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my name is Helena Lehn

And this is my portfolio:)



Index

1. Grow up 2. Bio Foam 3. Kh.Os X ECCO 4.3D printed ceramics 5. Marok

6. Take care 7. Vifte 8. Flex / Bend 9. ComfyShell 10. Pro Plast



Grow Up.

Vertical farming

Future innovation

Hydroponics





Year. 18 June, 2022 Where. Denmark - DSKD Material: 3D printed - Recycled granulated PLA

To meet the growing need for food and to restore the lost connection to food production this project imagines a vertical indoor garden for city center apartments where the consumer can grow their own greens 365 days a year. The design solution reuses water via a hydroponic system and explores different growth medias and ways of personalization. The design is modular, enabling the user to up- and downscale.

This project was done in collaboration with Micro-Greens DK. Micro-Greens deliver greens to restaurants across Denmark and have their own vertical farm in Ringe. Their main focus is to think sustainability into every step of their process.





Bio Foam.

Year. 2022 Where. Design school Kolding Who. In collaboration with Asger Olsen. What. A research study making bio foam from Agar Agar and gelatin.



Bio Materials

Experimentation

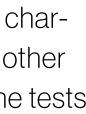
MDD

Some types of foam on the market have a limited useful life and cannot be reused. That's why we wanted to create a biodegradable alternative that could be returned to the earth after use. Through an iterative design process, we researched and developed bio-foam, with a primary focus on Agar and gelatin as natural gelling agents. The wish was to understand, examine and analyze the qualities of the foam in order to further develop and achieve the characteristics we were looking for.

More than 20 foam samples were created based on 2 basic recipes. They each got their own characteristics. In addition to the flat samples, attempts were made to mold the foam. Plant fibers, other stiffening agents and natural foaming agents were also implemented. These adjustments in the tests had major consequences on both the appearance but also the functions of the material.









Kh.os X ECCO.



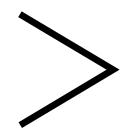




Year. 2022 Where. Design school Kolding Who. Group members (KH.OS): Peter Raunkjær, Kristian Falden, Line Mohr and Ina Bødker. What. Shoe concept, development and production. In collaboration with Ecco.

KH. OS's In Transition collection consists of three shoes that each showcase the different stages of the migration from city to nature, both mentally and physically. We want our products to embrace and guide the consumer comfortably on the path of redefining their daily pattern.

KH.OS wish to encourage the big city trotters to look deeper in search of a more meaningful life. Spending time on what really matters such as family, friends, and time in nature. We want to question the belief that "we live to work" and change it to "we work to live". Encouraging the future nomad to work only when necessary and spend the remainder of their time on things that brings meaning and peace to their life.











3D printed creanics.

3D Printing

Experimentation



Year. 2021 Where. ELISAVA Barcelona Who. In collaboration with Marina Guzman and Christina What. 3D Printing samples of ceramics.

Using a modified 3D printer to print with wet clay, using Rhino and Grasshopper.



Marok.

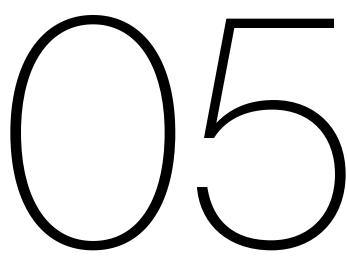
Year. 2020

Where. Design school Kolding What. The function of Marok is as a secondary light source mostly for decoration, inspired by Moroccan cobber lamps and the pattern they create.

The Project was centered around creating a lamp in recycled materials. The materials for the lamp were chosen as a company had a leftover parti of MDF and honeycomb cardboard from wine transport. These materials were going to get trashed, so I chose to give them a new purpose.

The final lamp was a result of viewing a property in the honeycomb cardboard and drawing parallels to Moroccan cobber lamps. The function of the lamp is very much decorative secondary lighting as the Moroccan cobber lamps, and the shape is minimalistic and neutral like Scandinavian design.







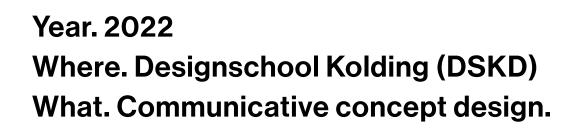
Take care of nature.

Tag hånd om naturen.





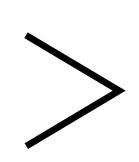




This project was led by the urge to explore how I could communicate, through product design, that we as humans should "take (more) care" of nature. It is in the palm of our hand and our responsibility.

The concept is a wall hung 3D printed hand holding a plant grown in an old foam mattress. Combining my knowledge of 3D modeling and growing plants in different mediums.

06



Conceptual Design





Vifte.

Year. 2021 Where. Barcelona Who. Hannah Adib and Marco / Model.: Mattis Vural What. Conceptual sound insulating design. Exhibited: october 2021 - may 2022 At Museu del Suro de Catalunya

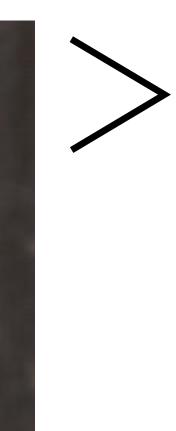
This sound insulating design concept takes inspiration from nature and the way many animals shield themselves from uncomfort or danger. The design is portable.

The design is created in a cork fabric consisting of 50% cork and 50% polyester. we were interested in the sound insulating properties and the texture of the material. Wanting to make an organic product suited for the human body, the cork was the natural choice due to its changeability and soft surface.



Concept design







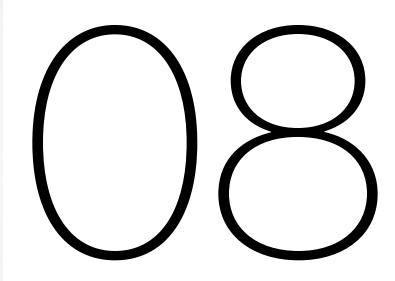


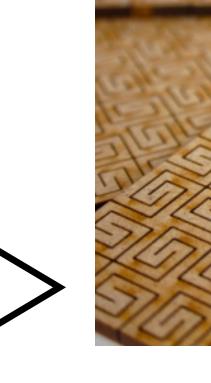
Flex / Bend.

Year. 2021 Where. ELISAVA, Barcelona Who. In collaboration with Marina Guzman and Christina What. Working with a grasshopper generated pattern, designed to bend

Inspired by ancient geometric shapes, we aimed to create a flexible surface. The Greek generated pattern was done due to it's geometrical lines. Cutting all the way through the material, it creates 2 bendable sides.









ComfyShell.

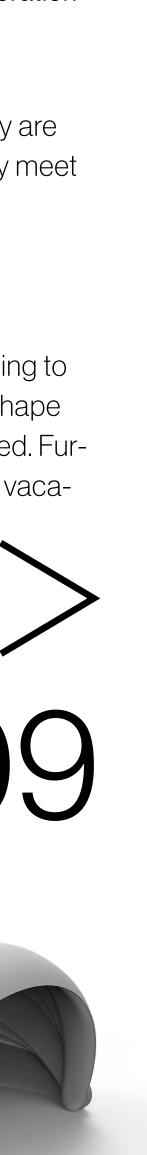
Year. 2020 Where. Designschool Kolding (DSKD) Who. In collaboration with Emil Beier and Viggo Osterloh What. Sound insulating design for an undisturbed deep sleep.

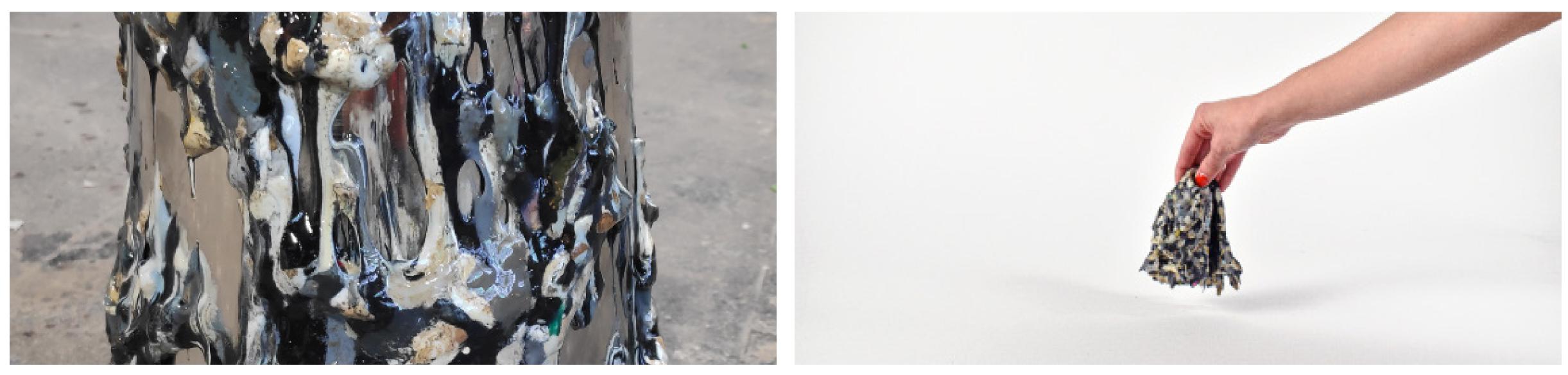


As for most innovative design it takes the general public time to adopt to a new practice. They are used to their old ways, so when a new "alien" object are being introduced to them they usually meet it with skepticism.

Brief.: Create a sound reducing transportable product for the bedroom to improve sleep.

Situated at the headboard of the bed ComfyShell works by folding over the head while sleeping to sound insulate and obscure. The folding functions makes it fold out into the protecting shell shape and unfold into a flat half circle. This makes it easy and not space consuming to have in the bed. Furthermore it makes it easy for transport so you can bring ComfyShell with you to a hotel or on vacation.





Pro Plast.

Recycling

Experimantation

Material strategy

Year. 2021 Where. ELISAVA Barcelona Who. In collaboration with Erika Dallapiccola and Conor Ó Eadhra What. Experimenting with different types of plastic to view the properties and possibilities for recycling/upcycling.

Abstract.: Through a line of different experiments with plastic provided by Proplast, we manipulated the material to showcase the different properties and qualities it has.

We discovered that the plastic can be manipulated into many shapes through our method of applying sheets on to a mold. This then gives you the possibility to create something like the stool shown or to create wider ranges of functional products displaying a beautiful mosaic finish. We also feel that the melting and draping effects can be incorporated into many designs providing we had more industrial size melting apparatus.



Industrial Design

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More information on my website: www.lehndesigns.com

Thank you. - Helena Lehn