

Shapes of water—A multidisciplinary composing project visioning an eco-socially oriented approach to music education

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Abstract

This article presents a project, Shapes of Water, funded by the Finnish Cultural Foundation, which gave music education students the opportunity to compose children's songs about climate change with the help of artists from two fields (contemporary circus and music) and a scientist (chemistry). The article outlines the ways in which the composing project challenged students' attitudes toward composing as a method for educating children about climate change, and brings together the experiences of the artists and scientist during the project. Finally, three focus areas are presented with recommendations for a sustainable eco-socially oriented approach to music education.

Keywords

arts education, creativity, music composition, music education, music teacher education

Climate change challenges music educators' educational role

Nature is changing through climate change. In the northern hemisphere, the changing climate and people's relationship with nature have shaped many important cultural traditions that have lasted for centuries. But as snow cover shrinks, future children may not have the opportunity to ski, skate, downhill, or make snowballs every winter, as previous generations have done for centuries. The four seasons into which the rhythm of people's entire lives is intertwined have been wounded (Whyte & Cuomo, 2017). Therefore, an intangible cultural heritage—that is, our relationship to nature and place in this world—is changing radically.

Climate change is challenging not only our way of life but also teachers' educational roles in schools. Climate change challenges educators to change the goals they are striving for. The task of educators can no longer be simply to replicate the prevailing ways of striving for a good life

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and to ensure the continuity of existing social structures (Värri, 2018). As Värri (2018) stresses, “Awareness of the relationship with nature and the responsibilities it imposes must be restored to educational thinking and education” (p. 108). In this call, Värri refers to the possibilities of Merleau-Ponty’s ontology in developing sustainable education that can work as a *memory restorer* in an attempt to remember the interdependency between life and nature. As embodied, remembering, and feeling living beings, we as humans can imagine the life of other human and more-than-human beings. Imagination, in turn, enables deepening of our relationship with nature, which can further help us to develop more sustainable pedagogical practices and actions to mitigate further change. During the planetary crises of the Anthropocene, the “other” increasingly means non-human, which challenges us to open interaction with more-than-human realities and extend the scope of care to a more-than-human world (Foster et al., 2022). This aligns with the deep ecology movement, which stresses respect for the worth of all (human and more-than-human) beings (see Næss, 2009). In educational practice, deep ecology can mean focusing on dialogue with the rhythms of human and more-than-human life and reconnecting to the seasons, ecosystems, and soil in teaching (Shevock, 2015b).

Within sustainable and ecological educational practices, the role of art educators is emphasized, because education in and through art allows children and young people to imagine a different future that is not a straightforward continuum of the past, but is based on change, transformation, and translation (see, for example, Foster et al., 2019). Indeed, Foster and colleagues (2019) stress how important it would be to understand how a person not only socializes in the human community but also integrates into the entire life network through eco-socialization to achieve a sustainable life orientation. In the Finnish Basic Education Curriculum (Finnish National Board of Education [FNBE], 2014), this life orientation is referred to as the concept of eco-social *bildung*, which sets ecological sustainability and social justice as the main goals of education (Salonen & Bardy, 2015). The question is how to achieve these goals in daily school life.

In Finland, research into environmentally conscious art education has been carried out for some time, for example, in the field of visual arts education (e.g., Foster, 2017; Huhmarniemi et al., 2021; Suominen, 2016), dance education (Foster, 2016; Foster & Turkki, 2021), drama pedagogy (Lehtonen et al., 2020), and music education (Kankkunen, 2012; see also *ecomusicology*: Torvinen & Välimäki, 2019; and internationally: Downing, 2013). Globally, there is a growing field of eco-literacy research in music education (Jorritsma, 2022; Shevock, 2015a, 2015b, 2018, 2020; Shevock & Bates, 2019), which aims to give concrete tools to provide socially and environmentally conscious music education. A contribution to sustainable and ecology-focused development in music education is examined in Varkøy and Rinholm’s (2020) and Guo et al.’s (2020) works. Accordingly, many musicians worldwide have focused on increasing awareness of climate change (ClimateKeys, 2019; Climate-Music Project, 2019), and some research on composing and climate change has already been carried out (Galloway, 2020; Johnson, 2017).

In the context of environmental and social problems posed by climate change, *activist music education* can foster students’ connections beyond their own communities, share and honor lived experiences, sharpen their demand for change, and develop a practice of critique (Hess, 2019). According to Hess (2019), activist music education works toward social change and involves both action and creative imagining. It takes inspiration from activist artists, who ask critical questions through their art. Thus, activist music education is part of the larger movement of artistic activism, an effective and affective practice toward social change (Duncombe, 2016; Duncombe & Lambert, 2018; Serafini, 2018; Williams et al., 2019). Composing, in turn, is both an artistic and pedagogical way to work toward desired change.

Composing and musical creativity are part of music educators' profession, as they are part of the curriculum and of music teachers' daily practice, through which students are encouraged to contribute to active music making and develop their musicianship and authorship in and out of classroom (FNBE, 2014; Partti & Ahola, 2016). In Viig's (2015) extensive review of research in composing in music education contexts, benefits of composing were notable: strengthening social inclusion, identity, and expression skills, as well as developing social competences and musical skills. As Viig (2015) emphasizes, experience enhances teacher development in creative activities. Thus, we may ask how music teacher education equips future music educators not only to repeat prevailing conventions in musical creativity (such as composition techniques based on the traditions of Western classical music), but also to create something new and at the same time implement "social awareness" (Grant & Low-Choy, 2021) and sustainability in their teaching.

The role of music education in relation to climate education and the objectives and content of the curriculum needs to be examined in more depth. In the Finnish music education curriculum (FNBE, 2014), sustainability is mentioned only in the content of upper grades music education: "The aspects of consumption and sustainable well-being are also relevant in music" (p. 423). As the curriculum is a guiding document and does not give specific instructions on how to promote this sustainable well-being in music classroom, the implementation of sustainable music education is left to the music educator's own activity and interest. Eco-socially conscious music educators can include the values and practices in their teaching. This could mean choosing appropriate repertoire to play, reusing, recycling, and appreciating old instruments, or using the sonic environment and sustainable development themes in composition and improvisation (see also Shevock, 2018; Titon, 2020). Shevock (2018) calls music educators to reflect upon "whether their classroom affirms unsustainable consumer society or challenges it" (p. 42).

Our aim in the present composing project was to explore the potential of creative activity as a promoter of a good and desirable future. Therefore, this project highlighted not only learning, but also active artistic, embodied knowledge production, that could lead to *change* in both students' thinking and that of teachers and pupils who attended the concerts at the end of the project. Making visible the relationship between humanity and nature through new children's songs and the circus performance gave new concrete tools for artists and students to be both artists and educators, and most of all, changemakers. Thus, the research question was as follows: How can a multidisciplinary composing project raise awareness about climate change and lead to visions of an eco-social approach to music education?

What follows is an introduction to the eco-social framework for art education, through which the ways to promote sustainable life orientation in art education are articulated. Then, I present the composing project, its participants, and their experiences of the project and reflect on them in the light of embodiment, imagination, and care. Finally, I present three focus areas alongside recommendations for a sustainable eco-social approach to music education. The areas are (a) emphasis on embodiment in creative work, (b) identification of temporality and locality, and (c) valuation of vulnerability and incompleteness through care.

Eco-social framework for art education

Here, I will introduce the eco-social framework for art education (Foster et al., 2022). It leans on a model describing eco-socialization (Keto & Foster, 2021), which takes place through the interaction of numerous multidisciplinary agents in the "more-than-human world" (see Abram, 1996). The model describes how participation in the world takes place pre-objectively

in relational bodies (Merleau-Ponty, 1968; Värri, 2018). In the model, Keto and Foster (2021) have stressed the importance of the identification and recognition of multidisciplinary interactions, because they help to form eco-socially sustainable communities. In doing so, it is possible to understand how these different living beings interact objectively with each other (Keto and Foster, 2021). This interaction is deeper than conscious: It is a direct, holistic, bodily relationship to the other (human, other animal, plant, nature, world). Keto and Foster (2021) depict how the other is understood by adopting the various dimensions of sensory, emotional, and cognitive understanding. Thus, participation in and being in the world always takes place primarily through the sensing, perceiving, and experiencing body; but the world also exists in these relational, spatial, and temporal bodies (see also Abram, 1996; Merleau-Ponty, 2003, 2008).

Foster et al. (2022) have formulated an eco-social framework for art education based on the theory of eco-socialization and the aesthetic tradition of art education. In the framework, we identify three dimensions that address ontological, epistemological, and ethical issues that can be used to promote a sustainable life orientation in art education. Sustainable life orientation refers to a learner who has internalized sustainability thinking in such a way that it becomes a way of existing and defining one's reality (Foster et al., 2019). The dimensions that reinforce this life orientation are *embodiment*, *imagination*, and *care*.

Eco-social art education assumes that multi-species interaction with and human participation in the more-than-human world takes place holistically through *embodiment*. Thus, drawing on the thinking of Merleau-Ponty (1968, 2003) and the theories of eco-phenomenologists (Abram, 1996; Bannon, 2011; Värri, 2018), the eco-social framework for art education seeks not only to break the mind-body division, but also to question the self-other and subject-object distinctions (Foster et al., 2022). Instead of individual- and human-centered thinking, the eco-social perspective assumes holistic embodiment as relational (Bannon, 2011): The meaning of reality is in intertwined relationships. In the eco-social framework for art education (Foster et al., 2022), we give concrete examples of embodiment in the form of dancing and singing, where breathing lives in every gesture, sound, emotion, step, breath, peace, and restlessness. Albright (2019) goes even deeper, as she explains how focusing on breathing can shift our focus not only to bodily awareness but also to our inevitable relationship to the wider ecosystem.

In the framework, we highlight how eco-socially oriented art education is on the verge of a paradox: It is impossible to know what the world will be like in the future, but there must be a vision of the world we want to head toward as a society and as citizens (Foster et al., 2022). In this task, the human ability for *imagination* can help. Indeed, a more sustainable life orientation is only possible if one can first imagine a more responsible world relationship (Berry, 2012). If one repeats what one already knows rationally, one's imaginative and creative potential remains untapped (Varto, 2003). In the eco-social art education framework, imagination refers to ecological (Bertling, 2015), ethical (Värri, 2018), and bodily care (Hamington, 2004) perspectives. We also highlight how curiosity, creativity, wondering together, and the joy of inventing make it possible to imagine the desired future and use art to further express these imaginations for others to experience (Foster et al., 2022). Eco-social art education can thus give meaning to reflections on world relationships which can be difficult to rationally reach and verbalize.

In the eco-social framework for art education (Foster et al., 2022), *care* can be viewed as both a value and a practice based specifically on relativity and interdependence (see also Slote, 2007). Indeed, the ethics of care (see Noddings, 2003; Slote, 2007) emphasizes the necessity of relativity, contextuality, and interdependence, as well as the importance of emotions and caring in interactions. Through mutual care, a person forms an understanding of oneself as part of another reality. Expanding care makes it possible to identify multifaceted human

dependencies within human communities and between different species and ecosystems. An artistic examination of eco-social interdependence can highlight the responsibilities of both individuals and communities and the need for mutual care.

Contemporary circus performance as a springboard for music teacher education students' composing project

The present project took place in the University of Oulu and was part of music teacher education students' (major and minor) studies. The aim of this composing project was to provide educators and teachers with concrete tools (in the form of songs) to address thoughts and feelings related to climate concern in different educational contexts. The aim was also to make visible how participation in making art can help music education students to contribute to the protection and care of things that are important to them, such as nature. In addition to these, one central goal of this project was to promote children's awareness of the changing northern nature in their daily lives. The project itself worked as a guide to the "place of skill" (Varto, 2003, p. 9), dealing with climate concern not only on a conceptual level, but also aiming to develop sensory awareness, perception, and identification through art education.

The starting point for the composing project was *Shapes of Water*, a contemporary circus work that took place in early 2022. The work talked about the changing states of water in northern surroundings through circus, contemporary dance, light and video photography, and projection. *Shapes of Water* described the relationship between human and water states through two dancing and mutually supportive bodies, stories, and images. All the image and video material of the work was recorded in Oulu, Hailuoto, and Tornio, in Northern Finland.¹ The work was created by the circus and dance artist couple Katariina and Jared Van Earle, Kat&Jared. The acrobatic duo has created works that are appropriate, touching, and relevant to a variety of environments by merging different art disciplines and addressing emerging societies through art. After their performance at the beginning of this composing project, Kat&Jared held a workshop for both groups (major and minor) to inspire students to discuss the feelings and ideas their performance evoked.

After the performance and workshops, the students started to work with Kat&Jared and Soiva Siili. Soiva Siili is a children's music ensemble founded in 1993 by Markus Lampela and Kyösti Salmijärvi. The band, which has made an innovative contribution to northern Finnish children's music culture, has received numerous awards for its work. Collaboration with Kat&Jared and Soiva Siili enabled ways to expand the effectiveness of contemporary circus work and share the artistic processes of professional artists with music education students. Students, in turn, composed children's songs about climate change in workshops (40 hr for major students, 20 hr for minor students). The workshops included, for example: (a) introduction to and execution of the group composing method of Soiva Siili, (b) development of awareness in taking inspiration from other art forms and the environment, and (c) independent composing work in small groups (four to six students). In addition to Soiva Siili and Kat&Jared, the students received short lectures from Jouni Pursiainen, Professor of Chemistry, who helped students understand the state of water through science. Professor Pursiainen also helped students with the scientific facts and details during the composing process as students were writing lyrics for their songs.

After 3 months' work, the results of the composing project were performed in two concerts at the University of Oulu. The concerts were named after one new song: "Holding on to Tomorrow With Both Hands." The original idea was to target the concerts to 11- to 12-year-old

children, but other age groups and other university students and staff were also invited. The concerts lasted for 1 hr and included 10 songs relating to climate change (five by major students, five by minor students). Kat&Jared choreographed three songs and also performed in the concerts. Accordingly, Soiva Siili and Professor Pursiainen had their own roles in the concerts. Most of the songs² and their sheet music were sent to the schools that participated in the concerts so that the teachers could use the songs in their teaching. In addition, the students had an opportunity to record their songs in a studio if they wanted.

The composing project as an awakener and inspirer for music teacher education students

The composing project was also part of one university teacher's doctoral thesis data collection.³ The experiences of the composing project were collected in the form of a questionnaire (35 students) and three interviews (Professor Pursiainen, Kat&Jared, and Soiva Siili). Following the University of Oulu's ethics procedures, once participants were adequately informed about the research, they were asked to give their permission to participate and for their answers to be used as part of research publications. The questionnaire included three parts (at the beginning, middle, and end of the project). In the first questionnaire, background information (related to composing and musical background) and students' thoughts about the *Shapes of Water* performance were gathered. The second questionnaire concentrated on experiences with composing and especially composing in groups. In the third questionnaire, the students articulated their experiences of composing and the whole project.

In this article, the focus is on one question in the third questionnaire: How has the composing project raised your awareness of climate change and the possibilities of music in making a difference? I was more interested in this question than in the process of composing itself. As only 19 students answered this question, I will give a brief overview of their responses. The answers were analyzed using thematic content analysis (Clarke et al., 2015), and the five themes were (a) understanding the (social) impact of art, (b) the impact of climate change on the lives and (pedagogical) thinking of students, (c) future orientation and solutions, (d) awareness of climate change as a part of the music teaching profession, and (e) the impact of one's actions.

In students' answers, reflection on the effectiveness of art as a game changer was notable. All the students were aware of climate change, but the composing project strengthened their understanding about the power of music in making a difference in daily educational practices. Group composing, where all the participants contributed to the thematic discussion, seemed to be fertile ground for handling issues relating to climate change. Composing itself was seen as a good way to educate children for a more sustainable way of living.

As one student reflected, "I think the power of music is great, and through it, even difficult things can be brought within easy reach of children. The language of music is universal, and its message carries far." Another student explained,

I have been aware of climate change and the things it causes, but through music I got deeper into it and really started thinking about my own actions as well. Music also allows children to better understand climate change, as the melody and lyrics of a particular song are usually memorized, which they then sing to themselves or with friends. In this way, the words also become more meaningful, and the children think about what they might mean. Through the songs, awareness of climate change is brought out in a way that suits children, without intimidation.

The students also reflected on the impact of climate change on their own pedagogical thinking. They realized that their role as future music educators is to educate their pupils to act toward a better future in and through music. They also realized how their own musical activities through composing can serve as a pedagogical tool in tackling difficult and sometimes very emotional and even frightening themes. In many answers, awareness of climate change seemed to turn students' gaze to the future and to the solutions that could promote a more sustainable lifestyle in school.

In the reflections of the artists and scientist, their roles as students' inspirers in the composing process were considered to be of utmost importance. Kat&Jared described themselves as *artistic guides* to the topic at hand. They felt they could give a "nice input from outside" and guide students on how to reach an audience through art. Professor Pursiainen, in turn, brought the students his *scientific knowledge* about water and the ways in which climate change affects northern nature. He also followed the students' composing process and gave detailed feedback about the lyrics (in relation to scientific facts). As Soiva Siili depicted Professor Pursiainen's contribution to the process, his enthusiasm brought focus, commitment, and even dignity to the chosen theme. Soiva Siili considered their role as a *pedagogical guide to the field of children's music*, as they gave the students pedagogical tools in the form of their own group composing format with children. Soiva Siili also reminded the students that composing is part of their professional skills as future music teachers.

When reflecting on how art can contribute to awareness about climate change, the artists stressed the importance of feelings, emotions, and empathy. For example, Soiva Siili talked about how empathy toward the other (humans, animals, nature) fosters conscience and responsibility, stressing the entanglement of emotional education and art education. Accordingly, Kat&Jared reflected on how they work with feelings and facts in their art. As Kat&Jared described, "art is about introducing relatable things, like memories and feelings, and then it becomes more powerful, something you care about, you really remember because it affected you." Professor Pursiainen described how art can express climate change (or any other topic) in a form in which it can be understood.

These experiences of the artists and Professor Pursiainen are in line with Duncombe's (2016) concept of "affect," which encompasses both affect and effect in art and activism, and describes how "before we act in the world, we must be moved to act" (p. 119). Indeed, Kat&Jared, Soiva Siili, and Professor Pursiainen worked not just as artistic, pedagogical, and scientific guides, but as *affective influencers* in students' composing process. Indeed, as the music education students' composing project was inspired by professionals who were personally and professionally committed to an ecologically sustainable way of life, the students themselves found pedagogical tools to work as eco-socially oriented music educators in the future.

The composing project in the light of embodiment, imagination, and care

Composing itself is a highly embodied and holistic process (Einarsson & Ziemke, 2017). According to Einarsson and Ziemke (2017), decision making during a composing process takes place "through a process of resonance, where music may be seen as a sounding body to resonate with" (p. 7). They further elaborate how embodiment includes emotions and feeling and, thus, has an *affective bearing* upon the composition. Understanding embodiment as relational (Bannon, 2011) and underlining how the meaning of reality is not to be found in the essence of subjects and objects but in intertwined relationships, composition can be interpreted as a

relational process, where composers use their body (senses, motor skills, experiences, feelings, memories, emotions) as a template when creating a work in progress.

Embodiment also includes composers' ability to imagine. When creating new melodies, harmonies, and sounds, composers use their memories and imaginative abilities along with the musical skills needed in the composing process. In this composing project, the students composed songs that reflected issues relating to climate change. They discussed their memories from childhood and their relationship with nature today. Then they imagined a better future, new solutions, and daily choices that could help nature to express in songs. This, in turn, supported the reinterpretation of growth as a human being, in a way that aligned with a sustainable life orientation (Foster et al., 2019). During this creative process, the students used their imagination to reflect on the impact of their own actions on a desirable, more sustainable future. For many, this process seemed to create a more complete understanding of their own world relationship. As one student reflected, "This project has not really shaped or raised my awareness of climate change, but it has reinforced the feeling that my own actions can make a difference. It has increased my motivation for climate action."

Caring as an empathic encounter requires openness and sensitivity to face the reality of the other as it appears (Slote, 2007). In this project, the artists and scientist helped students to thematically focus on nature and the effects of climate change upon it. To the students, nature was introduced as an ally and not an enemy, and interconnectedness between the human and non-human world was stressed. At its best, this potential for a warm and intimate connection with nature can enable humans to face difficulties and challenges in this relationship (Keto, 2022). Sensuous, embodied entanglement with the world (Merleau-Ponty, 1968) enables embodied and affective forms of empathy. This helps humans to understand the more-than-human world, and thus, it becomes repulsive to imagine harming the more-than-human world (Keto & Foster, 2021). Eco-oriented emotions, like anxiety, empathy, and hope, can motivate ethical and caring action (Pihkala, 2018). Nonetheless, an eco-oriented attitude to art requires time and space as well as a commitment to nurturing the intrinsic value of all life.

As future music educators, student teachers will have the potential to pass on this empathy and care to their future pupils. The present composition project was a practical form of an ethic of care (Noddings, 2003), contributing to the discussions surrounding the teaching of complex and challenging topics such as climate change. Caring (for students, the environment, and oneself) is a way of being in a pedagogical relationship, and thus, can be learned (Noddings, 2003). Noddings (2003) uses the concept of the "ethical ideal" (p. 105) to describe the professional skill of a teacher in a situation where caring does not come naturally or requires effort.

Addressing climate change requires commitment and effort from music educators. In fact, music education contains many elements that can be used to approach the complex topic of climate change. A systematic review of climate change education (Rousell & Cutter-Mackenzie-Knowles, 2020) identified the need for participatory, interdisciplinary, creative, and affect-driven approaches to climate change education. Based on the experiences of the students, the artists, and the scientist in this composing project, these were intentions identified during the music-making process.

It can be argued that composing (and performing) songs about climate change for an audience is not only a project of empowerment for the individuals participating in the project. As the songs were performed to a wider audience (to pupils and their teachers, members of the university staff, and students) in two concerts, students' embodiment, imagination, and care were not just affecting the students themselves, but they were intertwined with that of the audience. While the focus of this article is not on audience response to the concerts, informal feedback was collected. However, the effects of a concert can be short-term. Therefore,

pedagogical approaches combining composition pedagogy and climate change education should be further examined and developed for teachers to use in school music education.

Visions for an eco-social approach to music education

At the beginning of this article, I briefly mentioned the three key areas that emerged in the Shapes of Water composing project. Below, I elaborate on these areas and connect them more specifically to particular learning experiences and an eco-social framework for art education.

Emphasis on embodiment in creative work

Climate change can be a challenging topic to approach. This composing project emphasised students' embodied experiences, such as the feelings and emotions that arose during the creative process. The artists and scientist gave the students input from their own expertise, and thus awakened students' own reflective processes in relation to climate change. Kat&Jared depicted the embodiment in the creative process:

Because it doesn't matter what the art form is in the process of creation. And especially when it is about creation where you must use a certain topic, the inspiration for which might not be from your life. It is actually the theme and how to make it relative to yourself . . . you start to feel something about it, you start to experience it and then you can make meaningful art through that.

In this excerpt, we can see how through holistic, embodied bodily perception (of art, feelings, emotions, memories, environment), discussion of the topic of climate change with fellow students, and composing together, one can awaken one's relationship with nature and the more-than-human world (Abram, 1996; Foster et al., 2022). Throughout the composing project, the artists and scientist helped the students to become aware of the effects of their own activities on the environment and on other agents of eco-socialization (see Keto & Foster, 2021). This awakening came forward in song lyrics, melodies, and harmonies, through which the students made visible their knowledge and feelings about climate change.

Indeed, during this composing project, knowledge about climate change was produced through senses, experiences, emotions, and movement, and passed to school pupils in concerts in the form of songs and circus performances. During the composing project, we discussed how significant it is that art activities are not conceptualized too early, but experienced, felt, imagined, and shared through interaction with others. The emotional imprint of experience is relevant to both the child and the art educator. In music education practices, embodiment can also refer to trust in those creative processes that explore the emotional imprint of experience, along with other senses, feelings, perceptions, and memories in and through music.

Identification of locality and temporality

From the very beginning, locality was at the center of the project, as the Shapes of Water contemporary circus performance was based on perceptions and audiovisual material of northern nature. Similarly, students were encouraged to explore their everyday life encounters with nature and make notes and reflections about it. Accordingly, the search for local traditional knowledge and skills was highlighted in the composing process, and in the search for sustainable, local solutions. This was in line with both Shevock's (2015b) and Downing's (2013) emphasis on locality and environment of particular geographic locations, which in turn led

students to understand the connection between local musics and places and global ecological discussions (see also Jorritsma, 2022).

In a technologically oriented society, old local traditions can sometimes be overlooked or even ignored. Knowledge and skills that have been developed over centuries often include keys to more sustainable pedagogical tools. For example, exploring the potential of Indigenous ways of knowing is important in complementing the dominant modern education discourse (see Demssie et al., 2020).⁴ In music education, this can mean exploring ideas and instruments of local folk music, and usage of local dialects and sonic environments that express the uniqueness of the area and existing culture. Prest and colleagues' (2021) study showed that learning and singing songs; teaching drumming, dances, and the stories associated with them; making drums; and learning the language were the most prevalent ways in which local Indigenous knowledge was embedded into music classes in rural schools in British Columbia. Indeed, through old local traditions in music making, one can develop ecological consciousness by "creating music rooted in soil" (Shevock, 2018, p. 10). An understanding of temporality, of one's own position in a chain of generations, of eco-social reality (Keto & Foster, 2021), and of the web of the more-than-human world (Abram, 1996) can help music educators realize their responsibility in enabling a sustainable and desirable future for students as well.

Valuation of vulnerability through care

Caring is intertwined with embodiment and the ability to imagine, as it enables the identification and recognition of empathy and otherness (Foster et al., 2022). During this composing project, the music education students were encouraged toward empathetic encounters with each other and nature, through which there was a possibility to understand another as a vulnerable subject (Fineman, 2008). This was practised, for example, in the beginning of the project through expressive movement exercises in Kat&Jared's workshop. In group work, waiting for one's turn and respecting the other's expression and ideas in the composing process strengthened the understanding of others' memories and experiences. Realizing vulnerability and incompleteness in us all (in the human and non-human world) required a return to the roots of one's embodied experiences. For example, the vulnerability of nature became tangible in students' childhood memories, where it snowed more, and the snow stayed on the ground longer. This in turn allowed for different kinds of play on the snow or ice in ways that are no longer possible.

In creative work, like composing, showing one's vulnerability and incompleteness is a sensitive matter. Much Western art music values virtuosity and perfection in artistic expression. This demand leaves out those who do not fill the requirements of an autonomous actor in the musical context. In this composing project, students were encouraged to support each other's (incomplete and vague) ideas in group work, focus on what these ideas might lead to, what was good in them, and how they could be further developed. As the groups got guidance from the artists and scientist, their sonic ideas and lyrics developed together, giving students new ideas and tools to continue with the composing process. This also gave the students who had not previously identified themselves as composers the opportunity to practice and succeed in composing. Thus, care was both a value and a practice (Foster et al., 2022) in group work.

Toward more sustainable music education

The aim of this article was to introduce a multidisciplinary composing project and articulate the ways it raised awareness about climate change among the participants. To summarize, the

composing project helped participating students to understand that instead of simply pointing out the problems of the current situations (or even dystopic views of the future), new perspectives and bold solutions in music education are needed, and, most importantly, they are possible. In light of Duncombe's (2016) aims of activist artists, the project (a) invited participation by turning watchers (i.e., students) into doers, (b) inspired dreaming through visualizing an alternative world, and (c) provided utility by creating a useful pedagogical tool with the help of composing. However, to implement sustainable music education, music educators should take an activist approach to their daily teaching—not just occasionally—and critically examine the curriculum and their own values and pedagogical thinking. In addition, through recognition of musicking with more-than-human entities and seeing beyond anthropocentric (human-centered) music education practices, future music educators can reveal the thought patterns and musical practices that produce unsustainability in music education.

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Notes

1. Through images and movement, the work asked what we feel and how we handle our feelings when the waters around us freeze only in memories, and the snow of winter rains on our necks as water in the dark. Shapes of Water allowed for environmental sensations while providing an aesthetic experience. For adults and young people in particular, the work evoked memories, feelings, and discussion about their own important winter experiences, thus bringing climate change to a personal level. In this project, it was therefore very interesting to turn the focus away from adults' childhood memories, toward children, and their current experiences of winter and climate change.
2. Not all students wanted to share their sheet music with schools. Some of them felt insecure in sharing their first compositions with the larger audience.
3. Not that of the author of this article.
4. Relatively little is known about Indigenous ways of knowing and learning in education in Finland. When embedding Indigenous knowledges into the curriculum, it is important to collaborate with Indigenous communities on their own terms (Battiste, 2018; Jacob et al., 2018).

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