

Preservation of the Hezhe people's fish skin tradition through fashion education

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ABSTRACT: People have worn clothes made from fish skin since early times, with earliest traces being found in Northeast China belonging to the Hezhe ethnic minority group. There is evidence of fish skin leather production in Scandinavia, the USA (Alaska), Japan (Hokkaido), Northeast China, and Russia (Siberia). Although the craft has almost disappeared, in 2006 the skill of processing fish skin was one of the first listed as Intangible Cultural Heritage of China. This paper describes the FishSkinLab workshop delivered in Tongjiang, China, where experienced Hezhe craftspeople have passed down the endangered fish skin craft to the next generation of Chinese students as part of a sustainable fashion higher education programme to learn best practices for social change and sustainability. The students mapped their creative journey, explored the rich cultural background of the Hezhe communities, and created a collection of fish skin textile samples with the help and guidance of Hezhe fish skin masters.

1 INTRODUCTION

FishSkinLab is a textile-based programme. The project was delivered in partnership with IAIA and it was designed to build and promote community knowledge around fish skin material culture. This paper describes the findings of the second phase of the project from October 2017 until August 2018. The FishSkinLab programme delivered a workshop at Jiejinkou Hezhen Village ethnic museum, Heilongjiang province, in Northeast China, and brought together a community of craftspeople from the Hezhe ethnic minority and fashion higher education students. FishSkinLab aims to develop new fashion practices, taking students out of the classroom and into nature, contributing to the learning experience about fashion sustainability. The project aims to improve the awareness and protection of traditional Chinese culture from the point of view of cultural integration. Students learn traditional handcraft heritage to integrate it in their fashion practice.

Participatory design and co-design structures are key to changing fashion systems and to foster lasting relationships between makers and final product (Fletcher 2008).

The main project objectives are:

- Map existing traditional knowledge of fish skin craft from Hezhe ethnic minority.

- Build an interdisciplinary collaborative network which intersects Hezhe craftspeople and higher education (HE) students.
- Preserve and disseminate Hezhe cultural heritage connected with fish skin.
- Strengthen Hezhe participation in international endeavours via inclusion of master craftspeople in network collaborative events.
- Help HE students to engage in sustainability by developing fish skin samples as an environmentally responsible alternative material for fashion.
- Bring together sustainable methods from fashion design and traditional crafts to foster international knowledge exchange.
- Identify tools about best practice on fish skin craft and test the ideas at fashion higher education institutions in the UK and internationally.

The FishSkinLab team set up a workshop with different activities such as fish skin tanning, fish skin painting, fish bone painting and ethnographic fieldwork of historical fish leather artefacts at national museums. A total of 20 students from different Chinese provinces benefited from the workshop, 2 Hezhe ethnic minority craftspeople delivered the workshop, 20 members of the Hezhe ethnic minority engaged in a public exhibition of the results and over 500 Chinese students participated on the online crit.

The paper describes the FishSkinLab methods of sustainable material engagement and the full

immersive experience through a teaching-in-the field approach. The paper analyses its findings in order to recommend transferable skills for educational models. The paper concludes to recommend the importance of Hezhe ethnic community visibility within China to facilitate intangible cultural heritage knowledge exchange.

2 BACKGROUND

An overview of the FishSkinLab network project partners as well as the historical context of fish skin craft and notion of intangible cultural heritage.

2.1 UAL

UAL is Europe's largest specialist arts and Design University, bringing together six arts, design, fashion and communication Colleges with more than 3,000 academic, research and technical staff and about 19,000 students from more than 100 countries.

UAL is actively engaged in research and innovation as well as artistic, cultural and education projects. UAL has particularly strong links with industry and creative practice and has been a pioneer in the development of practice-based and practice-led research in creative fields.

The author of this paper is the Fashion Print Pathway leader at Central Saint Martins, UAL and researcher based at the TFRC Textile Future Research Centre UAL. The author draws on her previous industry experience back in 2004, designing for John Galliano and Christian Dior fish leather garments and accessories made out of salmon, perch and cod skins sourced at Atlantic leather, the world's biggest fish skin tannery based in Iceland, situating the use of fish leather within the context of the luxury Industry. The author has experience running network projects linked with fish skin (e.g. EU Horizon 2020-MSCA-RISE Marie Skłodowska Curie: Fish Skin a Sustainable Raw Material), and has been funded by EU COSME WORTH partnership project to develop a Fish skin leather accessories collection with the aim to increase the use and sustainability of fish leather in the luxury fashion industry.

The results in this paper do not attempt to describe the contemporary use of fish skin as an innovative sustainable material for fashion and accessories but they aim to describe the transmission of the fish skin craft to fashion higher education students instead.

The research is investigated through the researcher's current practice as educator at Central Saint Martins, supporting fashion design students to engage in sustainability.

2.2 International Art Institutes Association (IAIA)

The International Art Institutes Association (IAIA), in Beijing, China, is a company specialized in providing Chinese Fashion students educational consulting and application mentoring. IAIA is the only official partner of UAL Beijing representative Office. IAIA works to cultivate future Chinese designers with both global vision and better understanding of Chinese culture, they cooperate with world-class artists to provide more advanced design concepts while keeping a strong interest in their rich Chinese cultural traditions.

Under the guidance of the author, Ms. Yuhan Chen, the director of IAIA Fashion Studio recruited the Chinese students and secured the craftspeople, location and logistics of the trip.

2.3 Historical context: the Hezhe ethnic minority

The Hezhe are one of China's smallest ethnic minorities (Hays 2008). The 2010 census counted 5,300 individuals belonging to this group. They live in Heilongjiang province in north eastern China, in the Amur-Heilong and Ussuri-Wusuli river basins along the border with Siberia, and their traditional economy is based on hunting and fishing. The use of fish skin clothing is a tradition shared by the Amur River people, an area from the interior of Asia to the Pacific Ocean in south eastern Siberia, north of the Japanese island of Hokkaido and Sakhalin Island (Fitzhugh, 1988).

Before synthetic fibres were invented, people clothed themselves with the natural materials available in the surroundings where they lived. In the case of the Hezhe, it was fish skin (Jiao, 2012). There are several reasons that could account for the disappearance of the fish-skin clothing from the everyday lives of the Hezhe. During the Japanese occupation of Manchuria – the historic name of this area of China – between 1931 and 1945, the Hezhe were resettled or put in forced labour and their numbers diminished to about 300 people. With the foundation of the People's Republic of China, in 1949, came relief to help the Hezhe rebuild their communities. Despite the rebound in population, overfishing and water pollution have caused fish stocks to drop in the rivers and many Hezhe turned to farming and tourism to make a living. The shortage of raw materials and omnipresence of modernity have challenged the preservation of the craft (Lin, 2007). Better access to the modern world meant the Hezhe were able to access textiles like cotton and silk to create their clothing and many young Hezhe moved away for their education and work, leaving fewer people to fish and learn the traditional crafts. There are currently only a few people left who know how to create these fish skin garments (Campbell, 2010).

In 2006, the Hezhen method of making clothes with fish skin was listed a national intangible cultural heritage, and You Wenfeng – our main craftsman during this workshop – was appointed its heir. Fish skin clothing seemed at the verge to extinction. However, it saw some hope with the boom of tourism in the region (Jiao, 2012). With the improvement of transportation, Jinkou Hezhen Folk Park and other tourism projects have continued to develop. The number of tourists has increased as well as the interest in the traditional Hezhe fish skin craft.

This paper seeks to draw attention to the vital importance of traditional Fish skin craft to the Hezhe as a basis for their culture and a component of their identities and to encourage their artisans on re-introducing such skills used by their ancestors making a tool for community development.

The author proposes the continuation of the skills through a craft-academic collaboration where she has co-created a workshop with the local community and experienced craftspeople have pass down the endangered art to the next generation of fashion students as part of a sustainable higher education program.

Because fish skin craft is not an aspect of Hezhe culture that is commonly studied, this paper attempts to fill a gap in the literature of the Hezhe minority group. This paper will call for further research on the topic of Hezhe crafts, Hezhe ethnic identities and their representation in Chinese society today.

2.4 Intangible Cultural Heritage context

In the convention for the safeguarding of the Intangible Cultural Heritage, UNESCO defines Intangible

Cultural Heritage as:

1. The ‘intangible cultural heritage’ means the practices, representations, expressions, knowledge, skills as well as the instruments, objects, artefacts and cultural spaces associated therewith – that communities, groups and, in some cases, individuals recognize as part of their cultural heritage. This intangible cultural heritage, transmitted from generation to generation, is constantly recreated by communities and groups in response to their environment, their interaction with nature and their history, and provides them with a sense of identity and continuity, thus promoting respect for cultural diversity and human creativity.
2. The ‘intangible cultural heritage,’ as defined in the paragraph above, is manifested in the following domains:
 - a. Oral traditions as a vehicle of the intangible cultural heritage;
 - b. Knowledge and practices concerning nature and the universe;

c. Traditional craftsmanship.

3. ‘Safeguarding’ means measures aimed at ensuring the viability of the intangible cultural heritage, including the identification, documentation, research, preservation, protection, promotion, enhancement, transmission, particularly through formal and non-formal education, as well as the revitalization of the various aspects of such heritage.

The physical cultural carriers are the materials. But the non-physical cultural carriers are people, their tools, the handicrafts and the cultural place (Zhang, 2010). The interaction between higher education students and craftspeople acts as cultural carriers and allows cultural preservation and conservation.

2.5 Environmental context

The fashion industry is currently going through a significant change in its approach towards sustainability (BCG, 2017) and must strive to change and rethink its raw materials and processes. FishSkinLab develops research that concentrates on promoting a new category of raw materials for fashion: fish leather.

A few underlying assumptions situate fish leather as a more sustainable alternative:

- Fish skins are sourced from the food industry, using what is now considered waste, applying the principle of circular economy.
- Using food industry waste will result in a reduction in the current level of pollution by the food and fishing industry.

Global production of fish has steadily increased over the last decade and more than 50% of the total fish capture remaining material results in 32 million tonnes of waste (Arvanito & Kassaveti, 2008). While, to date, the European Environment Protection agency allows seafood processors to dispose fish skins in marine waters, this is expected to change as the decomposing organic waste can suck up available oxygen from marine species and introduces disease to the local ecosystem (EPA, 2012). Consequently, the promotion and preservation of fish leather craft could be of great environmental benefit as well as profit for the Chinese economy.

The project could be scaled up in other countries such Japan and Russia, with history of use of fish skin leather. By doing so, indigenous fishing communities which used to subsist and dress themselves with fish skin leather items like the Ainu in Hokkaido, the Nanai in Siberia and Alaska’s Inuit will be able to reach agreements with nearby fishing plants for the supply of fish skins to get back specialised in the development of their ancient crafts and develop new fish skin craft productions that will implement their economy.

3 INNOVATION

Products made of fish skin in the Heilongjiang province have not change over the years. There is room for innovation within their fish skin craft.

In the case of fish skin painting the arrival of machine tanned fish skins makes the craftsman's job easier and quicker compared to the fish skin tanning where the whole manual tanning process is involved.

In order not to lose completely the fish skin craft, strategies must be implemented for its preservation and promotion. We should use design methodologies to rescue fish skin endangered cultural heritage and make this most distinctive traditional culture displayed again.

In an interventionist methodology, we propose the use of new fish skin designs developed by fashion HE students involved in this workshop for the creation of new craft items such fish skin paintings or fish bone paintings to be used by the Hezhe ethnic minority crafts community.

These new designs will probably give a new perspective of the traditional fish skin craft and lead to new consumptions.

4 METHODOLOGY

To reflect upon the interaction of textile design using traditional craft techniques, a bibliographic and documentary research was initially done:

- Enquiry [Theory]. Following the fieldwork, data was collected through primary and secondary sources to reveal areas of potential development.
- Contextual and visual analysis.
- Making [Practice]. HE students produced fish skin samples with the ethnic minority craftspeople.
- Photographic documentation was used for illustration and classification of results.
- Sharing [Dissemination]. Feedback has been sought through activities such as conferences, articles, teaching and communication via the author's website <http://www.fishskinlab.com>.

5 METHODS

Action research was used during this study. The data was collected through:

- Archival research in museums to study traditional knowledge in fish skin processing.
- Mapping traditional fish skin crafts to validate their technical feasibility.
- The Field Trip covered the area around Jiejinkou Hezhen Village ethnic museum, Heilongjiang province, north east China by the Amur River bank which empties into the Pacific Ocean in south eastern Siberia.

- Workshop on fish skin leather craft to test ideas through teaching and learning, observing students design approaches using fish skin as an alternative material for fashion.
- A documentary filmed during the workshop, featuring interviews with students, curators and craftsmen to observe students' development of fish skin finishes as a form of design research.
- Sketchbook development.
- Literature review.

6 ACTIVITY DESCRIPTION

6.1 *Project creation*

The workshop aim is an experiential learning process, based on sustainability values, where the students could create fish skin textile samples as a practical educational model of sustainability in action. The workshop seeks to develop a teaching and learning experience most suited to Fashion Design higher education.

The passing on of the fish skin knowledge and skills is of great relevance as well as the immersive experience at the remote ethnic minorities' villages. These fashion activities are meant to inspire deeper relational connections amongst the students involved, and between the students, the community and their environment.

The experimental and exploratory nature of this workshop has advanced the enquiry of Fashion Design for Sustainability for the students and tutors involved.

The project was created over a period of 10 months. A Slade School of Fine Art graduate, Joseph Boon, was involved in this phase. He contributed with his expert knowledge on fish skin tanning that he achieved during the final year of his BA. He learnt about the Hezhe people and decided to create his own fish skin material. He experimented with many different types of fish from Billingsgate Fish Market including; Brill, Dover Sole, Sea Bass, Flounder and Salmon to produce a womenswear collection inspired by 40's zoot suits made out the fish skins he had tanned himself.

During the workshop he shared his knowledge with the craftspeople and assisted students with the tanning process.

6.2 *Recruitment*

The main objective for the IAIA was providing educational consulting and application mentoring from the author to the students involved.

The author was interested to develop an immersive experiential learning process at the ethnic minorities' villages as a practical educational model of sustainability in action.

Over a period of 10 months the author engaged with UAL partners in China IAIA to contact local craftspeople in Tongjiang village for the delivery of the workshop. The two most skilful craftspeople in the area were recruited for this purpose.

Wen Feng You is a Hezhe craftspeople born in Tongjiang, she has spent all her life in the village, receiving only a primary school education. Like the rest of her family, she fished for a living. She has learnt the fish skin craft from her mother and grandmother. Since her mother passed away, Wen Feng You has shouldered the responsibility of keeping this dying craft alive.

When, in 2006, the Hezhen method of making clothes with fish skin was listed a national intangible cultural heritage, You Wen Feng You was appointed its heir. She is now in her sixties and she has produced more than 20 suits for museums in Japan and China. Ms. You taught us traditional methods of tanning fish skin developed by the Hezhe ethnic minority.

Sun Yulin is a craftspeople in Jiejinkou Hezhen County Tongjiang, Heilongjiang Province. His main skills are fish skin painting and fish bone painting. He has learnt the craft from his later uncle, and he has passed down the craft to this wife and children. The rise in recent years of the tourism industry makes his fish skin paintings business grow steadily. He is also invited to display the craftsmanship of fish skin paintings in different areas in mainland China.

In order to recruit the students involved in the workshop IAA, the UAL partner in Beijing looked for Chinese fashion and textiles students on their first year at UAL institutions willing to improve their portfolio skills and explore further alternative sustainable fashion materials such fish skin working with local ethnic minorities.

The project responds to a gap in local arts and craft teaching provision. While the Chinese government encourages the fish skin painting craft and every year organises a small course for Chinese University students, the fish skin tanning craft is currently completely over looked by the government.

6.3 Workshop location

The project was developed at Jiejinkou Hezhen Village museum, located in the northeast of Tongjiang City with mountains and rivers around it, next to the Russian Border and connected to the Jiejinkou National Forest Park. The village was founded in 1936 and its population consists of Han, Manchu, Korean, and Hezhen nationals. Currently there are 70 households and 3,000 people in the Village.

6.4 Workshop programme

The workshop was 10 days long and included:

- Sustainability background Introduction;
- Visit to museums;
- Fish skin tanning;
- Fish skin painting;
- Fish bone painting;
- Sketch development.

6.5 Sustainability background introduction

The group was briefed at an introductory session providing inspiration, basic information regarding ethics and sustainability of fish skin leather. Another objective was to place this project in the frame of alternative sustainable materials.

In order to adhere to this strategy, a comparative study of different leathers and fish leather was made. Suggestions for further reading and research were given to students.

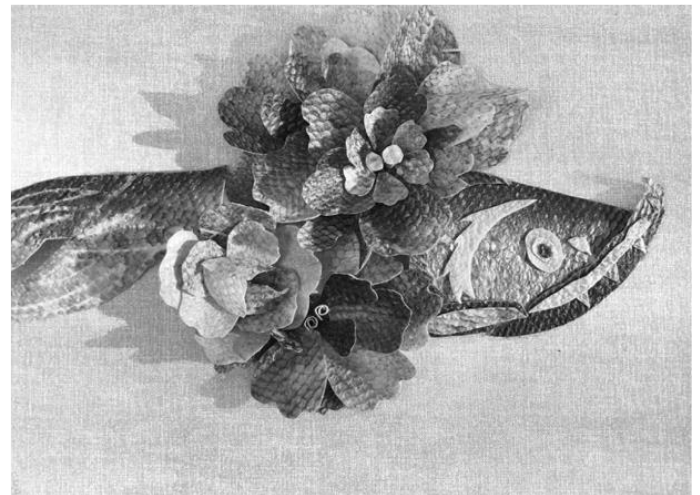


Figure 1. Fish skin painting workshop with Mr Sun Yu Lin. Student's work.



Figure 2. Fish skin tanning workshop with Mrs You Wen Fen.

6.6 Visit to museums

The workshop included ethnographic fieldwork of historical fish skin artefacts at national museums and crafts communities. There were lectures on fish skin artefacts at international collections.

The Jiejinkou Hezhen Village ethnic museum displays the traditional lifestyle of Hezhe people. Items in exhibit were collected from Sanjiang plain area of Heilongjiang province. They cover a time span from the Qing Dynasty (1616-1911) to modern times.

The interaction between students and museum fish skin collections helped their creative practice by observing and translating traditional methods.

6.7 Fish skin tanning

We worked with salmons we bought at the fish market. When processing the fish, we separated the flesh and the skins, and cut off the fins. Then, we scraped off any remaining bits with a birch knife. We plastered the skins onto a wooden board to dry for a day. Afterwards, we made sure the lines of the skins were straight. We put several skins into layers separated with corn flour to soak up the fish oil. We rolled them into a cylinder and mash and soften them in a large wooden scissor-like instrument. Lastly, we softened the skins by rubbing pieces of skin against each other.

The tanning methods differs enormously from the ones developed by the Sami ethnic minority in Scandinavia where fish skins are tanned using a bark solution made from boiled willow bark or using rapeseed oil, egg yolk and soap for oil tanning. It also differs from the tanning methods used by the Ainu ethnic minority in Hokkaido, Japan where skins are stretched first and then smoked for 5 days inside the Ainu home or chise.

6.8 Fish skin painting

Originally fish skin was used to make the paper decorations outside of the Hezhe homes for Chinese New Year. While in the rest of China were made of paper, the Hezhe made them out of fish skin. The original paintings had deities' symbols on them and later some local motifs reflecting the theme of winter fishing started to appear. Currently Han flower and animal motifs are the most popular ones.

We used machine tanned fish skins unlike our previous workshop where we tanned our own skins. The process of matching the skin colours proved to be quite complicated. Students managed to innovate with new designs and mixing media on their artwork.

6.9 Fish bone painting

Historically fish bone paintings are created to counteract evil force and are based on the folk totem, evil counteracting animal. The animal is a spirit animal in ancient Chinese legends and can ward off evils. Fish bones are considered to be an auspicious object for the Buddhists. Fish bone painting, combining the two, can exorcise evil spirits and keep a family peaceful, happy, and lucky. We used fish bones with different shapes and sizes in a canvas, drawing according to the shape of fish bones to form a fish bone painting.

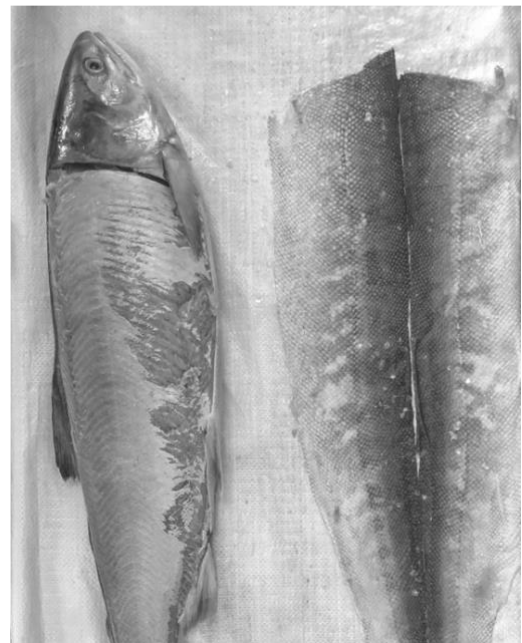


Figure 3. Fish Skin tanning workshop. Skinned salmons.

6.10 Sketchbook development

The workshop included a training on Sketchbook development. Students documented the journey and workshop through observation in sketchbooks with drawings, research images and design process.

6.11 Project exhibition

The research process culminated in an event involving the fashion students, tutors, craftspeople, and the community at the Jiejinkou Hezhen village ethnic museum to share the workshop results and findings: final tanned fish skins, fish skin paintings, fish bone paintings and sketchbooks related to the research.

The IAIA organised a skype conference call with over 500 students who witnessed the Hezhe dances and singing session and the student's crit.

6.12 *Observations and participation*

Observational and participatory methods were utilised to obtain data. The author immersed herself as a researcher physically into the fieldwork so she could observe and experience first-hand.

Using fish skin material and processes to give voice to their ideas, allowed the students to create a range of textile samples. None of the participants have worked with fish skin before and they felt the material was rich and versatile. The key findings from the questionnaire verified that students would be prone to use fish skin in their work as an alternative material to exotic skins.

Analysed data suggests that the participants were happy to learn new hand craft techniques to incorporate them into their own practice. Through their textile samples students attempt to raise awareness of local environmental issues and Hezhe minority inequality and rights. Two of the participants chose to use fish skin for their graduate collections and they are currently developing samples out of fish skins.

6.13 *Ethical principles*

The research project was introduced via presentation, including visual materials. It was clearly explained what the commitment to the project was in terms of workshop attendance, engagement in a discussion and the need of some form of documentation of the process. An Information Sheet, an Informed Consent Form, a photography and video recording consent form and a form with the interview questions was provided to those participating in the project. These documents were translated in accordance to the individual requirements.

The research project involved participation of craftspeople from the Hezhe ethnic minority and one of their representatives from the Intangible Cultural Heritage Protection Centre was involved in the implementation of the project to help build trust between the craftspeople and the researcher to ensure the use of culturally and socially appropriate research techniques from the start of the project for the physical and mental comfort of the participants.

The workshop involved using animal skins (fish skins) from salmon. They are by-products of the food industry and have not been farmed for the sole purpose of the fashion industry use. They are not endangered species. The workshop did not involve the use of elements that may cause harm to the environment, animals or plants.

7 FINDINGS

Feedback from participants, craftspeople, and museum curators suggest that the passing on the fish skin knowledge and skills was of great relevance to them as well as the immersive experience at the Jiejinkou Hezhen Village. This fashion activity managed to inspire deeper relational connections amongst the students involved, and between the students and the Hezhe community and their environment.

Working outside of the classroom can provoke a learning method that usually does not occur in the university campus.

The workshop created opportunities for students to meet remote communities and their ancient fish skin leather craft by:

- Observation of the community, their crafts and environment.
- Reflexion, research and creative design process.
- Prototyping of traditional fish skin samples. Students became the main players in realising resilience through the community-in-place.

Craftsmen were inspired to teach a different group of people and they assimilated students' ideas and techniques for their own future work.

The Anglo-Chinese network has blended the high skills of Chinese craftspeople with British cutting-edge sustainable design education.

The workshop seeks to inspire Academia involved in the development of sustainability and craftsmanship within their curriculums to implement this transformative teaching and learning experience in their own practice which in turn may contribute to public debate on sustainability issues in the fashion industry (Fletcher & Williams, 2010). Development of sustainability within the curriculum has been identified as a high priority (Reid 2011). The hope is that the observations gathered through the workshop will aid to understand how to embody craftsmanship and sustainability content in fashion HE practices.

8 CONCLUSIONS AND FUTURE WORK

Fish skin craft is regarded as Intangible Cultural Heritage in China. It is important to find ways to preserve and promote it within its own Hezhe community and with younger generations. The researcher concludes that it is possible to introduce new designs into fish skin craft. Innovations can give bigger visibility to this craft which will disappear unless there are new interventions happening. The target of fish skin tourism product marketing should bring mutual benefit to local craftspeople developing national economy and protecting ethnic culture (Chen, 2009).

Once the project is over – as a longer-term aim/potential legacy of the project – findings could be

delivered in the shape of craft workshops for higher education students to align universities with the United Nations in actively supporting principles in the areas of sustainability. The project could be implemented through a programme of workshops for Fashion higher education students in those areas where fish skin leather was originated (Scandinavia, Alaska, Hokkaido island, Japan and Siberia). Craftspeople from ethnic minorities will pass down the endangered fish skin craft techniques and will benefit from preservation of their craft. Students will benefit from education in craft and sustainability. Thanks to the FishSkinLab project, the author has advanced knowledge on fish skin craft and has been able to deliver two more workshops developing methods of tanning fish skin in areas where traditionally fish skin was developed:

- Nordic fish skin workshop, Blondous, Iceland. Workshop in collaboration with the fish leather tannery Atlantic Leather at the Icelandic Textile Centre with the participation of students from top Nordic Universities: Iceland University of the Arts, Royal Danish Academy of Arts, Boras University, Sweden; Aalto University, Finland and Central Saint Martins College of Art, UK. Funded by the Nordic Culture Fund and the Society of Dyers and Colourists.
- Nibutani Ainu culture museum, Hokkaido, Japan. Workshop on Ainu Fish leather craftsmanship with students from Japanese universities: Bunka Gakuen, Osaka Bunka, Kyoto Seika University. Funded by FRPAC. Foundation for Research and Promotion of Ainu Culture, the Japan Foundation Endowment Committee and The Great Britain Sasakawa Foundation.

The long perspective for the network will be a knowledge exchange to build a cultural network on Fish skin craft innovation.

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