also conceptualized as a Nature-based solution (WaterLANDS 2022), a concept similar to ecosystem services but newer. Nature-based solutions are promoted as hybrid technological solutions to sustainability issues that engage nature. Carsten Herrmann-Pillath *et al.* (2023) have emphasized the aesthetic dimension of nature-based solutions in harnessing the co-creative potential of humans and nonhumans. They conceptualize nature-based solutions as more-than-human art, highlighting the open-endedness and creativity in practices such as restoration. It may be somewhat problematic, however, that ecological restoration emphasizes lost species and takes a historical state of nature as an objective towards which to proceed when the drivers of change are pointing at the future (Herrmann-Pillath *et al.*, 2023).

### 4. Restoration Time

According to Lehtinen (2021), aesthetic sustainability applies to those elements that sustain changes and stand "the test of time." From the perspective of ecosystem restoration, this is difficult, as restoration means actively making environmental changes, even if it is to bring back previous conditions. I find the backward-looking view of restoration problematic; it may evoke resistance. Time does not stand still, and in a changed environment, maintaining an ecosystem in a previous state is impossible. Restoration should be perceived as future work. Successful restoration requires identifying the future potentials of a degraded ecosystem, including aesthetic potential. This identification requires understanding aesthetic sustainability as a process. According to Korpelainen (2021), aesthetic sustainability invites us to deepen our temporal sensitivity, and the continuous cultivation of aesthetic sensibility may power an ongoing societal change. This conceptualization of aesthetic sustainability is compatible with restoration as a relational ecosystem service. It allows thinking of restoration aesthetics as aesthetics of care.<sup>4</sup> Upscaling peatland restoration requires ever-evolving mirecultures -new relational values, practices, and ways of thinking.

Understanding ecosystem restoration as a relational co-production of cultural ecosystem services facilitates reconfiguring the human-nature relationship to allow humans to be seen as active caretakers of the environment. This repositioning may be a decisive step for sustainability transformation. Working with an understanding of aesthetic sustainability that emphasizes change and cultivation of temporal sensitivity may help to see the future aesthetic and ecological potential of restored ecosystems.

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<sup>&</sup>lt;sup>4</sup> Yuriko Saito (2022) has recently discussed the aesthetics of care.

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