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Arctic art education in changing nature and culture

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Abstract

The interconnection between the ecological and the cultural is evident in the Arctic. Thus, we propose the term *ecoculture* to highlight the connection of communities to places. Ecological knowledge, Indigenous knowledge, tacit knowledge and local knowledge are some of the concepts that highlight diverse ways of knowing in rural communities living close to nature. We use the terms *northern knowledge*, *Arctic art education* and *new genre Arctic art*, to discuss how art in North and the Arctic can foster education for sustainability and revitalisation of ecoculture. The long-term art-based action research to develop Arctic art education at winter circumstances is presented in this article. The research has included a number of winter art projects in Northern Scandinavia and North-West Russia. Three winter art projects, carried out in remote villages together with communities and schools, are reflected and theorized in this article. Artists, teachers and participants of winter art projects have transformed northern knowledge to respond to needs of contemporary society. As a result of the action research, wintery ecoculture has been revitalized and knowing with nature has been fostered as response to decolonisation needs. Research shows that new genre Arctic art and Arctic art education can revitalise ecoculture and northern knowledge.

Keywords: Arctic art, art education, ecoculture, sustainability, art-based action research

Shifting ecocultures in the changing North and the Arctic

In the Arctic, the interconnection between the ecological and the cultural is profound and extensive. Substantial human–nature relationships are typical in communities all over the Arctic region (Ingold and Kurttila, 2000; Tolvanen et al., 2020; Valkonen and Valkonen, 2014). The nexus between the ecological and the cultural is described as *ecoculture* (Arora-Jonsson, 2016; Pretty, 2011). For example, winter environments constitute the basis for various cultural traditions and practices, such as ice fishing, skiing and snow sculpting. The concept of ecoculture highlights the specificities of communities, places and other-than-human nature. For example, a village has its people, physical location and seasonal changes – in other words, the community and the environment exist together. Natural ecosystems determine cultural practices: in ecoculture, local and regional traditions, forms of living heritage and ways of thinking are maintained and shared with new generations and newcomers. However, only some ecocultural practices can be considered sustainable in contemporary society. For example, some of the traditional hunting means are nowadays forbidden or criticised, meaning that ecocultures need to change and new kinds of bonds between human and other-than-human nature need to be established. Sometimes, sustainable solutions can be found in traditions. For example, harmful chemicals that were used for decades at the bottom of skis to give grip are nowadays substituted with fur, following the older tradition.

Arctic nature is changing rapidly due to global warming and industrial use of natural resources. Changes in nature have cumulative effects on the ecoculture, livelihoods, knowledge systems, social life and wellbeing of the people living in the Arctic (Nordic Council of Ministers, 2011, 2014; Stephen, 2018). In this article, we will consider ongoing megatrends, such as globalisation, in relation to the transformation of ecocultures and the development of strategies and methods to foster art education in the Arctic region as well as Arctic sustainability. Global warming is happening at the fastest rate in the Arctic and has serious consequences for local communities, while globalisation is connected to growing tourism and exploitation of natural resources, such as forests, oil, gas and minerals. Globalisation affects the rural characteristics of villages in terms of economy, culture and lifestyle, leading to empty, urban or touristic regions. Globalisation entails a complex set of processes that impacts not only where people live but also who they are and how they live in terms of culture, work, demographic structure, and social and cultural relations (Nordic Council of Ministers, 2011, 2014; Stephen, 2018).

As is the case in all peripheral locations, the youth of the North move to bigger Arctic cities or to the South for education, as smaller towns and villages lack educational opportunities. This tendency has already caused a series of psychological, social and societal problems, such as ageing populations, depression, unemployment, a lack of cultural activities and vague cultural identities (Corbett, 2007; Karlsdóttir and Junsberg, 2015).

In the Arctic, discussions on sustainability are very often focused on natural resources and ecological and economic impact of resource politics and industries. However, cultural sustainability is an additional dimension of sustainability and in relation to ecological, social and economic sustainability; the generally well-known aspects of sustainable development (Tennberg, Lempinen and Pirnes, 2019). Consideration of cultural sustainability is a very relevant part of aim setting and evaluation of arts and

art education in the Arctic (Huhmarniemi and Jokela, 2020a). Cultural, social and economic sustainability are bound to ecological sustainability: the cultures can hardly continue in some parts of the Arctic where climate change has its worst impacts. In this article, the themes of sustainability cover enhancement of cultural and social sustainability through art education as well as economic potential of creative industries. Continuation of ecocultures in the Arctic demand possibilities of economic activities, jobs for cultural agencies, artists and art education, and creative industries can support the sustainability of the whole region (Jokela, Coutts, Beer, Usenyuk-Kravchuk and Huhmarniemi, 2022).

Ecocultures, northern knowledge and decolonisation

In research, ecocultural knowledge is discussed using concepts such as traditional knowledge, traditional ecological knowledge, Indigenous knowledge, tacit knowledge and local knowledge (see, e.g., Helander-Renvall and Markkula, 2017; Porsanger and Guttorm, 2011; Valkonen and Valkonen, 2018). The presence of Indigenous cultures and their blending with other cultures is characteristic of contemporary Arctic (Chartier, 2007). According to estimations by the Arctic Human Development Report (ADHR, 2007), there are approximately four million people living in the Arctic, including over 40 Indigenous groups and languages. Indigenous people make up 10% of the entire population in the Arctic.

Therefore, as the concept of Indigenous knowledge does not cover all the different forms of cultural, traditional and tacit knowledge of all the inhabitants of the Arctic, we use the term *northern knowledge* (Huhmarniemi and Jokela, 2020a, 2020b). The concept of northern knowledge refers to the understanding and knowledge based on the Arctic region's ecocultures and involves common traditions, social systems and sustainable use of natural resources (Jokela, 2018; Huhmarniemi and Jokela, 2020a, 2020b). In this article, we look at how cultural heritage (Fairclough, 2009; Fairclough et al., 2014; Smith, 2006) and people's relationship to land and landscape (Ingold, 1993) manifest as northern knowledge and contribute to education and the development of the North's countryside and sparsely populated areas in a sustainable way (Jokela et al., 2022; Vodden, Gibson and Balacchino, 2015).

Northern knowledge does not, in principle, guarantee the sustainable use of ecosystems; rather, it provides a starting point for continuous learning towards a sustainable outcome. According to Huhmarniemi and Jokela (2020a, 2020b), northern knowledge includes tacit knowledge related to material and spiritual culture. In arts and crafts, this kind of knowledge is often present in the visual language and stories that are shared with new generations and new residents in the area. Northern knowledge differs from Indigenous knowledge, which is often considered blood heritage. When northern knowledge is integrated with ecoculture and living traditions, it is also created, maintained and transmitted by new inhabitants in the area. According to northern knowledge, the ways in which regional communities produce knowledge are integrated into current scientific and artistic efforts to develop ways of communicating and knowing with nature. The concept *knowing with nature* (Höckert, Rantala, Garcia-Rosell and Haanpää, 2019) draws attention to more-than-human agencies and learning with them rather than only providing knowledge about them. "Knowing-with is about togetherness, about being in relations with multiple others" (Rantala, Höckert and Ilola, 2019, p.4). The paradigm of knowing

with nature is drawn from posthuman educational research methodology in which knowledge is processes in interconnected and material contexts (Ulmer, 2017).

Indigenous education is an important field of educational studies in the Arctic region and is related to art education as well. Keskitalo (2010) described education as a counterforce to colonialisation and emphasised the need for Sámi pedagogy in the Sámi region, which covers the northern parts of Finland, Sweden and Norway as well as parts of northwest Russia. Keskitalo (2010) followed Smith's (1999) definition of decolonisation as a long-term process that includes dismantling administrative, cultural, linguistic, and mental forms of colonialism. The need for decolonisation has been recognised in many Indigenous communities such as Nunavut in Canada (Snow and Tootoo, 2021) and northern multi-ethnic communities by researchers such as Jokela and Huhmarniemi (2021) in mixed Sámi-Finnish societies in Central Lapland in Finland, and by Corbett (2007) and Iwey (2017) in Nova Scotia's coastal fishery communities in Canada. Together with education, arts and art education can offer important strategies and methods for decolonising the Arctic. To enhance decolonisation, it is important to acknowledge Indigenous people's self-determination in terms of their traditions, knowledge, arts and cultural expressions (UN, 2009), as well as other cultural minorities' agency in their own cultures. The people of the North need to define the values and qualities of their arts themselves. While globalisation constitutes a threat that causes the loss of cultural diversity, decolonisation can counteract cultural homogenisation. The experiments that we discuss in this article brought together members of Indigenous and other cultures in collaborative artistic creation of new ecocultural practises under Arctic winter conditions.

New genre Arctic art and revitalisation

While visual art used to depict Arctic landscapes from the outsider's perspective, contemporary art made in the Arctic tackles local ecocultures, politics and identities. The people of the Arctic have gained the necessary agency to produce internationally recognised art themselves rather than being observed and pictured by visitors to the Arctic (Beer and Soloviova, 2021; Jokela and Huhmarniemi, 2018). The Arctic arts do not follow the dualistic tradition of Western art. Moreover, in the Arctic, art is not produced exclusively for art's sake, and art, design and crafts are not separated into different fields of creation and education. Rather, artists combine beauty and practicality, art and design (Hautala-Hirvioja, 2014; Guttorm, 2015) and other Northern ways of knowing in their creative productions. Art maintains and transforms local ecocultures (Huhmarniemi and Jokela, 2020b). Arctic arts as a field of research was first introduced by the Arctic Sustainable Arts and Design (ASAD) network at the University of the Arctic (Jokela and Coutts, 2018). Interdisciplinary discussions between scholars, artists and cultural practitioners continued in the Arctic Arts Summit 2019 regarding specifics of Arctic arts (Huhmarniemi and Jokela, 2020a, 2020b).

Jokela et al. (2021) introduced the concept of *new genre Arctic art* to define and describe contemporary artistic interventions, public art and performances that include activism and engagement with contemporary issues. The term is based on the concept of *new genre public art* that was coined by Lacy in 1995 to define a type of public art that, rather than producing typical sculptures in public spaces,

created participatory, political and aesthetic events. The term was first used in a public performance at the San Francisco Museum of Art and later in the edited volume *Mapping the Terrain: New Genre Public Art* (Lacy, 1995). Lacy (1995, 2008) defined new genre public art as being activist in nature, as it was often created outside of institutional structures and engaged artists in direct collaborations with participants around social and political issues. Racism, poverty and women's rights were some of the key issues in the 1990s in the USA, and later on, environmental issues, such as climate change began to take centre stage in new genre public art. In the Arctic region, extraction of natural resources and Indigenous people's cultural rights are two contemporary issues that interest artists and artist-researchers. For example, Beer and Chaisson (2019), Beer and Grauer (2012) and Huhmarniemi (2016, 2019, 2021a, 2021b) have studied environmentally engaged Arctic arts. Since the 1990s, these participatory and, to some extent, pedagogical approaches in contemporary art have inspired art teachers and educational researchers to look for strategies that could bring communities together in interactions with traditions and ecocultures (Hiltunen, 2010) as well as with environmental issues on a local level (Stoll, Sørmo and Gårdvik, 2018).

Cultural revitalisation is often discussed in relation to decolonisation, cultural diversity and cultural vitality. Reconstruction of forgotten skills, creation of cultural continuation and promotion of cultural pride are some of the common aims and means when revitalising cultural practises and values (Auclair and Fairclough, 2015; Cunsolo, Shiwak, Wood and the IlikKuset-Ilingannet Team, 2017). Arctic arts, as well as contemporary art, community arts, activism and craftivism, can revitalise local and regional arts, crafts and ecocultural values and traditions (Jokela, 2018; Härkönen, Huhmarniemi and Jokela, 2018). Revitalisation is also associated with the resilience of the Arctic culture, an ability to adapt to changing nature and culture (Sakakibara, 2017).

In new genre Arctic art, there is growing interest in the Arctic's material culture and handmaking skills. The trend follows the global paradigm shift known as New Materialism, changing the focus of art towards physical locations and materiality (Fox and Alldred, 2019). Recent educational studies have stressed that materiality has major importance in Arctic residents' childhood (Rautio and Stenvall, 2018).

Towards Arctic art education

As Arctic art education researchers, we ask how art and education can be used to increase respect for northern knowledge as well as strengthen and support cultural resilience and ecocultural continuation. In the 1990s, the University of Lapland (UoL) implemented art-based environmental education in art teacher training in the form of environmental art and community art activities based on the principles of place-based and situational learning (Jokela and Hiltunen, 2014; Huhmarniemi, Jokela and Hiltunen, 2021). Education for sustainable development and Arctic sustainability has formed the background for the development of art education in the UoL (Härkönen, 2021; Jónsdóttir, 2017). In culturally diverse communities in Lapland, artist-researchers have sought cultural sustainability through community arts and community-based art education (Hiltunen, 2010; Hiltunen, Mikkonen and Laitinen, 2020).

Our interest in new genre Arctic art has to do with its pedagogical potential to foster resilience, sustainability and cultural activism. We are interested in examining how new genre Arctic art and education can strengthen the agency to maintain and revitalise northern knowledge and improve cultural resilience and sustainability. We initiate, produce and explore Art productions that engage with social, political and environmental issues in ways that connect art, communities, nature and culture. Our approach to art education involves an optimistic view of the possibilities that art education can open up for effecting changes that support more sustainable societies (see Dewhurst, 2014). By building on the existing ecocultures in Arctic villages and towns, the skills and strengths of local people, and contemporary art and international collaborations, this approach represents an alternative to top-down and nationally coordinated curriculums and development projects.

Rapid changes in the Arctic nature, culture and environment as well as paradigm shifts in research and contemporary art have resulted in the need for changes in higher education (Härkönen, 2021) as well as in formal and informal art education in the Arctic (Huhmarniemi et al., 2021). Culturally sensitive approaches in art education are needed (Manifold, Willis, and Zimmerman, 2015) and have been promoted through research (Härkönen, 2021). These objectives include current issues such as the transformation and continuation of ecocultures combined with local inhabitants' self-determination regarding their own culture. In art education in the North, the question concerns not only safeguarding cultural heritage but rethinking education policy and school curricula. The need for decolonising culturally sensitive art education research was highlighted by multidisciplinary collaborations in the UoL's networks in northern region.

New developments in art education are meant to strengthen cultural identities and to foster hope among the Arctic's youth. Renewed cultural vitality is expected to contribute to economies and creative industries, which could employ more young people (Jokela et al., 2022). Our previous studies on snow and ice sculpting in tourism and villages (Jokela, 2007, 2008, 2019) focused on cultural vitality and youth well-being. In this article, we discuss earlier experiments in terms of ecoculture and northern knowledge.

Methodological principles of the Arctic art education reform

Arctic art education has followed the principles of art-based action research (ABAR) (Jokela, 2019; Jokela and Huhmarniemi, 2018; Jokela, Hiltunen and Härkönen, 2015; Jokela, Huhmarniemi and Hiltunen, 2019) to develop its general approach guided by a vision for the future. This approach commonly consists of cycles of aim setting, conducting art-based educational interventions and analysing and presenting results via research publications and artistic productions. The cyclical nature and the orientation towards development are reminiscent of the action research approach (Kemmis and McTaggart, 2004). The ABAR strategy also shares some common features with art-based research (Leavy, 2009) and art-based educational research (Barone and Eisner, 2012), especially in terms of using arts-based data. In the experiments that we discuss in this article, drafts of snow sculpting designs and documentary photos of the whole of the process as well as resulted snow sculptures and winter art events served as arts-based data. In all the winter art processes that we discuss, reflections of

educators and participants were also documented for compiling a diverse dataset. Data included observations and photographic documentation of the activities of schoolchildren and other participants (teachers and parents, as well as other active people in the villages). Data was also gathered in feedback and group discussions during and at the end of the process, and refined and deepened through interviews. School pupils contributed to the data also with written reflections and audience members were observed in the opening events of the winter art productions. The data has been previously analysed in research articles (Jokela, 2008; Hiltunen, 2008) and in Master Theses by art education students (Nieminen, 2008; Valo, 2008) in relation to well-being through art.

In ABAR, practical and theoretical kinds of research are conducted simultaneously and with many collaborators. Our development work with snow sculpting as Arctic art started in 1990, and we started working with Arctic art education in the 2000s (Jokela, 2019). The experiments that we discuss in this article were based on ecocultural and northern knowledge of snow and ice and involved investigating how snow and ice behave as materials, how one can extract ice from lakes and cut snow when it is packed hard by wind. In addition, in the early phase of the research, which began in the 2000s, we invited experts from different academic and professional disciplines to present their knowledge on snow, ice and winter cultures and published collections of texts (Huhmarniemi, Jokela and Vuorjoki, 2003, 2004). Mapping ecocultural traditions and northern knowledge of snow and ice provided us with a basis for planning a winter art experiment in Northern villages. After mapping the existing ecocultural and academic knowledge, the ABAR process involved a number of practical experiments, their evaluation and, finally, theory-building. The experiments were documented and studied using participants' reflections (Jokela, 2007, 2008, 2019).

The experiments involved various ways of collaborating with village communities, schools, teachers, art education students and researchers. For example, the objectives included community empowerment, well-being, communication of Sámi culture, sustainability and economic resilience through winter art. In this article, we expand our previous discussion on winter art experiments using research on ecocultural reform and northern knowledge, new genre Arctic art and Arctic art education. These perspectives are derived from our studies of Arctic arts, in which traditional crafting skills are revitalised to become contemporary art and design via long-term ABAR in Lapland (Huhmarniemi and Jokela, 2020b; Jokela, 2018; Stöckell, 2018; Härkönen et al., 2018). Intentions and efforts to reform ecoculture are bound to enhancement of cultural, social and economic sustainability and strengthening resistance to viewing Arctic region only as natural resource pool.

Children in the Arctic and winter art as an example of Arctic ecoculture

Arctic art education at UoL, along with its renowned winter art pedagogy, was developed in Northern Finland via the following projects: the Snow Show Winter Art Education Project, 2003–2004 (Huhmarniemi et al., 2003, 2004); the international ArctiChildren project, 2006–2008 (Jokela, 2008; Hiltunen, 2008), ArctiChildren InNet, 2011–2012 (Jokela, 2015), Finnish Cultural Foundation's nationwide project *Myrsky* (Storm) (2008–2011) and the Lapland Snow Design project, 2011–2014 (Härkönen, Jokela and Yliharju, 2014). These experimental projects have been analysed from the

perspectives of youth well-being and tourism development, but in this article, we expand the reflection to foster dialogue regarding Arctic art education pedagogy in relation to ecoculture and new genre Arctic art.

We will now discuss the ArctiChildren project (figures 1–2) that took place in partner school communities in villages of Jokkmokk in Sweden, Sevettijärvi in Finland and Lovozero in Russia on the Kola Peninsula. The aim was to establish community-based art education that would respond to the possibilities provided by the winter season.



Figures 1 and 2: In the ArctiChildren project, school students became familiar with their own cultural traditions through winter art and transformed cultural symbols into new community-based artworks. Winter art is not only a means of exploring the phenomenon but also culture as a revitalization activity. School children working at the Jokkmokk school yard in northern Sweden on the basis of their studies on Sámi handicrafts. Photos: Jokela, 2008.

The project's design and cooperation structure included art education students, their professors, schoolteachers and other village community members. At each school, the activities consisted of a winter art workshop combining formal and informal learning and the revitalisation of ecocultural traditions in winter circumstances. The community members of the Sevettijärvi, Jokkmokk and Lovozero villages came from diverse multi-ethnic backgrounds and included Indigenous people as well as representatives of other cultures. We embedded the goals of decolonisation into the project design by considering how Sámi culture could be strengthened through the activities and by working with Sámi livelihoods and world view as themes of the art project. School pupils and project team members familiarized themselves with stories, beliefs and traditions connected to reindeer herding by visiting local museums and gathering information from elderly people. Sevettijärvi's pupils were mostly Skolt Sámi, while Jokkmokk's pupils were Luleå Sámi and Northern Sámi. In addition to the Kola Sámi, Lovozero also hosted Komis, Nenets and Russians. The contents of the workshops were based on intangible heritage – namely, a rich tradition of belief and environmental narrative typical of Northern and Arctic cultures. In each village, many pupils and their parents were closely involved in reindeer husbandry through their homes, grandparents or the village community, and many sculptures represented the figure of the reindeer. Snow sculptures were also inspired by objects related to reindeer husbandry, especially animal stories and beliefs, as it was easy for children to identify with them in the

posthumanist sense: children expressed reindeer as their family members in a similar way as posthumanism endorses expanding empathy and community into more-than-human nature. The sculptures visualized togetherness with reindeer and knowing with reindeer. Sculpting itself materialized knowing with snow. In the process we avoided highlighting ethnic differences; rather, the focus was on mapping ecocultural traditions that unite people living in the same region, in similar winter conditions, and sharing some ecocultural traditions.

Although the design of the activities was based on similar methods in Sevetijärvi, Jokkmokk and Lovozero, the schools' specific cultures in the villages influenced the ways in which the activities became part of the schools' daily lives. The Sevetijärvi school served as the heart of the village's culture. The school's activities for the village community were lively, and the school premises were used for various annual occasions. The school had an important status and was approved by the village community. In fact, the school was central for the revitalisation of the entire Skolt culture, and teachers had internalised the importance of art-based activities as school reformers and supporters of the village's cultural identity (Jokela, 2008).

In Jokkmokk, the school's staff members set important goals for the winter art project. They hoped to increase the visibility of the Sámi cultural identity outside of the school community and to strengthen the community through arts. The large schoolyard provided a good space for winter art (figure 3). The teachers were unfamiliar with snow sculpting and new genre art approaches. The workshop in Lovozero was meant to introduce teachers to collaborative art education methods in the school yard, highlighting reindeer husbandry as an ecoculture that united all ethnic groups in the village (figures 4–5). The design of the experiment and the artworks were place-based (Vodden et al., 2015).



Figure 3: The school yard covered by the snow at Jokkmokk in Sweden was transformed into a stage for the culture of the Sámi school with the help of a two-day winter art workshop. Winter art acted as a place-based education and revitalisation of outdoor ecoculture. Photo: Jokela, 2008.



Figures 4 and 5: Within two days, 28 reindeer appeared in the empty yard of Lovozero school with Sámi, Komi and Nenets style traditional sledges. With its winter art education project, the school prepared for an important Easter celebration and reindeer racing competition of the village community. Photos: Jokela, 2009.

The ArctiChildren projects in Sevettijärvi, Jokkmokk and Lovozero resulted in educational experiences with further benefits for health and well-being (Ahonen, 2010; Jokela, 2008; Hiltunen, 2008; Nieminen, 2008; Valo, 2008). They can be described also as new genre Arctic art. From the perspective of art education, it was significant that in winter art, the effects of nature are transmitted multimodally through the senses of movement, smell, sight and hearing. The findings from working outdoors were in line with research showing that nature positively affects the health and well-being of children and young people. Teacher education in the Arctic is informed by research on the benefits of learning in outdoor environments for children's well-being and agency (Kangas, Kopisto, Föfman, Salo and Krokfors, 2017; Kangas, Vuojärvi and Siklander, 2018; Ratinen, Sarivaara and Kuukkanen, 2021, Ratinen et al., forthcoming). Outdoor education has also been discussed by Indigenous researchers in the Arctic, and many teachers and researchers have stated that the Sámi learn best by doing practical work in nature, outside of school buildings (Hirvonen, 2004; Jannok-Nutti, 2008; Keskitalo, 2010). Learning can be intergenerational, and the creation of Arctic art brings together children, youth, adults and elderly people to revitalise ecoculture and reform school culture. The winter art experiments in Sevettijärvi, Jokkmokk and Lovozero encouraged teachers, pupils, parents and grandparents to engage in activities related to the history of the villages, helping them understand the importance of the traditional ways of life and enhancing cultural identity in support of decolonisation. Cooperation with the Sámi and other multicultural communities clarified the relationship between contemporary art, cultural identity, decolonisation and well-being (Jokela, 2008; Hiltunen, 2008). The revitalisation ecoculture related to snow, reindeer husbandry and animal stories was successful, the methods used were in harmony with the human bond to other-than-human nature and new elements of ecoculture were created.

Salla's storm: winter art for a village event

Winter art activities in the Salla village in Northern Finland were based on the Finnish Cultural Foundation's nationwide project *Myrsky* (Storm) (2008–2011), which targeted young people aged 13–17 years as stakeholders in arts and cultural activities. In general, the aim was to provide youth with a

safe environment for artistically expressing issues that are difficult to verbalise and present. An event based on new genre Arctic art called Salla's Storm was designed to celebrate the strength of youth and to further support them; the aim was to diversify and strengthen the emotional ties, experiences and memories of young people from Salla and to create a sense of cultural pride. Salla's Storm included features of decolonisation and revitalisation of ecoculture. Decolonisation meant enhancement of the sense of winter as a friend of humans while western cultural colonialization, through visual art and literature, has included imaginaries of Arctic as hostile and evil wintry land (Hautala-Hirvioja, 2003; Huhmarniemi, 2004; Savolainen, 2004). Revitalisation concerned values for knowing with nature and ecoculture of bodily and multisensory relation with snow and winter weather. The University of Lapland's Art Education Department provided pedagogical expertise and artistic direction for the winter art event. Old photographs from Salla municipality's collections were displayed to provide information about the village's history and livelihood (figures 6–9). The venue was located in the central marketplace in the municipality's main village, where a magnificent array of activities, snow sculptures and ice-embedded photographs showcasing the local winter cultural history was created in collaboration with schoolchildren, local artists and adults. During the evening celebration, the entire implementation process was presented to the public in the form of a slideshow, along with other programs made by the young people.



Figures 6 to 9: Old photographs of Salla village serve as the starting point for Salla's Storm event and as a means of revitalisation. Some photos ended up in the central square of the municipality as ice installations to build a bridge between the past and the future. Photos: Jokela, 2010.

Salla's winter event also had aspects of new genre Arctic art as part of its community-wide social dimension and location in the public space, which, in the North, is often part of the space between nature and the built environment. In Salla, as in other rural regions in the Arctic, economic structures are no longer homogeneous, and communities are changing. For example, the coexistence, interaction and merging of traditional livelihoods, industrial forms of exploiting natural resources and tourism vivify villages in many places and resist the typification of remote Arctic regions as depopulated, poor and without services. At the same time the presence of all these different elements also cause contradictions and tensions between community members. In addition to aesthetic, ethical and financial perceptions, values and expectations are projected into the artworks in public space. Using photographs of Salla's past ecocultures and the young people's new designs, winter art, which occupied the village square, provided an opportunity to reflect on the changing Arctic in order to revitalise what had been lost and to visualise the future in a decolonial way.

Lapland snow design: the boys of the North and future work life

The Lapland Snow Design (2011–2014) brought together experts who were challenged to design, implement and market more competitive winter art, snow and ice constructions and winter-related services to businesses in Lapland. This was achieved by employing user-centred design, service design and environmental and community art in the spirit of ABAR (Jokela et al., 2014).

In the Lapland Snow Design, we examined the connections between winter-related business life and school education (figures 10–12). We discovered an interesting connection. According to the PISA 2012 survey, the OECD's Programme for International Student Assessment, the difference in learning outcomes between girls and boys is greatest in Lapland. Välijärvi (2014) connected this problem to girls' and boys' different future prospects: girls find their place more easily and have more faith in the future, while boys lack connections with contemporary work life, which often occurs somewhere far away, outside their home regions. Välijärvi (2014) posed the following challenge to primary schools in Northern Finland: Schools should ask how local work life has changed. For example, how have the professions changed? According to Välijärvi, schools should close the distance to the everyday world of boys so that boys can find good role models and understand that studying is worthwhile.

If school education followed the rapid changes in Arctic society, educators would consider expanding outdoor learning to collaboration with tourism and using snow and ice environments as art education classrooms. Every winter, several large snow hotels with restaurants, bars and chapels are built in Lapland. In addition, various programs and services make snow and ice constructions to serve as sites for events and tourism. Built snow and ice environments enliven existing and create new ecoculture and cultural experiences for locals and tourists. Moreover, winter art events and environments create new Arctic art for the entire region. Such activities employ snow construction entrepreneurs and a large number of workers, especially young men with skills related to winter outdoor life. The industry is international, and Finnish expertise has been imported into other countries as well.

Collaboration of artists and art educators with tourism industries is related to aims and efforts to develop tourism more sustainably, especially culturally and socially sustainability (Huhmarniemi, Kugapi,

Miettinen and Laivamaa, 2021). Art education and arts-based activities as tourism services are expected to lead into transformative and educative experiences as well as into revitalisation of Arctic crafting cultures and ecocultures (Jokela, Huhmarniemi and Mäkitalo, forthcoming; Kravtsov, Huhmarniemi and Kugapi, forthcoming). In addition, environmental art and public art can be commissioned to tourism environments and sites, located in the liminal spaces of nature and northern villages (Huhmarniemi and Jokela, 2019). Through environmental art, public art, winter art and arts-based services and activities, tourists will be introduced into northern cultures. By now, creative tourism, in which the customer participates in the wintery ecocultures through art education, is also growing rapidly.



Figures 10 to 12: A group of school students work in Lainio Snow Hotel construction site together with snow and ice sculpture professionals and art education university students. At the same time, they will become familiar with an industry that counteracts emigration from Lapland, forms an alternative to

natural resource extraction as a livelihood, and serves as new type of creative profession in the region.

Photos: Jokela, 2012.

Results: model of Arctic art education and comprehension of revitalisation through winter art

Based on analyses of research data and previous research, we conclude that by participatory means of new genre Arctic art, the Sami cultural heritage of reindeer husbandry, animal stories and the wintery ecocultural knowledge were reformed and revitalized in school yard projects in Sami villages of Sevetijärvi, Jokkmokk and Lovozero. The pedagogical method used in village communities included sharing traditions and passing on the material cultures of the Arctic to new generations. Knowing with nature, collaborating with nature and feeling friendships with nature, specifically with snow, was fostered as a response to decolonisation needs. Participants felt that they had more reasons to be outdoors as a result of the project, as one of them said: "There was nothing to do in the school yard, but now I want to be out and enjoy the beautiful reindeer."

In Salla village, the northern knowledge related to reindeers and snow and ice was made visible and public from non-Indigenous experiences and perspectives. In winter art projects, outside the Sámi region, schools have a possibility to participate in snow and ice design and architecture also in tourist destinations, thus giving school pupils an access to familiarise themselves with a growing and regional creative industry. The winter art and architecture of tourism sites rely on northern knowledge, local skills and winter resources in a sustainable way and transforms northern knowledge to respond to needs of contemporary society. Participation in winter art activities in tourism sites opens up new visions for future as alternatives to out-migration and forestry and mining industries.

Snow sculpting enhanced interactions between community members and paved the way for social growth, cooperation skills and positive emotions and thus winter art project was a good way to make students' voices heard and to strengthen their sense of belonging (Hiltunen, 2008, 2009, 2010). Especially the Salla event showed how a place-based, culturally sensitive and decolonising winter art event can be created based on northern knowledge, the history and stories of a place and the meanings given to the village by young people. According to Bardy (2001), children's participation in society is a fundamental democratic issue. When children and young people make their opinions heard in the design process, they learn to become active citizens. The winter art projects fostered experiences of inclusion and revealed new genre Arctic art as a means of presenting shared values. One participant stated: "*Reindeer is the symbol for the village, thus we need to sculpt them so that everybody remembers how important they are for us.*"

Conclusion

This article surveyed how local ecoculture, northern knowledge, decolonisation and revitalisation can be used in schools and villages to respond to the needs of the changing Arctic nature and society. The article sees northern knowledge as a way of knowing that is formed and renewed using situated learning in relation to local ecocultures, traditions and diverse northern cultures. Northern knowledge

incorporates cultural heritage and the tacit knowledge of material culture in arts, crafts, design and visual symbols. The article discussed multi-year, multi-cycle development work based on the ABAR method. The field of research was the winter environment, along with snow sculpting as a form of new genre Arctic arts. Previous analyses of these experiments, also presented in this article, focused on well-being and cultural identity, while this article considered winter as ecoculture in creation. The results show that place-based and culturally sensitive new genre Arctic art can benefit school communities and entire villages in identifying their own strengths and revitalising their ecocultural traditions. Winter art has served as a forum for renewing wintery ecoculture. The northern communities' northern knowledge and their relationship with the winter environment have played a key role in subjects of artworks and in skills needed for their realisation. The results also show that situational and place-based activities create a sense of inclusion, which fosters revitalisation, decolonisation, strong identity and cultural pride. In villages, schools and schoolyard projects, Arctic art education has served as a tool for inspiring teachers, pupils, parents and grandparents to engage and participate in wintery environments. Winter art should be seen, in its entirety, as a method of Arctic art education, as part of new genre Arctic art and as a social activity that can strengthen cultural vitality and Arctic sustainability.

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