RELATE NORTH

Engagement, Art and Representation 2014

Edited by
Timo Jokela & Glen Coutts

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Review on
Arctic Sustainable
Art and Design

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Preface

This collection of essays and reports seeks to explore through art and design the transformation of cultural understandings of the unique positions and rapidly changing settings of the North and Arctic. One may not ordinarily connect art and design with the North. Art and design has always been about individual creativity, problem solving and encouraging alternative ways of seeing the world. In addition Western culture has been dominated by an inherited conception in which it is believed that art and creativity radiates from cultural centres to their peripheral areas, usually from west to east and from south to north. Artists, designers and teachers are thought to participate in spreading culture to all classes from top to bottom with their own work contribution. From the northern perspective, it is noteworthy that particularly in the sphere of UNESCO, criticism towards the above-mentioned idea of culture spreading began as early as the 1970s. It was seen to represent a form of a colonialist remnant, which was used to educate and socialize people to have the same social and cultural values. As a result, various minority cultures, as well as social and regional groups often lost their right to have a say in matters relating to their own culture. That has also happened in the North and Arctic.

This volume aims to bring out dimensions which show that the North and Arctic environments and social-cultural settings can work as a laboratory for innovative art and design research and act as an arena in which context-sensitive methods for art and design education can be developed. This does not only apply to the North, but also in other parts of the world that observe the special conditions of peripheral areas. The political, cultural, social and educational landscape is changing fast not only in the North, but also in large parts of Europe and the rest of the world. Researchers, educators and policy makers need to reconsider the nature and purpose of art and design education at all levels from school education to professional training. These changes should lead to a rethink not only about what is taught in universities and school in art and design education but also how it is taught. It is for these reasons that this volume aims to combine contemporary art, project-based learning, community-based art education and service design thinking in order

to promote artistic activities which generate social innovation and enterprise in culturally-sensitive manner to support wellbeing in the North.

Social and Cultural Sustainability

We have seen how the environment of the North and Arctic is changing rapidly and the resultant cumulative impacts on nature, economy and livelihoods. Take, for example issues such as mining, oil production and tourism all of which has a visible effect on society, wellbeing, and the culture of people living in the region. Education, cultural work and art directed to the North have often been seen as an aid and a gift from the South and centres to the peripheral North. Simultaneously the youth of the North, like in all peripheral places, have been sent to be educated in the South and cities. This has led to an erosion of certain social structures and the creation of a series of problems including: ageing populations, youth unemployment, decrease of cultural activities in towns and villages as well as psycho-social problems often caused by the loss of one's own cultural identity.

The neo-colonial circumstances and socio-cultural settings in the North presents challenges for art and design education and highlight UNESCO's goals for ecological, social, cultural and economic sustainable development. These objectives incorporate current issues such as the survival of local and regional cultures combined with their inhabitants' self-determination concerning their own culture while securing a social and economic stability for all the communities. In this volume it is not a question only of safeguarding cultural heritage, but also promoting cultural sensitive artistic activities, and cultural services.

International Thematic Network on Arctic Sustainable Arts and Design

In order to strengthen international collaboration in North- Europe and between North-Russia and North-America and increase the status and visibility of art and design research and education. The Faculty Art and Design

at University of Lapland instigated the *Arctic Sustainable Arts and Design (ASAD)* network under the auspices of the University of Arctic. Today the network consists of 26 circumpolar universities and art and design education institutes from eight circumpolar countries concentrating in North-Europe. The main aim is to develop working methods for improving environmental and cultural sustainable development, psychosocial and economic wellbeing through art-based research and activities.

Now the emergent activities of the ASAD network have highlighted some common challenges as well as opportunities in the North and the Arctic. The blending of indigenous cultures and other lifestyles of the people of the arctic is typical to the whole circumpolar area. This multinational and multicultural composition creates elusive socio-cultural challenges that are sometimes even politicized in the neo-colonial settings of the North and the Arctic. Finding solutions to these challenges requires regional expertise, co-research, communality and international cooperation.

The questions are tightly connected to cultural identities, which in turn are often constructed through art. It is not about static preservation of cultural heritage but about understanding and supporting cultural change according to the guidelines of sustainable development. By furthering art and design education based on research and innovative forms of contemporary art and service design the aim is to develop methods that can help northern and arctic actors to communicate their culture by analyzing it from within. Art is invariably about renewing and strengthening cultures. Therefore developing art and design education and social application has a strong impact on the well-being and economic life of the North and the Arctic.

Many Positions of Art Education

As presented here, the role of the art and design educator and researcher is not seen as a traditional teacher but as a developer of arts creativity, enabler, curator, facilitator, producer and creator of a new dialogic engagement both in local and international forums – strengthened by northern cultures. ASAD members

have already entailed many types of activity: art events, community based workshops, environmental productions, gallery and museum exhibitions, art activities for university campuses and discussion on identities and narratives.

This publication shows that the implementation of ASAD aims have been developed in such a way that they fluently combine research, pedagogy, and the methods of contemporary art and design not only within the context of university-level art education, but within university regional development work too. The activities in the North region have yielded bi-directional benefits. On the one hand, they have significantly supported the region and demonstrated the possibilities of art and design in various regional development projects. On the other hand, the North has provided an interesting, challenging, and multifaceted field for the universities' research-oriented art and design activity. These essays introduce scholars, artists and teachers and their practice that can rightly be defined as art and design that observes the special conditions of margins and peripheral areas.

In the opening chapter, Beer reports on arts-infused research entitled 'Trading Routes'. The research was funded by the *Social Sciences and Humanities Research Council of Canada*, an interdisciplinary project involving publicly engaged artists and educators. The project focuses on what has been a 'hot' issue in Canada for the past five years, the proposal to pipe crude oil from Alberta to British Columbia. Given Canada's long distinguished tradition of nature viewed through the lens of landscape painters it is fitting that the research uses arts practices to interrogate and represent the complex issues of place, tradition and 'progress'.

The second chapter discusses an ongoing project based in the Shetland Islands situated to the north of mainland Scotland and Norway. Permar and Timmons investigate the 'Cold War' period; roughly between the end of World War II and the demise of the Soviet Union; i.e. the years 1945 to 1991. In reporting the project and presenting some of the artwork that was produced, the authors argue that 'Art can stimulate debate, trigger collective memory and promote engagement with issues related to the Cold War that are unique to the populations of the northern and Arctic regions.' A multidisciplinary approach

was taken to data collection that included, for example film, photography and interviews.

The next chapter, written by Hiltunen from Finnish Lapland and Zemtsova from the Komi republic, Russia reports on a collaborative project between two universities. The topic was to explore the potential 'common ground' of 'Finno-Ugric' roots, traditions and customs. Community-based art education and place- specific art methods were used during a short intensive period when the students and staff worked together. Photography, video, site-specific installation and performance all featured during the period of working together. One of the results was a touring exhibition, which has been shown in Syktyvkar, Russia and in Finland (Rovaniemi, Lahti and Helsinki).

Macdonald and Jónsdóttir, from Iceland explore how art projects and artworks might be used to provoke thought and raise questions about issues of sustainability in the fourth chapter. In addition, they consider the notions of 'wicked problems' and 'participatory virtues' and provide readers with an overview of those concepts. The researchers interviewed a small number of art educators who had participated in a teacher training course aimed at promoting awareness of sustainability issues. The article presents four short case studies as each participant reported projects they had undertaken as art educators. The authors argue that the four cases demonstrate that the arts 'have great potential for producing knowledge about sustainable issues…'

The disciplines of product and service design are the focus of the next chapter by Miettinen, Laivamaa and Olhonsuo. The Arctic environment and culture produce unique challenges for designers; the harsh climate, challenging terrain and sparsely populated areas present special challenges. The authors argue that sensitive and appropriate design processes help address such challenges. The case studies reported in the article demonstrate some of the ways that the team at the University of Lapland are responding to the challenges of designing Arctic products and services, not least by close cooperation with public and private sector industries.

In the penultimate chapter, Wall from the University of the Highlands and Islands in Scotland writes an account of a photographic field trip to the

unique landscape of Iceland. In her article Wall provides us with a personal report of a series of encounters and experiences in the landscape. She describes three specific encounters, which in her own words 'forced me to rethink landscape/body and photography/world relations.' The artist/ researcher powerfully recounts that 'These moments in the landscape transformed my thinking and in turn have informed the shape and content of the writing, along with the images which accompany it.'

In the closing chapter, three researchers from Norway, Gårdvik, Stoll & Sørmo provide an account of case study – *the Birch Bark Project*. The project was conducted with elementary teacher students who were tasked with gaining knowledge of the potential of birch bark as an educational resource and the forest as an outdoor classroom. Using a mix of diaries (or 'blogs') and observation, the research team investigated the learning potential of the outdoor classroom. The researchers argue that the combination of the natural sciences, arts and a holistic approach in an outdoor setting provide student teachers with '*rich sensory experiences; bodily and emotional impressions that have helped to give them a better understanding of natural phenomena.*'

Finally, this edition is intended to be the first of a series. We hope to continue by publishing an annual volume of essays that 'Relate to North'. You are cordially invited to contribute to future volumes of this series, a regular *Review of Arctic Sustainable Art and Design*.

Please visit the website for more information:
www.asadnetwork.org

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Trading Routes:
THE INTERSECTION OF ART PRACTICES AND PLACE

Introduction

As Canada debates the proposal to pipe crude oil from Alberta to British Columbia, this country's long established ideas of nationhood are being subsumed by its present role within the global petroleum trade. Conversations surrounding the pipelines have marked a radical change in how we understand Canada's relationship to the land of its northern region and coast. Perhaps no other event in recent years has divided popular opinion as distinctly as the proposed pipelines. For or against Enbridge's Northern Gateway pipeline and tanker project, to take a position on the pipeline simultaneously determines one's position on the environment, the rights of indigenous cultures, the economy, and Canada's global reputation. Over the course of the past five years, it seems any argument concerning Canadian identity can be settled over this one issue.

Perhaps one discussion not represented by popular media in the pipeline debate is how art practices are engaging with the issue. Considering the role Canadian painterly traditions have historically played in forming a sense of nationhood, contemporary Canadian artists represent an alternative perspective on the transformation of the landscape along the proposed pipeline route in Northern British Columbia and Alberta. At this liminal moment, the authors of this paper are participating with a group of artists and scholars who are undergoing a four year research project to look at what is happening on the ground where the socio-economic and environmental trajectories of petro-cultures, aboriginal cultures, and art intersect. This paper examines the intimate complexities concerning the project *Trading Routes: Grease Trails, Oil Futures* and the dialogue it is producing around a changing image of Canada's North. Like the idea of North, which exists, for the most part, in the imaginations of Canadians and non-Canadians, the proposed pipeline evades visibility. It is a signifier of modernist industry. It comes from an invisible place and snakes off into an invisible landscape with what may seem like invisible consequences. However, having said that, what this paper will not discuss is the benefits or risks of said pipeline. Rather, the pipeline presents a point of departure where process-driven and site-determined artistic and research

practices can strategically intervene in contemporary conditions of landscape in representation and their specific localities.

This paper is divided into four sections; beginning with a description of the *Trading Routes* project, we will discuss the project's various research intentions. In the second section, we will discuss how the influence of traditional Canadian landscape painting is still central to the way Nature is identified with in Canada. In the third section, we will give examples of existing artistic strategies that contain the potential for poetic gestures within a landscape, followed by a fourth section discussing art and education community-involved research collaboration. In this manner, a "thick" rather than "thin" understanding of this key historical moment will be constructed. As cultural producers, the collective work of *Trading Routes* (abbreviated to TR for the extent of the paper) faces the challenges presented by a shifting social and physical geography by maintaining the premise that in order to engage with the contested geography of proposed pipeline routes, art practices must enter into a non-totalizing dialogue with experiences of place.

Researching "Off Topic"

In working towards a dialogue that reaches the complexity of an equally complex idea of place, the many problems that dictate the research of TR, has broadened the scope of the project to entertain the multiple trajectories that permeate the pipeline debate. It will be necessary to first provide a brief context of the project before addressing the questions that this research is responding to.

Funded by the Social Sciences and Humanities Research Council of Canada, TR is an interdisciplinary and publicly-engaged collection artists and educators including Ruth Beer, Glen Lowry and Kit Grauer who are producing art and texts, exhibiting, holding symposia and educational workshops in order to contribute to an emerging discourse concerning Canadian investment in fossil fuel industries. Having acknowledged that the terrain of traditional Indigenous trading routes are being overlapped by an ever-expanding

network of oil and gas pipelines throughout British Columbia, the project's questions ask: how can contemporary art add to a collective re-imagining of new socio economic conditions and changes in culture? How can a dialogue involving Indigenous and non-Indigenous artists, storytellers, and teachers add to the discourse surrounding this contested geography? How does direct experience with the land in the form of site-determined work contribute to understandings of self, wealth, or energy security?

In 2013, at the beginning of the project, an exhibition titled *Relate North* was held by the Arctic Sustainability Art and Design (ASAD) network of the University of the Arctic in conjunction with the University of Lapland and the Iceland Academy of the Arts at Nordic House in Reykjavik. Included were sculptures, photographs and digital animation video by the lead artist/researcher of TR, Ruth Beer. From the start of the collaboration, Beer and her colleagues worked with the history of the oolichan oil trade by coastal Aboriginal peoples including the Nisga'a and Haisla. Oolichan fish oil, or grease, a highly valued cultural and economic commodity that also provided sustenance, was historically transported along the challenging geographical terrain of the

Figure 1.
Spill, 2013, Ruth Beer. Polyurethane and pigment. 30"x 46"x 3" and 30 x 36 x 2 inches. Courtesy of the artist.

Figure 2.
Fish, 2014, Ruth Beer. Copper, aluminum, cotton jacquard weaving. 22 x 71 inches. Courtesy of the artist.

Figure 3.
Oolichan and Bitumen 2013, Ruth Beer. Inkjet print 30 x 34 inches. Courtesy of the artist

proposed pipeline routes. TR did not overlook the irony of this knowledge, as the artwork produced by Beer references the materiality and metaphoric relationships between petroleum and oolichan "grease" in her sculptural work.

Temporarily moving away from the ecological issues at the heart of the pipeline debate TR researchers have become interested in investigating questions of artistic intervention and ideas of place as they visit sites along the proposed pipeline route such as in the northern, coastal town of Kitimat and Prince Rupert in British Columbia. By focusing our attention slightly away from the pipeline debate and onto the site of the route itself, other peripheral narratives enter into view: namely those between artists and the communities they engage with. We can further add to the manner in which a "route,"—whether we are speaking of a pipeline route, "grease trail," or any other socially and economically contested geographic trail—contains the trace of the current or past narratives that come across it: effectively narrating a history through strategies of digression.

In this manner of researching "off topic," TR embraces tangents. By scattering one's attention, the difficult project of visualizing the transformational force of the oil industry in the geographic and social landscape becomes more realistic. In an article for a special issue on petrocultures in *Imaginations*, a journal affiliated with the Petrocultures Research Cluster at the University of Alberta, Andrew Pendakis with Sheena Wilson outline the complexities of visualizing oil. "…the task of visualizing oil, one which goes beyond phenomenology, beyond even the logic of the gaze itself, is that of hoarding maps and screens and files, layering mediums, and setting into motion myriad arts and sciences of oil's determinate presence" (Pendakis and Wilson 2012). Pendakis and Wilson specifically lay out the task of understanding oil's presence in our lives as a visual task. The ability to visualize something as abstract as oil is dependent on the visibility (or invisibility) of such a substance. While especially sensitive to the fact that we are researching invisible mechanisms and pathways, it is this concept of layering narratives which is at the core of the TR research process.

Representing the Canadian Landscape

On the other end of the spectrum, what is determinately *visible* to us in our dealings with the region of the route is the sheer romantic force of the North in our imaginations. The task of articulating where the fossil fuel industry and Canada's nordicity[1] intersect, it will be helpful to consider the project as an assemblage after the work of Gilles Deleuze and Felix Guattari in *A Thousand Plateaus: Capitalism and Schizophrenia* (1987). An assemblage is made up of independent components that interchangeably assemble to form a structure (Deleuze and Guattari, 1987, 234). To unpack a structure formed by the "layered mediums" referred to by Pendakis and Wilson, is not necessarily the goal of TR, as such an endeavour would be beyond the scope of this project. Rather, TR opts to keep adding on to the layers of images and stories in order to complicate the representation of northern landscapes as the current sites of industrial development and cultural change.

With this clarification in mind, we can look at where traditional and contemporary art forms perform a conflicted assemblage. How can contemporary art deal with the iconic history of Canada's Northern landscape in all its complexity? Invoking images of the first attempted expeditions in search of a route through the Northwest Passage, the SS Manhattan, the first oil tanker to establish a commercial route in 1968 through the Arctic Circle demonstrates how cartographic processes helped form a colonialist relationship to Canada's landscape. Following the trajectory of explorer mythology, the history of Canada's North according to Canadian geographer Louis-Edmond Hamelin is a confrontation between multiple visions of the North (Hamelin 1979, 7). With the proposed pipelines, our imperialist vision of northern landscapes aided by explorer mythology is deteriorating. The myths being dispelled include the vision that the North is an exploitable hinterland, the romanticized vision that it is a pristine, untouched wilderness, and a pessimistic although arguably more realistic perception of the problems faced by Northern communities such as substance abuse, high cost of living and isolation (Hamellin 1979, 7).

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[1] The cultural degree of our "northernness" based on multiple social and natural factors.

In its diversity, it is almost impossible to visualize the North as one immense territory; even our maps perform an injustice by flattening, distorting and severing it at the Arctic Circle, disconnected from other arctic regions.

The popular *terra nullius* representation of Canada being an "endlessly abundant northern wilderness" enforced by both sides of the pipeline debate[2] is being challenged in the investigation of TR. The history of landscape painting in Canada, namely the work of Group of Seven artists from the 1920s and 1930s is remarkably influential in the creation of a national identity for such a young and vast country. As this project navigates the contested terrain of landscape and representation, as well as conflicting positions on land use and unsettled land claims, its contributors look to examples of other

Figure 4.
Mount Thule, Bylot Island, 1930, Lawren Harris. Oil on canvas, 82.0 x 102.3 cm. Collection of the Vancouver Art Gallery, Gift of the Vancouver Art Gallery Women's Auxiliary. Photo: Rachel Topham, Vancouver Art Gallery

[2] Both the pipeline advocates touting the economic viability of the landscape and those defending the environment invoking imagery of a pristine, untouched landscape contribute to a *terra nullius* representation of landscape.

artists, scholars and writers who provide alternatives to the iconic representation of landscape painted by Group of Seven artists such as Lawren Harris and A. Y. Jackson. The function of landscape as a unifier in Canadian sovereignty is directly related to its colonial past and the Group of Seven had staked their claim as the nation's representative artists for a local, northern aesthetic (O'Brian 2007, 3).

A short film aptly called *Canadian Landscape* (1941) by Radford Crawley and funded by National Film Board of Canada follows the painter A.Y. Jackson as he traverses the landscape of northern Ontario in autumn. Born in Montreal in 1882, Jackson is filmed under the light of an adventurer or explorer of the vast, empty landscape. He is seen portaging and wandering through the bush in search of a scene to paint, which will accurately portray the sublime, rhythmic quality of the landscape. This portrayal is one of many examples highlighting the national mission to identify being Canadian with nature and connecting art with adventure, where indigenous people are made invisible.

It has been asserted in the book *Beyond Wilderness: The Group of Seven, Canadian Identity, and Contemporary Art* (2007) that "modernity in the Canadian experience [has] played out in terms of landscape" (O'Brian 2007, 136). Many Canadian contemporary artists have responded to the lasting effects of the Group of Seven and their landscape painting tradition by highlighting the lack of human presence in landscape painting. For the most part, an industrial and human presence existed just outside of the landscape pictured by artists like Lawren Harris and was effectively cut out of the scene (White 2007, 14). In an act to reclaim the history of the land including its "pre-history" of human settlement and later industrial developments—both equally part of the land's history—Christos Dikeakos created a series of panoramic photographs of Canadian landscapes with text overlaying the landscape denoting the original Musqueam or Coast Salish aboriginal place names. The photographs also include a taxonomy of flora and fauna in the picture. An original artist associated with the photo-conceptual movement in Vancouver, Dikeakos' series *Sites and Place Names* (Boîtes Valise) (1991-1994), considers the act of naming in the formation of place. For example *Little Lake, axcachu xaca*, (1992) is a

photograph taken at Beaver Lake in Stanley Park, Vancouver. In Dikeakos' photograph, the artist references the rich animal life that coexisted with indigenous settlements for thousands of years before it was renamed Beaver Lake; the words "wolves", "deer", "beaver" and "muskrats" dot the photograph as things that once defined the site. Except for the words, they are invisible just like the history of the site is invisible. In reclaiming the indigenous names of places in Canada that had been renamed in the first place by imperialist forces to impose power and ownership, Dikeakos brings together aboriginal and

Figure 5. *Little Lake, Beaver Lake, axachu xaca, Stanley Park, 1992. Christos Dikeakos. Colour photograph, glass with sandblasted text 53,34 x 104,14 cm. Courtesy of Catriona Jeffries*

non-aboriginal histories as he simultaneously critiques the landscape painting tradition (Lippard 1997, 46).

Returning to notions of invisibility, the North as an idea is dependent on being an imaginary, invisible place. In cartography, bodies of authority attempt to immortalize the "Canadian Imaginary" through a totalizing view from above, flattened geography in the form of maps and diagrams. In Michel de Certeau's utopian essay "Walking in the City," (1988) a theory of every-day space is discussed in relation to the city. Described from the aerial perspective of the World Trade Centre looking down onto Manhattan, de Certeau's discussion of how the "everyday" experience of navigating the city is counter to the unified view of the city produced in maps and plans, is useful in our discussion of nordicity. For the people and environments that are outside the space of visibility, "escaping the imaginary totalizations produced by the eye,

Figure 6.
Untitled (summer camp by the shore), 2006/2007 Shuvinai Ashoona. Coloured pencil & ink, 19 x 26 in. (paper) Courtesy of Marion Scott Gallery & Dorset Fine Arts.

the everyday has a certain strangeness that does not surface, or whose surface is only its upper limit, outlining itself against the visible" (de Certeau 1988, 93). TR addresses the question—is it possible that the strangeness of the everyday can counteract the imperial stereotyping of the North that continues today?

One such example of an art practice intervening at a moment where stereotypical representa-tions of the North become destabilized in the realization of the industrial dream to further develop the North include the drawings of contemporary Inuit artist Shuyinai Ashoona. *Untitled (Summer Camp from Above)* (2006-7) incorporates the same aerial view illustrated by de Certeau. Like other drawings by Ashoona, there is an absence of people except for one figure standing in a boat on the lower right corner. Unlike the de Certeau description of the view from the World Trade Centre where a "celestial eye" simplifies the geography rendering it readable, Ashoona's rendering assumes an awkward but detailed eye. It is clear that this gaze takes into account a lived or phatic experience of the land. At the same time however, the viewer is disturbingly aware that through this gaze, an alienating force is projecting the totalizing eye through the eyes of the artist who is looking at a landscape that she knows well, but as a foreign or alien one. Here, in the precariousness of the summer camp with it's circular tents and rocky shores, the drawing contemplates the ways in which the symbols and structures of nomadic life reproduces landscape as a social space; a social space also altered by the totalizing, aerial gaze.

Poetic Investigations into Geography and Social Spaces

Landscape as a social space does not exactly mesh with the empty, romanticized version of Northern landscapes that are showcased in our national galleries and museums. We would argue that artistic intervention can effectively transform fictional landscapes into more nuanced, affective landscapes of the everyday.

In Trevor Paglen's essay "Experimental Geography: From Cultural Production to the Production of Space", geography's transdisciplinary

approach to contemporary art discourse asks "how is this space called 'art' produced?" (Paglen 2009, 4). A geographic practice, then, is concerned with the production of 'objects' only because the making of things is contingent with the production of space for their reception. Drawing from the spatial analysis of philosopher Henri Lefebvre who established the fundamental sociability of geographical space in his book T*he Production of Space* (1991), Paglen contends that through studying space, the artist/geographer is also producing space. Therefore, to "move beyond critical reflection, critique alone, and political "attitudes", into the realm of practice" the artist as producer incorporates social actions into her process (Paglan 2009, 12). Just as artists produce "work," an artistic practice contains the potential to produce new forms of freedom and cultural relations—an attitude that resonates with TR. Looking at drawings made by Ashoona, it is made abundantly clear that alternative perspectives on the Canadian landscape painting genre, thinking of art practices as geographic, produces alternative spaces for the reception of ideas.

The potential to establish new democratic spaces through art is a tall order. Because such a claim is brimming with humanist intentions, a healthy dose of skepticism is to be expected when discussing the above theories. What this spatial practice would look like is difficult to comprehend. In order to ground spatial theory in the context of changing landscapes, the spatially dense research-based work of Ursula Biemann comes to mind. In a video essay titled *Black Sea Files* from 2005, the subject of her video investigation is the globalization of transnational pipeline infrastructure in the Southern Caucasus and Turkey. Although filming in another global context, the region filmed by Biemann experiences similar political contentions and fragile economies to the Northern regions TR is working with. The intention at the centre of her process is to chart the reconstruction of social and spatial conditions at the local scale. Compiling video data of human and mechanical subjects, Biemann assembles a picture of everyday textures. This "complex human geography" becomes a source for transforming the totalizing view of mass media. (Biemann 2005, 64). What makes *Black Sea Files* a highly intimate and nuanced investigation into human, material, and place relations is her fragmentary approach to forming a total contemplation of her subject. The

files vary in scale, but speak of "grand ideas and sordid conspiracies, remote ordering systems and their prosaic local upshots; they detect plans within plans, seeking to understand their strategic purposes and operational failures, and the meaning they have in terms of human experience. It is the ensemble of the files that reveals their interconnectedness." (Biemann 2005, 64). The use of video files as a method of data collection becomes a metaphor for the production of knowledge and the artist as a primary investigator or anthropologist. In this sense, Biemann acknowledges that her presence in this multifaceted local history is a risky process of image-making spectacle.

At this juncture, it would be appropriate to address the potential problems associated with this kind of practice. The challenge in entering peripheral dialogues as outsiders, whether we are urban, rural, southern, northern, aboriginal or non-aboriginal artists, writers and researchers, is addressing the question of: is it our place to be investigating place? Certainly in the development of TR, its authors are sensitive to the ethical considerations involved with this project. TR is guided by scholarship and protocols for research methodologies with, by and for Aboriginal peoples and acknowledges ethically problematic western academic research methods (Smith, L. T. 1999, 2). Allowing this area where pedagogical experience can be reformulated and opened up to destabilize the power relations between cultural production and the subjects of cultural research, is the primary concern, and this is the basis for an emphasis on dialogue and exchange within the TR project. As art historian and curator Lucy Lippard suggests in her book *Lure of the Local*, "each time we enter a new place, we become one of the ingredients of an existing hybridity…" (Lippard, 6). It is clear from the footage shot by Biemann in the homes and locations of her subjects that this is an artistic relationship based on hybridity. While realizing that a complex set of relations mediate between the cultural producer and their public we (TR contributors) are also motivated by the possibility that landscape can cease to be an imaginary world and can be perceived as an actual "place" through subjective experience.

The poetic gesture of adding artistic narratives to the existing narratives of a place cannot go unrecognized. TR has looked towards the work of interna-

Figure 7.
The Green Line (Sometimes doing something poetic can become political and sometimes doing something political can become poetic) Jerusalem 2004, Francis Alÿs. Video documentation of an action. Courtesy David Zwirner, New York/London.

tional artists who set an example of how this role can function as site-specific or site-determined work. In a remarkably poetic gesture, Belgian artist Francis Alÿs performed *The Green Line: Sometimes doing something poetic can become political and sometimes doing something political can become poetic* (2004) in which he walked the border of east/west Jerusalem dripping green paint from a can. Along with the performance and video were interviews with various people regarding their opinions about the border. The video documents the artist's walk along the demarcation line, a border that was drawn with a green pencil on a map separating Israel from its neighbours after the 1948 war. Here, we can revisit the parallels between routes, lines and pipelines and the myriad of discourses the run through these often imaginary lines, which Alÿs so poetically reifies. Some of the commentators from Israel and Palestine who are interviewed as the narrating track for the video support the gesture while others criticize it for the ease in which he walks the line, thereby inadvertently simplifying the political questions surrounding the border. But, because Alÿs layers the mediums of performance, painting (in the form of dripping green

paint), sculpture and interview, he is a wonderful example of how a layered approach to discourse is needed in artistic intervention into complex areas; an approach that is sought in TR's investigations.

Collaborative Research in Art and Education

The dialogue created by *The Green Line* lends the performance a second life where the reception of the work takes place within the work itself. Grant Kester suggests that socially engaged art can be a generative form. Conversation itself can be an integral part of the work (Kester 2005, 2). The shift away from a finished, physical object and towards a "dialogical aesthetic" will aid us in revisualizing a changing North (Kester 2005, 8). Kester maintains that the artist cannot escape being in the position of an outsider with cultural authority, but through what he calls "collaboratively generated empathetic insight," the public who are also the artist's collaborators can approach solidarity in this social dynamic. Words, like walking contribute to the navigational practice of the everyday we illustrated in our discussion of de Certeau's essay *Walking in the City.* To address the skeptical reader turned off by ideals of collectivity, it is important to state the difference between bureaucratic community based projects that assert their essentialist values to perform a myth of collectivity and an agonistic model of art collaboration. In Kester's dialogical model, there is room for difference with an emphasis on experiential learning through interpretation and subjective discovery.

Subtle but not affectless, Alÿs' gesture raises important questions about the role of poetic gestures in intervening in heated political conflicts. Art practices engaging with political situa-tions face the challenge of representing the situation without over-simplifying the situation in the process. Socially-engaged art may be viewed as controversial for this reason, and in a northern context, this controversy is an important consideration. Images of rural northern communities often invoke the hardships and conflicts that exist for life in a harsh climate. For southerners, it is this adversity that gives the impression of tight-knit relationships which may be true, but assuming so takes us

back to the third myth that Hamelin proposes in his discussion of Canadian nordicity. According to Hamelin, a community's perceived problems creates negative impressions among Canadians from the capital and reinforces this perception on its inhabitants. Hamelin writes:

> *Thus, at any given moment, concepts of good or bad exercise a profound impact on [northern] life, financial activity, mobility of the labour force, presence of political forces, and on awareness of certain problems. These mechanisms should not be surprising. Is a country not the fruit of the mind?* (Hamelin 1979, 6)

The above quote emphasizes the fickleness of our attitudes towards northern communities and the profound impact that that attitude can produce. Similarly, community practice as a form of socially-engaged art can also contribute to a fiction of community. How can cultural producers make socially-engaged work around the notion of community without contributing to such a fiction?

As Claire Bishop asserts in her book *Artificial Hells* (2012), that artists may be intrumental-ized as "social workers" under government funded projects. She goes on to suggest that those artists carrying out educational projects in galleries emphasize 'participation' and 'social inclusion', but may disengage with the transformative potential provided by the richness of aesthetic, critical and dialogic practice (Bishop 2012, 189). We would rather argue that by being sensitive to fictions of community as well as considering principles argued by Bishop, TR differs from this rubric through its nuanced and multiple approaches to the proposed pipeline route.

As a strategy, TR explores "potentiality" in thinking of art and exhibition practices as educational. By contributing to notions of place, these kinds of pedagogical strategies collapse the difference between learning spaces and exhibition spaces (Rogoff 2007). When going into Northern communities, artist/educators would be more beneficial to follow an approach similar to Biemann's or Alÿs', understanding that their representations produce social implications, and that by making a work that promises to "do" nothing except

construct a story, art can take on a second life from its maker, woven into the social fabric of the community. This is one way to think of pedagogy in relation to community stemming from the contributions of Irit Rogoff in what is now referred to as the "educational turn" in contemporary art discourses. Like Alÿs, Rogoff also embraces failure, considering "academy as potentiality" as the possibility of "*not doing, not making, not bringing into being.*" This is not education with a 'learning outcome' in mind, it is a process of investigation that refutes the presence of an immanent meaning waiting to be uncovered.

Collaborations need not have a clear articulation of who is the producer and who is the receiver of cultural knowledge (Menzies 2004, 17). The collective can be the producer while the artist bears witness to their efforts. Roles are confused and reversed; this is the kind of dynamic set up by TR and thus resembles the organization of an assemblage. Thinking about the works discussed in this paper as belonging to a heterotopia would also be accurate. In the creation of an identity and cultural milieu, the heterotopic space is a fantastical space in proximity to utopia but self-produced and therefore resists being ordered for any common good (Foucault 1986, 24). It is a site of illegible and heterogenous elements collected by the divested subject when the stakes are high.

The work of Shuvinai Ashoona can represent everyday life as the new and shifting Northern landscape (she was recently included in a group exhibition Oh Canada! representing Canadian art at MassMOCA). It underscores the significant contribution that indigenous art can make as investments in future imaginaries. Where Christos Dikeakos undergoes a critique of Canadian landscape painting after the Group of Seven, he also poetically gives our urban land-scapes back their names and de-colonializes its history. Similarly, Alÿs de-romanticizes the political by accepting failure as a poetic strategy in his work in Jerusalem, that will carry on as a myth spread by local voices, taking on a life of its own as well as spark debate among the participants in the case of The Green Line. As TR investigates the spaces and implications created by the infrastructures produced by Canada's investment in fossil fuel, we can look to Biemann's video survey of pipeline routes in the Caucasus, as lived experiences

juxtaposed against the background of war, neo-colonial economic plans, and migratory workers (Biemann 2005, 64).

Conclusion

TR believes that through mapping the proposed pipeline route with the production of artwork, writing and dialogue, we can go from fuelling a "Canadian imaginary" to a "future imaginary" that considers what is invisible or misrepresented in visual culture. Through mapping "trading routes," petrocultures also become more transparent. In a way, this brings our discussion full circle to the notion of invisibility and back to the problematic idea of North in an attempt to make it more visible. For TR, research-based practices respond to a need to articulate the com-plexities surrounding petrocultures that link both the social and material. Although the vastness of these subjects cannot be condensed into one essay, through creative practice and practice-based research, we can engage in the exchange of cross-cultural dialogue with other artists and cultural producers. Learning through experience with place to better understand the complexity of Northern regions in the intricacies of their overall political and cultural dimension, we attempt to bring our attentions to rest on a subjective, or perhaps intersubjective, set of histories and plots.

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Art and Engagement
WITH THE COLD WAR IN SHETLAND

The complex web of secrecy and propaganda that characterised political activity on both sides of the Iron Curtain clouds our perception of the Cold War period. However, it also creates a platform for artwork that can play an important role in recovering little known stories of the time, identifying common ground and engaging cross generational audiences in conversation. Art can stimulate debate, trigger collective memory and promote engagement with issues related to the Cold War that are unique to the populations of the northern and Arctic regions.

During the Cold War period Shetland and its closest northern neighbours, Norway, Faroe, Iceland and Greenland, played an important strategic role from the late 1950s to the early 1990s. They formed a new Front Line for defence against the perceived threat posed by the Soviet bloc countries. Shetland, in common with its Northern neighbours, hosted early warning radar stations that formed part of NATO's extensive early warning defence system across North America and Europe (Nako and Ward, 2000, 182; NATO, 2001, 14 & 54; McCamley, 2007, 36 and Padberg, https://sites.google.com/site/acehighsystemeurope/Home/ace-high-system/nars).

A handful of Shetland's Cold War sites survive. Although the equipment

Figure 1.
Radome at RAF Saxa Vord, 2012.

has been removed, and the remaining bunkers and buildings are largely derelict, these remains hold archaeological value. They contribute to the historic dimension of Shetland's living landscape, cultural heritage and historic identity, highlighting the important strategic role Shetland played throughout the Cold War period, forming a focal point for artistic exploration of the Cold War years.

Figure 2.
Countdown, film still 2012

This article considers the artistic strategies we have employed in our on-going collaboration to investigate Shetland's strategic contribution to the Cold War. To date two projects, *Countdown* (2012) and *Recount* (2013), have been completed. Each uses a variety of means to raise awareness of questions posed by this period, focussing on those raised by the nuclear issue. This issue dominates the period of the Cold War and as such formed the starting point for our work and accordingly comprises the first part of our discussion here.

Forms of social engagement play an important role in relation to both projects and are explored alongside methods for engaging members of the public in Shetland. Lastly we consider ways the work connects with audiences beyond Shetland.

Art and the Nuclear Threat

In the 21st century the nuclear threat has not ended, but changed. While the threat of nuclear annihilation defined the Cold War period, the1990s witnessed the emergence of a "second nuclear age" in which there are no longer just two opposing forces but a more complex situation where there are an increased number of nuclear players and a shift in the geographical centre of the nuclear issue. The French strategic thinker, Thérese Delpech, asserts that in addition to these factors, the term *'second nuclear age'* signifies a period in which there are still nuclear weapons but that the old rules have changed. (Delpech, 2012, 5)

Through the artworks, *Countdown* (2012) and *Recount* (2013), knowledge is extended, awareness raised and discussion about the nuclear threat encouraged, not only as it was experienced during the Cold War but as it relates life in this second nuclear age. By making work today that refers to the Cold War era as its starting point, issues related to the nuclear threat are kept in the public eye, emphasising that this threat has not disappeared or lost relevance, but it has altered.

Each project uses a different approach to address the subject of the nuclear threat. Recount was a socially engaged project based on activities undertaken by civilian volunteers at Shetland's Royal Observer Corps (ROC)[1] underground Posts from 1961 to 1991. Four ROC Monitoring Posts in Shetland formed part of a national network of just over 1500 small underground

[1] A civil defence organisation operating in the United Kingdom between 1925 and 1995, composed mainly of civilian spare-time volunteers, under the administrative control of the RAF and the operational control of the Home Office. From 1955 the ROC was allocated the task of detecting and reporting nuclear explosions and later during the Cold War under the control of the United Kingdom Warning and Monitoring Association (UKWMO) the ROC provided key monitoring, recording and appraisal of nuclear fallout if a nuclear attack had occurred in the United Kingdom.

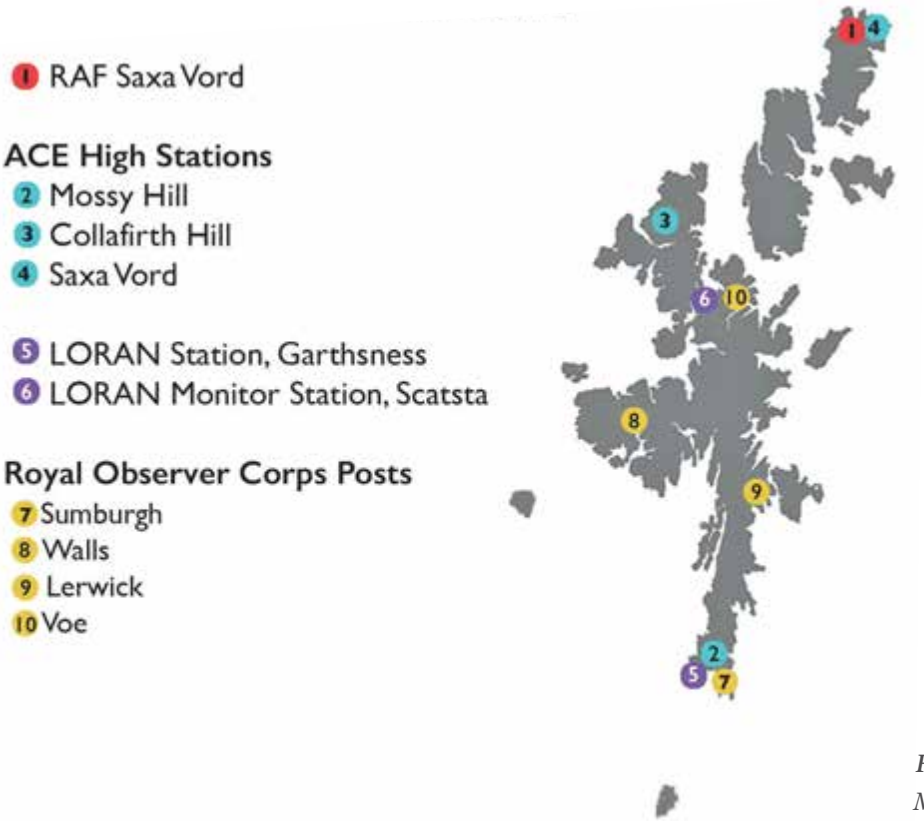

Figure 3.
Map showing locations of Cold War sites in Shetland.

bunkers built between the late 1950's and early 1960's. (Dalton, 2011, 21-22). These were equipped with instruments that monitored radiation as well as the means to warn the local population of radiation levels in the event of nuclear attack. Although the ROC was the responsibility of the Royal Air Force (RAF)[2], the Posts were operated entirely by civilian volunteers who were trained by the

[2] The aerial warfare service branch of the British Armed Forces, created in 1918. It is the oldest independent air force in the world and since its formation, the RAF has taken a significant role in British military history.

RAF. The ROC was disbanded in 1991and the Posts abandoned. In Shetland three posts survive, those at Sumburgh, Voe and Walls.

The content of the project *Recount* is informed by personal recollections of ROC Observers, creating a poignant and powerful narrative. The Observers displayed huge commitment and revealed a strong sense of public duty to the people of Shetland. They were well aware of the dangers and risks involved in their work yet firmly believed that serving in the Corps was a way to help their community. Kathleen Balfour, who served in both the Lerwick and Sumburgh Posts, thought her work could save people's lives. (Balfour, 2013). Gwen Jamieson, Chief Observer, at the Walls Post, shares this view, explaining that they joined because of what could perhaps take place in a nuclear war. She says: "We did our bit, but thank God it didn't happen,…thank God it never happened, because it's a horrible thing." (Jamieson, 2013)

Figure 4.
Recount (2013), Gwen Jamieson, the last Chief Observer at the Walls ROC Post.

ROC Observers were required to warn the public of imminent danger from radiation by firing maroons into the air from each of the Posts. On seeing these flares, the local population would know "…they had to stay in and stay away from the radiation the best they could." (Jamieson, 2013). Observers risked exposure in the event of a real attack since they would have needed to leave the bunker to measure contamination levels above ground. Kathleen Balfour described how they "…all wore dosimeters just in case. If anything had happened we would have had to go out of the bunker.…to go and assess the situation,…and if we had actually come into contact with radiation we would check our individual dosimeter." (Balfour, 2013).

In *Countdown* a very different approach was used to address the question of the nuclear threat. The work was made in the studio, without direct social engagement, then subsequently used in public situations to stimulate discussion and debate about nuclear issues past and present. The work comprises two elements, a film and photographic installation incorporating eighteen photographs recorded at the operations block and bunker at RAF Saxa Vord, the largest and most complex Cold War site in Shetland whose buildings were spread across the northern part of the island of Unst. Gordon Carle describes many aspects of the history of RAF Saxa Vord in his Blog, *A History of RAF Saxa Vord*, including a detailed account of the radar equipment which linked Shetland into the wider early warning networks in the northern and Arctic regions. (http://ahistoryofrafsaxavord.blogspot.co.uk/2009/12/radar-equipment-at-top-site.html).

The title *Countdown* alludes to the British Government's much derided public alert system, the Four Minute Warning, which would warn the public that in the event of a nuclear attack it would have four minutes to count down to zero, the moment of annihilation. (McCamley, 2007, 58) Ironically, the Civil Defence advice that the British government gave to the population is now widely acknowledged as pointless, since by 1960 it was accepted that there could be no defence from a ballistic missile attack. (Clarke, 2005& 2009, 153). The photographs are displayed inside cellophane bags normally used to package disposable, protective masks. The flimsiness of the bags recalls the

Figure 5.
Countdown (2012), photograph in mask bag.

absurdity of the civil defence measures put in place not only in Britain but on both sides of the Iron Curtain. (Geist, 2012, 25).

The imagery in *Countdown* evokes shared associations for people across northern regions, whose landscapes are similarly occupied by Cold War structures resembling Shetland's radar equipment at RAF Saxa Vord and the tropo-scatter dishes at Mossy Hill. These radar installations stood as the most highly visible and visually distinctive Cold War sites in Shetland, although they were remote from the main population centres. Mossy Hill formed part of NATO'S ACE (Allied Command Europe)[3] High relay communication stations in

[3] a NATO communications system which provided long-range communication service in the NATO chain of command. There were 82 stations, located in 9 different NATO countries spanning a network from Norway in the north and to Turkey.

tandem with Collafirth Hill and Saxa Vord. (NATO, 2001, 54). These stations were operated by the British Army's Royal Corps of Signals. (Starke, 1970s and Lord and Watson, 2004, 385-386).

Art and Social Engagement

Engaging Former ROC Observers

Recount and *Countdown* share common themes related to the nuclear threat that so prominently underpinned the political situation of the Cold War period.

Figure 6.
Sumburgh Royal Observer Post, 2013

Figure 7.
Recount (2013), Royal Observer Corps volunteers at the Shetland Museum and Archives public event.

Nevertheless, these works differ in artistic form, medium and approach. *Countdown* uses film and photography to articulate its subject, evoke response and stimulate discussion, whereas Recount employed a combination of approaches, emphasising social engagement with older people and incorporating artworks sited in the environment incorporating sound and textiles.

Recount was created as a commission for Luminate, Scotland's festival of creative ageing, with the aim of actively engaging older members of Shetland's communities and sharing their recollections with younger generations. It featured not only the physical sites of the abandoned ROC Posts but also the stories of volunteer Observers who were trained to monitor radiation and alert the public in the event of nuclear attack. They occupied a central role in the project, giving voice to some of the realities of that period and imparting information that was little known and had become forgotten.

The art historian Grant Kester argues that relational or dialogic engagement provides a vehicle to create meaning in socially engaged art. (Kester, 2004, 8; Lowe, 2012, 6). Conversation and dialogue functioned as the primary tool for sharing knowledge and generating meaning in Recount, while consolidating a foundation for community interest, support and involvement. People across Shetland were actively engaged in conversation in all stages of the project. Initially some were involved in the process of finding landowners to gain permission for temporary use of the ROC sites, and later more became involved as the search for former Observers progressed. Formal interviews with the Observers combined with more casual conversation underpinned the project, informing and animating it through layers of personal experiences and memories.

In addition to generation of meaning, conversation also plays a key role in projects for enabling everyone involved to get to know each other, particularly participants and artists, and build a trusting relationship. Kate Organ emphasises the fundamental importance for artists to listen and build trust into their socially engaged art projects:

> *"People share their experiences and stories … in the trust that the material will be respected and made into a worthwhile and high quality end project. The quality of relationships is engendered, above all, by high quality listening and sticking to the principles of respect and reciprocity.… The creation of high quality arts products is not for the glorification of the artist, but to honour and respect the experiences of the participants and to make meaningful products for audiences."* (Organ, 2013, 14).

In *Recount,* while it took a fairly long time to build relationships with the Observers, the quality of the project was enhanced as these developed. Patience was required at all stages. Initially interviews required considerable time to organise for a variety of reasons. In the first instance it was necessary to overcome the Observers' initial bewilderment about the request to meet

unknown artists. Furthermore, all Observers had signed the Official Secrets Act, and unsurprisingly most were at first not sure how much they could reveal, let alone whether they should even meet. Once Observers agreed to meet, they were not put under pressure to be recorded during their interview, and every effort was undertaken to make it easier for them to attend interviews, such as flexibility regarding venues or by providing transport.

Figure 8.
ROC Volunteers George Leslie, Jim Irvine, Donald Robertson and Magnus Henry at the Dun-rossness Public Hall, the first public event in Recount.

People's difficulty in remembering the details of their time as Observers in the ROC significantly affected the interviews, sometimes requiring the use of memory triggers. It was understandable as it had been a long time since most folk had been Observers, and besides, they had essentially been taken by surprise, having been approached totally unexpectedly, "out of the blue". This surprise is understandable as the ROC was disbanded over twenty years ago. Some Observers are thus very elderly and have poor memories. Most haven't thought about the ROC since they left the service, in some cases as long ago as

the 1960s. A number of techniques helped to facilitate the Observers' recollections, including interviews in pairs so that they could help trigger each other's memories. Old photographs and a book about the ROC nationally provided additional *aides-memoires*.

Everyday details brought the Observers' activities to life and made the period generally seem less remote. Training exercises formed an important part of the their service not only for the necessary skills they learned but for the chance to travel away from Shetland and meet new people. There were annual training events on the Mainland which many Shetland Observers remember fondly. Some formed lasting friendships and all gained new and often exciting experiences. George Leslie, from the Sumburgh Post, had a memorable flight on an aircraft during one training camp. He explained, "we went away on the boat, were picked up in Aberdeen with a minibus and were taken up to Kinloss. We had this flight on a Shackleton. It was quite exciting. It was just a short flight but it was quite exciting for us." (Leslie, 2013).

ROC Observers took part in training exercises that simulated real events, and which could mean long shifts in the underground bunkers. Sometimes they were called unexpectedly. Donald Robertson, from Sumburgh Post and Observer Officer for Shetland recollects how "…the big exercises, were held usually from the first thing Saturday morning to the Sunday morning, about a twenty four hour exercise. Sometimes it was on a call-out basis so you didn't know exactly when it would happen, just to make it a little bit more realistic. Everyone was expected to turn up initially and be stood down until such time as they were given a time to do their stint." (Robertson, 2013). Unexpected calls to training sessions created some amusing personal anecdotes. Gladys Leask, from the Lerwick Post, told us, "…once we were all out in the Carnival, and the call came through that we had to go and man the Post. So we just had to go and make for the Post, all dressed up in our Carnival regalia. It was kind of hilarious that night." (Leask, 2013).

By actively involving the Observers, their recollections contributed to local history, increased interest in the project and heightened its relevance for the local Shetland community. Everyday details brought the Observers'

activities to life and made the period generally seem less remote. It is hard to imagine what life would be like in a bunker, and some of the more mundane details, from food to underground conditions in the bunkers, shed light on the rigours of life underground. It could be uncomfortable and cold during exercises, especially in winter. Graeme Georgeson who served in the Walls Post, remembers how "…we took sleeping bags down with us. We just really did the whole exercise in a sleeping bag with a Fair Isle jumper underneath. It was freezing. There was no heating; it was cold as a kirk yard. It was seriously cold." (Georgeson, 2013).

Engaging the Shetland Public

Knowledge of the context in which artwork is situated is crucial to engaging both active participants and audiences. Pablo Helguera identifies the importance of context and asserts that the most successful socially engaged projects are developed by artists who live within communities. (Helguera, 2011, 20). *Countdown* and *Recount* were each designed to work within the Shetland context and drew extensively on previous projects and connections in the community. Local knowledge of the Shetland community enabled refinement of detail in the project in order to facilitate wider engagement, from initial planning, logistics for timing and ways of working with people.

Countdown was originally made in 2012, and completed for the group exhibition, Numbers, at the Bonhoga Gallery in January, 2013. The Shetland audience not only has a keen interest in landscape photography, but is well familiar with RAF Saxa Vord and its radar installations, buildings and natural landscapes. However, the photographs in *Countdown* do not fit the genre of aesthetically beautiful, scenic landscape photography which the Shetland public knows well and loves. Visitors were thus provoked into looking more closely at the work and thinking more carefully about its subject by partially obliterating the photographs with text and diagrams.

Recount presented a different and more complex set of challenges for engaging the Shetland public. Appropriate terms of reference to describe

the project presented a central dilemma. Was it art or local history? While Shetland has a thriving arts community, there are nonetheless preconceived notions about contemporary art, many negative, which could prejudice audiences against the project. Thus the project was not always described as art, either in initial contact with Observers or in advertising public events. In addition to being an art project, it could equally be considered a local history project which interests a far larger group of people in Shetland.

As time progressed initial concerns about how to describe the project were overcome. By using a multi-disciplinary approach, the project attracted a wider cross-section of the Shetland public. Stephen Gordon applauded this approach in his review for *The Shetland Times*. "As a multi-media exercise this was an example of [sic] how an art idea can break down barriers between different disciplines. It was a fascinating slice of social history as well as the adventurous installation of woollen covers for the remaining bunkers which has certainly broadened the appeal of the whole artistic idea to a wide cross section of the public." (Gordon, 2013.)

Figure 9.
Recount (2013), Anas Nfaou and Naomi Gear listening to the interviews at the Voe Public Hall event.

Recount was strengthened by the way each component was interconnected, working together to enhance people's experience of the project and thus encouraging participation. It comprised elements which offered very different forms of engagement and thus distinct opportunities for various age groups to access the project. These included: 1) artworks sited at three former ROC underground bunkers, 2) four public events in each of the communities where there had been ROC Posts, 3) a Focus Display located in the foyer of the Shetland Museum and Archives and 4) a web page which contained edited sound recordings and photographs.

Each event was designed to encourage guests to feel at ease and motivated to engage with each other, learn about the ROC in Shetland and gain an understanding of the artwork. 'Listening Stations', comprising headphones and iPod Shuffles, were created to provide a place to sit and listen to themed recordings of Observers' recollections. The majority of guests, including the

Figure 10. *Recount (2012), identifying Observers from old photographs, Dunrossness Public Hall event.*

former Observers, listened to all the interviews. A collection of ROC booklets, magazines, photographs and memorabilia, all loaned by Observers, stimulated conversation, triggered memories and prompted questions. A slide show featured more old ROC photographs and illustrated all stages of the project, including the process of designing and making the knitted covers. People were invited to handle samples of the glow-in-the-dark knitted covers by supplying UV torches. The technology of luminescence appealed to all ages, male and female, while the design of the textiles appealed particularly to Shetland's large number of knitters.

Qualities of openness and responsiveness underpin good practice in participatory arts projects. (White and Robson, 2009, 5) Recount employed an open approach to working with participants in order to engage members of the local community as actively and creatively as possible. Two interviewees, Colin Ganson and Margaret Fraser, had an inspired idea which enhanced the project by working well to involve guests at events as well as help the Observers. They suggested that guests at events help identify people in old ROC photographs. This activity provided an excellent way to get people involved during events as well as record the history of the ROC in Shetland.

Engagement in participatory practices requires sensitivity to key moments, and, accordingly, *Recount* proved positively nerve-racking at pivotal points throughout the project. Fundamental concerns involved the Observers' response to the project. Would they agree to give interviews? How would they would respond to the knitted, glow-in-the-dark covers custom made for each ROC Post? Would they be offended by their look or affronted by the content of their text?

Happily Observers increasingly engaged with the project as it progressed, voicing a positive view of the project and their experience of it. ROC Observers who we had not met for interviews came to the events, too, indicating that interest in the project was gaining momentum. By the last event at the Shetland Museum and Archives, the Observers had virtually facilitated a mini-reunion from the four Shetland Posts. Some of the Observers revisited the Posts for the first time in over twenty years as a result of this project. They thanked us for

Figure 11. *Recount, (2013), bunker at night.*

creating the work and told us they believed the knitted covers made the Posts look good, giving each element a renewed beauty, which reflected the care and attention they had given the Posts between 1961 and1991. (Balfour, 2013)

The artwork at each site used various means to attract interest and captivate imaginations, specifically by using glow-in-the-dark yarns, text and sound. The winter darkness in the northern regions offered a unique opportunity to use light at these remote locations, a medium which lends a magical element to otherwise ordinary objects. The greenish light created by the glow-in-the-dark yarn suggested radiation to many members of the public and thus provided an unexpected way to arouse curiosity and raise the level of interest in our work.

The artworks temporarily transformed the deteriorating Posts, providing space to contemplate the reason for their existence and celebrate the fact they

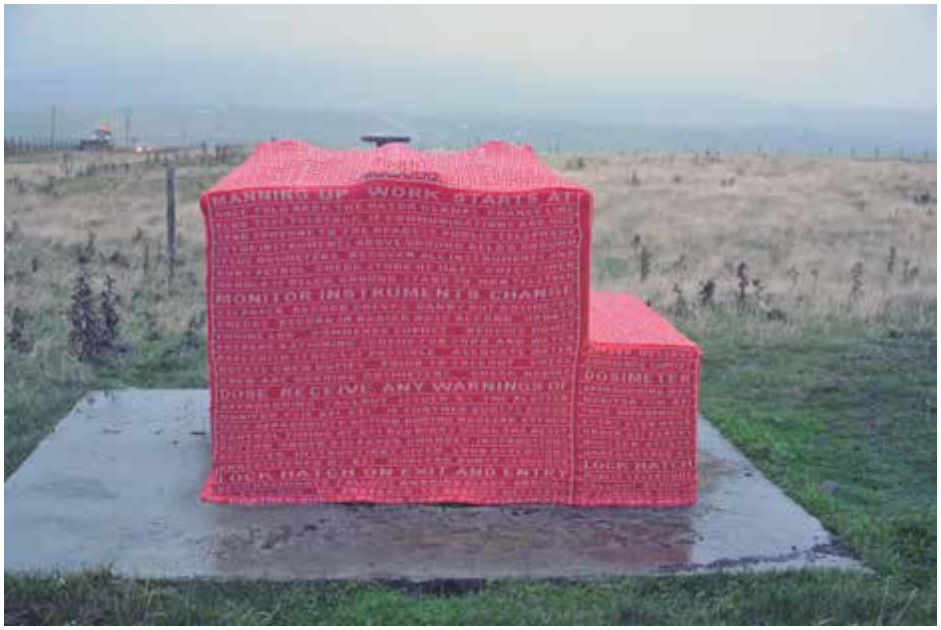

Figure 12.
Recount (2013), Sumburgh ROC Post with knitted cover.

were never used in a nuclear conflict. Once visitors arrived at a Post, they could read the knitted covers which referred to the overall theme of the nuclear threat The text related a "broken" narrative, containing phrases alluding to what went on in the bunkers and what purpose they served. The text was composed by selecting fragments from documents found during research into the ROC. It was designed in bands, with each band referring to stages of ROC activity in the event of nuclear attack, including names of instruments, duties and instructions.

In counterpoint to these fragmented texts, the voices of the ROC Observers added a continuous and coherent narrative at two of the sites - Walls and Voe[4]. From a distance they were muffled, as if coming from underground, yet on approaching closer, distinct voices emerged recounting memories of life in the ROC. These sound recordings were created from excerpts taken

[4] Audio works were only sited at these two Posts, because originally there was going to be a herd of cows grazing within the territory of the Sumburgh Post.

from interviews with the Observers, were played on a solar powered iPod and amplified through solar powered speakers.

Public events and artworks played an important role in facilitating wider engagement with Recount among the Shetland public across generations, backgrounds and interests. They provided genuine opportunities to gather Observers together with new members of the public from throughout Shetland to celebrate the project, honour the Observers for their historic contributions, reminisce and continue to share and generate stories about Shetland and the Cold War.

Engaging Wider Audiences Beyond Shetland

While *Countdown* and *Recount* are closely linked to Shetland's social, political and historical contexts, nonetheless their subject matter holds meaning and interest for audiences in other parts of the UK, the northern and Arctic regions as well as other parts of the world. To date we have successfully attracted and engaged audiences beyond Shetland by linking to regional events and using the Internet, conventional publishing, exhibitions, film screenings and archive collections while we continue to explore new ways to make the work meaningful in varied contexts.

Initially we were able to attract a wider audience and extend knowledge of our work beyond Shetland by joining larger events and placing elements of the work in different contexts. Thus the fact that *Recount* was part of the large national event, Luminate, Scotland's festival of creative ageing, we extended publicity for the work and generated national awareness and interest in it. Locally Recount events also gained national and international audiences by overlapping with Shetland Wool Week, an annual event which attracts visitors from the UK, Scandinavia, Europe and North America. Our Focus Display for the Shetland Museum and Archives also helped reach visitors from other parts of the UK and internationally. During the period our work was on display, the museum attracted just over 9,000 visitors.

The Internet and social media are useful tools for dissemination of work,

particularly when located in remote geographical locations such as Shetland, and for socially engaged projects such as Recount, the Internet can also help facilitate engagement. We used the Internet for Recount to showcase excerpts from the Observers' interviews and contextualise the work by presenting a slide show of historical photographs, pictures of the ROC Posts as well as the process of making and developing the project. The site went live on the first day of Luminate and statistics show it was used by people throughout the UK and worldwide and by local Shetlanders. This web page was also available to the general public in the Shetland Archives throughout October during the Focus Display in the Shetland Museum, located in the same building.

Publications conventionally contribute a more permanent record of work that extend audiences for artworks that have a temporary life. We produced

Figure 13. *Recount (2013), Walls ROC Post with knitted covers*

a small publication, designed by Jono Sandilands, about the project and gave copies to all the ROC Observers who took part in interviews as well as everyone who attended events. It not only serves as a memento for participants and a lasting record of the project, but for those who were unable to see the environmental installations or attend an event, it provides a sense of the project. The publication not only increases the potential for wider awareness of the project beyond Shetland, but, crucially, for those who don't use the Internet, such as many older people, it also gives access to it. The publication provided a way for Shetland's Observers to share with friends in their networks around the UK formed through the lasting friendships created during the annual ROC training camps.

Exhibitions and film festivals provide a conventional strategy to gain wider audiences for work, provided the work can physically travel and engage audiences in different contexts. Accordingly we have taken advantage of a variety of opportunities to show *Countdown* and talk with people about it; and we intend to continue in the future to seek opportunities to engage audiences beyond Shetland. Elements in both *Countdown* and *Recount* lend themselves well to travel as they can be installed flexibly in a variety of venues, including galleries, schools and community halls. The subject matter in each work provides a platform to involve a range of audiences, including gallery visitors, film audiences or students in conversation and to encourage them to think and talk about their experiences and/or perceptions of the Cold War period and the nuclear threat.

Screenings and exhibitions of the artworks outwith Shetland have already extended the audience for our work and expanded the cultural and political contexts for discussion and debate. We exhibited *Countdown* in the exhibition, *Relate North*, at Nordic House, Reykjavik in 2013; and it was screened in the *Aesthetica Short Film Festival* in England and *Film Al Fresco* in Philadelphia. At the *Relate North Symposium* at Nordic House in 2013, we met a large group of artists, educators and scholars from the Arctic and northern regions, including Alaska, Siberia, Canada, Scotland and Scandinavia who have helped to increase our understanding of the significance of our not only *Countdown*

and *Recount* but our larger Cold War Projects within the northern context. This understanding informs our decisions for future locations and audiences for the next stages in what is a long term project.

Conclusions

Art provides unique opportunities to reveal hitherto invisible stories underpinning the significant role that Shetland and its Northern neighbours played during the Cold War. The complexity of this period can be unpicked by deploying artistic strategies to stimulate engagement across generations in relation to questions posed by the Cold War, while generating collective memory in ways that the spoken or written word cannot.

As part of NATO's network of radar defence systems, Shetland and its closest northern neighbours occupy a special place in the story of the Cold War. Our work emerges from this perspective and explores ways to encourage the Shetland public to share their stories for future generations to better understand and appreciate its strategic role in the Cold War. It is timely to address this subject matter while those who lived through it can give firsthand accounts of their perceptions and experience so that they can be collected, preserved and shared with younger generations.

Our first works, *Countdown* and *Recount*, each form an integral part of our continuing commitment to to make work using a variety of strategies in order to excavate meaning and facilitate connections for audiences from different generations and backgrounds, particularly in Shetland and the northern and Arctic regions. We are carrying our newfound knowledge forward to combine elements from each work into new projects in order to break down barriers between disciplines, connect communities and facilitate discussion across geopolitical boundaries and generations.

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Northern Places –
TRACKING THE FINNO-UGRIC TRACES THROUGH PLACE-SPECIFIC ART

Introduction

In our article we will examine and share our experiences from the art workshop held in Syktyvkar, Komi in April 2013. The workshop brought together art students and staff of various artistic disciplines from Russia and Finland. The aim was to explore together Finno-Ugric traces and find out what connects us to each other. 12 Finnish and 19 Russian art students worked together within a framework of community based art education, using place-specific art approaches. A number of cross-disciplinary Finnish-Russian group projects were carried out during an intensive 12 day workshop between the 2nd and 13th of April 2013. Students learned how to use artistic methods to survey a place, and how, rather than concentrating on differences, to use a shared understanding of northern socio-cultural situations as a source of artistic inspiration. The workshop comprised cultural visits, hands-on work and practical exercises. The artistic activity focused mainly on photography, but also included installations as well as examples of environmental, visual, performative and video art. It ended with the students and staff creating a joint touring exhibition which was shown in each participant city: Syktyvkar, Rovaniemi, Lahti and Helsinki.

Is There Such a Thing as a "Finno-Ugric Mentality"?

What is the Finno-Ugric peoples' frame of mind? Is there a particular way we perceive the world around us, a uniquely "boreal" way of thinking, for instance tending not to consider nature as an object, but rather as a partner for coping with life? These are some of the questions we had in mind when starting to plan our project.

Belonging to the same linguistic family is the most significant feature unifying the Finno-Ugric peoples. The various Finno-Ugric languages display similiar linguistic constructions, and it is said that even if we cannot actually understand each other's languages, this has influenced the relationships between us and facilitated mutual understanding. Throughout history there is evidence that Finno-Ugric cultures have tried to accommodate a succession

of new neighbours as partners, resorting to migration only when there was no other way to maintain their own identity. (Laakso 1991, Siikala 2011, Itkonen 1922, see also NPO.)

Modern archaeology does not support the idea of wide-ranging Finno-Ugric migrations. Finland has been continuously populated ever since the last Ice Age, and has been subject to many cultural and linguistic influences from many directions. Also, recent loan word research has demonstrated some very old Indo-European loanwords, especially in Finnish itself and the westernmost (Finnic) branch of the language group, which means that some form of pre-Finnish must have been spoken relatively close to the Baltic Sea from quite early times. Finnish is related to languages spoken in Middle Russia and West Siberia. This suggests that the area where the Finno-Ugric (Uralic) proto-language evolved may have been very wide, reaching perhaps from the Baltic Sea to the Urals. (Laakso 1991.)

In our workshop we wanted to explore the Finno-Ugrian lifestyle, if indeed there is such a thing, of the youth and young adults living in Finland and Komi today. Do art students have some specific views or even new approaches to their common roots? And especially, can contemporary art practices help enhance the visibility of certain aspects of everyday Finno-Ugrian culture, and life in the North and North Eastern regions?

Collaboration as a Way and Means to Art – the Relevance of Performative Art

The workshop gave an opportunity to gain inside experience of the Komi region and culture through place-specific art. The working method was based on theoretical approaches to community based art education (Hiltunen 2009, 2010), site specific art (Kwon 2002) and performative art (Kester 1998, 2004, Sederholm 2000, Lacy 1995).

Community-based art education is a cumulative process in which art operates performatively, and where dialogue is central. Works of art typically attempt to articulate experiences in a way that people other than the artist

can relate to. When artists create a work of art, they load it with meanings which are at least partially drawn from their own experiences, but there will be elements that others can understand and apply to their own experience of the world. The aim is always to construct multiple but shared meanings through art (Hiltunen 2009, 2010). As art history researcher Grant Kester (2004, 10) puts it, dialogical projects develop, unlike object-based artworks, through performative interaction.

The relevance of performative art emerges from changes in emphasis of artistic practice, which in contemporary art increasingly centres around the creation of situations that go beyond the simple making of objects. This is evident in performance art and action art, as well as in social-space-related and participatory art forms like community art, new genre public art and site specific art (Stutz 2008). In our workshop our goal was to use contemporary art to create open spaces for dialogue.

Community-based art education aims at "dialogicity", which also is one of the most central characteristics of community art. Art researcher Helena Sederholm (2000, 113–116, 192) sees community art as communication through art between the different participants involved in the creation of art and the participating audience. Community art is not mere representation; it is primarily based on interaction and participation. It consists of situations into which people enter, together with the artist, in order to find emerging meanings, to create meanings, to give form and voice to meanings, and to share meanings.

An important part of our workshop was travel as an art practice. The Finnish participants made their contribution by train, spending almost five days together from Finland to Komi and back, to a performative project whose realisation was a joint challenge to all the participating art students in Syktyvkar. Performative art is any collage that seeks to create an experience not only through descriptions, representations and assertions, but also by providing a space for interaction, participation and dialogue. Although it is characterised by interaction, the roles of artist and audience and the relationship of participants to the work process are not clearly articulated in advance. (Sederholm 2000.)

According to Kester (1998), whose research focuses on socially-engaged art practice, performativity is a concept that has emerged in a number of arenas in recent cultural criticism to describe a practice that is adaptive and improvisational, rather than fixed or locked in its origins. We agree with Ulrike Stutz´s statement that methods emerging from performative thinking are relevant for research into both art and art education. They provide adequate tools for an analysis of artistic processes that takes into account the complexity of these performative and aesthetic praxis forms. (Stutz 2008.)

Expressing a commonly experienced way of life through images, symbols and other stylistic tools is a characteristic of reflexive-aesthetic communities. The starting points for our workshop were the everyday experiences and collective activities that arise in a community. The aim of finding a balance that emphasises open interaction between the individual and the community, as well as between the community and the environment, is typical of reflexive-aesthetic community thinking. A reflexive-aesthetic community is constructed via a continuous dialogue through which the members of the community develop an awareness of themselves and their socio-cultural environment. (see Hiltunen 2009, 2010.)

From a socio-cultural perspective, there is a need to search for personal, local or national identity. Social structures have become differentiated, and people identify with varying groups in multicultural and multidimensional networks. Searching for identity in a multicultural society is important because individuals have to know who they are and where they come from before they can understand others. Community-based art education always starts with an analysis of a community and an environment, and this is what we did in our workshop.

Both Komi and Finns are Finno-Ugric peoples. Besides linguistic similarities, we share some cultural traces. The two peoples traditionally had similar ways of life based on agriculture, hunting and fishing within the boreal forest. Komi as well as Finns are intimately related to this environmental zone and feel themselves at home in it. It is not surprising that there are some similarities in our mythologies, and that our traditional folk arts have similar geometric ornamentation and common characters and symbols like duck and reindeer.

The Connection Between Finland and Komi – Realisation of the Project

The workshop was founded by FIRST-ARTSMO network, established in the year 2000, in order to develop student mobility between Finnish and Russian Higher Education arts and design institutions. The organisation of the workshop was divided into sections covering the teaching, content, exhibitions and practical travel-related arrangements. These practical arrangements were overseen by Alexander Seryakov, Head of Department of International Affairs at *Syktyvkar State University* and Virpi Nurmela, International Coordinator at the *Faculty of Art and Design, University of Lapland*.

Responsibility for teaching and content related issues lay with a team consisting of the authors of this article, Mirja Hiltunen and Irina Zemtsova, as well as senior lecturer Kirsti Nenye from the *Institute of Design and Fine Arts Lahti*, accompanied by student project assistants Suvi Autio, Mika Hurttala and Hilkka Kemppi from the *University of Lapland*. Professor Timo Jokela from University of Lapland took part as a leader of the ASAD network and also as an artist working on in an environmental art piece. Photographer Sakke Nenye had volunteered as a technical assistant of digital photography for the group. Teaching plans were set up in meetings of the Finnish team and through contacts with Russia via emails. Some negotiations were subsequently needed to properly match the ideas of the Finnish and Russian contingents, but this can be seen as part of the learning process: it revealed the thinking and culture behind the different educational systems and methods, and thus promoted helpful discussion about them.

Student selection was carried out separately in Finland and Russia. The Finnish teachers and coordinator were responsible for the application process, and chose students from the *Institute of Design and Fine Arts Lahti; Aalto University School of Arts, Design and Architecture; University of Lapland, Faculty of Art and Design and The Academy of Fine Arts of the University of the Arts Helsinki.*

Irina Zemtsova and her team chose the Russian students for the project from the *Department of Arts and Crafts, The Institute of Culture and Art, Sykty-*

vkar State University. They decided to include as many Russian students as possible, even if they did not speak English. The students therefore had to rely on the powerful language of Art, which worked out surprisingly well and allowed them to understand each other, establish contacts, work in groups and finally perform the task of organising the exhibition.

Figure 1.
On the way to Komi.
Photo: Mirja HIltunen

The Finnish art students had different preliminary assignments, including readings before the trip. Firstly, they each had to make a short personal photographic/written mixed media presentation about themselves and their art. Secondly, they did group work on the Komi culture, environment and people, to be presented during the train journey to Syktyvkar. In the train, Finnish students from different art academies and universities were divided into new groups in which one representative presented the research carried out in Finland by his or her local group. This method was successful in engaging everyone in an active role, encouraging them to share information as well as getting to know other participants.

Figure 2.
The time in the train was also used for presentations and group work.
Photo: Mirja Hiltunen

On the way back on the train from Komi work included feedback on the course, and reflections on identity and the definition of the north. As a result, the students made a cultural identity redefinition, and the outcome is fully evaluated in their project report (Kemppi, Autio & Hurttala 2013).

Pedagogical Approach

In Syktyvkar there were different levels of collaboration. Local culture was conveyed through multiple cultural activities such as art exhibitions and celebrations. The Russian professors and students provided an introduction to their traditional craftwork. This led to a way of working together with art as a common language which could be taught visually, and was followed by lectures from the Finnish teachers, students' presentations and working in groups.

As well as lectures, the workshop started with visits to museums and galleries and master classes at the faculty. These classes included making clay

penny whistles in the form of birds, toys from natural materials and ritual cakes. This kind of activity was new for the Finns and gave them an insight into the local curriculum.

Figure 3.
Students making clay penny whistles in the form of birds. Photo: Mirja Hiltunen

Our host university for the workshop is relatively new, having been founded in 2000. Nowadays there are three Departments: the Department of Fine Art, the Department of Design and the Department of Arts and Crafts. The Department of Arts and Crafts offers Bachelor programmes in the fields of Folk Arts and Crafts, Applied Arts and Crafts, and Folk Artistic Culture. Obligatory courses include Folk Toys, Ceramics and Pottery, Painting on Wood, Textile and Gobelin, Folk Costume, and Knitting and Knitted Fabric. These basic courses are followed by pedagogical discipline. Students work in museums during both practical training and ethnographic study practice. The fundamental principle of the teaching process is making copies, photographs and sketches of artifacts. The intention is to allow the students to understand the essence of folk culture, and later make items of modern art which are based on folk traditions.

The pedagogical core in our workshop was working in groups. This was largely unfamiliar to the Russians, especially as the groups were interdisciplinary and divided internationally, but was also new for some Finnish art students. Some of the students had never made artwork together as a result of group brainstorming. This led to some initial confusion when group work

Figure 4.
Working in groups, mind maps and brainstorming. Photos: Mirja Hiltunen

was taken out into the city and surrounding areas and contact was made with local people. The open-ended nature of performative art and the place-specific approach were quite new for both the Finns and the Russians.

During the workshop both the Finnish and Russian participants were positively challenged to step out from their comfort zone and expose themselves to something different, for example group work, time pressure, and new modes of communication and educational method.

The students were divided into two groups, and each group developed an idea for a project. Participants from the Russian side were studying design, and some of the group were from the Department of Folk Arts. The Finnish students came from the fields of art education, photography, fine arts, design, audio visual media culture and graphic design. This resulted in a unique mixed group, in which students with a good knowledge of Northern traditional cultures and students who can apply such knowledge to the modern environment could communicate and exchange ideas through contemporary art.

Celebration, Fun and Hard Work

Figure 5.
Old and new meet in Syktyvkar. Photo: Mirja Hiltunen

The workshop opened up attitudes and senses in many ways. Students visited the city park and were offered the chance to take part in celebrating the traditional Christian holiday named *Maslenitsa*. Russian students organised competitions and games, which have traditionally been a part of this celebration. These included pillow-fighting, throwing snowballs into a target, making snow figures and many more. The celebration ended with the eating of ritual pancakes which symbolise the Sun, as the students enjoyed the process of getting to know each other and the traditional cultures of both sides.

Figure 6.
Celebrating the traditional Christian holiday named Maslenitsa.
Photo: Mirja Hiltunen

All the participants were able to sample traditional Komi and Russian dishes, and to discuss the folk costumes of the Komi people. Then it was time to get down to the serious business, which both groups embraced enthusiastically. Throughout the rest of their time together they spent every day, often till midnight, working on their projects.

Not only students but also professors of the Arts from various cultural backgrounds took an active part, and we learned that the different systems of education produce significant differences in the level of experience and

Figure 7.
Project students Suvi and Hilu in Komi dresses.
Photo: Mirja Hiltunen

skills among the students, but perhaps even more importantly, differences in artistic attitude. Professors at Syktyvkar University were convinced that studying the foundations of the folk arts and crafts of the North is the basis for creating modern arts and craft objects, including local folk souvenirs or items for casual usage, for both Russian and Finnish students. The Finnish students themselves were significantly more interested in using cultural traditions in a contemporary way.

In the course of some fascinating but rigorous discussions we explored how to define artistic perspectives and views, artistic attitudes, and the feelings of artists towards their subject matter. These affect the specific outcome of a work of art, assuming that one accepts the concept of the arts as a means of communicating the way artists "see" the world around them. This means that the work not only showcases its subject matter, but also creates an opinion, point of view or depiction of that subject matter. It gives meaning and purpose to the work.

During the first two days of the workshop in Syktyvkar, students experienced some difficulties while communicating with each other, but we were gratified to observe that the spirit of creativity took over once the working process started. Participants worked very hard in groups, and supported their group in competition against other groups. All the specific aims of the workshop were achieved through a shared vision of the goal, mutual understanding of each other's interests and mutual assistance. According to one student "The northern way of thinking brought together the workshop participants, which made it easier to communicate despite the language barrier." (Kemppi, Autio & Hurttala 2013.)

Nevertheless, the experience of establishing contacts and studying together was positive and useful for both students and professors; the performative way of working, and place specificity as an artistic attitude, are therefore a matter of what we say about a subject with our art but also of *how* we say it. An atmosphere of cordiality and friendship prevailed throughout the project, and helped the participants to negotiate it successfully despite all the obstacles.

Finally, over only a couple of days the students produced in small groups a video of a visit by a Komi woman living in the countryside, a performance in the city centre where people passing by were invited to take part, a series of photographs of costumed mythical figures in a modern city environment, and an exhibition with installations and documentation - all based on the collected and processed material. Ancient myths and beliefs and everyday experiences were combined and transformed through contemporary art into a visible form.

At the end of the workshop the students put together an exhibition where the final critique took place, which attracted the interest of the wider public and media. As is typical with performative art, the process was an important part of the exercise, and the outcome was like a collage of art that seeks to create an experience not only through descriptions, representations and assertions, but also by providing a space for interaction, participation and dialogue. One student said: "I thought it was great that there was a language barrier, because it created an enriched and relaxing atmosphere, you had to use every possible means to explain your case."

Exhibition and Professional Collaboration

There is a tradition in Komi folklore whereby friends bound birch twigs together to test the strength of their friendship. One of the installations that was produced, which includes photos and video, combines two trees, representing two communities, with the traditional Komi symbol of the Sun.

The students organised a performance in the centre of the city of Syktyvkar. They asked passers-by to participate and shape living sculptures, based on traditional Komi symbols, using their own bodies. The event and the living sculptures and symbols were documented and were later added, made of branches, rope and wool, to the great symbol of the Sun installation.

The third part of the installation is a video interview where a Komi woman talks about her life and Komi culture in the Komi language. The video is subtitled in English, and includes the students' own comments and thoughts in Finnish and Russian.

Figure 8.
The great symbol of the Sun.
Photo: Mirja Hiltunen

Figure 9.
Komi mythical creatures are brought to the present day.
Photo: Filippo Zambon

In another *Finno-Komi* installation three trees were placed in the exhibition space in Syktyvkar, symbolising the upper, middle and lower parts of the world, as well as the past, present and future. This installation is based on the visual art students' interpretations of old beliefs about how the world is constructed. Its second theme consists of photographs of Komi mythical creatures, brought to the present day by clothing them in modern costumes. The photographs were taken in a variety of settings in Syktyvkar. Included are the goddess of the forest *Versa*, the water goddess of the *Vasa*, Duck, who gave birth to the world, and *Babajoma*, the god of the forest.

Figure 10.
Time to celebrate after the workshop. Photo: Timo Jokela

Since the workshop ended in April 2013 the exhibition "Finno-Ugrian Traces" has been shown at Syktyvkar State University, the University of Lapland, Lahti Art School and Aalto University, Helsinki. It was given exposure on local TV in Syktyvkar, and several articles were published in newspapers in both participating countries. MA students who took part also gave presentations of the workshop in an INSEA art education day at Aalto University.

We as authors of this article contributed a presentation to *Arctic Sustainable Arts and Design and Engagement, Art and Representation* in Reykjavik in

Figure 11.
Exhibition in Rovaniemi 2013. Photo: Sakke Nenye

November 2013. Part of the "Finno-Ugrian Traces" exhibition was also shown in Nordic House. The installation made by Mirja Hiltunen and Professor Timo Jokela was based on experiences from the art workshop in Syktyvkar. Jokela's snow installations in the landscape of the *Sytola River* form a dialogue with the documentation of the art students' performance in the city centre. In Hiltunen's video the long train journey between Komi and Finland was explored through one intense moment during the trip.

Irina Zemtsova made a setting of traditional folk dolls as an illustration of the traditional way of life of the Northern peoples. The large scale family can be seen as a symbol of the survival of the traditional rural culture in the modern world. One of the Russian teachers Vladimir Durnev's ceramic plates invite discussion on the preservation and development of the cultural identity of the Komi. He sees his task as helping specific local art, communicating in a modern visual language, to create an aesthetically significant environment which will draw the attention of the citizens of Komi Republic to their indigenous culture.

So, the workshop inspired professional collaboration that continued during the symposium and exhibition in Reykjavik in 2013. A year later, Vladimir Durnev, took part in Finland in ART Ii Biennale of Northern Environmental and Sculpture Art 2014. He created an environmental sculpture which is dedicated to a mythological story in Komi folk tradition about the cosmological swamp.

Conclusions

Art can promote understanding, and result in a shift in the attitudes of participants and audiences. It may evoke new thoughts and feelings, and often makes people see and think differently. Art elicits action when the objectives of cooperative projects are to develop and to promote the local, cultural, and communal aspects of the area (see Hiltunen 2010). According to Hannah Arendt (2002), the "public" is created through joint action of the multitude, i.e. by a process characterised not by homogeneity but by plurality and diversity creating a political space.

All the workshop participants originated from the North, from similar climatic and natural conditions. Our cultures are united by a special relationship to the environment, which plays a crucial role in the well-being of the Northerners. Some elements of our folk cultures, including ways of processing raw materials, are quite similar. These elements can be lost if not given due attention.

According to the students' project reports the experience was seen as an educative one: *"I feel more proud of our history and its scope."* Three participants felt that their identity was either strengthened or actually changed and repositioned: *"My identity has expanded along Finno-Ugric lines. Before, I felt only as a Finn, now I feel that I have relatives in Russia"* There were critical voices as well when talking about identity: *"I am interested in mythology, for example, the nature and means of living, but I urge caution about nationality or race-thinking. I'm afraid it can easily end up in nationalism."* (Kemppi, Autio & Hurttala 2013.)

In our project, even as a small scale collaboration, art's ability to provoke seeing and thinking differently, both in the individual and on the communal level, is clearly apparent. When analysing the students' artistic work and reports it can be seen that such projects offer support for strengthening local identities and encourage reflective and critical thinking.

The issue of a project's functionality is always present, on both the individual and the organisational level. No project will change existing practices immediately, but, allowing for the complexity of the region, they may provide clear examples of possible improvements to educational systems, or make existing good practices more visible. New horizons for future cooperation and joint educational projects were opened up.

IRINA

"Making a new project would open new horizons for all the participating institutions. This new project could include new partners from Nordic countries. Indeed native Northerners have a lot in common in terms of cultural background and way of life. Apart from the workshops and joint artistic activity this new project can include research, for example collaborative fieldwork, focused mainly on collecting ethnographic data and working with museum collections. We can organize plenaries, exchange students and professors. Finally, I think we can publish our collected materials, which would definitely be of scientific and practical significance."

MIRJA

"Yes, this experience was a great opening for new plans. When looking back at the process and students' art works it convinces me we still share some specifically boreal Finno-Ugric attitudes and old belief systems. It would be very interesting to develop a concept for collaborative fieldwork, travelling together to small Komi villages and working with local people in the city environment as well. Artistic action research together for example with visual ethnography could be an interesting approach to elaborating the working method. Place-specific community based art could be used to enable cross-disciplinary Finnish-Russian art students to organise group work projects, but also offers the possibility of working on ideas with local people in different communities."

To sum up, both Russian and Finnish students gained a unique and positive experience from the cultural dialogue, which continued further via the internet. Some of the Russian students wish to continue their studies at Lapland University, and some of the Finns are interested in taking short-term courses at Syktyvkar University.

For some of the professors at Syktyvkar University this was their first experience of a workshop with a multicultural and polylingual audience of both students and professors. This had an influence on the quality of communication during the work. After the Finnish delegation had departed, almost all the professors decided to take English courses. Joint practice and the exchange of knowledge in the framework of the project therefore proved to be successful.

One direction of future cooperation could involve organising a cultural and ethnographic plenary. This could take place in the territory of the Komi Republic, and could inform practical work in museums under the academic supervision of the Komi Science Centre at the Russian Academy of Science. There is currently a need for new approaches towards the organisation of living and cultural spaces by people who are living in the North and intend to stay there. These should include new ways of incorporating art into the social context of Northern Life. We face the challenge of joining forces in order to bring all this about.

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Participatory Virtues
IN ART EDUCATION FOR SUSTAINABILITY

Sustainability is a complex concept and as a phenomenon is studied by a wide range of scholars. Some have spoken of the *wicked nature of sustainability problems*. The notion of participatory virtues has been found useful in understanding sustainability and its wickedness and those aspects of human values which complicate and sometimes confound the process of implementing sustainable values . The aim of this paper is thus two-fold: first, to present a short overview of wicked problems and participatory virtues and second, to investigate through a small set of interviews ways in which art educators work with students in understanding sustainability. We consider how art projects and artworks can be used to promote awareness of vices and virtues to open up ethical questions and criteria for practice concerning issues of sustainability. The value of the study lies in how the cases represent ways in which participatory virtues can be used in art education to further the understanding and practice of sustainability.

Sustainability is an evolving concept but in its most common fundamental form it links development to both environmental and socio-economic issues. Hediger (2004) argues that it involves "concerns for environmental preservation and economic development, and correspondingly calls for an integrated approach of evaluating trade-offs between conservation and change." This statement however avoids the value-judgements inherent in the 'good life' approach to sustainability often favoured in the Nordic countries (Brűlde, 2007). Dodds (1997), for example, has identified four definitions of well-being used in research on environmental economics: well-being of the individual, well-being of the state, meeting basic needs (cf. Maslow, 1970) and capabilities (Sen, 1985). The choice of definition will reveal dramatically different interpretations of well-being and what counts for the good life but which are very much affected by culture, nationality, gender, age, disposition and social class.

Traditionally the components of sustainability reflect three sectors or pillars – environmental, social and economic. Increasingly, for example in the work on resilience of systems (Sommerkorn et al., 2013), the social and environmental are being linked in socio-ecological approaches which work to counteract economic development. In this article, we however choose a

different approach, that put forward by Giddings, Hopwood and O'Brien (2002) who have proposed that we could approach sustainability by combining the social and economic pillars into one of human activity and well being as a single sector, perhaps 'the good life', which must function within the limits of nature, the environment (figure 1).

Some scholars at the University of Iceland have developed this even further when working on university policy. The comfortable coexistence of human activity and well-being with the environment (figure 1) could be seen as unrealistic. Sustainability is interpreted as the struggle for balance between a good life and the integrity of nature, and already human actions have had such an impact that 'the good life' goes beyond the earth's environmental limits and have upset the integrity of nature (figure 2) (University of Iceland, 2012).

Figure 1. *Model of sustainability. (Giddings, Hopwood & O'Brien, 2002)*

Figure 2. *Adapted model of sustainability (University of Iceland, 2012)*

Working with Sustainability

Wickedness

Some help in understanding sustainability and the balance between human activity and well being is to be found by identifying sustainability's 'wicked problems' which are problems that have a range of characteristics and were first introduced in the research literature in the 1970s (Rittel & Webber, 1973). In wicked problems it is hard to define the actual nature of the problem; there is no one solution; each problem is unique; the solution is neither right nor wrong; and sometimes the problem itself does not appear until the solution is found (Thompson & Whyte, 2011, Ferkany & Whyte, 2011). What is important is to acknowledge the strong and reciprocal relationship between nature and society, that it is a complex not a linear relationship and that it relies on self-organisation and strong interaction.

The 'wicked' nature of sustainability extends into policy and decision-making, but could just as well extend into education (Murgatroyd, 2010). Development that acknowledges this 'wickedness' recognizes that knowledge from different directions matters, that all participants should recognise the value of different types of knowledge, and that participants should enter a process expecting to learn something. The value of the education will lie not just in the outcome, but also in the process and the ways in which participation is encouraged and developed. Since no solution is apparent ahead of time, a democratic and deliberative process is necessary. Increasingly this might be accomplished through a transdisciplinary approach.

Children learn in the arts that problems can have more than one solution and that questions can have more than one answer (Eisner, 2002). When considering how to solve the wickedness problem of EFS it is important to keep in mind that complex forms of problem solving purposes are seldom fixed, but change with circumstance and opportunity.

Transdisciplinarity

To put the arts into this complex picture it is important to stress that a transdisciplinary approach is connected to artistic process in education. Assessing art involves more than a judgment of artwork after learning has taken place. In art education students have a responsibility for monitoring their own learning as they create, express themselves, and respond to artworks, both their own art works and those of others. In the artistic process, it is important that the teachers not only enable students to develop their crafts and understand the art world, they also need to help them see patterns, learn from their mistakes, and envision new solutions (NaeA, n.d.).

One of the roles of art educators is to facilitate and design lessons so that making art involves creative ways of working on problems and in engaging with people. Students are required to take on different artistic roles, including inspiring empathy and critical thinking, as well as providing a platform for pupils to experiment with risk and innovation (Wilson, 2011). Risk taking is also important in EFS since it requires courage to try out new approaches. Students need to be supported by their teacher in developing the courage to try out and experiment with materials, forms and concepts. When identifying, researching and studying a series of problems the artistic process has the potential to focus, analyse and select materials. The Icelandic national art curricula for both compulsory and upper secondary schools emphasizes the personal, social, and cultural contexts of learning, and the power that creating has within these contexts (Ministry of Education, Science and Culture, 2011/2013).

Sustainability is one of six fundamental pillars of education that must be woven in to the work of the school in Iceland: "The fundamental pillars also refer to a vision of the future, ability and will to influence and be active in maintaining society, change it and develop it." (Ministry of Education, Science and Culture, 2011/2013, p. 14). The other pillars are literacy, health and welfare, democracy and human rights, equality and creativity. The new curriculum further states: "Subjects are an important part of school activities but not objectives as such. It is not the role of schools to teach subjects, but to

educate pupils and encourage their overall development" (p. 49). Integrated or interdisciplinary approaches have considerable value for both art and EFS.

Participatory Virtues

In EFS we need to foster self-awareness among students, providing them with empathy for their environment and all the challenges it faces. In order to build a fair, sustainable and peaceful global society, people need to understand and accept their responsibility to one another and to future generations. In education we can work with values, virtues and ethical prin¬ciples that are needed for the transition to sustainable ways of living (UNESCO, 2011).

The notion of 'participatory virtues' discussed in the context of environmental issues offers some criteria that could be useful to education. Three virtues are identified: inclusiveness, engagement and epistemic productivity (Thompson & Whyte, 2011):

Inclusiveness *refers not only to representation but acknowledgement of the value of wide representation and acceptance of different forms of knowledge.*

Engagement *requires active commitment to the task and its purpose.*

Epistemic productivity *refers not to the knowledge itself but the ability of the group and the viability of the process in actually producing knowledge and calls for participants to be sincere, pay attention, be reasonable, show humility and empathy and to be charitable.*

It is in the nature of arts to celebrate multiple perspectives (Eisner, 2002). When developing the willingness to be inclusive the arts are a good tool because in them there are many ways to see and interpret the world.

When going through the artistic process children learn to be engaged in complex forms of problem solving that change with circumstance and opportunity (Eisner, 2002, pp70-92). Epistemic productivity can be related to an

artistic learning process in which students are expected to develop the ability and willingness to surrender to the unanticipated possibilities of the work as it unfolds. By doing experiments with material, forms and concepts new knowledge is produced. Arts student have the potential to change what might be an everyday perspective or way of seeing, into an unfamiliar one bringing out new understandings of what we might take for granted (Wilson, 2011).

Virtues and Vices

Elsewhere (Macdonald, 2012) has introduced three pairs of virtues and vices for engaging students in a critical analysis of their views and those of others. The vice/virtue pairs focus on rights, resources and responsibility, all key aspects of analysing sustainability in a situation .

- *The first pair,* **greed/charity***, refers to the extent to which one's actions are governed by greed, not necessarily in the physical sense but in the moral sense: What gives someone the right to do something or own something or exploit someone else?*
- *The second pair,* **sloth/diligence***, is concerned with the use made of resources, both in a physical or a moral sense. Too many resources are wasted because someone, an individual, a group or an organisation, cannot be bothered to pay attention to the details of a situation or are not diligent in caring for others and for nature and the environment.*
- *The third pair,* **pride/humility**, *is concerned with the arrogance that comes with false pride, that follows greed and sloth, when someone is somehow more important than someone else and does not take* **responsibility** *for their actions.*

These three vice/virtue pairs lie at the heart of sustainability issues, in which man and nature must be sustained. The battle is between greed and charity, between sloth and diligence and between pride and humility. If education can work with these issues of rights, resources and responsibility, much will be achieved. When educators are able to inspire participatory virtues students

become empowered to tackle these issues. It can be fruitful for empowerment of this kind to use an artistic approach to throw new light on the classical concepts referred to above. Contemporary art often offers fresh insights on ethical issues.

Teachers need thus to create an educational setting that makes students question their own viewpoints, in order to discover more dependable ways to make their lives meaningful. Students should be looking at, and reflecting on, alternate points of view and creating a new way of knowing that may be different from their old habits (Mezirow, 2000).

Art and Art Education for Sustainability

The Bonn declaration (2009) states:

The challenges arise from values that have created unsustainable societies... We need a shared commitment to education that empowers people for change. Such education should be of a quality that provides the values, knowledge, skills and competencies for sustainable living and participation in society.

Art education has the potential to play an important role in an integrated approach to global issues concerning sustainability. An artistic approach can create a platform for students to reflect on their daily activities in profound and critical ways. It can help them focus on taking personal responsibility and on internal changes that become a starting point for change in their external environment. To create the foundations for the good life one needs to foster many different qualities as well as understand how they interact with one another (Jónsdóttir, 2011).

When we think of our values, we think of what is important to us in our lives, such as security, independence, wisdom, success, kindness and pleasure. A particular value may be very important to one person, but unimportant to another (Swartz, 2007). One way of understanding the meaning and value of people's daily living habits is through visual culture. Visual arts have been

used through the years as a reflection of people and their actions; looking at art can reveal a different perspective on the world. For some people, the visual message of art is more accessible and easier to grasp than a message in a written text. Artists of all periods have dealt with ecological and social issues and have often contributed to changes in public conscience, values and attitudes (Brenson, 2001). Contemporary artwork has the potential to raise questions that get viewers to rethink their attitudes and behaviour, which, in turn, can lead to action.

Using an arts-based approach gives students an opportunity for broadening their conception of the ways in which we acquire knowledge. "Art is an approach to research that exploits the capacities of expressive form to capture qualities of life that impact what we know and how we live" (Barone & Eisner, 2012, p. 5). The arts integrate knowing, doing and making (Irwin & de Cosson, 2004).

In the following case studies we investigate whether art can engage students in new ways of looking at their daily habits through facilitating thinking, reaction, discussion, debate and deliberation with connection to their local environment. How can artistic projects help students to create a more responsible society and see how actions by some affect others? How can the arts help students to develop their confidence in imagining new and concrete methods to address problems and to take joint decisions? How can the arts be used to reach students by presenting the problems of sustainability on a human level, to encourage empathy regarding its dangers, losses and conflicts? Could a focus on intangible virtues and vices be a fruitful way to engage students in a critical analysis of their views and those of others?

We use the following criteria for practice drawn from the notion of participatory virtues in analysing the case studies:

- *Is the process inclusive? This involves both types of knowledge and representations of knowledge.*
- *Are participants engaged? How is commitment ensured?*
- *Will knowledge be produced? How? How will we know?*

Methods

In this chapter we use a case study research design in which four educators are interviewed in order to find out the extent to which artistic work encourages 'participatory virtues'. The participants are four art teachers who are also professional artists (with either BA or MA degrees) and have all participated in a teacher-training course at the Iceland Academy of the Arts called Art and Education for Sustainability. The course supported the participants in developing their approach to a teaching style that promotes awareness of sustainability.

Purposeful sampling was used. All the participants were chosen to participate in the interviews because of their particular interest in sustainability and because their master's thesis subjects were in different ways related to EFS (table 1). The participants told success stories about sustainability projects within their school environments. In the interviews, the teachers were asked to describe an EFS project they thought was successful. They were asked to talk about their project in detail, including all important contextual factors. They were also asked for their responses to particular issues concerning sustainability and their focus and actions. The interviewer sought their opinion in general about EFS, collaboration with others and the potential they see in EFS.

Art Educator	Guðrún	Ása	Ásdís	Hugrún
Teaching Level	Designer, Elementary Art Teacher	Actress, Elementary Art Teacher	Visual artist, teaches in techincal college	Architect and art educator at upper secondary school
Project	*Time Capsule*	*Diamond Village*	*Design and EFS*	*Rainbow Bridge*
Age Group	4th and 5th grade	1th and 2th grade	Upper secondary	Upper secondary
Approach	Step-by-step, focussed approach	Transdisciplinary, story-line method	Model making as method	Share results with community

Table 1. *Interviewees and their art-based projects.*

The four cases have been analysed to better understand multifocal perspectives in art teachers' development with regard to EFS. Through the interviews we assess what EFS means to the teachers as we interpret their stories, and finding examples of how they deal with virtues and vices in EFS. We aim to give concrete expressions to these interpretations by taking EFS actions and connecting them with ideas about inclusion, engagement and production of knowledge. Art and EFS both require an in-depth understanding of critical approaches to art and education.

Analysis of the Four Cases

Time Capsule: To preserve something that should not be lost in the future.

Guðrún has taught at the elementary school level for eighteen years. She created a project for her 4th and 5th graders that she called *Time Capsule* to be exhibited at a conference for art educators. When her students started

Figure 3.
Part of the installation Time Capsule.

the project they were aware that the project would get public exposure. This produced feelings of anticipation and showed them how they could effect change outside their classroom.

In *Time Capsule,* fourth and fifth graders created small artworks that fitted into glass jars. The jars were then arranged so that they presented a unified whole. The theme of the project was to preserve something that should not be lost in the future. The children's choices showed what they held dear, such as animals, plants, or a memory. They inserted their work into a jar and attached a small note that explained their choice.

The aim of Guðrún's project was to spark critical thinking and examine values. It also valued different points of view, embracing diversity of thought and experiences. By exhibiting the work, the aim was also to empower students as active citizens by participating in a project which generates hope. "It was incredibly successful and fun because it inspired them to think about sustainability from a more emotional standpoint."

Figure 4.
"I chose birds because they sing for us, and hopefully for our children" (quote)

Guðrún mentions that the arts can give students an opportunity for self-evaluation. This is connected to developing the attribute of humility, "to be able to exhibit their work and say, yes, I worked hard on this and I'm content with it. Some students have reached that developmental milestone, but others think it will all happen of its own accord and that one does not have to work hard at anything".

Creating a village joint based: Working with values and tolerance

Ása is an elementary school teacher with a background in drama, but who uses all art disciplines in her teaching. She has a strong belief in a transdisciplinary approach when focusing on issues that relate to sustainability. One of the sustainability projects Ása has worked on with her students is called Diamond Village based on the story line method with a focus on cultural diversity. The project provided inclusive settings for the youngest pupils in the elementary school to engage with social, economic and ecological dimensions of sustainability and form to developing productive group awareness skills and habits. The project centres on recycling and using the resources to develop a village in a remote area.

The focus was on students' imagination. The first step was to sort trash. All of the school's waste bins were emptied into large tubs in the school's entryway. This created a shock effect that can be very useful when teaching drama. The next step was to teach her students how to sort waste. Then they began to create a community for themselves, selecting a nationality and creating a character for themselves, after which the village was set up. When the visual elements were in place, Ása then introduced a problem. She set up a town hall meeting to look for solutions. The students immediately took a critical approach. "By using this story line method the students both experienced the problem first hand and empathised with it. It went beyond being a mere project to touching them personally…It was as if the children became more aware that their voice could make a difference." At the end of the project, the students were given the task of designing enterprises and solutions that would help their community. In the final phase of the project the inhabitants of *Diamond Village* received a

***Figure 5**. Diamond Village and its surrounding mountains*

letter from a millionaire who wished to buy the village. The students reacted strongly. They were totally in agreement on rationalizing and defending their decision not to sell but keep going together.

Ása points out that children can offer brilliant solutions to problems, solutions that are superior to those offered by adults. "This is because children are still so straightforward and willing to take risks and try new things".

Design and Education for Sustainability

Ásdís is a visual artist who has taught at a technical college in Reykjavík since graduating three years ago. She tries to work with issues of sustainability in all her courses. One of her projects that focuses on cultural literacy employs model making as a method. The students construct models in 3D, using issues of sustainability to inspire their prototypes.

The aim of the project was to make learning relevant to the students and to connect it to what is important to the students' life and to the broader community. That way they have the potential in their future designs to apply what they have learned for the benefit of others. The aim was also to learn about materials and how they can reuse, recycle and up-cycle things. This acknowledges the value of the 'worthless' items they found in their own environment. By doing so they related learning to what they are most familiar with in their daily lives.

"The project was successful and the participants were enthusiastic. The results demonstrated a wide spectrum of ideas." Ásdís believes that it is important that teachers communicate the complexity of all the factors that come into play with sustainability to combat the notion that it's only about recycling. "Recycling is always what first comes to mind, and for some reason it is the easiest approach to sustainability. In this project, the students worked on different values." In her work she tries to stimulate discussions on diversity and what characterizes individual nations; the similarities and differences. She believes that this discussion can contribute to greater tolerance.

"Design study offers projects that inspire people to recycle and discover fun solutions for those more vulnerable in our society. One of these was to help kittens by designing a milk bottle with twelve tits so that many kittens could drink at the same time. Students discuss who is to benefit from their design and what materials might work best." It is useful in connection to values and virtues to think of whether material things are something available for anyone to purchase or whether they are meant for a select few.

Rainbow Bridge: A Bridge Between Cultures

Hugrún, architect and art educator, completed her master's degree in arts education three years ago and has since taught art at an upper secondary school that focuses on art. Hugrún participated in an international project with a colleague that was part of a larger project called *Town Squares in Limbo*. The project focused on town squares in Reykjavík that were underutilized.

The aim of the project was to support initiative and develop cooperative

skills. Hugrún emphasizes student initiative in her work but in her opinion the school system should prepare students better in that regard. "The students expect to be serviced too much." The project also focused on applying cutting edge technologies and taking a critical approach. Hugrún pointed out that within the school system there needs to be a greater awareness that everyone can effect change and that it is important to think locally and start small. Designers, in particular, can have greater opportunities to influence and be role models than most people by including these issues in their design. Critical discussions offer opportunities to learn about values, something that is very important. Hugrún focuses on giving her students projects that connect to real life situations, where the students have to put themselves in other people's footsteps and do a need-based analysis.

Hugrún students decided to work on a square in their school´s neighbourhood in cooperation with a group of students from the UK. They designed the *Rainbow Bridge*, a bridge that could connect generations, countries and cultures. The artwork was made out of tops of soda bottles and was called soda

Figures 8–9. *The Rainbow Bridge and students at work.*

bottle tops mosaic. It was formed as the beginnings of a bridge on each side with a roof made of the tops of soda bottles. The project was very successful, fun, and received a lot of favourable attention.

Hugrún puts an effort into sharing the results of her projects with the community, both the media and within the school. This way the students get a sense that their efforts are being recognized by the community and by their fellow students.

Summary and Discussion

Some key characteristics of the four case studies are summarised in table.

Project	Time Capsule	Diamond Village	Design and EFS	Rainbow Bridge
Focus	To preserve something that should not be lost in the future.	Working with values and tolerance	Design study is inspirational	Efforts are recognised within the school and in the media
Links to Community	Children can have an effect outside their classroom	Cultural diversity in a community	What characterises individual nations?	Connects generations, countries and cultures
Questions	What is worth preserving for future generations?	How do we want to live? With whom? Where? How do we find solutions?	How can we learn from our culture? What is the value of the material? How can we fully use this value?	What unites us?

Table 2. *Some pedagogical characteristics of the four case studies.*

Vices and virtues appeared in different ways in the projects. The *Time Capsule* project emphasized the importance of diversity that is clearly connected to one's

self, and the importance of not letting what we have today be lost in the future, "so that our children can also experience that good feeling about something you have and you don't want it to be lost just because you didn't treat it well."

In the *Diamond Village* and in the model design all the participants were given the responsibility for deciding and sorting what could be recycled and up-cycled. These important considerations should be related to the question of vices and virtues and the impact one's actions can have. As discussed earlier, the very nature of EFS lies in inclusiveness and individual engagement. Therefore, small changes in behaviour, the use of materials and habits are important. These small changes will add up.

Guðrún points out in connection to the time capsules that the way students treat their material can inspire critical discussions since the raw material is a metaphor for the environment. "You can´t abuse the material. If you have a stick you´re going to use you have to treat it carefully. If you´re not careful it might break. If you want your work to come out well you have to treat the materials gently". The way in which the participants in the *Diamond Village* discussed what could be done, and how the waste might be recycled and put to use within their community, is an indicator of care and diligence.

In the *Rainbow Bridge* project and in the model design the participants learned to think through and within a material. The participants in both projects were patient when collecting materials; they discovered the value in material and continued to use it well. In their future material choices they may improvise new ways to use and to stretch both their materials and techniques to provide hope for a more sustainable future.

In *Diamond Village* the dilemma of handing over responsibility for the environment to someone else was highlighted. The critical discussions raised notion of the values of modesty and arrogance, greed and generosity, love, evil and egotism. "All these values are there because we're really talking about a community of living human beings. We are talking about things that all connect to this."

Conclusion

In all of t he projects described above the artistic process gave the participants the possibility to assess social, cultural, economic, and environmental interdependence in a local context, and some of them with a global connection, like the bridge project and the story line village with a focus on cultural diversity. Through engagement in the project processes the participants broadened their awareness and understanding of social issues such as in instances when they had to think of what to protect for future generations, where the selections are good examples of humility. Among the many subjects they focused on in the design class, the model making allowed them to look at the economic issues of sustainability. In the story line village students worked together on considering political issues and in the bridge project they worked together on connecting the history of the participants. Going through a project such as those discussed above requires respect for others as it fosters a sense of community.

The participants in all the projects used the knowledge and skills they learned in and through the arts to demonstrate virtues and vices with respect for cultural richness in local and global contexts. The participants were able to respond with critical awareness to various forms of the arts and were also able to express themselves through the arts about issues they care about. All the projects engaged students both individually and collectively in the creative, expressive, inclusive and responsive processes of the arts as they developed confidence in themselves as creators. As in wicked problems they realized there could be many answers to the same problem.

Students used critical thinking skills in exploring their thoughts, experiences, and feelings. They all used a range of processes to critically respond to their own works and the works of others with respect of their age.

Projects such as those four have the potential to be a foundation for self knowledge with a focus on values and virtues that can develop through arts experiences. These experiences, in turn, provide a key step for the students' future. Arts processes also enabled the participants to develop their understanding of others through working cooperatively in creative art making. The projects also offered students opportunities to work independently which

required open-mindedness and understanding of others and challenged the older participants to develop solutions and make decisions. They had to question the norm and encouraged to take risks when developing their own ideas.

The production of knowledge was mainly through opening up situations for exploration in non-linear ways. As the problems were found and resolved new questions were often formed in the process. Arne Naes, a Norwegian founder of the Deep Ecology Movement wrote: "The essence of deep ecology is to ask deeper questions. This is the essence of a paradigm shift. We need to be prepared to question every single aspect of the old paradigm." (Capra, 1996, p. 6)

These case studies show that the arts have great potential for producing knowledge about sustainable issues and that participatory virtues provide useful criteria for the process. The cases in this study focus on consciousness, culture and ecology, dealing with vices and virtues in the search for personal values, for collective wisdom, and for artistic expression.

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Designing Arctic Products and Services

This research paper looks at arctic design from the perspectives of product design and service design. Both product design and service design emphasize arctic design as a tool for regional and sustainable development as well as for brand development. Themes of arctic design will be considered using different case examples from these two points of views. The arctic environment and conditions constitute specific challenges and needs for products and services. Distances between towns are long, land area is sparsely populated, natural living conditions are harsh and, in some places, population is rapidly aging. Design methods and approaches can help overcome these challenges.

Arctic design is an emerging area that will be defined through both practice and research and extends itself to various areas including indigenous craft, material development and design, and interaction design, among others. Crafts production and especially indigenous crafts production for tourism is a widely researched area (see Ashley, 2000; Benson, 2004; Cohen, 2000, 2004; Graburn, 1976 a, b; Miettinen, 2007; Phillips, 1998; Phillips & Steiner, 1999). However, this article focuses on two case studies and contributes to the thematic development of arctic design through case study research (Eisenhardt, 1989). Two case studies were chosen to represent design cases carried out as everyday practice in the arctic region. Both case studies have a strong orientation in design research methodology: one in practice led research (Mäkelä & O'Riley, 2012) and one in constructive design research (Koskinen, Zimmerman, Binder, Redström, & Wensveen, 2011). These two case studies were analyzed using a theoretical framework related to arctic design. Practice led research and constructive design research both work well research apparatuses for developing and defining arctic design. The theme of arctic design is related to design practice in the North. Working through iterations of design work and research helps in understanding the very nature of arctic design.

The Service Design for Medicine and Healthcare case study describes how arctic design can focus on improving regional social and wellbeing services such as social services and hospital services. This study was related to a

Tekes[1] funded research project. The research project included several service development cases, two of which are presented in this article. The 'Product Design and Indigenous Craft in the Arctic' case study discusses the role of the arctic designer and themes related to the arctic design process. The case study was carried out as a master's thesis project by one of the authors. The thesis work included both a theoretical part and a practical part. As an outcome, this article proposes the service design approach as a regional development tool that can help in improving service structures in the arctic region, and further, it discusses design as a practical tool for constructing arctic design products.

Arctic Design Highlights Design for Social Innovation and International Collaboration

Arctic design is about producing a strong sense of wellbeing and a competitive edge for circumpolar areas. Arctic design adopts a multi-disciplinary approach that connects areas of applied art and design, interaction design, industrial design, service design, and social design to increase wellbeing in periphery and marginal living conditions. The central concepts in the core of arctic design are: arctic art and design, design research and innovation (Miettinen, 2012), design for social innovation (Manzini, 2014), design thinking (Brown, 2008), wicked problems (Kolko, 2012), and applied visual art (Jokela, Goutts, Huhmarniemi, & Härkönen, 2013).

Arctic design means design that emerges from an understanding of the arctic environment and its unique conditions. This kind of design also takes into account human adaptation to arctic conditions. Arctic design produces solutions to the needs of extreme and marginal contexts: for example, solutions for service co-production in sparsely populated areas. These solutions may be scalable and applicable in other contexts. Rich cooperation and international networks, natural resources, respect for indigenous knowledge, and strategic multi-disciplinary research are at the core of arctic design (Miettinen, 2012; Tahkokallio, 2012).

[1] Finnish Fund for Technology and Innovation. www.tekes.fi

Arctic designers can find employment in the areas of regional and international development activities and in the areas of capacity building for innovation and growth. In addition, they have possibilities to work as entrepreneurs, consultants, designers, and artists within problematic or extreme development areas and may even focus on dealing with wicked problems. "Wicked problem" is a phrase originally used in a social context to describe a problem (marginalization, climate change, aging, poverty) that is difficult or impossible to solve because of incomplete, contradictory, and/or changing requirements that are often difficult to recognize. Collaborative solving strategies aim to engage all stakeholders in order to find the best possible solution for all stakeholders. Co-design and service design processes offer methods that help in visualizing, concretizing, and discussing complex problems and finding new solutions to them. Wicked problems are widely present in arctic and other extreme conditions. Knowledge and skills in arctic design strengthens the ability to tackle these problems. Further, one of the focuses in arctic design is to increase the employability of artists through new forms of collaboration, where artists take advantage of their knowledge to become specialists or designers of art and visual culture. Elements of team building and project work are needed in the area of arctic design. The skills needed in project and team work will also motivate to design entrepreneurship (Airey, 2013).

Service design in collaboration with applied visual art and art education opens up new opportunities for northern social and economic wellbeing. Artistic activity is considered to be a service as well as a tool of service development. Art is understood as a social and communal process that produces values, symbols, meaning, and practices for the North. The growing field of service design has a lot in common with community-based art education and applied visual arts, such as using design tools and methods to allow active participation in processes.

Arctic design is about design for extreme affordability (King & Schwarz, 2013), which focuses on the need for finding users, user empathy, user-centered design, rapid prototyping and iteration, and collaborative dynamics and issues of social design (Heller & Vienne, 2003; Bergman, 2009; Shea, Lupton, &

Drenttel, 2012). Further, community-centered design and community-based art are at the center of arctic design.

Service Design in the Arctic

Service design opens up new opportunities for arctic wellbeing. Service design tools and methods enable active user participation in the service design process. The use of innovative methods and creativity, and also intuition, have all helped the service design approach. This working approach with service users can help to create radical innovations and solutions for service production in marginal living conditions. Design and service design methods can help in the development and innovation processes located in the Arctic or other marginal and peripheral contexts (Miettinen, 2014).

Service design has a growing role in the public sector. It has been found that the profession of design is changing as design moves towards experience-based co-design. Users are demanding better public services as services are developing in general. As a result of this development, the traditional way of participating in decision making regarding services through representative or direct democracy is accompanied by a new, more innovative way in which residents participate in the planning and development of service provision through user-driven innovation activities (Miettinen, 2014).

In service design there is, on one hand, a strong focus on innovation development and contribution to growth and prosperity, and, on other hand, the focus is not only on user-centered design but rather on a community-centered approach and on the strong development of civil society. Community-centered design is an approach that scales up the consolidated methods and tools of human-centered design to that of community size (Meroni, 2008). Community-centered design shifts focus from the individual user to the network of relationships within the whole community. This kind of dynamic is especially important in the arctic context where many solutions have to be applied to small communities. This has proved vital in order for communities to be empowered by the change processes affected through service design and for effective adoption. Key here is the experiential approach of direct immer-

sion within the community. This facilitates empathy and a mutual learning process whereby the designer gains insight into the community while sharing their design knowledge to develop tools that empower the community to steer the design process (Kouprie & Visser, 2009; Cantù et al., 2012).

Product Design and Indigenous Craft in the Arctic

Product design for extreme conditions design portfolios extends from BRP[2] snowmobiles to LAPPSET[3] playground design. The first example is very clearly linked to the Arctic area and its conditions. The LAPPSET playground design reflects its origin: the location and cultural heritage of Finnish Lapland (Ikäheimo, 2012). The arctic product design process includes strong expertise in material and mechanical engineering as well as in testing for harsh conditions. In addition, it includes is strong user involvement using hobbyists, end users, and expert users as part of the process.

Indigenous craft in the Arctic shares the same expertise and material innovation against the harsh weather. According to the definition by Michael B. Hardt, arctic design should sustain the knowledge and skills of the culture of the people and the nature of the Arctic. Arctic design should aim to not only to protect the environment but also to respect the culture of the indigenous people. One target should also be to improve social and economic conditions in the arctic area (Hardt, 2012). The University of Lapland has taken part in projects that strive towards this ambition: for example, the Duodji—from Sami Handicraft to Design -project (2005-2007)[4] and the DAVVI—Multidisciplinary Academic Training Project (2010-2014)[5]. The baseline for these projects has been an ambition to ensure that there will be trained people for different tasks in the Sami self-governing territory. The most important tasks are seen as those that relate to the questions of self-governing and keeping the

[2] www.brpscandinavia.com

[3] www.lappset.com

[4] www.ulapland.fi/Suomeksi/Yksikot/Taiteiden-tiedekunta/Opiskelu/Sisustus--ja-tekstiilimuotoilu,-Vaatetussuunnittelu/Tuotekehitys-ja-tutkimushankkeet/DUODJI--koulutuksen-kehittamishanke

[5] www.ulapland.fi/loader.aspx?id=735fa4a2-d7cf-4547-b511-00effd696a68

culture alive (Kivelä et al., 2007). Linked to design, the center of both of the projects has been developing the use of design methods and practices among the craftspeople of the Sami culture. The structure of the projects included cooperation with the Sámi Education Institute (SAKK), the University of Lapland, and the University of Oulu.

Arctic Design and International Cooperation

The Faculty of Art and Design at the University of Lapland has created the Arctic Sustainable Arts and Design (ASAD) network, which operates within the University of the Arctic. The network consists of 26 circumpolar universities and art education institutes from eight circumpolar countries in North Europe. Its main aim is to develop working methods to improve environmentally and culturally sustainable development and psychosocial and economic wellbeing through art- and design-based research and activities. The blending of indigenous cultures and other lifestyles of the people in the Arctic is typical of the whole circumpolar area. This multinational and multicultural composition creates elusive socio-cultural challenges that are sometimes politicized in the neocolonial settings of the North and the Arctic. Finding solutions to these challenges requires regional expertise, co-research, communality, and international cooperation.

Arctic design has been recognized as an approach that supports innovation and development. Lapland's Regional Program (in progress for the years 2014-2017) recognizes the potential of service design in creating new ways and methods to produce and provide services and products. The Finnish Design Policy (2013) recognizes Rovaniemi as an innovation hub for arctic design and service design. The Finnish Arctic Strategy (2013) identifies arctic design as an important way to enhance innovation development. The European Union (2012) has identified design as an innovative approach for growth and prosperity.

Service Design for Medicine and Healthcare

The MediPro—Practices, Processes and Products for Medicine and Healthcare project started in 2012. The research project investigated technology-supported service processes and the use of the Finnish TETRA[6] telephone. This research was conducted at the University of Lapland by the Faculty of Education in cooperation with the Faculty of Art and Design. The research focused on the simulation of pedagogical and service design perspectives through various cases in the social and healthcare sectors. The goal of the MediPro project was to investigate healthcare processes and also to increase awareness of the utilization of TETRA telephones. The project was funded by TEKES Learning Solutions program, the Lapland Hospital District, and the city of Rovaniemi. The research was carried out in the arctic context.

The VIRVE network and TETRA telephone are particularly useful in situations when the need for quick communication is necessary—for example, car accidents, environmental disasters, or other safety-related situations. They also help to facilitate communication between long distances to carry messages regarding circumstances. They also can be relied upon when the public GSM-network is inoperative. At the moment, there are challenges in implementing the usage of the phone in the social and healthcare sectors because of the complex usability and its physical size. In this project, the service design team investigated and developed the processes using design methods and with an understanding of the challenges in different work processes and related communication needs.

Service Design Case Example 1: Rovaniemi Social Services

The first study was conducted with Rovaniemi Social Services at the beginning of June 2013. It was a six-month project in which the relationship between service design and simulation pedagogy were investigated. The aim was to explore how the service design approach and prototyping facilitates the devel-

[6] In Finland, the most important communication tool for security officials is the TETRA telephone, which is established as in the police, rescue services and Finnish Defense Forces. TETRA telephone uses the Finnish authorities' official telecommunications network VIRVE

opment of technology-aided working processes. In addition, researchers investigated how learning happens in these circumstances through training, simulations, and prototyping. This project was carried out by professionals in social services.

Figure 1. *Service prototyping with Rovaniemi City social workers at SINCO lab*

The first data were collected with design probe diaries, where the focus was to better understand professionals' every day routines and their different feelings during the day—for example, before, during, and after meeting a customer. In addition, there were questions about daily routines and how they communicate and with whom. The social workers wrote in diaries every day for two weeks. These data helped researchers to produce a SINCO-workshop, which was arranged with the professionals from Rovaniemi Social Services. Service Innovation Corner (SINCO) is an immersive environment that is suitable for service prototyping and interaction design. SINCO enables quick prototyping for developing and concretizing ideas (Miettinen et al., 2012). In

this case, the SINCO laboratory served to help understand and learn about the professionals' thoughts and also deepened the common understanding regarding the challenges of working processes in social services. Visualization served as a common tool to explain these thoughts. During the SINCO-workshop, a lot of new ideas and challenges from a safety point of view emerged.

The next step was to practice using the TETRA telephone with the computer-based simulation program TETRAsim. This educational responsibility and simulation research was carried out by a research team from the Faculty of Education at the Lapland University of Applied Sciences. This educational part with TETRAsim program worked as a platform for a six-week pilot period, where social workers could use TETRA telephones during their normal working days. At the same time, they had new research diaries, which documented their usage of the TETRA telephone and how feasible its use is in their daily working processes.

This project found that there were needs for this kind of communication tool, but not in every department. Social workers who have face-to-face contact with customers or who work as duty officers found that the TETRA telephone could be helpful tool for quick communication in all kind of situations. The TETRA telephone also increased feelings of safety. This case will be developed further in a forthcoming project where the focus is on implementing the TETRA telephone in work processes using design methods.

Service Design Case Example 2: Emergency Polyclinic of the Lapland Central Hospital

The second case study, with Lapland Central Hospital, started in a summer of 2013. In this study, the aim was to understand the behaviors and activities of workers in emergency polyclinics and also the different phases of the process from a communication point of view. The professionals from the emergency department were in active roles during the study. Collected data were gathered by using different design methods, which enabled a user-centered approach to this research. The healthcare sector is not the easiest environment for this kind of study because of its hierarchy. This challenge was seen as an opportu-

nity to modify service design methods and to use creativity to explore different ways of acquiring data. We can say that the processes in emergency polyclinics are generic all over Finland. However, there are exceptions within each of the polyclinics in terms of how the professionals communicate with each other and how the digital communication systems work. There are a lot challenges related to the Lapland area and its conditions.

The study began with interviews in which questions were asked about the work process within emergency polyclinics. During the interviews, visualizations of the process were used to structure the discussion. The process was drawn on paper, and visualization served as a clarifying tool. The paper made it easier for both the interviewee and the interviewer to understand the

Figure 2.
First data collection box questionnaires.

process. Interviewing also enabled the professionals to share their different experiences and stories of arctic healthcare processes. The study continued by investigating emergency polyclinics' processes around the three main phases:

arrival, treatment, and discharge. This was done by using design probes to gain a deeper understanding of these three main phases. The first design probe, a small questionnaires with boxes, was placed in the coffee room of the emergency polyclinic. The inquiry addressed how professional communication was conducted in specific situations.

After gaining a preliminary understanding of the process of emergency polyclinics, it was easier to increase our understanding by observing the process in the real environment. Observation was found to be the most beneficial tool for this study because it concretized the understanding of the whole process. It also helped in getting to know the people, which was a very crucial part in this case. In familiarizing ourselves, the professionals were more open-minded about sharing their opinions and stories. The study also included two benchmarking sessions, one in Oulu and one in Joensuu, which offered the possibility to see how the communication processes work in different hospitals.

Figure 3.
Observing professionals working.

The combination of the interviews, questionnaires, observation sessions, and benchmarking formulated a diverse process in which certain challenges, like multi-patient emergencies, acute emergency situations, and calling up specific groups of nurses and doctors, arose. Those challenges were written down as scenarios—or service journeys—which were simulated, or prototyped, with five nurses at the SINCO-laboratory. Prototyping in the SINCO environment was accomplished through a workshop, which was very beneficial to the study. New ideas were generated mainly from a better, more straightforward

Figure 4.
Service prototyping with Lapland Central Hospital Emergency policlinic's staff

and more efficient communication point of view. The main point was, that even a patient or many patients are coming from near or far, the communication is clear and fast, and in addition, the visible information, for example in emergency room, helps to understand at the glance what kind of patient is coming and when. All the ideas were concretized and developed further, and the usage of the TETRA telephone was also tested and discussed regarding how the phone helps communication in arctic areas.

The result of this case example was a visualized process map. This visualization included both the challenges and the ideas that were developed. Some ideas will be implemented and will support communication processes inside the emergency polyclinic in the future. A lot of different challenges inside the emergency polyclinic became apparent, and these were categorized in the process in phases and groups. There were not only challenges in terms of communication, but also in actions and visual information for doing things faster and in such a way that concentrates on the most important work: to save people lives.

The importance of creating innovative methods for developing services in arctic areas presents designers with totally new, but interesting, challenges. Regarding the two above-mentioned case examples, the MediPro project extended insight into how effective a tool the SINCO laboratory is in terms of its strongly concretized prototyping while developing regional services. This case identified that long-term and comprehensive preliminary data are needed—for example, the above-mentioned design probe, observation sessions, etc.—to help designers, researchers, and/or facilitators create successful prototyping sessions. On the other hand, it is important to consider who the stakeholders are with whom you want to co-design services. Without the knowledge and stories from the professionals, it would be impossible to envision what kinds of obstacles and delays they experience in their work processes. Service design and especially prototyping provide the ability to think of new ways of carrying out actions more easily or faster, and the implementation is more efficient if this is all done together with the professionals.

Product Design in an Arctic Context

Ulrich and Eppinger (2012, pp. 2-3) define product design as follows: "Product development is the set of activities beginning with the perception of a market opportunity and ending in the production, sale and delivery of a product." In this context, the product design concept includes an entire range of design fields and produced artifacts.

As mentioned at the beginning of this article, arctic design includes

a strong emphasis on arctic wellbeing. In product design, this appears in designing arctic environments and designing products that help us to operate in arctic circumstances. Snowmobiles and environments related to snow and ice construction are excellent examples of this (Ryynänen, 2012). Further, different business developments centered around tourism can be found at the core of arctic product design. The next case study is related to this theme from the perspective of contemporary industrial design production.

Product Design Case Example: Lapuan Kankurit

The third case study, Lapuan Kankurit, started in October 2012 and ended in December 2013. This case study was carried out by one of the authors, Laura Laivamaa, as part of her master thesis in the interior and textile design department at the University of Lapland. The thesis consisted of two different parts that were very closely connected to each other. First was the research part, which concentrated on themes of arctic design and its definition, and second was the productive, "artistic" part that involved a design process for a textile collection for Lapuan Kankurit[7], a Finnish textile company. The thesis followed the tradition of practice led research and included features of the structure of hermeneutic spiral (Nimkulrat, 2007). Data were collected throughout the design process. Both the design process and data gathering helped in understanding the thematics of arctic design.

This case study focused on a few themes in the arctic design context: arctic area as an operational framework for a designer, arctic are as a conceivable source of innovation, and arctic area as an adapter of personal designer identity. The study analyzed these themes, which contributed to the visual features of the products designed as arctic design products. Further, the study aimed to create a possible model of how the arctic can be visually expressed in textile products or patterns.

The data used in the study were gathered through data triangulation or a mixed methods approach using 1) thematic interviews about the under-

[7] www.lapuankankurit.fi

standing and definition of arctic design analyzed with content driven data analysis (Eskola & Suoranta, 1998); 2) data collected from the blog "Kaamoksen maasta"[8] , which was updated during the design process; 3) survey research about arctic design carried out by the WDC2012 Helsinki-Rovaniemi project; and 4) the design process itself, which was used as data.

The production part of the thesis consisted of a pattern design process created in collaboration with Lapuan Kankurit. This company is a fourth-generation family business that is focused on jacquard weaving textiles in three different categories: spa&sauna, home&you, and kitchen&tabletop. Lapuan Kankurit uses linen, cotton, and wool in their products. Their manufacturing is mostly located in their weaving mill in Lapua, but they also partly own a weaving mill in Lithuania where all woolen products are woven. In the autumn 2012, Lapuan Kankurit became interested in an idea involving an arctic textile collection because they had a real need to renew their patterns related to northern topics. The company was very active in the project, and the collaboration between the company and the designer was very close during the design process.

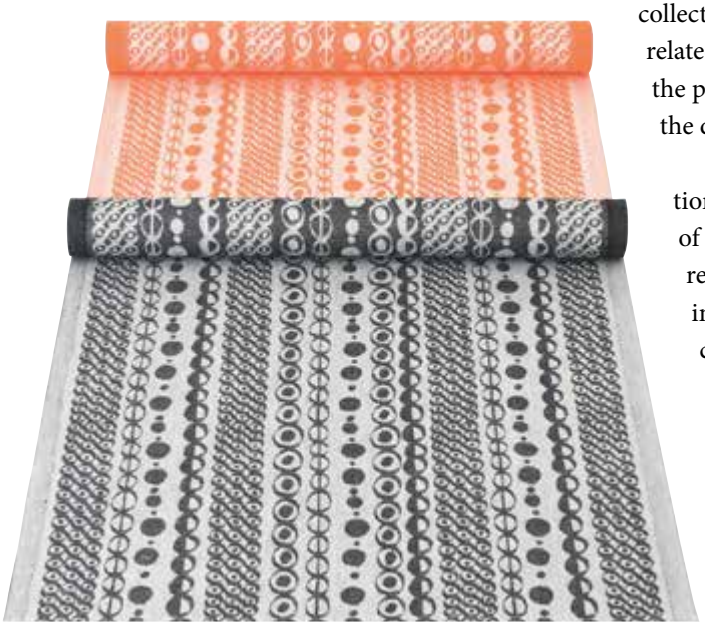

Figure 5. *Tunturipuro – table runner.*

One result of the design process was a textile collection called "Matkan varrelta." This collection consists of six different patterns. All patterns of the collection represent views you might encounter when wandering in the northern Arctic areas of Finland. In the pattern called "Taivaanvalkeat," you can see a fell view of the northern lights; "Selkoset" represents the endless queue of the fells; in "Tunturipuro," you can see sparkly shimmers at the bottom of a clear little trickle; and in the "Taivaltajat" pattern, wolves, foxes, reindeers, bears, and hares wander together—maybe they have come to see how the northern lights were born? These four patterns constitute the base of the collection, but

[8] www.inspiredbythearctic.blogspot.com

there are also two other patterns: "Raito," where reindeer horns are placed in a placid composition and "Kelo," where a lonely tree stands in front of a plain white landscape.

The patterns in the collection are used on kitchen towels, placemats, table runners, pocket shawls, hot water bottles, and wool blankets. In addition, the

Figure 6.
Taivaltajat –wool blanket

Selkoset and Taivaltajat patterns are woven into fabrics that are sold by the meter. The colors of the collection are wintery turquoise, grey, and white but also include bold orange, representing the autumn colors in Lapland. These shades are completed with black and white variations inspired by nature in Lapland and the wide variety of seasons in the North.

The textile collection was launched at Formex Fair in Stockholm in August of 2013, and after that, the collection went around Europe in different home interior and textile fairs (for example, Gave&Interior in Norway and Maison Object in Paris). The collection was exhibited at Muotoiluhuone Rovaniemi in October 2013. During Arctic Design Week in February 2014, the collection was part of the Ajan kanssa exhibition.

The aim of the collection was not only to enlarge the variety of souvenir shops in northern Finland but also to be appropriate to the needs of the wide-ranging merchandise networks of Lapuan Kankurit. After a year on the market, there are few patterns from the collection which seems to be potential "high-flyers": "Taivaltajat" and "Taivaanvalkeat" (both patterns are found in this article's pictures). Especially "Taivaanvalkeat" has done very well around Europe.
The data collected during the process highlighted a few interesting points. Discussions about arctic design established that there seemed to be a few different ways to define arctic design: 1) through the contextual activity linked to the arctic context, 2) through resolving problems related to living in this context, and 3) through the results of the design activity (in this case, through products). Another interesting theme was whether designers define themselves as arctic designers and whether this definition would have value

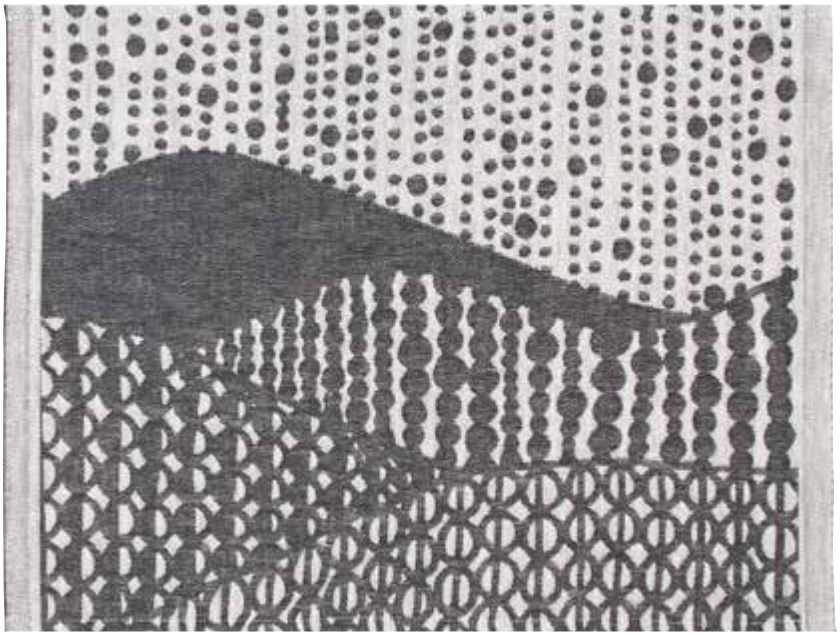

Figure 7.
Taivaanvalkeat –placemat

among potential customers. How would this be legitimated or authorized? By the designers themselves or by some other framework of evaluation? These themes were seen as important in the context of branding arctic design.

Discussions about arctic design as a tool for branding were carried out during Arctic Design Week in February 2014. The Arctic Design Round Table gathered together not only local actors and policymakers but also design-oriented people from around Finland as well as globally.[9] Branding has been an important issue in northern Finland over the past few years. A good example of this is the Lapland brand "Lapland Above Ordinary"[10], which was launched in Rovaniemi in late 2012. Brand represents the mental impression the customer experiences regarding the service or product. The brand is born in the mind of the customer, who also controls and influences it. That is why a firm or provider of a product or service cannot entirely control the effect of the brand (Lindroos et al., 2005). The brand experience is co-created. The arctic design brand has been constructed mostly by design professionals in the design field, and that is why they feel ownership in terms of defining the brand content. This came out clearly in the theme interviews. One of the outcomes of the survey research is that the definition of arctic design still seems to be quite unclear to people outside the design field.

Data collected via blog established, for instance, that concrete examples of visual features (photos, sketches, etc.) made it easier for the respondent to discuss the thematics of arctic design at a deeper level. Although the role of the blog did not feature too prominently in the research, the data collected via blog were very useful, especially to the design process. The role of the theme interview was not only to help the researcher deepen her own understanding about arctic design but also affiliate the thesis to part of the conversation about arctic design.

The design process of this case study, on the other hand, has shown in practice that design can be one tool to highlight the arctic area (Miettinen & Tahkokallio, 2014). Concrete features and characteristics (for example, motifs

[9] www.arcticdesignweek.fi

[10] www.lapland.fi

from nature such as fells, northern lights, and colors related to Lapland) in textile designs can help in branding the work of the textile collection and can be identified quite clearly by the designers who work in the arctic area. From a company perspective, this has been found to be a strong selling point, in addition to visual attractiveness, good quality, and long-lasting design.

Conclusion

The themes of this article present viewpoints from two different case studies of arctic design: arctic services and arctic products. Even though the contexts of product and service design are different, there are many similarities. Arctic design utilizes the same tools in industrial and human-centered design processes, where the roles of the users and communities are essential. Different needs and expectations arise from the users' actions, behaviors, and everyday lives. Although arctic design does not manifest itself clearly to people outside the design field, it is strongly developing itself as part of our everyday arctic life and policies.

The most significant point is to understand the needs, challenges, and opportunities of the arctic area and solve them in a way that fits the arctic area and its conditions. Arctic design needs both practical design work and scientific research in order to develop further. As previous examples have shown, close cooperation between the University of Lapland, different companies, and public sector actors and institutions is already lively and strong. Arctic design as a word has its own cultural meaning, which is becoming stronger and stronger in our design world. It interests and fascinates people. Hopefully, this will lead to a situation where the methods and cooperation in service design and product design in the arctic context can benefit and help to develop each other and will become one universal word. Arctic design is about combining strong practical design skills and processes and a strong contextual and cultural understanding with state-of-the-art research. As an outcome of these two, the arctic region offers an important framework for developing new innovations and solutions that can support the competitiveness of the marginalized region. This can transform the arctic region desirable and popular destination.

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Encounters with Iceland's Eventful Landscape:

A SERIES OF PHOTOGRAPHIC OCCASIONS

This article provides an account of a recent field trip that I made to Iceland. Through the writing I seek to convey a sense of the visit which served as an occasion for reflection on landscape/protagonist relations and practice-led research, in addition to providing an opportunity to challenge my thinking in relation to photography. I will begin by discussing Iceland's living landscape, firstly through an introduction to the geothermal terrain of Hveragarði, which I will look at in relation to Emily Brady's articulation of the contemporary sublime and, what she describes as, 'difficult aesthetic experiences' (2010: 125). Following on from this I will discuss my experience of a lava field in North-West Iceland, seen through a Deleuzian lens. I will introduce Gilles Deleuze's writing on the fold making specific reference to the lava field as a contorted landscape from which the subject emerges. Finally, I will consider the lava field as a happening of landscape which is directly inspired by Alfred North Whitehead's philosophical articulation of the world as event, 'a nexus of actual occasions' (Whitehead, 1985: 80).

These encounters with landscape are expressed in personal terms and the critical evaluation of their significance has been informed latterly by academic discourse. Therefore, somewhat inevitably, there is a balance which requires to be struck between the descriptive and the analytical which I have endeavoured to manage with care. Simon O'Sullivan's words are helpful in their succinct articulation of the need, in his case, to write about art from a personal point of view.

> *The book is a kind of personal archive, a history of my encounters within the expanded field of modern and contemporary art. Indeed I would argue that exploring these event-encounters can only be written about on such as basis, from personal experience.* (2007:2)

The writing which I undertake here acknowledges this need to write about 'event-encounters' with, in this case, landscape from a personal perspective. Having said this, it is important to point out that although the writing presents my experience of two places in Iceland, it should not be construed as a privi-

leged reading of either landscape or country. As should become clear towards the closing stages of the writing, the two key places which I will discuss are important sites through which I explore the affective qualities of landscape and I will go on to characterise the experience of landscape as a nexus of becomings. Considered in these terms, the overarching aim of the writing is to present the field trip to Iceland as a series of occasions which challenged the artist's perspective and undermined all attempts to command the view, both physically and metaphorically. My experiences of the living landscape of Iceland quite literally remade me with each and every eventful encounter.

The Icelandic landscape is a place of 'terrible beauty' (Brady, 2010: 125-136) which is outside of many non-Icelanders everyday experiences of the land (Brady, 2007). Iceland is seismically active, many of its residents have had to withstand earthquakes, volcanic eruptions and avalanches. This extreme landscape has become something of a tourist magnet in recent times; the number of visitors to Iceland has increased by half a million over the last five years (Pálsson, 2014: 4). This figure was predicted to be three times the population of the entire country for the summer of 2014. The revenue that tourism brings in to Iceland now accounts for more than its fishing industry, long considered to be the mainstay of the Icelandic economy (Kaldal, 2014: 4). Although this article does not specifically endeavour to provide a critique of tourism, or, touristic experiences of the landscape, I fully acknowledge that a touristic mode of being is an inescapable reality of the genesis of the images and writing to be found here. Travelling to Iceland as a practice-led researcher, I could have too easily excused myself from the tourism figures and their attendant impact upon the environment, but this would be both presumptuous and arrogant, betraying a hierarchical attitude to cultural activity. During my week in Iceland I was as much a tourist as a researcher, sticking to the well worn routes that others have taken, experiencing 'my own' Iceland, along with the nearly one million others who will have visited the country this summer.

This challenge to the notion that the artist is a unique, sovereign experiencing 'I' subverts the tacit acceptance of the image of the travelling researcher as an embodied phenomenal being, imbricated in the landscape documenting

their unique engagements with it. In the context of cultural geography, John Wylie has observed that Maurice Merleau-Ponty's *Phenomenology of Perception* 'offers descriptions of a subject, an "I" whose vision is connection and immersion, without questioning the frontiers of that subjectivity' (Wylie, 2006: 525). He goes on to state that in Merleau-Ponty's account the 'vision grounded in the worldly perspective of the body... is in some ways no more that a "relocation" of subjectivity.' (Wylie, 2006: 525) In spite of these reservations, Wylie does not completely dispense with Merleau-Ponty's philosophy of vision. Rather, he modulates this by reading it through the Deleuzian fold (2006: 522). The complex notion of the fold will be considered in a little more detail later, but at this juncture it should suffice to say that what I intend to avoid in the writing that follows is such a 'relocation' of subjectivity. That is, I do not wish to present my experience of the landscape as privileged in any way, and while articulating the phenomena of my perception will be unavoidable, I do so as a means to reflect on the impact that the Icelandic landscape has had upon me, examining the fissures and folds that, physically, metaphorically and philosophically, challenge the stable sense of self possessed by the protagonist in/of the landscape.

I first visited Iceland about fourteen years ago on a city break to Reykjavík. From a Golden Circle tour bus on the way to Þingvellir on the Route 1, I glimpsed a glasshouse by the side of the road. It was a large greenhouse, industrial in scale and rather austere looking. As the bus drove by, the tour guide explained that these greenhouses were geothermally heated and in them many of the flowers, fruit and vegetables for Iceland were grown. There was something about the way that it was nested in the land and worked from a heat source deep in the earth that caught my imagination. I always knew that I would return.

Clutching the steering wheel in an attempt to contain the rising fear of being on the right hand side of the road in the lashing rain, I drove down the steep hill from the high ground across which we had travelled from Reykjavík to the flat area of coastal fringe further south. The light was failing; a combination of heavy cloud and the transition to the subdued, flat light of the Icelandic

night in early summer. The flight had been cancelled the previous evening and unavoidable last minute changes to travel plans and departure airports meant that we left Reykjavík many hours later than planned. I began to wonder if it was a mistake to be in Iceland: why was I here? I turned the little red car into Hveragarði and drove down the main street, looking for the hotel. Peering through the rivulets of rain on the side window I saw an illuminated greenhouse glowing strangely to the left of the car: suddenly I remembered why I'd come.

Under the sunlight the greenhouses look far more domesticated and less foreboding. The landscape in and around Hveragarði is studded with these immense glasshouses which are powered by the regional geothermal activity. The river that flows through the town is the hottest river in Iceland and reputedly never freezes. Its lower reaches are called *Thorleifslaekur*, but up at Hveragarði it is called *Varmá*: warm. Walking around the outskirts of the town I became acutely aware of the geothermal infrastructure that snakes about the place. Some of it is disused as new piping has superseded the old and the land-

Figure 1. *Hveragarði I*

scape is populated by obsolete chunks of metal, pipe housings, cement structures and valves which stick out of the ground here and there. Up on the hillsides steam escapes from the rock, a constant plume of white.

Although the geothermal activity in Hveragarði is immediately apparent, I had to sit down on a high density polyethylene pipe (which transports steam) to frame a shot before I was properly aware, that is, I had a *bodily* realisation, that there was raw energy surging and powering down the pipe. It was hot to the touch: perplexing and faintly nauseating; the sheer power in the pipe, the gurgle and roar of the steam under pressure was highly disturbing. Considered as an aesthetic experience, it was sensory rather than exclusively visual: the aesthetic object remained strangely unseen. It presented what we might call a contemporary experience of the sublime 'where we are confronted not with some socially constructed phenomena but a bodily, material experience' (Brady, 2010: 129). The geothermal power in the pipe was under control, therefore cannot be fully described in the terms that Emily Brady goes on to use, namely, that the sublime bodily experience of nature is one which 'surprises and resists human desires and ambitions' (Entrikin, 2009 cited by Brady, 2010: 129). Nonetheless, although the pipework exemplifies the management of the natural geothermal resource (which provides power for the energy and heat for the homes and hothouses of Hveragardði), the energy source is derived from a geothermal activity which ultimately cannot be completely disciplined.

Dangerous as the geothermal activity is, as Brady points out, it is crucial (for Burke and Kant) that 'the sublime response may only occur if the spectator experiences the sublime object first-hand, and when situated in a safe position relative to it' (Brady, 2010: 126). This safe position is significant as it distinguishes the sublime experience from one of complete fear. It was the polyethylene pipe which facilitated my safe positioning in relation to the sublime object: the torrent of steam rushing through the pipe. Nevertheless, my instinctive reaction was to recoil from it. I stepped back from the pipe, bodily aware, in the material sense that Brady describes, that the landscape is in process; it is alive.

Brady goes on to articulate the value of 'difficult aesthetic experiences'

(2010: 125) specifically in relation to the Icelandic landscape. While her attention is focussed on 'natural rather than modified environments or cultural landscapes' (2010: 125) much of what she states is also relevant to the culturally modified landscape of Hveragarði. She writes:

> *While difficult aesthetic appreciation extends to art, my discussion will be limited to natural objects, landscapes and phenomena that include the overwhelming, frightening, repulsive, strange, alien and disturbing.* (Brady, 2010: 125)

On the face of it, the greenhouses at Hveragarði are charming. They are filled with vegetables and brightly coloured flowers, their panes of glass glint in the sunshine. But as night falls, inasmuch as it ever does in Iceland in May, the interior floodlamps are illuminated and these greenhouses become altogether more sinister. They are transformed into difficult aesthetic objects which prompt unsettling experiences of the landscape, using Brady's terminology, 'difficult aesthetic interactions [which] offer insight into some of our

Figure 2.
Hveragarði II


Figures 3-4.
Hveragarði III & IV

uneasy relationships with nature' (2010: 125). These nightstrange objects, lit from within, seethe and hiss in the flat light night; the floodlamps illuminate the moisture inside of the greenhouses which runs sweating on the glass. They take on the air of faintly repulsive agricultural experiments; patrolled by security guards, their contents are clearly precious. They speak of our sometimes strange relationship with nature; nature inside of culture, described by Bruno Latour as nature inside of dispute (2004).

From Hveragarði we travelled north to Snælfellnes, a peninsula on which Snæfelljökull sits, the glacier through which Jules Verne's characters famously descend to the centre of the earth. During our stay the glacier remained hidden, obscured by low cloud, I wished (to no avail) to 'catch a glimpse of that white tureenlid of the world, Snaefells Glacier, between wisps of fog and the shadow of the clouds.' (Laxness, 2002: 35) Snælfellnes is reputed to be a mystical place, historically the glacier has been considered by New Age acolytes to be one of the seven energy wells on the earth. The mysterious peninsula is populated by trolls and the hidden people, and West Iceland is Sagaland; a place of stories and legends.

Figure 5. *Berserkjahraun I*

Before this visit to Iceland, I day dreamed about discovering a landscape quite unlike anything that I had ever seen before: a field of tall structures into which one could walk and be completely enveloped; a landscape which enfolded those who entered it and refused to allow itself to be surveyed. On the Route 54 from Helgafell to Grundarfjörður there is such a place: Berserkjahraun, the Berserker lava field.

The lava field (hraun) takes its name from the Norse warriors *(berserkr)* who cleared a path through it. The chieftain who ordered the path to be made later ordered their deaths when one of the warriors fell in love with his daughter. He was fearful of the berserkr's violent reputation, their strength and ability to overcome pain and to continue to fight with frenzied fury. Indeed the word berserk comes to English directly from the Icelandic for *berserkr,* from bear coat, or perhaps bare, as in without armour (Onions, 1978: 90). The old road cleared through the lava by the *berserkrs* is reputedly still visible along with the piles of lava rock which mark the graves of the murdered warriors.

Stepping off the steep, gravelly fringe which bordered the tarmac road, I entered a quiet and strange place. Once molten lava thrown upwards and petrified approximately 4,000 years ago stood in enormous waves and pillars. Although seemingly barren from a distance, the lava field was partially overlain with muted foliage, moss, grey epiphytes and small flowering plants. It was springy underfoot; the moss grew over the gaps and crevices in the field, obscuring them from view. Kneeling down, it became apparent just how much water the moss can hold; occasionally, walking disturbs the thick layer to reveal deep, dark crevices: a hidden landscape. Above the moss, many of the rocks are covered with beautiful lichens which pigment their surfaces like blooms of watercolour paint disseminating in a film of fluid.

The field, once moving, is now stilled but all of the tension of movement remains evident. Although solidified, the lava field is a reminder of the geological processes which are responsible for the landscape formation of Iceland; a fluid landscape which is subject to continual change. The vast, arrested flow of the *Berserkr* lava field is rippled and ruptured; a fissured and folded landscape, which lies hidden below its upper surface.

Berserkjahraun is a special kind of landscape, one which resists any sense that the onlooker can posses it. The vista does not passively unfold but is continually disrupted in a chaotic folding and unfolding of peaks and troughs. The lava field immediately evokes Gilles Deleuze's 'pleats of matter' (2013) encouraging us to think of it in terms of the labyrinth.

> *A labyrinth is said, etymologically, to be multiple because it contains many folds. The multiple is not only that which has many parts but also what is folded in many ways.* (Deleuze, 2013: 3)

Thinking the *Beserkjahraun* as a labyrinth enables us to consider this landscape as multiplicity, an infinitely folded field which interpellated the subject in its creases. In its molten state a lava flow bends and cascades in accordance with and against its surroundings, leaving behind a field of pleated matter. The surface of the *Beserkjahraun* is rippled and ruptured; striagraphic time is interrupted by the overflow of lava, surface on surface, new on old, geological time inverted. What is left over is infinite: 'folding, unfolding, refolding' (Deleuze, 2013: 158) creased, invaginated and fissured, an example of 'the possibility of infinity to be thought within the restricted limits of our habitat.' (Conley, 2013: xvii) The matter of the lava field offers these possibilities for thought more immediately given its extraordinary nature, however, we should be clear that Deleuze's exposition of Leibniz follows for *all* matter, organic or inorganic:

Figure 6. *Berserkjahraun II*

> *Matter thus offers an infinitely porous, spongy or cavernous texture without emptiness, caverns endlessly contained in other caverns: no matter how small, each body contains a world pierced with irregular passages. (Deleuze, 2013: 5)*

Figure 7. *Berserkjahraun III*

Berserkjahraun is porous and cavernous, vortices are frozen within vortices (Deleuze, 2013: 5) it is infinite, yet measurable; each piece of lava a world folded into another world, its body perforated with tiny vesicles.

In the *Berserkjahraun,* angular waves of suspended flows close in, there are strange shifts of scale: everywhere difference. The field resists being logically mapped and experienced: it is easy to become disorientated. This place asks us to rethink our ordinary experience of overlooking the landscape. In terms of Deleuze's writing on the fold, we might think of this as a *'Baroque territory'* (Conley, 2013: xviii) a space which disrupts the schematic geography of the *'quincunx*, a two-dimensional system of gridding and squaring that places a center [sic] (the ego) at the intersection of the diagonals of a surrounding square.' (Conley, 2013: xviii) and supplants it with means of thinking the relation between subject and world as one in which the

> *subject swirls in the midst of forces…that defines the individual body, its elasticity, and its bending motions in volumes that produce embryonic movement in and out of extension. The subject lives and reinacts its own embryonic development as a play of folds…By way of Leibniz's critique of Cartesian space the author pleads for tact of body and environment.* (Conley, 2013: xviii-xix)

The body world relation is therefore one which is characterised by flow and tension, the body defined in terms of flex and bend, what John Wylie describes as the subject being 'for-the-world rather than in-the-world' (2006: 531). The subject in becoming is 'for-the-world,' folded within it:

Relations between selves and landscapes are motile relations, an incessant movement of enfolding and unfolding, openness and enclosing, in which the two implicate (fold with) and include each other. (Wylie, 2006: 531)

The body is a site which travels through the world constantly being enfolded within the landscape. For Jacques Derrida, 'the body is…an experience in the most unstable [*voyageur*] sense of the term; it is an experience of frames, of dehiscence, of dislocations.' (1994: 15) Therefore, bodily experience is inherently unstable, a fluid experience of being open to the world. The embodied 'I' is a fractured, dislocated voyager in a changing world, interpellated in multiplicity; an ever changing, elusive subjectivity that never settles, that cannot be fully known, perhaps not even by the occupant of the body itself. Therefore, it has become apparent to me that the 'I' that practices and writes is necessarily unsettled, speculative and contingent. It is an 'I' which, as we shall see in due course, emerges from the world, born of exteriority. The world does not emerge from me (i.e. in Kantian terms), on the contrary, it is I who emerges from the world. Stepping onto the *Berserkjahraun* 'I' was enfolded within this strange and enchanting place, as we shall see in due course, the lava field facilitated a unique nexus of becomings.

Approximately half way through *The Fold*, Deleuze discusses Alfred North Whitehead's question: What is an Event? (2013: 86-94) According to Steven Shaviro, Whitehead's interrogation of the event 'marks only the third time – after the Stoics and Leibniz – that events move to the centre of philosophical thought.' (2009: 17) He goes on to write that

> *Whitehead marks an important turning point in the history of philosophy because he affirms that, in fact, everything is an event. The world…is made of events, and nothing but events: happenings rather than things, verbs rather than nouns, processes rather than substances.* (Shaviro, 2009: 17)

Considered in Whitehead's terms, the *Berserkr* lava field is not simply the residue of an event, which has now passed. On the contrary, for Whitehead everything is an event, including things. The lava field is event: it is a happening of landscape, a place in process. Although we may find it easier to accept that a molten lava field is an event-landscape, fluid rock naturally moves and runs, for Whitehead, even solid things, like rocks, are themselves events.

He uses Cleopatra's Needle as an example to demonstrate that solid objects which are seemingly permanent can be considered to be *eventful*. As Steven Shaviro puts it:

> *Cleopatra's Needle isn't just a solid, impassive object upon which certain grand historical events – being sculpted, being moved – have occasionally supervened. Rather it is eventful at every moment. From second to second, even as it stands seemingly motionless, Cleopatra's Needle is actively happening. It never remains the same.* (2009:18)

Although the lava field is no longer moving, in Whitehead's terms, it nevertheless constitutes an event. At every moment there are biological and physical processes exerted upon it, it is not simply inert substance. It is, as in the case of Cleopatra's Needle, 'actively *happening*', which is significant insofar as it recasts our encounters with landscapes as dynamic rather than passive; an immersive togetherness, rather than a detached survey.

The lava field endures, therefore in Whitehead's terms should be considered to be a 'society' or an 'enduring object' (Shaviro, 2009: 18) and my encounter with it (I am also a society) an actual occasion, a nexus of becomings:

> *At the limit, an event may be just one particular occasion, a single incident of becoming. But more generally, it is a group of such incidents, a multiplicity of becomings: what Whitehead calls nexus.* (Shaviro, 2009: 18)

Whitehead seeks to flatten any sense of hierarchy whereby the perceiving human subject is privileged over other sentient and non-sentient beings. Everything feels as far as Whitehead is concerned and this feeling is called prehension. Human perception is one mode of prehension but it is by no means the only one and for Whitehead this entails that even inanimate objects prehend.

Contrary to the Kantian notion that the world emerges from the subject, Whitehead holds that 'the subject emerges from the world – a "superject" rather than a "subject" ' (Shaviro, 2009: 21). The perceiving subject is therefore interpellated in the folds of the world, emerging from the exteriority, not 'as an already-constituted subject, but rather something that constitutes me anew as a subject.' (Shaviro, 2009: 21) The experience of *Berserkjahraun* can therefore be characterised in Whitehead's terms as a nexus of becoming, a happening of landscape in which the subject emerges anew from the folds of the world.

> *This superject is the remnant that the occasion leaves behind. I am not an entity that projects forward to the world, or that phenomenologically "intends" the world, but rather one that is only born in the very course of its encounter with the world ("subject"), and that gets precipitated out of this encounter, like salt precipitated out of a solution ("superject").* (Shaviro, 2009: 21)

As Derrida points out, there is nothing simple about being 'a' person; personhood is inherently multiple. In these terms, the individual is never completely self-identical, there is an instability, a gap in which difference plays. Seen through the Deleuzian lens, this migratory self is an enfolding amongst folds, interpellated within the creases of the world: the artist subject in becoming is folded, unfolded and refolded. If we follow Derrida on this point, it is the

absent body of the artist which haunts the work by *implication*, that is to say, it is folded between the layers of the painting (1994:15). I would argue that the same may be said of the photographer, that they are nestled amidst the deposits on the silvered surface of the photographic image.

Interestingly, Whitehead's thought allows us to consider the possibility that the camera and its resulting images prehend, and are prehended by the world. Although anthropomorphic in its design and construction (modelled to an extent on the human eye), the camera has its own prehensive schema. While it seemingly affirms our own understanding of 'reality,' the camera does prehend in ways which diverge from human perception, offering up images generated in partnership with its operator. Therefore the camera, the lava field and I engage in a relation characterised as a nexus which is 'a particular fact of togetherness among actual entites' (Whitehead 1929/1978 cited in Shaviro, 2009: 18). The artist body voyaging on the surface of the world is folded amongst the pleats of matter, prehending the world, a subject swirling in a mass of folds and vortices: matter moving, changing: at every moment anew. The walk on the *Berserkjahraun* an occasion, the subject emerges from the world, the superject is a distillation, a remainder; the residue of the occasion. The artist is the superject of the occasion: I begin to wonder then, are we to think of photographs as the documents of perished occasions, images which prehend us?

Although it is legitimate to frame the field work undertaken in Iceland in terms of touristic practice, the event-encounters in the Icelandic landscape occasioned novel experiences which prompted alternate ways of thinking about landscape/protagonist relations, the role of the artist and the generative disjuncture of bodily experience. On reflection, there were three significant moments in the landscape: a glimpse of the night-lit greenhouse in Hveragarði; a brief bodily encounter with a steam laden pipe; and a period spent waiting for intermittent sun in the Berserkr lava field. On all three occasions the affective encounters with landscape actively 'forced me to thought' (O'Sullivan, 2007: 2). These moments in the landscape transformed my thinking and in turn have informed the shape and content of the writing, along with the

images which accompany it. The nightstrange glasshouses of Hveragarði elicited a strange response which I was prompted to think of in terms of Brady's 'difficult aesthetic experiences' (2010: 125). The perplexing experience of sitting on the high density polyethylene pipe, guided once again by Brady, can be described as a contemporary bodily experience of the sublime. The extreme otherness of Iceland's living landscape actively challenged me to rethink my relation to landscape, shifting my thought towards landscape as process out of which the subject emerges. I think of landscape experiences as flex and bend, I am 'for-the-world rather than in-the-world' (Wylie, 2006: 531). Following Deleuze and Whitehead I have begun to think about landscape as event rather than thing, happening rather than view; landscape as an eventful encounter between camera, artist and place. The photographs which appear within the text can be thought of as eventful objects, the sediment of these happenings in and of landscape which have forced me to thought. They are both the residue of the occasion and the products of research insofar as they, in turn, offer the occasion for new events.

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Birch Bark –

SUSTAINABLE MATERIAL IN AN AUTHENTIC OUTDOOR CLASSROOM

Introduction

In this article we present a phenomenological case study on the development, implementation and evaluation of the interdisciplinary *Birch Bark Project* with students from elementary school teachers education in Norway. The main tasks for the students were to gain knowledge of the material birch bark and to make a birch-bark container with the birch forest as both resource and outdoor classroom. By analysing the students blogs and products, and using the research teams' observations, we sought to understand the learning potential which lies in an outdoor classroom and the students experiences, learning in a holistic and authentic context. The results show that the combination of knowledge from the natural science and arts and crafts disciplines, gives a variety of new opportunities for recognition by providing a holistic approach to a phenomenon in the real concrete world. Indeed "place" and nearness to the birch forest help to provide students with an experience of being part of a holistic process, where they can easily reflect on connections in ecosystems and what lies in the concept of sustainability. Students are left with rich sensory experiences; bodily and emotional impressions that have helped to give them a better understanding of natural phenomena and a deeper understanding of how they are connected with nature.

Keyword: birch bark, sustainability, site specific learning, experience based learning, aestethic learning, outdoor classroom

Birch Bark –Tradition, Materiality and Making

Birch is considered to be the most Nordic deciduous tree and since the end of the last Ice Age 10,000 years ago, it has been the most important tree for the peoples of the Arctic region. In this area, human cultural history and crafting traditions are strongly linked to the tree since all parts of the tree can be used to create what is necessary to survive (Stigsdotter & Hertzberg 2013).

The outer birch bark is a renewable and sustainable resource and has been used for many purposes since prehistoric times (Myran n.d., Spindler, 1996). If

harvested carefully, without damage to the cambium (the barks growth layer), the tree will not perish. Birch bark has many qualities and it is long been known that it is moisture resistant and possesses antiseptic qualities. Birch bark cells contain a fatty, waxy acid called suberin, making it flexible, waterproof, and resistant to moderate acids and oils. These characteristics make birch bark an excellent material for roofing, shelters and boat shells. It also contains betulinol and xylitol, antiseptic and resistant to microorganisms. The latter quality is extremely useful for storing food and other perishable products. As a medical antiseptic it has been used to treat sore throats, frostbite, abrasion, and cuts to the skin.

Over the centuries, birch bark arts and crafts have developed and thrived wherever birch was found. Birch bark consists of many thin layers that can be separated from each other. It is soft and smooth and does not require much preparation. Norwegians traditionally used whole birch bark flakes, which were bent or sewn into a cylinder wherein the bottom and lid were often made of wood. In 1600, the Finnish immigrants brought the weaving technique to Norway. This technique gave more opportunities and greater freedom of design for various artefacts. Birch bark weaving uses long narrow strips that are woven together in four layers. This provides sturdy and durable products (Yarish, Hoppe & Widess 2009). In Norway, most of these items have been replaced by plastic from the petroleum industry. A great danger now faces us that too much knowledge of this last generation of birch bark artisans will disappear and thereby an important part of our cultural identity. As a countermovement this teacher education project focuses on making a container of birch bark by using traditional handicraft, where discussions on sustainable materials and teaching about sustainable development are naturally involved.

Arts and Handicrafts and Natural Science in Teaching

Science and art are often considered opposites despite the fact that both disciplines relate to nature and the empirical (Jolly, Slåttli & Boeckel, 2011) and have been closely linked to one another throughout history. Nature's aesthetics

have been widely used as a motif in art while drawing was a fundamental discipline in scientific research in biology and anatomy. In anatomical studies, researchers have not only drawn to reproduce, but to understand and comprehend functional contexts. The same applies to industrial designs where one follows a process from idea to product, with many different phases using tools such as drawing.

Similarly, traditional handwork is closely related to both art and science. Handwork is similar to natural science concerning the knowledge of physical and chemical properties of various natural materials. One needs to consider, for example, the drying processes of wood, estimating the material's technical value by touching it and then considering whether the material is "viable" in relation to what should be done. The craftsman thus has an aesthetic approach to natural science. All senses are activated - one senses natural science. It is not possible in such settings to distinguish between disciplines when intersections are numerous and complex.

In this light, it is difficult to understand why arts and crafts and natural science in schools and educational institutions are perceived as two areas that traditionally have little in common. It is not often that one meets teachers with skills in both science and arts and crafts (Østergaard 2013). This situation is probably due to the traditions of knowledge in Western culture where the two subjects are marked by their extremes. Natural science knowledge is keen to "know that" it is inductive, abstract, general and inter-subjective. Arts and crafts as a subject is based on practical actions and to develop knowledge of "know how". Knowledge to be established is specific, subjective, intuitive, grounded in feeling and connected to specific bodily sensations and aesthetic experiences. By combining these two forms of knowledge from the natural science and arts and crafts disciplines in the classroom, a variety of new opportunities for recognition are established by providing a holistic approach to a phenomenon in the real concrete world (Østergaard 2013). The subjects can mutually enrich each other and help give students positive and meaningful experiences in nature (Jolly, Slåttli & Boeckel 2011). An example of this is Nesna University College's (NUC) interdisciplinary project *The Abominable Snowman*, in which

subjects met in the material snow (Sørmo, Stoll & Gårdvik 2013).

According to Mantere (1992), a genuine understanding of nature and motivation to act in a sustainable manner is based primarily on positive and meaningful experiences related to aesthetic experiences. Similarly, the Finnish art educator Timo Jokela has worked with environmental art to create a heightened sensitivity to nature. He says:

> *"The way I experience space and time and my interaction with nature ….found their counterparts in the meditative and holistic sensitivity to the landscape found in Zen art. The coordination of body and mind, and the aesthetics and the essence of moving around in a landscape, began to coalesce into artistic activity"* (Jokela 2008).

Maiteny (2009) argues that learning the joy of what we have enough of and that does not consume resources is an important expertise within sustainable development. The natural outdoors is an important arena for developing positive attitudes toward nature and the environment (Littledyke 2008). By using both nature and society as an arena for learning, students will gain a greater opportunity to see the curriculum in a larger context (Grounded 2007).

The three didactic dimensions that are used in traditional teaching, "Why?", "What?" and "How?" is supplemented with a 4th dimension, "Where?" When learning takes advantage of a unique learning arena a comprehensive learning situation is created where learning occurs during the interplay between experience and reflection from concrete experiences in authentic environments (Dewey 1958, Gårdvik 2011, Szcepanski 2009).

With this background, we will present the development, implementation and evaluation of the *Birch Bark Project* with students from elementary school teachers' education from NUC. This interdisciplinary teaching project has a holistic approach to birch and birch bark as a sustainable material in the arctic crafts tradition, where the students main task is to make a birch bark container. The main focus is to create an opportunity for the student's overall learning in an authentic context.

The following problems are discussed:

- *What learning potential lies in the Birch Bark Project where Arts and Crafts and Natural Science meet?*
- *How do students experience learning in a holistic and authentic setting?*

Methods

Research Methodological Considerations

This study is a type of intervention research, which aims to change the current practice in schools. The method is described in Halvorsen (2007). It is also a phenomenological case study, with a storyline bounded in time and space where the project is implemented. Case studies are inherently contextual and our observations and analyses will only be applicable in that context. We therefore wish to elucidate the phenomenon thoroughly and reach an authentic understanding of students' experiences in accordance with Silvermann (1993) who prefers authenticity in phenomenological research rather than reliability. In this way, others can make assumptions about the data and put themselves into the situation. We have chosen to focus on our own observations and the students' narratives from blogs and descriptions of their finished birch bark products to illuminate the research question. Students wrote a blog throughout the project where they described their experiences and contemplated both their own learning and teaching. The blogs were published on NUC's homepage.

Discussion takes place on the basis of a thematic division of our observations, students' experiences from the blogs and product descriptions, and we are careful to draw universal conclusions, but think that naturalistic generalisation can be used.

Background, Framework and Development

The project was a collaboration between college teachers at the Department of Education, Division of Natural Science and Art and Crafts based on the educational profile: site-specific, diversified, active and healthy learning. The project is connected to the concept of outdoor learning (Jordet, 2010) and experience based learning in light of the social constructivist and socio-cultural perspective of learning (Dewey 1916/1966, Vygotsky 2001, Wittek 2004).

The project was a 2.5 day assignment that took place in September of 2013. The participants were second year teacher education students. The student groups consisted of 16 students who had little or no arts and crafts and/or natural science background. Three teachers/project managers were present with their own academic responsibilities, but we participated in all sub-projects and both participated and observed.

Project Goals

The educational objective of the project was to provide students with knowledge and understanding while interacting with groups, materials and location to support the NUC profile including active, health promoting and location based learning (Høgskolen i Nesna, 2011). Learning objectives in the subjects of arts and crafts and science are related to the topic of the use of sustainable materials, specifically here, the use of birch and birch bark. There was focus on traditional crafts in a cultural setting, plant physiology, physics and microbiology. The objective was also to encourage students to use multidisciplinary approaches, to promote motor skills and physical activity, to establish practical skills (use of tools, dressing under different weather conditions, lighting a fire and cooking outdoors) and to provide the students with experience and tools in order to teach outdoors.

Context

In the Birch Bark Project, the choice of location had great importance in order to create authenticity in a holistic setting that would form the basis for contextual learning. This is in accordance with Dewey's theory of expe-

riential and aesthetic learning (Dewey 1958). The project was located on the retired farm called "Neverlia" (Norwegian for "birch bark mountainside") in Northern Norway. It lies in a valley that has a rich birch forest and is accessible by pathway, 5 km from the main road and sea.

The farm was built by Mons Neverli in 1614 and the name of the farm and surrounding area tells us that the area was long ago closely related to birch bark harvesting, its use in traditional handicrafts and the sale of the raw material. Historically, the farm cultivated corn, built boats and made cheese and butter. Farming ceased in 1956 and project participants were taken back 60 years in time and lived in a time bubble amongst buildings, interiors and tools belonging to the past.

In preparation for the project, we project managers went to Neverlia in early summer 2013 to assess the place and take birch bark samples. We also saw that the farmyard on Neverlia would work well as a makeshift workshop for our students.

The farm consists of an enclosed barn and the main house (Figure 1) with a large grass area in the middle. The owner of the farm has made a seating area with flat timber on stones around a larger stone used as a table. The yard has plenty of room to set up a table with space for tools and materials. There was also enough space for the students to be able to settle on the grassy plain to work. The students could overnight in the main house during the project period.

Results and Discussion

The Place

It's early September, the weather is nice if a bit chilly at night and the ground is damp. We have 16 students in place and start by giving some practical information about the farm, its amenities and its history.

A place is something that ties a group together and gives them a common identity and lays the foundation for a community or communities. It is

Figure 1. *The Location Neverlia. Photo: Karin Stoll*

precisely it's condition that allows it to play this role (Nordberg-Schulz 1992). When the students write about the place Neverlia, they mention the forest and the experiences they had there with birch bark cutting and harvesting more than the farm itself.

"We walked a few meters into Neverlias deciduous forest" (Group EKRS).

The Material

Harvesting. Students were given a folder with the project description, tasks and subject matter on birch bark and its use in traditional and folk medicine recipes as well as how to create products from birch bark, how to light fires and info about the calorific value of different types of wood.

We start by dividing the students into groups and put them to work tracking birch bark, estimating the height and age of a birch tree, cutting the tree down, chopping it up into firewood, estimating its weight and calculating the calorific value of the wood. Students are given a saw, axe and knife and go out into the forest. Some students find out that they should have chosen other shoes than sneakers, as it is rather wet grass and heather in the forest. They have received a written description of how birch bark should be tracked down, but they will learn that it is difficult in September. Many people also need guidance on how to use the knife as to not damage the birch tree transport fibre located just below the bark. The task would be much easier in the early summer when the sap has risen up in the tree, and the students were informed of this (Figure 2).

From the blog:

> "*We got to harvest birch bark, a material that in it's own tall glory has its place in the North Norwegian fauna, with no other processing than favourable growing conditions. Birch presents no environmental challenges as it offers itself tirelessly of its own necessity in a sustainable ecosystem.*" "*We received central guidance for this ability during the actual process, and the specific work contributed to the experiences we will need later*" (Group AVJSS).

A major aspect of technique in crafting involves the hands ability to carry out certain operations based on technical knowledge of material and mastery of manual motor skills. But more than this, it is in the process of the hands carrying out technique that the craft object is formed and comes into being (Risatti 2007). The students were given the opportunity to try out birch bark

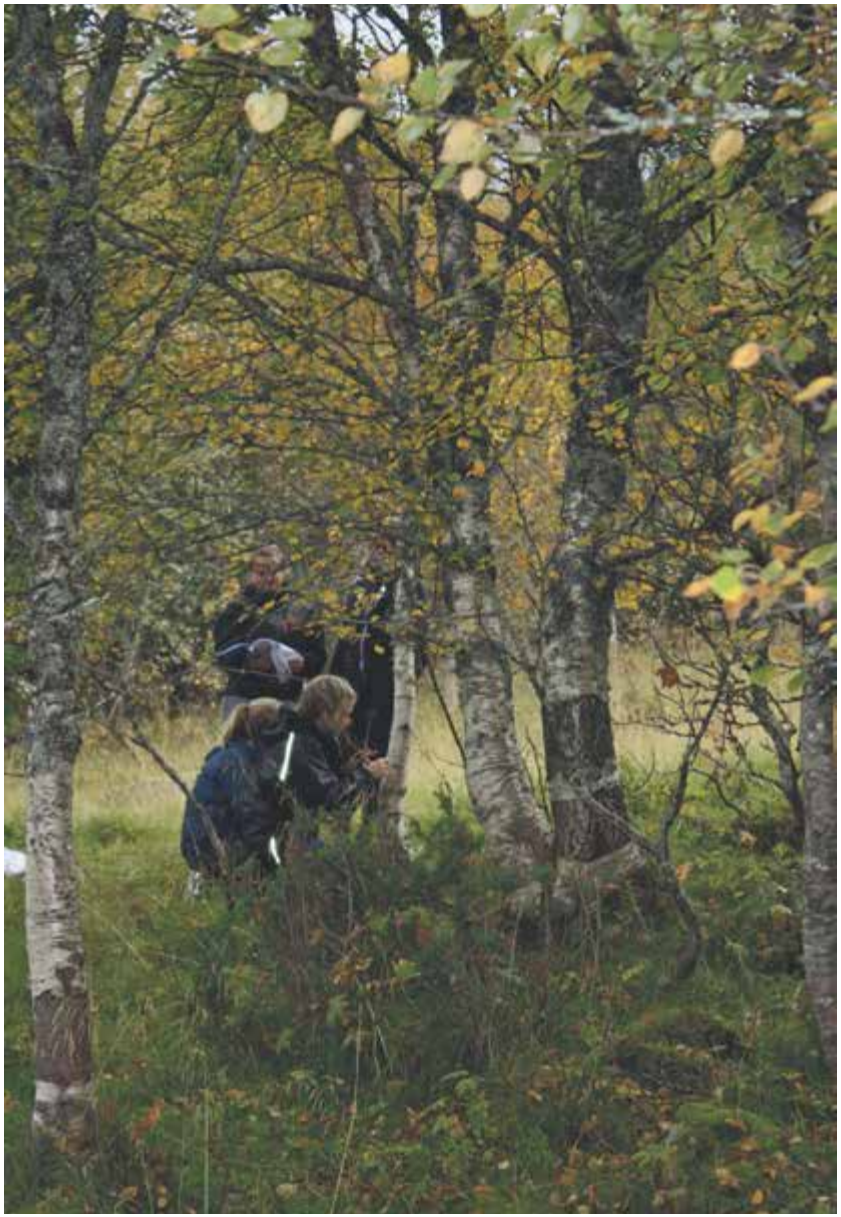

Figure 2.
While harvesting the birch-bark, the students must use both their eyes and fingertips to see and feel that they do not cut too deeply into the trunk, and it was important that all students were able to do this. Photo: Karin Stoll

gathering themselves and they appreciated learning how to do it the right way without damaging the tree. It was evident that the students were engaged by this task, and they cooperated and discussed in order to arrive at the correct way to solve this task while they in addition sought support and confirmation from us instructors.

Exploration. To estimate the height of the tree the students use sticks that are about as long as their arm. This method is embodied in the laws of mathematics about isosceles triangles. When the tree is to be felled some use a saw while others prefer to swing an axe. Those who used the axe find later that it is difficult to count tree rings to date the tree, and that they must cut the stump again afterwards to get a nice cut surface to find the correct age. In this phase all the students do practical work, and they discuss among themselves, experience through trial and error how to best to solve the tasks. The trees are pruned using an axe and saw and students carry the stems back to the farm. Some have felled such a large tree that they have to split it up on site and divide the pieces among the members of the group. Back on the farm they use a sawhorse and chopping block or find alternative sawhorses in nature and transform the tree to firewood. They experience that woodcutting is physically demanding work and many have to remove their jacket, but they are good at taking turns so they can rest a little. We are lacking a scale but use a kilo of sugar as a reference and estimate the weight, moisture content and then calculate the calorific value of the logs based on known formulas. Several of the students inform us that they are not familiar with energy concepts and denominations, so we take time to talk about the daily energy requirement for an adult to explain the energy content of one kilogram of dry birch wood and the how energy is stored chemically in the form of bonds between atoms and molecules.

After the woodcutting, students work on a research sub task that is to examine birch bark's antibacterial properties using the scientific method. Petri dishes are felt out with nutrient agar where they can grow bacteria with and without the influence of the birch bark. They must formulate a hypothesis, design and run the experiment, run the experiment, observe the results that will be discussed then consider whether the hypothesis they had made in

advance was true or whether it had to be rejected. Students will then write a small report. They will work in groups on this research. Petri dishes containing microorganisms, with and without birch bark, must be in a temperate place overnight (preferably 24 hours) so that the microorganisms are given time to grow and form colonies on the plates, which can then be counted and compared. The challenge is to find a way to keep the dishes in a temperate place overnight when it is only 4 - 5C° outside. We solve this by heating water, pouring the water in a bottle, dressing the bottle in a woollen sock and placing the bottle and all the dishes in a bucket with a tight lid and putting a blanket over the bucket. All groups had good bacteria growth and the results indicated that the birch bark hindered the growth of bacteria.

> *"Being able to create wonder among students will be futile if one has never had occasion to wonder himself"* (Group AVJSS about research sub task).

The researcher sub task was given to the students in order to gain knowledge of the scientific method and to experience wonder about something. The subjects of art and craft and science meet during this process as the students feel they gain a deeper understanding of the material they will use in the artistic process. In this way, the students are in a dialogue with nature in order to establish a creative understanding the interaction of material and place (Gårdvik 2011). This is also in line with Goldsworthy (2004) who states that *"We need to shake hands with the material two fully understand it"* and Østergaard (2011) who highlights the holistic approach to a phenomenon when science and arts and crafts meet. We see that the subjects in this way enrich each other and help to provide students with meaningful experiences in nature, as described in Jolly, Slåttli & Boeckel (2011) and Sørmo, Stoll & Gårdvik (2013).

The Creative Work

The process. Day 2 starts with the practical creative task of making a container from birch bark. The birch bark has been harvested from the same area in early summer and has been stored airy, but in a press throughout the sum-

mer. Students could choose to create bent containers of whole flakes or cut long strips of birch bark, which they then weaved into cans or trivets.

Hand tools such as whittling knives, rasps, chisels, coping saws and clamps are taken out. Before use, the birch bark must be cleaned so that the desired thickness and evenness of the flakes is achieved. This process is time consuming and you have to be careful not make holes in the birch bark. We use knives and chisels for this job. Accuracy and prudent use of tools are key words. Students are instructed and guided in how to use a whittling knife, chisel and rasp to clean birch bark. We sit outside and work at stations on benches made of stumps and planks. (Figure 3). They set themselves to work on the wooden benches and on the grass, some working alone and some together. They animatedly discuss what to make, how thick the birch bark flakes must be and how to put them together into a cylinder.

The students highlight the experiences of the working process; some also bring their own emotions associated with having created a useable object made of birch bark. The majority cover only the finished products and the

Figure 3. *Students eagerly get started by looking for appropriate birch bark flakes for their boxes, pick up knives or chisels and start cleaning away imperfections and remove the outer birch bark layer. Photo: Karin Stoll*

applications they are suitable for:

> *"It's the first time I've made such a box, and I find it kind of fun to see how it's made. The box is far from perfect and has some "beauty imperfections"; ... anyway, I made it all by myself and think it was fun with a first try! Maybe there will more boxes later"* (Sigrid).

The instructions on how to weave a basket and how the birch bark box should be formed was a little hard to understand, so students have a constant need for guidance from the instructor. They also look and learn from each other, discuss different approaches, look at the instructions, try and fail and do things over again.

> "*We received a review of techniques, as well as a booklet with the procedures. We started by cleaning the birch bark, then had to measure and cut out holes for the joints, possibly creating strips if one were to weave.*" (Group ASN).

Students found that the process of cleaning birch bark, calculating, measuring and cutting out holes for the joints, or creating strips for those who would weave baskets took time. They work socially where opinions, actions, trials and ways of doing things were eagerly discussed and tested. Traditionally, the crafting trade is past on from generation to generation, and one might say that all crafts are traditional as they are based on a practical knowledge transfer. Practical knowledge transfer is passed on again through imitation and patient trial and error in order to achieve ever greater mastery;

> *"It applies to both the elementary and advanced techniques, both material knowledge, equipment handling and aesthetics ... such knowledge is of no use until they are rooted in a practice, and practice must be trained from zero each time a new person comes into the world …"* (Tin, 2011, 12-13).

The social learning, which took place in the yard, triggered many informal conversations and practical experiences of engineering, craftsmanship and materials; "*Evy's got it!*", on folding corners in a wicker basket (Figure 4).

Figure 4.
Weaving a Basket.
Photo: Karin Stoll

"*Where are the good scissors?*", "*It's not so important how it looks, it's just to understand the technique or principle.*" "*What time is it? - We no longer relate to time.*" A discussion arose about education and whether they would like to take a primary school class out on a similar excursion; "*Yes, 6-7 kids.*" Dewey believed that experiments and practical actions become aesthetic experiences only when they are put into a meaningful context and personalised, according to Løvlie (2013). Our observations and students' statements indicate that the students experienced this setting as particularly meaningful learning.

In addition, we talk about birch bark versus plastic products, birch bark roofing versus steel roofing and their prospective lifespan, sustainability and

resource utilisation, grazing animals and landscapes, tradition, culture and history, past and present energy, hydropower and frugality. The usage of tools, sharpening of knifes, whittling techniques, various wood material properties, various grinding tools, the use of a jigsaw, cutting out of the bottom and lid, fitting and fastening the bottom and lid to the box, the design of the handle, and "final finish" of the product, are all topics that are being discussed, tested, explained and demonstrated during the working session.

(Figure 5). Students must calculate the shape of the box and measure up the holes for the joint where the outer birch bark flake will be. After the boxes have been in the press, students had to loosen them and make the bottom and lid. They gain experience with drawing patterns for the bottom and lid and cut out shapes with a coping saw. They are then instructed on how to attach the workpiece to the table with clamps and how to cut, holding the saw perpendicular to the object. Students who choose to wicker baskets with birch bark strips must also determine the shape of the container and use clothespins to hold the strips together.

Several struggled to convert the two-dimensional instructions for joining from a drawn and written explanation into a three-dimensional birch bark flake. Students who chose to make strips also struggled to understand the transition between an illustrated and written description of the practical design of the three-dimensional container, i.e. the link between the two-and three-dimensional form.

Students who chose to try things out on their own without guidance got

Figure 5. *After cleaning the birch bark, the students must make two bodies, one of which must be inside the other and pressed together with glue inbetween, so that one inserts three wedges to press out the oval shape of the box. Photo: Mette Gårdvik*

Figure 6. *Cutting the lid with a coping saw is simple, but requires that one has been given few simple tips on technique before starting.*
Photo: Karin Stoll

to experience how easy it is to crack a blade and how hard it is to cut when the proper technique is not in place. (Figure 6).

"Being a craftsman requires that the apprentice, during his long apprenticeship, acquire the dearly bought experience that previous generations have harvested" (Tin 2011, 12).

Jordet (2010) writes that, "*We learn not only through the mind but through the whole body*", and in this process the students are using both body and mind to create their products. The students are participants in a social and aesthetic process. Learning is a natural sociocultural process that gradually changes both the participants' identity and the surrounding environment. Access to an environment with other participants, experts and artefacts is the key to learning through participation (Lave & Wenger 1991).

The Products. Students are clearly proud that they have managed to create a product from birch bark and connect this with sustainable material and cultural identity (Figures 7, 8). Several also see the benefit of having learned the technique for future use in their own teaching. This is in line with one of the main goals in the Norwegian primary school curricula: "*The goal of education is two widen the ability of recognition and experience empathy, expression and participation*" (LK 06; UD 2010).

Figure 7.
The Wicker Basket.
Photo: Karin Stoll

Figure 8.
Birch-Bark Boxes.
Photo: Mette Gårdvik

"It's a piece of handicraft that can be used for a simple sugar cup. Especially because it can keep foods due to birch's antibacterial properties. I'm thinking of trying a larger one for other foods such as coffee or macaroni, etc. It is interesting to see that the school has access to materials in the forest that are actually organic and cheap" (Nikolai).

Holistic Experiences – Student Evaluations

In all of the students' blogs, we find statements that say something about how they felt being a part of the project.

"The project is great because we follow the whole process from birch bark to final product. We get a holistic experience and can work outdoors" (Group ASN).

"Location-based learning with a focus on sustainability, rooted in the disciplines of arts and crafts and science, will be an excellent starting point for a broad inclusive learning platform. Teaching gets a holistic framework, both body and mind become an integral part of your training objective" "We gained experience through our own senses, and so the opportunity for deeper reflection as the learning object was a breaths length away. Birch was in front of us, as a tangible object" (Group AVJSS).

Conclusion

It appears that we have reached the students with this project. We can point to Dewey's philosophical views: "*... that experience begins in situations where body and mind are engaged in problem-solving activities in a broad sense: theo-*

retical, social and artistic" (Løvlie 2013). Løvlie calls Dewey a holistic or global thinker, who was also interested in the place where the child and the teacher are exploring the world *together*. The *Birch Bark Project* shows that indeed "place" and nearness to the birch forests helps to provide students an experience of being part of a holistic process, where they can easily reflect on connections in ecosystems and what lies in the concept of sustainability. Students are left with holistic and rich sensory experiences; bodily and emotional impressions that have helped to give them a better understanding of natural phenomena and a deeper understanding of how they are connected with nature. Contact with the real world is a prerequisite for learning about sustainability according to Østergaard (2013). In a learning perspective, the whole is more than the sum of its parts.

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Trading Routes: The Intersection of Art Practices and Place

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Art and Engagement with the Cold War in Shetland

Roxane Permar and Susan Timmins live and work in Shetland. Their interest in the Cold War stems from the fact that they were born during the Cold War which overshadowed their lives until they were in their late thirties. Collaboration plays an important role in each of their practices. Previously they collaborated on The Nuclear Roadshow (Shetland,1990) and the participatory project, Domestic Dialogues (Shetland & Russia, 2007). Both artists work in a variety of media. Permar uses textiles, film and social exchange to realise public projects and sculptural installations, including Mirrie Dancers (2009-2012), a major collaboration with London-based artist Nayan Kulkarni for a project using light in Shetland. Timmins focusses on photography, sound and moving image. She realised the performance and installation, Inch by Inch (2013). She founded The Claesline Gallery in 2006 at her home in Shetland. Both artists work in the UK and internationally.

Northern Places – Tracking the Fenno-Ugrain Traces through Place-Specific Art and Photography

Mirja Hiltunen (Doctor of Art, M.Ed.) is a professor of Art Education at the University of Lapland, Faculty of Art and Design (mirja.hiltunen@ulapland.fi). She has elaborated a performative art strategy as part of her work in art teacher education and guided several community-based projects in Lapland. Her research focuses on community based art education in northern socio-cultural environments. The site-specificity and social dimensions of art are of particular interest to her and she has published numerous articles on the topic.

Irina V. Zemtsova, (Ph.D., Professor) is the Head of the Department of Arts and Crafts, The Institute of Culture and Art, Syktyvkar State University (zemtsova56@mail.ru). She is a member of the Komi Republican Union of Artists the Board of Artistic Experts in the Government of the Komi Republic. Her professional interests include folk arts and crafts of native northerners, folk toys, wood painting of the northern regions as well as methods of teaching folk arts and crafts. She is also interested in cross-cultural comparisons and cultural anthropology.

Participatory virtues in art education for sustainability

Dr. Allyson Macdonald (allyson@hi.is) was born and raised in South Africa where she completed degree in physics. She completed her graduate studies in science education at Oregon State University. She has lived in Iceland since 1983 where she has worked as teacher, researcher educational developer and adviser. She lived from 1992–1996 in Malawi where she worked as an educational developer. From1998 she worked at the Iceland University of Education as the director of the Research Centre and since 2001 as a professor at the University of Iceland, School of Education.

Ásthildur Jónsdóttir (astajons@lhi.is) is an assistant professor at the Iceland Academy of the Arts. Her research interests include arts and cultural movements that support sustainable development and Education for Sustainability at all levels, within both formal and informal contexts. She has developed curricula and taught in public and private schools in both lower and upper secondary level and collages, in community centers, with people of all ages and backgrounds both in Iceland, Geneva and New York.

Designing Arctic Products and Services

Satu Miettinen (Doctor of Arts) works as a Professor of Applied Art and Design at the University of Lapland, Department of Industrial Design. For several years, she has been studying and developing service design and social design practice in multiple projects. She is actively working in writing and editing service design research literature and is involved in the area of social design and design policy work. Her experience and skills include the management and co-ordination of design research and development projects.

Laura Laivamaa (Master of Arts) works as a Coordinator Assistant at the University of Lapland, Department of Industrial Design. Her background is in industrial design, but she is also completing her second master's thesis in the Interior and Textile Design Department at the University of Lapland. She is interested in combining both actual design work and research related to topics of the arctic region.

Mira Alhonsuo (Master of Arts) works as a Research Assistant in multiple service design projects at the University of Lapland. She recently completed her master's thesis, which focused on the use of service design methods in the field of healthcare, specifically in a hospital emergency polyclinic. Her research interests include service design methods, process visualization, and the collaborative development of public services, especially in the healthcare sector, through service design.

Encounters with Iceland's eventful landscape: a series of photographic occasions

Gina Wall is a practising photographer with an interest in photography, writing and difference. Her current research is concerned with landscape photography and spectrality, interdisciplinary practice and learning as dialogical encounter. Her teaching responsibilities include Photography, Theory and Practice, Honours Dissertation and PhD supervision. Gina is involved in a number of research networks and acts as Convenor for Between Places, a Visual Art Research group led by the University of the Highlands and Islands. In addition, Gina oversees the curriculum at Moray School of Art, part of the University of the Highlands and Islands which is Scotland's newest university. Research group, Nesna University College's teacher education program.

Birch Bark – Sustainable Material in an Authentic Outdoor Classroom

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