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ARTICLE

Sensing, Speaking, Remembering: Arboreal Sentience and Tree-Human Communication in Northern Finland

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Abstract
In Northern Finland, including sparsely populated Finnish Lapland and the small city of Rovaniemi, the widespread clearing of old trees has degraded the boreal environment. Disrupting the diverse relationships between people and trees, climate change will continue to alter the country's northernmost forests, as is widely known. In this urgent context, we propose that the collaborative project Gifts from the Sentient Forest (GSF) has developed new modes of interacting with Northern Finland's trees and appreciating their biocultural legacies. At the project's core is *arboreal sentience*, a concept illuminating the capacities of trees to sense, communicate, behave, learn and remember. In the project, other-than-human sentience provides a basis for cultivating tree-human communication while expanding Lapland residents' awareness of sylvan communities through painting, photography, film, music, poetry and performance. In this article, we present an account of three methods leveraged in the GSF programme to facilitate experiences of tree sentience in Northern Finland: sensing, interviewing (speaking) and remembering.

Keywords: Arboreal sentience; arctic conservation; arts-based research; forests; Northern Finland; tree-human communication

Why arboreal sentience?

Forests support life on Earth by providing sustenance, enhancing water quality and mitigating climatic irregularities (FAO & UNEP, 2020, pp. 162–63). In addition to their ecological significance, old forests hold diverse aesthetic, cultural, emotional and spiritual values because of the powerful capacities that reside within them (Ryan & Giblett, 2018). In this context, ethnobotanist José Tomás Ibarra and colleagues (2022) foreground how trees offer both "tangible goods (resin, bark, flowers, wood, fruits, medicines and seeds) and intangible values (aesthetic, artistic and religious character)" (p. 15). As natural and cultural nexuses, ancient trees, in particular, inspire personal and collective identities. The interwoven biocultural value of forests also extends to urban habitats where healthy, mature trees are integral to the wellbeing of humans and others (Mänttäri et al., 2023; Turner-Skoff & Cavender, 2019, p. 323).

Global deforestation, however, proceeds at a harrowing rate. Since 1990, approximately four-hundred million hectares of forests worldwide have been converted to agricultural, industrial and military uses (FAO & UNEP, 2020, p. xvi). As old forests disappear, the heritage associated with them is jeopardised (UNESCO, 2023). This precarity is evident around the globe including in relatively remote Northern Finland, a region touted as "one of Europe's last wildernesses"

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(Lapland - Above Ordinary, 2024).[1] Sparsely populated Northern Finland comprises Finnish Lapland, the provinces of Kainuu and North Ostrobothnia and the small cities of Oulu and Rovaniemi. Throughout the region, the clearing of trees for logging, mining and urbanisation has resulted in the decline of boreal habitats. The homogenisation of forest structures has precipitated the loss of salient ecological agents, such as large old trees, crucial for sustaining northern habitats (Aakala et al., 2023). Intensified by industrial-scale timber harvesting, the effects of climate change on Northern Finland are especially acute. During winter months, snowfall has diminished drastically while summer temperatures turn ever more volatile. A report by the Finnish Climate Change Panel warns that Lapland will experience catastrophic flooding as a consequence of ongoing climatic alteration (Salonen, 2021).

In Northern Finland, the disruption of forests fractures longstanding biocultural interdependencies between trees and people (Venäläinen et al., 2020). Due to centuries of settlement and industrialisation, much knowledge of Finnish trees and their myriad values has already vanished (Lummaa, 2023). This biocultural loss is one root of the region's climate emergency. Nevertheless, alongside the threats to the flourishing of Finnish forests lies a body of research articulating how trees respond intelligently to ecological contingencies. The science of "plant cognition" examines the faculties of communication, memory, kinship and altruism in plants, trees and forests (Baluška et al., 2018; Baluška & Levin, 2016; Baluška & Mancuso, 2020). Characterised as "sentinels" (Ribeiro & da Silva Torres, 2018) and "mother trees" (Simard, 2021), old trees can recall ecological events and transmit memories to younger generations to enhance their kin's resilience. The passing of experiential knowledge between generations through memory networks underscores the role of age and diversity in long-term forest health (Galviz et al., 2020). At the same time, ubiquitous subterranean fungal systems known as mycorrhizal networks energise "the diverse intelligence present among humans and forests" (Simard, 2018b, p. 197). In many ways, the notion of trees as cognitive beings accords with the Indigenous Sámi conception of Northern Finland as *Sápmi* and *meahcit* – as a locus of physical, psychological and spiritual encounters between humans and other sentient beings (Lehtola, 2004, p. 88). Throughout *Sápmi,* Indigenous communities continue to experience the catastrophic impacts of mining, drought, land clearance and climate change on forests (Acosta & Öhman, 2024; Ott, 2025; Sirniö et al., 2025).

Gifts from the sentient forest: communication and collaboration

As global societies become more estranged from arboreal nature, what might the recognition of forest sentience contribute to botanical stewardship and tree-people relations? The term *sentience* here expresses the idea that forests possess the capacity to communicate, respond, feel, sense and remember. The noun *sentience* derives from the Latin participle *sentiēns* for "feeling", referring to the ability to perceive through the senses. The adjective, *sentient*, signifies that one is "capable of sensing or feeling: conscious of or responsive to the sensations of seeing, hearing, feeling, tasting or smelling" (Merriam-Webster, 2024). Neuroscientist Lori Marino (2010) characterises sentience as "a multidimensional subjective phenomenon that refers to the depth of awareness an individual possesses" (p. 132). According to plant scientist Anthony Trewavas and colleagues (2020), sentience also implies an organism's "awareness" of the environment (p. 216). The notion of forest sentience, therefore, points to a forest's depth of awareness as a community of subjects.

[1]Wilderness is a fiercely contested concept that has historically been the subject of ongoing reinterpretation in Finland and elsewhere. The dominant Western narratives of wilderness tend to represent non-animal life as setting, scenery and spectacle. Botanical nature, including trees and forests, is often constructed as the passive backdrop and inert material for wild beasts. As its etymology suggests, *wilderness* is predicated on a culturally entrenched hierarchy between sentient, mobile animals, on the one hand, and inert, immobile plants, on the other. At the same time, the idea of wilderness in Northern Finland denies the sovereignty of Sámi people and perpetuates the construct of *terra nullius* – of land as territory empty of an Indigenous presence.

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The arts-based intervention Gifts from the Sentient Forest (GSF) proffers a transdisciplinary framework – traversing the arts, humanities and sciences both epistemologically and methodologically – for promoting new perspectives on Northern Finland's forests and their biocultural legacies. The project places "arboreal sentience" at the front and centre of enquiry. Understanding trees and forests as sentient is pivotal to addressing current environmental, social and cultural exigencies (Baluška & Mancuso, 2020; Popkin, 2019). Viewing arboreal sentience as a means to redress environmental degradation, František Baluška and Stefano Mancuso (2020) foreground the idea's "profound consequences not just for future climate scenarios but also for understanding [humanity's] role and position within the Earth's biosphere" (p. 1). GSF emphasises the value of engaging diverse publics in learning about arboreal sentience as a way to reconfigure entrenched perceptions of trees as commodities, resources and repositories. The project positions sentience as a galvanising agent for fostering creative practices predicated on communication and collaboration between life forms (Ryan, 2017).

Inspired by the potential of sentience, GSF innovates a spectrum of approaches to Northern Finland's trees through insights synthesised from the natural sciences, social sciences, humanities and arts. The research reflects the burgeoning of human-plant studies (HPS), a transdisciplinary field that unsettles epistemological biases towards botanical nature as insentient. Concerned with botanical agency, ethics and language, HPS offers a foundation for reconsidering vegetal life, problematising the dominant narratives of plants, rejuvenating human–flora relations and returning attention to the oftentimes marginalised significance of plants in everyday life (Ryan, 2023). Fostering creative interactions with trees and their ecological communities, GSF formulates strategies for countering "plant blindness", the inability to notice the flora of one's surroundings exacerbated by the wider cultural neglect of plants' multidimensional value (Balding & Williams, 2016). Theorists of plant blindness and the more recently conceptualised premise of "plant awareness disparity" contend that our undervaluing of the flora of our immediate surroundings limits our appreciation and understanding of botanical nature (Parsley et al., 2022).

GSF focuses on the arboreal communities of Northern Finland and, specifically, the spruce, pine, birch and aspen trees in Rovaniemi and outlying areas. Unlike ecological studies of Lapland, the project places emphasis on creative responses to environmental change in the region. Arboreal sentience cultivates people-tree-place interrelations. The approach aims to catalyse a transformation of spirituality, consciousness, awareness and values among the public. Accordingly, GSF considers the following types of questions: What does creative collaboration with the arboreal world involve? Which methods offer the most effective means to facilitate communication with trees? What gifts arise when we engage with trees as sentient beings? What creative, educational, social, personal, ecological and health-related benefits flow from our interactions with trees as collaborative kin?

GSF offers diverse educational programming focused on the sentience of trees in Northern Finland and reflecting the expertise of the project's leaders. Originally from the United Kingdom, Francis Joy has lived in Rovaniemi, Lapland, Finland for close to twenty years. He conducts research on Sámi religion and art at the University of Lapland's Arctic Centre. Based at the Nulungu Indigenous Research Institute at the University of Notre Dame, Australia, John C. Ryan is an international researcher in creative writing, plant studies and the environmental humanities. In 2024, in response to the ongoing decline of Lapland's old forest communities, we formed a cohort of fifteen artists, writers and researchers from Finland and abroad interested in engaging creatively with arboreal sentience. During four two-day retreats held between 2024 and 2025 at venues in proximity to old-growth forests, we guided the group through practices of visualisation, meditation, writing, painting, movement, pattern recognition, memory retrieval and species identification. As the culmination of the cohort's work together, we curated a two-month group exhibition at a gallery near the city centre (Ryan & Joy, 2025). In addition to the retreat-based learning cohort, we facilitated public workshops on arboreal sentience at sites in Rovaniemi and online, attracting about 800 additional participants. After each in-person and online event, we

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invited attendees to offer brief written narratives of their experiences. Delivered to participants by email, our feedback form consisted of broad, open-ended questions such as "Which of the approaches have you found helpful to developing your creative practice during this GSF event? Please elaborate".[2]

This article presents a critical account of the project's core approaches. We begin by contextualising GSF as a response to ecological precarity in the Rovaniemi area. We then delineate three methods selected to amplify participants' experiences of tree sentience physically in Rovaniemi and virtually through online seminars. The three interconnected methods – sensing trees, interviewing trees and remembering (with) trees – supplied an embodied medium for participants to express their encounters with arboreal sentience through poetry, songs, fiction, non-fiction, artworks, photography and performances. The three techniques constitute an eco-somatics, a framework merging ecology and somatics to generate practices deepening awareness of arboreal nature through embodied interactions (Barbour, 2024). In the form of narrative feedback and creative artefacts, the project outcomes accord with the aims of practice-based methodologies (Dwyer et al., 2017). Examples of the cohort's work and excerpts from participants' written responses enhance our account of the methods.

Rovaniemi, Finland: an arctic city in crisis

Known internationally for the aurora borealis, reindeer farms and wilderness tourism, Rovaniemi lies six kilometres south of the Arctic Circle at the confluence of the Kemi River and its primary tributary, the Ounas River (Figure 1). At 7,500 square kilometres, Rovaniemi ranks as Europe's largest city by land area and Northern Finland's second largest city by population after Oulu about 225 km south. According to recent estimates, Rovaniemi's population stands at about 65,000 (Arctic Mayors' Forum, 2024). The small city serves as the administrative capital of Lapland, the geographically largest yet least populated region of Finland with around 180,000 inhabitants. Lapland's subarctic climate is characterised by cold winters with heavy snowfall and mild summers. Marketed as a Christmas holiday destination, the city thrives on winter tourism from November through January. Accordingly, Rovaniemi is promoted to tourists within and outside the region as a place to experience boreal wilderness. In Finland and nearby Nordic countries, wilderness has historically undergone intensive contestation especially vis-à-vis climate change (Saarinen, 2003). Studies estimate that, by 2100, Lapland winters will be five degrees and summers two–three degrees Celsius warmer compared to baseline climatic conditions recorded between 1961 and 1990 (Tervo-Kankare et al., 2013, p. 300). In addition to the impacts of climate change, the Lapland War of 1944 resulted in the annihilation of Rovaniemi's infrastructure by retreating German forces.

Predating the city, the old trees of Rovaniemi are a vibrant element of its biocultural heritage. Due to the devastation of the city eight decades ago, the birches, pines, spruces, poplars and aspens that have survived embody a persistent sense of rootedness to pre-war history. An essential function of urban trees is to connect people with the more-than-human world (Turner-Skoff & Cavender, 2019). Correspondingly, one of the ways people begin to think about revivifying the habitats around them is through experiences of trees. In Rovaniemi, however, the few heritage trees remaining near the city centre are at constant risk of being lost to redevelopment. For instance, a proposal to construct an apartment complex by the Kemi River continues to imperil an area known as Sairaalanniemi or 'Hospital Peninsula', the site of an old health centre. Earlier generations travelled by boat on the Kemi River from other parts of Rovaniemi to Sairaalanniemi's beach. The heritage of the constructed landscape, signified by a church, cemetery and vacant hospital buildings, interweaves with the sylvan histories of old firs, pines, birches, larches, rowans,

[2]The project Gifts from the Sentient Forest did not require ethics approval from the authors' institutions. Nonetheless, the researchers observed all ethical protocols associated with soliciting feedback from participants.

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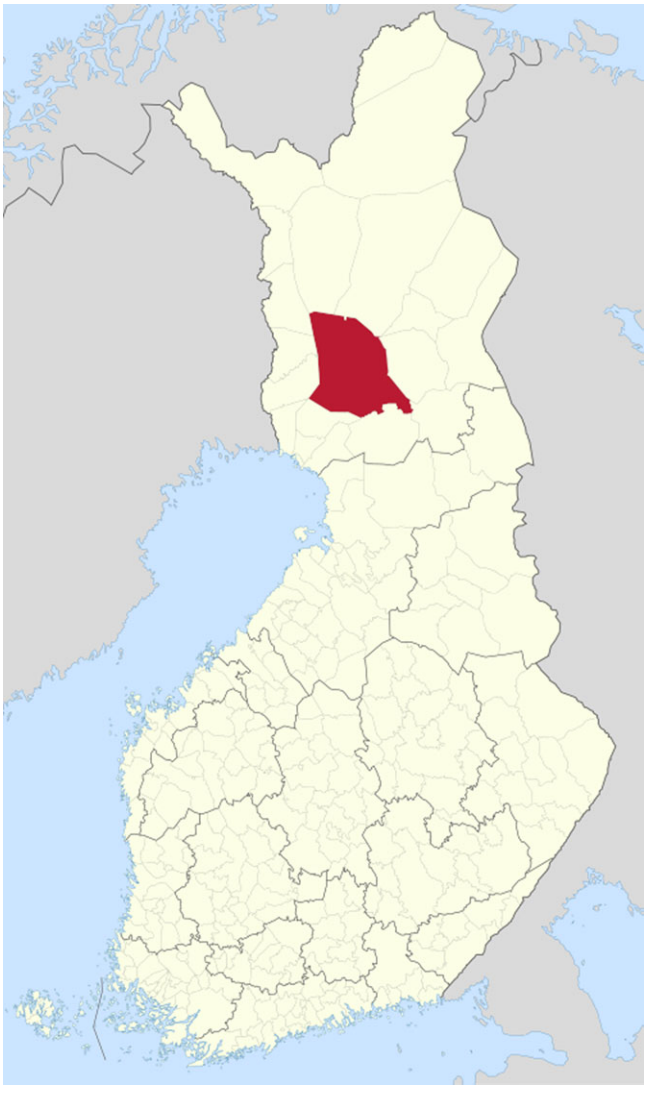


Figure 1. Rovaniemi is located in Northern Finland about eight-hundred kilometres north of Helsinki. Image credit: Fenn-O-maniC, CC BY-SA 3.0. <https://creativecommons.org/licenses/by-sa/3.0>, via Wikimedia commons.

cherries and poplars located near the riverbank. Many trees are conspicuously larger than their counterparts elsewhere in the city. Some birches have begun to decay due to their age. Part of the defunct health campus, unoccupied buildings are festooned with graffiti, bringing the old and the contemporary into contrast. Popular with pedestrians, bicyclists and skiers, the place attracts Rovaniemi residents and visitors who often visit a traditional wooden shelter, or *lavvu*, where they can cook, rest and socialise (Figure 2).

An article by Rovaniemi residents Kaisa and Heikki Annanpalo (2020) raises concerns about the future of Sairaalanniemi's arboreal heritage:

> On Sairaalanniemi, there are trees that have been rooted in their place for a hundred years and still continue to grow bushy and green. They have reached such proportions that nothing similar can be found here in the northern city. The area also has descendants of original trees,

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Figure 2. Large, old trees begin to appear on the path to Sairaalanniemi. Image credit: John Ryan.

> young trees and almost impenetrable coppice forest. (Annanpalo & Annanpalo, 2020, para. 2)

The citizens lament that "apartment buildings are being planned for the area, which cannot be built without destroying its trees" (Annanpalo & Annanpalo, 2020, para. 3). In their view, Rovaniemi risks losing its heritage born over many centuries including the legacies of poplars. A considerably large and historically significant poplar at Sairaalanniemi beach features in *Green Giants* (Finnish Dendrological Society, 2021). A review of the book comments that "in Lapland, the trees do not grow to record sizes, but there are still handsome trees here that arouse interest" (Ekman, 2021, para. 5). Ruhtinaanpoppeli, or prince's poplar (*Populus* x *rasumowskiana*), a cross of laurel poplar (*P. laurifolia*) and black poplar (*P. nigra*), is the sole Rovaniemi specimen nationally recognised as an arboreal giant. Arriving in Finland from Russia in the nineteenth century, prince's poplar was planted widely in urban areas. Notwithstanding its heritage value – as a hybrid "rarely seen outside the Tsarist Russian empire" – the poplar yields a profusion of white cottony seed hairs that spread everywhere, causing an inconvenience "so embarrassing that some trees have been removed from city centres" throughout Finland (Lauharo, 2024, para. 1).

As GSF emphasises, trees share their gifts when treated with respect. Rather than eradicating Sairaalanniemi's poplars and pines, local communities and governments should place value on their arboreal wisdom and ecological interconnectivity. To promote awareness of Rovaniemi's arboreal heritage, the exhibition "Trees, Parks, People" took place at the Regional Museum of Lapland in 2023. A photographic composition by artist and activist Mari Mäkiranta juxtaposes a woman's face against a conifer's branches, interlacing human and sylvan forms. The curators' text accompanying Mäkiranta's image underscores how old trees bear witness to history and stimulate

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urban identities. For people emotionally attached to old trees, the loss of individuals, such as the stately prince's poplar of Sairaalanniemi, induces a sense of mourning:

> The artists in the exhibition express, through their works, the shock that arises from the felling of a nearby forest or an individual elderly tree. The grief is entirely justified, as within our lifetime, we simply cannot witness a newly planted tree reaching its full age. The lifespan of a tree can exceed the human lifespan several times over; while our lives on Earth come to an end, the life of a tree is just beginning. (qtd. in Mäkiranta, 2023)

Witnessing the city's transformation over time, Rovaniemi's trees have developed robust resilience. That the Sairaalanniemi area was the site of a healthcare facility further demonstrates that earlier generations recognised the peninsula's healing atmosphere nurtured by the river and trees.

Method I: sensing trees

Sentience signifies the capacity to feel the world, communicate experiences and express emotions. In an arboreal context, sentience marks trees' abilities to feel, experience, react, communicate, recall and undertake intelligent behaviours (Baluška et al., 2018; Galviz et al., 2020; Trewavas, 2024). A sentient tree uses the senses of seeing, hearing, feeling, tasting and smelling to adapt ecologically and bear witness to change (Chamovitz, 2017). Through embodied interactions and multisensorial strategies, humans can establish dialogue with trees and other organisms (Huhmarniemi & Joy, 2022). At Sairaalanniemi in 2024, we investigated methods of amplifying participants' embodied encounters with arboreal sentience in cooperation with a group of bird cherries (*Prunus padus*). Flowering in early June after the long dark arctic winter, the tree emits an intoxicating almond scent announcing its sensuous presence in the environment. A one-off workshop with fourteen Rovaniemi residents explored the sentience of *Prunus padus* as a mechanism for raising public awareness of Sairaalanniemi's predicament. Structured interactions with trees enabled the attendees to appreciate arboreal beings as agents of communication and memory. The method we call "sensing trees" reflects the premise that practices of attunement render the energetic field of a tree accessible. Plants use electrical signals to transmit information internally within their bodies and externally with other life forms (Li et al., 2021). Studies reveal that trees influence organisms energetically as a part of the "electric ecology" of a habitat (Hunting et al., 2021). Accordingly, the Sairaalanniemi workshop began with an invitation to participants to open up their sensory faculties and allow exchanges with the trees to happen. Group members rubbed their hands together vigorously for thirty seconds, preparing themselves to enter the trees' energetic fields. Named "the light switch", this simple technique helps hone receptivity to arboreal sentience.

After "the light switch", participants observed their surroundings and identified a particular tree attracting their attention. We asked the group to look carefully at their selected trees, focusing especially on the roots. As they scanned the trees from top to bottom, attendees noted any bodily sensations that emerged. After this process of observation, group members walked towards the trees but stopped in the zone where the branches terminate (Figure 3). They ensured that their feet were planted firmly, inhaled deeply three times and transferred their attention to the interface between themselves and the ground. Next, they shifted awareness to the tops of their heads to experience being situated between the earth and the sky just like the trees. After relaxing upon each exhalation, they rubbed their hands together briskly, then held them still, palm to palm, allowing warm, tingling sensations to arise. The energy fields of trees radiate several metres beyond the tips of their branches. Experiencing these fields requires recognising layers of resistance, abrupt temperature shifts and the feelings in one's limbs as subtle cues transmitted

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Figure 3. Francis Joy of the Gifts from the Sentient Forest project facilitates a workshop on sensing trees at Sairaalanniemi, Rovaniemi, Finland in June 2024. Image credit: Francis Joy.

from the trees. After this part of the process, participants paused and introduced themselves to the trees. With or without words, they conveyed certain wishes, such as relief from pain, stress or uncertainty and then waited for the trees' responses. If previously vandalised or otherwise disrespected, a tree might not welcome interaction. If participants sensed negative reactions, we recommended that they move to other trees. In certain instances, nonetheless, trees requested help from group members if they needed protection.

Through its emphasis on sensing and communication, the workshop engendered restorative relations between people, trees and place. After introducing themselves, participants slowly turned around and leaned against the trees so that their spines curved to the shape of the trunks. Promoting respectful contact with trees, this posture relieves tension lodged in the spine and brain. At the same time, leaning comfortably against the trunks allowed group members to open themselves further to receiving the trees' assistance or insight. Once in place, participants closed their eyes and visualised tension draining down their spines, legs and feet to reach the earth as an offering. Keeping their eyes closed, they remained alert for any colours, images, feelings, moods or sensations as signs of the trees communicating with them. Participants held this posture until they noticed a shift in energy signifying the completion of the revivifying exchange. In addition to facilitating these exercises, we discussed the vital role diverse tree species play in folklore, spirituality and ecology, paying particular attention to the foods and medicines produced by Sairaalanniemi's trees.

During a retreat in the Ylläs area of Äkäslompolo, we reprised the exercise with our cohort of artists, writers and researchers investigating forest sentience from creative standpoints (Figure 4). Located two hours north of Rovaniemi by road, Ylläs is a 700-metre-high fell rising above the

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Figure 4. Francis Joy facilitates an exercise on sensing a pine tree in the Ylläs area of Äkäslompolo, Lapland, Finland in June 2024. Image credit: John Ryan.

villages of Äkäslompolo and Ylläsjärvi. Unlike Sairaalanniemi, the Ylläs site is largely free of traffic, noise, pollution and other interferences. The landscape consists of treeless mountain areas surrounded by Scots pine (*Pinus sylvestris*) and spruce (*Picea abies*) forests mixed with birch (*Betula* spp.). Participants practiced "the light switch" technique before moving closer to the pine and gauging the tree's receptivity to interaction. We asked participants to close their eyes and notice any sensations, feelings, images, words or other signs communicated by the pine. In written feedback on the exercise, Finnish artist and conservationist Marjo-Riikka Stenius highlights how the technique deepened her creative interactions with trees:

> I meditate or try to reach a certain level of awareness of plants' energies. I respectfully and with good intentions approach them, talk to them, and try to tune into the place and the will of the plants. Oftentimes I am enchanted by their presence and way of growing, living and ripening. Sometimes I get the feeling that I am working just like the bees and other pollinators, working for the whole, responding to the plants' call to spread their seeds. (M. Stenius, pers. comm., October 1, 2024)

For Stenius, the exercise pushed her artistic engagement with Northern Finland's trees in a more diverse, contemplative and experimental direction focusing on seeds (Figure 5). Sensing trees, the first method discussed here, complements the second method, interviewing trees, elaborated next.

Method II: interviewing trees

If plants are sentient, is it possible to interview them as a way to forge dialogue? How might we become more receptive to the language of forests? Similarly, anthropologist John Hartigan (2017)

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Figure 5. Marjo-Riikka Stenius' "Seed archive, *Centaurea jacea*" (2025) appeared in the Gifts from the Sentient Forest exhibition. Image credit: Marjo-Riikka Stenius.

asks, if plants make sense of their environments, "why should they not be ethnographic subjects?" (p. 256). The second method we offered to participants reflects a view of trees as interlocutors. This technique highlights the etymological basis of *interview* in the French term *entrevue* – "to see each other, visit each other briefly" – stemming from *entre* ('between') and *voir* ('to see') (Harper, 2025). We conceptualise interviewing as a dialogical process – as a sharing of perspective and knowledge. Hartigan (2017) encourages researchers to "narrate life – that is, describe and analyze life forms in their social relations" (253). Crucial to narrating life, in Hartigan's (2017) work, is "accounting for plants", a process not limited to "highlighting them as a basis of human sustenance and contestation" but that strives to think and theorise with them (p. 281). Describing his attempt to interview flora, he clarifies that "the plants and I will not be "speaking," as I'm foregoing linguistic models of data and analysis as much as possible" (Hartigan, 2017, p. 261). For guidance, Hartigan turns to the phenomenological approach of "exact sensorial imagination" involving the systematic reconfiguring of one's perceptions (Holdrege, 2005).

In addition to Hartigan's example, we drew inspiration from Indigenous, poetic and performative practices of speaking with vegetal beings. In contrast to the avoidance of "linguistic models", Indigenous practices often address plants to establish relations with them. Mary Siisip Geniusz and colleagues (2015) maintain that we "have to talk to the plants if we want to obtain their help in the healing of ourselves or of another being" (p. 22). The Cree and Métis ethnobotanists underscore the value of respectful discourse:

> When one accepts the gift of the plant one is asking that plant to become him or her. Speak to the plant and tell it who needs it. Ask before taking. Promise that the plant's grandchildren will live after it and that you will protect them in that place. (Geniusz et al., 2015, p. 22).

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Figure 6. During a retreat in Northern Finland, Annette Arlander wrote a letter to a tree for her performance "With a Pine at Äkäslompolo" (2025). Image credit: Annette Arlander.

Their emphasis on vocalisation echoes American writer Wendy Burk's approach in *Tree Talks* (2016), a poetic text integrating transcriptions of interviews with eight trees. Burk's questions aimed to reveal trees' insights into time, history and ecology. Interviewing a pine, the poet-ethnographer asks, "What is it like to withstand a fire?" to which the tree replies, "HHHhhhhhhhhssssss" (Burk, 2016, p. 15). Burk's interviews embraced the signifying power of non-linguistic utterance. For further illustration, Finnish performance artist and cohort member Annette Arlander holds conversations with pines as a foundation for collaborative research. The artist dialogues with trees through letters, asking, for instance, "How could I sensitise myself to be able to listen to you, to take in your perspective?" (Arlander, 2025, p. 9) (Figure 6).

With these examples in mind, we invited participants to interview trees. Our second method complements the first, sensing trees. A major distinction, however, is our understanding of an interview as a meaningful verbal, non-verbal or embodied interchange with trees. The second method emphasises the phenomenological alternation between focused (fixed) and open (unfixed) attention. Although offering guidance, we encouraged participants to improvise by deciding how to engage with their subjects and what questions to pose. To begin with, we asked participants to stroll in any direction and select their trees. Next, they requested permission from their subjects to conduct the interviews without becoming distracted by the trees' common or scientific names. Practicing phenomenological fixed attention, they observed their subjects carefully from one perspective. In keeping with this technique, they concentrated on buds, seeds and other small features. We then encouraged participants to sketch what they observed and write down all words or phrases that sprang to mind. During the next part, they redirected their attention from fixed to open (unfixed) and then circled their interviewees to apprehend variations in form, colour and light. As they moved, they listened to the trees, becoming aware of wind, birds, insects, pedestrians, cyclists and machines. They noted fragrant or pungent odours emitted by the trees and their habitats.

Conditions permitting, workshop attendees touched, hugged and rested against their trees. They continued sketching, photographing, filming and jotting down their impressions, sensations

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and intuitions, whether received in linguistic or non-linguistic forms. Dancer Dagmara Masłowska (pers. comm., October 1, 2024) stressed how the experience inspired her to explore a "conversational routine with the same tree on the same days and at the same time of day". At first, she encountered difficulty discerning between the tree's voice and the enunciations of its environment: "It doesn't seem to be the tree talking. I pause and turn to the sounds I am hearing instead. Leaves. Birds. Cars. People walking. More leaves. And more wind". Eventually, nevertheless, she reached an internal equipoise from which dialogue could manifest. Musician Mira Sunnari, moreover, interviewed a pine scheduled to be cut down. Opening the conversation by asking permission, she "looked at it standing there, spreading its branches like it was spinning around with swaying skirt hems and with its arms reaching to the side. I touched its body and the very soft needles. I looked closely at the ground near it and at its roots" (pers. comm., October 1, 2024). Falling silent after some initial conversation, she suddenly sensed a warmth culminating in a song gifted from the tree: "I thanked the tree. There had been no sorrow. It was a gentle and meaningful encounter" (M. Sunnari, pers. comm., October 1, 2024). This feedback suggests that interviewing trees can prompt a sense of mutual identification across species boundaries.

Method III: remembering (with) trees

The third method regards memory as a multidimensional basis for encountering arboreal sentience. The inclusion of the preposition "with" in parentheses signifies our view of the reciprocal character of memory. The process of remembrance is a dialogue between people, trees and other organisms. Remembering requires *being remembered*; recollecting involves *being recollected*; and making memories *of* trees entails making memories *with* trees. In this way, the method foregrounds the faculty of memory in trees, especially large, mature individuals. Trees' previous experiences mould their reactions to climate, weather, diseases, pests and other stressors (Simard, 2018). Mature trees can recall experiences and transmit these memories to fortify their offspring (Simard, 2018, 2021). The passage of knowledge from older to younger generations points to the role of age and diversity in long-term forest health (Galviz et al., 2020, p. 200). Ibarra and colleagues (2022) observe that "large ancient trees retain the memory of past forest conditions in their tree rings and canopy structure, and often sustain complex biodiversity networks in forested landscapes" (p. 16). Indeed, one of the greatest biocultural calamities triggered by forest clearance in Northern Finland is the loss of memory networks that encode trees' histories of resilience.

The notion of arboreal memory signifies the capacity of trees "to store and recall information from previous events and then change their responses to future stressful conditions" (Galviz et al., 2020, p. 195). Memorising alterations in stress, temperature and light, trees evaluate and anticipate environmental changes (Müller-Xing et al., 2014). With both long- and short-term expressions, memory facilitates arboreal adaptation (Crisp et al., 2016, p. 5). Memory-mediated learning informs decision-making, self-defence and kin recognition (Simard, 2018b). By communicating knowledge of threats, sentinel plants enable others to minimise or, even, circumvent adversity (Ribeiro & da Silva Torres, 2018, p. 1). Transgenerational memories of temperature, light and pathogens suppress genes controlling seed germination until conditions turn beneficial (Iwasaki et al., 2019). The exchange of experience allows seeds to avoid germinating at the same time and in the same place.

With this context in mind, we invited participants to investigate memory-based interactions with trees virtually during the seminar "Encountering Plant Sentience" and physically in Northern Finland (Gifts from the Sentient Forest, 2024). We asked attendees to identify a tree or object made from trees in their immediate surroundings. Next, they touched the tree or object, ensuring their hands and arms were in a comfortable position. After closing their eyes, they took notice of how the tree or object felt: hot, cool, cold, smooth, hairy, coarse, dry, moist or wet. Then

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participants observed their own sensations when in contact with the tree or object: peaceful, calm, tranquil, uncertain, restless or uneasy. After this, they recalled their earliest memories of the tree or object. When did they first meet? What were the circumstances? At this point, the focus shifted to trees' ability to remember. What were the trees' earliest recollections? Did they recall being a seed, growing in a caring environment, being raised in a greenhouse or being processed into a material? And what were their trees' earliest memories of them? Participants noted how the trees communicated their memories through words, images, sounds, odours and sensations. They wrote down, drew, sketched and sang the words, phrases and images that sprang to mind. We concluded by requesting that, in days to come, participants observe residual feelings flowing from the practice (Figure 7).

We noted a range of reactions to remembering (with) trees. In response to the webinar, photographer and cohort member Zoë Koivu noted that the memory foray

> [. . .] offered new ways to connect through time. I sometimes think of what a tree has witnessed and lived through/with, so it was good to practice reflecting on it in a more deliberate way where plants act as a portal into time. (Z. Koivu, pers. comm., October 1, 2024)

Koivu emphasises the interconnections between temporality and memory. An anonymous respondent also remarked how the exercise "really opened the portals of my mind". Moreover, an illustrative outcome is Ukrainian botanist Mykyta Peregrym's "A Birch Memory Web" (2024). Peregrym's essay probes the connective fibres between birch trees and human memory – from his upbringing in the Soviet Union to his professional life as an ecologist in Ukraine and Northern Finland. In this excerpt, he recalls his initial reaction to the practice:

> I am sitting on the floor of a wooden house, holding a birch leaf in my hand. I just selected it from an envelope containing many similar leaves, as instructed by the leader of retreat workshop on writing about trees and memory. While the other participants were doing the same, my mind quickly identified the species as *Betula pendula*. (Peregrym, 2025, p. 183)

Weaving together the lyrical and the scientific, the personal narrative relates how birches elicit intense emotions and memories as mediators of individual and collective histories. In the next excerpt, Peregrym recollects the turning point in the exercise when focus shifts to the entanglements of memory between people and birches: "We are asked to remember when we first saw a birch tree in our lives, what we especially remember about it, and similar things. Honestly, I can barely hear the facilitator's voice now, as I have plunged deeply into a web of memories" (Peregrym, 2025, p. 185). For the botanist, remembering (with) trees renders visible the biocultural memory inhering within species, a realisation that he feels could enhance the protection of Northern Finland's forests.

Conclusion: sentience as a forest conservation value

Arboreal sentience signifies the ability of trees to sense, communicate, behave, learn, recollect and adapt. Based in Northern Finland, the Gifts from the Sentient Forest project employed three methods – sensing trees, interviewing trees and remembering (with) trees – to facilitate human encounters with arboreal sentience. In the form of creative works and narrative reflections on the programme, participants' responses to the methods indicate the potential of sentience as a latticework for rejuvenating human-arboreal relations. Through art, film, music, poetry, prose and performance, participants engaged with the agencies of Northern Finland's arboreal world. In sum, the project highlights prospects for ensuring the future of tree-based heritage. For instance,

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Figure 7. The exploration of memory during retreats in Northern Finland inspired artist Milja Laine's photographic series "Beings, Brief, Ephemeral" (2024) included in the Gifts from the Sentient Forest exhibition. Image credit: Milja Laine.

tree tourism and nature-based wellness events could be designed to immerse the public in the discovery of arboreal sentience (Lee & Kim, 2023). Moreover, subsequent art exhibitions organised around tree sentience would cast further attention on the region's arboreal legacies. As Northern Finland faces acute climatic disruption, the concept and practice of arboreal sentience could further inspire human inhabitants to protect treescapes, fulfil conservation agendas and expand tourism beyond the city's prevailing perception as a winter wonderland.

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Ethical standard. Nothing to note.

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