



Figure 1. Carding wool by hand to align the fibres into fine felt.
Photo: Lola Cervantes, 2024.



Figure 2. Katariina Angeria shows how to use a wool carding mill.
Photo: Dorsa Abolfazli, 2024.

Bike Felting Experiment for Wool Innovation

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A team of researchers, local knowledge holders, and university students came together to experiment with transforming the ancient method of horse-aided felting into bike felting. Horse-aided felting has been used in many countries to create shelters. The goal of the bike felting experiment was to revitalise the tradition of large-scale felting of raw wool in contemporary society, thereby supporting the use of local wool in rural Finland.

Small-scale sheep farming supports biodiversity: grazing meadows are rich in diverse grasses and insects. In Lapland, sheep farms are often connected to cultural tourism and are scattered far apart. Due to the limited wool production and long distances, the wool is not collected for industrial use and is often considered waste rather than a resource.

Indigenous people traditionally used unwashed raw wool for felting. A traditional shelter *yurt* is covered with a thick wool blanket felted with a horse. The wool was laid out in a sheet, wrapped around a log, and pulled by a horse until it felted. Unwashed wool is naturally greasy, which makes it ideal for felting, but these techniques have largely been forgotten.

In the bike felting workshop, we wrapped a sheet of wool around a plastic pipe and pulled it behind a bicycle through the country landscape near the Navetta Gallery cafeteria in the village of Äkäslompolo. Two local wool craft experts, Hanna-Maija Sandqvist and Katariina Angeria, guided us and shared valuable insight of wool as material.

We successfully felted the wool and are working on developing this method further. Our vision is to create a felted blanket for an existing shelter currently covered in plastic and to design new contemporary architecture that blends with the cultural landscape and supports the sustainability of nature tourism. This development is part of the “Felted Futures” concept

Figure 3. Preparing raw wool into felting.
Photo: Lola Cervantes, 2024.



“Wool felting is a craft of connection, as witnessed in the Felted Futures workshop. It is a collaborative endeavour that fosters connection.”

– Lola Cervantes, doctoral candidate in methodology for collaborating through wool crafts

by doctoral researchers Lola Cervantes and architect Hanieh Ahmadi.

Domestic wool in Finland has a positive ecological impact on natural diversity. However, the global wool economy, such as merino wool production, is linked to soil erosion. The ecological footprint of merino wool is significant, especially when it is not a byproduct of meat production. The Wool Innovation project at the Faculty of Art and Design, University of Lapland aims to support small and medium-sized companies in Lapland by revitalising and utilising wool craft heritage for the contemporary craft, design, and tourism sectors by approached of new genre Arctic art education.

We strive to develop new wool-based products and services sustainably, enhancing growth and innovation in crafts and cultural tourism by sharing and renewing the cultural heritage of wool crafts. The project contributes to the growth and profitability of the craft and textile sectors, as well as rural tourism in Lapland. Indirectly, it also seeks to help preserve biodiversity, maintain cultural landscapes, and promote the sustainability of the tourism industry. The Wool Innovation project is co-funded by the European Union. ●

"It is valuable to be able to share the experience and know-how accumulated over the decades with young researchers."

- Hanna-Maija Sandqvist, knowledge holder of wool and crafting

INFO

The *Felted Futures: From Fleece to Felt* workshop was held in Äkäslompola in 2024. Artists and designers Lola Cervantes, Maria Huhmarniemi, Hanieh Ahmadi, Fian Arrafiani and Dorsa Abolfazli collaborated with locals. The cafeteria Navetta Gallery hosted the event. The Wool Innovation project, co-funded by the European Union, funded it.

▼ **Figure 4.** Bike felting experiment. Photo: Dorsa Abolfazli, 2024.



▲ **Figure 5.** Felted wool. Photo: Dorsa Abolfazli, 2024.

