



Felted Futures

Service and Architectural Concept

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The Felted Futures concept consisted of collaborative felting workshops using discarded local wool, along with an architectural plan for a contemporary shelter for a nature-based tourism site. In addition, the team co-developed a service for sustainable tourism in the form of workshops using discarded wool, a material with potential as a shelter cover, as well as for creative tourism workshops. This project proposes that culturally embedded craft practices can inform contemporary architectural solutions, fostering sustainability and cultural significance in the Arctic region.

The co-design process involved revitalising the traditional horse-felting technique with contemporary adjustments, adapted to the local context. The horse-felting technique has deep roots in Cen-

tral Asia in countries such as Mongolia, Kyrgyzstan and Iran. In these regions, rural communities have traditionally used raw, unwashed wool for felting. We followed their traditional manual techniques to prepare the wool and classify the fibres (Figure 2).

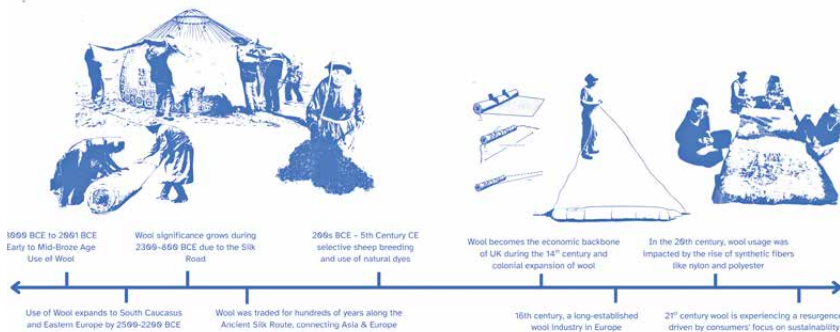
The piloting of this project took place in 2024, the first time in Äkäslompolo and the second time in Rovaniemi. The materials used were the following:

1. Raw wool fleece from Finnsheep, Kainuun Harmas.
2. A bicycle, plastic pipes, a carding drum, ropes, garden canvas, hot water, and soap.
3. The architectural model was built with cardboard, wooden sticks, glue and wool fabric.

The wool sheets were formed by layering wool on a mat, alternating the direction of each layer for added strength; the wool was soaked in hot water and soap, then covered with a plastic sheet to keep the fibres in place during the rolling (Figure 1). The layered wool sheets were tight around a pipe, and the roll was towed behind a bicycle for a few kilometres. This co-designing process involved local wool experts as well as designers, architects and researchers from the University of Lapland.

◀ **FIGURE 1.** Felting process. Photographs: Fabiola Hernández Cervantes, 2025.

▼ **FIGURE 2.** Learning from craft heritage (Hernández Cervantes, 2025b, pp. 6–7).



► **FIGURE 3.** Award-winning design concept. Photograph: Fabiola Hernández Cervantes, 2025.



The complete outcome of this project includes the following:

- A design proposal for an architectural wool-felted shelter, a ‘Finnish Yurt’, tailored to the Navetta Galleria partner.
- Bike-aided felting as a service proposal for creative nature-based tourism as well as for team-building (Hernández Cervantes, 2025a).
- A printable pocket booklet explaining the background of the project, workshop instructions and future applications of this technique and material (Hernández Cervantes, 2025b).
- The experiment has been carefully reflected and presented in a Master’s thesis (Ahmadi, 2025) and research publications (Huhmarniemi et al., 2025; Huhmarniemi & Hernández Cervantes, 2024).
- The proposal and its complete outcome were awarded the First Prize in the International Bio-economy and Bio design competition held in Hungary in 2025 by the consortium Engage4BIO (Figure 3).

The *Felted Futures* project demonstrated how heritage practices can be meaningfully connected to contemporary design thinking. Participants engaged collaboratively and through hands-on exploration with wool, deepening their ecological, cultural, and material understanding of this craft material. The workshops involved active experimentation and problem-solving as participants responded to material-related challenges that emerged during piloting.

Working outdoors with large wool sheets required the team to improvise and collaborate on tasks. The physical demands of felting at this scale also raise questions about scalability. Further design development and additional resources will be necessary to continue experimenting with a life-sized shelter and to complete the felting of its roof covering.

References:

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