



Wool Innovation - Punch Needle Embroidery

Participatory Art-Workshop Incorporated with Arctic Region's Sustainability
and Tourism.

Master's Thesis

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Abstract

This master's thesis aims to explore the revitalization of Arctic wool production within small stakeholders through wool innovation, a particular embroidery technique named the “**Punch Needle,**” which will contribute to the engagement of tourists who visit Lapland year-round. To support this study, there is collaboration with the University of Lapland as an artistic partner under the project “Villalno,” which is Wool Innovation; the European Union as a financial partner; and Hulluporo-Tonttula as a project execution partner. The study has several purposes. The most prominent one is to demonstrate how sustainable wool innovation can be impactful to revitalizing local wool production and contribute to the **Lapland Tourism** sector artistically. The study elaborately discussed the existing literature review to have an impactful understanding of the subject, and at the same time, it explained how the project was conducted to get the outcome of the study. To do this research, art-based action research was chosen, which focuses on the practical and theoretical practices alongside the qualitative research approach to prepare documentation during the study. The project application methods that were followed combined place-based, collaborative, and prototyping. The outcome of the study can be analysed from more than one perspective: what was done and the way it was carried out. The findings of this study are valuable and impactful on both the individual and the extended scales. On a personal level, they enhance the knowledge, skills, and experience within the topic. On the expanded level, the outcomes highlight the importance and potential of multicultural and innovative collaboration, which is important to meet the evolving demand of sustainability in the Arctic, especially to increase engagement in the tourism sector.

Keywords: *Arctic Tourism, Sustainability, Craft-based Art, Cultural Heritage, Community-based Participatory Art, Art-based Action Research Methodology.*

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Table of Contents

Abstract.....	2
Chapter 1: Introduction	6
1.1 Growth of The Northern craft-based sustainable tourism	6
1.2 Purpose of the Study.....	8
1.3 The strategy adopted to conduct the research	9
& ethical considerations	9
1.4 Research questions	10
Chapter 2: Literature Review	11
2.1 Studies that conducted earlier to the context.....	11
2.2 Sustainable practices in textile and crafts industry	11
2.3 Wool as sustainable crafts materials	13
2.4 Punch needle Embroidery	17
2.5 Cultural & Creative Tourism and Its Arctic Dimension	19
2.6 Theoretical background Gap and Justification.....	27
Chapter 3: Methods	29
3.1 Methodology	30
3.2 Data collection methods	34
Chapter 4: Wool-Innovation-Punch needle Embroidery workshop-Tonttula.....	37
4.1 Geographical and cultural setting: Village Tonttula	37
4.2 Arctic tourism and Sustainable wool Innovation: Punch needle embroidery technique.....	39
4.3 Project Introduction & Partners.....	40
4.4 Project Planning & Process	44
4.5 The Punch needle embroidery workshop idea generalization.....	51
Chapter 5: Analysis and Discussion	63
5.1 Results and Observation on the outcome of the project.....	63
5.2 Comparative Discussion of the Results with previous study on the context of Workshop.....	67
Chapter 6: Conclusion.....	71
6.1 Summery of the key findings	71
6.2 Evaluation of the Study	72
6.3 Limitations of the study.....	72
6.4 Recommendation for the fututre research	73
6.5 My Stand as an artist, researcher and a person.....	75
7. References.....	76

List of Figures and Table

Figure 2:1 Two Different views of Finn sheep showing wool texture, grazing behavior, and a close-up of fleece.	16
Figure 2:2 Traditional punch needle rug making and the factory from where it started in the 19 th century.	18
Table 3:1 Action Plan Chart: Art-Based Action Research + Qualitative Research.	30
Figure 4:1 Map of Tonttula in Lapland (Source: Google Maps, 2025. © Google)	38
Figure 4:2 Shows the project partners, supervisors, and artists.	42
Figure 4:3 Timeline that I followed during the project.	45
Figure 4:4 Project idea generalize to progress chart.	46
Figure 4:5 Place mapping to locate buildings.	47
Figure 4:6 From the left to right all 3 pictures the proof of Tottula's mystic night view.	47
Note All the pictures were taken during the visit by Najneen Nahar(myself)	47
Figure 4:7 From the left to right all 3 pictures are the few mythological decorative pieces out of so many in Village Tonttula.	48
Figure 4.8 From the left 1. Gingerbread house, 2. Elves' school, 3. The hut of knowledge,4. Inside the gingerbread house, 5. Ginger cookies, 6. Inside the elf school.	48
Figure 4:11 In the pictures left to right showing our initial ideas building process.	51
Figure 4:12 In the pictures left to right showing our Collecting the drawing from the students.	52
Figure 4:13 In the pictures left to right showing our making of wool toys with felting methods and distribution the toys to the children.	52
Figure 4.13 Tapestries in Tonttula. Which inspired me to think about big artwork workshop.	53
Figure 4:14 From the left to right, the process of prototype done by me.	54
Figure 4.15 From left to right wood needle, wood frame, wool thread, and fabric.	55
Figure 4:16 The initial artwork to do the University workshop from Shutterstock.	56
Figure 4:17 From left to right natural yarn dying process during the workshop.	57
Figure 4:18 From left to right Me and Andrew were preparing the wooden frame on 3 rd May 2024 for the punch needle embroidery workshop in the University.	57
Figure 4:19 1 st day workshop, on 5 th may, 2024.	59
Figure 4:20 All 4 pictures are are taken during my final attempt to complete the artwork, in the forest.	60
Figure: 4.22 The inspiration pictures from the village Tonttula of the final artwork	61

Chapter 1: Introduction

1.1 Growth of The Northern craft-based sustainable tourism

Tourism in Lapland has surged significantly over the last twenty years, being Finland's northernmost region. Lapland transitioned from a relatively remote location to Europe's premier all-season tourist destination through its Arctic terrain and traditional Sámi heritage, together with sustainable tourism backed by the local government. The increase in Lapland tourism stems from its scenic natural attractions combined with its traditional cultural heritage and organized initiatives for sustainable tourism promotion. One of the biggest attractions of Lapland is the pristine conditions of its winter climate. In the winter season, tourists can participate in diverse outdoor winter activities, which include husky safaris along with snowmobiling, ice fishing, and skiing. Lapland attracts numerous visitors to view the Aurora Borealis since the phenomenon occurs more than 200 times a year (Visit Finland, 2023).

The winter attractions operating in Lapland transformed the region into an essential travel destination for adventure-loving people. Increasing numbers of visitors come here to experience its heritage, such as Sámi culture, because their heritage as a people goes back to ancient times. Travelers can take part in Sámi musical and storytelling activities together with the chance to learn the artisanal arts and observe reindeer herding practices in appropriate educational settings (Kramvig & Førde, 2020, p. 28). As a result of cultural exchange, both tourists and Sámi benefit while Sámi traditions get preserved. Another important principle of Lapland's tourism is "sustainability." The Finnish authorities team up with the regional tourism board to use significant funding for implementing environmentally conscious infrastructure and innovative developments in tourism. "Sustainable Travel Finland" enables Visit Finland, to help destinations and businesses integrate sustainable operations into part of their practices (Visit Finland 2023).

The winter attractions operating in Lapland transformed the region into an essential travel destination for adventure-loving people. Interestingly, in northern Finland, the concept of sustainability is increasing its popularity not only in tourism but in the local industries as well. According to Telaketju 2 – Business from Circularity of Textiles project– Sustainable development is a regular practice where society agrees to live in a lifestyle in the present and

make it better for future generations. This means, All of these—the environment, society, and economy—must be considered in the same way (Telaketju, 2021, p. 14). Alongside sustainable tourism, there is the concept of regenerative tourism has emerged. Regenerative tourism prominently focuses on people’s relationship with themselves and the environment.

The main aim of regenerative tourism is to offer tourists exceptional experiences at the same time, improving the place from the perspective of the environmental and local community (Visit Finland, 2023, p. 7). One prominent area of innovation that aligns with sustainability and regenerative goals is the use of locally produced wool in textile design and craftsmanship to improve the place or community-based tourism. Finnish innovators started using wool as a sustainable textile replacement for synthetic materials in recent years. Wool is a biodegradable, renewable, and longer-lasting material. The use of local wool by companies allows them to reduce transportation emissions and support local livelihoods while promoting the circular economy concept (Telaketju, 2021, p. 21).

The University of Lapland serves as an example of innovative practices through its support of studies about natural fibers and eco-friendly textile methods. The researchers examine how wool materials derived from local sources can be incorporated into contemporary clothing, acoustic insulation, and heat insulation products (Kobiela-Mendrek et al., 2020). Moreover, the Art and Design faculty at the University of Lapland is extensively experimenting with different craftsmanship using local wool as part of the “Villalno,” referred to as the Wool Innovation project. In the project description on the website, refer to “*Project improves the growth and innovation capabilities of small and medium-sized companies in Lapland on sheep farms and in the contexts of handicrafts and cultural tourism, continuing and renewing the cultural heritage of handicrafts.*” –(University of Lapland, Website).

This project is financially supported by the European Union Regional Development Fund, and as an artistic partner, the Art and Design faculty is working on wool innovation through wool crafts. Additionally, the faculty is promoting the awareness of sheep grazing for biodiversity on the cultural landscape. The wool innovation project helps the growth capabilities of small and medium-sized wool producers in Lapland. Wool handcraft contributing to cultural tourism is one of the goals of this project. The project aims to support Lapland companies in the primary production of wool and the innovation and development of products and services based on the use of wool, commercially and sustainably.

1.2 Purpose of the Study

In the Nordic wool industry, innovation is partially impactful on its community and sustainable travel experiences. This research objective is to emphasize explaining this fact. Communities can produce distinctive tourism items that reflect their cultural identity by engaging local farmers and craftsmen in the processing and crafting of wool, and this strategy supports the rural community's economic viability in addition to improving the visitor experience. For instance, the wool innovation project is to bolster the Arctic small-range sheep farmers and wool producers sustainably through collaborative art practices that can contribute to commercial purposes like tourism. The research aims to promote traditional Arctic livelihoods while advancing sustainable wool craft methods that protect regional sheep breeds and lessen their negative effects on the environment (Hernández Cervantes, 2023, p. 94).

Wool products and craftsmanship have possibilities, especially in the Nordic countries. Due to its harsh climate, wool textiles provide more warmth than any other clothing material, and it has a diversity with different kinds of woolen accessories and crafts, which can contribute to the Nordic economy. Nordic wool initiatives as cross-border projects to increase cooperation, create a sense of place in the region, and establish Nordic wool as a sustainable, competitive product in international markets (Nordic Innovation, 2023). Project "Wool Innovation" has several partners, and each partner has a different goal to fulfill through their unique services. So, each partner has an individual project plan, and as an artistic partner, the University of Lapland has divided a group of master's degree students from the Sustainable Art and Design department, as per their preferences and expertise, to execute the innovation project. One of the partners is Tonttula, known as Elves' Village, located in Kittilä, Finnish Lapland. The place is rich with Finnish mythical heritage, culture, and natural landscape.

The wool innovation punch needle technique was conceptualized for a partner to accommodate one of their houses into a wool innovation workshop to serve the tourists. Moreover, the project supports renewing business, the creation of new companies and the continuity of companies' innovation activities by producing workshops that support the ideation and conceptualization of products services, by bringing together skills from the art and design fields and by increasing expertise Promotes growth-seeking or employment-oriented business activities in the craft and nature and cultural tourism sectors.

But above all, the important part of this study is to focus on the sustainability of the Arctic wool innovation throughout the project because the main purpose of the project is to contribute to the sustainable wool innovation to support sheep farmers and engage tourists to have an enjoyable time at their visit and have some knowledge about the Arctic's sustainable practices. The evaluation of wool innovation will be presented through an examination of the Wool Innovation project to determine its effects on responsible tourism and its support of local entrepreneurship. The final aim is to showcase how the project and research are confined by applying both collaborative arts and service design disciplines, with the focus on the process. Explaining the whole process of the study from idea generalization to execution of the artistic part and the methodology that has been adopted throughout the study.

1.3 The strategy adopted to conduct the research & ethical considerations

This study was conducted as a component of my master's degree in Sustainable Art and Design, which emphasizes practice-based methods. Additionally, the purpose of the study is to approach and continue the research with practical activity, working side by side, and supporting one another. **Art-Based Action Research Methodology**, what I selected as the way for that reason, and I believe it is suitable to reach my target by artistic activity. Härkönen et al., (2018) stated, "*ABAR is rooted in environmental and community art, project-based action and community-based art education. These are process-oriented, dialogical and place-specific art forms.*" (p. 4). My project and study are based on community and participatory art, which includes a group of people who participated to experience an art form in their third visit to a place for tourist purposes, which includes a place, community, sustainability, and craft tourism. Therefore, conducting such a community-based artistic project, an Art-based action research methodology, I found more appropriate.

I participated in the whole of the two years that the research project used in this paper lasted. The study was restricted to the University of Lapland faculty and students, as well as to the Tonttula stakeholders. As the artistic part of the project, the group was involved, and the students who participated in the prototyping were mostly from different ethnicities and age groups. Because of multiculturalism and a wide range of age groups, the study required strong ethical codes to follow. Ethics is not simply a list of rules to follow but a continuous, reflexive, and dialogical process, especially important when in multicultural and multilingual settings.

Markham (2007, p. 17). One must consider the social, cultural, and historical sensitivity while doing any project or research based on the place or stakeholders involved. It is recommended to avoid misinterpretation or exploitation of local knowledge, land, or culture, especially in indigenous or rural communities.

“The research approach also has to address seriously the cultural ground rules of respect, of working with communities, of sharing processes and knowledge”

- (Smith 2012, p. 191)

Considering all these, some ethical measures were taken during the project, data collection, and data analysis as below.

So, all the aspects were in ethical consideration, especially on the place and context, it was taken care that all the historical and cultural significance of the place is interpreted correctly, on the other hand understood the local norms were understood and presented with a neutral aspect in writing. Stakeholders’ engagement and transparency were another key to the study. To do so, stakeholders were engaged from the beginning to the end of the project; at the same time, they were well-informed by the supervisors about the research goals, methods, and possible outcomes. Most importantly, the participants who were involved during the project were all adults, and they gave verbal consent to use the photographs, interviews, and videography to use for the study. Participants were well-informed about the design process, progress, and their methods of involvement.

1.4 Research questions

1. How can wool innovation be integrated into participatory punch-needle art workshops to enhance sustainable tourism in the Arctic region?
2. How do participatory wool art practices serve as a tool for promoting Arctic heritage and environmental awareness, and help small and medium-sized local sheep farmers benefit economically?
3. How art-based action research method entirely justified in the completion of the study?

Chapter 2: Literature Review

2.1 Studies that conducted earlier to the context

This chapter demonstrates a comprehensive review of the existing literature indicating the study of sustainable wool innovation, especially in crafting workshops and conventional textile practices. The focus will be on punch needle embroidery in the Arctic context of Tonttula, a village in Finland. It is now evident that environmental and cultural preservation has become the central discourse in the context of design and crafts. How sustainable development is now driven by traditional techniques and natural materials needs to be explored. The importance of this practice is particularly highly recommended in rural and northern communities, where craft-based practices not only serve as cultural expressions but also local economic and ecological coherence. The literature review begins by examining the concept of sustainability in the textile, fashion, and crafts industries, followed by the exploration of wool as a renewable and eco-friendly material. It will then reveal what has been discussed about punch needle embroidery techniques in the past and their sustainable craft method. Arctic communities' engagement with craft practices for cultural continuity, ecological awareness, and innovation will be discussed in a chapter. Finally, theoretical frameworks such as cultural sustainability, place-based design, and eco-craft practices will be introduced. This review establishes a fundamental understanding of wool and heritage craft by exploring crucial research elements and gaps that guide studies about sustainable craft practices support in the Arctic region.

2.2 Sustainable practices in textile and crafts industry

The contrast between fast fashion and slow fashion is the main topic of discussion on sustainability in the textile and craft industry. Fast fashion has developed as a concept of rapid production cycles, low-cost materials, and the mass distribution of trend-based garments. This concept promotes overconsumption, exploitative labor practices, and significant environmental degradation, and that's why it is heavily criticized (Center of Biological Diversity, n.d.). The negative environmental impacts of fast fashion include high carbon emissions, water pollution, textile waste, and the proliferation of synthetic fibers that release microplastics into ecosystems (Niinimäki et al., 2020, p. 189).

The world's sudden shift towards slow fashion happened when workers in Bangladesh realized the unsafe labor conditions after the **“Rana Plaza factory collapse in 2013.”** After the incident, public advocacy and purchasing transparency became essential; thus, the fashion revolution launched the **#WhoMadeMyClothes** movement (Fashion Revolution, 2020). Consumers became very concerned about environmental effects related to their clothing-buying decisions following this event. This event also extensively transformed the Bangladeshi fashion industry. The tragedy in Bangladesh led to the creation of two major safety programs known as the “Accord on Fire and Building Safety in Bangladesh along with the Alliance for Bangladesh Worker Safety. The safety initiatives conduct a thorough inspection of factories and perform required remediation work to ensure buildings meet minimum electric safety and structural requirements (Reinecke et al., 2019, p. 31).

The number of environmentally friendly factories in Bangladesh has been rapidly rising since then. The modern clothing factories implemented eco-friendly building designs combined with waste management capabilities and systems for energy conservation and water recycling facilities. In 2023, Bangladesh has built a network of over 200 Leadership in Energy and Environmental Design (LEED)-certified green factories, which also include multiple facilities that directed the world in sustainable apparel manufacturing standards (U.S. Green Building Council [USGBC], 2023). Through these changes, Bangladesh has become the global hub for low-cost manufacturing along with sustainable production practices. Green factories themselves are evidence that the productivity sector approaches environmental compliance and corporate social responsibility (CSR) in a combined manner. Western customers, particularly in EU nations and North America, place eco-labels and certifications at the top of their priorities to meet their sustainability demands (Ziyeh & Cinelli, 2023, p. 3). Organizations display their dedication to enduring ecological sustainability. Inability through their development of low-impact dyeing techniques, together with solar power solutions and rainwater collection infrastructure (Kaizer, 2020, p. 17).

The Bangladeshi government supports the transition through laws coupled with incentives that promote green industry development. This effort takes place jointly with industry members. The Bangladesh Garment Manufacturers and Exporters Association (BGMEA), through its coordination with the Sustainable Development Goals (SDGs) of the UN, drives innovative and sustainable development in the industry. By all appearances, these developments have not eliminated all existing obstacles. Small and medium enterprises (SMEs) face challenges when

they try to afford retrofitting expenses alongside the costs associated with green certifications (Ismal & Huosong, 2016). Bangladesh sees major advancement toward becoming an eco-friendly and socially responsible producer of clothing products after the Rana Plaza catastrophe. So, the slow fashion movement keeps increasing in popularity because it presents a sustainable approach through superior quality items alongside ethical manufacturing standards and responsible production methods. Slow fashion focuses on design ethics through awareness of consumption, and it supports handmade clothing items made locally and designed for durability (Clark, 2008, p. 2).

Traditional philosophy presents these values through skill, material integrity, and cultural expression practices. Slow fashion profoundly supports circular design principles, referring to upcycling, repairing, and repurposing materials that cause a reduction of textile waste and encourage longevity in garments (Lisa Zhang & Jo Hale 2022, p. 2). Sustainability is held as a primitive issue for both the textile and fashion industries worldwide; To be sustainable, fibers have to support policies that minimise the impact on the environment and help protect people and natural resources (Bick, Halse, & Ekenga, 2018, p 3). To solve this industrial obstacle, multiple stakeholders are exploring natural fiber rehabilitation along with traditional textile methods, which may lead this problem to environmentally friendly solutions. Right now, the textile industry is focusing on wool because its renewability, combined with biodegradability and durability, makes it an undeniable material in the transition toward a sustainable fashion system (Textile Exchange, 2022).

2.3 Wool as sustainable crafts materials

Wool, known as a natural and renewable fiber extracted from sheep, holds a unique component in sustainable textile production due to its functional, environmental, and cultural properties. Its biodegradability, durability, insulating properties, and moisture management capabilities make it a perfect material to consider as environmentally responsible fashion and craft (Popescu & Stanescu, 2024). Thermal regulation ability is one of the significant components of wool, which insulates it in cold weather and breathes in warmer climates (Visit Norway, n.d.). In the northern atmosphere, these properties are highly suitable, where local craft traditions may rely on wool for its practical and cultural reasons. Additionally, wool can absorb

up to 30% of its weight in moisture, which provides comfort and performance in garments (Kim, 2024). Wool maintains elastic properties and wrinkle resistance that cause natural shaping of garments and extend their lifespan to match the principles of slow fashion (Eucalan, n.d). Wool breaks down in suitable soil environments during multiple months, thus showing soil solubility (Textile Exchange, 2021). The ecological condition of wool manufacturing improves when grazing practices adopt regenerative methods and local facilities sustain production because of carbon sequestration and biodiversity strengthening, and sustained rural economic stability. The expansion of wool innovation reaches points beyond wool fibers themselves. It promotes sustainable grazing practices, responsible sourcing methods, low pollution levels during processing, and the creation of long-lasting products that maximize sustainability (Popescu & Stanescu, 2024).

The attributes of wool fibers support circular economy ethics that establish products for extended life durations while creating minimal environmental effects. The mixture of traditional artisan approaches that confirm long-lasting cultural and economic growth occurred side by side with new materials. Likewise, Cervantes stated in her article **“Arctic wool: Perspectives on sustainable craft practices”** that,

“For artisans and designers, the ability to create their material supplies can offer significant advantages.”

– (Hernández Cervantes, F. 2023, p. 86)

–

So, as part of the wool innovation, using local materials such as locally produced wool from small sheep farmers and creating handicrafts like **“punch needle embroidery”** links directly to folk art alongside rug-making. Modern applications of punch needle embroidery expand its usage to fabric clothes and decorative items as well as creative projects on social platforms. (Dollar, 2018). The slow method of punch needle embroidery creates value through beauty as well as environmental advantages and fills the gaps of sustainable design standards (Jones, Sturdee, Nabil, & Girouard, 2021). Wool plays a vital economic role and has substantial value in the Arctic regions of Greenland, Iceland, and Finnish Lapland because of its similar cultural significance to sheep herding and the handcraft industry.

Hernández Cervantes, F. (2023, p. 94) considers that traditional crafts, such as natural dyeing and using local wool, may be a potential aspect of a sustainable future. Since it establishes

harmony between ecological cycles and native stitching arts. Though wool has a huge market in the textile sector and artists in the Arctic are trying to emphasize wool crafting in this region, successful Arctic wool producers need to fight against multiple challenges in the textile and craft sectors. They have to identify the complexities of global competition at the same time upholding the quality standards and expedite production capabilities (Colovic, 2012). Despite the growing popularity of wool's value and the impact of Arctic artisans to promote wool crafting in the region, the producers still have to compete with the low prices of alternatives, maintain the high quality, and invest in their operation to ensure the demands of expanded markets.

The pathway to overcome these obstacles will ensure the long-term stability and success of Arctic wool production. The domestic wool processing industry in Finland handles about 30–35% of local wool inputs while discarding many remaining wool products because of poor market connections and processing facilities (Luke, 2021). The underutilization of local wool presents rural economic developers with both challenges and possibilities in their development strategies. Local wool procurement has experienced increasing demand because people are interested in conventional handmade products and sustainable fabric choices, including environmentally aware customers, along with designers and craftsmen (Hernández Cervantes, 2023).

Finn-Wool: Historical origins

Wool plays a vital economic role and has substantial value in the Arctic regions of Greenland, Iceland, and Finnish Lapland because of its similar cultural significance to sheep herding and the handcraft industry. Hernández Cervantes, F. (2023, p. 94) considers that traditional crafts, such as natural dyeing and using local wool, may be a potential aspect of a sustainable future. Since it establishes harmony between ecological cycles and native stitching arts. Though wool has a huge market in the textile sector and artists in the Arctic are trying to emphasize wool crafting in this region, successful Arctic wool producers need to fight against multiple challenges in the textile and craft sectors. They have to identify the complexities of global competition at the same time upholding the quality standards and expedite production capabilities (Colovic, 2012). Despite the growing popularity of wool's value and the impact of Arctic artisans to promote wool crafting in the region, the producers still have to compete with the low prices of alternatives, maintain the high quality, and invest in their operation to ensure

the demands of expanded markets. The pathway to overcome these obstacles will ensure long-term stability. The Finnish Landrace sheep—commonly referred to as Finn sheep for its indigenous breed, has long been valued for its adaptability to harsh climates, high fertility rates, and, most importantly, its fine, lustrous wool (Finnsheep breeders’ Association, n.d.).

Archaeological studies indicate that sheep farming, along with textile manufacturing, the original records of crafting, was established in Europe during the Iron Age (Rast-Eicher & Bender Jørgensen, 2013). The history of Finnish wool is deeply connected with the agricultural practice and textile traditions in Finland, shaped by geographical constraints, economic directions, and evolving societal needs. Evidence from weaving indicates that Finnish weaving was significant early, whereas the sheep farming focus suggests different origins (Maijala, 1988). Before everything else, sheep mattered in Finland due to their suitability to the tough weather and the use of their wool and meat in the harsh climate. Back then, sheep were mainly kept to provide fabric for warm clothes and textiles, and the local breed proved to be especially good for the job (Maijala, 1988). Finnish textiles were enriched by the use of locally sourced materials, like wool. Which was made into coarse to stand out the region's daily life (Virrankoski, 1963).

The historical background of Finnwool reveals a complicated relation of environmental adaptation, agricultural practices, and economic considerations that have molded the fiber’s production and uses in Finland (Iyengar, 2021). Finnwool has faced numerous challenges through economic difficulties to improve the wool quality for its low prices, along with increasing demand for meat production. Despite these challenges, the original characteristics of Finnwool, such as its warmth, durability, and suitability for various textile applications, have sustained its presence in Finnish society and continue to drive innovation in its production and utilization (Roy, 2003).



Figure 2:1 Two Different views of Finn sheep showing wool texture, grazing behavior, and a close-up of fleece.

Note: Images from left to right: (A & B) Finn-sheep grazing in a field (Finn-sheep Association, n.d.); (C) Finn-Sheep From The Rare Breeds Trust Of Australia. "Copyright may apply."

2.4 Punch needle Embroidery

The modern scene of contemporary craft design and textile arts has witnessed a rise in the popularity of punch needle embroidery. The process of punching loops on fabrics with thread or yarn using a hollow needle tool produces raised patterns in punch needle work since it is famous for creative expression and textile texture. This embroidery technique has existed since deep history, even though current craft movements made it popular again.

Historical Origins

The history and beginnings of the punch needle, according to author William Winthrop Kent (1930), take place in Britain during the start of the Industrial Revolution in the 19th century. Using pricey machine-made rugs to cover the floors became popular among the wealthy at this period, as described by (Jamar, n.d). The factory workers were allowed to take the leftover wool home that could not be used for the expensive carpet production in these costly carpet mills. These remnants of wool, known as thrums, were used to create their rugs. They made carpets for their homes by passing these remains through a mesh fabric using a basic hook with a wooden handle (Moomzart, n.d.). Since the third century, the Persian artisan has created dense pile rugs through similar needle methods (Nazmiyal Antique Rugs, n.d.). The Western world discovered this craft with strong similarities to rug hooking techniques that rural communities in the United States and Canada were developing during the 1800s through their use of wool leftovers for artistic as well as functional floor coverings (Wikipedia contributors, n.d.), "Aunt Lydia's Punch Needle Embroidery" emerged as a commercial approachable craft for females and children during the middle of the 20th century, thus becoming one of the early American punch needle methods (Moomzart, n.d.).

Throughout history the technique transformed from being a functional design to becoming a recognized artistic form, which led to the creation of conceptual pieces, together with wearable and wall decor art. Though over the time the art of punch needle embroidery techniques started to transform beyond its traditional roots in rugs and wall hangings, but artists were able to see

this as a medium of personal and expressive storytelling right after the expansion its popularity in the beginning. For that instance, its essential to know the historical importance of Punch needle embroidery techniques, especially rising in the craft based-art to understand its connection in today's storytelling through wool innovation.



Figure 2:1 Traditional punch needle rug making and the factory from where it started in the 19th century.

Note. From “History and Origins of the Punch Needle,” by Moomzart, 2023, *Moomzart*. <https://moomzart.com/en/history-and-origins-of-the-punch-needle/>. Copyright 2023 by Moomzart.

Punch needle embroidery earned recognition in Arctic Lapland in the 21st century through a wider cultural shift dedicated to sustainability while respecting local heritage and craft traditions, although its original origin lay in world textile conventions. Northern regions, including Finland's Lapland, do not historically refer to punch needles in their folk traditions, yet traditional Scandinavian and Arctic textile cultures have used looped and tufted techniques for a long time. Research oriented around ecological art and sustainable design at the University of Lapland has elevated both artist and scholar interest in punch needle art.

Wool workshop: Historical Importance

The luxurious nature of wool in European society during the Middle Ages to the Renaissance era led to both workshop organization and guild formation. The wool trade guaranteed English prosperity by centralizing important wool production stages in workshops all over the country. The Industrial Revolution needed wool workshops during its 18th- and 19th-century expansion. New technology introduced to production through the power loom and spinning caused traditional wool workshops to transition into automated mills. Smaller workshops carried on operating inside rural areas because domestic production remained a must for survival even

within industrial systems. Industrial takeover left room for artisanal traditions to survive in such locations (Thompson, E. P., 1963). The wool workshops partially protected textile traditions and cultural heritage along with their economic operating capacity.

The main craftspeople who acted as knowledge keepers in rural workshop environments experienced empowerment through these areas. The workshop has also contributed substantially to educational purposes in Finland, stated by Kokko, S., & Räsänen, R. (2019). The educational systems implement workshops to instruct young participants about classic fiber production, which operates in different rural and indigenous communities. On the other hand, wool workshops gained increasing popularity due to rising customer demand for sustainable, ethical textiles and crafts. Many places now present themselves as circular economy and environmental awareness locations. Transparency-focused workshops help customers to trust manufacturing methods, together with their impact on the environment, along with details about labor practices and sourcing aspects and treatment procedures (Madumali et al., 2023).

2.5 Cultural & Creative Tourism and Its Arctic Dimension

Cultural and Creative tourism has evolved into a main perspective of the Arctic tourism business, which unites local lifestyle with legacy and identity through tradition to create valuable destinations for visitors. From initial accidental run-ins with traditional attractions, the field progressed into a deliberate interaction mechanism that joins heritage protection with regional prosperity growth. The evolving spread of cultural tourism into the Arctic region and other unusual areas makes its role in sustainability conservation and cultural identity protection, along with regional storytelling, more challenging to understand. On the other hand, Creative tourism, one of many emerging paradigms in the wider tourism scope, puts forward the idea that travel should be more realistic and interactive, thus allowing tourists to experience personally the culture, heritage, and art of a place of their choice. This is a step beyond stasis passive observation; in these workshops, tourists are the collaborators and co-creators of memories and new skills acquisition by participating actively. This chapter will discuss previous studies on how cultural and creative tourism has risen in the Arctic region, and what impact it has now in the context of economic expansion of Arctic tourism.

Cultural Tourism in the Arctic Background

The Arctic has its tough natural landscapes, sensitive ecological conditions, and exceptional indigenous traditions; all these extraordinary features created an exclusive framework for cultural tourism. Popular cultural tourism sites feature historic buildings or ancient archeological significance, which completely differ from Arctic cultural tourism, where stories fully intertwine with land elements and traditional-based beliefs. Arctic cultural tourism has turned mysterious and interesting with the combination of indigenous storytelling, traditional practices about reindeer herding, magical northern lights, and joik songs, which represent the Sámi culture and its activities. However, the rising trend of tourism in Arctic regions poses challenges between maintaining preservation and delivering performance standards. Tourism in the Arctic operates where it can be operated by using, molding, and commercializing its cultural and definite elements, which will represent the Arctic environment (Saarinen & Varnajot, 2019). Multiple Sámi communities have stepped up to direct the development of tourism to maintain cultural authenticity and control their stories. The community experiences pressure to some extent to alter traditional customs for visitor satisfaction, leading to possible fake authenticity.

Communities face difficulties from attempts to protect their living heritage alongside their real estate holdings. Indigenous populations throughout Kalaallit Nunaat in Greenland and Nunavut in Canada use cultural tourism to develop their economic sector. Tourists enjoy educational entertainment and cultural dining experiences provided by local business operators who also offer informative tours. The Arctic indigenous tourism enterprise stretches beyond selling culture into a direct method of managing how outsiders experience the native way of life, according to Hall et al. (1995). The implementation of Cultural tourism functions as a means for both sovereignty and self-expression in this specific setting. Tourism in Lapland becomes more sensitive because of changing climate conditions. The Arctic ecosystem shows increasing vulnerability because tourists continue to increase their visits to the region due to melting ice and rising temperatures. At this location, tourists embrace environmental tourism alongside cultural tourism by combining their interest in cultural heritage with first-hand observations of climate change phenomena. In the article by Hall & Saarinen (2010)-

“Natural attributes such as the 'midnight sun' are an important part of the attractiveness of the area, while the North Cape is a major tourist destination”.

– (Hall & Saarinen, 2010, p. 457)

Origins and evaluation of cultural tourism

The beginning of cultural tourism started with religious pilgrimage activities, which aligned with high-class tours and upper-class European travel throughout the 17th and 18th centuries. The initial schedules for this kind of tourism were designed for the exploration of architectural masterpieces and art exhibitions alongside ancient relics in European cities (Richards, G., 2001). During the European “Grand Tour,” aristocratic youth used travel across the continent to experience Rome, Paris, and Vienna along with their cultural heritage. Throughout time, the purposes of travel have changed more broadly.

European Association of Historic Towns and Regions (2018) describes how the cultural elements of tourism evolved from emphasizing classical antiquities to encompass. Mass tourism during the twentieth century led to cultural offerings being more accessible to everyone. The process of nation-building through rural development has received the government and international organizational support (World Tourism Organization, 2018). Various attractions that draw tourists include architecture and language, together with festivals, cuisine, and traditional crafts. Through the people of the last decade of the twentieth century, tremendous interest in regional cultural authenticity has been experienced, followed by its ethical and sustainable principles. Cultural tourism is no longer just about monuments and museums but about engaging with living culture (Smith, 2003, p. 45). This reinterpretation opened new opportunities for underrepresented cultures, together with isolated regions, to take part in the global tourism economy growth.

Ethical concerns & Future directions

Proper management of cultural tourism enables it to function as a mechanism for sustainable development and cultural revitalization. Monetary income from tourism activities supports employment creation, together with funding programs for traditional arts and language revival. Well-designed tourism events function to build respect among cultures, along with facilitating communication between them. The commercialization of culture leads to problems, mainly from outsider control over stories and experience fabrication to satisfy tourist expectations. The

tourism sector has shown more attention towards cultural appropriation issues during the last few years. Tourists create problems for cultural authenticity through their purchasing habits because these habits disturb sacred customs and weaken cultural value systems. McIntosh, Hinch, & Ingram (2002) said that cultural tourism needs extensive ethical dedication from service providers, together with tourist consumers, to stop exploitation and misrepresentation. The importance of respecting Aboriginal traditions stands primarily significant in environments where traditions directly influence spiritual and land management practices.

Tourism profit distribution plays an important role in this context. Travel agencies and operators located outside the region profit from their business operations, but local community members fail to see significant financial benefits. Community-based tourism (CBT) has gained more popularity because it strives to correct the imbalance in benefits. Residents achieve control through CBT models because they guide tourism development according to community aspirations and principles. Cultural tourism shows active evolution due to three major elements of globalization and digital transformation, along with climate change intensity. Technological advancements like storytelling apps and virtual museums have expanded touristic experiences. Digital platforms across the Arctic enable users to examine Sámi stories and Inuit legends from any location worldwide, thus providing access to indigenous culture. Changes in tourism operations due to the pandemic have led to increased tourism activities built around local cultures through intimate experiences of reduced scale.

Travel at a deliberate pace and regenerative tourism with meaningful social connections has gained powerful acceptance among tourists. Such a new model aligns well with the needs of cultural tourism (Escudero Gómez, 2021). Arctic cultural tourism will need careful management of tradition and innovation between present and future times. A difficult but sustainable and empowering mission exists in preserving authenticity through global infrastructure expansion. Cultural tourism serves as a pathway for both environmental protection and cultural sustainability while generating wealth if communities forbid duplicative agendas, yet construct tourism projects. This kind of initiatives must prioritize local voices and understanding systems, ensuring that make a balance with development and community values. In longer run, success depends on nurturing the respect ecological limits to promote sustainability while celebrating cultural distinctiveness.

Creative Tourism and Its Arctic Dimension

The extension of creative tourism is a working group of cultural tourism that allows visitors to connect with authentic local culture and artistry interactively. Creative tourism allows visitors to experience unique aspects of community creative work, which can lead to more sustainable cultural interactions and help to develop the person's growth. As Nancy, Sara, and Claudia emphasise creative tourism where tourists seek active participation along with cultural experiences so that they can use it and improve their creativity (Duxbury & Bakas, 2021, p. 9). Therefore, the Creative tourism transforms conventional tourism by inventing new matters in the economics and designing of creativity and developing tourist involvement in creative activities (Benhaida et al., 2024). The Arctic region is one of the unique and remote areas where creative tourism acts as a driver for both economic growth and a protector of the cultural heritage. Huhmarniemi & Jokela (2020) mentioned the possibility of becoming the norm of community-based art education in the context of art-based creative tourism, which is today's contemporary art alongside the cultural practices, through academic context or cultural service(creative tourism)(p 11).

Historical Evolution of Creative Tourism

Creative tourism is rooted in postmodern tourism trends that took shape during the last decades of the twentieth century. When tourists became tired of soulless, market-driven travel, they turned to traditional forms of interaction with indigenous peoples across the world. Richards and (Richards, 2000) defined creative tourism as–

“Tourism that offers visitors the opportunity to develop their creative potential through active involvement in a learning situation in the holiday destination”.

– (Richards, 2000, p. 18)

This definition brought a dramatic change in tourism, transitioning from a cultural observation one to a cultural co-production one. The development of concepts for creative tourism in history was, with the urge of the experience economy presented by Pine and, Gilmore (1998), at the same time. But in the 21st century, they brought forth the idea that experiences are more pivotal to people than tangible products. Interest in creative tourism grew rapidly among administrative bodies and those in the tourism sector for obvious reasons, notably its potential

in connecting local authentic cultural ‘content’ with immersive experiences back in the early 2000s. Barcelona and Santa Fe were among the first cities to establish initiatives for a creative tourism network, allowing tourists to participate in workshops and art residencies, and community projects (Richards, G, 2011, p. 124). The derived models established the basis for utilization of creative tourism in both rural and remote territories with a specific reference to Arctic regions.

Key Characteristics and positivity of Creative Tourism

Introducing creative tourism, tourists acquire more than just some ordinary life-changing experiences, and hosts offer to spread their traditions in the way they want. The approach then comprises basic elements of smaller-sized, locally relevant community activities like artisanal craft workshops, storytelling circles, food guidance, and music sessions. Creative tourism makes, constitutes a crucial lever for economic expansion and development in the rural region, through arts, crafts, and leisure activities, and creates scope for rural companies to increase revenue opportunities and participate in local supply chains (OECD, 2021). Creative tourism involves the preservation of traditional cultural elements, emphasizing sustainability in the Arctic; it has economic and cultural preservation functions. As in Arctic, the nexus of the ecological with the cultural is deep, and this nexus can be talked about as Huhmarniemi and Jokela mentioned (2020)–

“Cultural sustainability must be seen as an important variation of sustainability, to be considered along with ecological, economic and social sustainability, or interwoven into all other aspects of sustainability since culture is both an enabler and a driver of the economic, social and environmental dimensions of sustainable development.”

– (Huhmarniemi & Jokela, 2020, p. 6).

Here in the Arctic, creative tourism development is an excellent opportunity, given the local culture, which blends local cultural heritage and the environment, for traditional peoples to help meet the challenges of climate change. According to this light, creative tourism becomes a substitute for a new life, economic activities, and a self-sustaining force of both culture and ethnicity. The Sámi communities in northern Scandinavia provide their visitors with a lot of exposure to true cultures. They teach reindeer herding and crafts; they even sing traditional Sámi songs. What Müller, and, Pettersson (2006, p. 54-59) say here is that this kind of tourism

both increases Sámi quality recognition and gives native peoples control to decide how stories from history are told afterwards and in what format they are used. Importantly, experiences of Arctic creative tourism frequently interact with both environmental education and climate consciousness. The act lets people get out there who can also delve deep into other fields. The Svalbard in Norway offers creative photography extended courses that add in visual arts skills, whereas learners study ecology (participants utilize their artistic talents to chronicle environmental changes related to polar ice melts, wildlife habitat, and scenery). Cultural sensitivity indicates how well ecotourism implements, supports, and participants respect the local community's sociocultural value systems, which reduce the reverse impact on the natural and cultural environments, foster intercultural sensitivity and respect, enhance the preservation of built and living cultural heritage, and encourage the enlightened involvement and engagement of local and indigenous people (Viken et al., 2021). For the same context Jokela & Huhmarniemi,(2022) said that,

“ The concept of ecoculture highlights the specificities of communities, places and other-than-human nature.” –(p. 3).

In creative tourism, what defines the excellence of tourist experience lies in the co-creation of value with the visitors, forming part of the service and product development, thus making the experience personalized, educational, and memorable. It is priceless to have empathy for the community in the creative tourism approach, where tourists relate deeply since they can relate to that understanding of the local perspective: values or culture. This bond elevates the tourism experience to a level of encounter above a transaction to a major exchange of mutual respect and understanding. Empathy will also prompt tourists to abandon their comfort zones and immerse themselves in different cultures and reprogram their set of minds to be open to problems. Akimenko (2018, p. 54) explains how empathy and narrative sharing using an art-based approach can be used not for the verbal impact but to tacitly affect the self-work of individuals and communities. Empathy is reached by experiencing similar things and a direct encounter between visitors and residents. What underlies creative tourism is co-created value, where the visitors participate in creating the services, products, and hence transformative, educational, and unforgettable experiences. This kind of tourist experience goes beyond the usual transformative model in which the tourists only observe cultural and cultural habits from a distant position, representing a passive activity, and instead promotes actual involvement, mutual learning, and true emotional involvement (de Bruin and, Jelinčić, 2016, p. 5).

Place-based, community-based, participatory art approach.

As a student in the master's program of Sustainable Art and Design at the University of Lapland, the approach to academic research and creative inquiry is deeply rooted in a context that is ethical and sustainable. With this pedagogical structure, students are encouraged to relate to communities and the knowledge systems of regions, such as the Arctic, by looking forward to contemporary art or design. My master's thesis about wool innovation at Tonttula cultural tourism, a primary travel destination in Finnish Lapland, is an example of not only taking up residence in small communities where art and research can replace scientific progress; it also aligns local art methods creatively by putting them together into one coherent design process in which the whole society participates. So, this research's practical approach is a combination of place-based, community-based, and participatory art.

The **place-based** art focuses on the artistic practice of ecological, historical, and cultural characteristics in a specific location. Tonttula's emphasis on Arctic mythology, natural materials, and magical touristic experiences provides a perfect environment to explore local sheep in meaningful ways that represent the best of the place. Kwon (2004) discussed how place-based art, culturally situated expressions that are unable to lose their meaning. The goal of this research work is to depict Tonttula's specific cultural characteristics through local sheep wool alongside its historical connections to rural heritage and seasonal cycles of Lapland.

The engagement process with local artisans and cultural workers and tourism developers in Tonttula follows a community-based art approach because it supports mutual exchange and joint work. Goldbard, (2006) stated,

“Community-based art approach is preferred by some participants, who find it sensible to scope both participatory project and conventional art projects about community issues into a single category.”

– (Goldbard, 2006, p. 21).

The research here includes running interviews as well as workshops and co-creative meetings with wool producers. The work guarantees that direct community knowledge systems will lead artistic products through their entire development process.

As the participatory aspect of the project, both creators and audiences actively participate as contributors. At Tonttula visitors can participate actively through wool-focused craft art, such as the punch-needle embroidery workshop, which will drive them to become meaningful contributors to the environment. The core elements of participatory art become evident: the process over product takes precedence, while interaction and exchange with others enhance relational aesthetics (Bishop, 2012). The participatory features built into this work function to initiate dialogues about sustainability, identity, and local heritage in Arctic settings.

Connecting Back to Arctic Art and Design

This thesis incorporates both individual artistic research and its purposes into the educational principles of the Sustainable Art and Design program. The program supports research that shows ecological compatibility and cultural awareness. Wool innovation in Tonttula, as a design-based intervention, functions within these values. The project implements artistic approaches to tackle practical world problems, which bring back sustainable material interest while developing community bonds and opening cultural heritage sites for both locals and visitors. These innovative approaches are in line with the tenets of art-based research, which views creation as means of investigation and knowledge generation. Specifically, by establishing in the needs, histories, and contributions of the local population—especially through collaborative design process—the project exemplifies on community-based art. Community actively co-create the project based results through participatory art methods, rather than just viewing them. This method glorify that the project is aligned with daily realities and cultural values of the Arctic region, promotes communication, and cultivates a sense of shared ownership. In this way, the thesis demonstrates how artistic activity can inclusively and locally interact meaningfully with ecological, educational, and social systems.

2.6 Theoretical background Gap and Justification

Sustainable material innovation lends itself well to cultural heritage initiatives that actively engage community participation through artistic practice, opening new possibilities for research across Arctic contexts. Wool, both as a cultural symbol and ecological resource, remains underexamined within academic literature, especially concerning its potential when incorporated into community art projects situated in Northern Finland, such as those found in Tonttula. This literature review reveals gaps in existing knowledge while emphasizing the timely need to investigate novel uses of wool through place-focused, community-inclusive

artistic frameworks meant to foster local engagement at multiple levels. The application of place-based and participatory art all around the world has built connections between people and places, though the context of Arctic regions has limited study. Hiltunen and Jokela explored community art on a huge scale but solely emphasized seasonal happenings and environmental outdoor art, where textile development initiatives and collaborative handcrafts were absent. Studies on cultural tourism as a venue for participatory art involving visitors crafting materials or collaborative workshops exist casually. Scholars seldom investigated how participatory art projects applied in sustainability and cultural preservation through northern rural tourism have strengthened connections to traditions and landscapes. It represents a chance to unite material progress with sustainability, arts, and exploring relationships between locations.

Justifications

The thesis offers a solution by uniting place-based research with community-based methods through participatory art practices to study wool innovation at Tonttula. The text introduces an innovative approach towards understanding sustainable art practices in Lapland through a specific framing system. The study illustrates the cultural and ecological value of Finnish wool, which stretches beyond its physical utilization in the craft industry. Local industry professionals, alongside community members, undergo joint design sessions that boost community engagement streams in rural areas. Guests can take part in art-driven tourism activities that enable both active participation and experiential learning in understanding wool's cultural role in Lapland's heritage. The study contributes to active Arctic sustainability and cultural resilience discussions by using artistic methods. Through its approach, it presents concrete methods of community partnership.

Chapter 3: Methods

Research is about to satisfy the need to know, and a need to expand the boundaries of existing understanding through a systematic process of inquiry (Smith, 2012, p. 170). A method that is appropriate for research, and its selection is not a neutral act. It depends on the nature of the research and the way knowledge is produced, explained, and applied. Methods generally work as a bridge between the research questions and the expected answers from them. Credibility, validity, and relevance are also highly influenced by the methods. As Creswell, J. W and Poth, C. N (2018), mentioned how philosophical assumptions and and theory contribute to a greater extent in the research process. For example, quantitative methods cannot be appropriate to study a place-based, participatory art approach; it demands a method that can capture context, process, and meaning. To explain a creative discipline, art-based or practice-based, and qualitative methods are often required. Research methods establish the standards of academic clarity along with transparency throughout the entire research process. A specific and uniform application of methods enables external assessment and study replication to enhance academic credibility (Gray, 2018).

The failure to adopt a documented and consistent method for using this or that technique or carrying out specific experiments allows new and unfamiliar meanings to emerge because of a complete disregard for established language. Research methods are essential for academic work that handles community-based projects and cultural studies, and sustainability fields since they ensure both social and ethical aspects, along with technical deliverables, maintain equivalent significance. The analytical system works as an innovative process in practice-led artistic research approaches. Design and artistic creation present two functions: they serve as neither merely a finished product nor just an investigative method since they require artists to reflect and iterate through materials and participants during their research process (Candy, L and, Edmonds, E, 2018). The selection process of an appropriate method depends on three key principles: integrity, appropriateness, and effectiveness. Research approaches used when working with Indigenous or marginalized populations have both moral and political significance due to their impact on research ethics. Exclusive deployment of research strategies that value traditional knowledge systems combined with community requests, along with a co-

Creative approach serves as both moral imperatives and essential requirements. According to Smith (2012), the choice of methodology requires a “decolonizing intent,” where researchers should recognize past community harm through research and create methods that construct healing spaces with autonomous power dynamics.

3.1 Methodology

As briefly discussed in **Chapter 1 (section 1.3)**, I found the best method to conduct my study is the art-based action research method along with qualitative methods to gather essential information, documentation, and interviews during the process. As the research explains, wool innovation in Tonttula, where material culture with creativity and community involvement preserves Arctic cultural values. The study needed an adaptive method that remained sensitive to the studied context and worked through collaborative teamwork. To understand more deeply why these methods were selected to study this research, both methods must be explained elaborately.

Table 3:1 Action Plan Chart: Art-Based Action Research + Qualitative Research.

Phase	Art-Based Action Research Activities	Qualitative Research Activities	Purpose/Outcome
1. Planning	<ul style="list-style-type: none"> - Identify local wool practices and partners in Tonttula - Define art-based goals (e.g., punch needle workshops, storytelling) 	<ul style="list-style-type: none"> - Literature review - Define research questions - Ethical approvals & consent 	Establish research framework and community relevance
2. Community Engagement	<ul style="list-style-type: none"> - Organize participatory art workshops (e.g., Punch needle embroidery, dyeing wool) - Co-create wool-based artworks or products with participants 	<ul style="list-style-type: none"> - Informal interviews with participants - Field notes from initial community visits 	Build trust and encourage creative expression
3. Artistic Inquiry & Data Collection	<ul style="list-style-type: none"> - Document artistic process (photos, sketches, journals) - Reflective writing on co-creation sessions 	<ul style="list-style-type: none"> - Participant observations - Audio recordings and transcripts of conversations 	Collect rich, experiential data through multiple lenses
4. Reflection & Dialogue	<ul style="list-style-type: none"> - Group reflection using artworks as discussion tools - Creative journaling or visual mapping 	<ul style="list-style-type: none"> - Thematic coding of interview transcripts - Analyzing patterns and emergent themes 	Deepen understanding through shared interpretation
5. Analysis & Interpretation	<ul style="list-style-type: none"> - Artistic interpretation (e.g., installation, community display) 	<ul style="list-style-type: none"> - Cross-comparison of visual and verbal data - Interpret meaning through narrative synthesis 	Combine insights from both art and verbal data

	- Researcher artmaking as analysis tool		
6. Presentation & Feedback	- Community exhibition or showcase of co-created works - Collect feedback through creative evaluation tools	- Conduct post-workshop focus groups - Analyze feedback for inclusion	Share findings transparently and validate through dialogue

The Table I created shows the overview of the project and research process done step by step following both Art-Based research method and qualitative research method. At the same time it shows the purpose and outcome of these methods are presented briefly.

Art-Based Action Research (ABAR)

The history of the art-based action research(ABAR) method was described by Jokela, Hiltunen, and Härkönen (2015) in their paper. As a research and art University, The university of Lapland has created a plan for the innovative fusion of science and art, particularly in areas of study that are related to the north and the Arctic. This bold move sparked teamwork in the method's development, which establishes a connection between scientific and artistic endeavors. Created by a small team of artists, educators, and researchers, the approach takes into account the particular characteristics and conditions of the northern regions and is used in master's and doctorate theses in art education and applied visual arts at the University of Lapland (p. 434). The faculty of art and design has particularly contributed to the field by emphasizing Arctic context, cultural sustainability, and community engagement. The main context of the study structure of this department is to focus on exploring how artmaking can be deeply connected to a place, identity, and sustainability in northern regions. Jokela and his research colleagues developed place-specific art education, which shapes artistic research through distinct Northern environments of nature, society, and culture. Jokela and Huhmarniemi(2018) explained this method's process and suitable situation–

“Art-based action research is a cyclical process of research and development. It includes the definition of objectives and research tasks, planning, theoretical background work, artistic work and similar interventions, reflective observation, conceptualisation, and the specification of objectives for the next cycle. The research process and results are documented, and this

documentation is used as research material. Produced artistic work and artistic productions, as well as the participatory observation of activities, are also essential research materials.

“Art-based action research usually starts with a place and a community mapping, where the researcher-artist familiarises with the operating environment and various different methods. The dimensions of the place can be defined as the physical dimensions, subjective experiences, shared narratives, and so forth. The aim of the research is identified and defined on the basis of such multi-level familiarisation of the place. An initial research plan can be drafted in interaction with the stakeholder group of the research. Thereafter, the actual research activities begin either on a practice-led basis or with a literature survey. In a literature survey, the researcher familiarises with what is previously known about the research topic, that is, how other researchers and artists have processed the topics and what knowledge they have gained in similar situation.”

– (Jokela and Huhmarniemi, 2018, p. 16)

Action Research Origins

Kurt Lewin introduced action research in the 1940s as a process that combines planning with action and reflection for achieving social change (Lewin, 1946). The fundamental elements of participatory research methods stem from his community-based and organizational work. The expansion of action research into participatory action research (PAR) along with community-based participatory research (CBPR) brought emphasis to knowledge democratization and collaborative problem-solving, according to Reason & Bradbury (2008). According to (Leavy, 2015), human understanding benefits from both art and scientific methods of advancement; this union helps humans advance their knowledge and understand different elements of existence. Through historical records, these disciplines proved to be intertwined, although time has created an artificial distinction between them. Through time the artificial separation between these two linked disciplines has grown into an established divide.

Recently, the situation of this topic has been subject to investigation through (Leavy, 2015), professional review of the art and science division, and artistic research as a new paradigm in transdisciplinary research studies. The paper explores art-based research through detailed historical research and its developmental path, as well as its terminology and research procedures. In all segmentation of social research, combining data collection, analysis,

explanation and representation, researchers from different disciplines get interconnected to set of methodological tools, known as art-based research techniques, to serve the social research issues in comprehensive and active ways, that explain the theory practice, this new instruments modify the principles of creative arts (Leavy, 2015, p. 4).

The Rise of Arts-Based Research

Action research originated in the educational and social science fields, until arts-based research (ABR) emerged in the 1990s because scholars wanted to conduct artistic studies of human experience. The use of arts in arts-based research combines representation of research findings with creating novel forms of understanding, according to Barone, T., & Eisner, E (2012). The model, artists employ artistic practices of painting and performance to manifest their research graduation. McNiff, Lomax, and Whitehead (2023), use various research examples to distinguish action research from other research methods in detail. The material delivers details about action research characteristics, allowing me to focus on features of this approach. The professional needs I had in practice led me to implement selected keys from the action research approach. Action research follows ground-based practitioner methodology inside the environmental setting while researchers participate in ongoing activities without altering them. The learning process used in action research focuses on personal development within groups of people. Through its research approach, the development of member-to-member interdependence results in personal and social goals that produce enhanced individual learning and improved practitioner practices.

The practitioners carry out their practice with learning activities together with their day-to-day situation. An explanation of new knowledge development must accompany the process. Understanding and knowledge acquisition help practitioners build better situations and practices at their work locations. The inquiry process demands real, practical steps after situation observation and description, since these steps influence immediate situations. The Practitioners within action research learn about their values because these values become fundamental to their foundation of action-based research. The research potential allows the researcher to navigate their process, according to Crouch and Pearce (2012). Practitioners who run the process enable practice development to move in directions based on their values.

“It is a form of practice which involves data gathering, reflection on the action as it is presented through the data, generating evidence from the data, and making claims to knowledge based on conclusions drawn from validated evidence.”

– (McNiff, et al., 2023, p. 29),

Implementation of this intervention process requires special sensitivity because it brings about a dialogue with the environment while simultaneously functioning as an intervention process. Pay attention to ethical principles when implementing such procedures.

3.2 Data collection methods

The qualitative method was chosen carefully to do this research, which is aligned with its nature, which is participatory, and art based. The study is based on community engagement, local culture, and creative processes, especially within the Arctic context and wool-based innovation. Flexible, reflexive, and responsive to human experience strategies were needed as data collection methods. According to Creswell et al. (2018).

“The data collection process is emergent rather than tightly prefigured,” allowing researchers to adapt methods as new understandings develop.”

- (P. 86)

Through art-based research, the scope undergoes further expansion to incorporate creative knowledge that emerges from artistic participation, according to Leavy (2020). The data collection method, consisting of words and images together with textual content, is optimal for qualitative research (Denscombe, 2010). The research depends on qualitative methods for achieving a deep understanding of the subject studied. The qualitative approach selects depth of understanding instead of breadth, as described previously, against the quantitative approach. Though there should be a structural method to collect data where the community is involved, in research such as this, there is nothing too complicated; there must be some variable. Keeping all this in mind, I kept maintaining an information notebook, which I carried all the time with me to note anything related to the research. Any quotes, place names, wool-related information, community perception, ideas, and much more that came across related to the research, I kept written and visual records of. Here are some steps that explain the way data was recorded. Place

investigation. In place-based research it is important to investigate the place at first, so when we visited Tonttula we maintained a field journal to record reflections, observations, and evolving interpretations.

We took note of the place—

- Environmental surroundings.
- Buildings and their location.
- Inhabitants.
- Colors, smell, and feel of the place.
- Existing services.

Stakeholders' perception

When we first visited Tonttula, we tried to understand the stakeholders' expectations of us as artists. To do so, a semi-interview or thought exchange was needed between us and the stakeholders. So, I took notes on the key points; they were expecting to develop the ideas later. So, the key points were.

- Local wool innovation.
- Sustainability and visibility of Tonttula.
- Present as a creative tourism destination.
- Site-specific and environmentally sensitive designs.
- Community workshop.
- Experimental installations or products.

Participant Observation

The participant who joined the wool workshop activities and creative activities at the University meets the criteria. We recorded the way artistic processes were influenced by both formal and informal settings of workgroups, as well as cultural practices and spatial layouts. We used a reflective journal to document observational notes, together with sketches and photo documentation. According to Merriam and Tisdell (Merriam, S. B., and, Tisdell, E. J., 2016), participant observation provides direct insights into their situation under research, which

enhances the understanding of verbal data in real-life contexts. And the participant observations—

- The punch needle wool workshop was satisfying.
- It's easy to do and stress-relieving.
- Happy to be with different cultural participants.
- They enjoyed the whole process.

The combination of interviews, observations, creative process, and reflective journaling helps the study to explore wool-based innovation, not just as a product, but as a cultural, emotional, and community-based practice. It's an effective way to list down the emotional and personal thoughts on the creative process of participants. In this process participants are invited to record their ideas, feelings, and changing interactions with the materials as they do the tactile and repetitive motion. These observations shed light on how invention is profoundly emotional and personal in addition to being technical.

Chapter 4: Wool-Innovation-Punch needle Embroidery workshop-Tonttula

The increasing demand for sustainable community-based tourism initiatives in the Arctic Lapland led to the establishment of this project, which integrates traditional knowledge alongside local material. The project was supervised by experts from the Arctic Art and Design Department at the University of Lapland. This project was one of the other wool innovation projects run by the same department, but with different stakeholders. Master's degree students were divided into groups to analyze and select the stakeholders they wanted to work with according to their preferences and expertise. After confirming the stakeholders, the project was conceptualized by exchanging a collaborative dialogue between the project supervisors, academic researchers, and the stakeholders. For this project and research, **Village Tonttula**, a cultural tourism site with small sheep farming, was the partner, and the initial meetings were held at their site location, which is situated in Kõngäs, Kittilä. The research indicates evidence that corresponds to current tourism and place development initiatives in the Arctic Finland (Jokela, 2022)

4.1 Geographical and cultural setting: Village Tonttula

Lapland, the region stretching across the northern parts of Norway, Sweden, and Finland, holds a unique blend of geographical vastness and cultural richness, particularly incorporated in narrative surroundings, villages like Tonttula. The arctic climate, dense forest, and countless rivers and lakes showcase a magical landscape that prominently shapes the lives and traditions of its inhabitants (Lehtonen, 2019). Village Tonttula stands under the name of Elves' Village, situated beside the forests of Kõngäs, Kittilä municipality, at a remote location about 8 kilometers from the northern part of Levi village, but 22 kilometers from the nearest Kittilä airport (Elve's village, website, n.d). And about 180 kilometers away from the Rovaniemi city and University of Lapland. As shown in the map below of the route of Tonttula from the University of Lapland area (Google Maps, 2025).

67°51'52.1"N 24°51'38.4"E

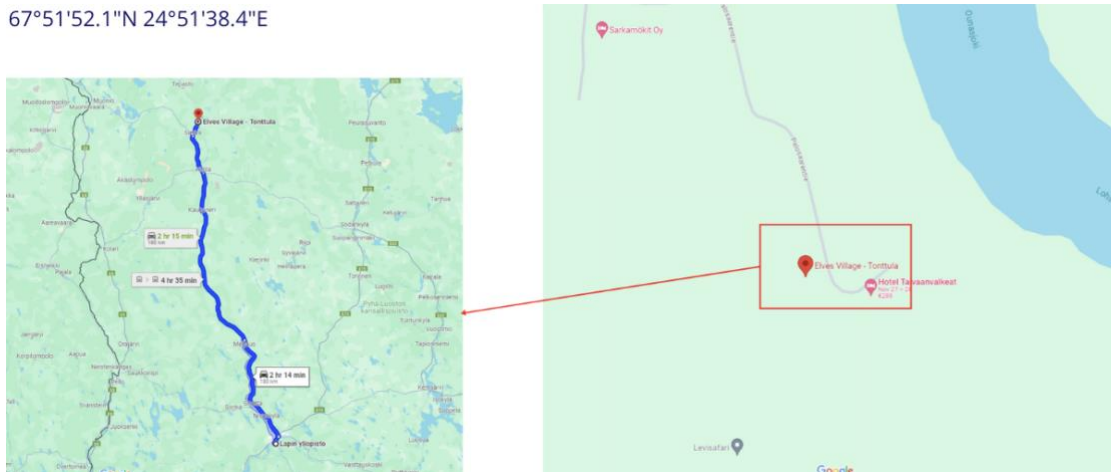


Figure 4:1 Map of Tonttula in Lapland (Source: Google Maps, 2025. © Google)

Tonttula has established itself as the elves' town. The wool workshop is situated near natural trails. This area is one of the most visited tourist spots in Northern Finland, and Northern Finland maintains this area above the Arctic Circle, with its boreal woods alongside seasonal light and dark variations and snow-covered terrain. Tonttula offers the visitors a peaceful and absorbing Arctic adventure. Its geological position allows it to offer such calmness to the visitors because this town sits next to the Otonabee River and the Onausyoki River, which enhances its diversity. In the summer, it flows with a breeze, and in contrast, in the winter, you may see the magical Aurora Borealis standing on the frozen river. The village functions well as an ideal destination for heritage- and folklore-inspired creative projects and cultural tourist activities because it belongs to a well-established tourism area known for its sustainable practices, traditional and cultural heritage, and natural environment ties (Visit Finland, n.d.; Elves Village, n.d.).

The village has its own themed **“Elves’ Hideaway,”** a cozy log cabin-style accommodation in the forest, where guests can enjoy their stay in cabins inspired by Finnish myth, designed with local wood and natural materials to provide an impressive original Arctic experience (Elves Village, n.d). One of the village’s unique attractions is the **“Guardian of the Forest Trail.”** The Elf’s House is another enchanting structure of Tonttula, it’s a magical workshop space where storytelling, wool crafting, and cultural activities are offered to the visitors. The interior of the house resembles, of a traditional Lappish home, with hand-crafted wooden furniture, lanterns, and decorative textiles. Additionally, Tonttula includes a main lodge, or reception house, to welcome and orient the visitors. It has also featured specialty houses, also known as Christmas houses, which offer seasonal experiences with Santa’s elves,

which is a particularly popular activity among families and international tourists (Visit Finland, 2023) These houses are the symbol of the Northern heritage, culture, storytelling, and sustainable living in harmony with nature.

The village of Tonttula has a tremendous relationship with its local Finn sheep. One of the main features of Tonttula is that it has six sheep of their own, and the relation between Village Tonttula and its sheep is not entirely agricultural and is rooted in culture, education, and symbol. It intermingles with local animal husbandry into the broader themes of art-based innovation, ecological consciousness, and place-based identity, showcasing in a small manner but in a meaningful part of Lapland's contemporary sustainability narrative. Furthermore, the presence of the sheep enhances the village's storytelling environment. A part of the visitor's activities, especially for children who can observe and foster this creature, learn about their habitat, and care for and understand the journey from raw wool to finished products. This adds tangible value, a sensory layer to the tourism offering, connecting guests with the rural life and the ethics of responsible material use.

In terms of sheep farming in Tontulla, they maintain a modest operation, reflecting principles of slow living and ecological balance. The wool plucked from these sheep is generally used in handcrafting products, which are sold to visitors. This project aims to establish a workshop where visitors or tourists can participate or engage themselves to make an art piece using this local wool. This practice will emphasize local sourcing and circular use of material, reinforcing the village's commitment to sustainable tourism and artisanal value creation (Elves Village, n.d)

4.2 Arctic tourism and Sustainable wool Innovation: Punch needle embroidery technique

Tourism in Lapland started by fantasizing about the Arctic wilderness and indigenous Sámi culture. Its mysterious nature started attracting people like explorers, researchers, and artists from the early 19th century who sought the mystique of the "Great North" (Müller et al., 2006, pp. 133-147). Gradually, this fascination evolved into a formal tourism industry. This land was promoted as unspoiled nature, particularly after World War II. Northern lights, reindeer herding culture, and being one of the coolest places on earth made this land more mysterious to the explorers. Between the 1980s and 1990s, tourism was boosted by the construction of winter

resorts, mostly in Levi and Rovaniemi, which directed Lapland as a major destination for Christmas tourism, winter activities experiences, and ecological holidays (Hall, C. M., & Saarinen, J., 2010). Later, the expansion of tourism rises from multiple driving factors that include tourist evaluations, together with promotional activities, alongside ease of access and destination characteristics (Franklin & Crang, 2001). The lower cost of aviation through the globalization process encouraged distant visitors to travel worldwide (Sohn et al., 2021). The tourism industry in Tonttula village began as a complex development story that bonded regional historical advancement and diverse social attributes to cultural traditions. Creative workshops like “**Punch Needle Embroidery Storytelling**” in the Village Tonttula may offer more than just artistic exposure; they can play a pivotal role in enhancing sustainable tourism experiences rooted in local culture, material consciousness, and slow, experiential learning.

Punch needle is well suited for a group of people participating in one big artisan-making activity, which can be a source of exchanging culture, experience, and happiness among visitors from different parts of the world. The idea of local production and minimum environmental impact may be reinforced in Tonttula by teaching this punch needle embroidery technique using wool that is produced in Tonttula, from the village’s own small flock of sheep. It’s a great opportunity for the visitors to engage themselves directly with Lapland’s craft tradition, gaining insight into the regional material heritage while participating in a mindful hands-on activity. This concept aligns with the broader goals of sustainable tourism, which gives importance to community involvement, cultural preservation, and environmentally responsible experiences.

4.3 Project Introduction & Partners

As discussed earlier in another chapter discussed briefly, the wool innovation project, which is also known as VillaInno, is undertaken by the Arctic Art and Design Department at the University of Lapland. This initiative, from 2023 to 2026, addresses the growing interest in wool products and the ecological benefits of sheep ruminant for biodiversity and cultural landscapes. Its primary goal is to support small and medium-sized enterprises (SMEs) in Lapland, particularly craft entrepreneurs, in innovating and developing wool-based products and services that are both commercially viable and sustainable. By revitalizing and modernizing traditional craft heritage, the project aims to boost wool usage and promote

sustainable development within the region. The project is funded by the European Union. The project is led by Associate Professor Maria Huhmarniemi, with contributions from doctoral candidate Minna Kovero (Project Co-ordinator), project experts Lola Cervante and Tanya Kravtsov, and expert Elina Härkönen. For the part of the wool-innovation project, our group of students chose Tontulla, known as Elves' village, to pursue our final project. The AAD master's program aims "to promote intercultural competence and cultural sustainability in the Arctic" (Härkönen and, Vuontisjärvi, 2018, p. 87). To establish the thought, creative students at Lapland University came up with different innovative ideas incorporating wool to attract tourists to visit there each year.

Tonttula Elves Village, also known as Elves' Experience Village, is a captivating destination located in Kõngäs village, approximately 8 kilometers from Levi in Finnish Lapland. This enchanting village offers visitors an immersive experience into the world of Finnish folklore, blending stories, fairy tales, culture, fantasy, and mythology amidst the serene beauty of nature. A magical forest area where guests can explore the Gingerbread House, the Elf School, and the Seita Stone, each offering unique insights into elfin traditions and crafts. Tourists can visit the Elves' Reindeer Fence, enjoy reindeer sleigh rides, learn about these iconic Arctic animals, and experience authentic Finnish sauna culture by the serene Ounasjoki River, providing relaxation after a day of adventures. Moreover, Restaurant Tonttula Offers Traditional Lappish cuisine in a warm and inviting setting, perfect for family meals or special events. Santa's visitor center features a café and gift shop where guests can savor local treats and find unique souvenirs to commemorate their visit. With other houses like the Gingerbread house, the Elves' cabin, and the Aurora pyramid, there is an empty house that the owner of Tonttula wants to turn into a place where tourists can enjoy their time.

My creative solution is to turn this empty house into a punch needle workshop. The Punch Needle Workshop in Tonttula Elves' Village, in collaboration with the University of Lapland, can provide a unique cultural and creative experience, combining traditional Finnish craftsmanship with modern design. Punch needle embroidery, an ancient technique, is an easy but satisfying embroidery technique that is created in loose woven fabrics (preferably canvas or cotton), with an attractive three-dimensional look, and has gained popularity for its accessibility and versatility. Participants in this workshop are introduced to the art form, learning to create intricate fabric patterns by using a specialized needle to punch loops into the textile. Set in the magical atmosphere of Tonttula Elves' Village, a renowned location that

celebrates Finnish traditions, the workshop offers a blend of artistry, cultural immersion, and hands-on experience. Tourists can participate in the workshop and do the punch needle on their own by following a simple manual. In a way, they can relate to Arctic artistic cultures and contribute to the preservation of the Arctic local wool. The concept of the workshop is not to complete the artwork in a day, it is designed to be completed in the entire tourism season so that all the tourists who will be visiting during this time can participate in the same artwork. It will be an art piece of teamwork; mostly, it is designed to have a quality and participatory time together during their (Tourists) visit.

Who-Partners, Supervisors, Artists

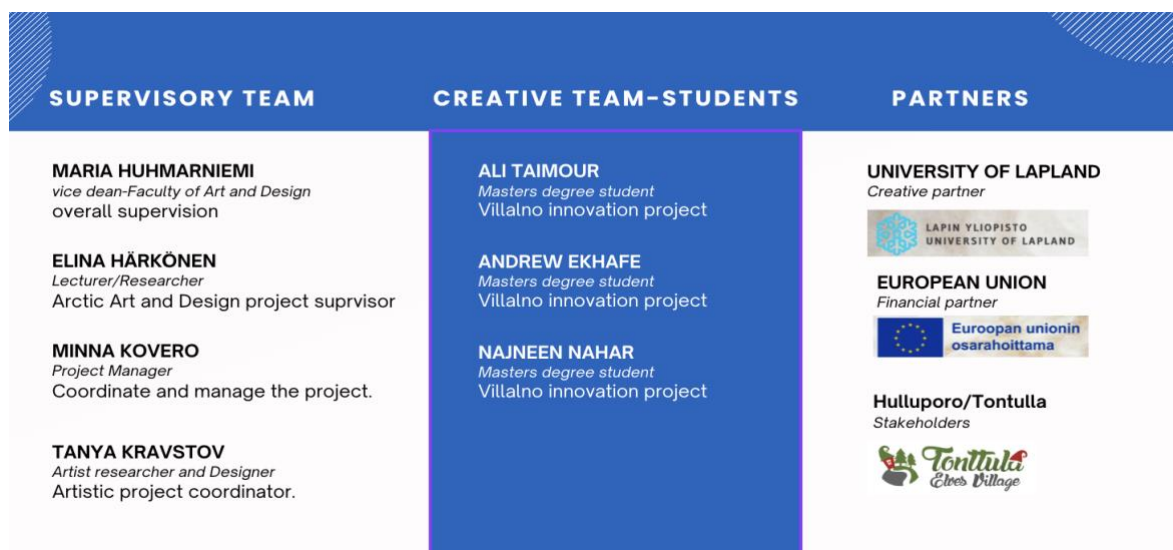


Figure 4:2 Shows the project partners, supervisors, and artists.

Note The picture taken from my final project report made by me.

Students of Sustainable Art and Design (Group of the project)

Najneen Nahar (Myself): Background in Fashion Design and Technology. Worked as a Fashion designer in several companies for a long period after doing a Bachelor of Science in Fashion Design and Technology. I chose the punch needle embroidery techniques to introduce in the Tonttula workshop, where tourists can participate together.

Andrew Ekhanfe: He has a Background in Industrial Design with a specialization in Textile design and has experience with wool (Weaving using different Looms). Andrew chose woolen seat pads as his innovative idea in Tonttula.

Ali Taimour: Master's Student with a background in advertising, contributing visual design, and branding skills. Ali decided to develop a manual about the techniques Andrew and I are working on, so that tourists can have a clear guideline to participate.

Project Supervisors

Minna Kovero: She is a designer-artist and project manager involved in the VillaInno project at the University of Lapland. She is also pursuing her doctoral studies.

Tatiana Kravtsov: She is an artist and researcher based in Rovaniemi, Finland. She holds a master's degree from the University of Lapland's "Arctic Art and Design" program and is currently pursuing doctoral studies at the same University.

Expert researchers

Maria Huhmarniemi: She is a University Lecturer of Art Education at the University of Lapland and plays an important role in the VillaInno project. She combines traditional wool craftsmanship with contemporary art, emphasizing environmental responsibility and cultural sustainability.

Elina Härkönen: She is an University lecturer in art education at the University of Lapland. She plays a key role in the VillaInno project, which focuses on revitalizing traditional wool crafts and promoting the sustainable use of wool in product development. Elina's involvement includes guiding the integration of traditional crafts with contemporary design and enhancing the Lapland region's cultural identity, and this extends even to the Villa Inno project.

The members of our team came from various cultural backgrounds because they originated from different regions across the world while holding diverse opinions and beliefs. Our team includes individuals from southern Asia and individuals who grew up in Africa and Europe, yet another group member was born in Africa, thus producing both cultural diversity as well as inexperience in the Nordic and Arctic way of life. With its uniqueness Arctic stands apart from the other European countries, particularly the middle European communities. The majority of those who travel to Lapland do so from worldwide locations to experience Arctic distinctiveness. The main draws visitors to Lapland include its chilly climate, combined with the northern lights and the possibility to experience husky rides. Tourists come to see Tonttula

because the establishment represents symbols from northern mythological elements. Our diverse backgrounds allow us to recognize the visitors' expectations regarding touring Lapland and Tonttula destinations. Artists from diverse cultural backgrounds bring unique narratives and worldviews that help bridge the gap between local identities and global visitors, enriching the tourist experience through inclusive, place-based interpretations (Richards & Wilson, 2007). The background knowledge we gained became fundamental in picking our innovation tool. I chose an innovative system that would develop place cultural connectivity for visitors while maintaining permanent memories when they return home. At the Punch needle workshop, visitors can participate in making art together with others as their personal efforts permanently remain at Tonttula. Tourist experiences are not only about seeing new places, but about creating lasting emotional connections and memories that are deeply embedded in the cultural context of the destination (Morgan, et al., 2010).

4.4 Project Planning & Process

Project Planning

Project planning started with setting the project timeline, which defined all durations from start to finish. It allowed us to convert a complicated target into specific tasks. According to Kerzner (Kerzner, 2017), timelines provide better schedule control and enable managers to identify problems in advance and take preventive measures. Setting up the timeline, we could align our task with our regular study routine and with the stakeholders' schedules. It gave us space to organize, relevant tasks, and book meetings in advance. A well-designed timeframe made it easier for us to track our development and avoid any unforeseen problems. We frequently could check in against our timeline and could focus on the to-do list, which we were accountable for. This practice made sure that the project's momentum was well maintained. The team members' communication was more effective and on point because of their knowledge of the timeframe. It helped us to reduce delays and improve resource management. With all of this in consideration, the schedule played a pivotal role in the project's success.

TIMELINE

Briefly discuss the key dates for the project.



Figure 4:3 Timeline that I followed during the project.

Note The picture taken from my final project report made by me.

Project process and Progress

The project started through site (Tonttula) visits and brainstorming meetings (Stakeholders, supervisors, and students) that led to the first concept development before evolution took place. The process of physically being present in the location assisted us in determining a clear direction through the generalization of ideas. Next, the project stepped into practical implementation, which involved securing all necessary materials for our ideas' realization. The preparation phase enabled us to design a prototype that facilitated prototype testing and adjustment of the concept. The Tonttula (students) team arranged a joint workshop to develop the work while inviting others into the process.

As a result, the team worked better together, helped each other learn and produced a superior end product. Participants gained firsthand knowledge of challenges involved in developing from the beginning to the end. To improve how useful and appealing the concept became, the prototype had to be tested and updated through many iterations. Including everyone's thoughts, the final layout of the site was shaped using the comments and viewpoints collected in the workshop. In the end, the initiative demonstrated that co-creation works very well in promoting community-based innovation and education. This structure may be continued and improved in

later initiatives to achieve inclusion. The project concluded through reporting, which combined the documentation of our process with outcome analysis and project presentation. The whole process will be discussed elaborately.

PROJECT IDEA TO PROCESS PLANNING			
<p>OBEJECTIVES</p> <p>Making creative engazement for the tourists who will vivit the Tontulla and helping local tourism through it. Moreover, I help patronizing local sheep using their wool for the creative journey.</p>	<p>IDEA GENERALIZATION</p> <p>The Punch needle idea was generalized by watching some Instagram reels while I was brainstorming. People generally use it to make rug, but i wanted to use the technique for wall hanging in the tontulla's workshop.</p>	<p>LEARNING THE PROCESS</p> <p>I started learning the unch needle techniques from youtube and Instagram. I better learn about the materials from Taitolappi and Elina.</p>	<p>MATERIALS COLLECTION</p> <p>I collected material from the textile department for the prototype and the main materials were collected from Taitolapi along with Minna and Tanya.</p>
<p>YARN NATURAL DYEING</p> <p>I participated in a natural yarn dyeing workshop to dye some of the yarn. However, I could not use all the natural yarn due to a shortage of the schedule of yarn dyeing premisis.</p>	<p>PROTOTYPE</p> <p>When I had all of the materials I first made a prototype to see if the materials, yarn and techniques are all correct.</p>	<p>WORKSHOP/FEEDBACK</p> <p>We held an workshop with students with final artwork and took feedback from them. Also Minna and Tanya gave their feedback as well.</p>	<p>FINILIZE THE DESIGN</p> <p>After having the feedback from Minna and Tanya I revised the artwork and reviewed with Minna.</p>

Figure 4:4 Project idea generalize to progress chart.

Note The picture taken from my final project report made by me.

Tonttula Place investigation

1st Day of the workshop

We arrived during the winter evening as Northern cold temperature made everything shriver while sun light diminished. Everyone assembled at Tonttula's restaurant just after putting our personal items in the room. Sunlight had faded while we had finished our dinner consisting of reindeer meat before we toured the place. The staff of the place showed us all the mythological structures and told us the ancient stories of each building. We experienced the mythological beauty of the place during our exploration, the way tourists must have experience during the winter season. That night it was snowing midly during our exploration in the forest which left me spellbound of the place in a mystic way. And this experinece helped me to make an emotional bonding with northern snow and cold for the first time.

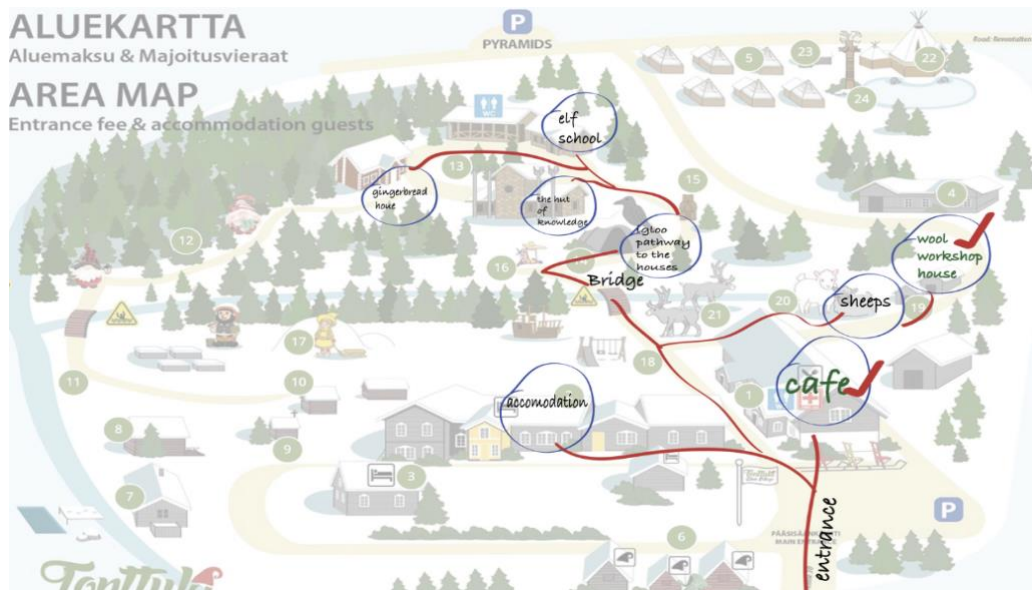


Figure 4:5 Place mapping to locate buildings.

Note The picture taken from my final project report made by me.

We arrived during the winter evening as Northern cold temperatures made everything shiver while the sunlight diminished. Everyone assembled at Tonttula's restaurant just after putting our items in the room. Sunlight had faded while we had finished our dinner, consisting of reindeer meat, before we toured the place. The staff of the place showed us all the mythological structures and told us the ancient stories of each building. We experienced the mythological beauty of the place during our exploration, the way tourists must have experienced during the winter season. That night, it was showing mildly during our walk in the forest, which left me spellbound by the place in a mystic way.



Figure 4:6 From the left to right all 3 pictures the proof of Tonttula's mystic night view.

Note All the pictures were taken during the visit by Najneen Nahar(myself)



Figure 4:7 From the left to right all 3 pictures are the few mythological decorative pieces out of so many in Village Tonttula.

Note All the pictures were taken during the visit by Najneen Nahar(myself)



Figure 4.8 From the left 1. Gingerbread house, 2. Elves' school, 3. The hut of knowledge,4. Inside the gingerbread house, 5. Ginger cookies, 6. Inside the elf school.

Note All the pictures were taken during the visit.

The Tonttulla's house were build inside the mystic forest which left a mysterious impact on me that night. All the houses has its unique characteristic that visitors must experience. So, we were explained each one of them elaborately, it helped us to connect with the place and later on to generate the ideas. The main houses are explained next–

Gingerbread house: The Gingerbread House is filled with its beautiful, strong aroma because the Elves bake in the Gingerbread House every day of the year. The Elves' Village elves love gingerbread cookies just as much as cats love catnip. Only elves with special powers can work in the Gingerbread House, as they can resist the magical powers of gingerbread. Gingerbread's magical spices, including cinnamon, treacle, and ginger, are known to confuse elves without special powers when they are wrapping gifts and doing accounting.

Elve's School: The Elf School opening ceremony takes place on the seventh day of the year. On the seventh day, the Elf School Principal, Principal Aikki, rings the bell in the Elf School Clock Tower twelve times. The beginning of the new school year is always celebrated beautifully with fireworks, dancing, and singing loud across the Elves' Village lands. The opening ceremony attracts so much interest that it is streamed live online to elves and other beings in every corner of the earth.

The Hut of Knowledge: The Hut of Knowledge contains all the knowledge that elves and dwarves have been storing up for centuries. This knowledge is recorded in the Elves' Book of Wisdom. The Hut of Knowledge protects all most important treasures in the village, such as the Book of Wisdom, the statue to honour the biggest Magic potato of all time, Ämmi's Third Eye sceptre, potion recipes, spells, the most powerful stones and crystals, as well as a massive collection of poems and songs. The group assembled at the lounge following our place visit to begin the brainstorming activity.



Figure 4:9 From the left 1. The personality traits game, 2. Wool and knitting elements, 3. Students made different things.

Note All the pictures were taken during the visit.

2nd Day of the workshop

The morning following breakfast began with another visit to review the place. The daytime lighting made the place seem both more familiar and less cryptic as we traveled to visit the top attraction of our trip, which was the Six Sheep of Tonttula. Wool innovation brought us to observe the sheep that live in their natural habitat, while wool originates from these animals. Also, we visited an empty house in Tonttula, the stakeholder wants to establish a workshop house within this space where tourists will experience interactive sessions.



Figure 4:10 Pictures from left to right, first two pictures are Tonttula's sheep. Second one is the workshop space.

Note All the pictures were taken during the visit by me and my classmates.

In the daylight time at Tonttula created a profound appreciation for nature through emotional and physical connection. The sensory experience began right away as I walked through the site because I felt the combination of rough tree bark alongside soft snow beneath my feet, alongside crisp air in my nostrils. The well-rounded atmosphere at Tonttula provided both fanciful and peaceful elements, which produced rich conditions for artistic creation. Drawing from our immediate impressions, collected materials, and shared reflections, each group proposed activities that would connect visitors more deeply to the spirit of Tonttula.



Figure 4:11 In the pictures left to right showing our initial ideas building process.

Note All the pictures were taken by Najneen Nahar (myself) during the visit.

We completed our second day workshop by presenting our ideas and taking feedback and suggestion from the stakeholders. When I left the Tonttula, for a long time, I carried a mysterious, impact with me for the place.

4.5 The Punch needle embroidery workshop idea generalization

The development of the main idea, generalization, and idea discussion procedures began in January 2024 after the Christmas holidays. Three students from the Tonttula group selected the idea for continued work. Three distinct plans existed for implementation among all three of us. We proceeded with individual ideas that we merged into one project design. My idea was to organize “PUNCH NEEDLE EMBROIDERY WORKSHOP” in Tonttula. This idea came up on my mind from a previous participatory art-workshop I had done using wool for another course called “Space, Time Place-USOVE1004-3002”. During that course me with my other team member organized an participatory art-workshop with school nursery students. The workshop idea was to make some wool toys using felting methods and distribute to them to the nursery students, but the twisting point was to make toys from those children drawings. I am sharing some photos from that workshop, what motivated me hugely to conduct another project as such but with different creative technique.



Figure 4:12 In the pictures left to right showing our Collecting the drawing from the students.

Note All the pictures were taken by Najneen Nahar(myself) and teachers, during the visit.



Figure 4:13 In the pictures left to right showing our making of wool toys with felting methods and distribution the toys to the children.

Note All the pictures were taken by Najneen Nahar(myself) and teachers, during the visit.

I planned to conduct the same kind of workshop in Tonttula. A workshop for tourists to enable engagement and bonding during their visit. Visitors participating in the workshop at the house will create a large artwork by using punch needle embroidery methods according to planned designs. Tourists need not finish the artwork because completing the process offers them happiness that they can share with other visitors. Each visitor participates daily before the project finishes at season's end allowing the artwork to become available as decorative piece that can be displayed and offered for sale in the reception area. Additionally, the artwork may be suspended within residential zones to improve the setting and preserve visitor memories.

The inspiration stemmed from my Tonttul tapestry discovery during my visit to the location where each home displayed numerous tapestries created with varying weaving methods, thus motivating me to design my large work of art. During my Instagram scroll, I witnessed beautiful videos that made me consider using “PUNCH NEEDLE EMBROIDERY TECHNIQUES” for my project. A person new or unfamiliar to handicrafts can do this technique, which gives satisfying results without demanding great effort. Because the technique is so easy to do. It does not need to be so skillful to start. Though craftsmanship is not all about the skill but the commitment to uphold the quality and impactful relationship with the work, which motivates to sustain creative energy and foster a world understanding deeply through making (Sennett, 2008).

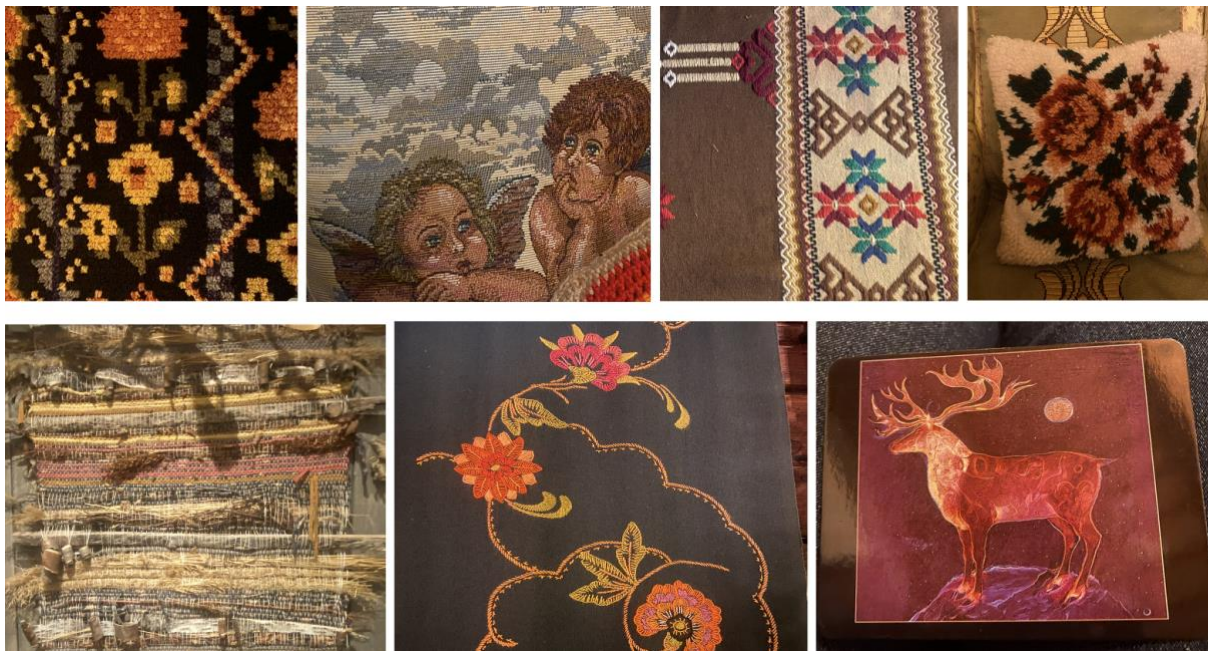


Figure 4.13 Tapestries in Tonttula. Which inspired me to think about big artwork workshop.

Note All the pictures were taken by Najneen Nahar (myself) during the visit.

The first prototype making

My experience with punch needle technique was entirely new because I learned multiple embroidery techniques during my Fashion design and technology bachelor studies, but punch needle had escaped me. I took on this task on my own to check what a beginner would experience when starting from nothing. I purchased a punch needle ready set through online

shopping, and it contained a frame, together with fabric and wool threads, and a wood needle in addition to artwork. I spent many hours on Instagram videos to understand the necessary materials for my initial project. I have done this prototype in February as my first attempt.



Figure 4:14 From the left to right, the process of prototype done by me.

Note All the pictures were taken during the process. Pictures were taken by my daughter.

The whole process remained both simple and effortless. First-time embroidery completion increased my self-assurance so visitors from Tonttula who had never tested this art technique before could perform it easily.

The workshop prototype at The University

The delays in our Tonttula visit compelled us to plan an embroidery workshop inside the University because this enabled us to mirror the intended Tonttula results. Our workshop participant selection was ideal since the University attracts many international students. Students visiting Tonttula currently function as the tourist population of the place. Organizing a two-day punch needle embroidery workshop in the University while inviting students from multiple departments served as the main idea. Members of the workshop will create the embroidery pieces under our instruction. We will understand how the original project in Tonttula should be conducted through this approach. The first step was to collect the materials. **Minna Kovero** and **Tatiana Kravtsov** helped me collect the exact materials from Taito Lappi.



Wooden needle

Wood Frame

Wool Thread

Canvas Fabric

Figure 4.15 From left to right wood needle, wood frame, wool thread, and fabric.

Note All the pictures were taken during the process. Pictures were taken by my daughter.

Artwork Selection

My initial artwork selection from Shutterstock played role when I settled on artwork for the workshop since Tonttula's central theme, as mentioned previously, is elves' hideaways, so the established mythology focuses on elves which directed my artwork choice to include elves, mushroom, which also represent the forestic environment of real place. This artwork was to be conducted at the workshop, but after the workshop, in the review meeting, Tanya and Minna suggested creating my artwork for the final presentation. So I did, which I will present at the end of the workshop findings section—



Figure 4:16 The initial artwork to do the University workshop from Shutterstock.

Workshop preparation

Natural yarn dyeing Workshop

At the outset we participated with students from Fashion design and textile department during their natural yarn dyeing workshop, held on 7th February. During the workshop we received instruction on wool yarn dyeing by using natural substances obtained from natural sources. Onions skins and tree bark and forest wood materials serve as examples. The practice of naturally dyeing wool into yarn depends on both care plus patience. A mild cleaning process washes the clean yarn so it can effectively absorb coloring materials. After washing the wool fibers, they absorb dye better because they are soaked in a mordant solution that commonly contains alum. The wool fibers absorb deep natural-colored shades as the warm dye solution

gradually colors the fibers. A slow stirring motion guides the color into complete penetration of the wool material. The dry yarn goes through a drying process that happens after the specified period, and a treatment with water, followed by placement in open air. This hands-on process not only deepens my understanding of traditional textile methods but also highlights the sustainable practices inherent in natural dyeing.



Figure 4:17 From left to right natural yarn dyeing process during the workshop.

Note All the pictures were taken during the process.

Wooden frame preparation



Figure 4:18 From left to right Me and Andrew were preparing the wooden frame on 3rd May 2024 for the punch needle embroidery workshop in the University.

Note All the pictures were taken during the process. Pictures taken by Andrew and me.

Main Workshop days- 5th and 6th May 2024:

As explained before at the beginning of the *chapter 4*, that, we arranged this workshop within the F-wing of the University before inviting students through brochure distribution throughout different areas. So, on the 5th of May total of 8 students participated in the workshop and did the embroidery by themselves. As organizers of the workshop, Tonttula group members (Ali Taimour, Andrew Ekhanfe, and Najneen) deployed me to teach weaving techniques to students while Ali monitored learning obstacles to improve his instructional brochure, and Andrew explained weaving principles and final output details to students. On the second day, six students conducted the workshop independently during their designated time slots. Minna Kovero and Tatiana Kravtsov also visited on the second day and performed embroidery work, followed by sharing useful feedback. The workshop durations extended from 3 to 4 hours during both sessions.



Figure 4:19 1st day workshop, on 5th may, 2024.

Note All the pictures were taken during the process. Pictures taken by Andrew, Ali, and me.

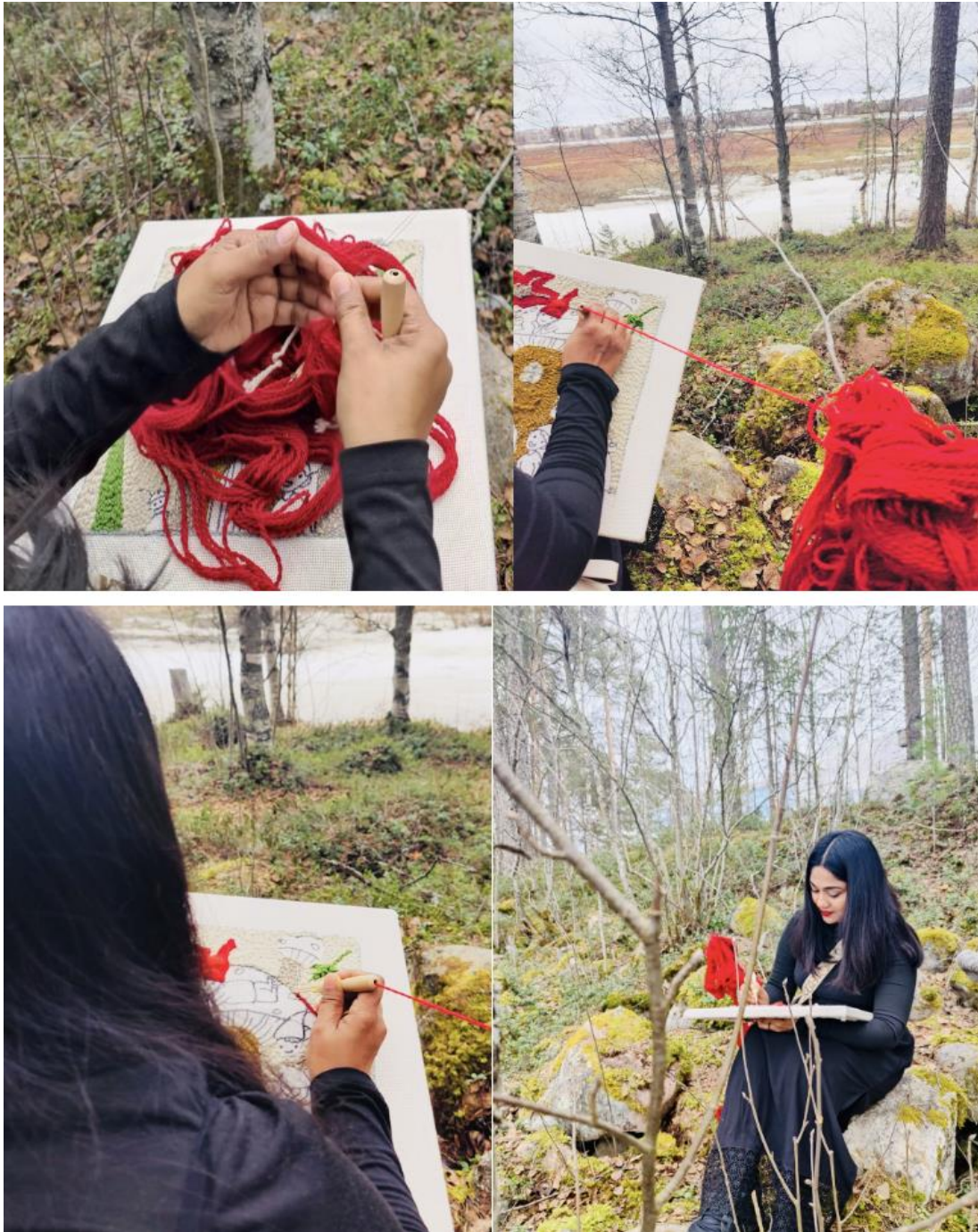


Figure 4:20 All 4 pictures are are taken during my final attempt to complete the artwork, in the forest.

Note Pictures are taken Andrew Ekhanfe and Ali Taimour

The verbal consent was taken from the participants to use the pictures for documentation. The Workshop prototype generated valuable knowledge while people contributed important suggestions. The workshop team identified weaknesses and generated various options for solving them. The upcoming *Chapter 5* will thoroughly explore workshop ultimate accomplishments and results and relate them to present and past literature findings. This artwork represents the forest we visited on the first day in the village of Tonttula, which made

an impact on my imagination. It took me back to my childhood when I used to watch mythological movies and considered them as true. In the Artwork, the front wooden stage inspired by the original welcome stage at the village Tontulla, which is placed at the entrance.

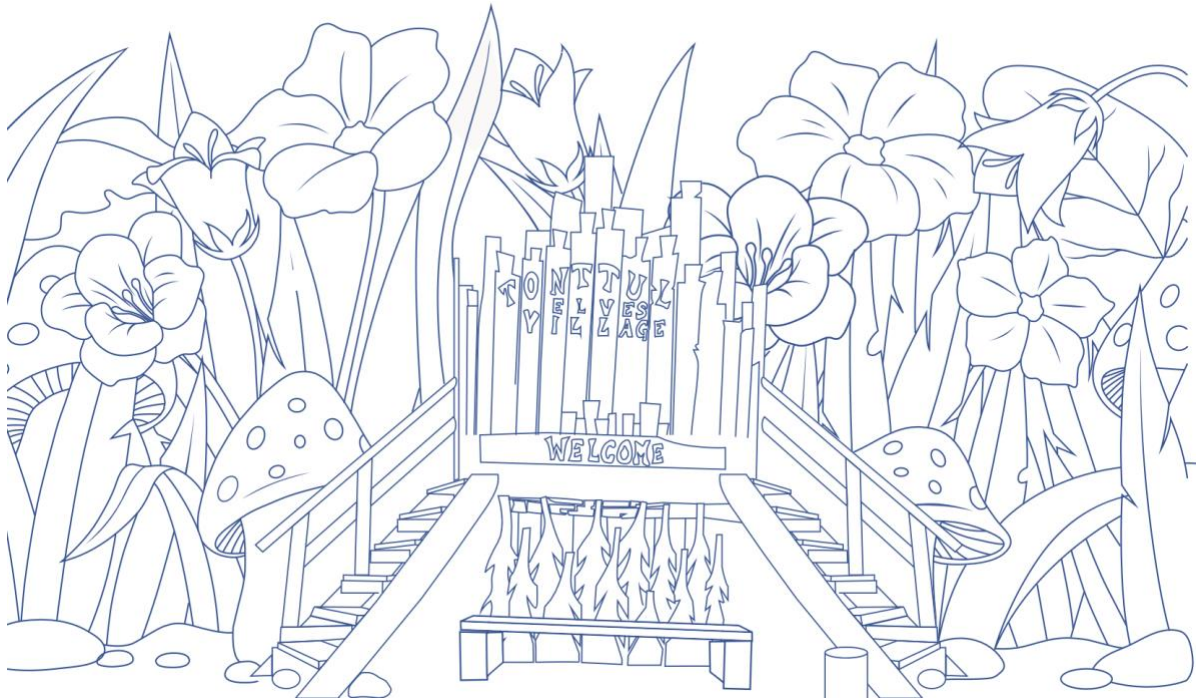


Figure: 4.21 The Final Artwork done by me using Adobe Illustrator.



Figure: 4.22 The inspiration pictures from the village Tontulla of the final artwork

The workshop ended as a cheerfull, collaborative session where participants enjoyed the process and shared their experiences, thoughts and feedback on the process and outcomes. The team documented the findings and monitored workshop's impact considering both creative and practical results. Shared ownership and creative accomplishment was evident among the participants at the end of workshop. The session conclude with multifactual positive results, such as participants interest in ongoing innovation and community engagement. The outcome, disussion will be elaborately discuss on the next chapter.

Chapter 5: Analysis and Discussion

5.1 Results and Observation on the outcome of the project

The workshop held at the University provided a practical opportunity to observe the connection between the real place, craft practice, and real participants' engagement. This section presents elaborated observational notes and the thoughtfulness of the workshop's outcomes, the construction of the thematic insights, and participants' behavior. Workshop notes, photographic documentation, and participant interviews were collected to note the observations during the workshop.

Participants' Engagement and Behavior

Participants were inquisitive about the workshop, though some hesitated about punch needle embroidery. For many, it was their first attempt at any embroidery technique. Unfamiliarity with tools can cause an initial panic when starting any new technique, which gradually turns into fluency through repeated Engagement. Observation during the workshop showed that participants quickly got comfortable with the technique because of its ease and satisfactory methods. Once the participants began working with punch needles, they showed increasing autonomy and focus. The core teaching practice involved active student participation. Instead of receiving passive instruction, the participants focused on performing hands-on experiments with textures, colors, and forms. The teaching methods reflect Page's (2018) statement that,

“Teaching and art making practices are modes of thought already in the act and so contemporary arts practices call us to think anew, through remaking the world materially and relationally”(p. 6).

Punching and modifying their stitches led participants toward their individual rhythm, validating that understanding stems from tool- and material-based embodied interactions. Some of the wool yarn used in the workshop was naturally dyed, and some was the raw yarn without any coloration but with natural finishing, which added another twist of sensory richness. Participants noted the warmth and earthy scent of the yarns, and they could connect with nature through this punch needle work.

Emergent Themes in Participant Work

As the artwork theme was connected to elves and trees, participants could connect themselves with the artwork entirely cause Lapland is known for its originality with Santa's village mythical story, and participants were doing it in Lapland. So, they could feel the story through the artwork. Participants were surprisingly integrated with their childhood memories. One participant stated, "*This process reminds me of my childhood memory related to my grandmother doing hand embroidery on a table runner during winter leisure time*". Another participant brought her embroidered handkerchief, which her grandmother did, to the next day's workshop to show us that she always keeps it with her as a loving memory of her late grandmother. That's where I believe our workshop's success reflected that we could bring back participants' childhood memories and bring out their emotional space through the process.

Social Dynamics and Collaboration

The learning process emerged around peer learning, which brought together the bonding between the different ethnic participants. They shared their own craft cultures, food habits, and many more. They also asked each other questions, helped, shared tips, and praised each other's progress. The workshop space thus gradually shifts from individual contribution to co-creation. Within the collaborative environment, the leadership responsibilities operated in a distributed format to match the task or expertise needed in the given time. For instance, when there was an occasion, we had to untie the messy yarns during the workshop, and one participant with a calm and sorted nature took the lead in doing it. It showed that with her instruction, we could untie the threads perfectly in another situation where we needed to explain the Finnish folklore to others. At that point, one participant from the "Tourism" department took the lead in explaining it. And she knew the history because she was studying it. The dynamic leadership style helped every team member perceive a sense of ownership. The workshop proved that productive collaboration relies on mutual trust, honest dialogue, and an active approach to handling different perspectives. Participants overcame social challenges through active engagement while respecting each other, which created a potent force for creative group success

Lasting Impressions

Post-workshop feedback revealed that all the participants felt the embroidery techniques were much easier than they seemed. More precisely, they mentioned the continuous satisfaction of the process that they could not stop themselves from doing. Some participants say that they will continue doing it after that, specifically one exchange student mentioned that she wasn't sure what she was going to do during summer vacation as she is not going to her home country this time, but now she knows that she will do this punch needle embroidery in her leisure time. Most of them asked for the source to collect the materials. So, punch needle embroidery left a lasting impression on most of the participants.

Challenges and Adaptations

Indeed, some participants encounter challenges with a new technique of punch yarn in the needle, yarn thickness, fabric tension, or needle punch duration. As in (Figure 4.18, pictures 4 & 5), our threads were poorly twisted, and we had to figure it out to continue our work. Initially, it felt impossible to do, but when we worked together and helped each other, we could solve the mystery. And later on, this incident became one of the happiest memories from the workshop. Mistakes were embraced as part of the learning process because the fundamental concept of this workshop is to enjoy the process, make memories through it, not perfection. That is what was encountered during the demo workshop. One participant remarked, "I think I did not do it right, still I am enjoying doing this, that I didn't realize that I was doing imperfectly". We were expecting this reflection from the participants so that during the actual workshop with tourists, we would have the same experience.

During the study and workshop, I encountered challenges and obstacles that tested my adaptability, communication, and creative confidence. Initially, I was terrified mainly by the new environment, the chilling climate of the year, and the unknown language. However, Finnish people are willing to speak English as an international language when encountering foreign people. Still, the barrier to expressing emotion in their mother tongue remains the same. Language restrictions caused some obstacles during the working process because most of the theoretical part is related to local culture, traditional handcrafts, and folklore available in the Finnish language. And translation was not justified in the original essence of the story. The best part of the challenge was the encouragement I got to communicate with more Finnish-

speaking classmates to understand the culture and the folklore. In the process, I could learn some basic Finnish language greetings and appreciation, and many more. The Finnish direct communication culture was so new to me. However, I have previous experience of working with many mid-Europeans, but the straight communication nature of Nordic people is their one strong identity. From a background of social bonding in an emotional wilderness, I felt a bit detached from the people in Finland at the very beginning. It prevented me from asking questions or having extended conversations with locals. However, after one and a half years, I have become the most comfortable with this occasion, as it now seems a more authentic and natural way of communication without over-expression of emotions.

Another challenge was getting an appointment from Tonttula, as Winter is their busiest time. Also, the visit timetable was not always aligned with all of us. As all the students are from different backgrounds, we could not manage to have everyone join at the set time. It prevented us from sharing our thoughts and experiencing the place on various occasions. The supervisors and students handled that obstacle; they shared verbally and through photographs with those who could not join. The study and workshop process was a transformative experience that required personal and intellectual adaptation by overcoming initial discomforts, improving communication, and building resilience. I developed not only new skills but also a stronger creative mindset. It helped me to adapt to a new climate and atmosphere, and learn new social communication skills.

Summary of Key Observations

It was evident that initially, the participants were hesitant while the workshop was conducted for the first time, but all of them later finished it with confidence and enthusiasm. Several things impacted this transformation, including interacting with the materials, the objectives of the seminar, the peer group, and the fun part of the process. One participant expressed her feeling as “ *Using the learning supplies improved my skills and helped me truly appreciate what I was learning*”. The idea from the nature-inspired artwork helped shape the whole project's design and mood. As everyone got involved, the activity sparked emotions and personal associations in their work. Collaborating with people from different cultures helped make the experience more interesting and entertaining. I felt connected to others and inspired by their unique perspectives and cultures. Participants became more aware of sustainability after the experience, since how they worked with materials made them feel much closer to nature. The

link between humans and their surroundings made exploring the place more meaningful. Moreover, few participants saw the embroidery method as a form of art and a possible career-building activity. All in all, meaningful personal contact, an awareness of the environment, the exchange of cultures and creative activities added to an experience that stuck with me and shaped by learning.

5.2 Comparative Discussion of the Results with previous study on the context of Workshop

This part investigates how social dynamics and collaborative outcomes developed at the workshop by using previously published academic research as a theoretical framework. The study interweaves data from the workshop with educational theories and creative research and group process findings to establish the workshop results in academic context.

Social Learning and Reflective Practice

This part investigates how social dynamics and collaborative outcomes developed at the workshop by using previously published academic research as a theoretical framework. The study interweaves data from the workshop with educational theories, creative research, and group process findings to establish the workshop results in an academic context. The workshop was about learning through doing and reflecting, which aligns closely with David A. Kolb. (1984) experiential learning theory. Participants operated in cycles of action, reflection, and adaptation—a pattern that reflects Donald A. Schön's (1983) observation of the “reflective practitioner.” These structures emphasize the interactive, learning nature, particularly in professional and collaborative contexts. For example, Schön’s idea of reflection-in-action was the proof as participants re-evaluated their strategies in the present time during the group task. The workshop experience can be understood using Etienne Wenger's (1998) idea of communities of practice, where learning is socially connected and constructed by participating. The collaborative nature provided the scope to form a fixed-term learning community where participants shared goals and engaged in mutual learning. Lave & Wenger(1991) argue that knowledge is created through social interactions and meaningful participation, as seen in the group-based tasks and co-creation activities.

Creativity, Making, and Social Connection and Build Leadership

According to David Gauntlett (2011), creativity emerges as a social act, which finds its explanation in his "making is connecting" concept. The workshop allowed participants to build prototypes and storytelling activities, strengthening personal creativity and social connections between participants. The findings of Thomson et al. (2011) verify that informal creative environments help people participate while forming their identities. The study documented how participants gained creative confidence and self-efficacy in their artistic pursuits. According to Mayar (2022), low-barrier crafts enhance creative skills most effectively for beginners. As mentioned before during the workshop, it has been seen that the emergence of distributed leadership, where responsibilities grew according to expertise and context. Gronn (2002) describes this phenomenon as a key feature of collaborative environments. Research by Gronn confirms how distributed leadership creates environments that promote dependency between team members for learning purposes.

Negotiation, Conflict and Transformative Learning

Most literature concentrates on collaborative advantages, yet some academic works explain its difficulties. The article by Chory and Horan (2023), addresses the psychological work needed to handle personal relationships at work. The workshop participants had to deal with conflicts arising from the new techniques and multicultural backgrounds. Although the learning gap required some instruction, communication improved with time. Negotiation is one of the most essential human contacts. It is a process consisting of dynamic interactions between two interest groups acting to reach a mutually agreeable agreement. It permeates a lot of domains of our life, from the workplace to the personal area, simply referencing its relevance in conflict resolution and communal problem-solving (Olaleye, 2019). Participants conducted a belief and approach evaluation through a reflective session, which aligns with Mezirow's (1997) transformative learning approach. Mezirow explains, that critical reflection promotes perspective transformation, which enables people to grow in independent and constructive thinking.

Therapeutic Benefits, sustainability, and commercial benefit of the Crafts

During the workshop, participants responded that their mental well-being was enhanced by doing the punch needle embroidery. The workshop participants explained how their stress

decreased and improved concentration and relaxation, while the research outcome matches previous studies on textile craft therapy. Sarajuddin and Rusli (2021), conducted a pilot investigation that explored the same outcome by discovering mental improvements from punch needle embroidery work. The repetitive pattern of punch needle embroidery has been shown to possess a similar therapeutic effect as mindfulness-based practices while providing mental health advantages associated with current creative workshop trends. Participants at the workshop displayed developing environmental concerns by showing interest in recycling yarn materials and reusing textile elements as a more sustainable move. According to Jean, H. (2019), “Artists use their work to shine a light on issues of environmental justice, raise awareness to environmental insecurities and risks, and imagine more sustainable futures” (p. 2). The practice of fiber artists demonstrates a rising commitment by artists toward incorporating environmental issues.

Contemporary embroidery has evolved into an ecological platform addressed by Le Lagadec et al. (2024). It immensely connected participants to sustainability and closeness to nature through working with natural materials. Some participants engaged in punch needle education because they wanted to learn needle techniques to produce merchandise for commercial purposes. Biney (2023) observed this trend in their respective studies and found that young adults who participate in workshops build more interest in becoming entrepreneurial in thinking and action. A change occurs in traditional creative teaching patterns since these approaches previously failed to establish links between artistic activities and economic possibilities.

Craft as essential and synthesis of insights

The worth of craft practice emphasizes the connection between intellectual and material procedures, as Nimkulrat, N. (2012) explains. The workshop allowed participants to reveal their learning processes using tactile materials and tools. The technique uplifts complex engagement along with bodily understanding, which supported Nimkulrat’s (2012) findings about making as an investigation method alongside creative communication. Workshop building demanded a collaboration of experiential learning with social constructivism, participatory creativity, and distributed leadership constructs—professional and personal development results from effective workshop organization according to combined research on workshops and their application.

The educational experience allowed participants to develop skill sets and increase their social aptitude and reflective skills. Creative expression is an essential yet sometimes elusive ingredient of academic writing that plays a role as the trigger that converts pedestrian writing into discourses that are compelling and intellectually stimulating (Mitchell & Clark, 2018). People in the study felt better able to communicate what they think or feel once their self-esteem improved. Over time, the workshop changed into a place where making was about creating significance as well as producing things. In accord with what Ingold (2013) states about materials being important for thinking processes, it linked theory and practice by providing clear proof of conceptual knowledge. Following Gauntlett's (2011) thinking that creativity is connected to meaningful learning, the group discussions after each activity allowed participants to see craft as a proper method of exploring topics. It was clear that bringing together both intellectual efforts and practical research can improve both personal and career growth.

Chapter 6: Conclusion

The study explored the multifunctional impacts of artistic practice, a place-based art workshop for participants (Designed for tourists), and personal, creative, and new social adaptation during their visit to a place. By analyzing the experiences and outcomes of participants who engaged in this workshop, the research aimed to understand how traditional craft practices can modify a normal touristic expertise into a sustainable one. The study illuminated the technical engagement of participants and the emotional, psychological, and communal benefits they derived through the workshop. This conclusion presents a comprehensive overview of the study, discusses the research cycle, highlights limitations, and provides evaluative insights and suggestions for future inquiry.

6.1 Summery of the key findings

The study explained northern tourism as part of a larger trend of Arctic travel developments. Lapland attracts experience-seekers because its remote natural dimensions, indigenous cultural traditions, and seasonal Northern Lights phenomena create an ideal destination. Sustainable tourism practices became necessary because the study demonstrated the delicate condition of the Arctic environment. The chapter established the study's objectives: To examine how a collective art workshop could support sustainability values in tourism and evaluate the social and cultural outcomes of the punch needle embroidery workshop.

There has been discussion in the academic context in the literature review chapter, which mainly highlighted the strategies such as low-impact activities, cultural preservation, and visitor education, along with focusing on how they enhance engagement, identity, and environmental awareness, yet enhancing traditional skills is being revived and integrated into tourism experiences. The methodology adopted to conduct the study and the chapter key findings were as follows: An art-based action research approach was adopted for the artistic part, and a qualitative approach was implemented for the data collection. At the same time, participant observation, informal interviews, visual documentation, and reflective notes were taken during the process. The primary segment of our project involved the execution of the punch needle embroidery workshop at the University to study folklore and natural elements.

Multiple sensory experiences were enabled through the setting that allowed participants to connect with the Arctic scenery by using grounded meditation during artistic creation.

6.2 Evaluation of the Study

The research fulfilled its primary goals by presenting multiple dimensions of how artistic practice affects people on an individual and a social level. The research added missing academic knowledge about textile-based learning and studied the craft's revival during modern times. Data collection methods involving workshop participants demonstrated their innovative use of tradition-based skills as solutions to address contemporary social and emotional requirements. The study was strengthened by incorporating education principles, art therapy, and cultural heritage studies into its research framework. The research approach provided complete knowledge about the practice. The research explores punch needle embroidery, which is an understudied subject, thus creating prospects for academic and practical involvement in craft arts. The workshops that allowed participants to learn through both physical sessions showed how punch needle embroidery has a valuable impact on the sustainable tourism experience.

6.3 Limitations of the study

It is evident that studies on wool innovation in places like Tonttula and Lapland provide significant knowledge about cultural heritage, sustainable development, and local entrepreneurship, but in the same manner, several restrictions have limited the study's validity, scope, and generalizability. Exploring more opportunities for future research in a proper context requires an understanding of these limitations. So, as discussed below—

Duration of the field activity & Context-Specific Setting

I could only visit the place once. The main reason was the schedule mismatch with the stakeholders, which restricted the place-based idealization. Moreover, the duration of the punch needle workshop restricted observations about how participants maintained sustainability understanding or kept practicing their craft, or modified their environmental actions beyond the workshop. Regular site visits are essential for researchers to develop a comprehensive

picture of complex phenomena, as they allow them to get away from the abstract and to touch the ground of their study. By immersing themselves in the investigation, researchers can observe nuances, interactions, and contextual factors that might be overlooked during the data collection methods; it may foster a rich and more nuanced understanding of the research topic. However, the workshop was conducted at the University, which was better to hold in Tonttula, the place itself. When I was left to work out the project, the stakeholder could not accommodate their schedule due to busy tourism time. So, I did it at the University. If in the actual place, we could do it, this would have been more environmentally impactful to the participants.

Language and culture barrier & Harsh winter deprivation

Language barriers, perhaps the most glaring obstacle, transcend vocabularies, dislocating as there are also diverse vocabularies regarding linguistic use, idioms, and norms of communication that may undermine comprehension and introduce bias (Ye, 2024). As discussed before, the language and culture barrier initially impacts the data collection method, as most of the information about the Arctic is in the local language. The data collection would have been more enriched without language constraints. Misunderstandings may occur if researchers, participants, and stakeholders do not speak a common language because, as a result, there may be inaccurate data or incomplete responses. Moreover, the Arctic winter can be very harsh for people who live in a tropical climate like mine. It was my first winter in Lapland, which deeply impacted my mental energy to unbroken study. So, it took time to cope with the weather, and it slowed down the study process. Moreover, the extreme cold restricted my willingness to explore more places, such as local sheep farms and remote areas, to experience the authentic essence of the harsh winter lifestyle.

6.4 Recommendation for the fututre research

The research results of punch needle embroidery workshop generate relevant understanding of how participatory art serves sustainable Arctic tourism. The findings emerge from the result, but they require extended into new directions to enhance knowledge about the topic. The following section presents plenty research avenues that would create beneficial extension and interdisciplinary cooperation and theoretical combinations as well applied applications. The more effective of future research would increase if it implemented long term tracking of

workshop participants across an extended duration after their involvement in sessions. This could enable researchers to examine long-term effects which include: If the participants have adopted of sustainable practices either in their daily life or their travel activities. How the participants fur involvement with craft completing the workshop activities. Participants understanding of the Arctic concerns such as climate change and cultural heritage and indigenous knowledge over time periods.

Researchers may expansion their studies about comparable art-based sustainability initiatives conducted in different Arctic and rural locations. The findings and adaptability factors of such initiatives can be identified by studying Tonttula's strategies against workshop implementations from Nordic nations such as Norway, Sweden, Iceland and beyond to Alaska or Canada's Indigenous areas. Such comparative studies may permits researchers to evaluate differences among workshops participants and their qualities and workshop structures alongside local sustainability initiatives. It may also insight how different culture can narrates and shape environment engagement through art. Provide insight into how different cultural narratives shape environmental engagement through art.

Assessment Tools and Frameworks

The main area of future research needs to focus on creating standardized assessment instruments for measuring sustainability progress made through art workshops. These could include: Assess which cultural stories affect environmental participation by means of artistic expression. The study used several psychological and emotional outcomes by assessing participants' mindfulness through scales and their nature connectedness scores. The research measures sustainable knowledge together with tourism-related indicators.

The research led to important discoveries about creative practices and sustainable tourism in the Arctic Lapland, yet it confirmed the extensive research opportunities existing ahead. Highly detailed research in this field will develop by spreading study across multiple areas while exploring diverse artistic forms and Indigenous understandings and developing team partnerships between different academic disciplines. Future research and practices will establish collective artmaking as an effective solution for bringing climate awareness to communities while preserving cultural traditions in the Arctic which faces rapid environmental changes.

6.5 My Stand as an artist, researcher and a person

When I started to work on this research, I could identify myself in different roles, and all these roles have their engagement with the subject matter, the community, and the creative processes. And all these roles have their realization and achievement. As a master's student at the University of Lapland in the Arctic Art and Design, I conduct this research with a qualitative and participatory mindset. The methodology I end up with is art-based action research, and both methods allowed me to construct communication with people, stakeholders, and participants. At the same time, I could explore the place, the environment, and its materials. I have gained information about local Finn-wool and Finn-sheep's livelihood. These influence the research outcomes and strive to maintain ethical responsibility, cultural sensitivity, and academic value.

On the other hand, my role as an artist is central to this study, not only to my master's research but also to my background as a fashion designer. As a fashion designer, I have worked with different wool yarns, which inspired me to participate in this project. I see artistic practice not only as a form of self-expression but also as a method of inquiry. As an artist, though I have previous experience with different kinds of art, this is the first time I am doing any community art to explore a place, identity, and storytelling. In this research, I saw how art becomes a bridge between research and community, especially in the context of wool-based innovation in Tonttula.

On a personal level, I brought my own cultural background, emotions, and motivations when I started this research, which was completely opposite from Arctic life; even the weather is shocking compared to the place I come from. But the way Arctic people respect its nature, sustainable way of life, and preserve their culture inspired me to overcome these differences and blend with their thought process. I found this research was not only for academics but also a journey of self-discovery. I never knew that I would love frozen Lapland and its culture this much. Community work and participatory art show me the dynamics of the art process where empathy, humility, and ethics are highly valued. I would say this research has shaped me as a person more than the person I was before and has enhanced my artistic perspective, which has sharpened my research ability.

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