



WVMA

ENCODED PATHS

Additive days 2020 – Sofia

Eugenio Bettucchi





X



WASP HUB

3d Printing Center

WASP Hub is a Workspace equipped with a wide range of machines designed for Digital Fabrication.





BARCELONA



BEIRUT



JERSEY CITY



LONDON



MACERATA



MADRID



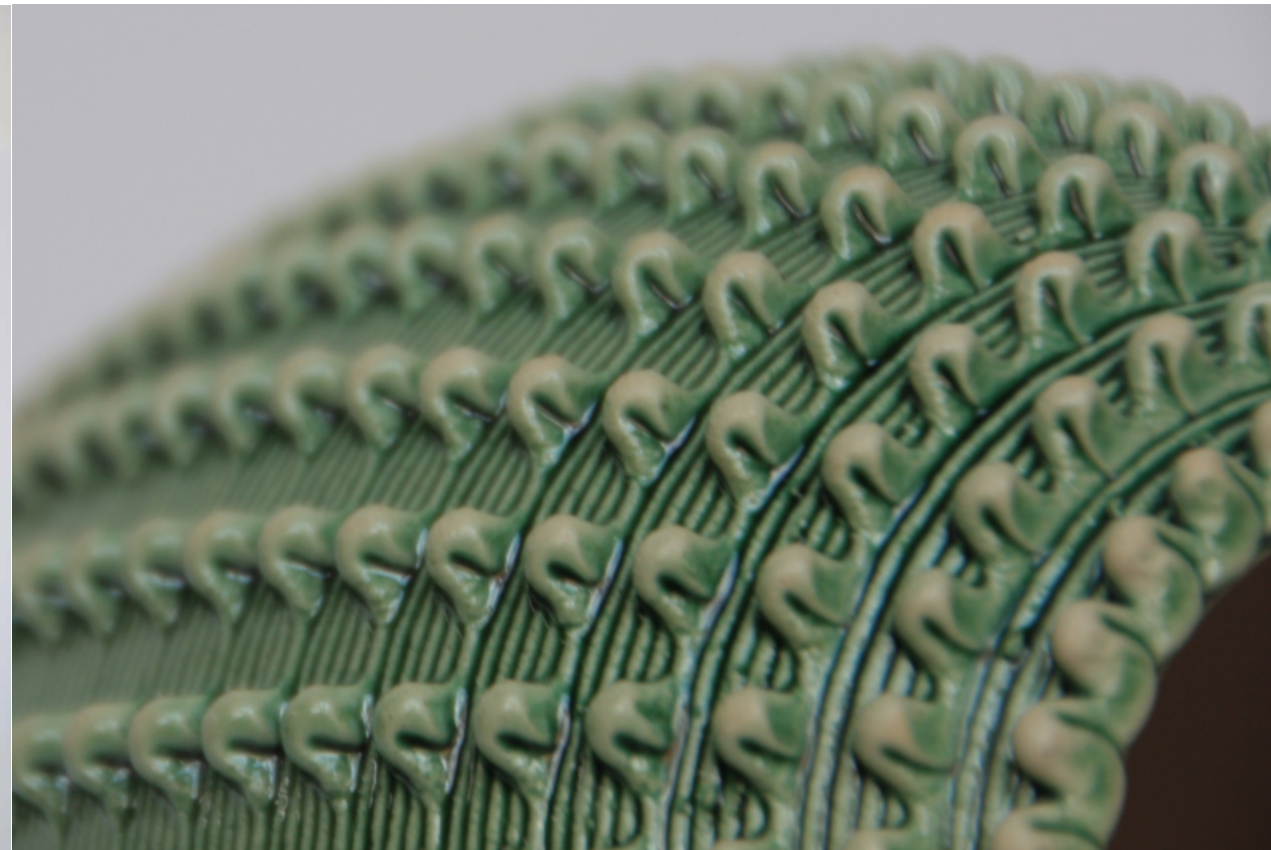
PARIS

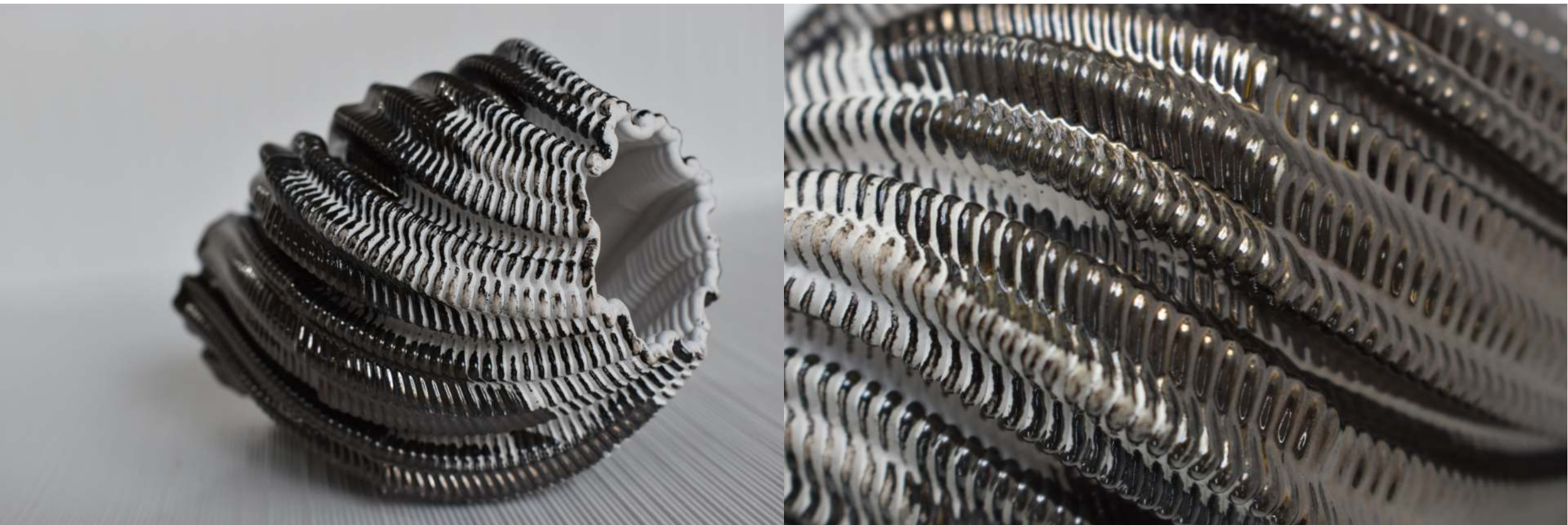


UMEÅ

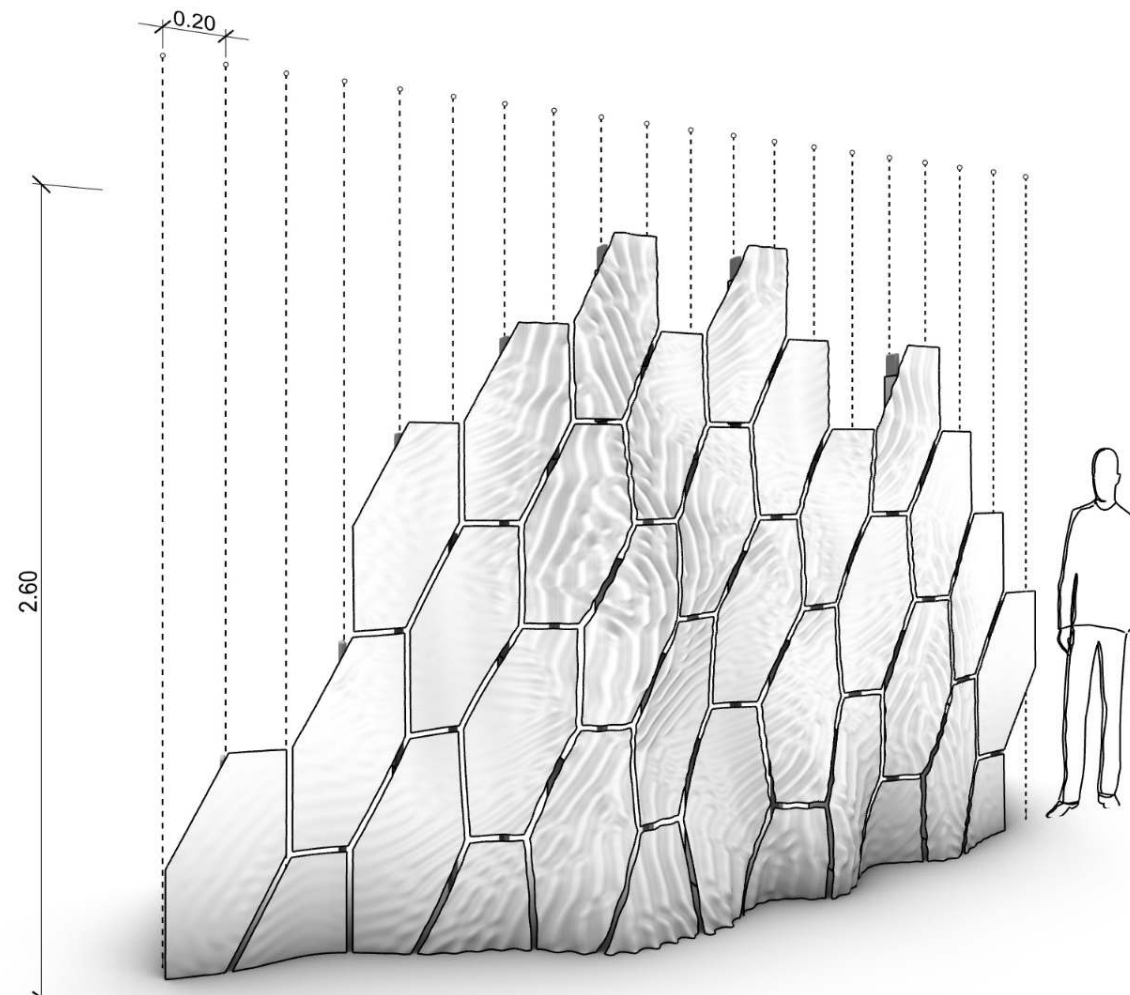


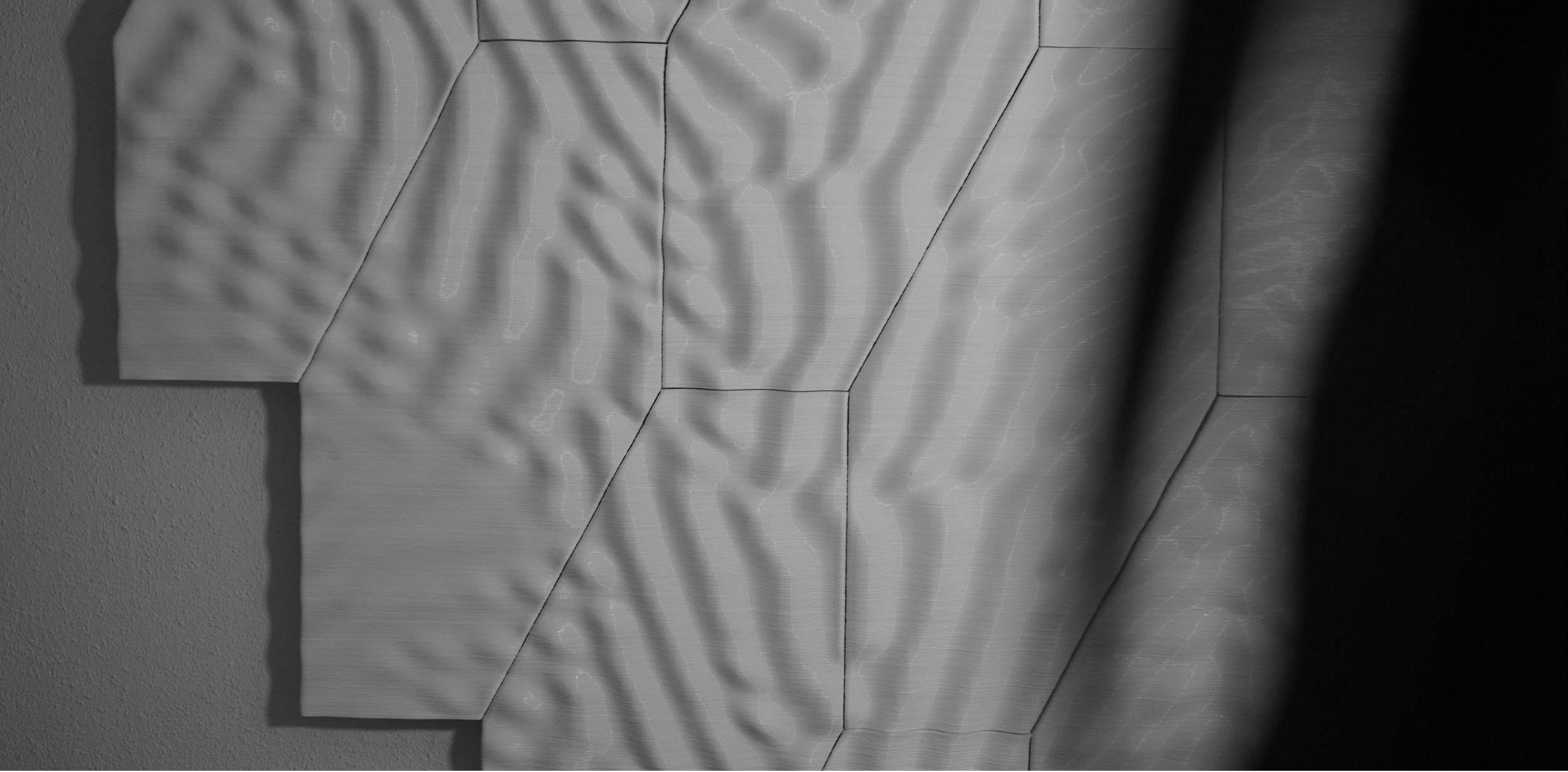
Art
Construction
Interior design
Fashion
Heritage
Interaction

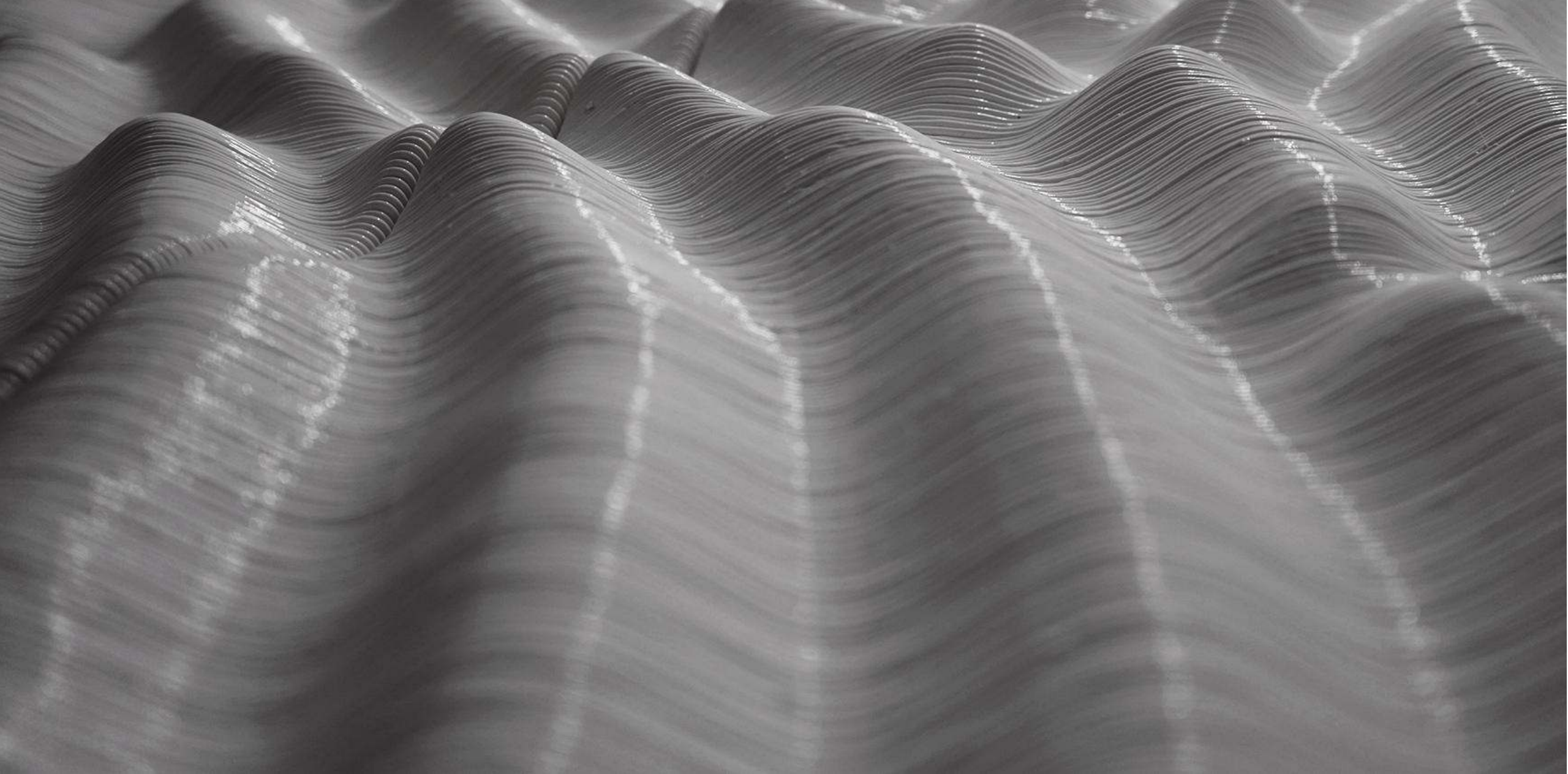




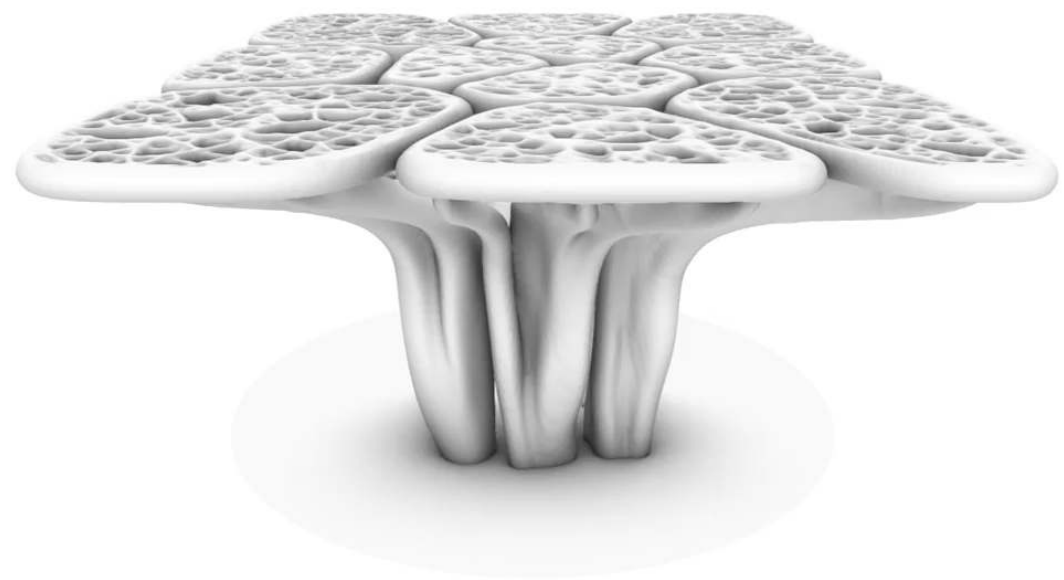








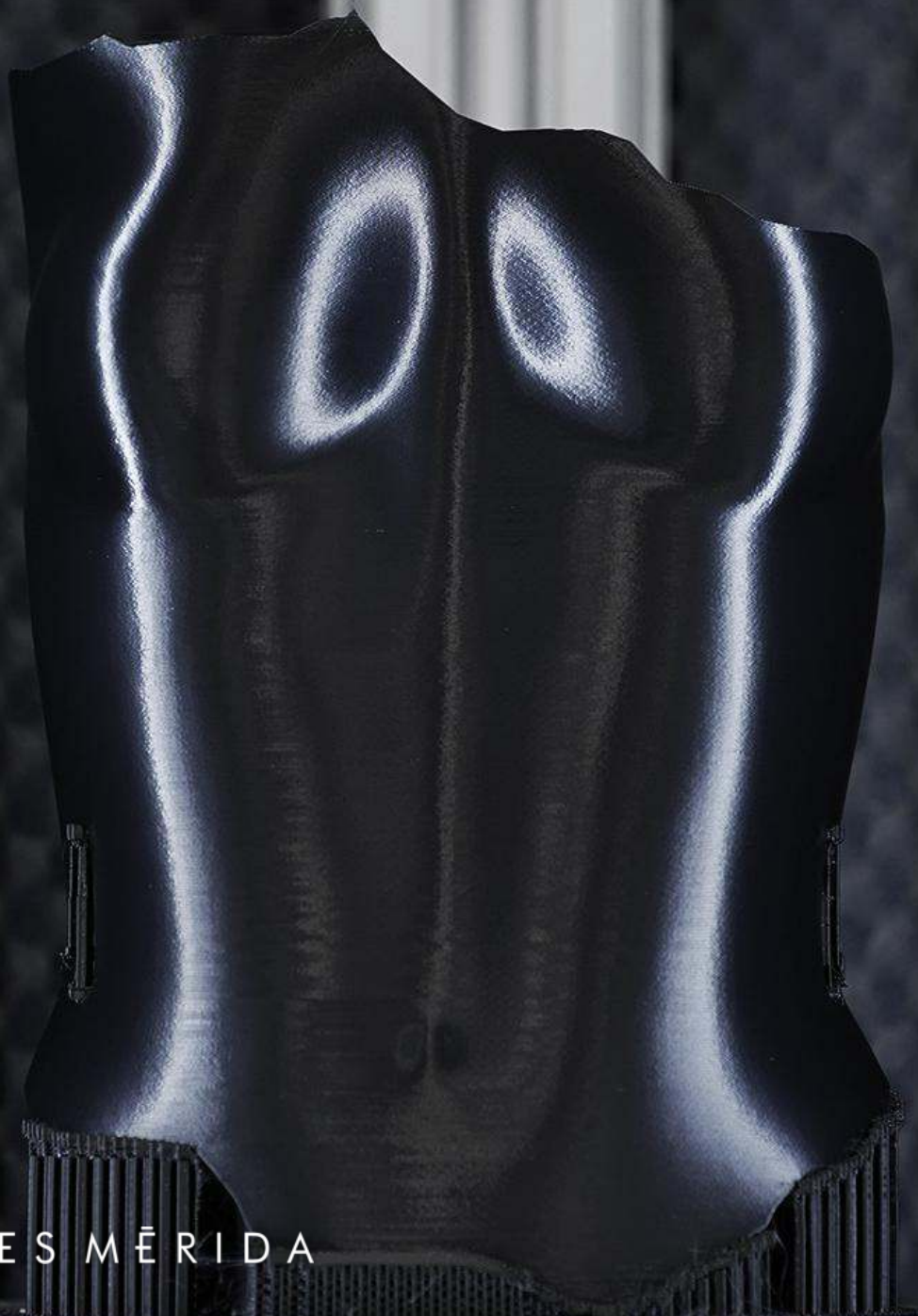












NOUVEAU

MARCELO
VILÁ

ULISES MÉRIDA



NOUVEA

MARCELO
VILÁ

ULISES MÉRIDA



NOUVEAU

MARCELO
VILÁ

ULISES MÉRIDA









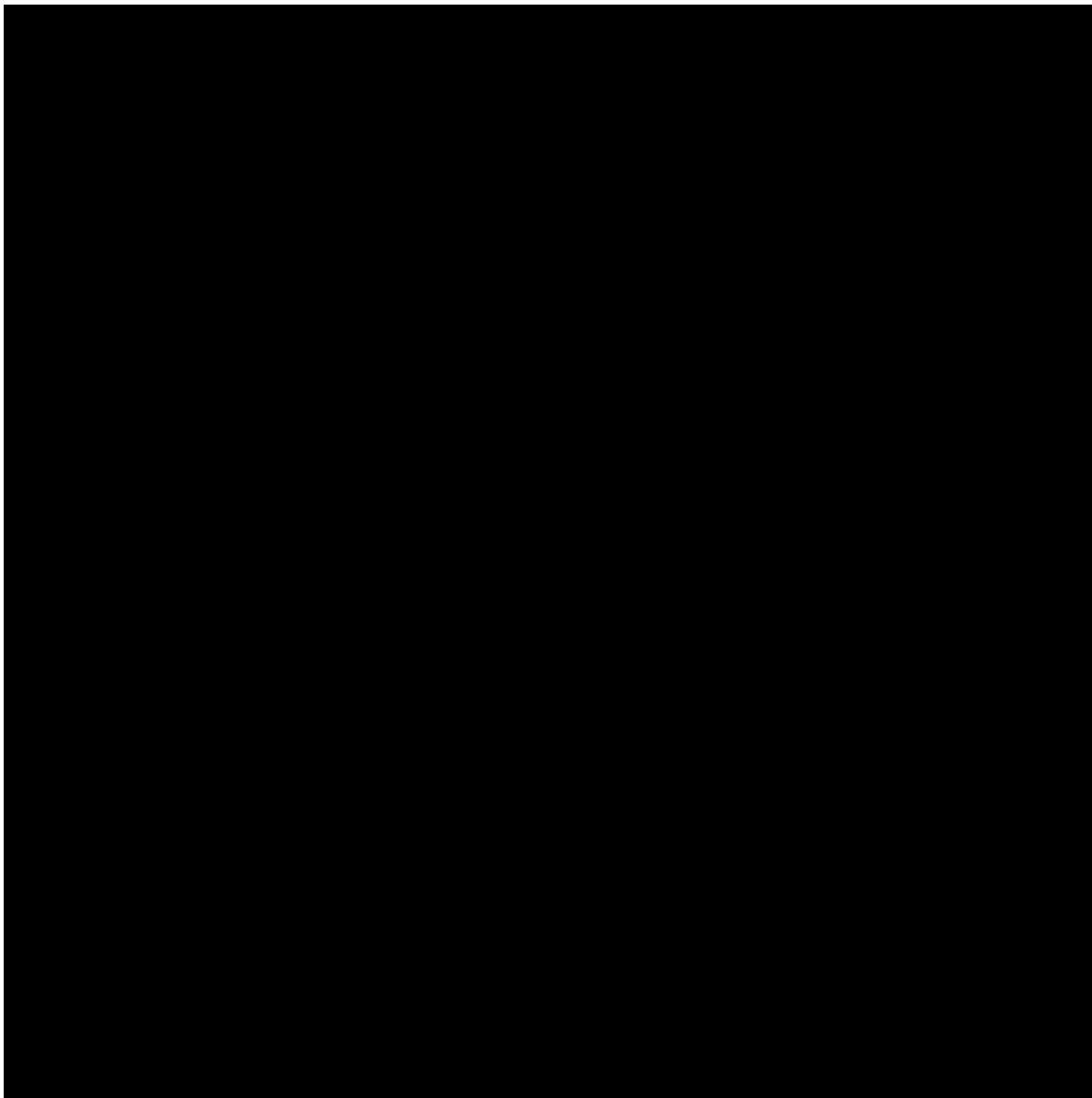
















Image courtesy of Acciona

NOLMEN

X

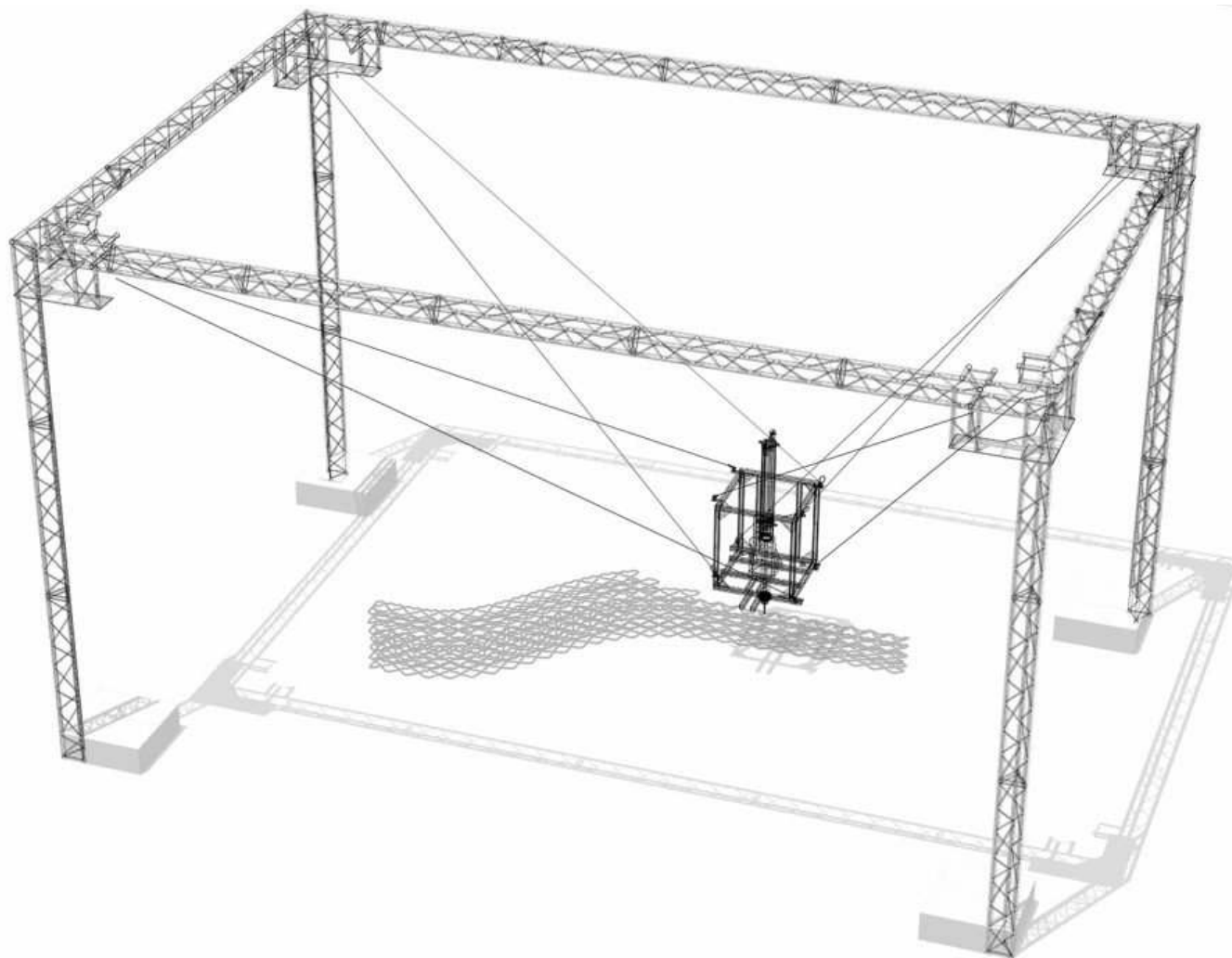
Iaac

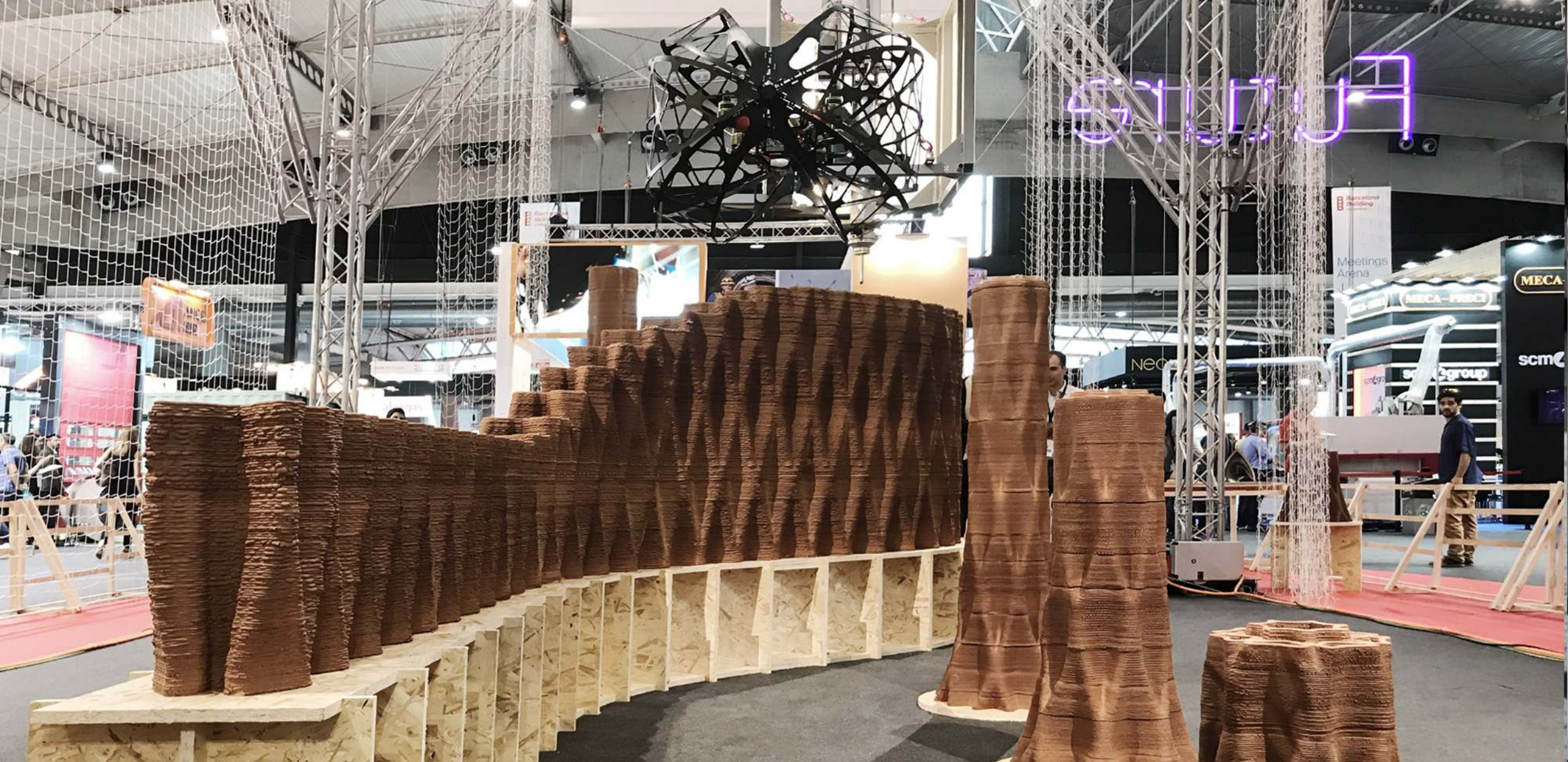
Institute for
advanced
architecture
of Catalonia

BARCELONA

NOLMEN

Additive Days 2020 – Sofia







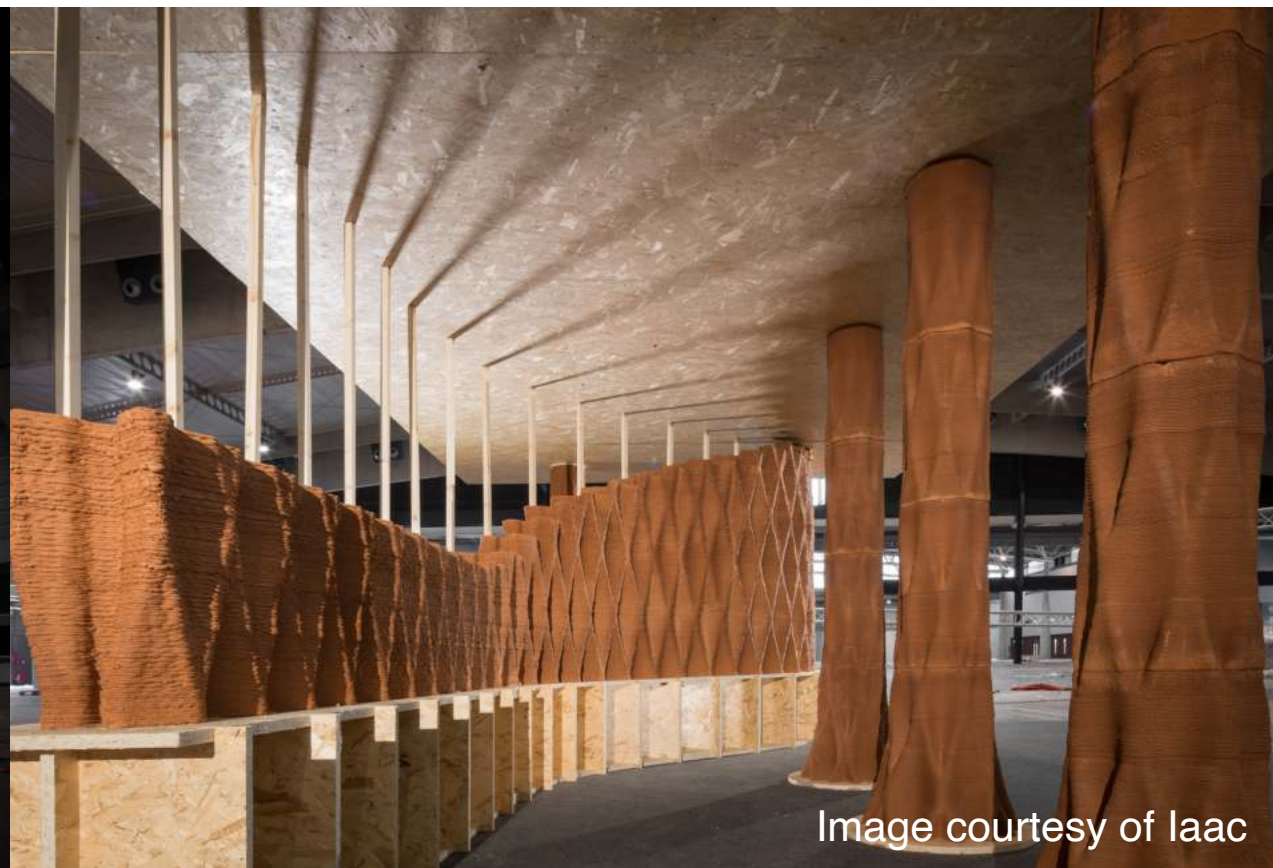
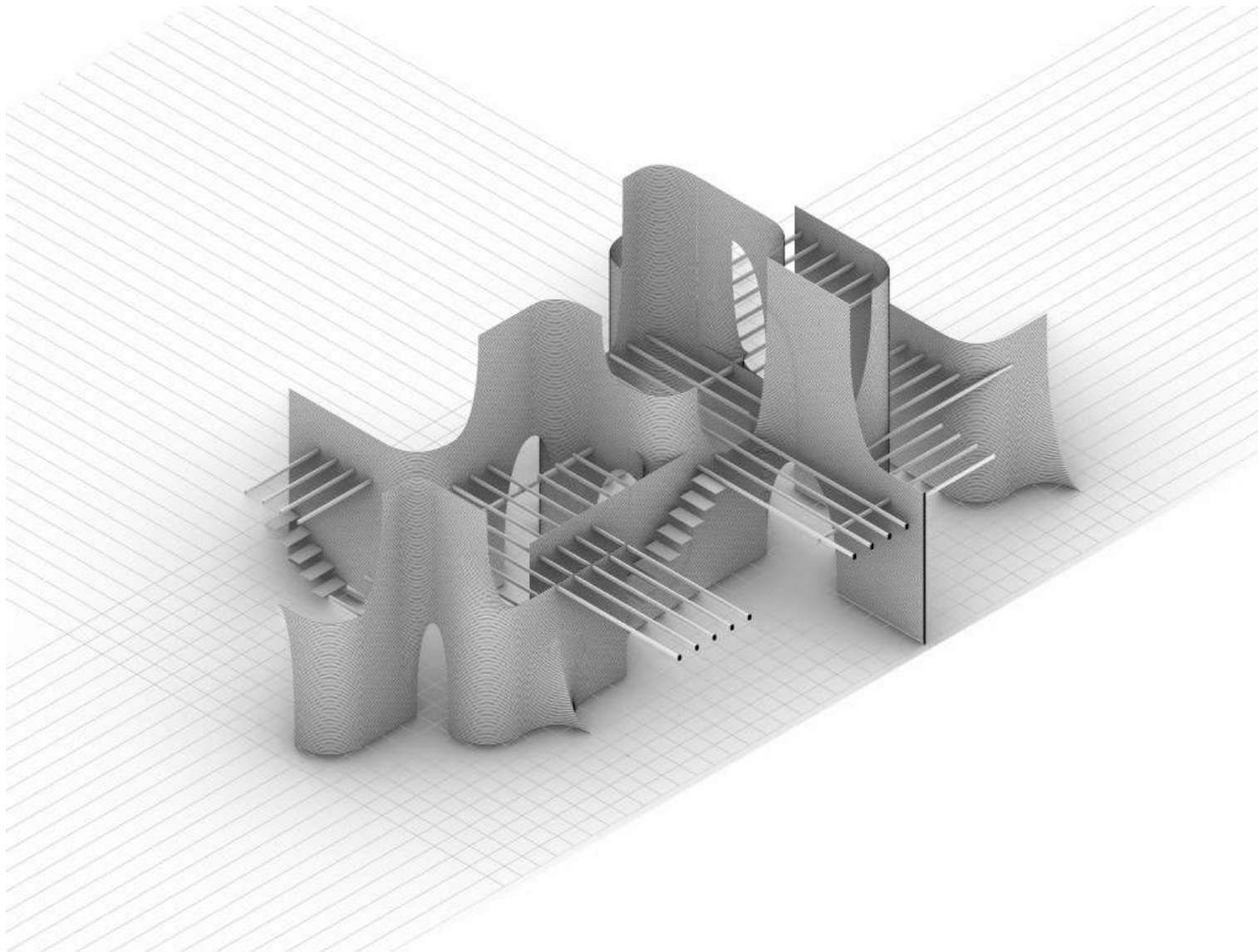
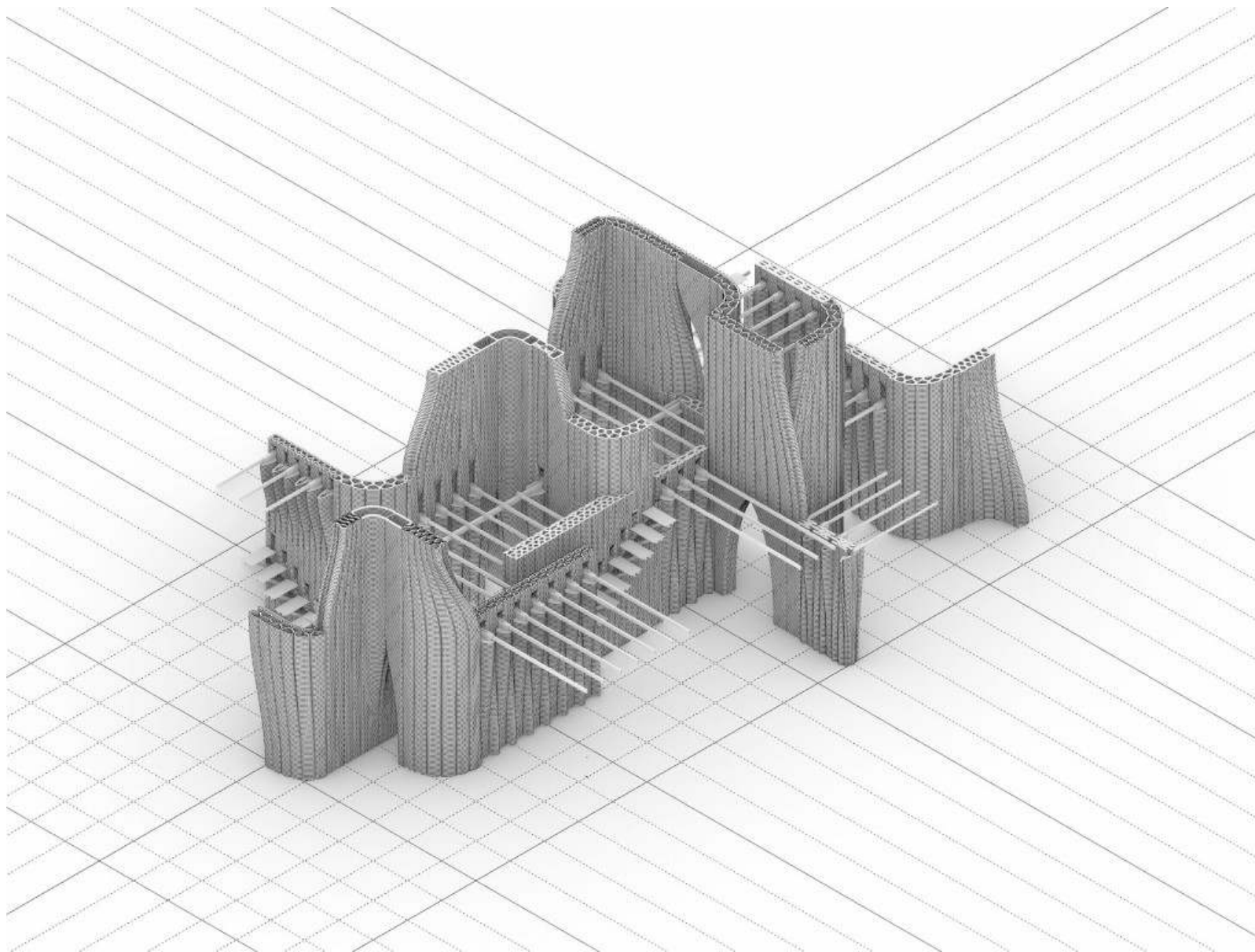
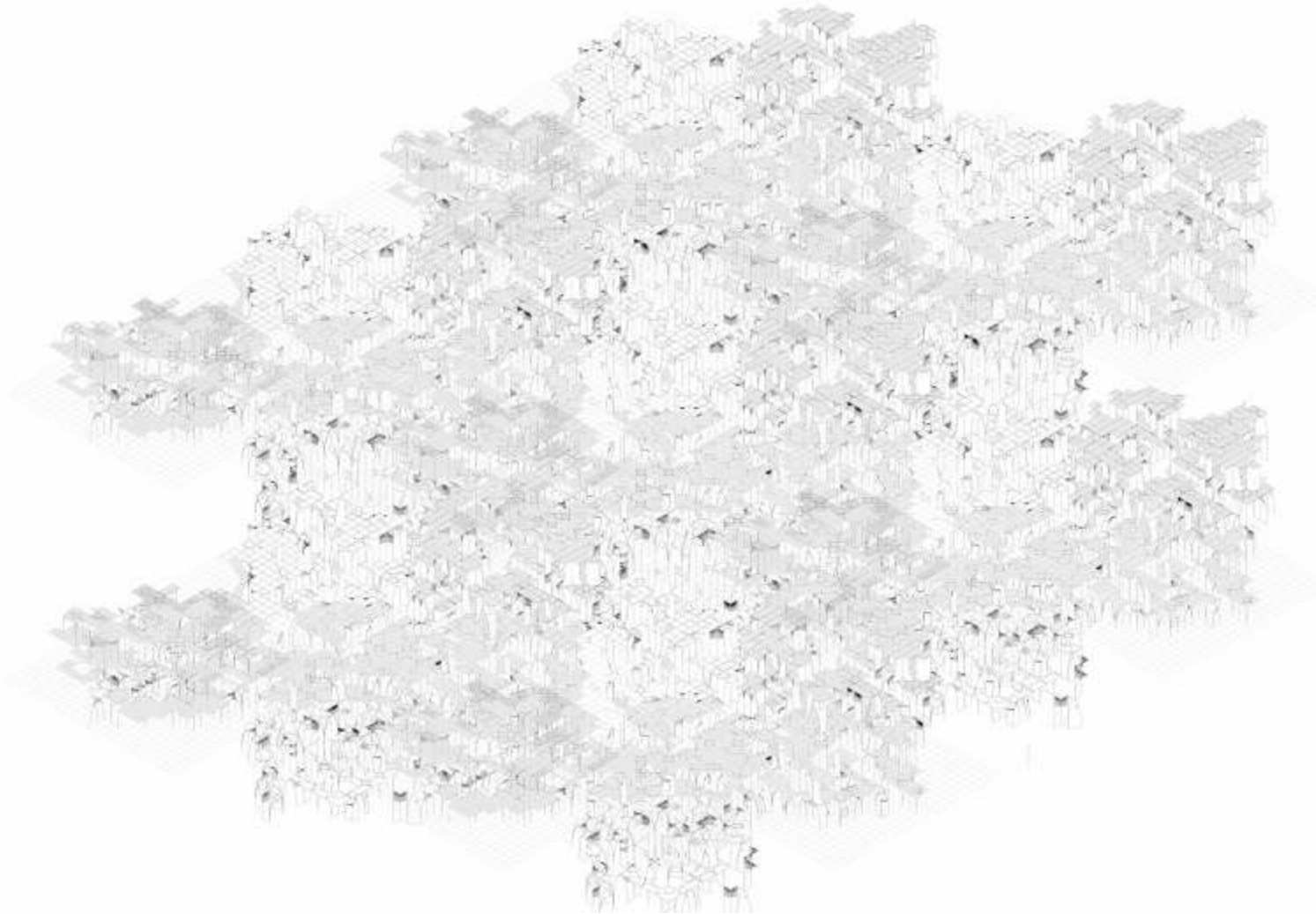


Image courtesy of Iaac







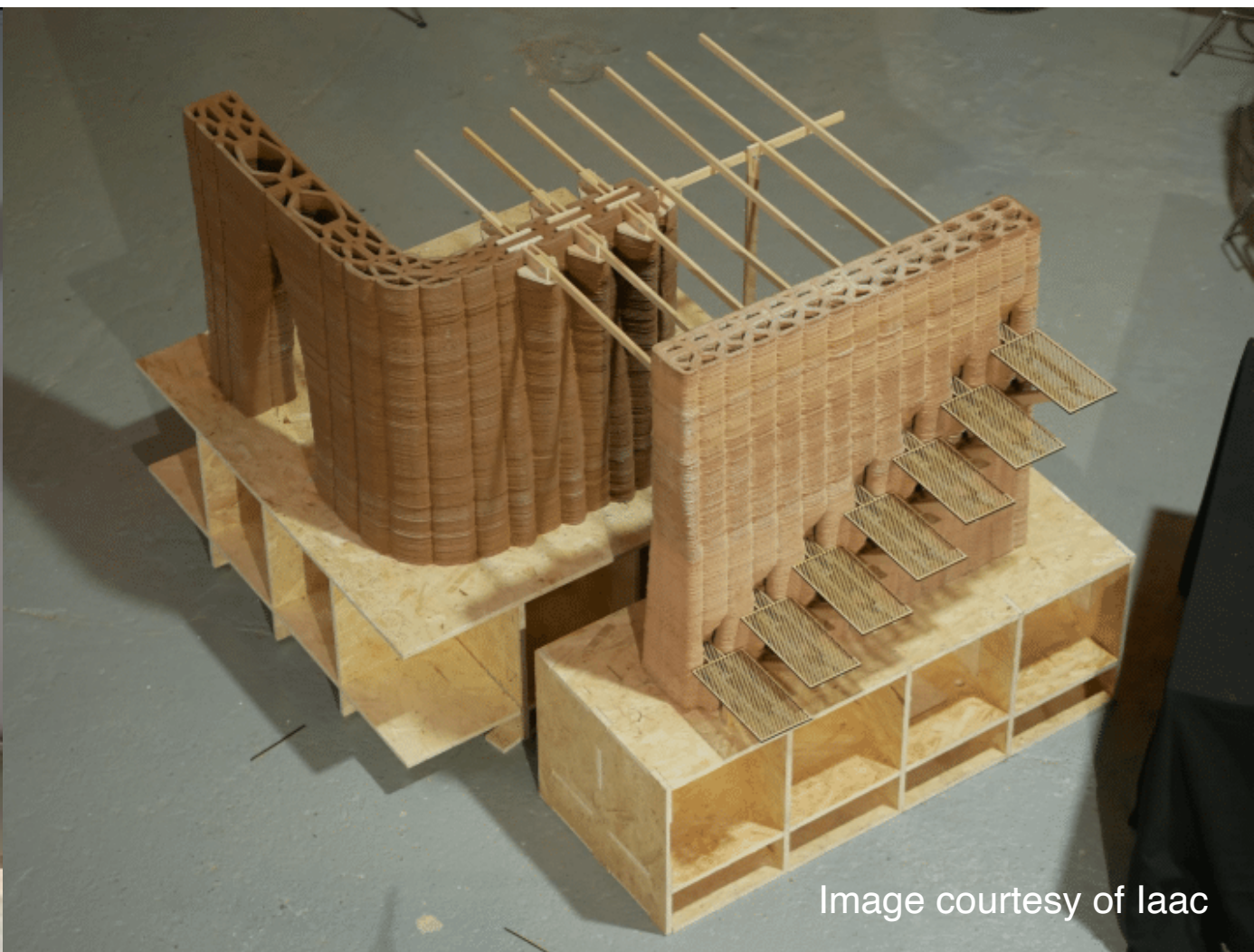


Image courtesy of laac



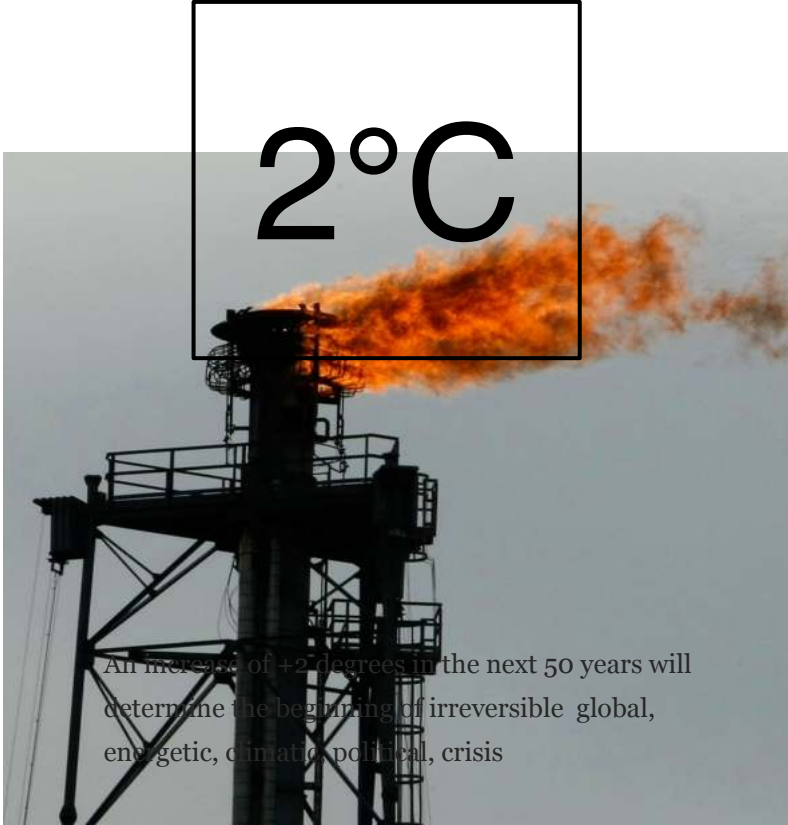
Image courtesy of Iaac & Wasp

Design

Engineering

Manufacturing

Material

A photograph of an industrial smokestack emitting a thick plume of orange smoke. A white box with a black border is superimposed over the top part of the image, containing the text '2°C'.

2°C

An increase of +2 degrees in the next 50 years will determine the beginning of irreversible global, energetic, climatic, political, crisis



The Textile Industry will throw more than 21 tons of microfibers on our seas by 2050



Trees are important tools in the fight to stave off [global warming](#). They absorb and store the key [greenhouse gas](#) emitted by our cars and power plants, carbon dioxide (CO₂), before it has a chance to reach the upper atmosphere

INNOVATION

Innovation is significant positive **change**.
It's something that **matters**.

-

S. Berkun

Material Technology

Materials technology is a relatively comprehensive discipline that begins with the production of goods from raw materials to processing of materials into the shapes and forms needed for specific applications.

WEARPURE.TECH

—
ENVIRONMENTAL MATERIAL TECH

NUMEVA

PRIMLAB

MATERIAL COMPOUND



Smart materials technology enables us to adapt to environmental changes by activating its functions

CO2PURE

- ecosystem engineers -

CO2pure is a 100% natural mineral compound, with the property to mineralize primary greenhouse gases (CO₂ and NO_x) and reduce volatile organic compounds (VOCs).

This product is used as an additive in the process of manufacture of textiles, polymers, construction, and in general for all types of coatings.



3D PRINTING

- ecosystem engineers -



Addressing the environmental pollution issue, Wearpure.tech present a new PLA filament material composed of Co2Pure powder and a biodegradable polymer.

DATA

- active material performance -



*daily adsorption of primary greenhouse gasses of a tree and 30 people wearing WEARPURE.tech



1
TREE*

* CONSIDERING AN ADULT TREE
WITH MORE THAN 10 YEARS

20Kg

OF GREENHOUSE GASES
PURIFIED PER YEAR



20
CHAIRS

* CALCULATED ON A CHAIR
WITH AN ADSORBING AREA OF 2 SQM

CERTIFICATION

Univ

Universitat d'Alacant
Universidad de Alicante
Serveis Tècnics d'Investigació
Servicios Técnicos de Investigación

STI



PRIMLAB GLOBAL S.L.
Plaça Major 26
03760 Ondara – Alacant

Se adjunta informe de resultados correspondiente a la solicitud de análisis térmico, con referencia 1931055 (Adsorción física de gases)

Alicante, 22 de octubre de 2019


Fdo. Manuela Gadea Boronat
Servicios Técnicos de Investigación



INTERIOR DESIGN

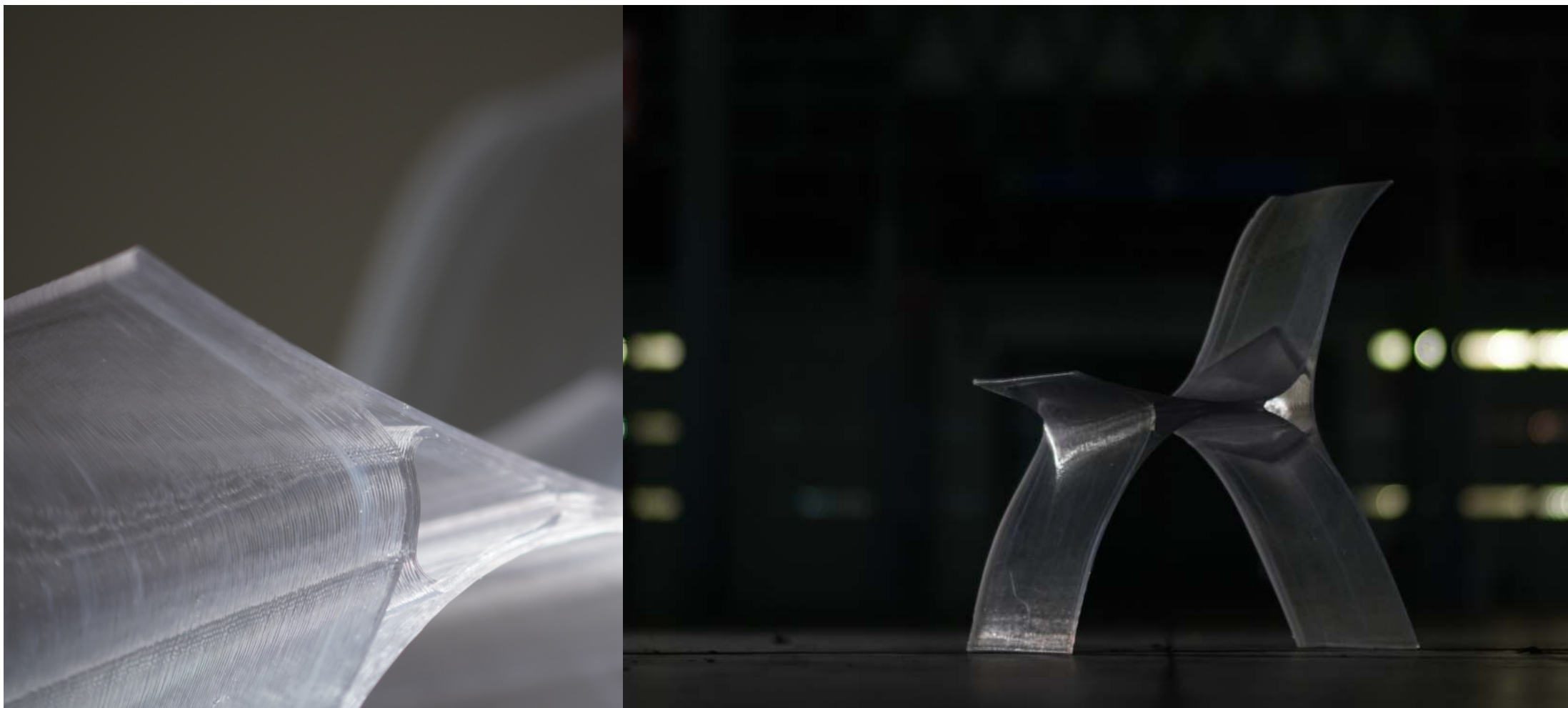
-Manglar chair



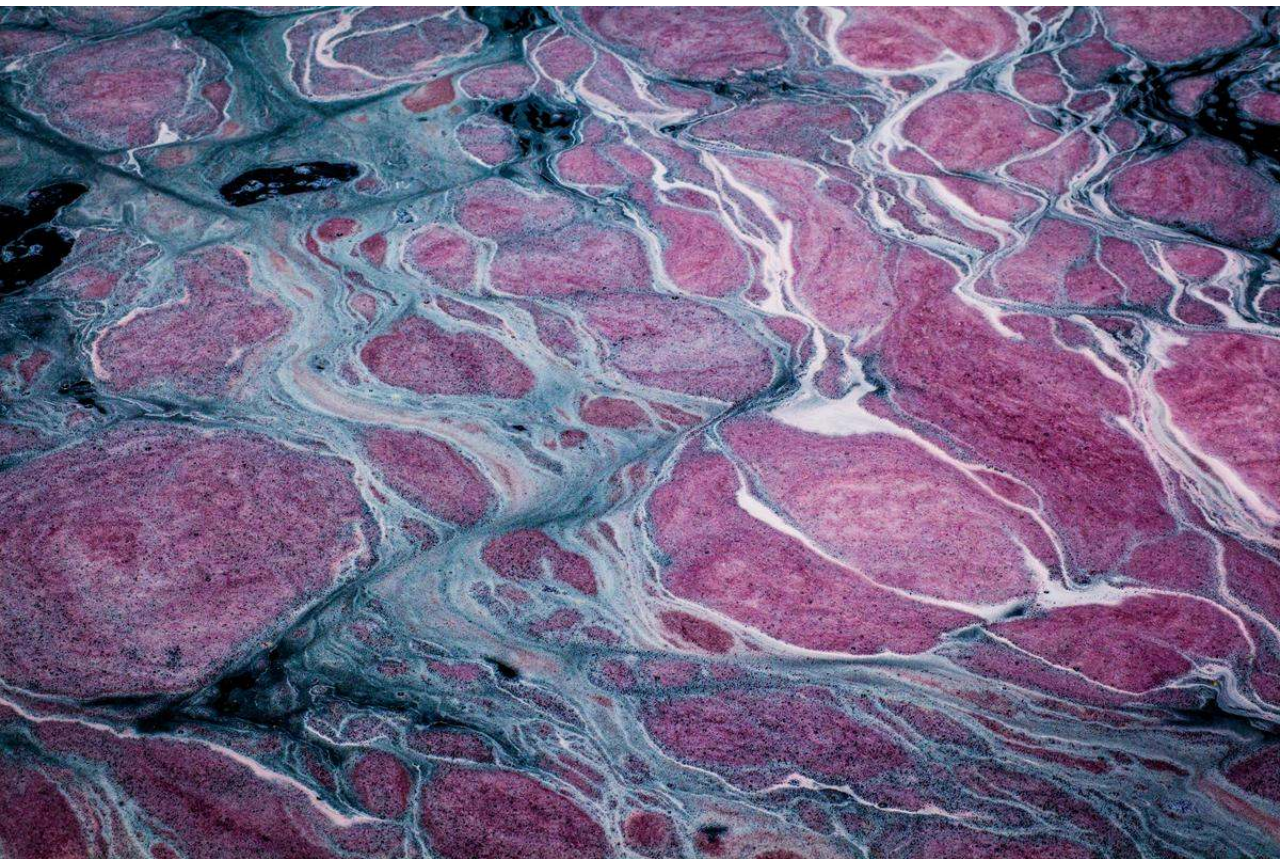
CO2pure mixed with granular pellet allow to further expand the absorption capacity and to tackle the furniture scale taking the advantage of large scale additive manufacturing

Manglar chair, designed by External Reference , established firm in Barcelona, is one of the first CO2 absorption 3d printed element









WEARPURE. TECH
FASHION COLLECTION

DRESSING THE CLIMATE REVOLUTION

Sensorial moodboard

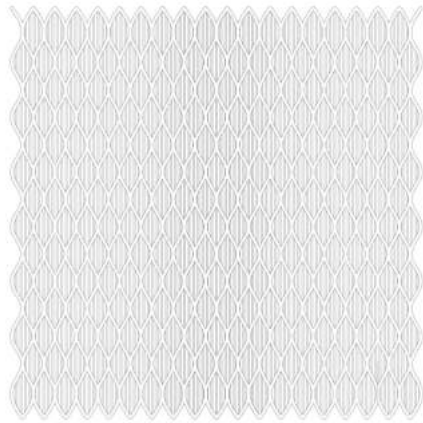
-dressing a climate revolution-



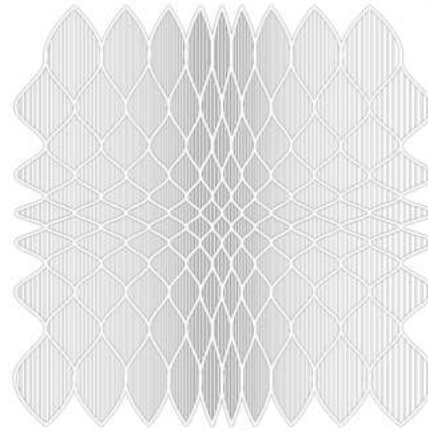
Knitting textile made by 3D printing
Second skin
Bright colors
Raw material

PATTERN DESIGN

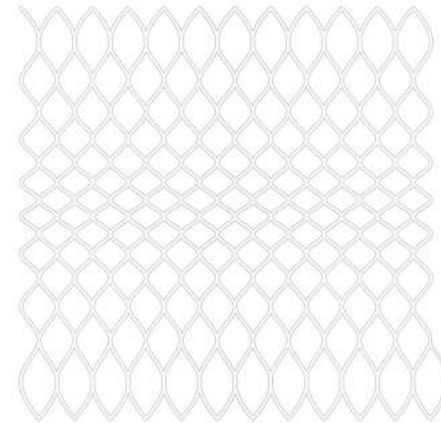
Digital -PATTERNS-



Time printing: 40 min
3D material: 10 g
CO2 adsorption: 0,002 g

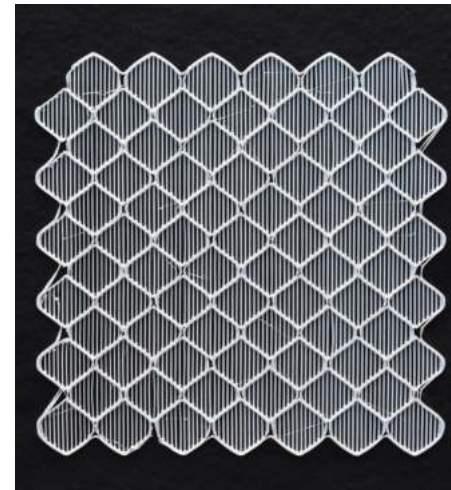
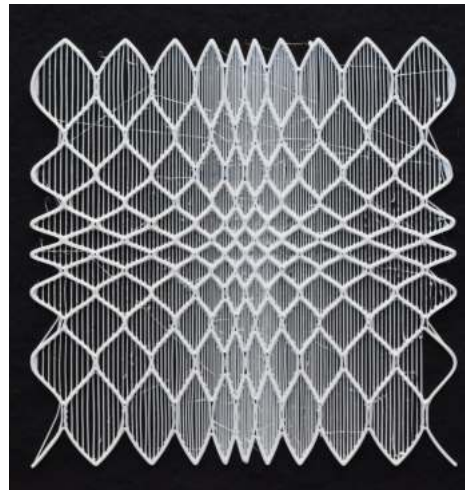
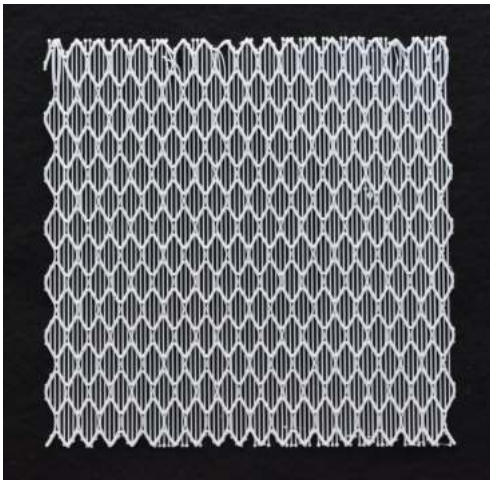


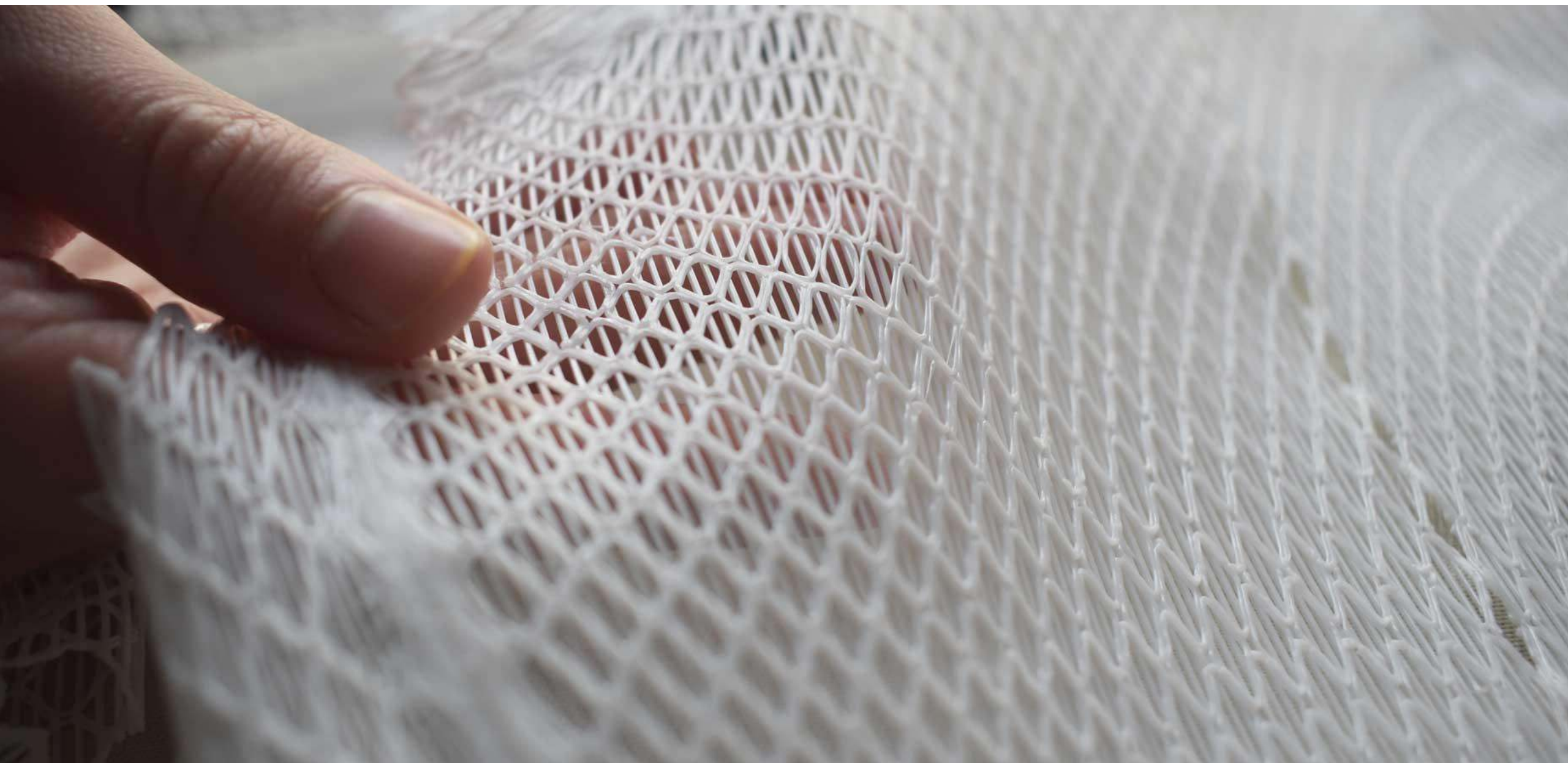
Time printing: 50 min
3D material: 13 g
CO2 adsorption: 0,003 g

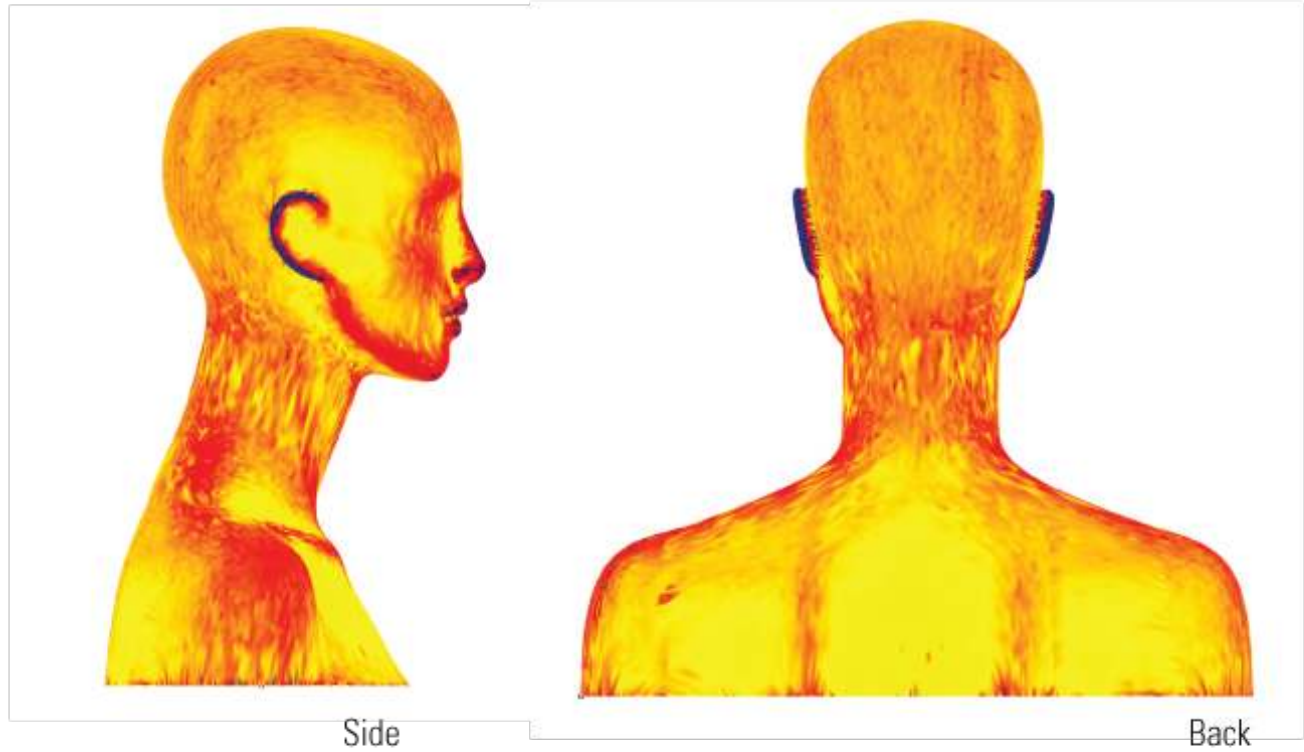


Time printing: 40 min
3D material: 8 g
CO2 adsorption: 0,002 g

Physical -3D PRINTING-

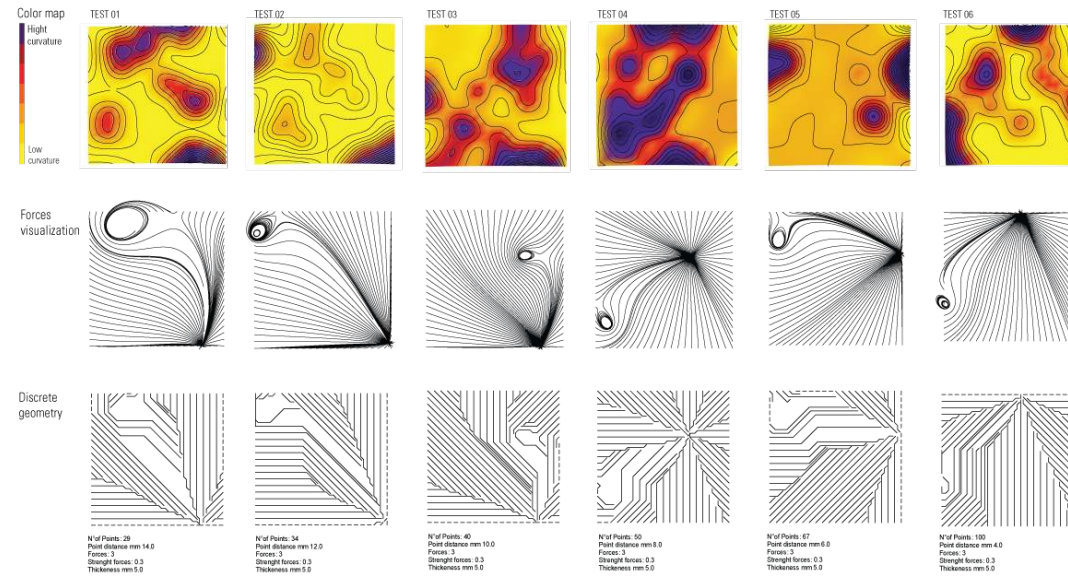




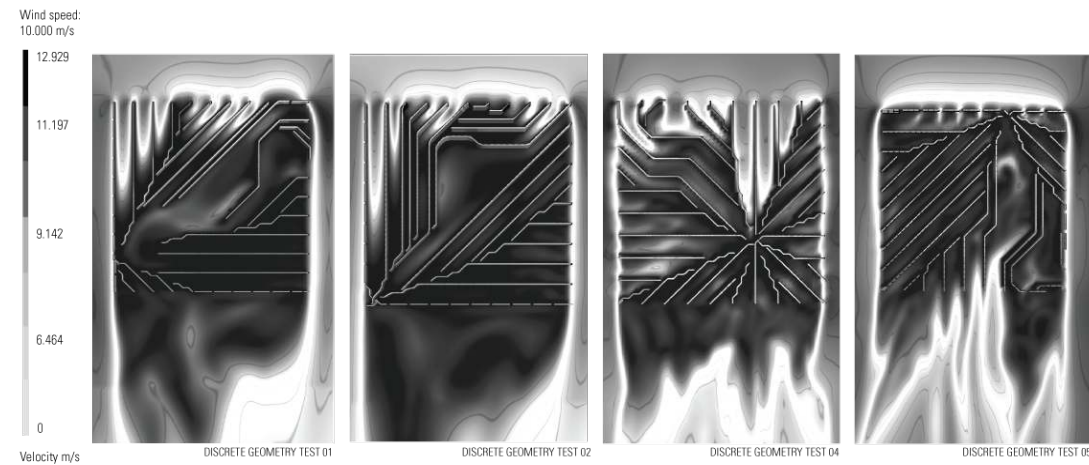


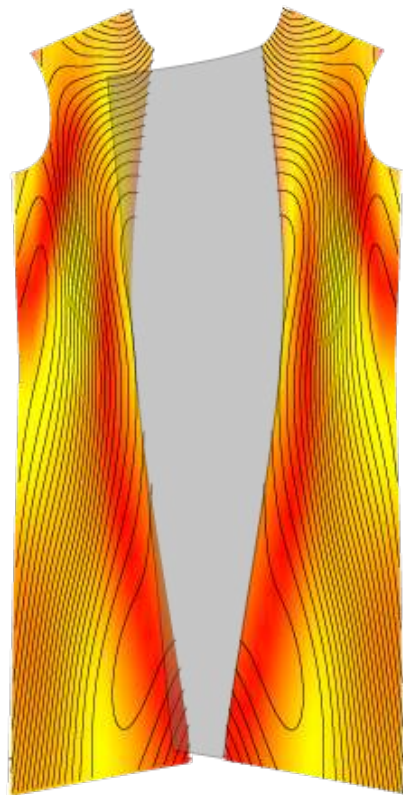
DIGITAL ANALYSIS

Body curvatures

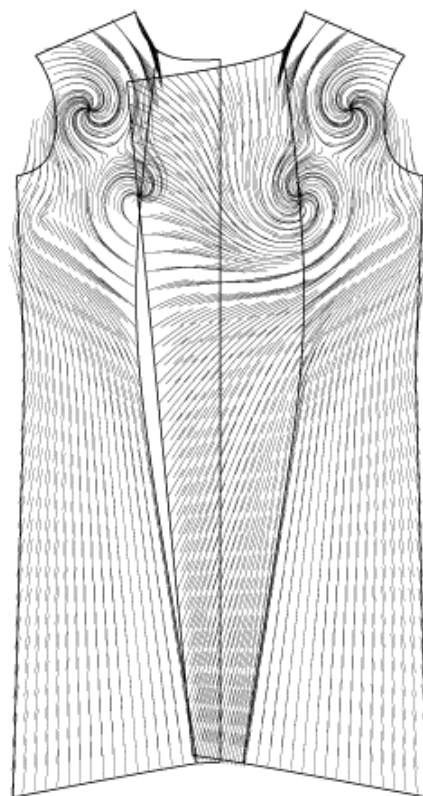


Wind force

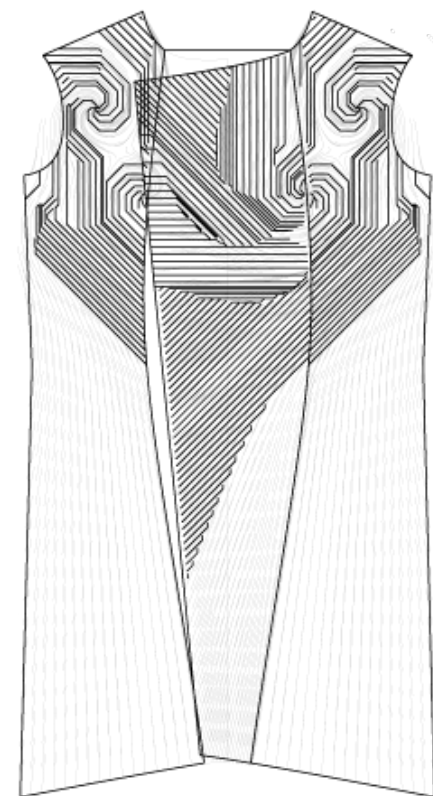




2D BODY CURVATURES
ON FRONT PATCHES

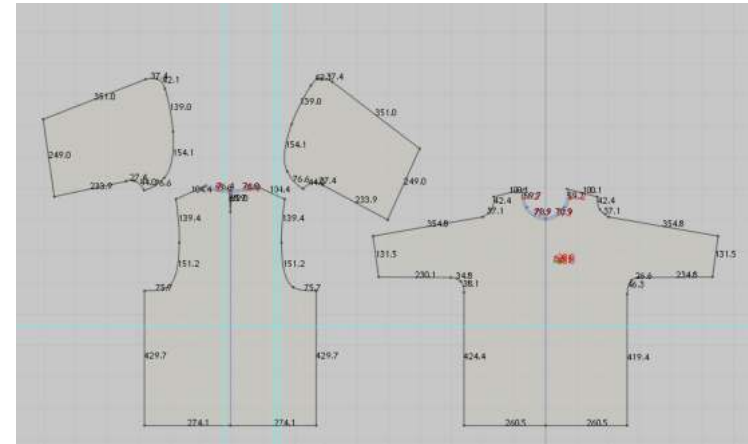


WIND FORCES
INFLUENCED BY
BODY CURVATURE



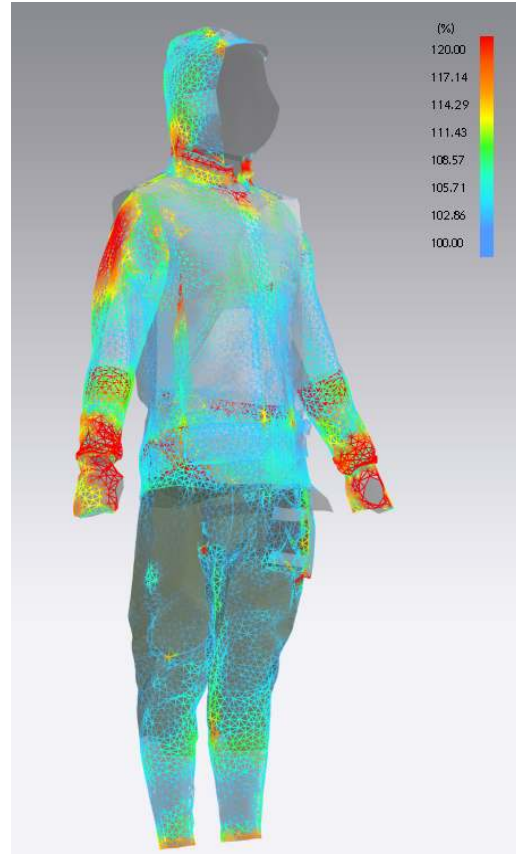
CONSTRUCT GEOMETRY BASEN
ON BODY CURVATURE
AND AIRFLOW

-DIGITAL PROTOTYPING-



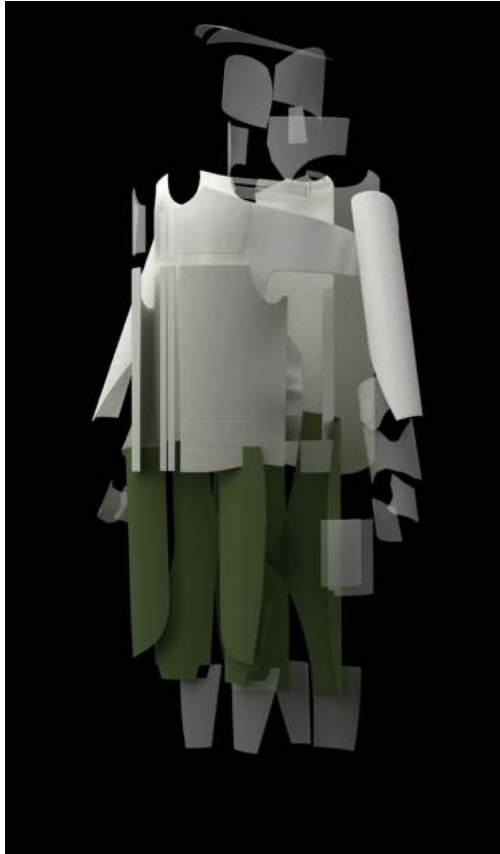
PATTERN MAKING DESIGN

-DIGITAL PROTOTYPING-



PATTERN MAKING DESIGN

-DIGITAL PROTOTYPING-



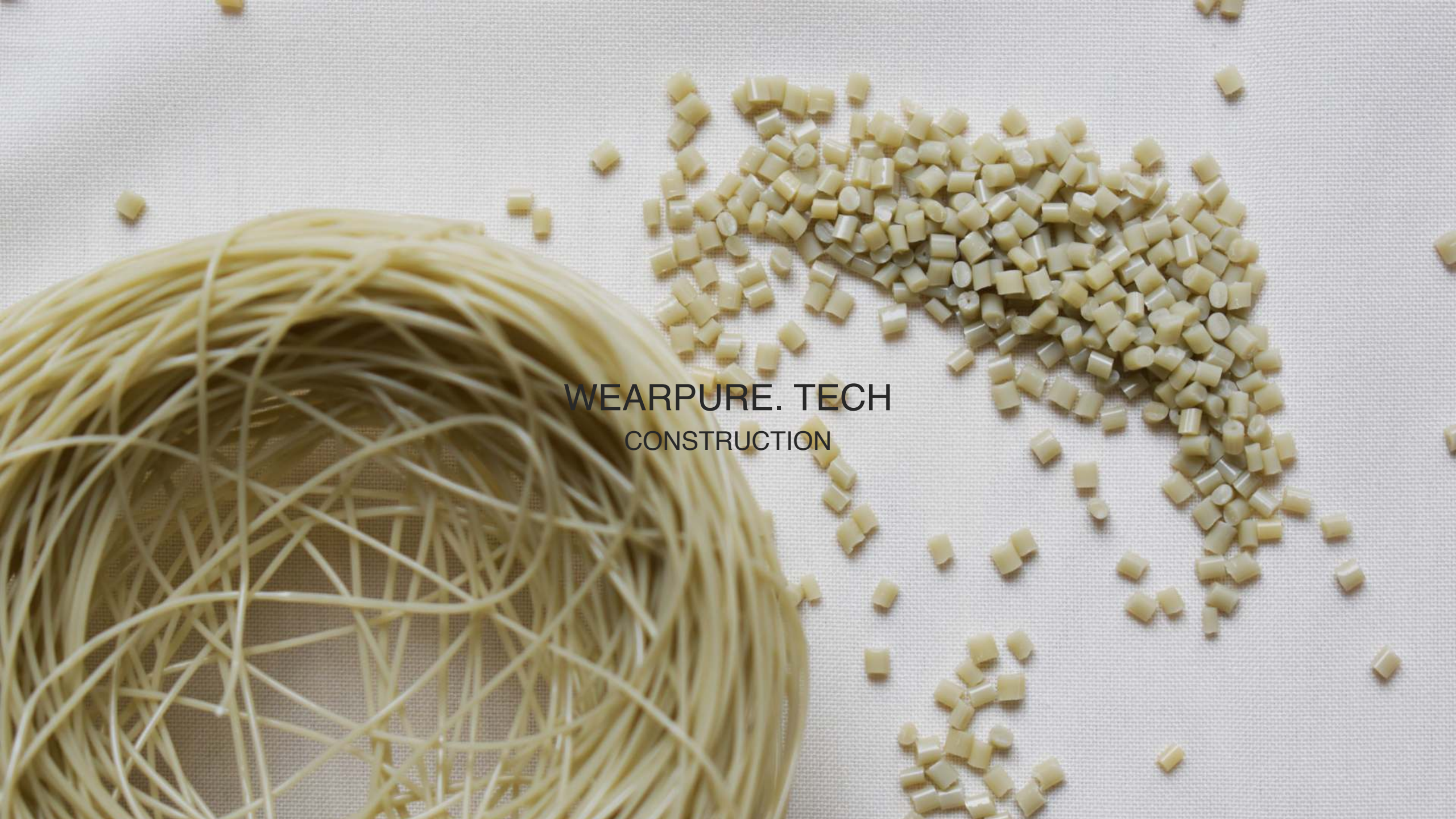
FASHION DIGITAL NIGHT

-ROME FASHION WEEK-

NOUMEN

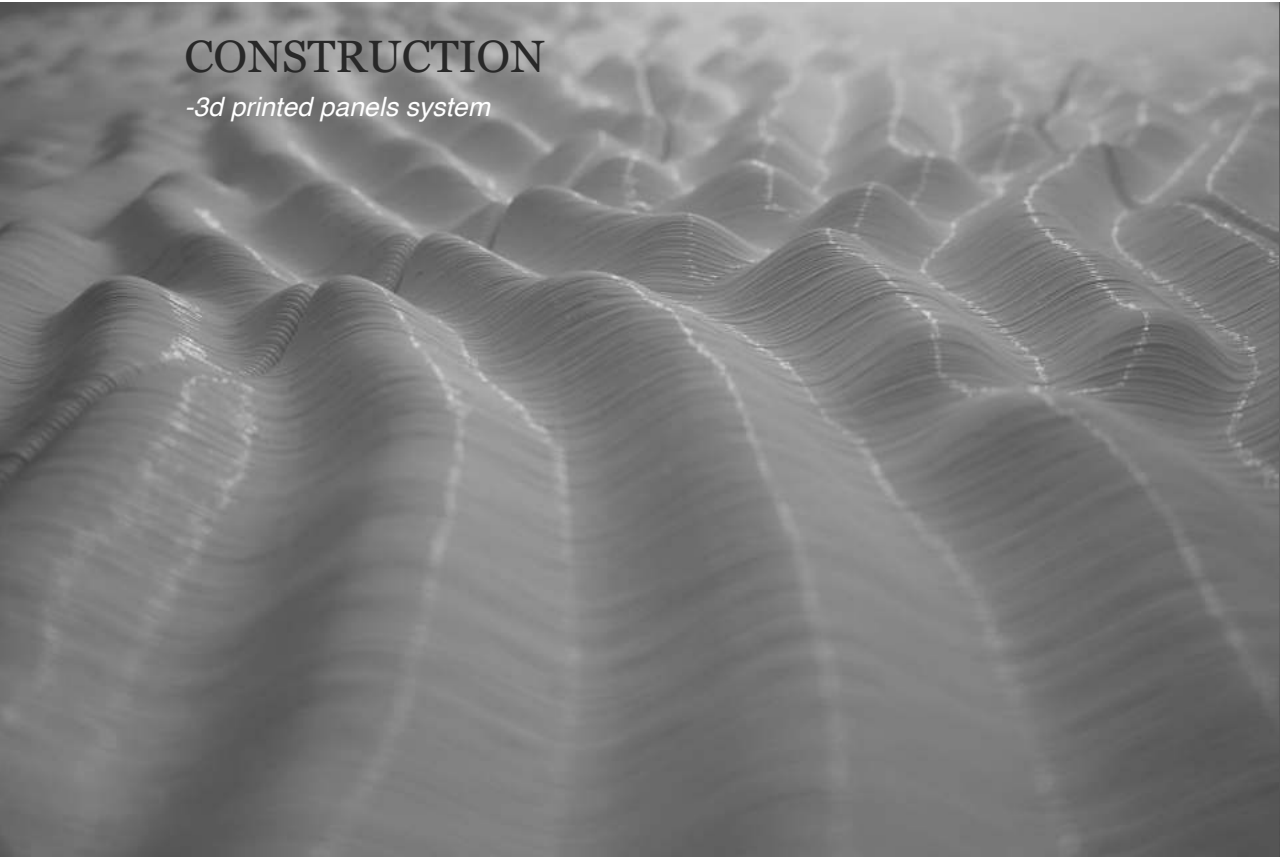


Additive Days 2020 – Sofia



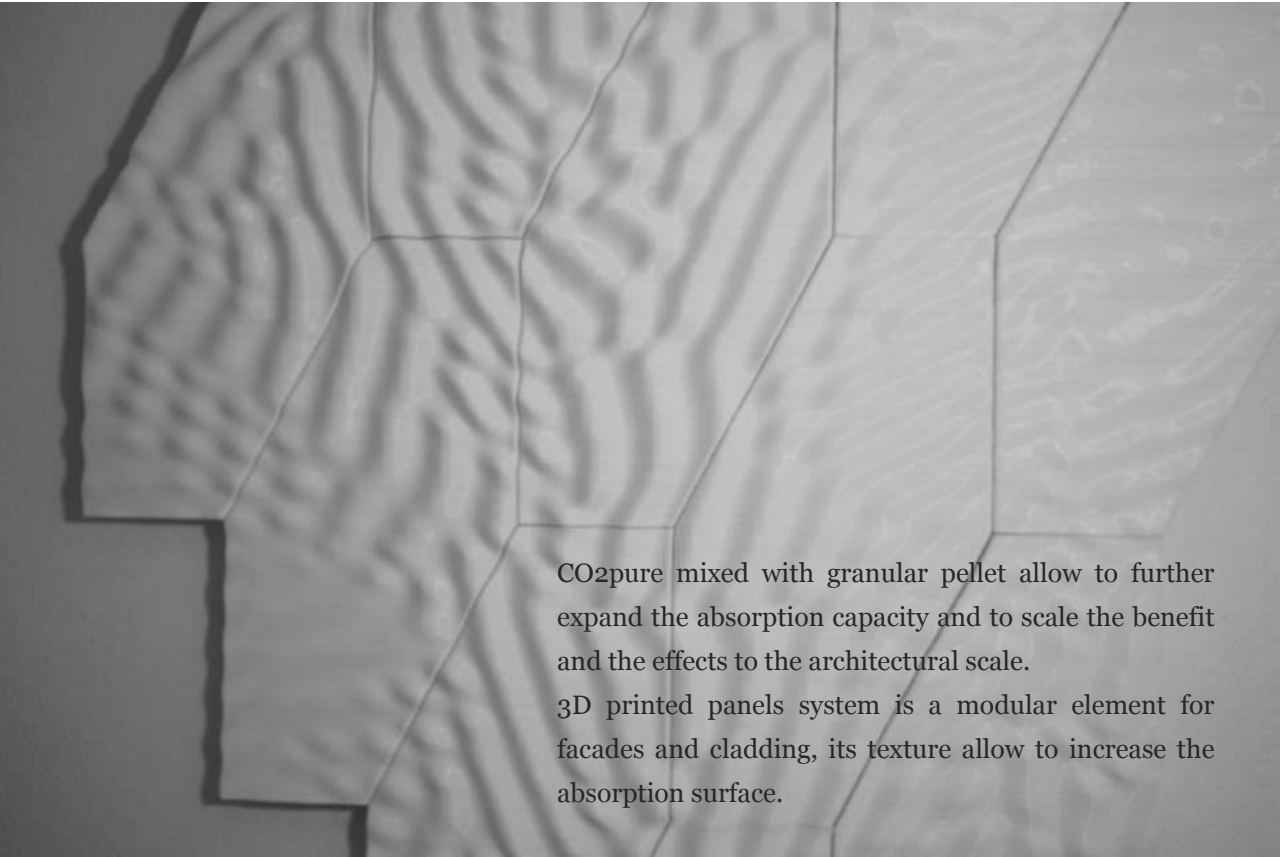
WEARPURE. TECH
CONSTRUCTION





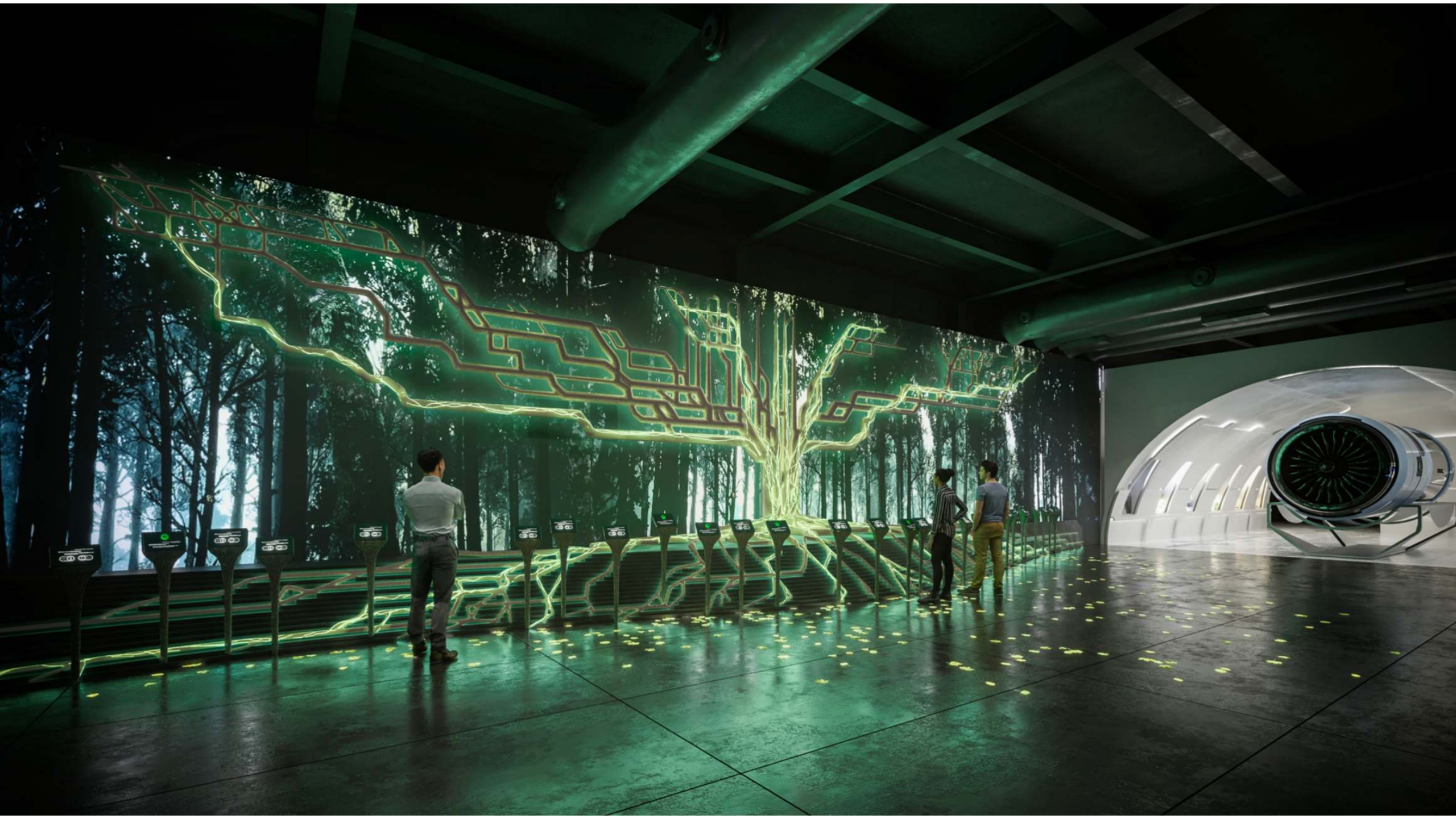
CONSTRUCTION

-3d printed panels system



CO2pure mixed with granular pellet allow to further expand the absorption capacity and to scale the benefit and the effects to the architectural scale.

3D printed panels system is a modular element for facades and cladding, its texture allow to increase the absorption surface.





Let's make it **matter**.

Let's make it **matter**.

Thank you.

<https://noumena.io>

eugenio@noumena.io