PORTFOLIO

Eero Brandt 20 25

Selected industrial design works

Resume

Eero Brandt

I am a fresh Master of Arts graduate from Aalto University, Finland's leading institution for higher education in design. Specializing in sustainable industrial design, I've worked with companies like Fiskars Group and KONE, and I'm currently a product designer at COMPARO GmbH.

My design philosophy is rooted in responsibility. As designers, we are at the starting point of creating products, holding significant influence over decisions that shape our future. We have the power to guide users toward responsible choices and encourage corporations to adopt circular practices. This ethos guides my form-giving leading objects to possess more meaningful and subtly refined appearances.

I am passionate about using biomaterials and side streams in my designs, and I think it's important to know not only how to close the loop but also how to do regenerative design.

EXPERIENCE

6/2023 – Now **Product Designer**
Comparo GmbH

- Lead designer for product and interior design in Germany's wholesaling sector, specializing in design that fits the Nordic markets.
- Drove sustainable product development through material selection and manufacturing optimization.
- Provided strategic guidance for product alignment with the Nordic markets' aesthetic and cultural expectations.
- Assisting in crafting market entry strategies to the Nordics and building strong relationships with key stakeholders.

4/2023 – 5/2023 **Sustainable Designer**
Niimaar Circular Design

- Conceptualized and executed the design of the Unisex Zero Waste clothing collection.
- Won the Young Finnish Design competition 2022, advocating for a circular economy model in the fashion industry.
- Piloted a circular economy fashion project in Finland.

5/2022 – 9/2022 **Service Design Trainee**
Fiskars Village Art & Design Biennale | Onoma Fiskars

- Worked on the user experience of both customers and employees.
- Contributed to the enhancement of the overall exhibition experience.

4/2021-11/2021 **Exhibition Designer**
Aalto University

- Planned and executed the exhibition Reconstructing Everyday Fashion, 1550-1650 for ERC-funded reasearch project Refashioning the Renaissance as the design lead for a multicultural team.

EDUCATION

9/2023 – 6/2025 **Masters of Art and Design**
Aalto-University

- Major in Collaborative and Industrial design
- Master's thesis on designing a surface structure that reduces plastic products' CO_2 emissions by ~6% without compromising usability.
- Minor in sustainable entrepreneurship

9/2020 – 6/2023 **Bachelor of Art and Design**
Aalto-University

- Major in Industrial and Product Design
- Bachelor's thesis at Fiskars Group, where I developed a practical method to repurpose food waste into crafting material.
- Minor in CHEMARTS biomaterial research

Content

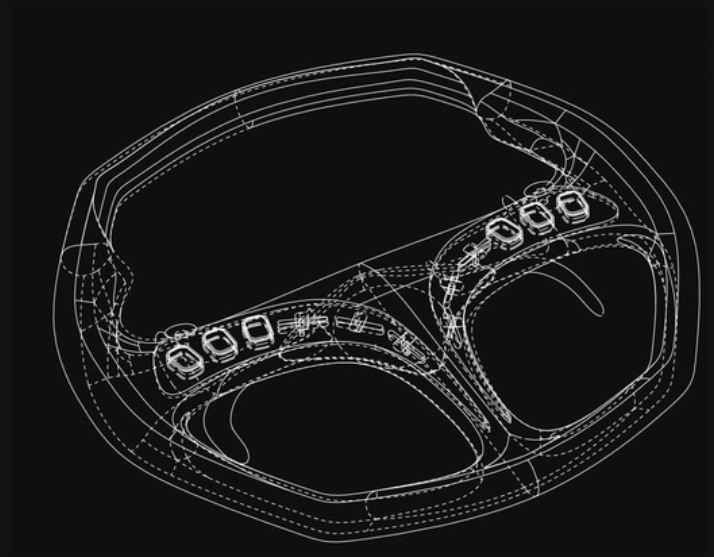
1. Driving simulator wheel for Simucube

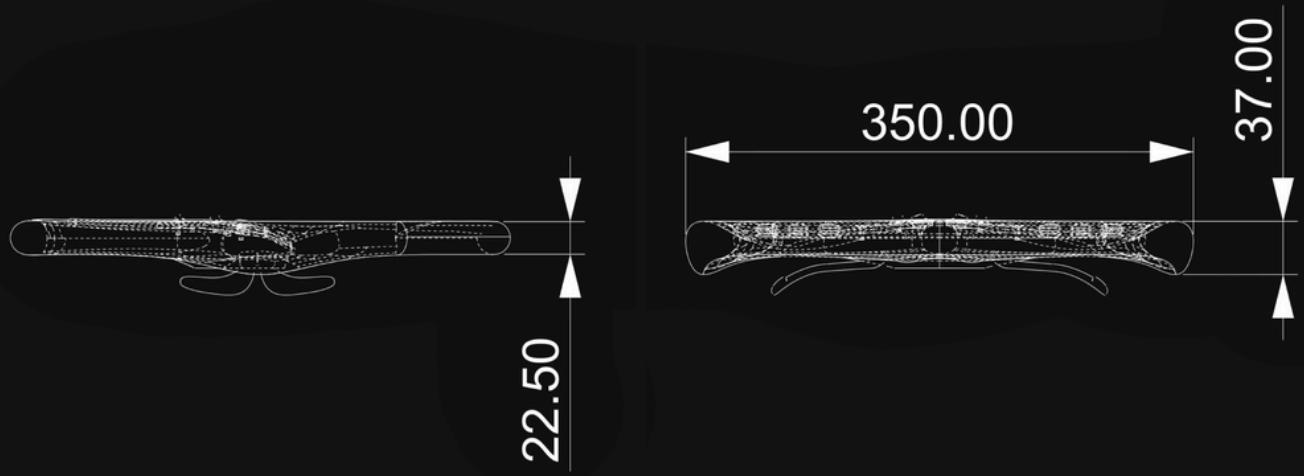
This study was done as a team with my fellow Aalto design bachelor classmates Roosa Harju and Mikaela Kipinoinen. Simucube partnered with Aalto University as our client, giving us a brief to design a **high-end steering wheel concept for sim racing**.

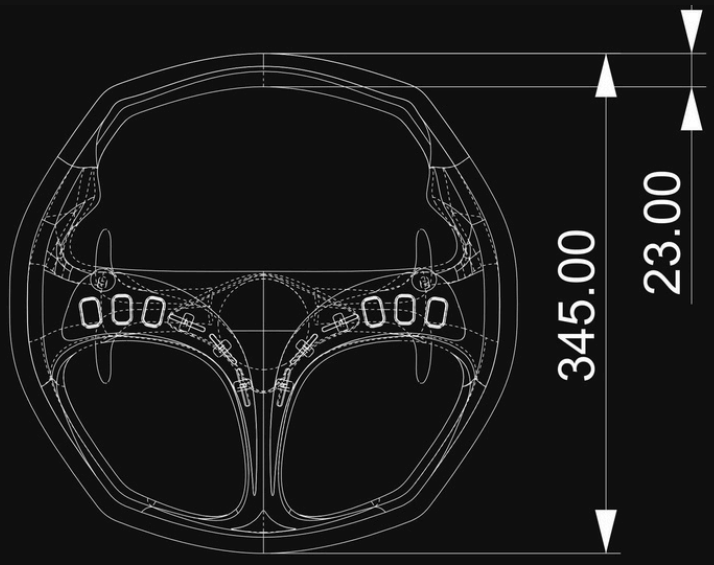
In the project I was in charge of the **3D modelling and visualization** as well as participating in the group tasks like concepting.

Concepting

Recognized key features were ergonomics and ease of use. High-quality materials were also determined to be a necessity.

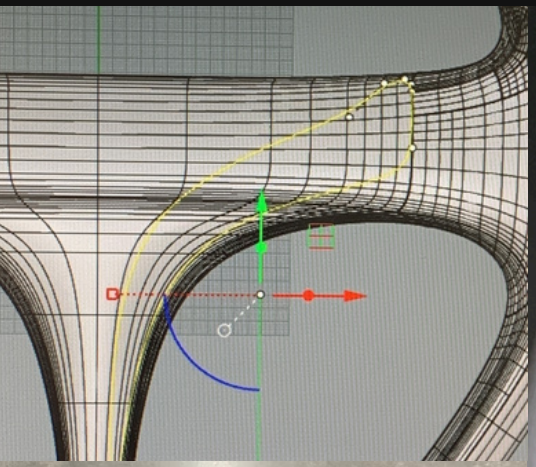


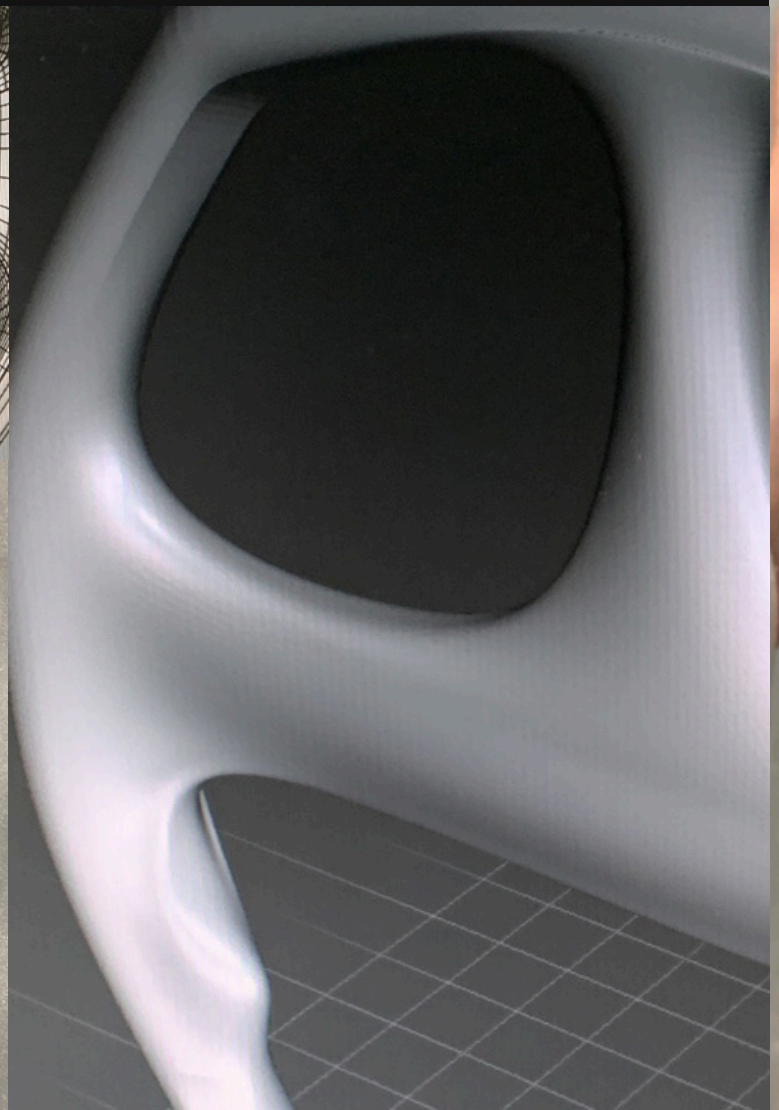




Rapid prototyping

The form was developed using SubD modeling in Rhinoceros, which allowed for quick iteration of smooth, ergonomic surfaces. The form was 3D-printed to test proportions and fit.





The world's first classic sim racing wheel. Offering the rider luxury & performance on the same lap.

MAESTRO

SIMUCUBE

"For the ones who know what they are doing"

SIMUCUBE

Assembly

Machined aluminum panels secure the controls to the wheel.
The alcantara fabric is then sandwiched between the two sides of the frame.
These two are secured with screws that hide behind the chrome panels on the front and back.

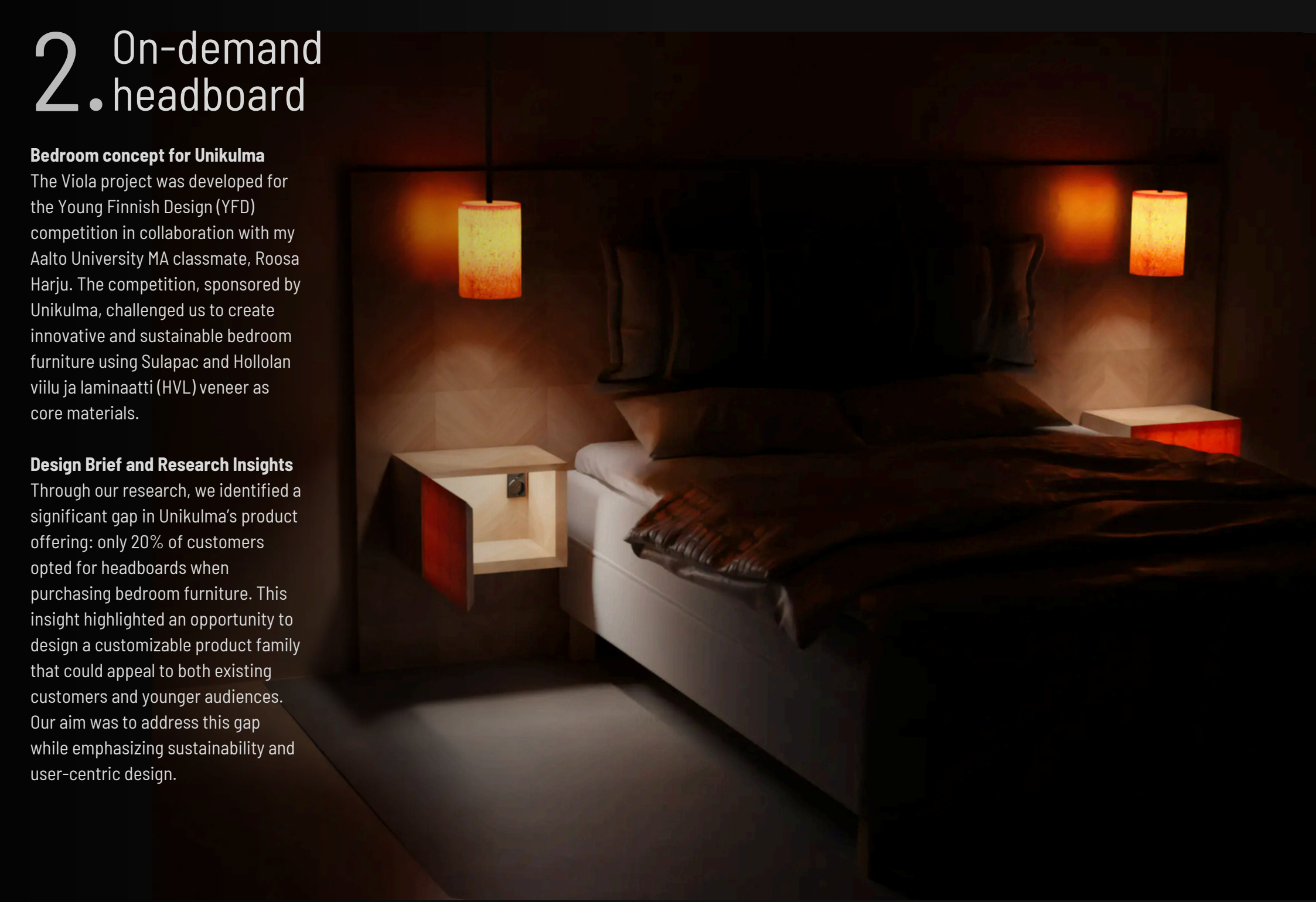
- Controls
- Panels
- Alcantara
- Mounting plate


SIMUCUBE
SIMUCUBE

2. On-demand headboard

Bedroom concept for Unikulma
The Viola project was developed for the Young Finnish Design (YFD) competition in collaboration with my Aalto University MA classmate, Roosa Harju. The competition, sponsored by Unikulma, challenged us to create innovative and sustainable bedroom furniture using Sulapac and Hollolan viilu ja laminaatti (HVL) veneer as core materials.

Design Brief and Research Insights
Through our research, we identified a significant gap in Unikulma's product offering: only 20% of customers opted for headboards when purchasing bedroom furniture. This insight highlighted an opportunity to design a customizable product family that could appeal to both existing customers and younger audiences. Our aim was to address this gap while emphasizing sustainability and user-centric design.

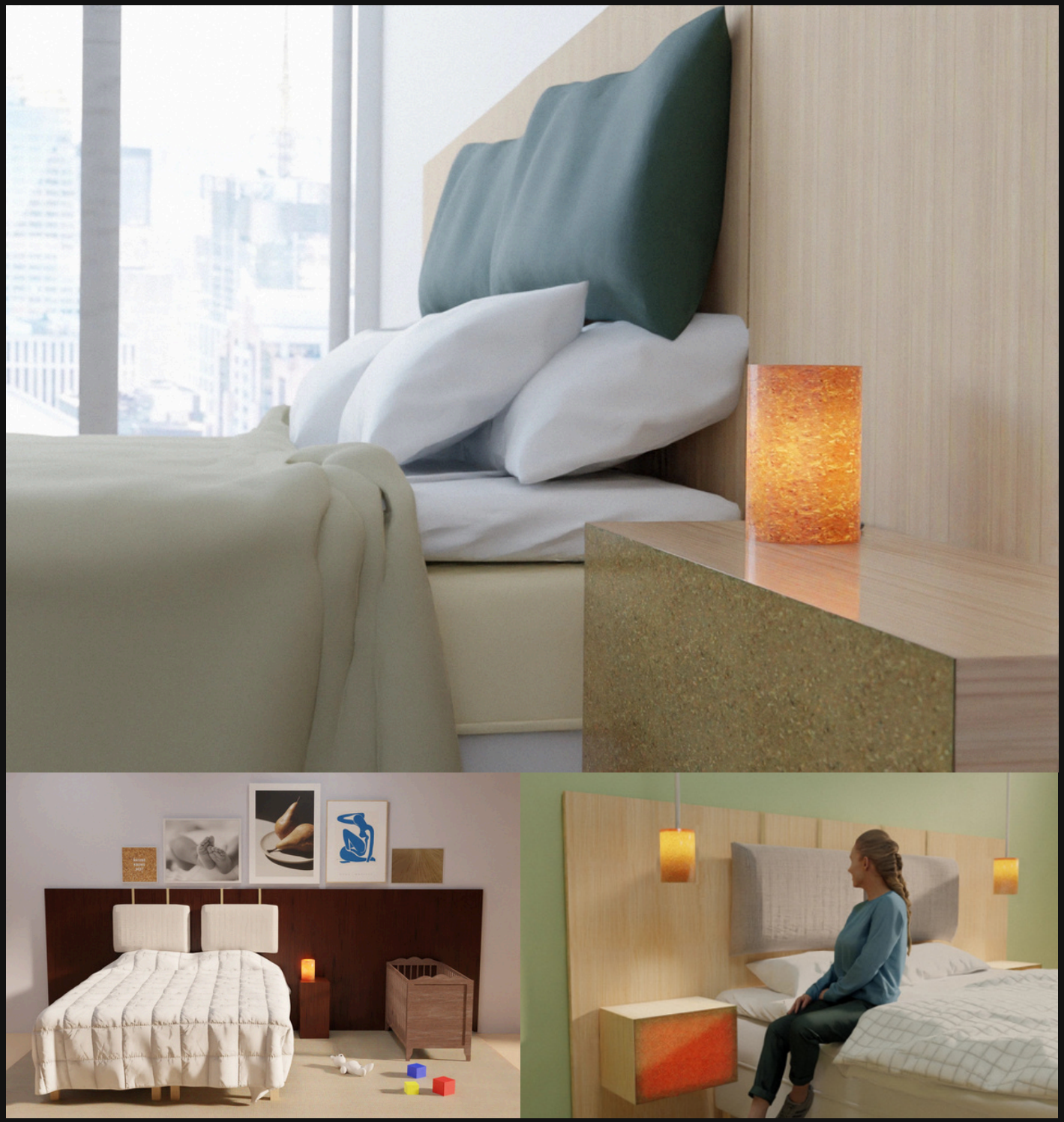


Key Features

Customizability:
The modular design of the Viola collection enables customers to create unique combinations tailored to their needs.

Sustainability:
Each element incorporates eco-friendly materials, and flat-pack & on-demand manufacturing shows a commitment to responsible design and production.

User-centric approach:
Viola integrates functionality, aesthetics, and customization to enhance the bedroom space for a diverse range of customers.

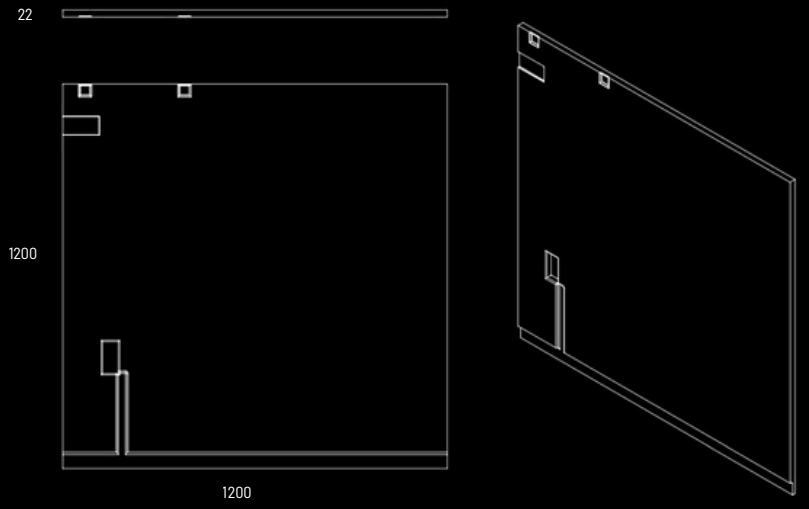


Viola Product Family

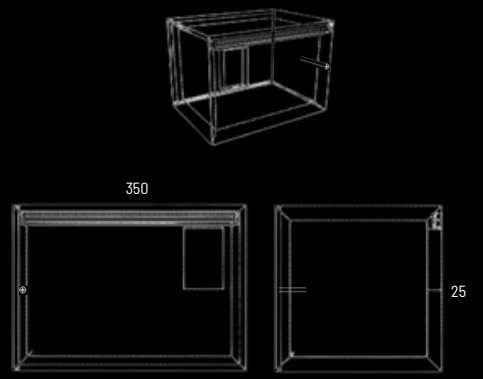
Headboards: Crafted from MDF with HVL veneer and produced using CNC routing, the headboards offer significant customizability, allowing users to personalize designs to suit their style and space. Designed for on-demand production, they empower users to configure the right combination of pieces to fit their space and route the needed fixing holes and grooves for wiring on custom order bases.

Lamps: Made from Sulapac bioplastic combined with waste wood fiber, these lamps bring together elegance and sustainability.

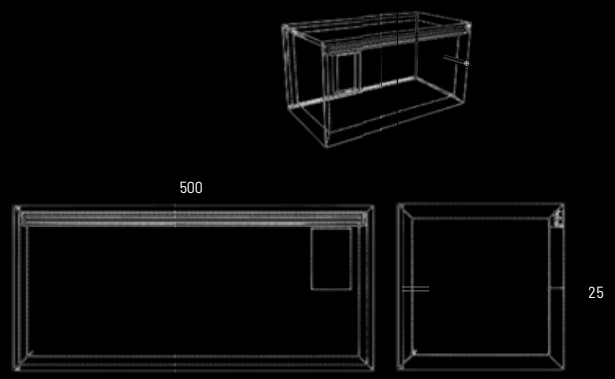
Pillows: Woven from hemp, introducing a renewable, tactile material with a luxurious feel with washable covers.



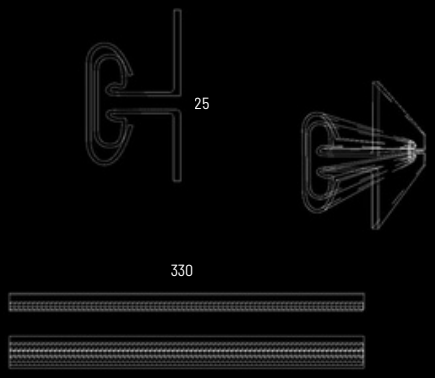
VIOLA headboard



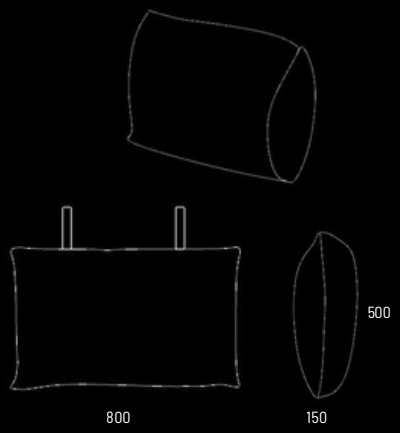
VIOLA nighstand S floating



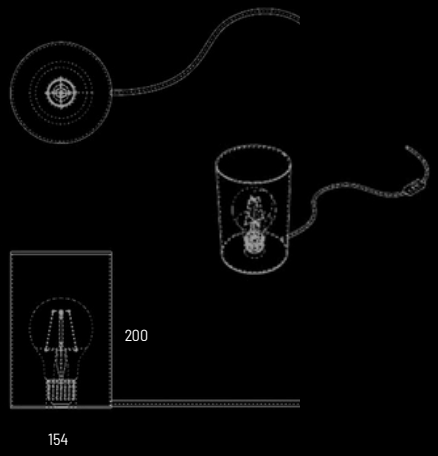
VIOLA nighstand L floating & standing



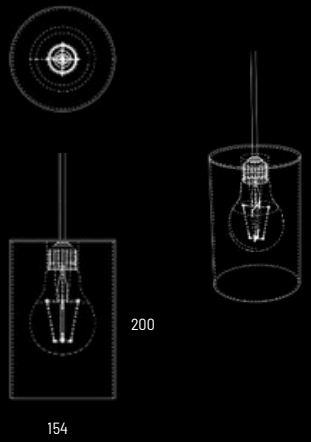
VIOLA hanging rack



VIOLA pillow



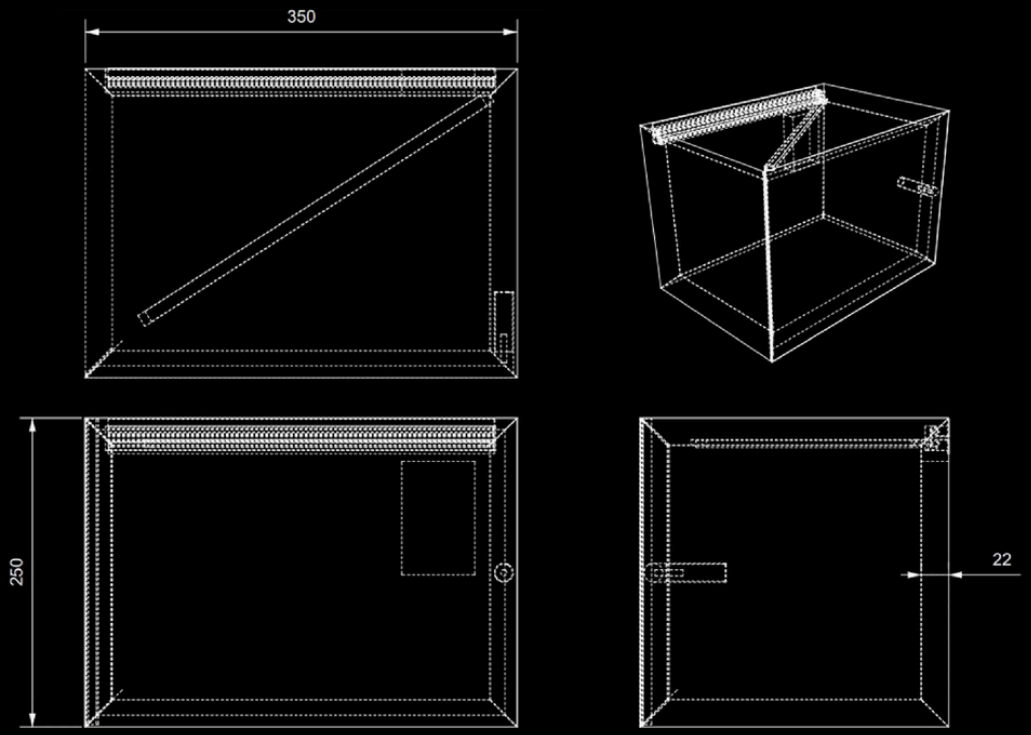
VIOLA table lamp



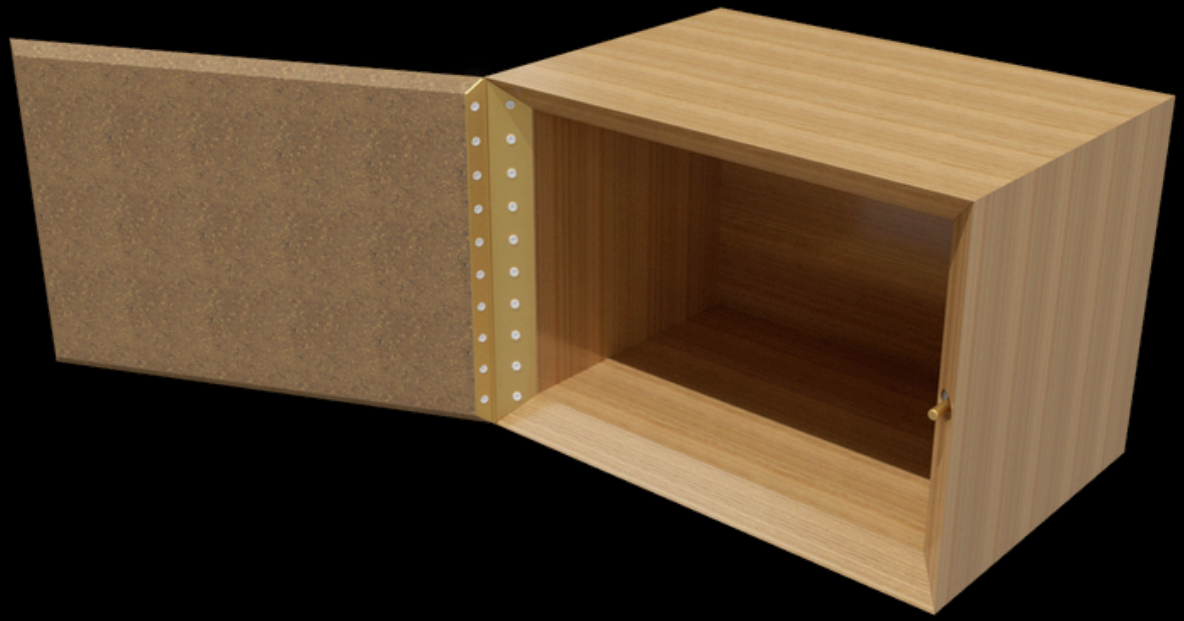
VIOLA pendant

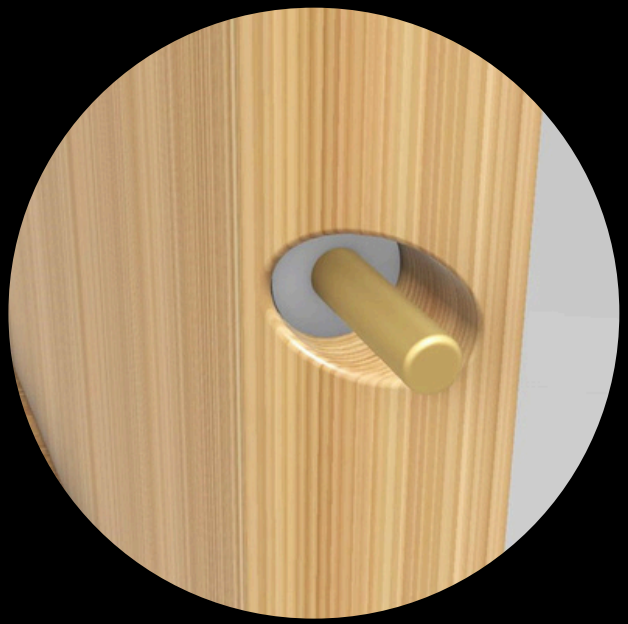
The lamps and nightstand doors made from Sulapac's premium bioplastic allow light to pass through, beautifully highlighting the side stream of wood production fiberius texture and creating an atmospheric glow. The integrated power outlet in the headboard is cleverly hidden inside the attached nightstand.

VIOLA-nightstand details



The **push-to-open** mechanism and **concealed hinges** enable a seamless and discreet connection between the cabinet door and the nightstand.





Customizability and different headboard variations

The Viola headboard adapts to a variety of needs, growing and evolving along with life's different stages.
Headboards can be configured to fit beds of various sizes. For example, you can create a three-piece headboard for a child's or guest room or a stylish and practical two-piece headboard for a 160 cm master bed.
The headboards are made from HVL veneers, with an MDF board as the structural frame.

Viola pillows use hemp fiber, as it's the world's strongest plant fiber. It is a sustainable choice compared to cotton/linen farming, and it's durability makes it a long-lasting material. The fabric softens with use, does not pill, and keeps its condition well.

Pillows


Uni


Valkoinen


Hiekka


Hiili

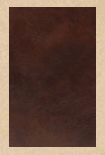

Metsä


Okra

Straps


Vaalea


Musta


Konjakki

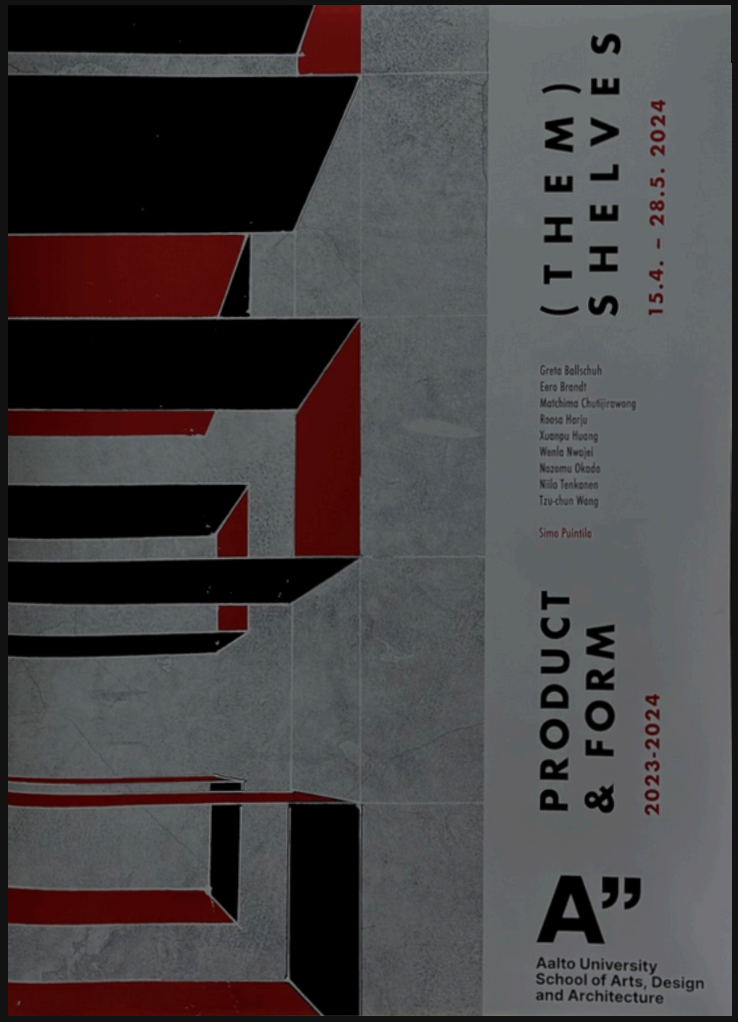
VIOLA

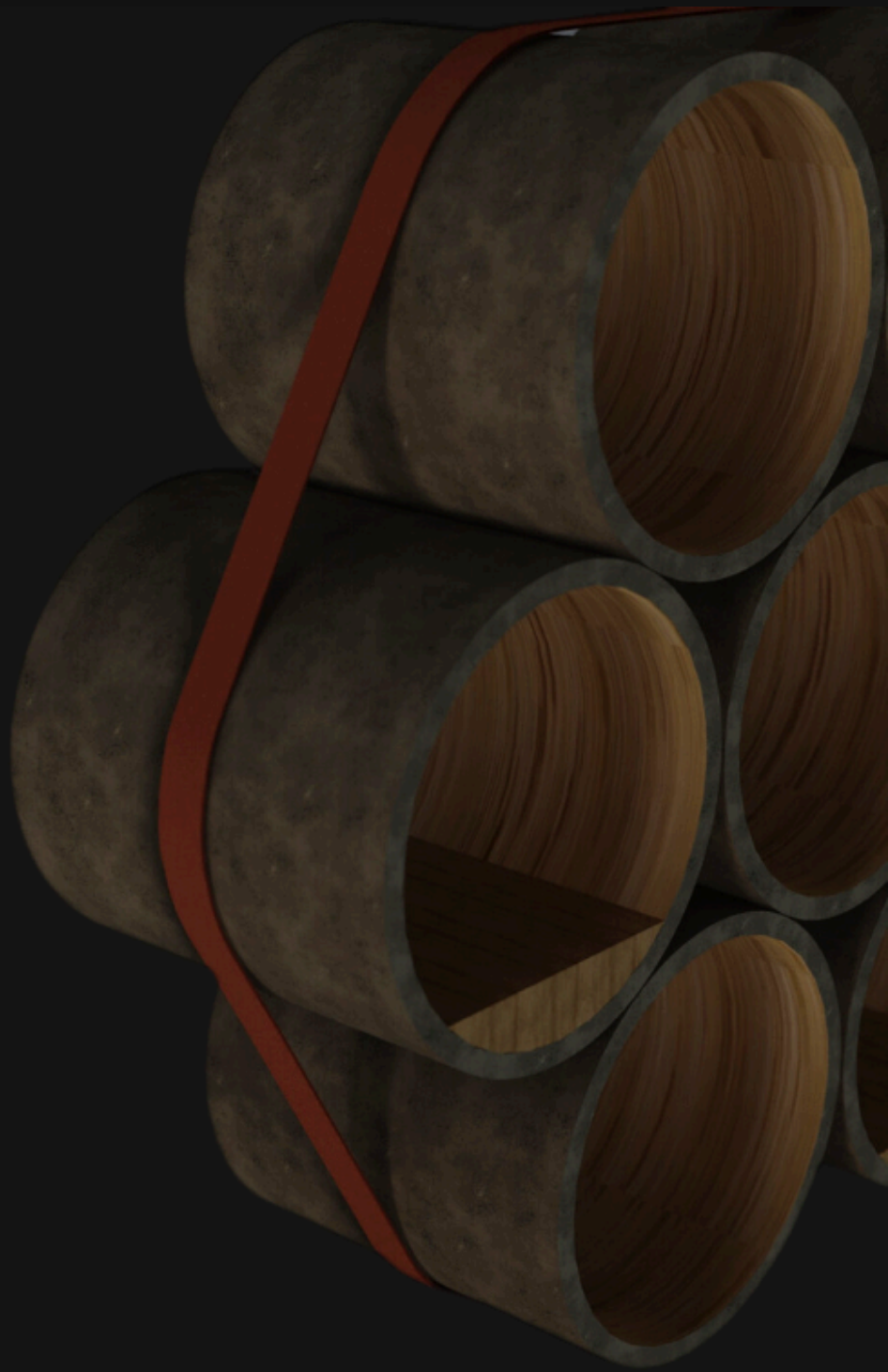
Headboard concept that sits with you

3. Modular shelving concept

Project Context

This project was developed as part of the Product and Form I & II coursework at Aalto University. The brief required using one casted material and one solid material to design a modular shelving system. As further restrictions, materials were limited to concrete, aluminum glass, and wood, prompting exploration of innovative approaches. I chose concrete as the cast material, but I aimed to experiment with a bio-based mix to align the project with sustainable design goals.



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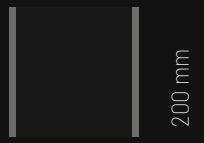
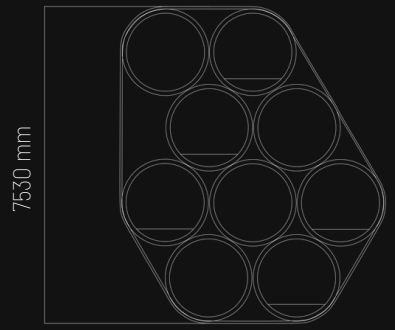
Veneer lined eco concrete shelving. Fastened to desired stacking configuration with a tourniquet strap. Additional wooden shelf inserts for storing square objects.

A concept idea to the design task of modular shelving system using castable materials.

The "eco concrete" uses spent coffee grounds as a replacement for aggregate. Valorising waste and cutting down on product weight, transport and material cost.





Roll of veneer lines the mould on the inside.

Wall thickness 15 mm
Volume 1740 cm3

Traditional
Concrete needed 4,17 kg
CO2 emissions 4,17 kg

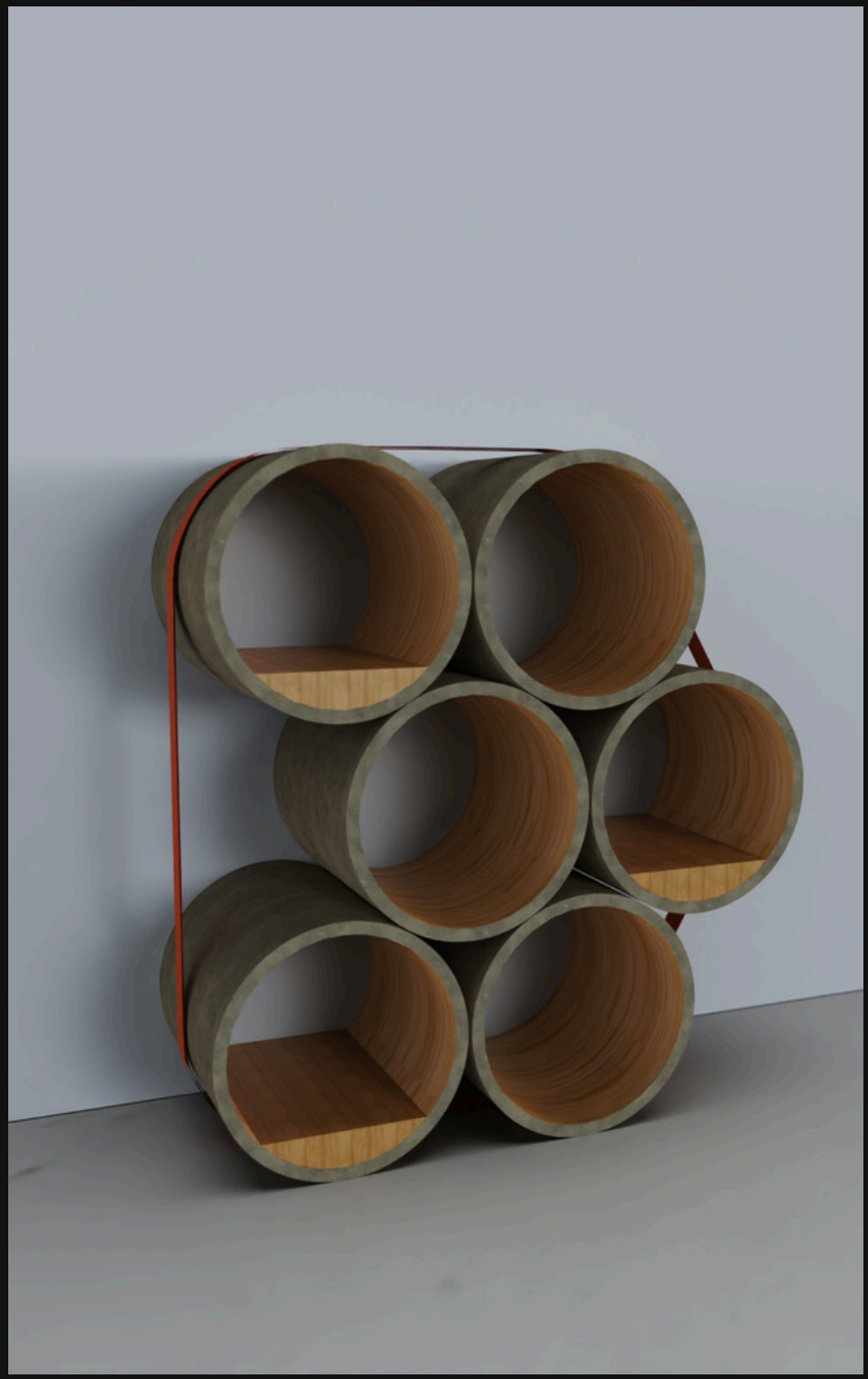
Eco 20%
Concrete needed 2,9 kg
CO2 emissions 2,9 kg

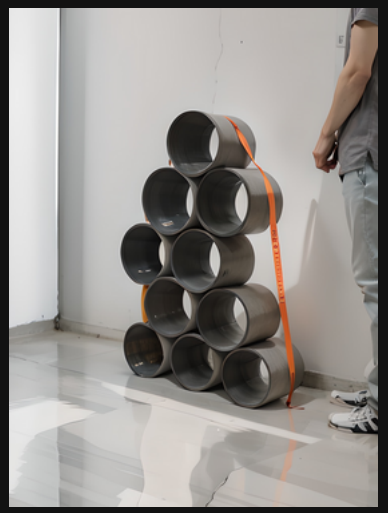
Cement 470 g
Aggregates:
Sand: 1160 g
Crushed Stone: 1740
Food waste filler fiber:
Coffee grounds 675 g
Water 235 g

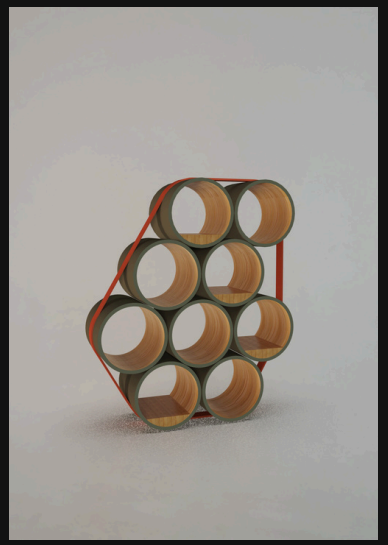
My research journey, fueled by readings, visitors, excursions and experiments, led me to a idea to replace traditional concrete aggregate with home and industrial waste fibers.

Some pictures are created with the aid of image generation model.

Future steps involve strength test, refining the concrete mix and further incorporating sustainable manufacturing practices.



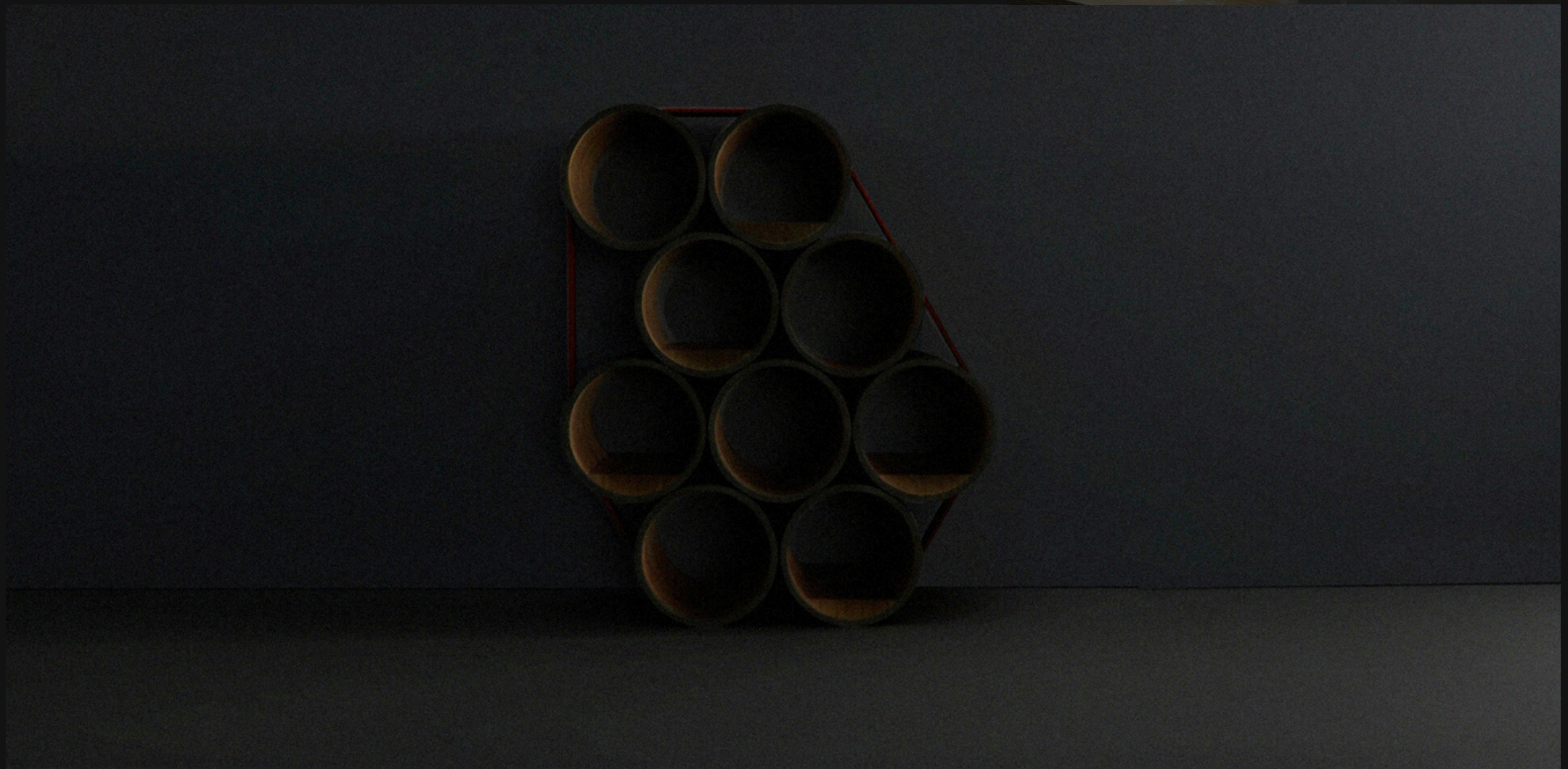


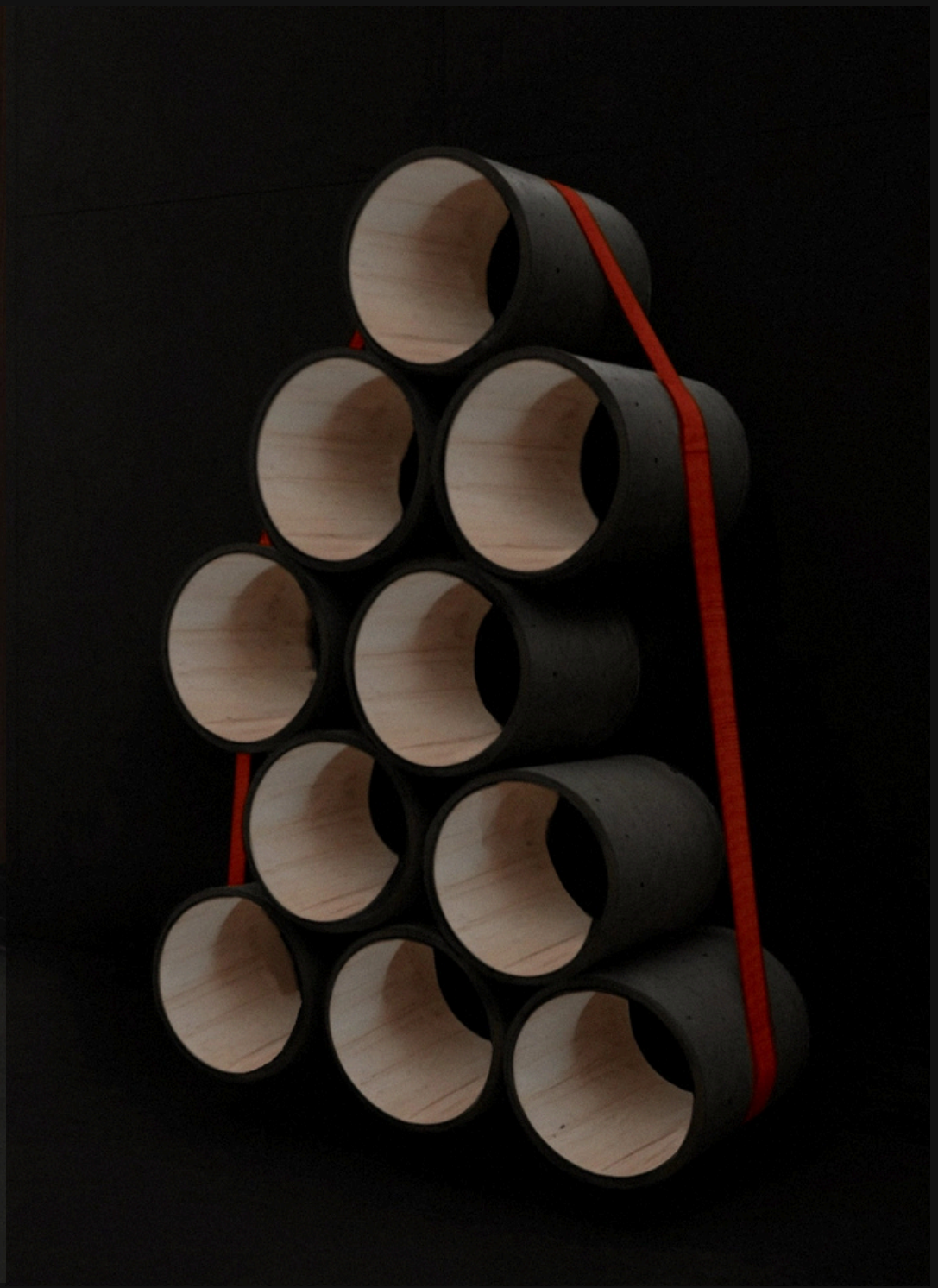


Material Exploration & Innovation
To address the environmental impact of traditional concrete, I developed a sustainable mix by incorporating spent coffee grounds and fibers from used coffee filters as filler materials. This not only reduced the weight and carbon footprint of the concrete. The coffee-based fillers reduced the CO2 emissions of the concrete required per unit from 4.17 kg to 2.9 kg—a significant improvement in sustainability.
The second material used in the shelving system was two-way airplane veneer, which added durability and a refined aesthetic finish. This material combination emphasized lightweight, modularity, and eco-conscious design.

Cement	1,06
Filler	0,67
Coffee grounds	0,3
Water	0,5
Pigment	0,06
0,5-1,2 stone	0,67
Superplasticizer	0,0264
Sum	**3,28 kg**
Coffee grounds	17,34%

Refining the Design Through Experimentation
Initial experiments with eco-concrete led to adjustments in the mix to achieve optimal hardening and structural performance. Hand- and CNC-crafted molds were refined to ensure a seamless fit, showcasing adaptability and problem-solving throughout the process.
The modular shelving system consists of veneer-lined eco-concrete panels that can be stacked and secured with a tourniquet strap. The veneer provides a smooth, elegant finish that contrasts with the raw texture of the ecoconcrete. An optional wooden shelf insert was added to enhance usability by supporting square objects, further demonstrating the system's versatility.





shelf 0
concrete, spent coffee grounds & -filters, airplane veener, and tourniquet straps
May 2024

4. Other projects

1. Kielo, lamps for mass production
2. Surface structure that reduces emissions without usability loss
3. Glas altar
4. Poutapilvi, wool sofa
5. Potato peel composite stool
6. Storage and media wall unit

7. Juurakko, discarded veneer lamp
8. Nokia Whisper, hands-free locating system
9. Nokia Keep, tool tag

Lets work together

Best wishes,

Eero Brandt

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