My practice investigates the relationship between human control and material autonomy through processes of making. By experimenting with natural materials such as leather, wool, and wood, I aim to understand how different levels of control can influence form, structure, and meaning in wearable artefacts. Drawing from nomadic culture, my work explores adaptability and transformation，how materials shift between states of tension and release, rigidity and softness, precision and unpredictability.

Material Exploration

The materials needed for the daily life of traditional nomads come from nature, and are collected directly from the surrounding environment, such as wool and leather from animals, and wood. These natural materials express the relationship between man and matter as direct and cyclical; each material has traces of origin, season and place, reflecting a lifestyle of adaptability, respect and balance with the natural world. This influenced my material choices: I mainly use leather, wool and wood, that continue the connection with the environment while allowing for human crafting and unpredictability.

Leather

Leather is one of the main materials of nomadic life, taken from the animals on which nomadic life depends. I use goat leather and cow leather as my main materials. Leather has a tension between softness and hardness, and I chose to use soft sheepskin and to shape it to harden or retain its natural softness. The strong contrast between the two states also provides the expression of control and non-control that is the basis of my project. I chose shearling leather from my hometown (Xing an meng), and the natural irregularities, textures and warmth of the sheepskin skin create additional tactile sensations. I experiment with leather in different ways , soft as the natural skins of the animal and hardened by traditional moulding, waxing and tension-based techniques, which allow the material to transform into unexpected forms. These treatments create subtle distortions, curves and surface changes that I cannot fully control. I incorporate these natural shifts into the work, letting the behaviour of the leather influence the final shape.

Goat leather and shearling samples

Wool

Wool, a material deeply rooted in nomadic life, has been a fundamental material for clothing and shelter in Mongolian culture, providing protection such as warmth, water repellence. I was also attracted to the material softness of wool and its potential to become multiple textures, which can change during wet felt or needle felting, when the fibres intertwine through friction, heat, moisture, etc., from a loose to a dense and cohesive state. The softness and elasticity of wool also applies to the body, which can be unfolded or twisted depending on gravitational tension. I use natural and micro-processed wool, some of the wool comes from my family's sheep in my hometown[1], and I mix this with processed wool from the UK. My goal is to preserve its organic qualities, texture variations and irregular expressions, the ability of materials to express their own characteristics.

Figure 10. Raw wool and Felt samples

Raw wool and Felt samples

My Family member assisting in sheep shearing.

[1]My mum found family members who were grazing and helped me get some wool, but since it is not the molting period of sheep, I was unable to use 100% local wool.

Wood

Trees are relatively rare in the grasslands, but nomadic buildings generally use local varieties such as birch, willow, and oak as the main materials for construction, and these woods are chosen not for permanence or durability, but for their lightness, flexibility (softness) and toughness. Birch and oak trees are not prone to breakage, and this property makes them suitable for building yurt frames, which can be repeatedly assembled, disassembled and constantly transported. In my project, wood is used as a primary means of connection, I explore its ability to form modularity and configuration that echoes the stable structure of a nomadic dwelling.

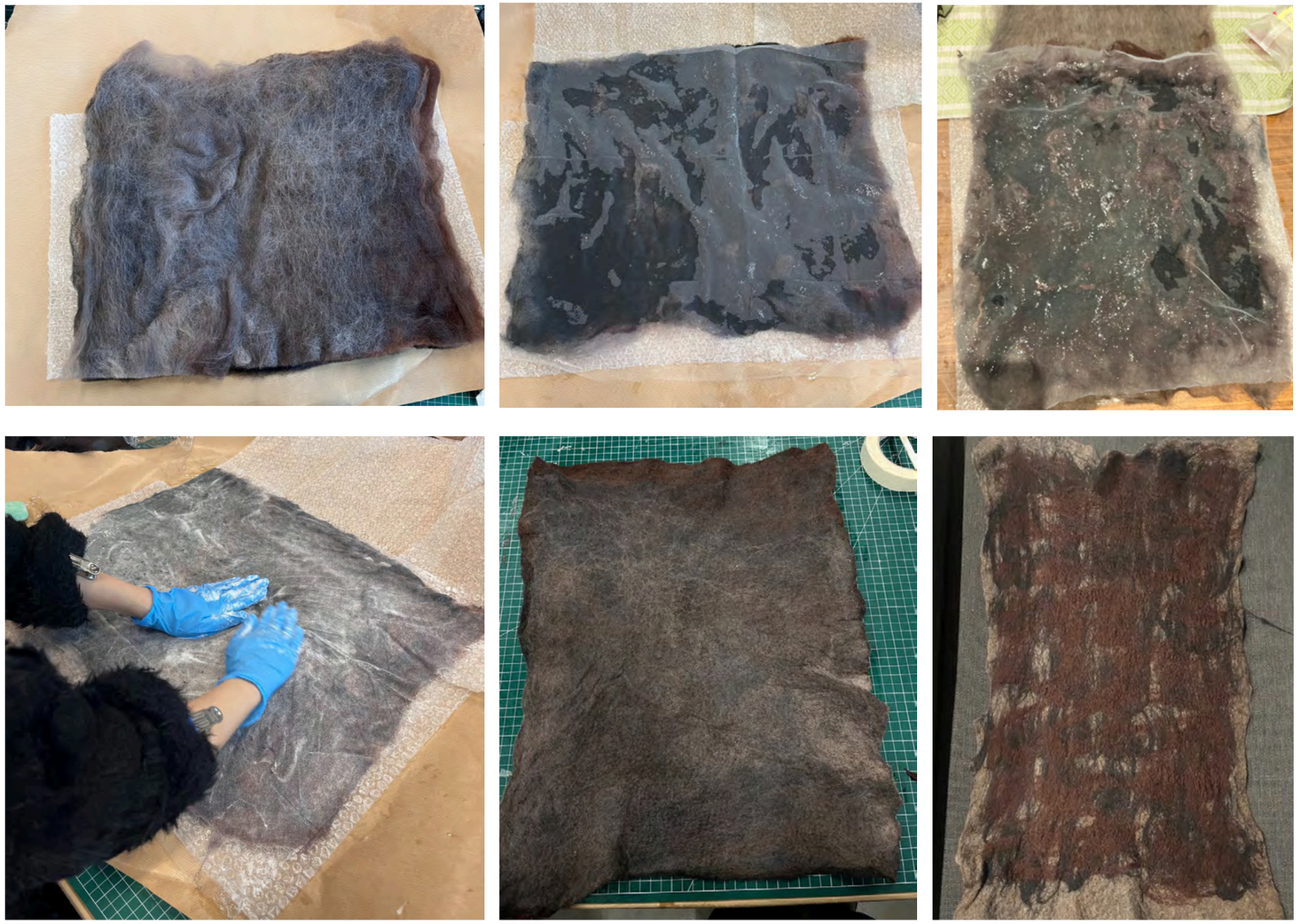
Oak sticks

Birch Sticks

Felt making

Traditional wet felting is one of the most mature wool processing techniques in nomadic cultures. The process begins with the collection of raw wool, followed by washing, matting, compression and shaping along the natural behavior of the fibers, to making felt to use and wearing, all of which run through and follow the laws of nature. In nomadic life, felt wool was essential for survival in extreme climates, and was used to build tents, cloaks, shoes, and shields. I am interested in how this technique reflects the relationship between materials and the environment, that the felt is not shaped by strict control, but is generated from moisture, pressure, friction and time, factors that are partially predictable but always variable. In my production process, I feel that the final felting result of wool felt is unpredictable, even if wool felt is an artificially made fabric, but the winding and state of different wool are different under different forces and frictions, and I feel the initiative of the material more through making wool felt.

In my practice, I employ wet felting not only as a craft technique, but also as a way to explore material-led shifts and the relationship between control and uncontrollability. The gradual entanglement of fibers, uneven contraction, and changes in the density of materials are consistent with my research on nomadic adaptability and material agency. Wet felt allowed me to use a material that was behaviorally responsive rather than fixed, echoing the necessity of being flexible, portable, and sensitive to environmental conditions in nomadic cultures.



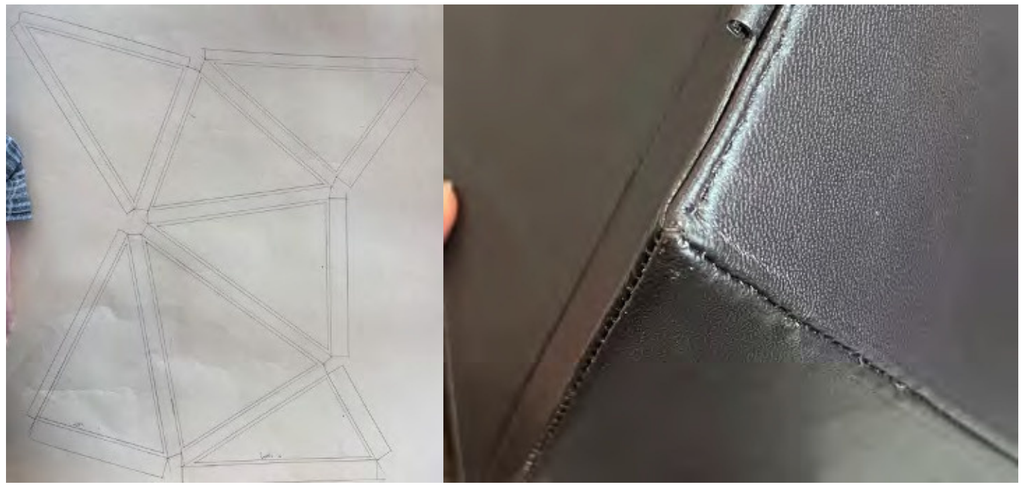
My process of making wool felt: lay out the wool, soak it, and knead it to make it fluffy.

Pattern cutting

Mybackground is lacquer craftsmanship, I don't have any experience of clothing or bag patterning, which means pattern cutting is a new skill for me. My design process incorporates a gradual exploration through repeated attempts, to gradually understand how the two-dimensional mode changes to the three-dimensional mode.
At the beginning of the pattern making exploration, I only considered the shape, and without professional study, I did not consider the retention of the seam and the sewing method, which led to many problems arising from flat to three-dimensional. In particular, working with leather made me realize that the tension of the cutting line and seams directly affects the flexibility of the structure, and that the wrong method of assemblage can cause the corners of the geometry to be missing, as shown in my initial pattern making experiment caused problems with the corners (Fig. 16).

Early pattern-cutting sample showing geometric distortion at corner joints.

After continuous testing, I improved the geometric fit, added a little seam and sewed precisely, which greatly improved the triangular meeting point (Fig. 17).



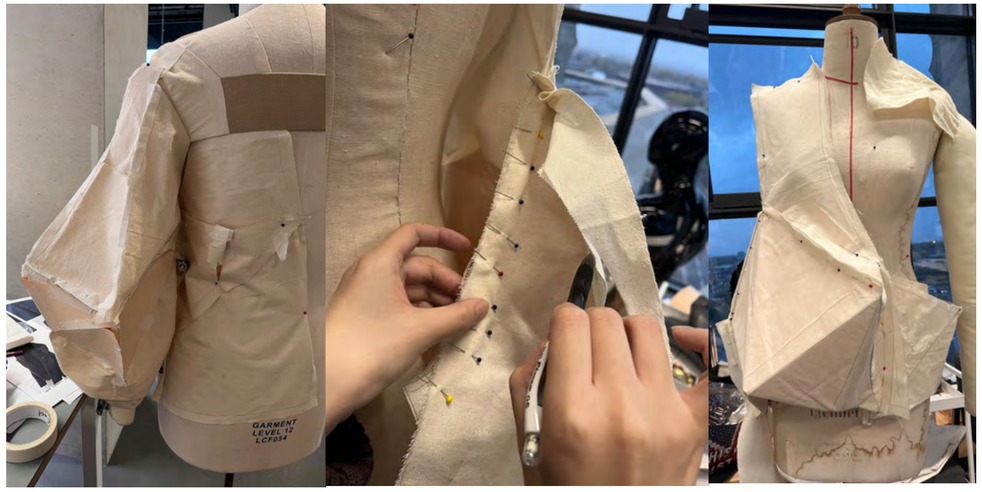
The improved pattern and the collection points of the corners

In my design, several components function similarly to garments, which means the bags must fit closely to the body. However, I initially lacked knowledge of draping and garment construction, and my early patterns were poorly fitted, uncomfortable to wear, and structurally unstable (fig.). These early attempts made it clear that my modular bags and wearable structures could not rely solely on sculptural intuition; they required an understanding of how patterns shape volume and how forms move around the human body.

To address this, I began researching geometric cutting methods through resources such as Pattern Magic, which gave me an initial understanding of clothing as a three-dimensional system. With support from the fashion studio and technical staff, I also gained some foundational knowledge of flat pattern cutting and draping. Although I cannot fully master pattern cutting within a short period of time, working directly on the mannequin has significantly improved my understanding of pattern logic and has shifted my design approach. Instead of focusing only on structural form, I now work with the body as an active part of the design process.

An important aspect of this learning process has been the role of failure and iteration. My early pattern experiments revealed many limitations: for example, the initial patterns did not account for the convergence points at geometric corners, and the garment-like bag designs remained too flat and detached from the body. These issues highlighted gaps in my technical knowledge. Each unsuccessful prototype clarified problems related to seam placement, wearability, and functional behaviour, helping me identify the connections and conflicts between modular structural logic and the logic of the human body.

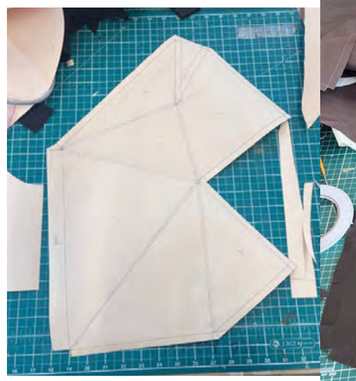
The early model tests did not fit the body properly.



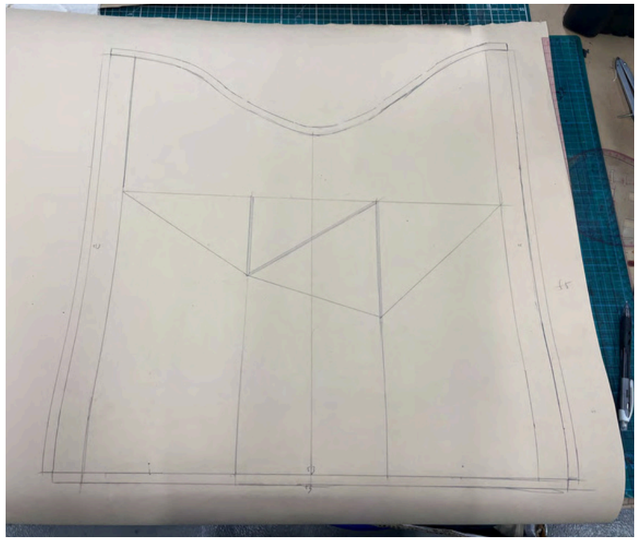
Learning and attempting of three-dimensional pattern making

From three-dimensional cutting to two-dimensional pattern



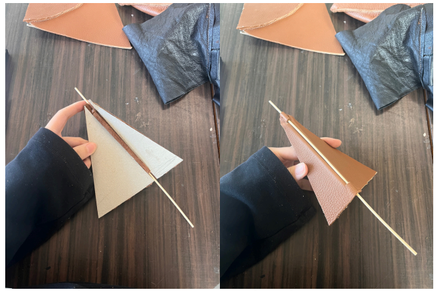



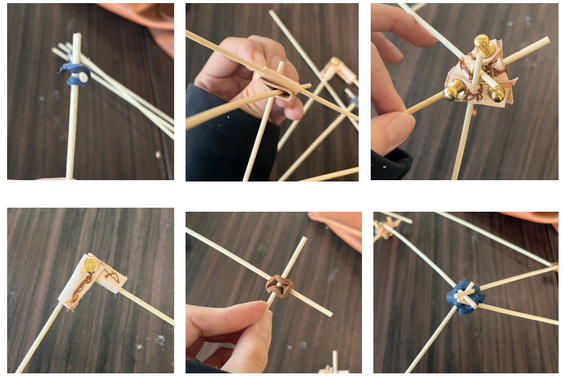



Connections

Drawing inspiration from the structure of the yurt and these modern precedents, I developed a simple connection system. This system was achieved by creating leather tubes, inserting wooden sticks into the tubes, and forming interlocking connections. This system enables the leather panels to fold and rotate around the axis of the wooden sticks, maintaining closure, alignment, while also creating flexibility.

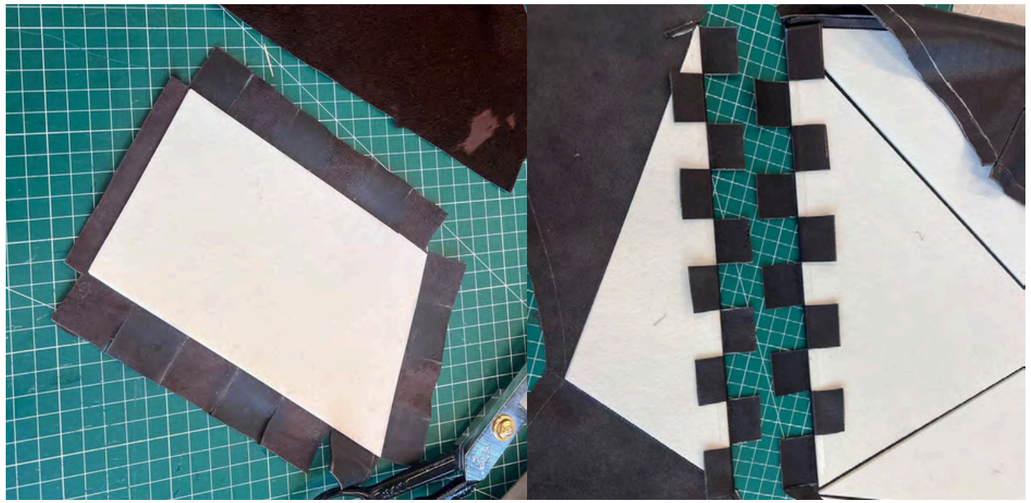




Initial connection method test

Based on the above research, I will focus on modular design systems to create a collection of bags, or 'carriers' that can be connected, separated, or freely assembled according to changing needs and environments.

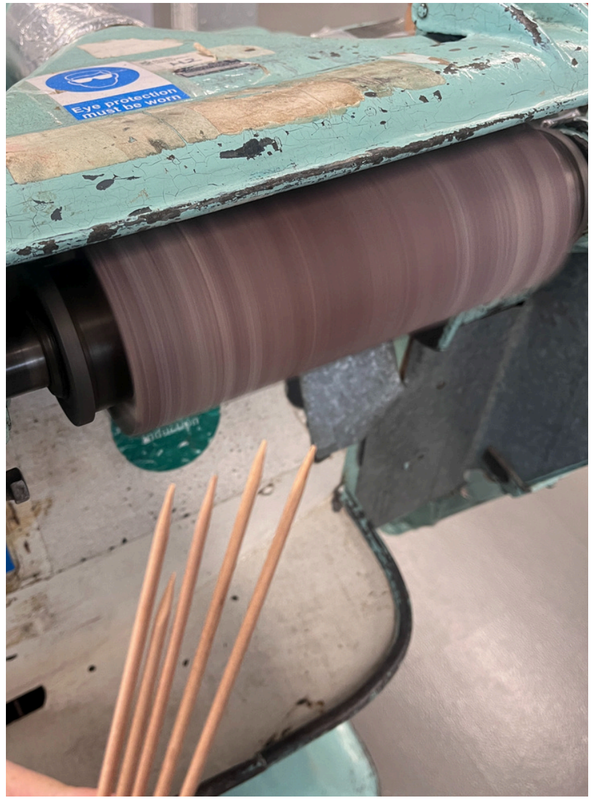
Figure 15. Sample of connection made with leather strips and wooden sticks.



First, apply a leather surface treatment agent to the interior of the leather to ensure smooth flow of the liquid.
Measure the distances on both sides and then proceed with cutting and sewing.

The felt pipe needs to be stitched to make it firm.

Wood sticks and metal processing technique



In order to make the connection process smoother, I first need to make one end of the wooden stick sharper and then polish the wooden stick.

Using metal rods as a substitute for the load-bearing position, I plan to connect them together using screws for a closed structure.

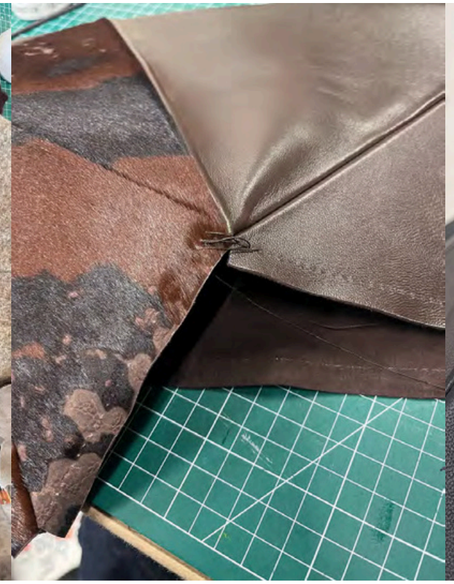
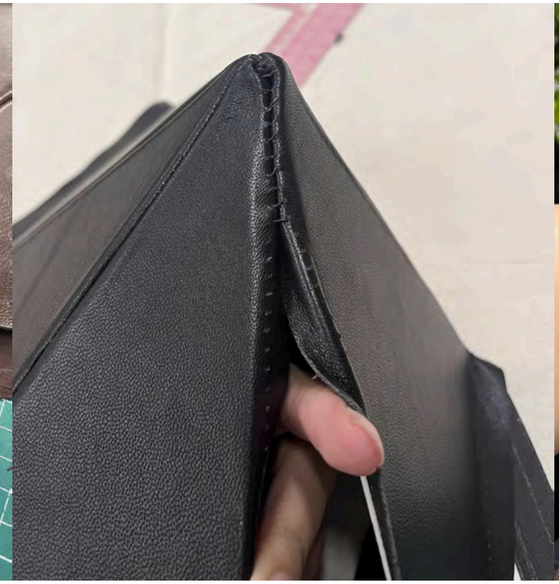
Sewn in leather

Sewn in geometric leather

Constructing geometric leather forms requires precise control over every corner, intersection, and stitch line, assuming an accurate base pattern. Once the stiffener is added, sewing becomes significantly more challenging, and I had to identify suitable sewing angles and methods to manage the increased rigidity.

To address these issues, I undertook extensive practice and testing. Through repeated trials, I learned how seam allowance, stitch length, and even the grain direction of the leather influence the final crispness of a geometric form. Some attempts failed due to splitting edges or distorted corners, while others revealed more stable construction sequences. This iterative process not only improved the technical quality of my leatherwork but also deepened my understanding of how geometric rigidity can coexist with the inherent softness of the material.

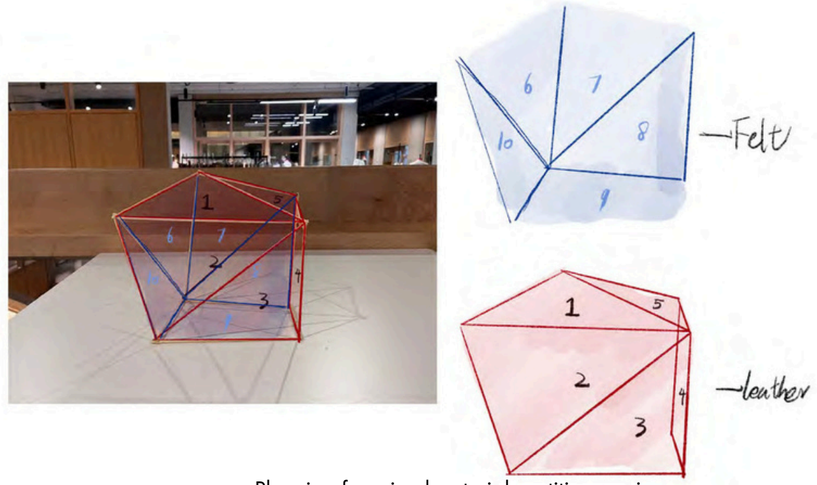



Complex Pattern sewing

Before constructing the final pieces, I needed to plan the sewing methods and sequence for every component. Because my design involves combining multiple materials, soft leather, hardened leather sections, felt, straps, and structural connectors, the order of assembly became crucial. Each layer affects the next: different materials must be attached before the leather is shaped; structural channels must be secured before the seams are closed; and the lining must be considered in relation to the final steps. Any mistake in this sequence can make the piece impossible to sew.

To manage this complexity, I created detailed sewing plans, mapping out the sewing method, seam direction, and connection points for each component (fig.). Through testing, I discovered how altering the order of operations impacts edge sharpness and geometric stability. Some sequences trapped layers or created inaccessible corners, forcing me to rethink the process and return to earlier stages. These iterative adjustments helped me understand the technical choreography required when constructing systems that combine soft and rigid materials. Ultimately, the planning process became as important as the sewing itself, ensuring that the final artefacts maintained both the structural precision and adaptive qualities fundamental to my project.



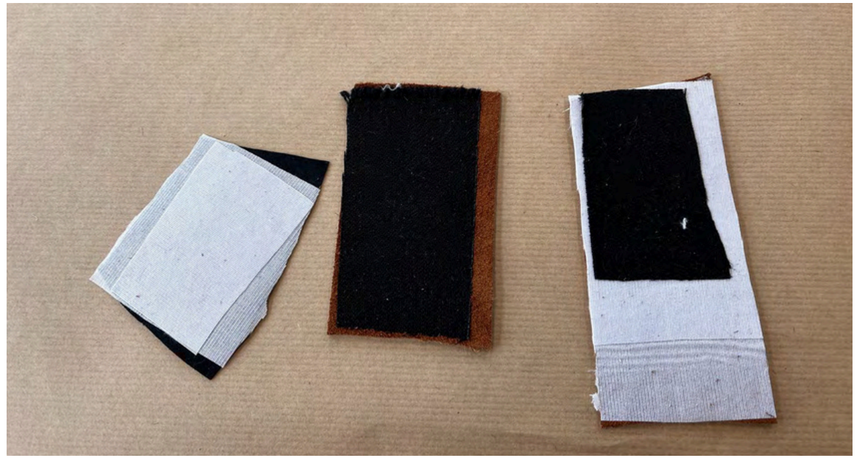
Planning for mixed-material partition sewing

Sewing sequence planning

Harden leather sections

To express the contrast between softness and rigidity in my work, I experimented with attaching hardened materials and structures onto soft leather surfaces. My initial approach followed common leather craft techniques that use cardboard as an internal stiffener. However, during testing, the cardboard edges deteriorated through friction during stitching and construction. As a result, I explored different types of interfacings, testing variations in stiffness and thickness (fig.).

After multiple rounds of experimentation, I selected a composite iron-on interfacing made from polyester and cellulose fibres as the stiffener for my hardened leather sections (fig.). This material provided both strength and flexibility, bonded securely with the leather surface, and maintained clean edges that could withstand stitching and manipulation.



Tests on the adhesion of leather to different hardness backing fabrics and different number of layering repetitions