





# **The End of Architecture**

**Amorphous, Entropic, Plasticity**

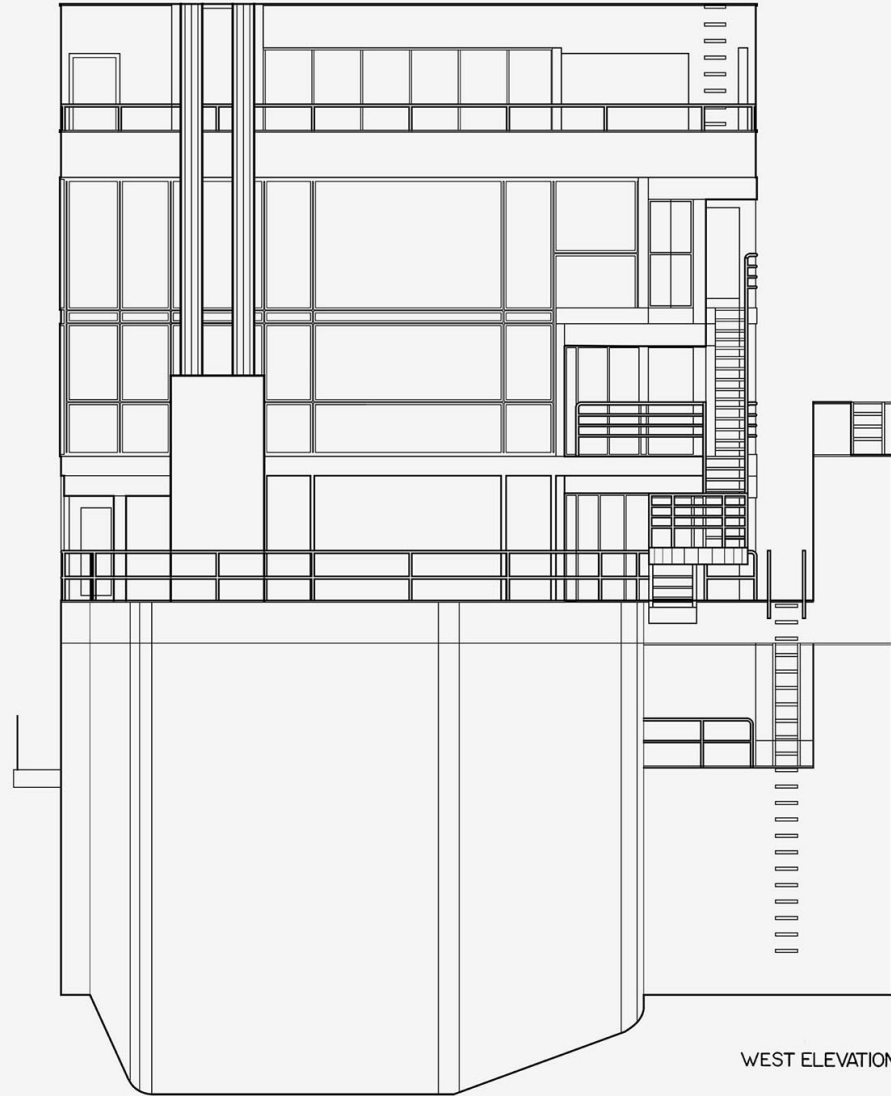
**OSHER at CMU**

**Matthew Schlueb, Instructor**

**Lecture 5 - Neri Oxman**

**Cyert Hall - 2023.07.26**



























# Tweet



**Neri Oxman** 

@NeriOxman



From a systems view, nothing—nothing—is truly and totally carbon neutral.

10:38 AM · 03 Jul 23 · **8,320** Views













@MoMA







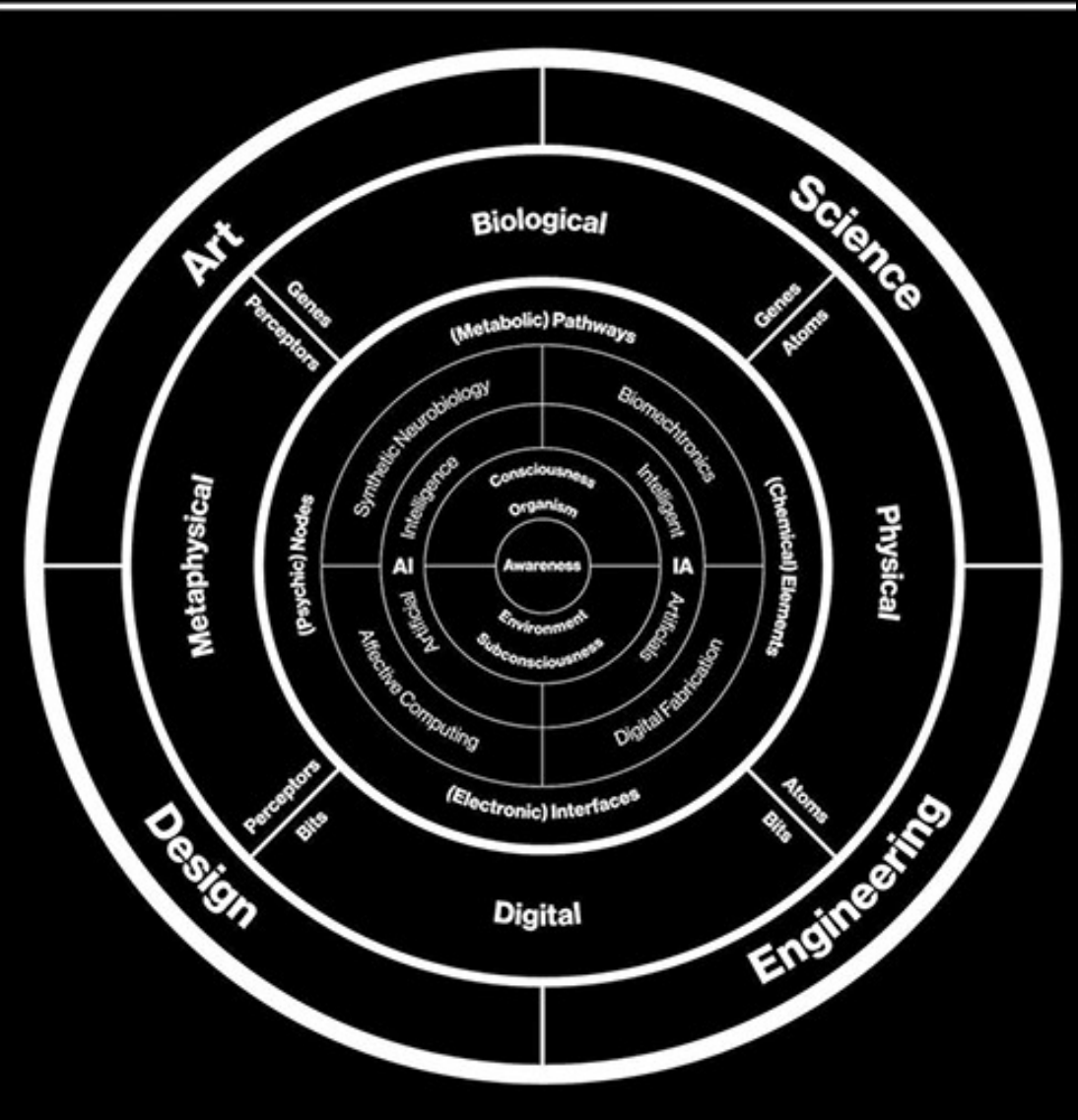
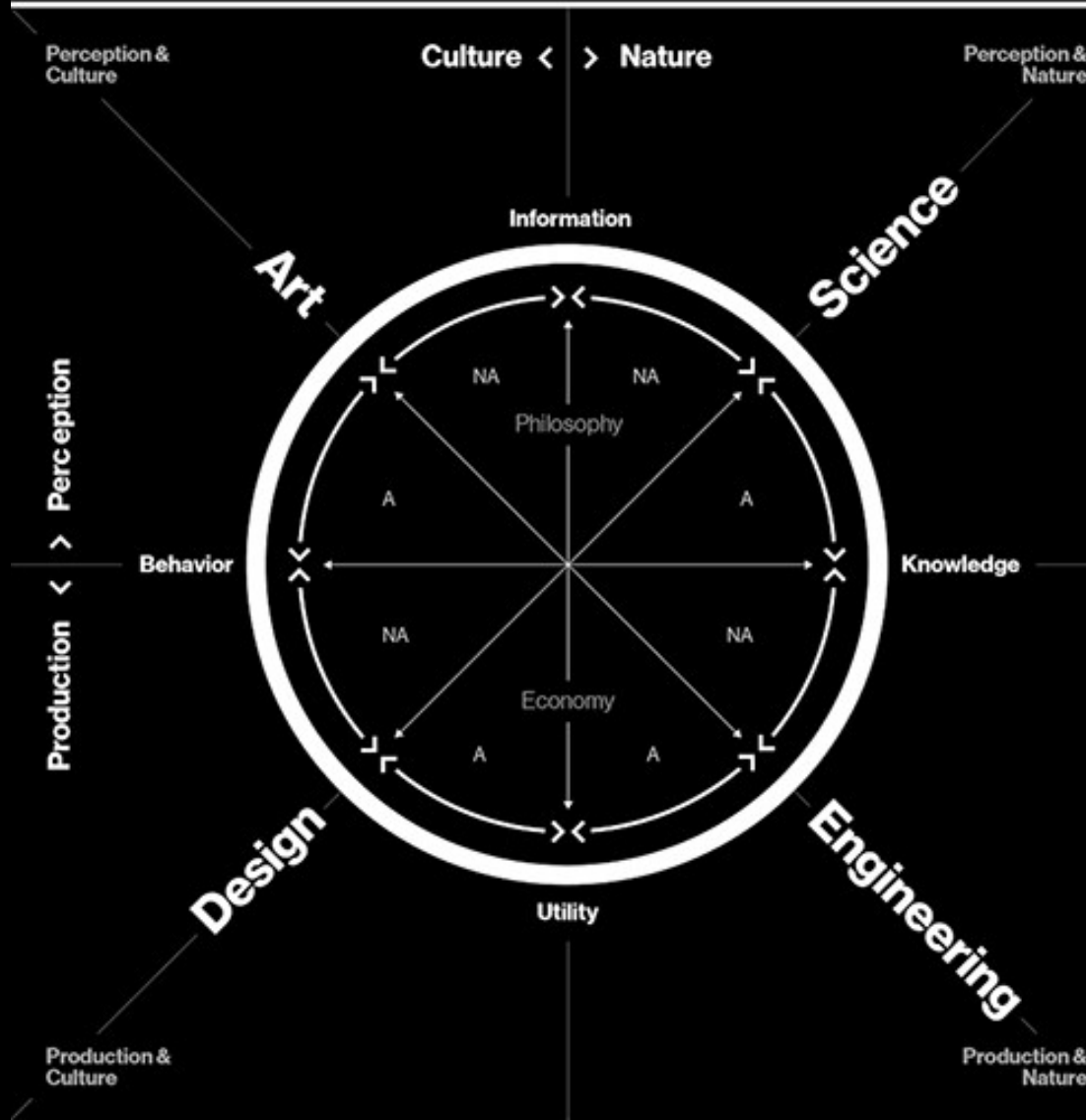
# Krebs Cycle of Creativity

Neri Oxman, January 2016

Key  
A Applied  
NA Non-Applied

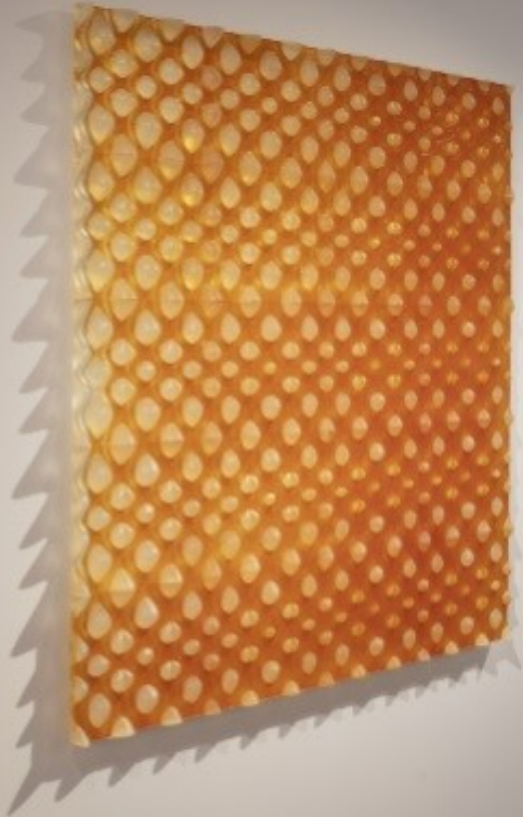
# Krebs Cycle of Creativity III Practice

Neri Oxman, March 2018





Neri  
Oxman  
Material  
Ecology



Material Ecology  
Neri Oxman  
2015  
Material Ecology is a series of works that explore the relationship between material and form. The works are made from a variety of materials, including paper, wood, and metal. The works are inspired by the natural world and the way that materials behave in nature.



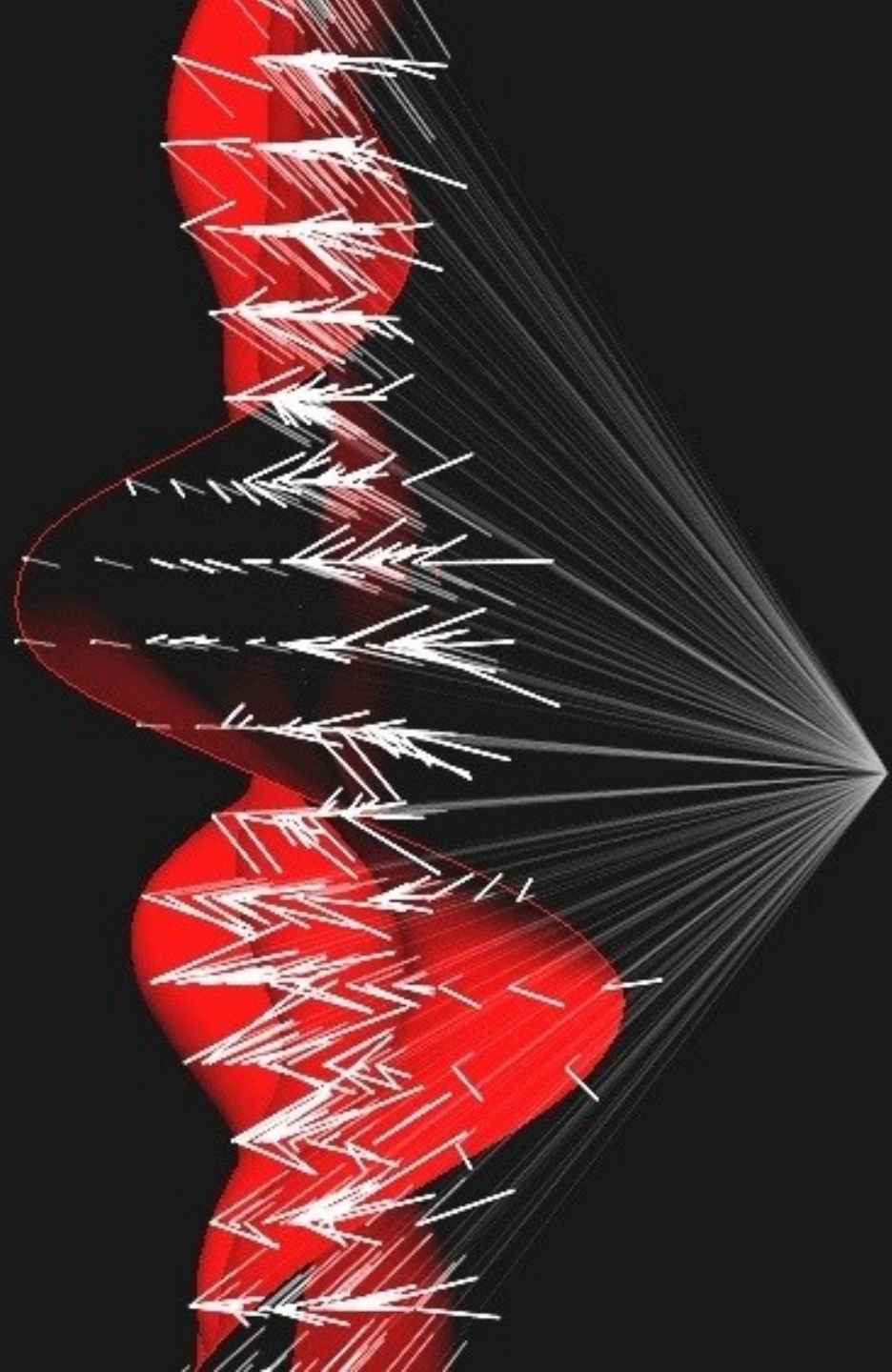
























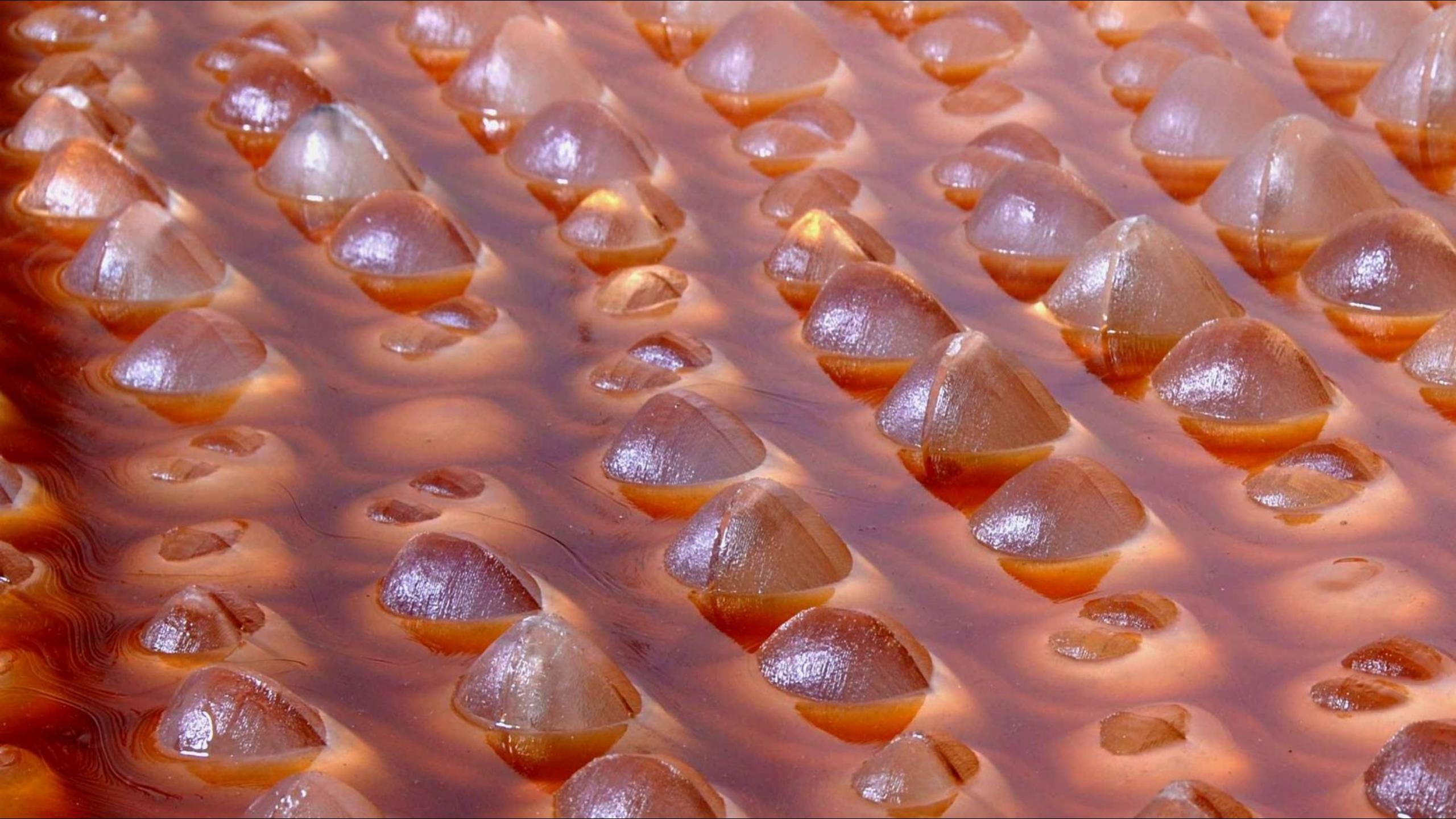




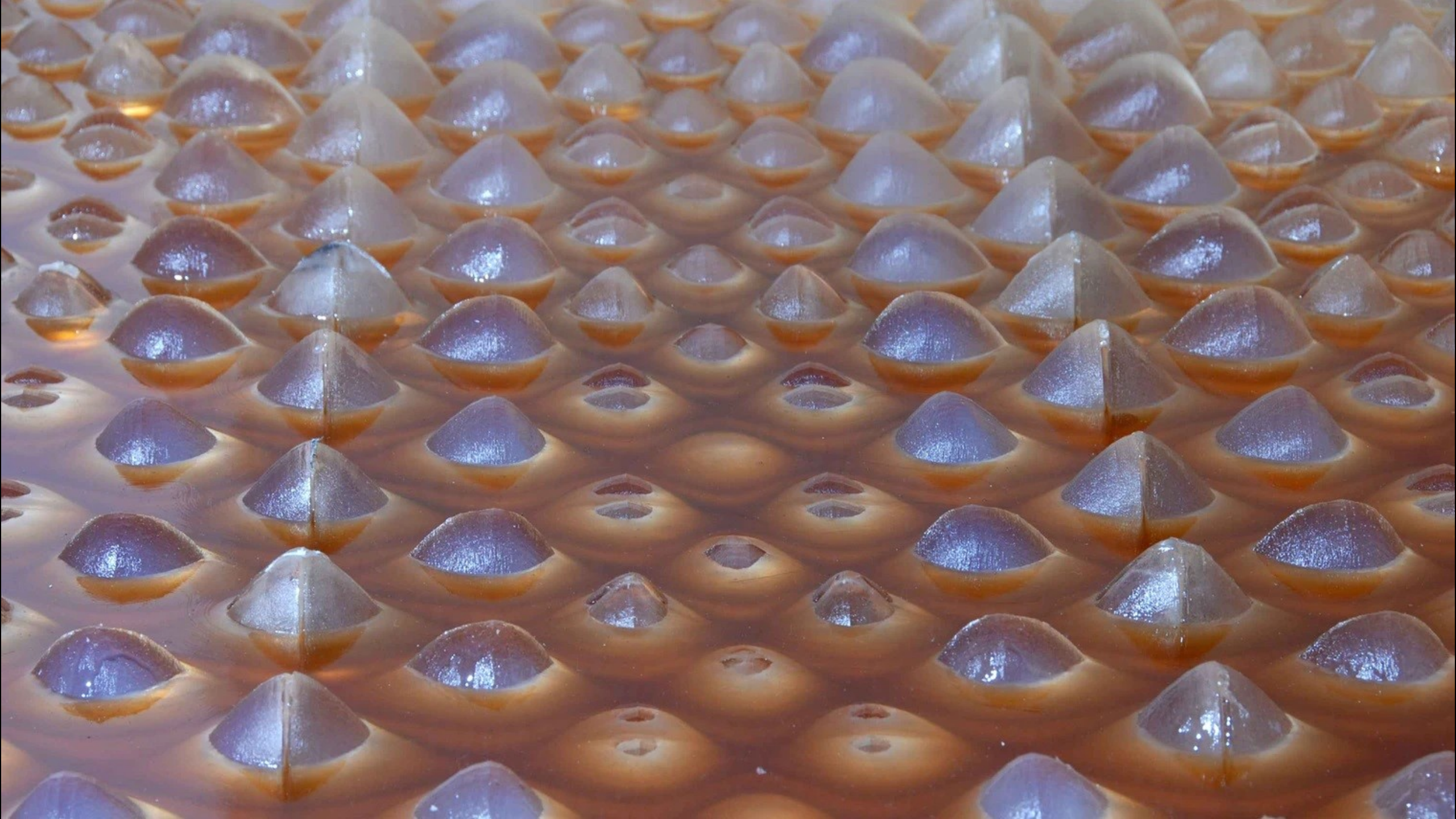








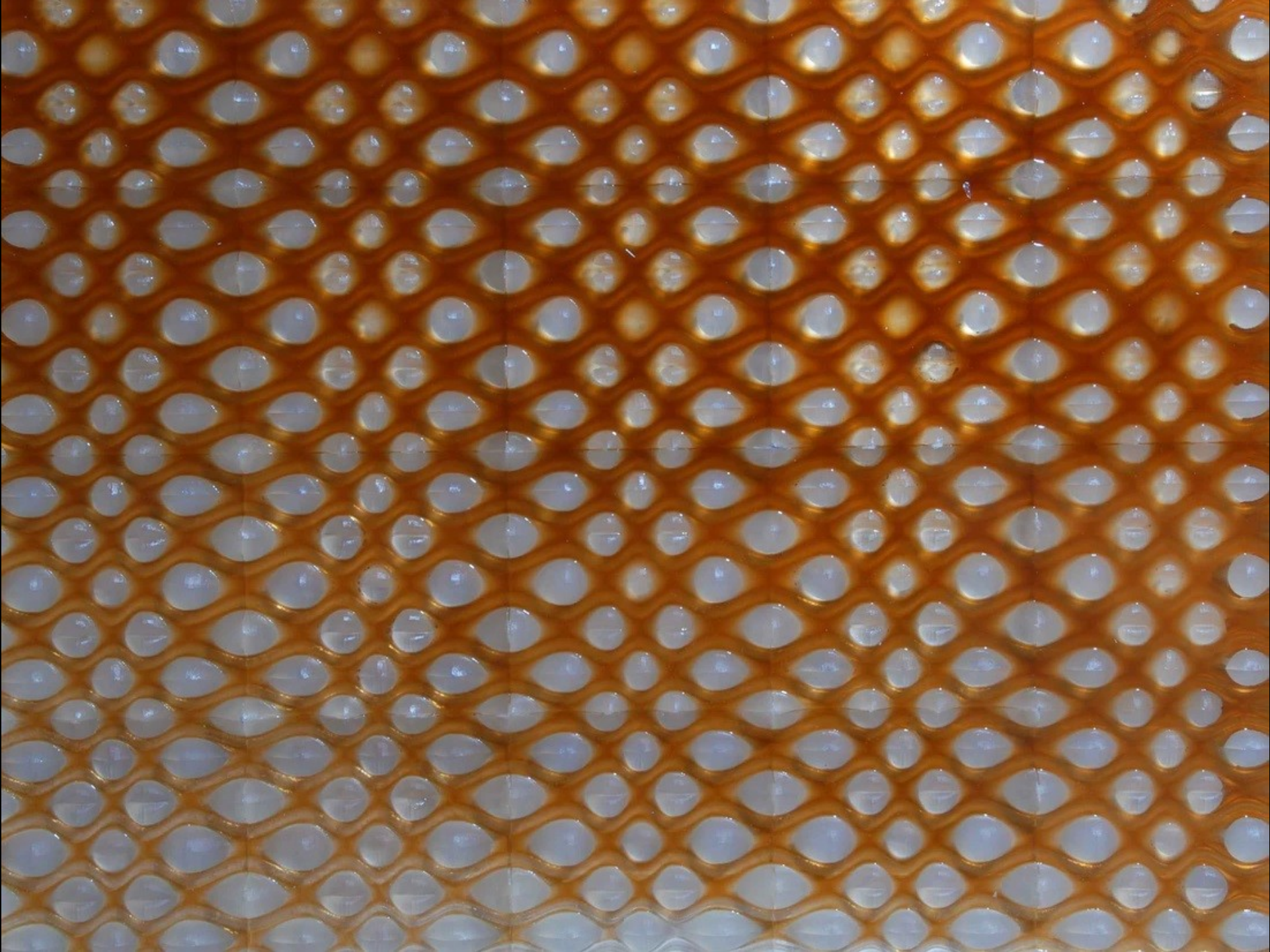










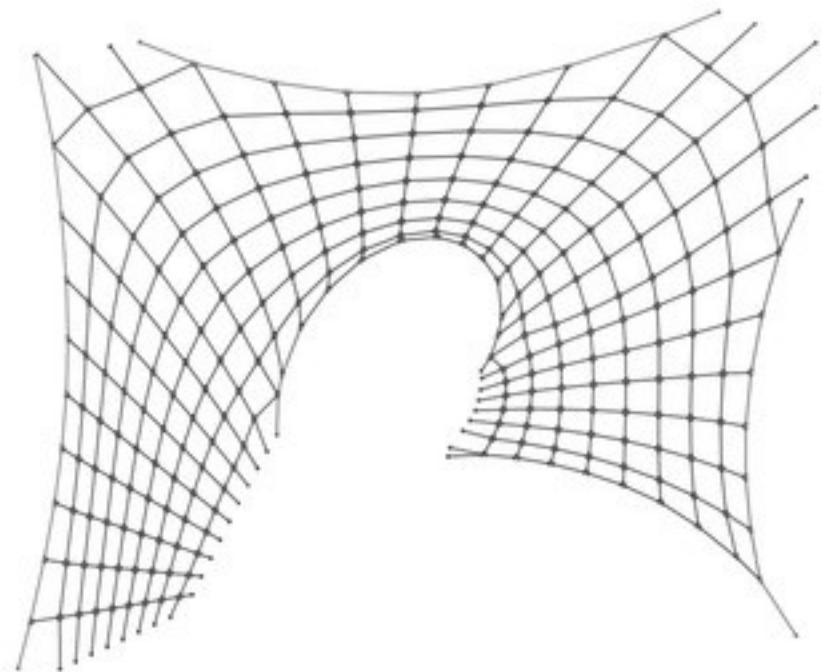




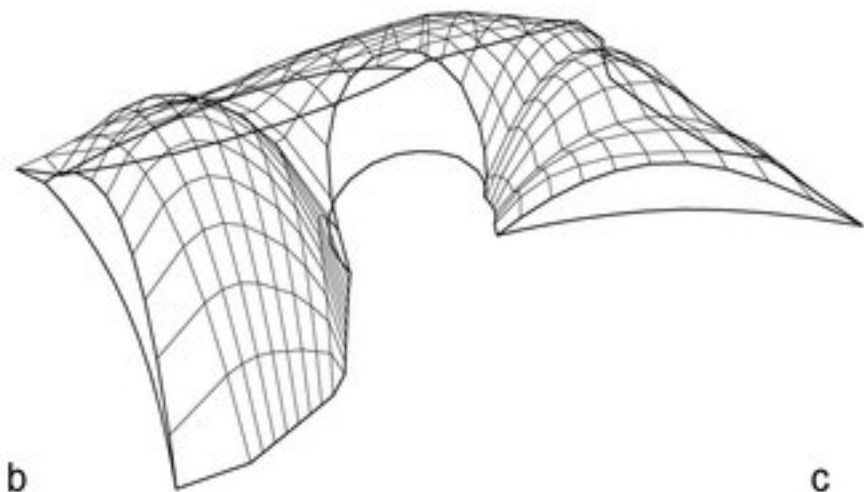




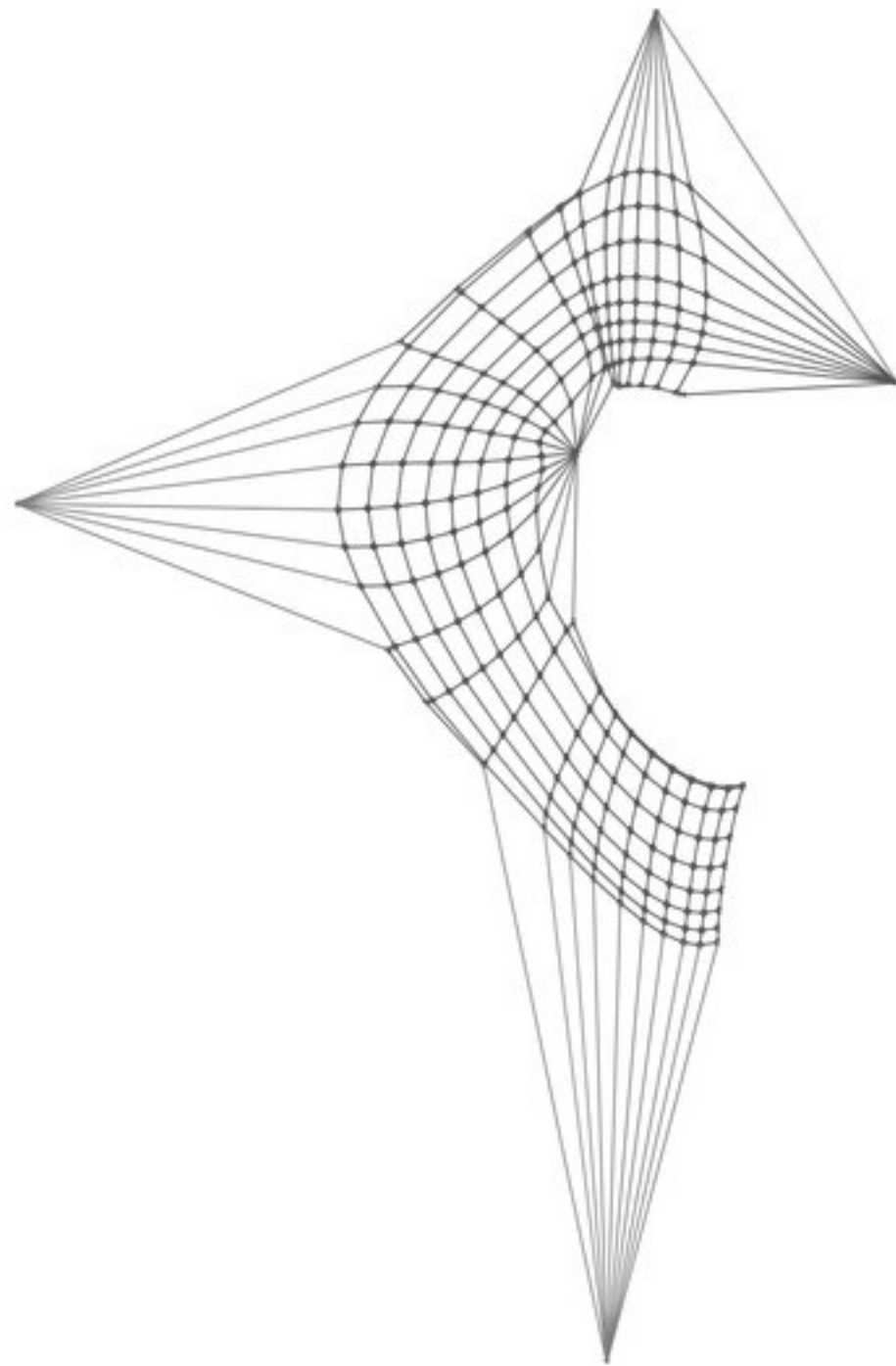




a



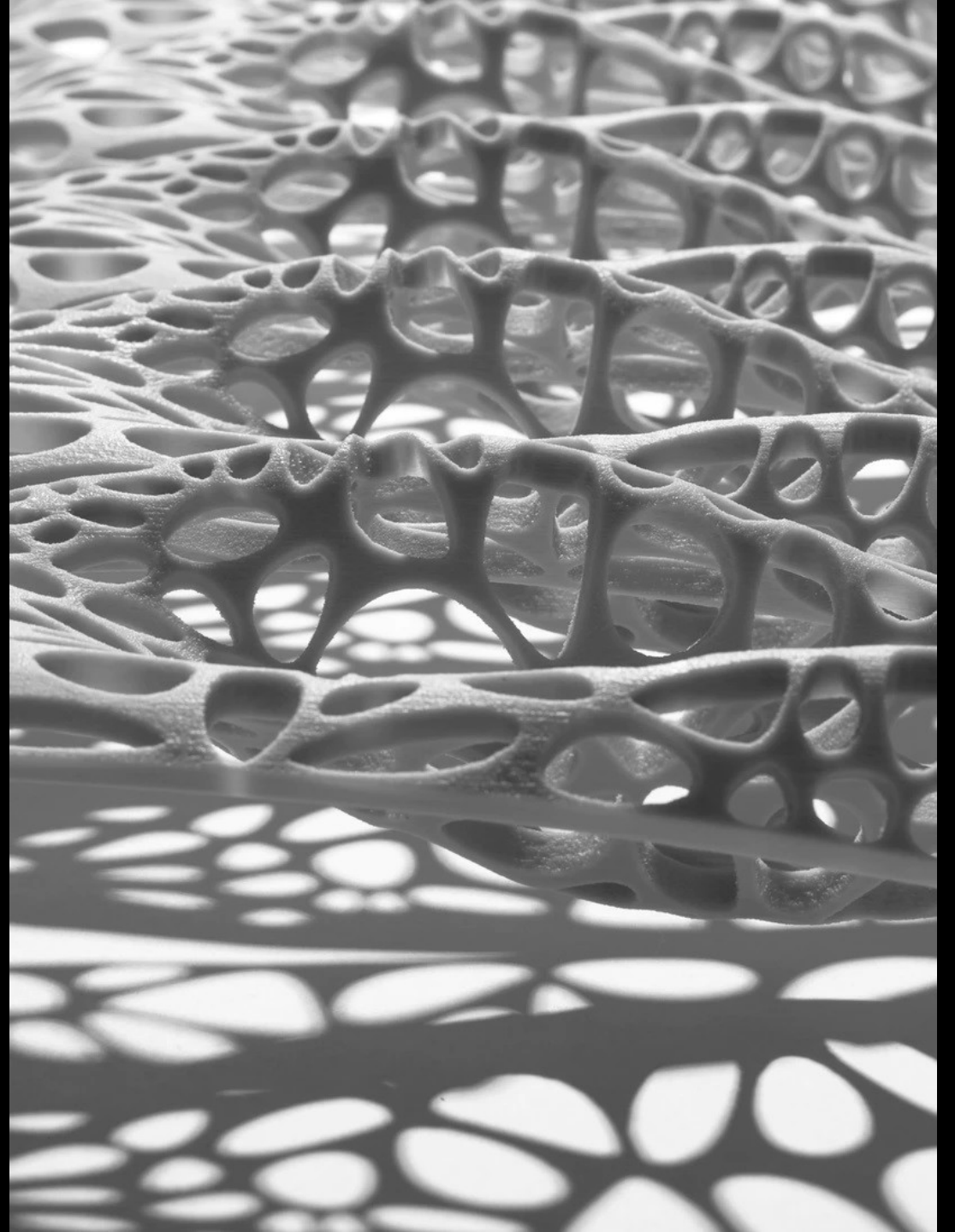
b



c



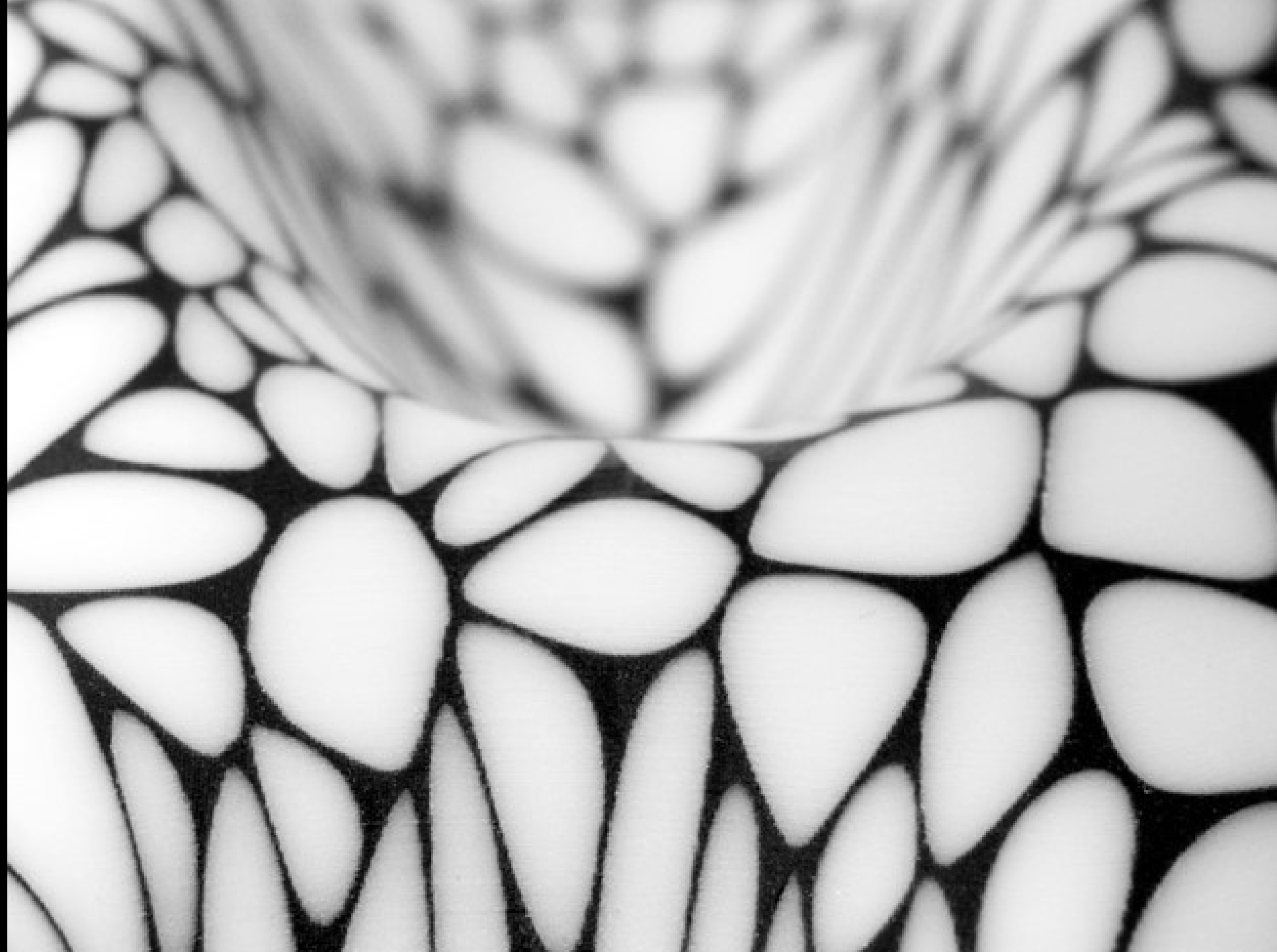






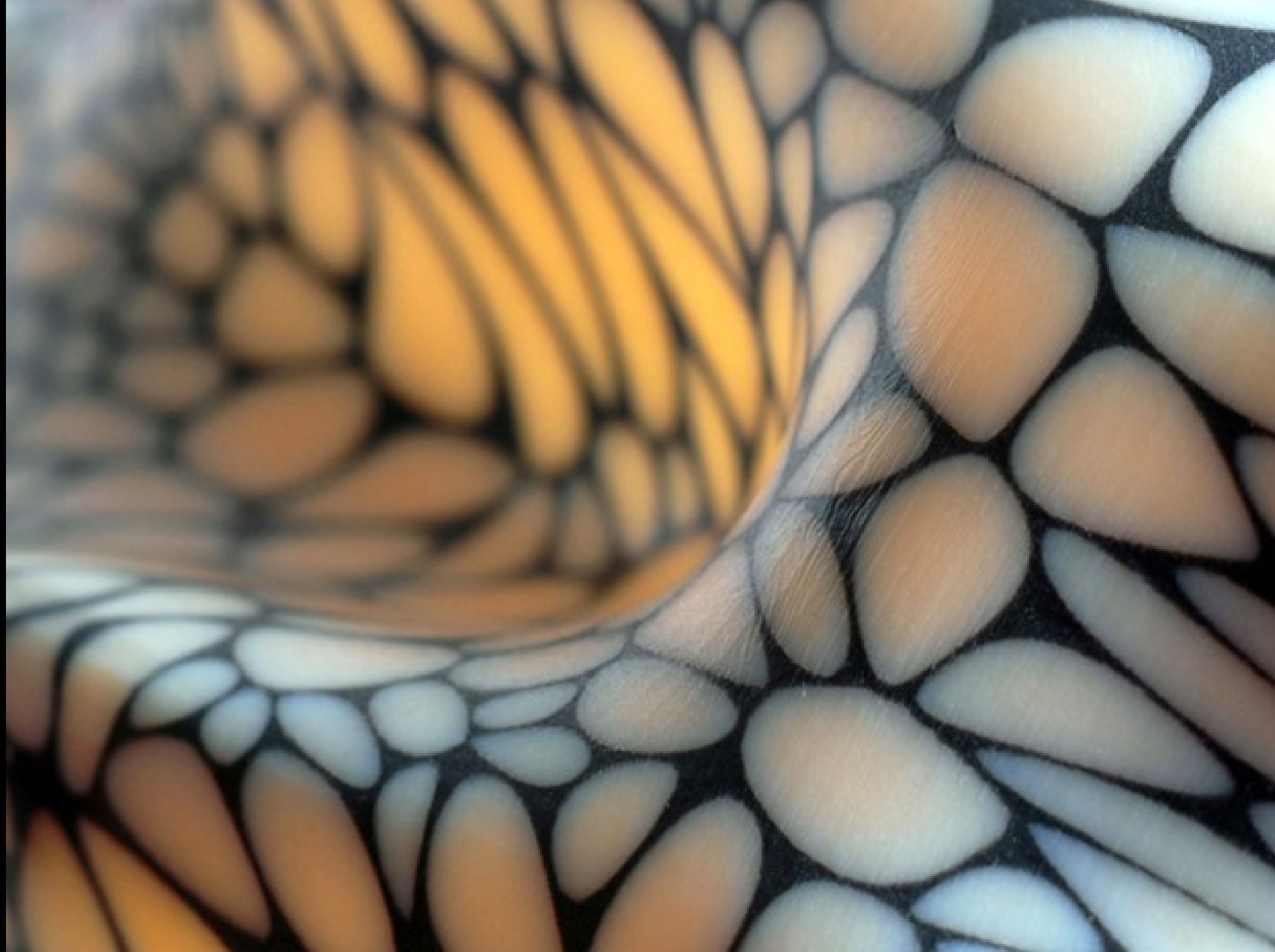














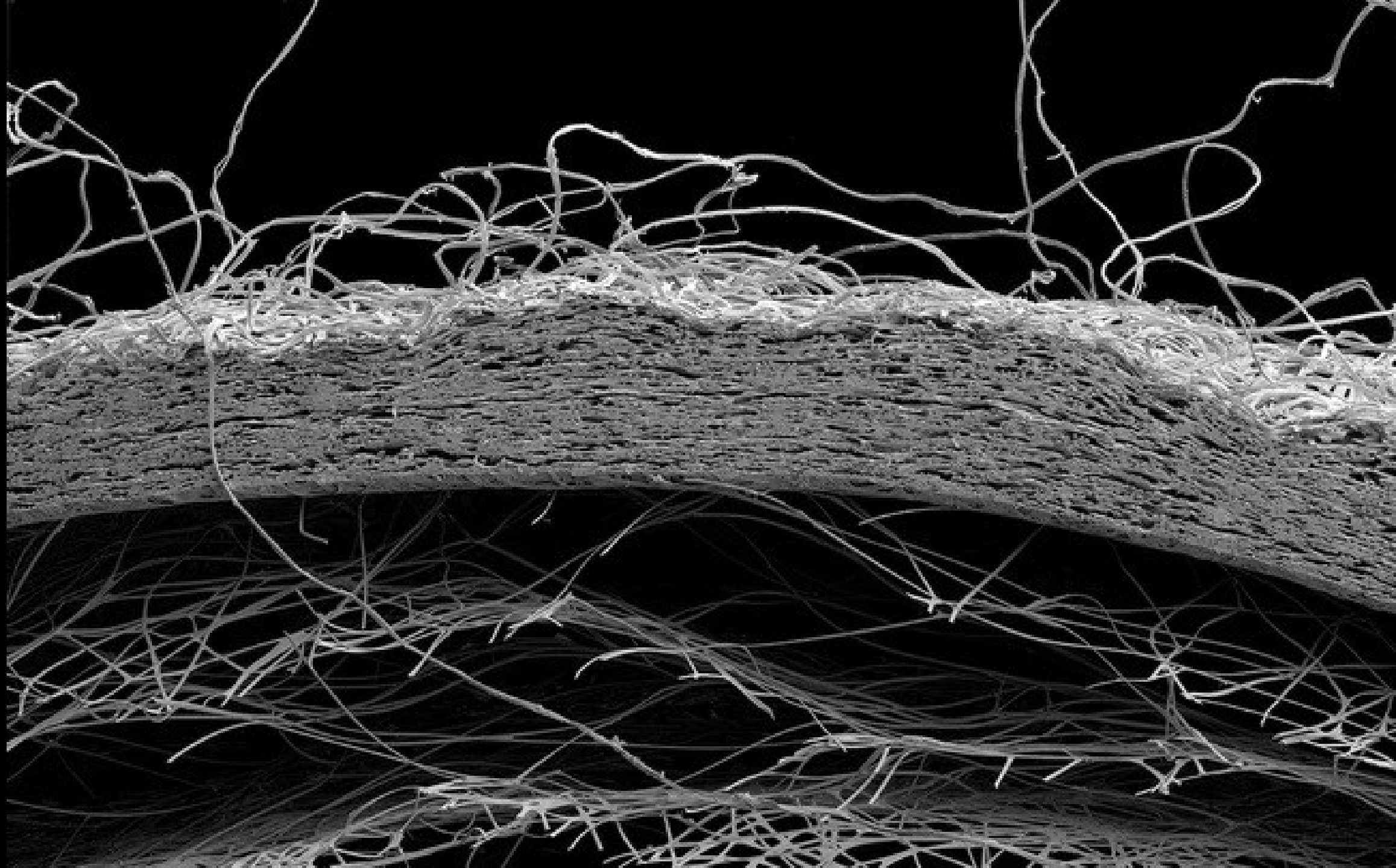




















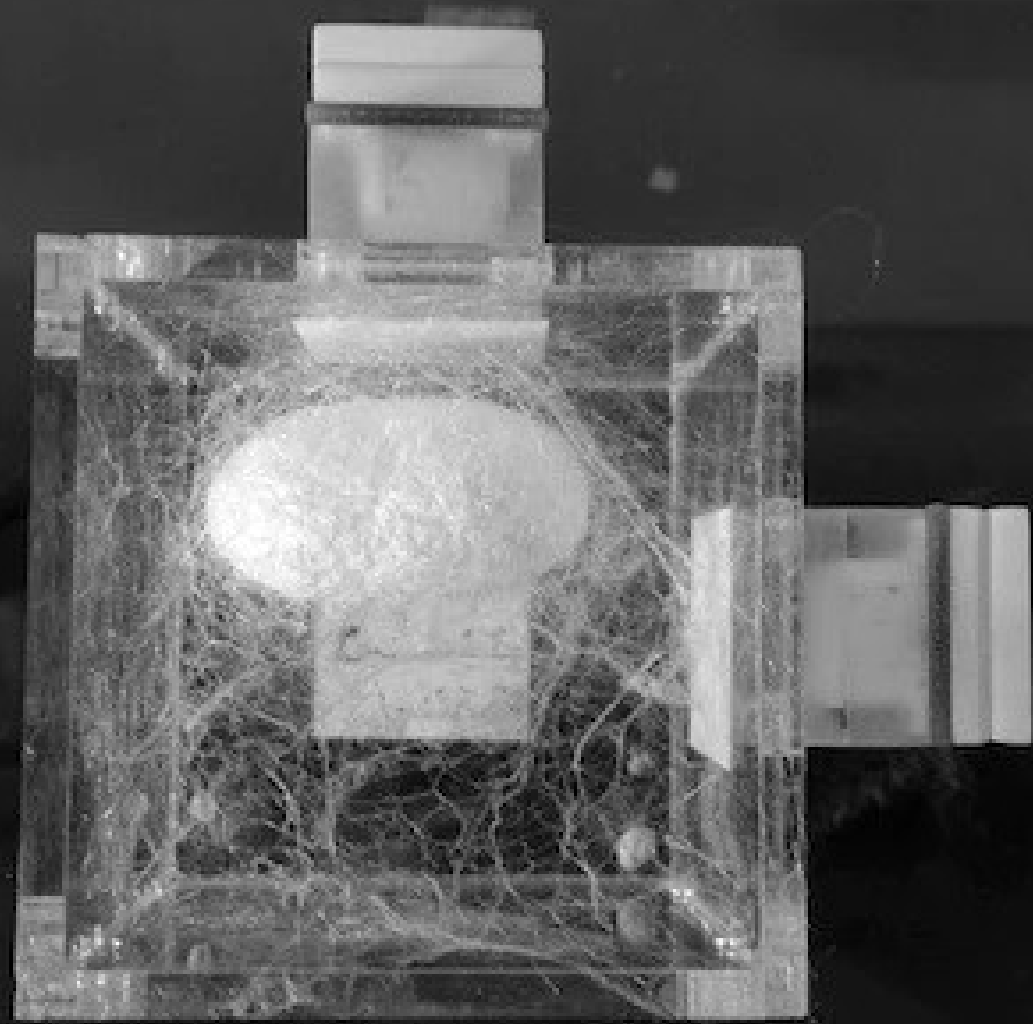




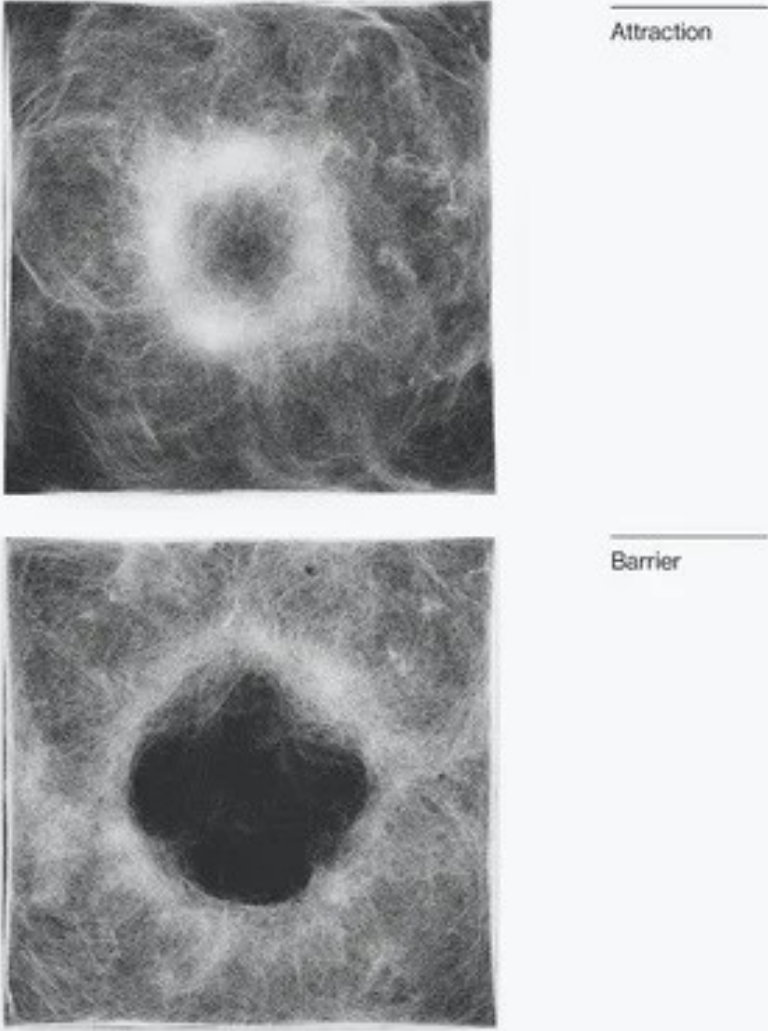
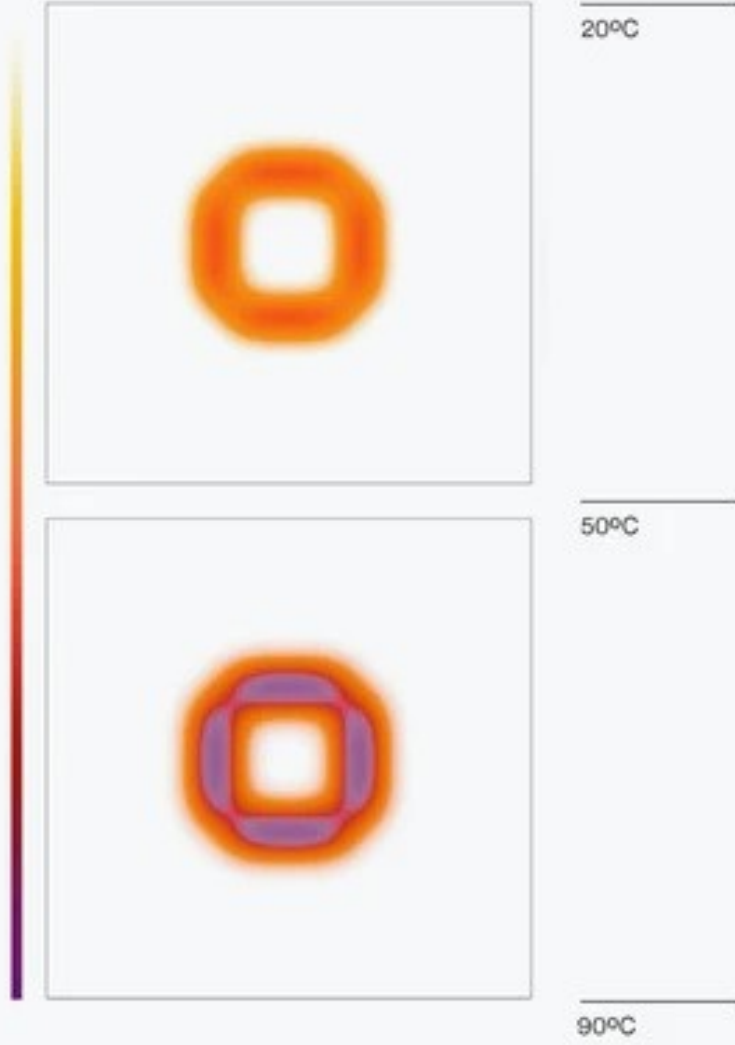










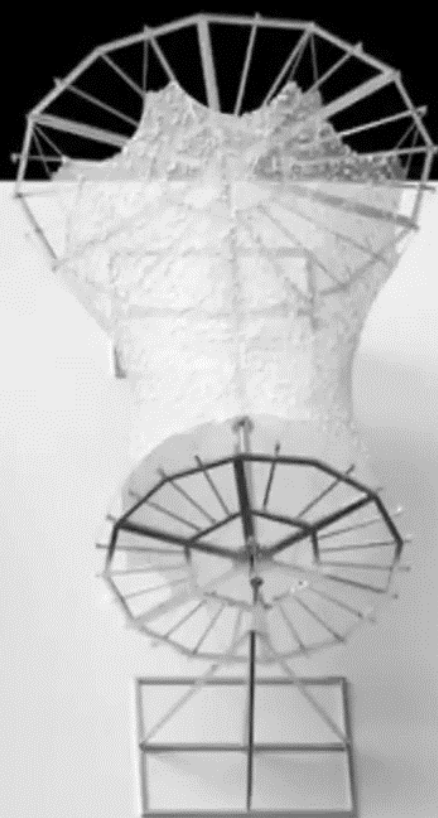
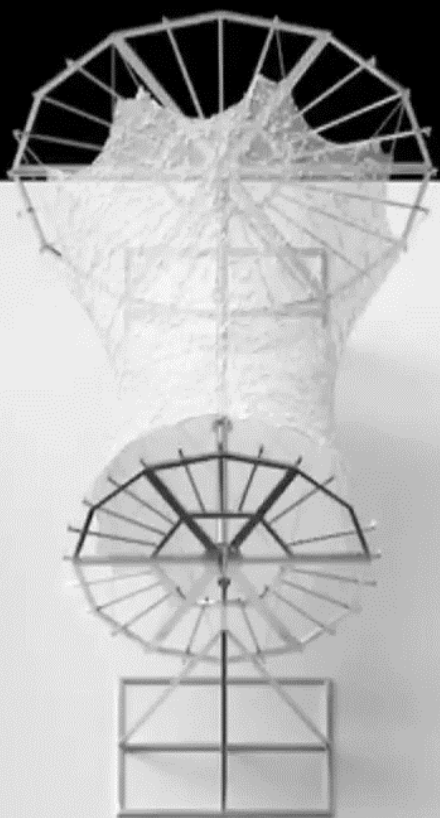
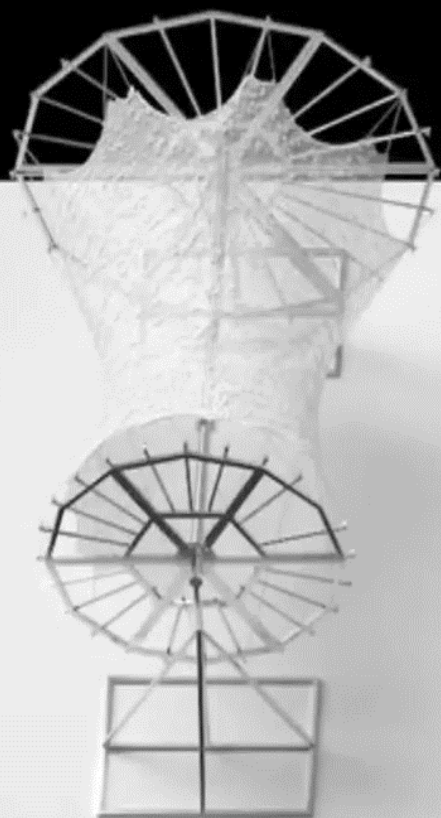






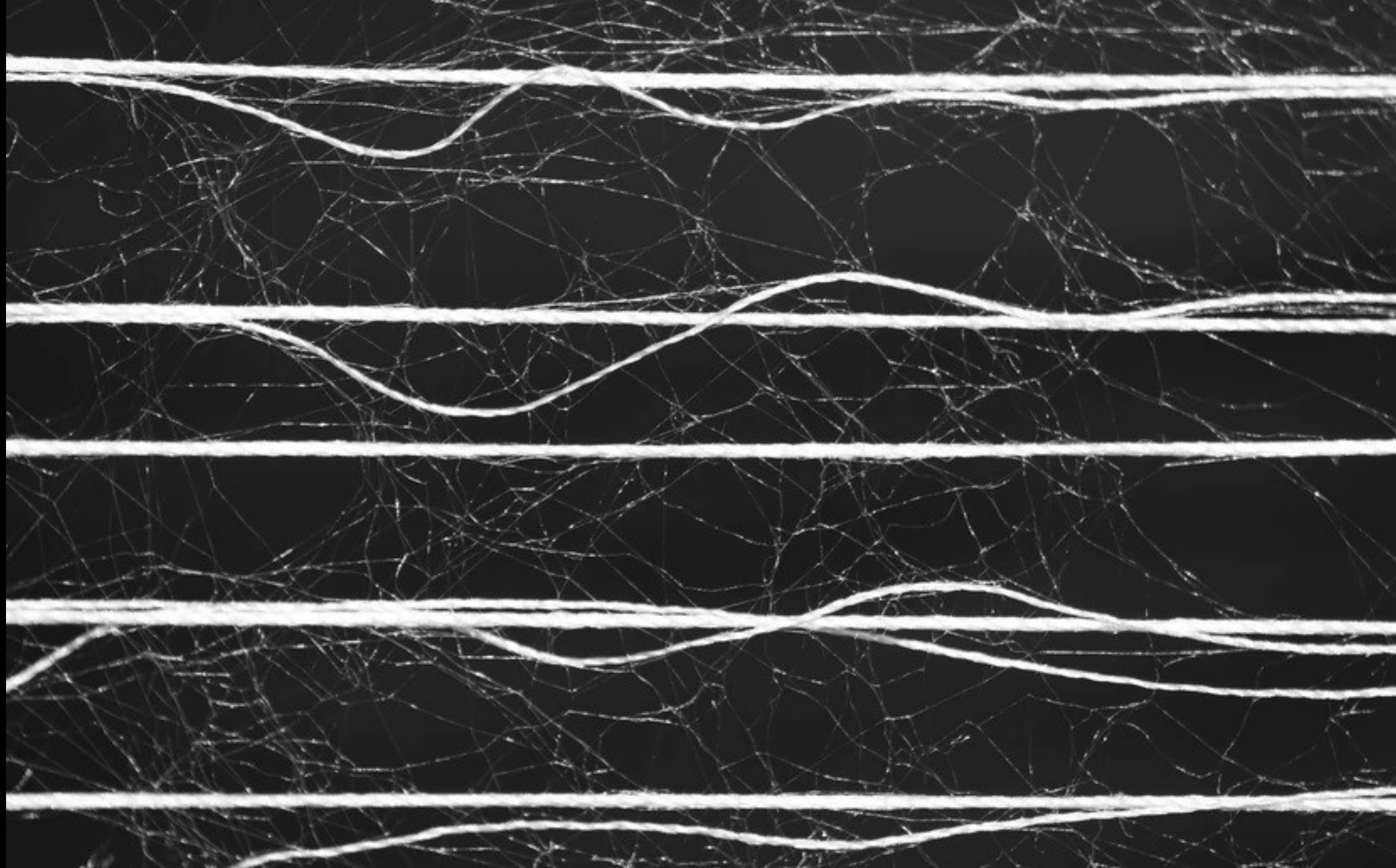




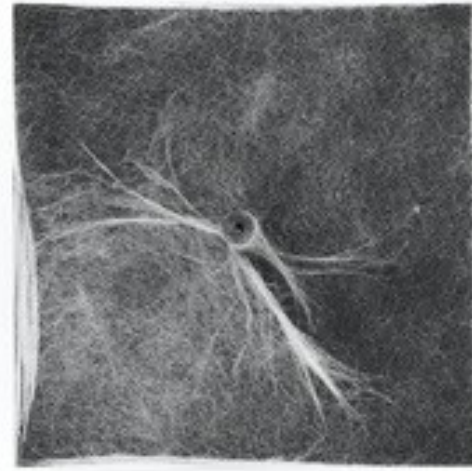
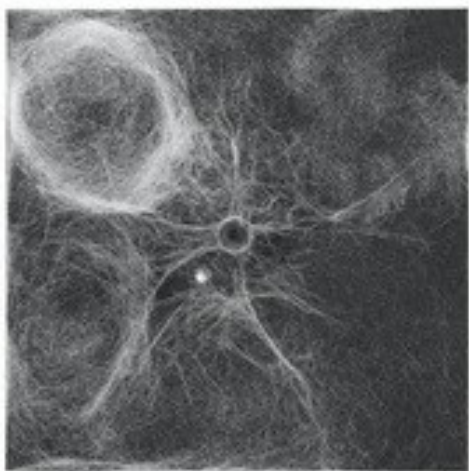
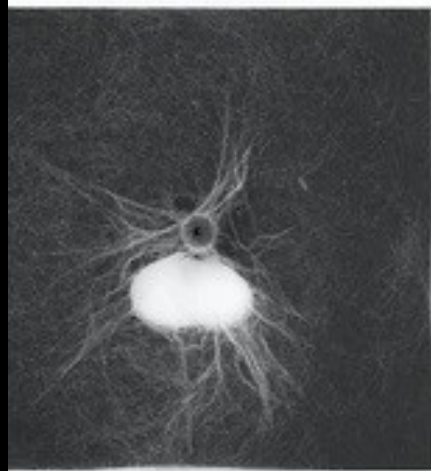
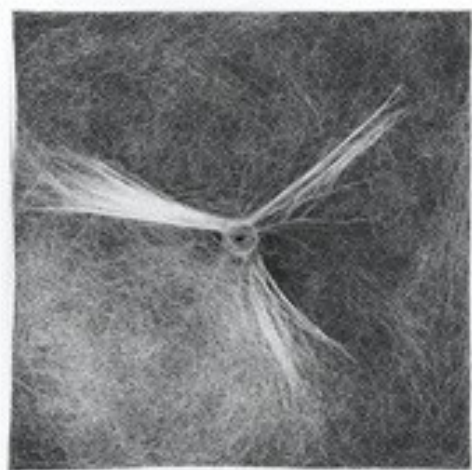
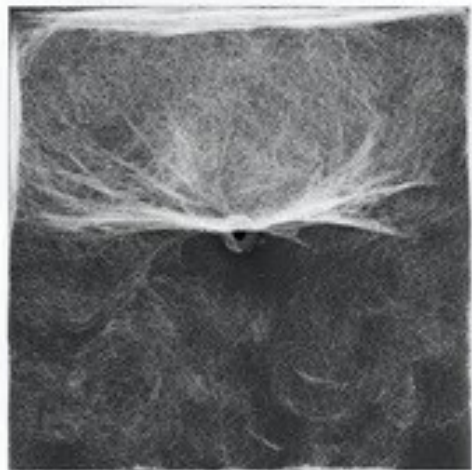
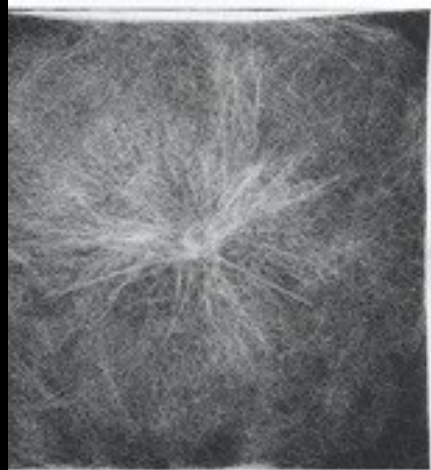


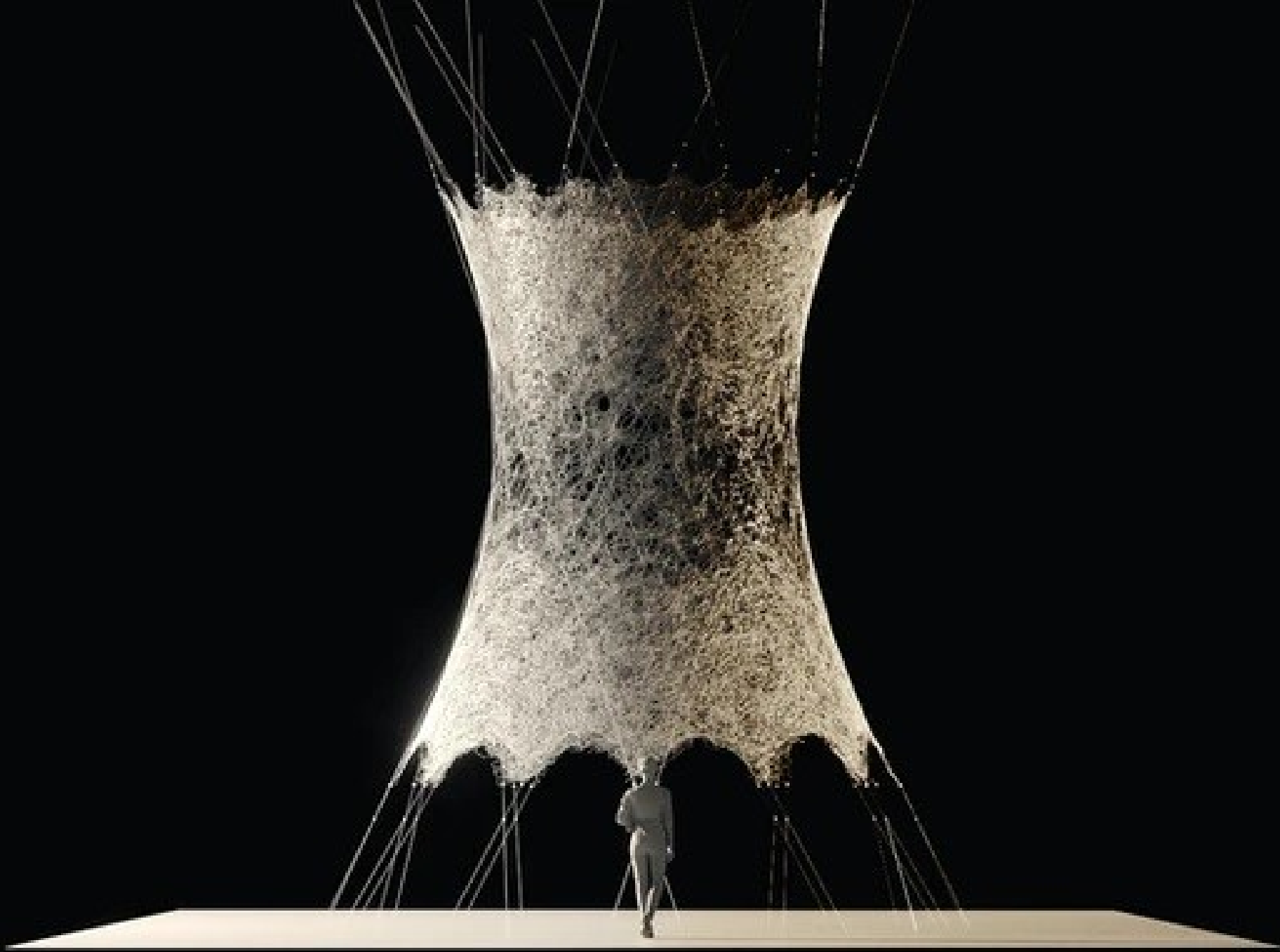




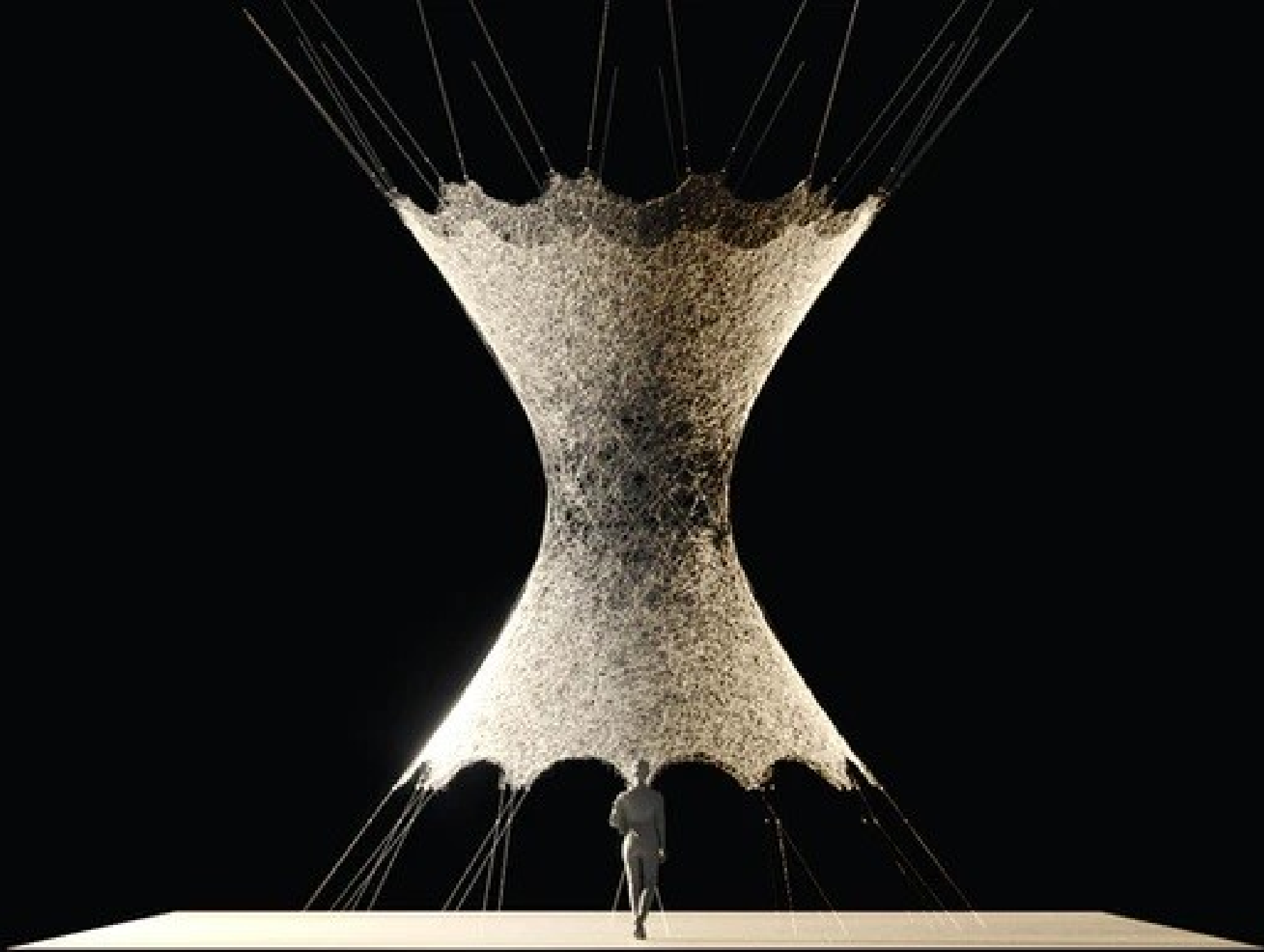




























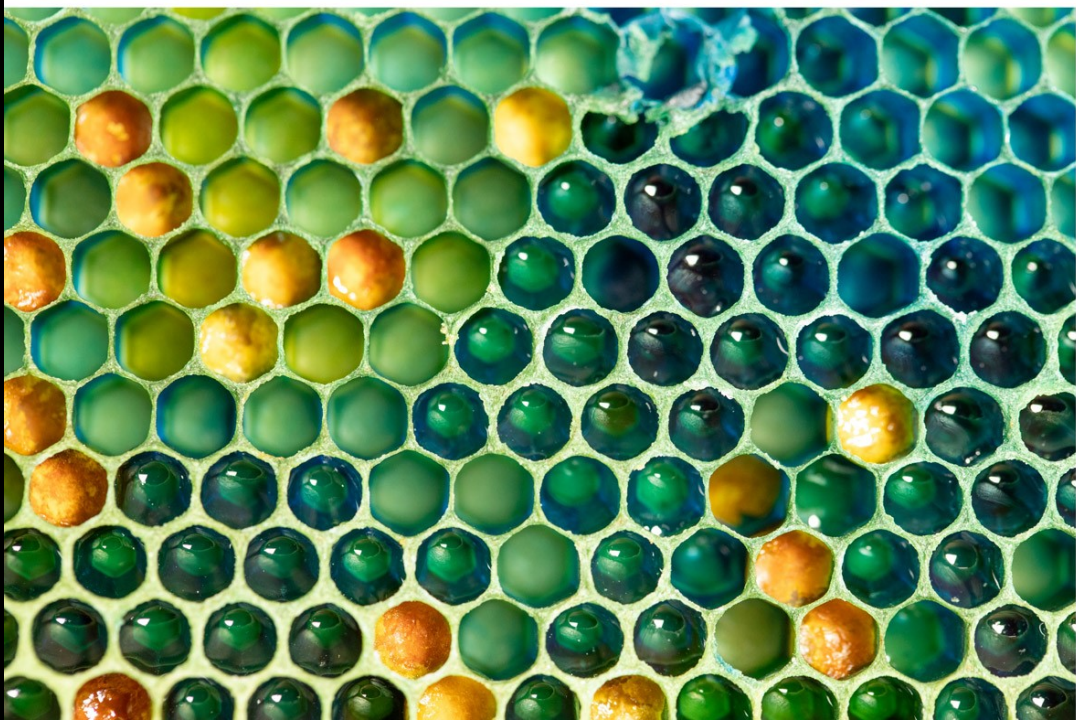












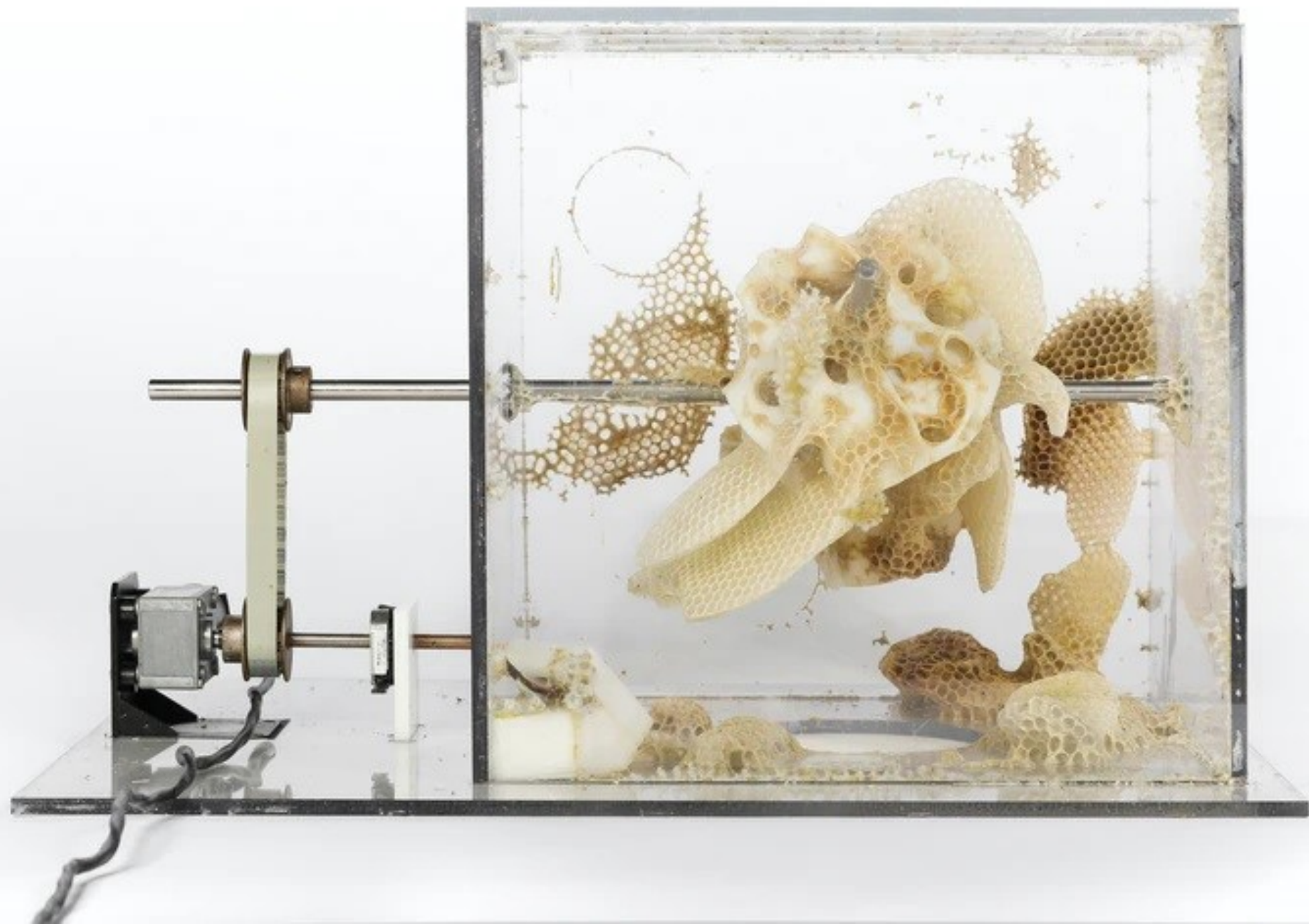




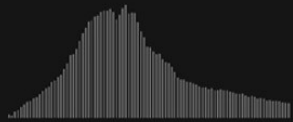






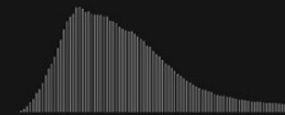
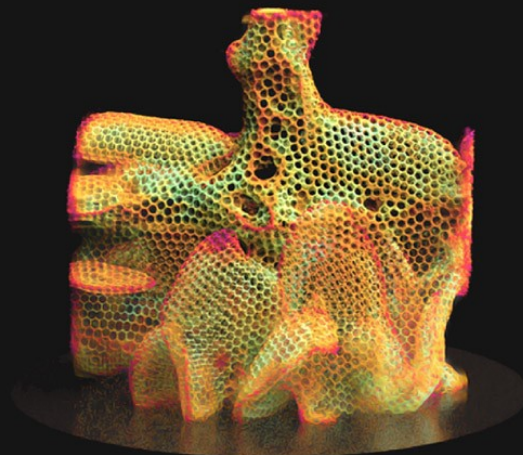
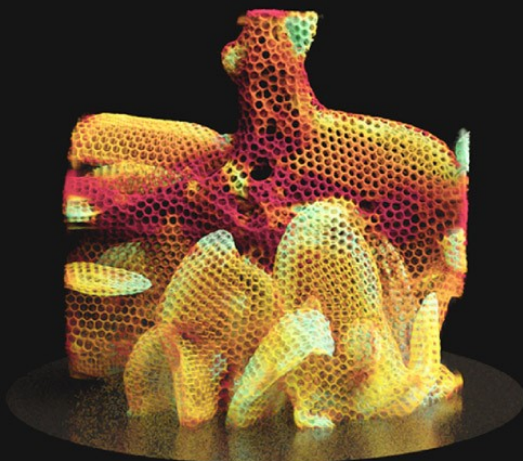






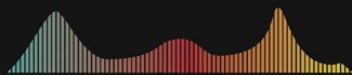
### THICKNESS

Distribution of comb thickness measured as the distance from surface along general surface normal



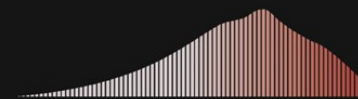
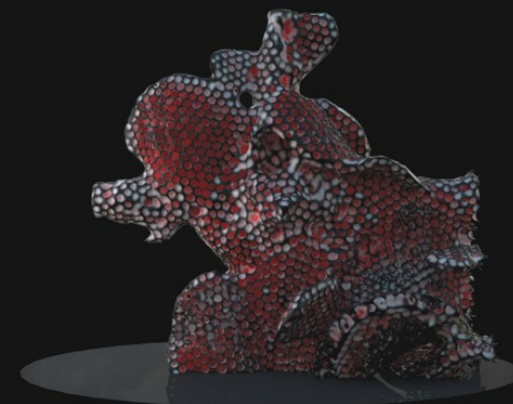
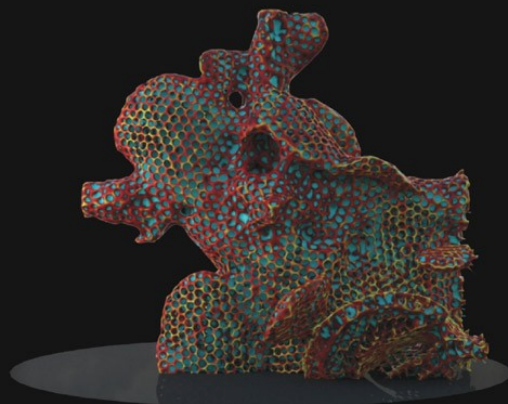
### CURVATURE

Distribution of mean curvature of smoothed comb surface



### SURFACE CURVATURE

Distribution of Gaussian curvature of unsmoothed comb surface



### CELL SIZE

Distribution of individual hexagonal cell sizes through segmentation and area measurement

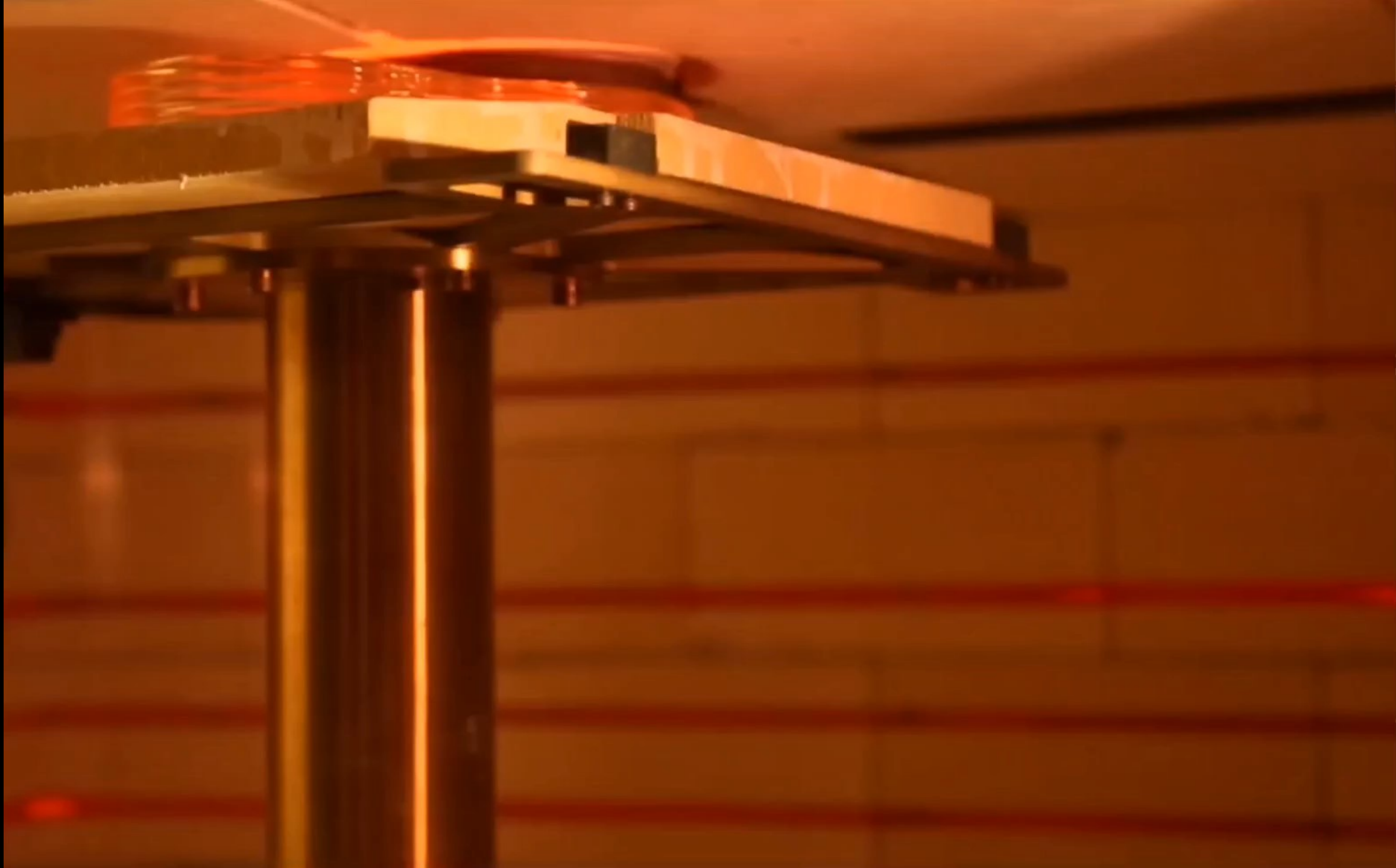


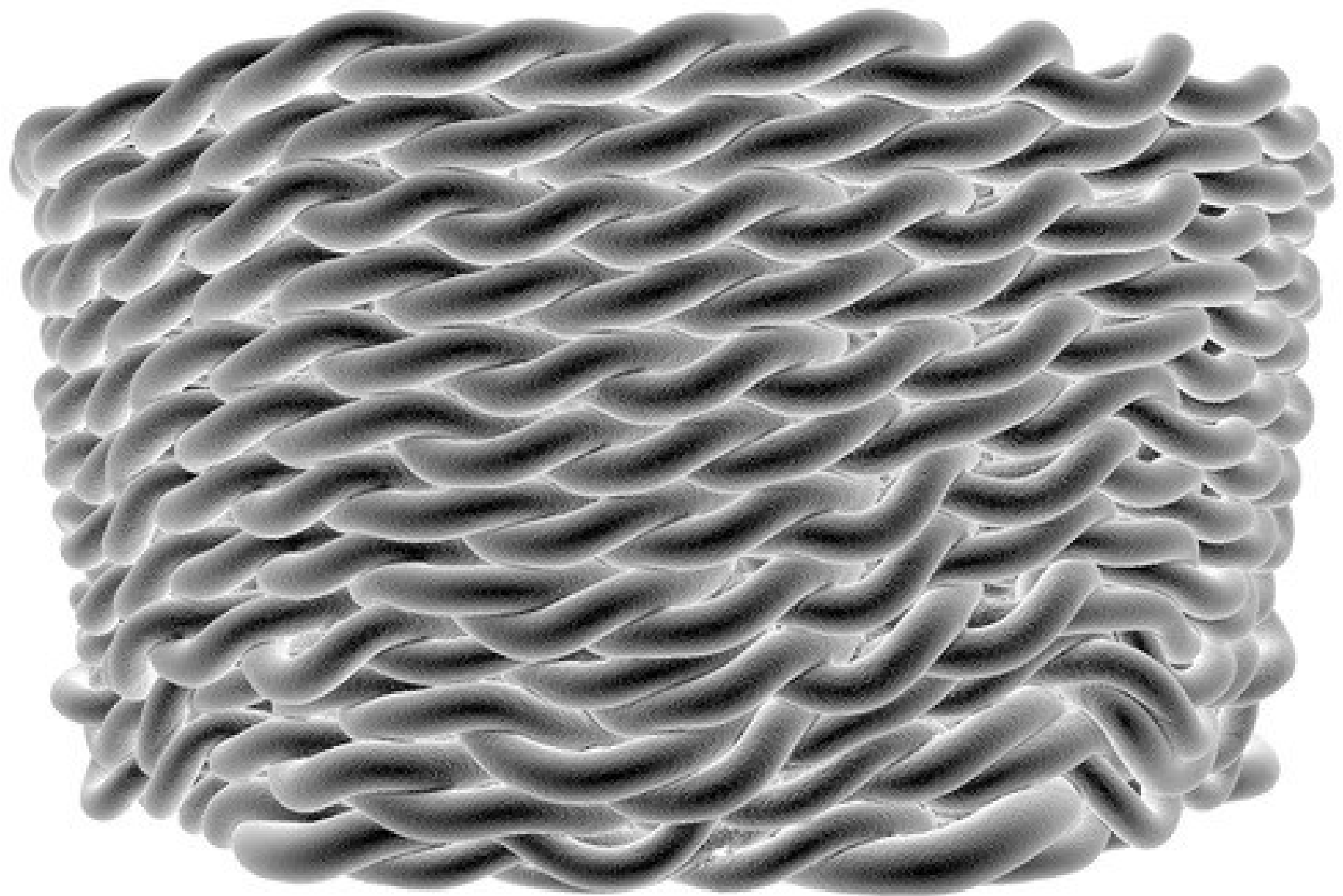




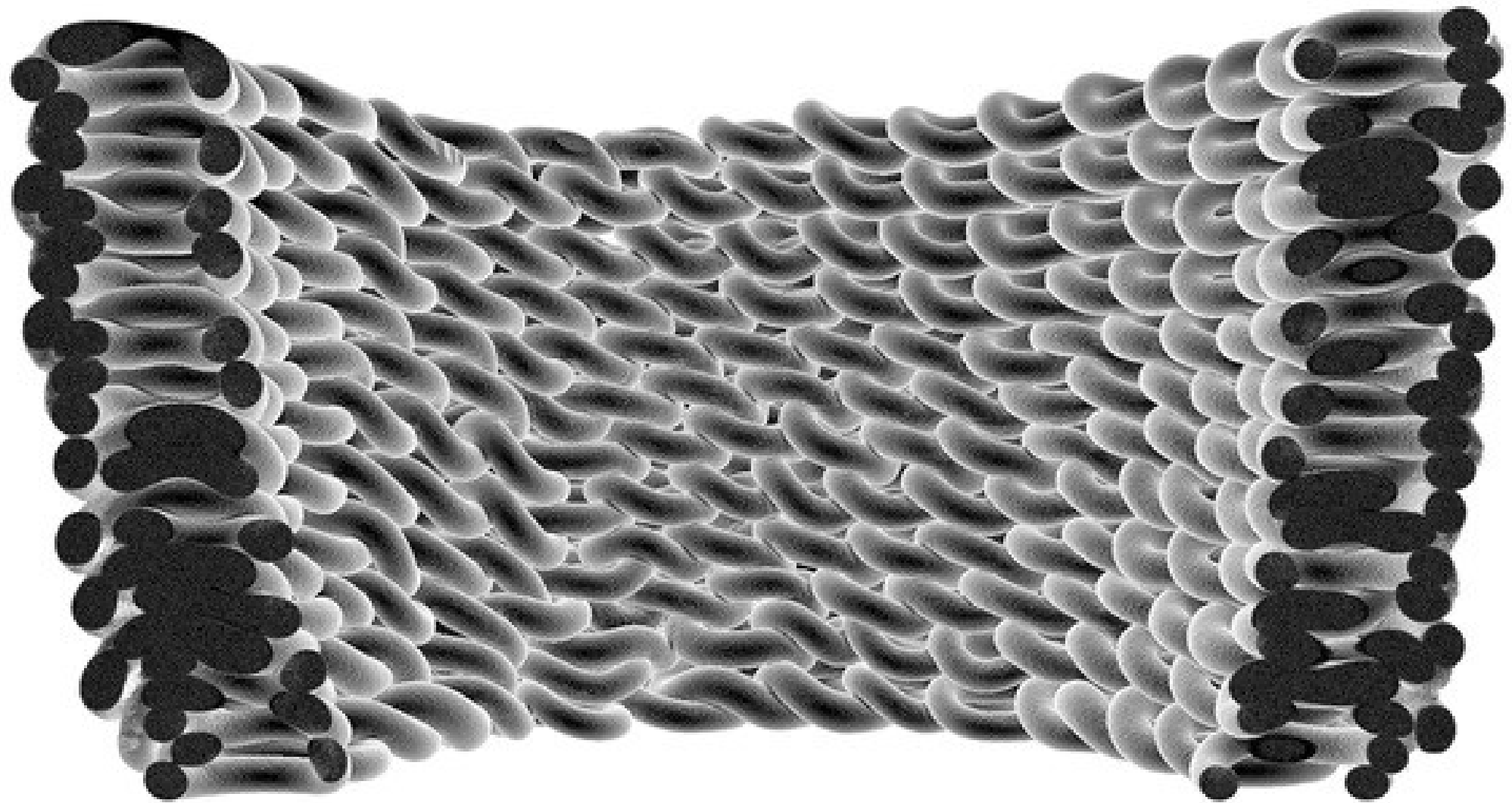


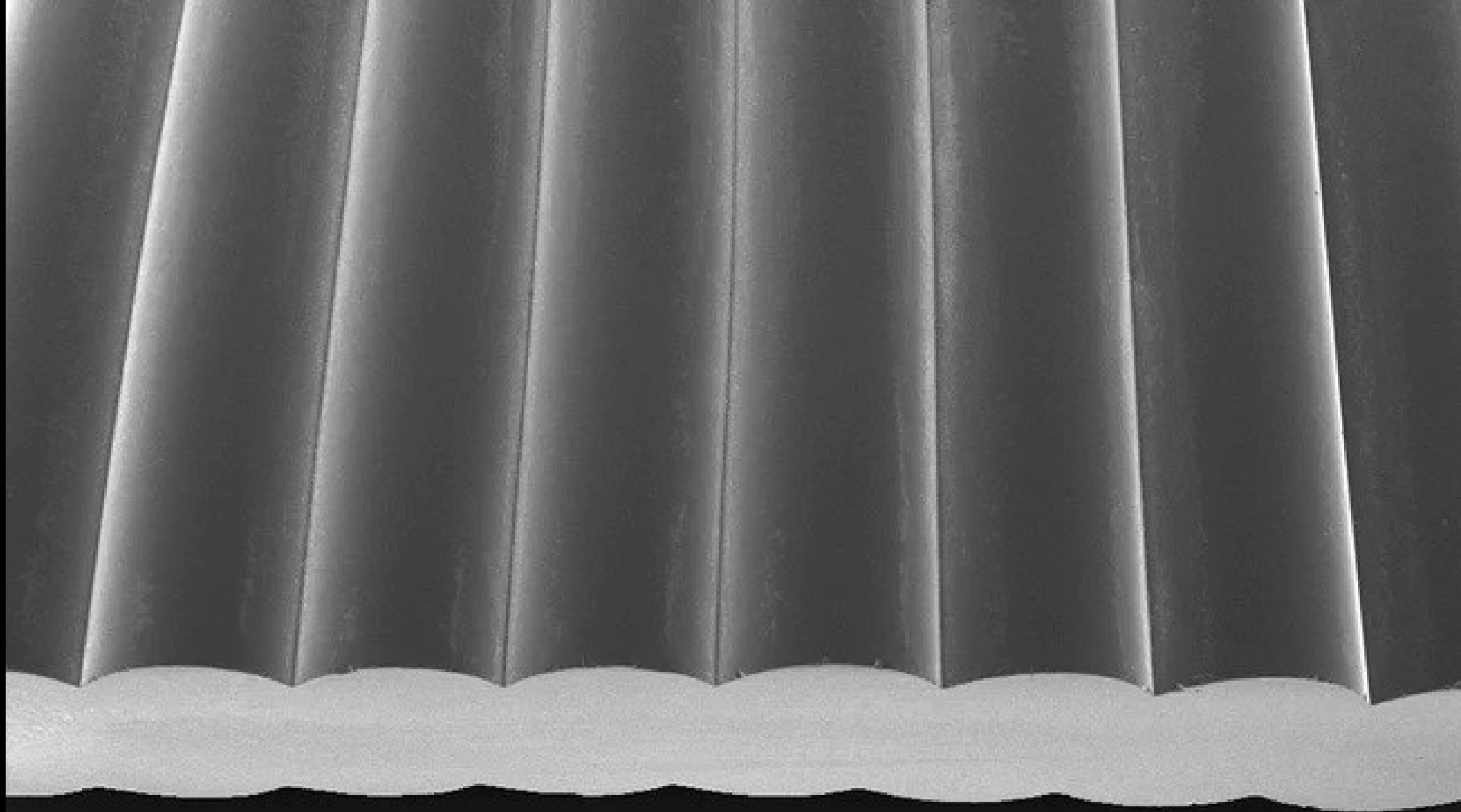










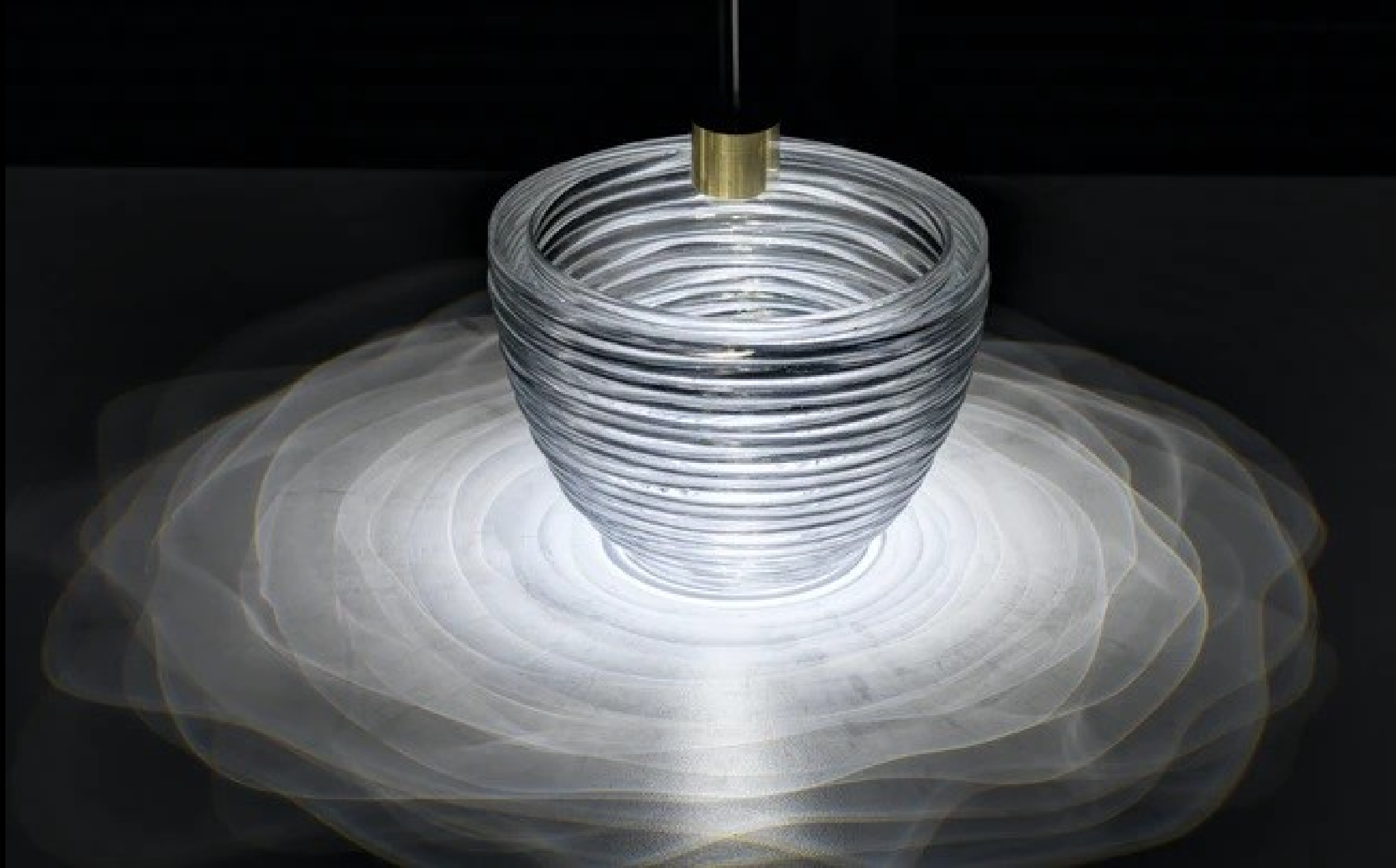












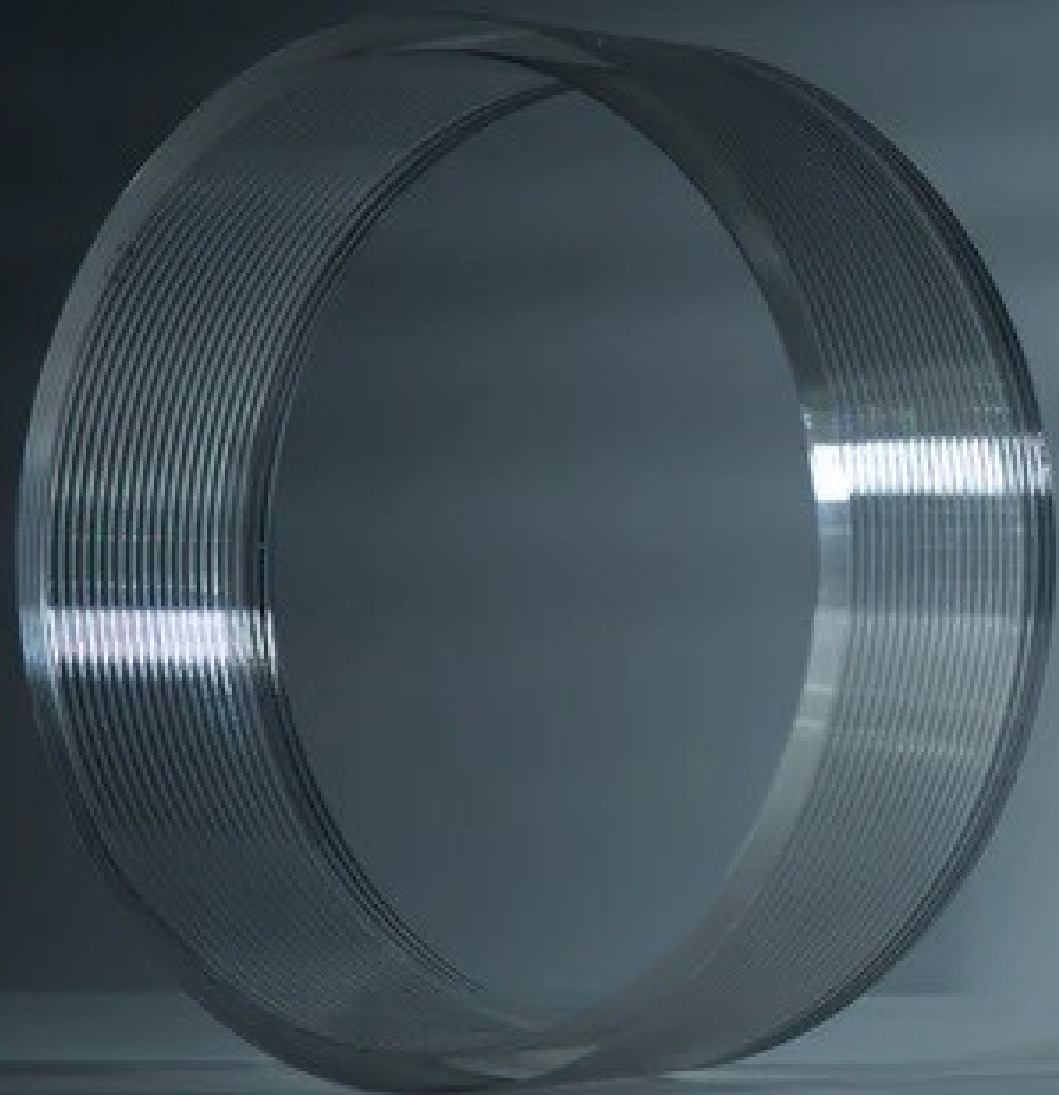






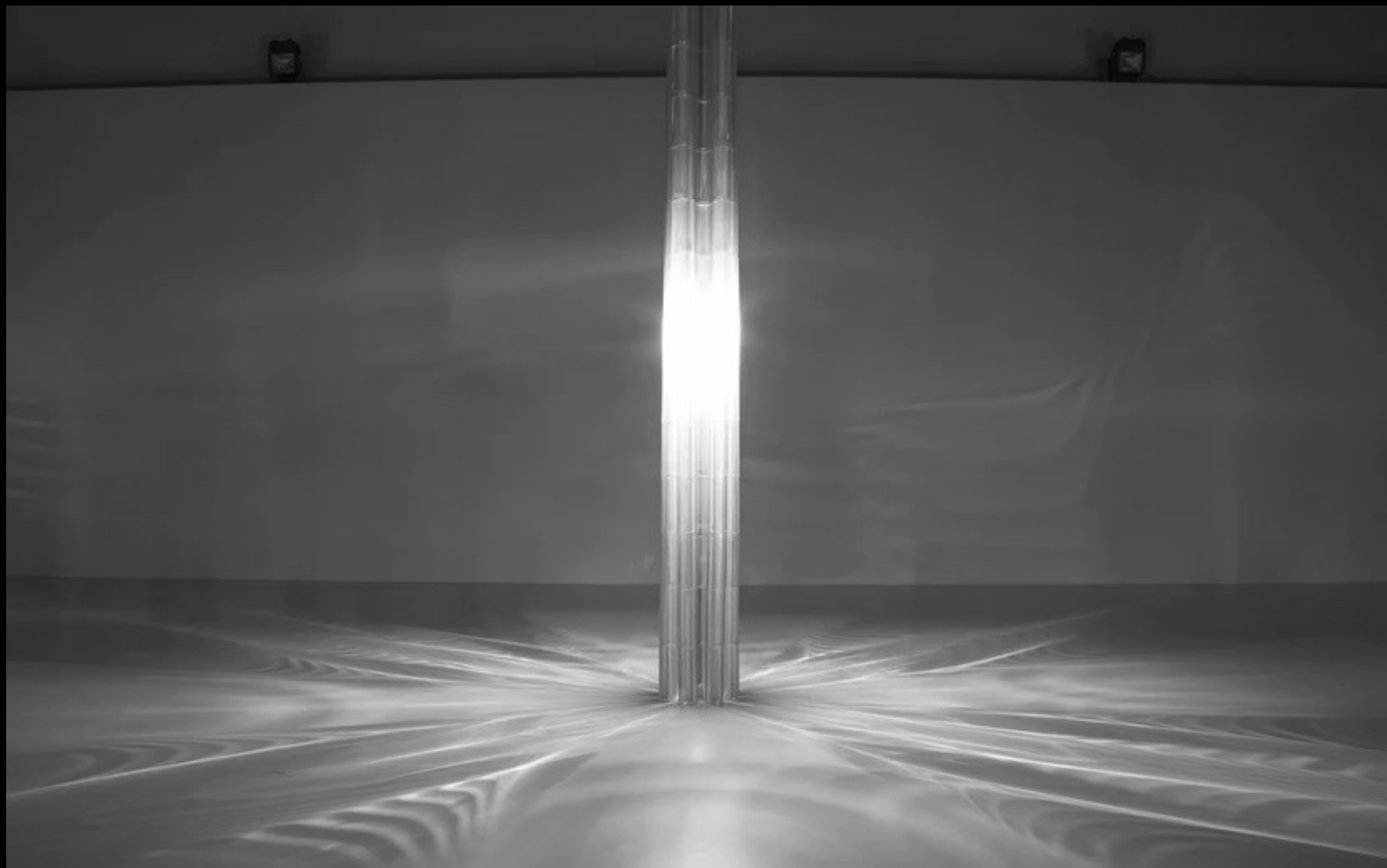
















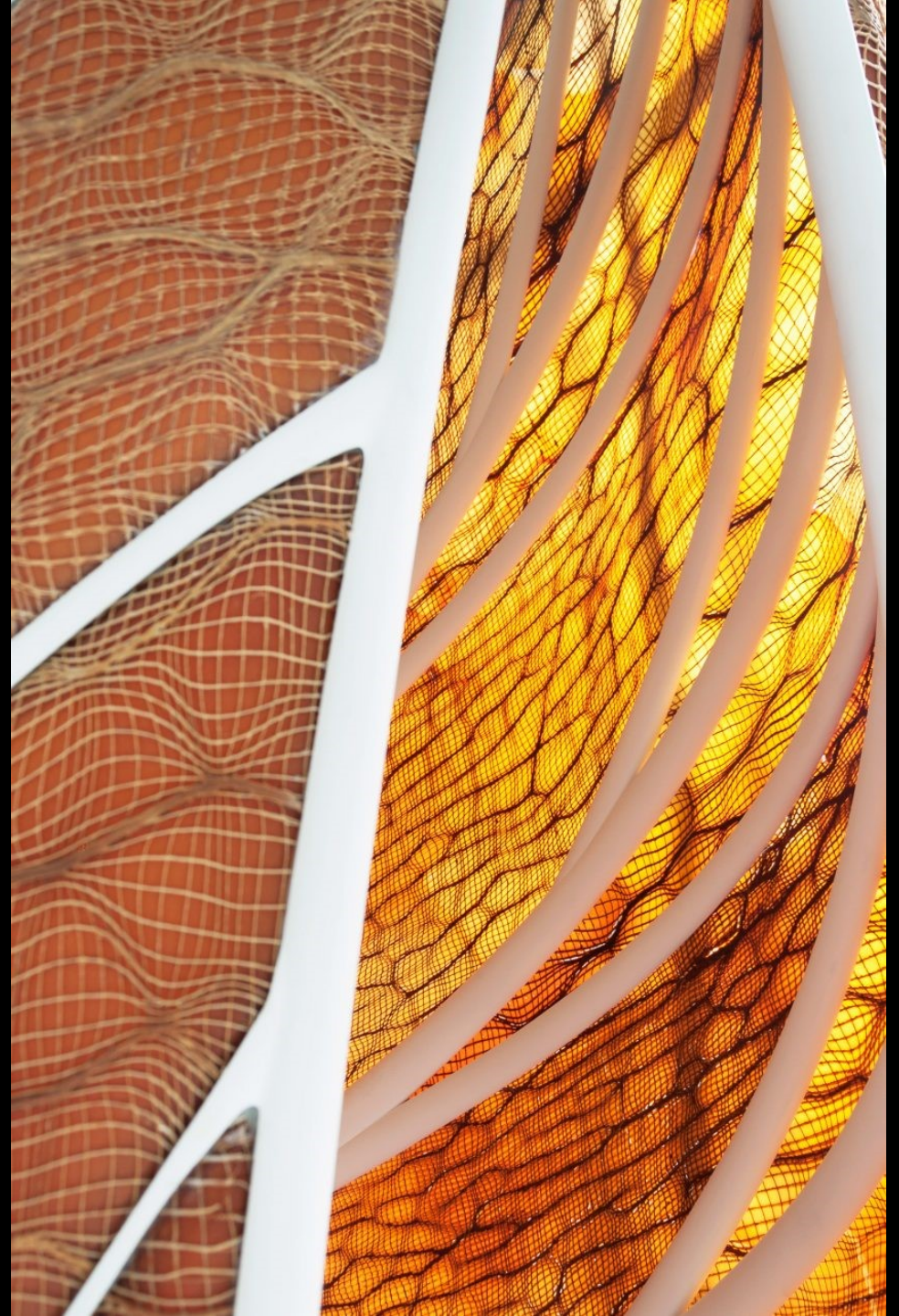














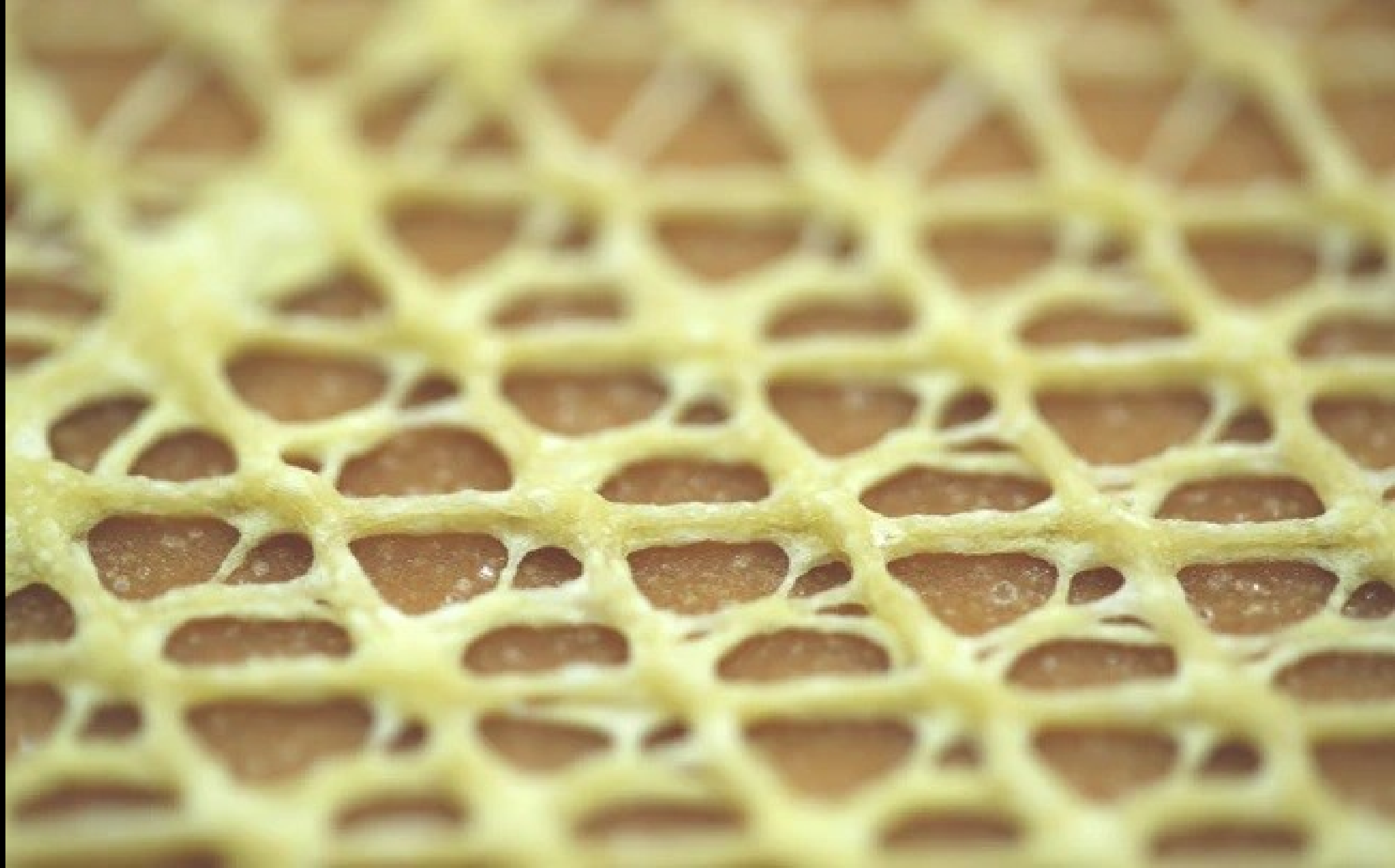




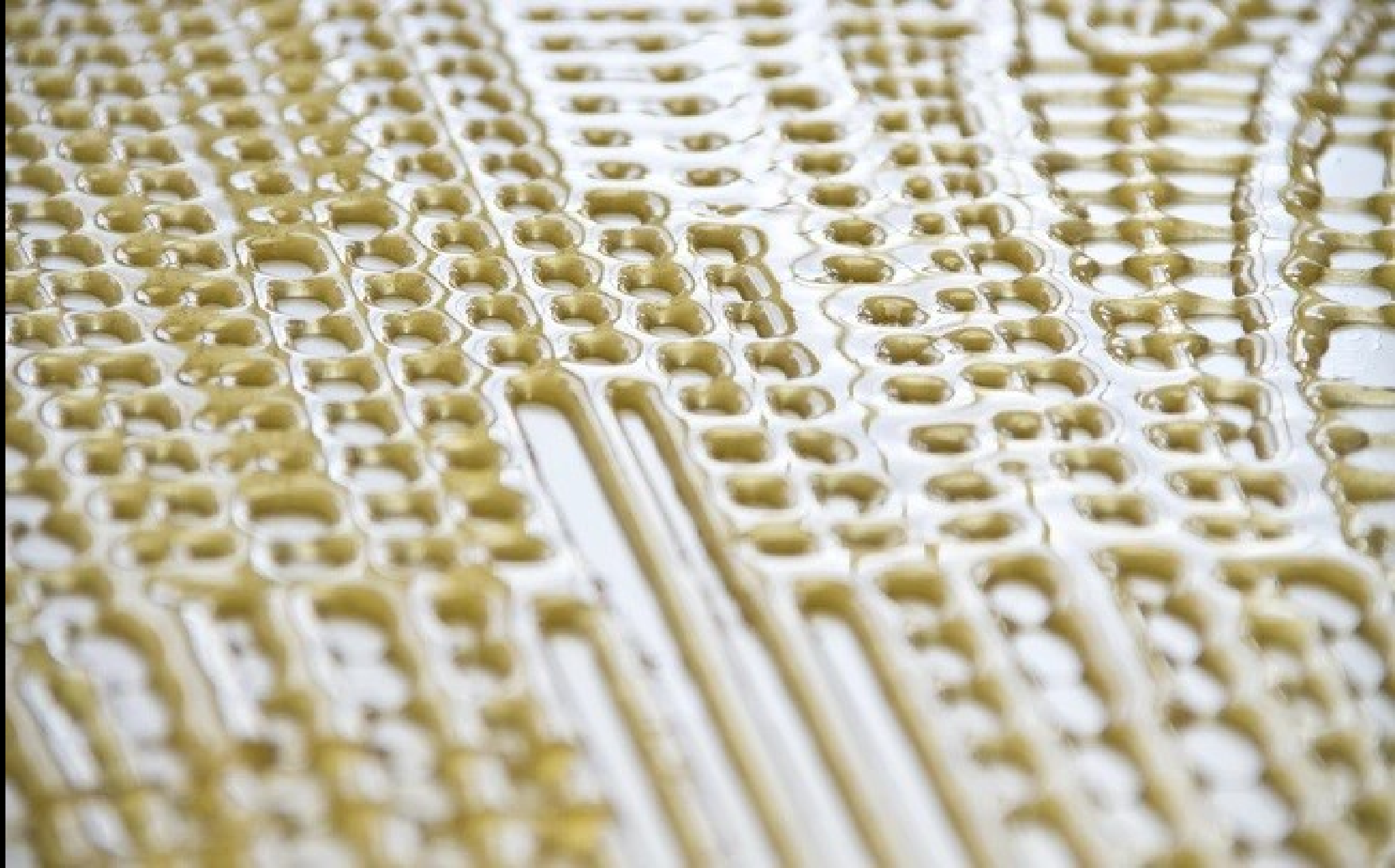






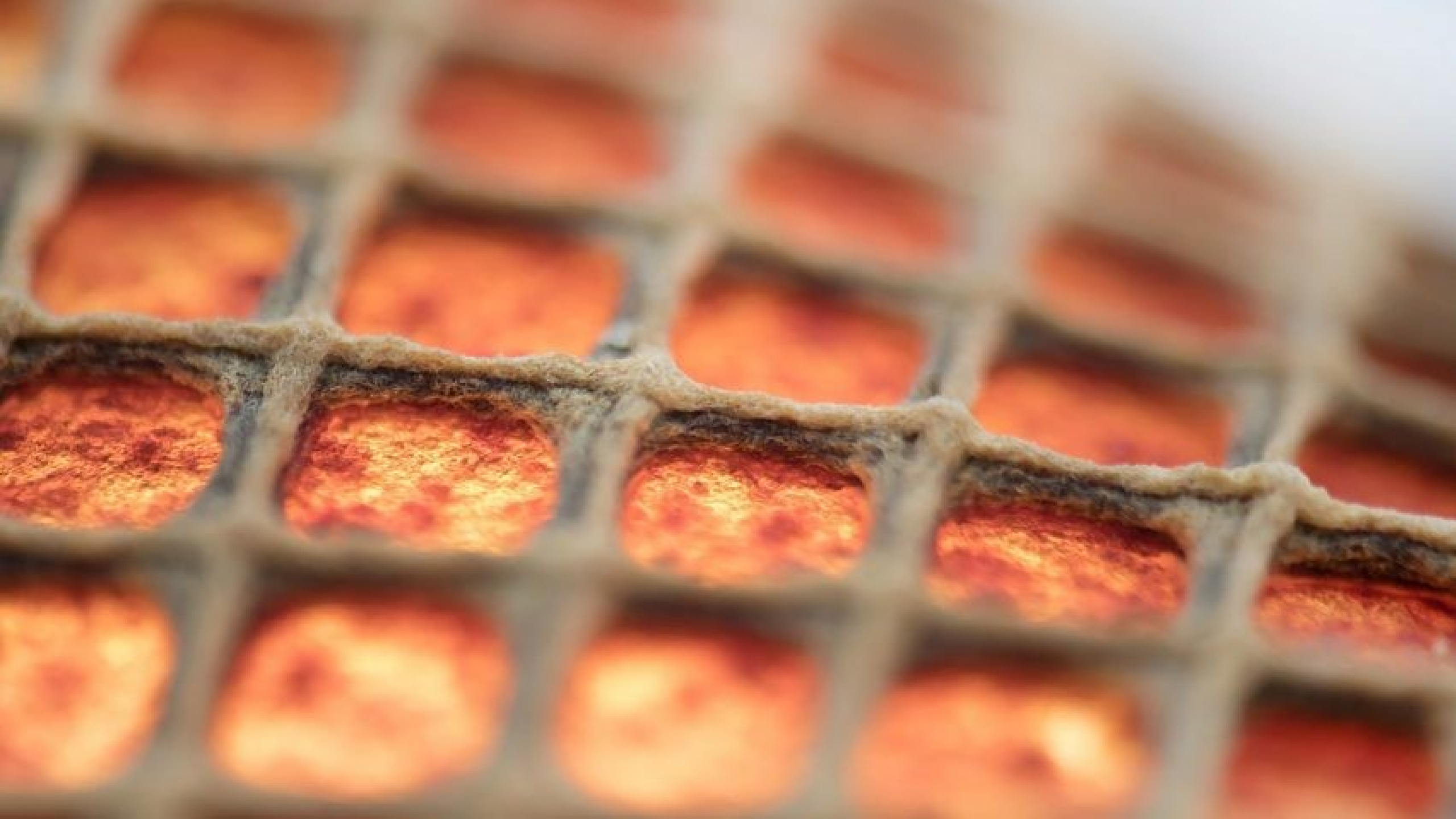




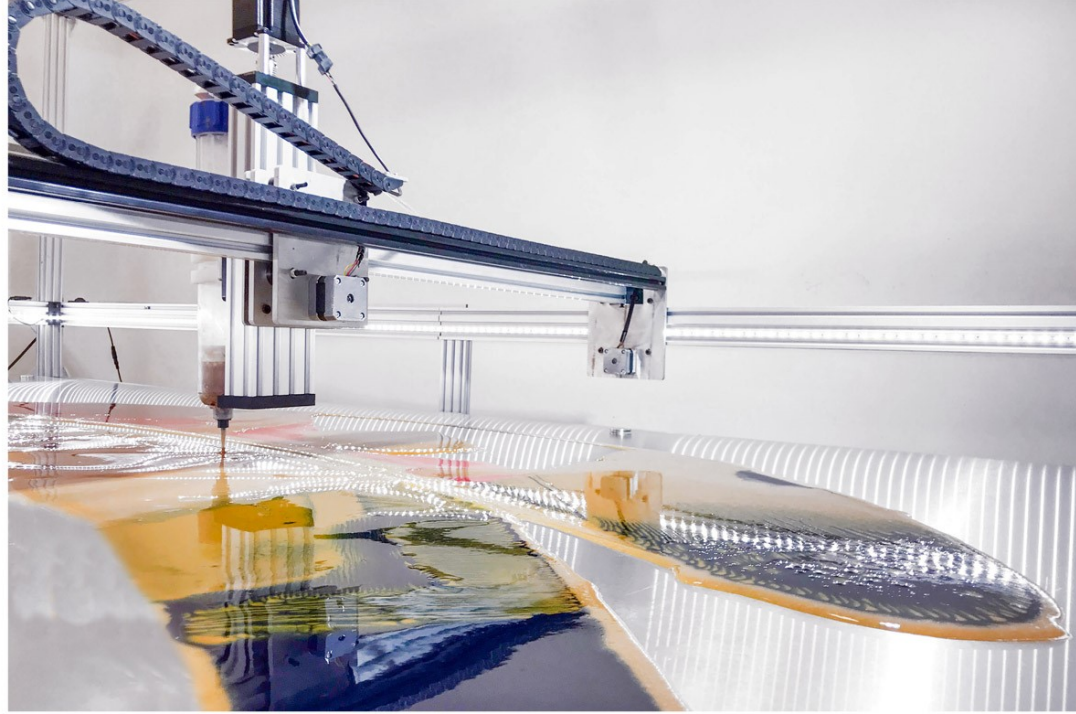
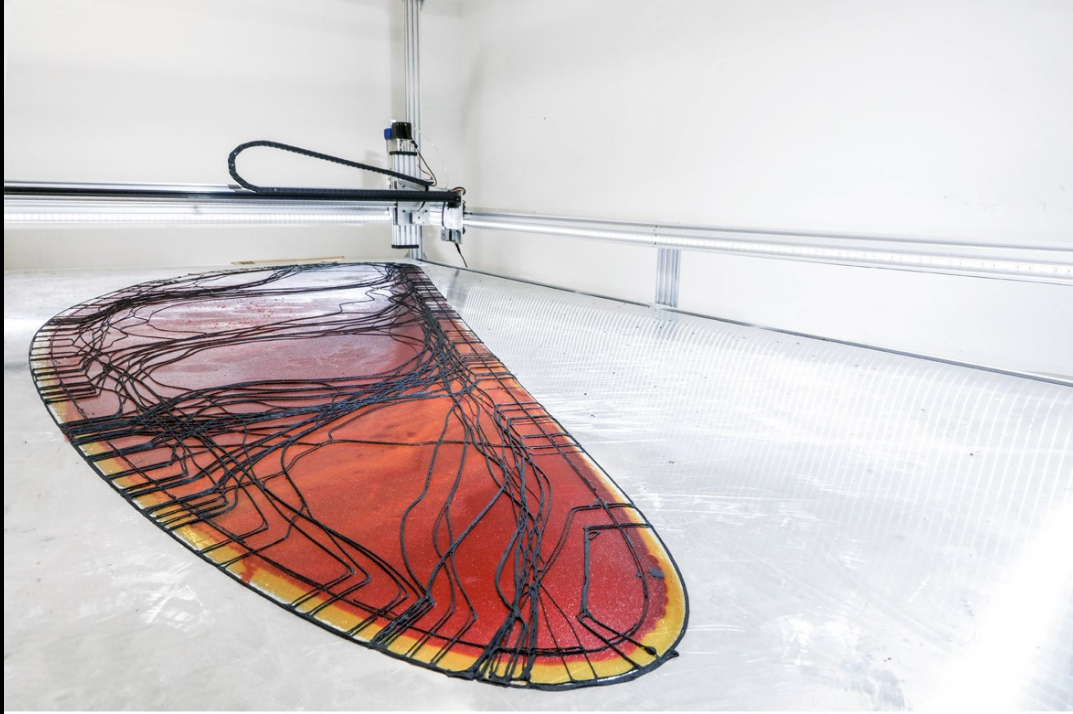




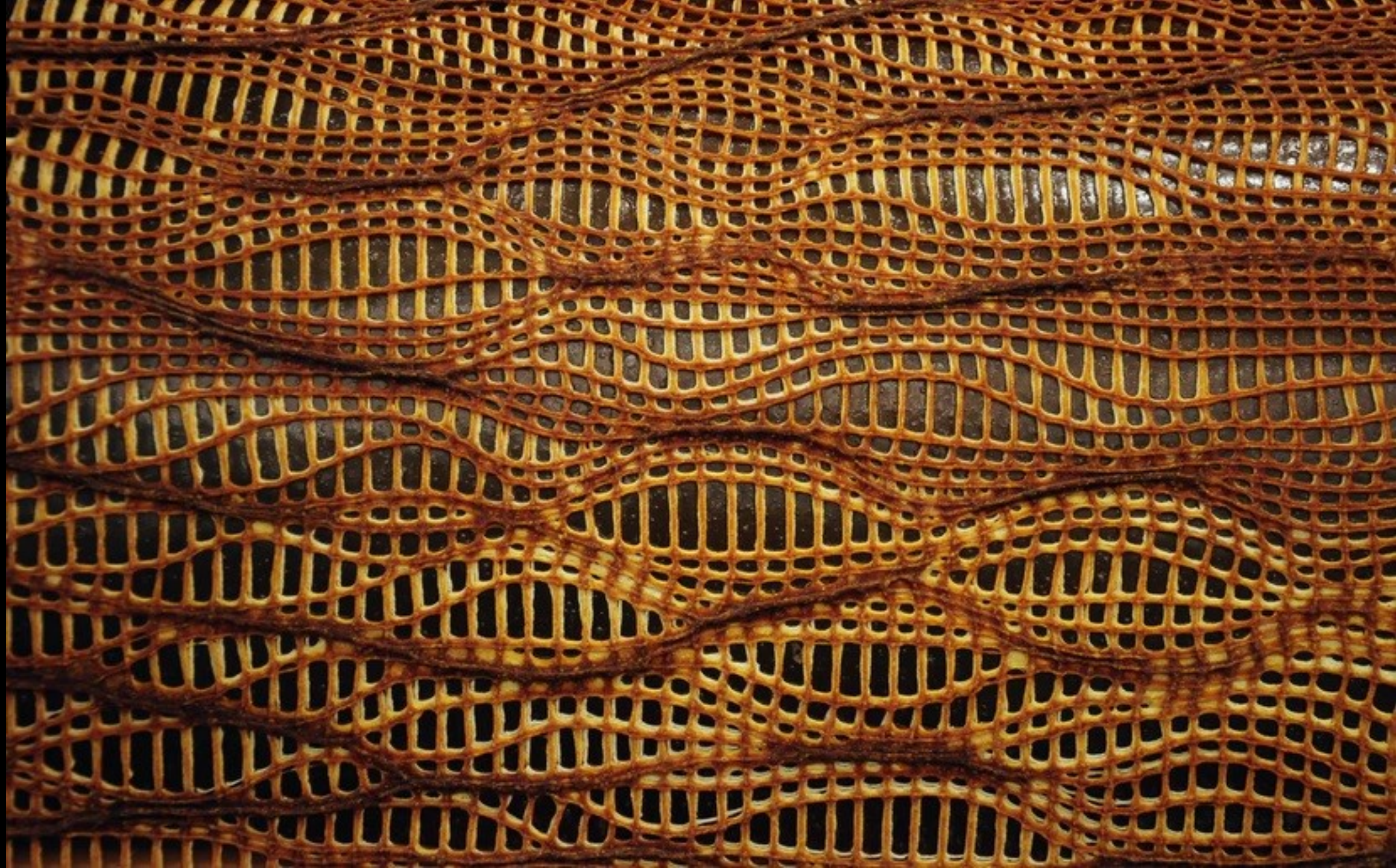




















11  
12  
13



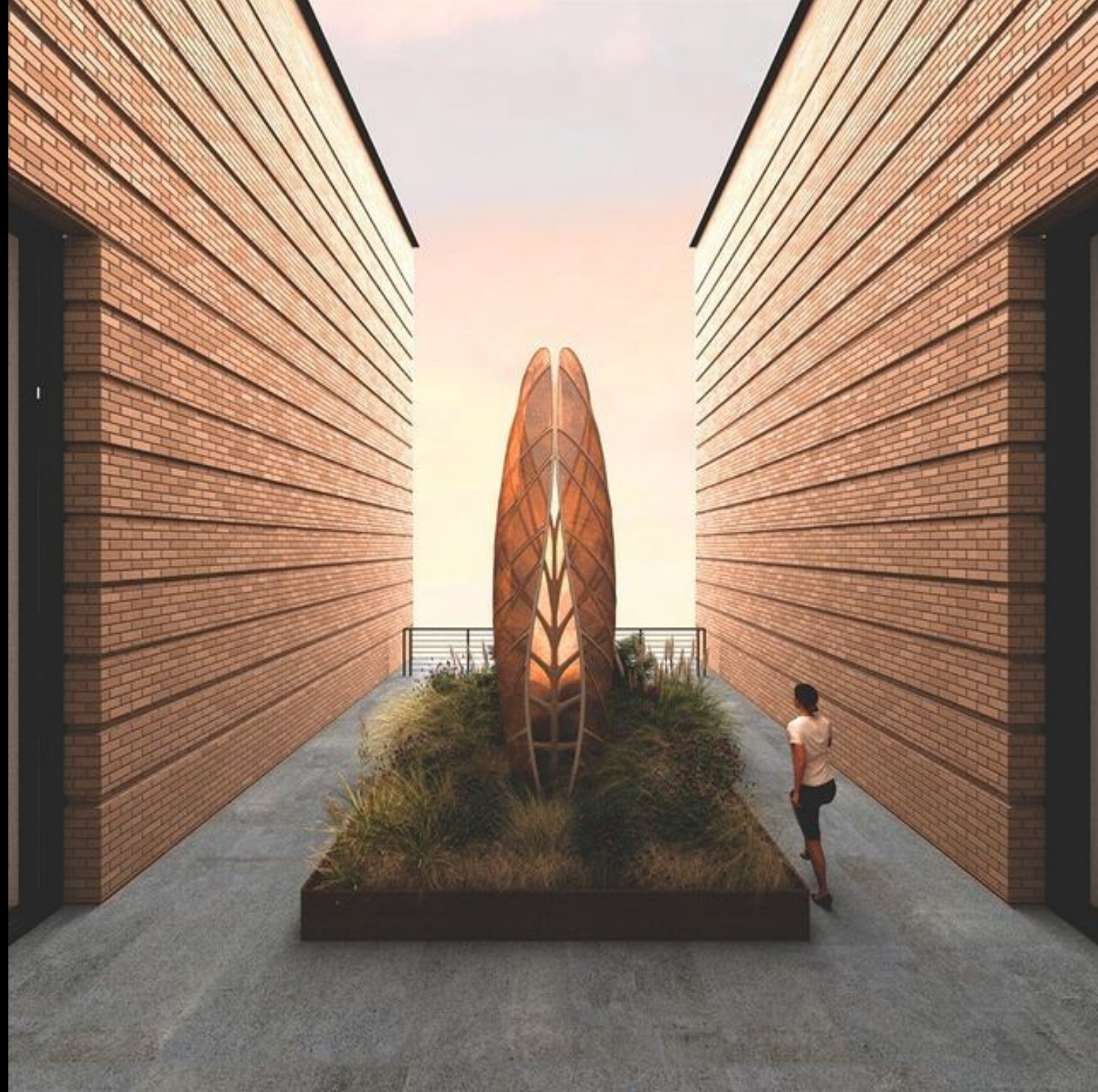
























0%      20%      40%

60%      80%      100%

precipitated substrate - differential flow



1.5 advection tunability

0%      20%      40%

60%      80%      100%

dissolved substrate - differential flow



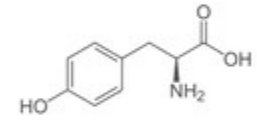








L-tyrosine



1.1 melanogenesis













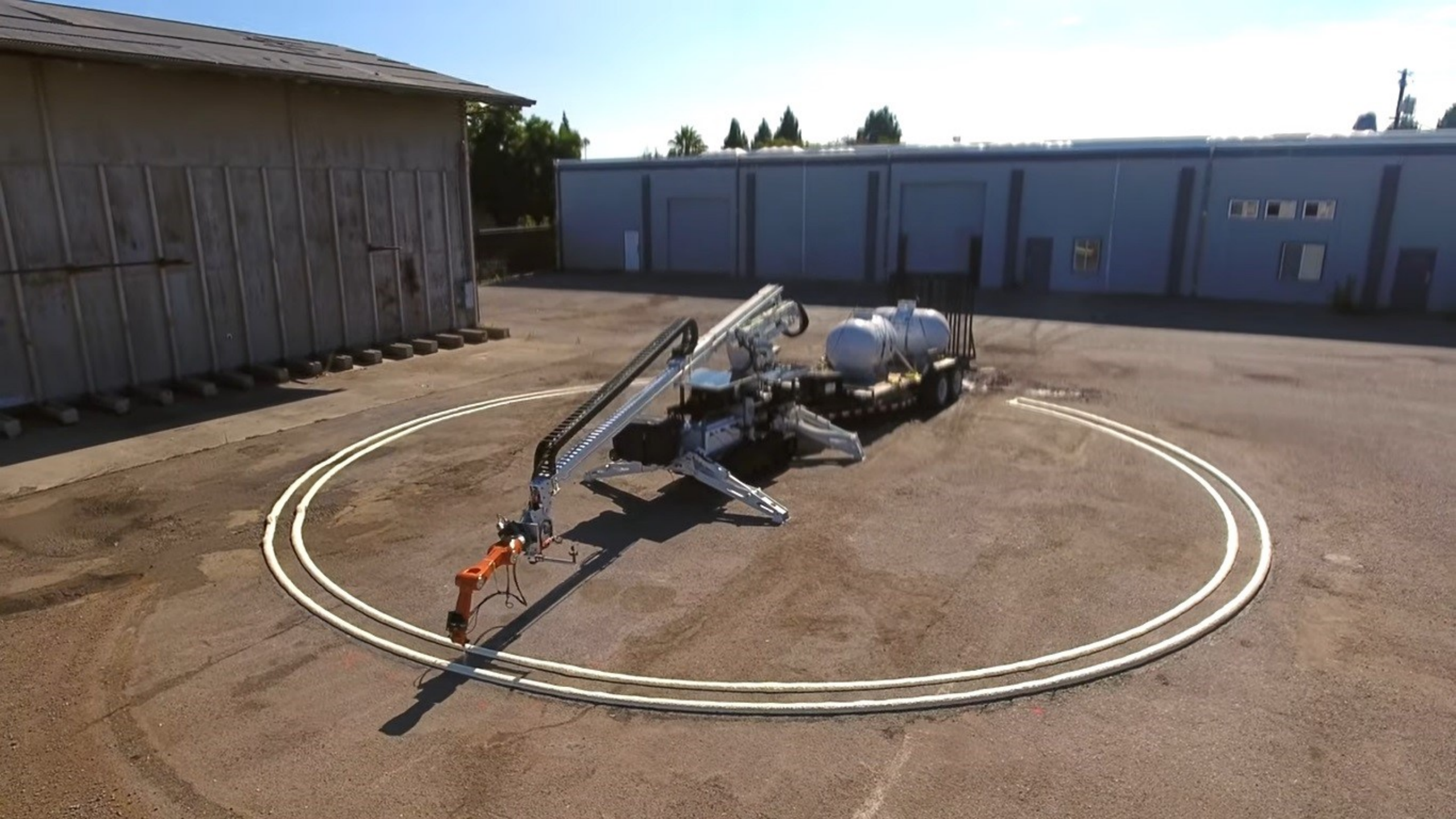




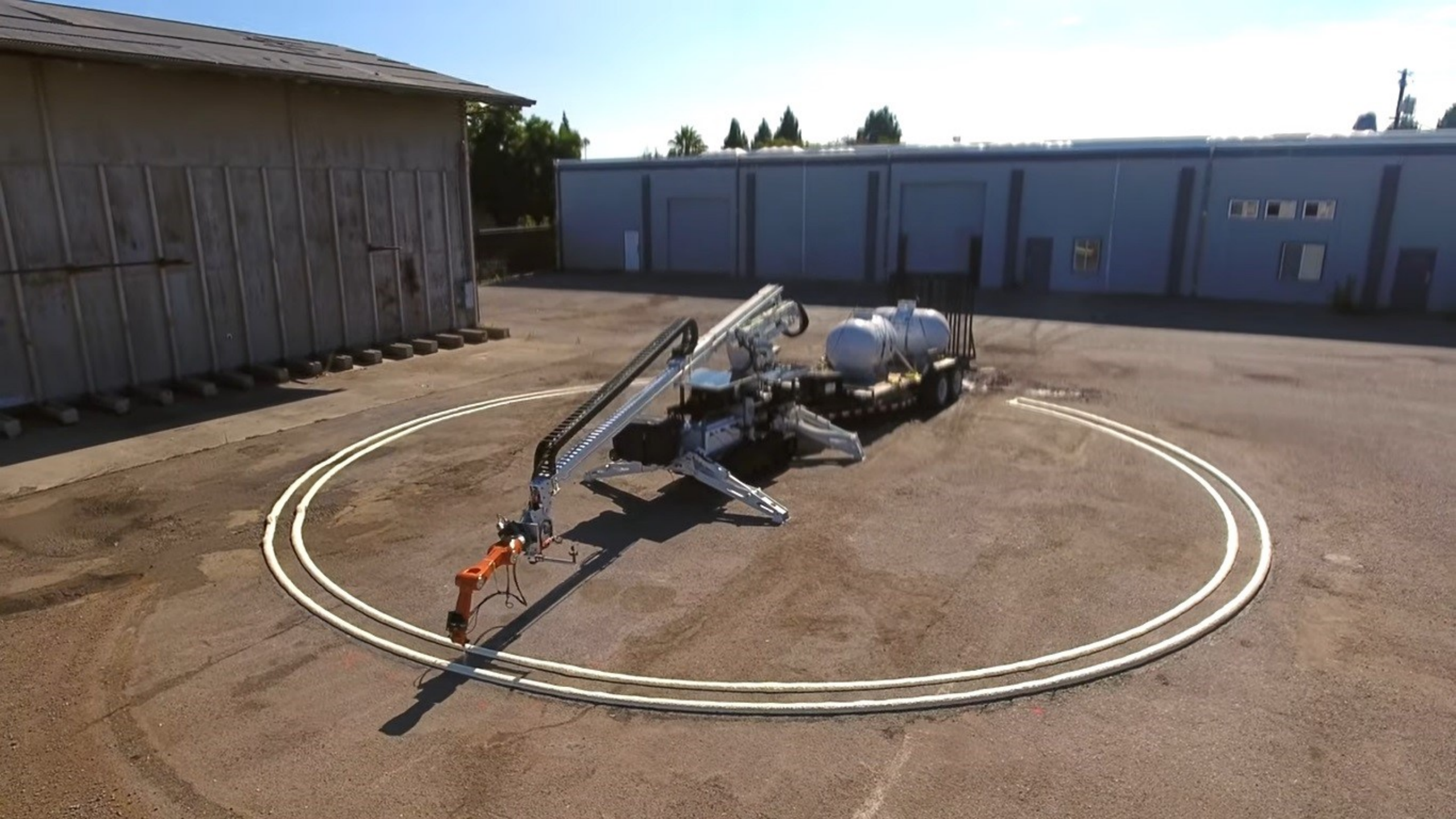
























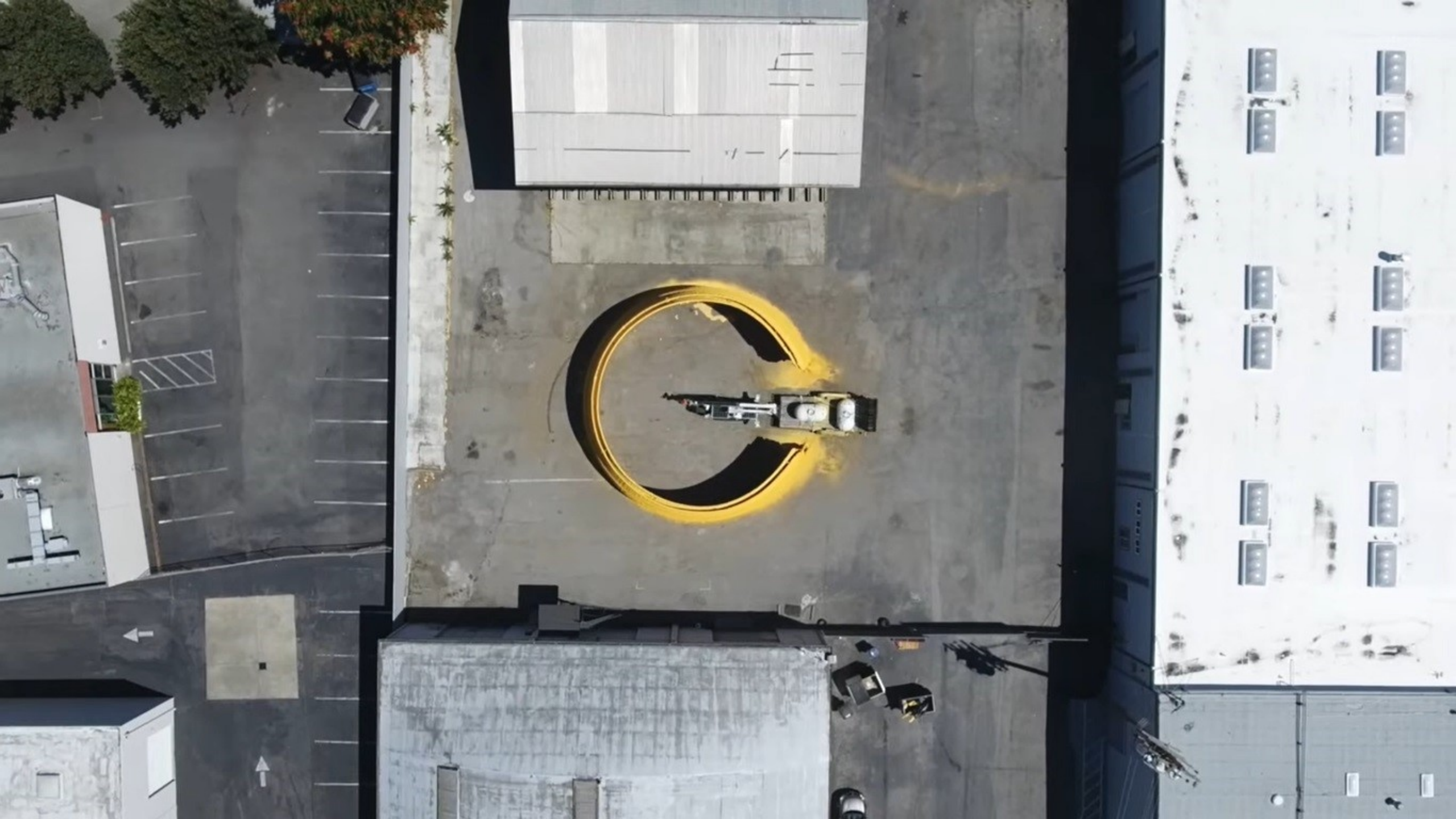




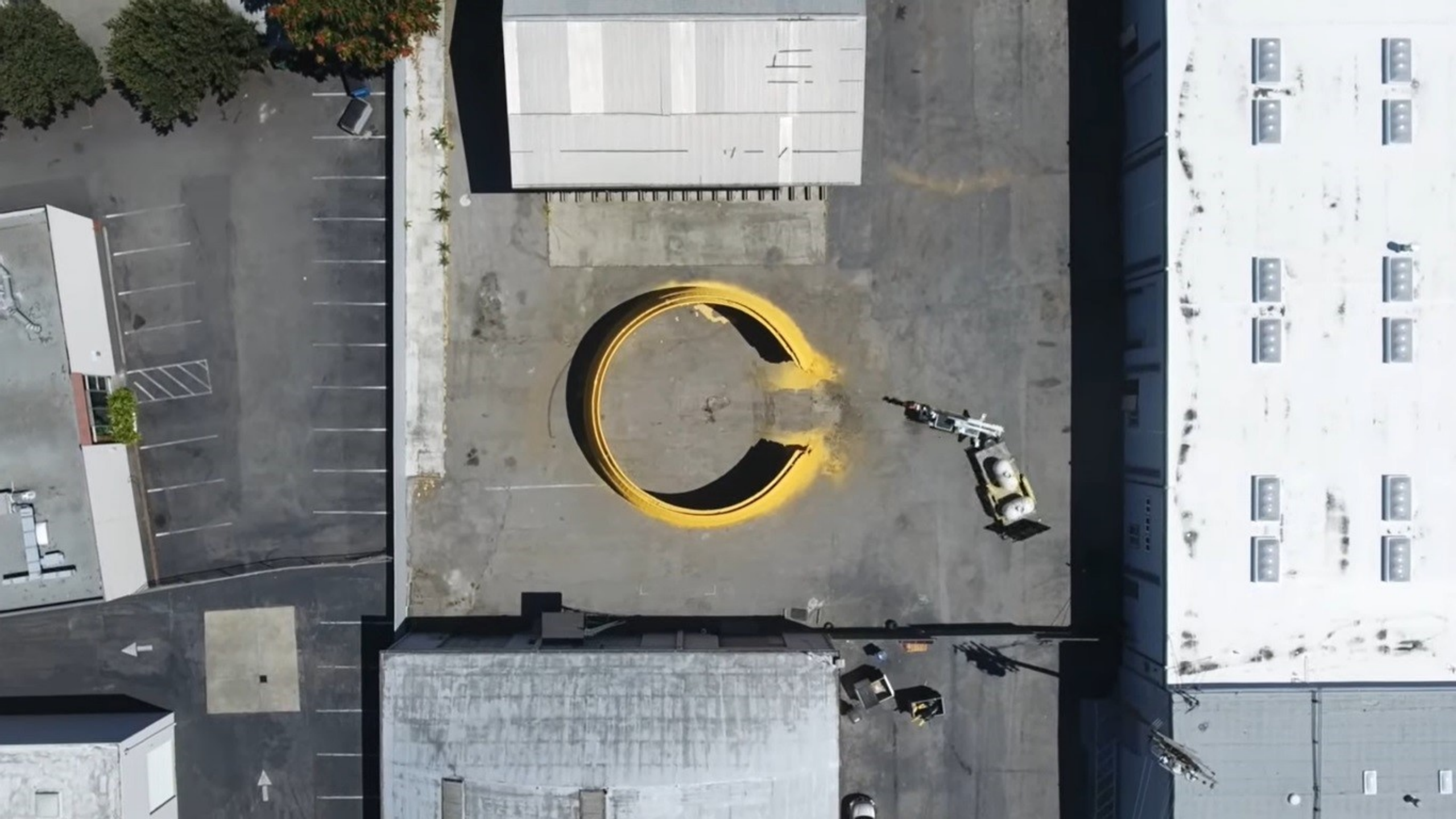
















MANHATTAN

787

787



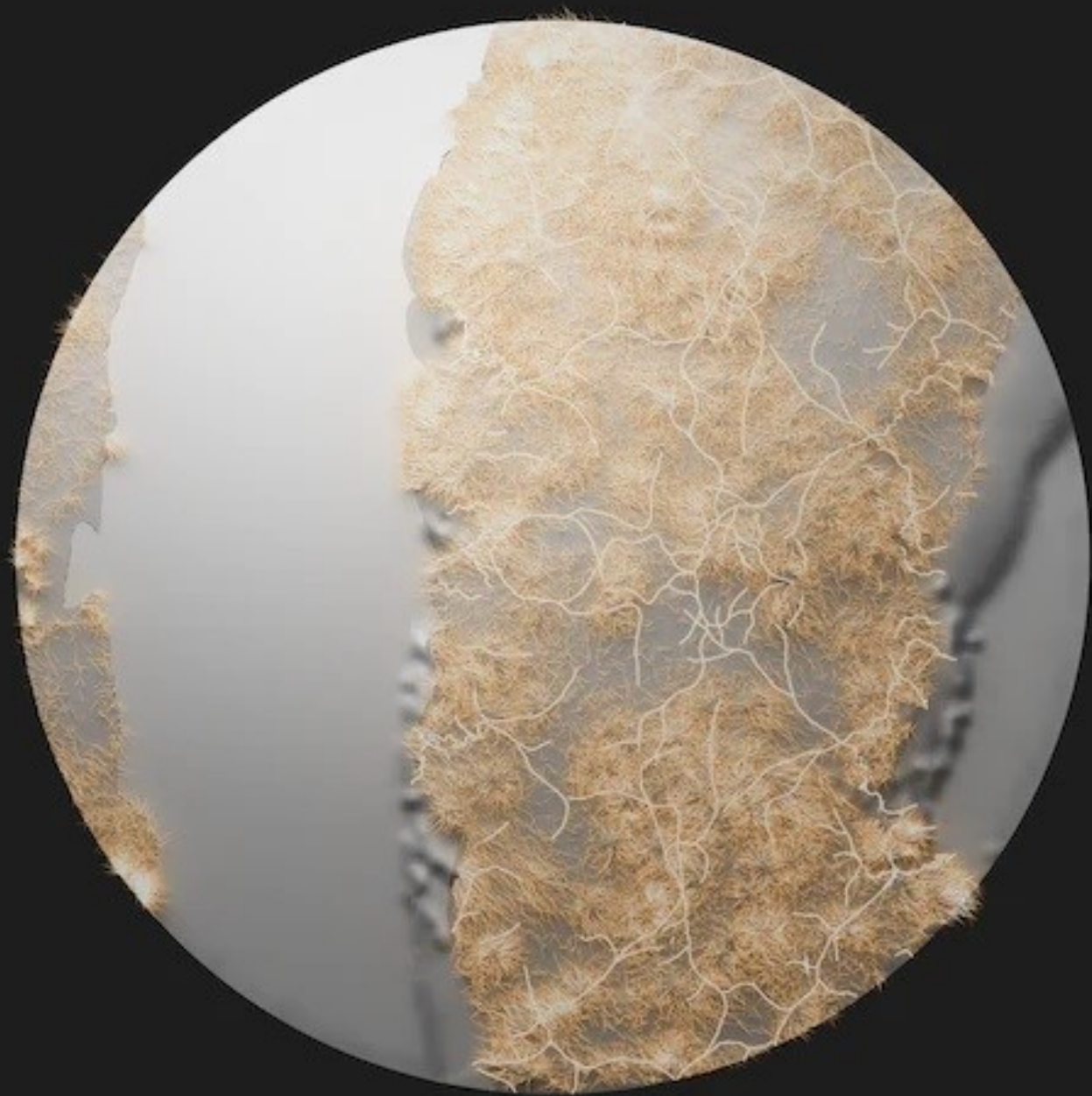










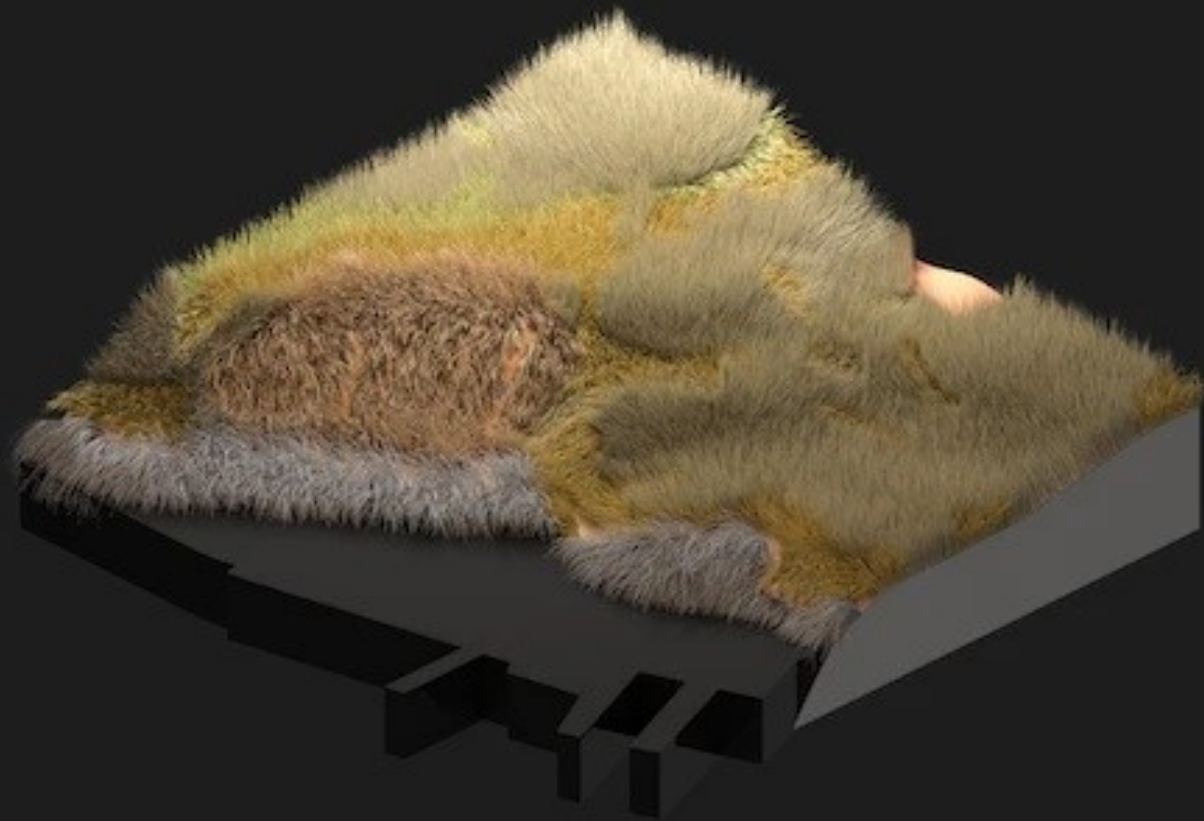


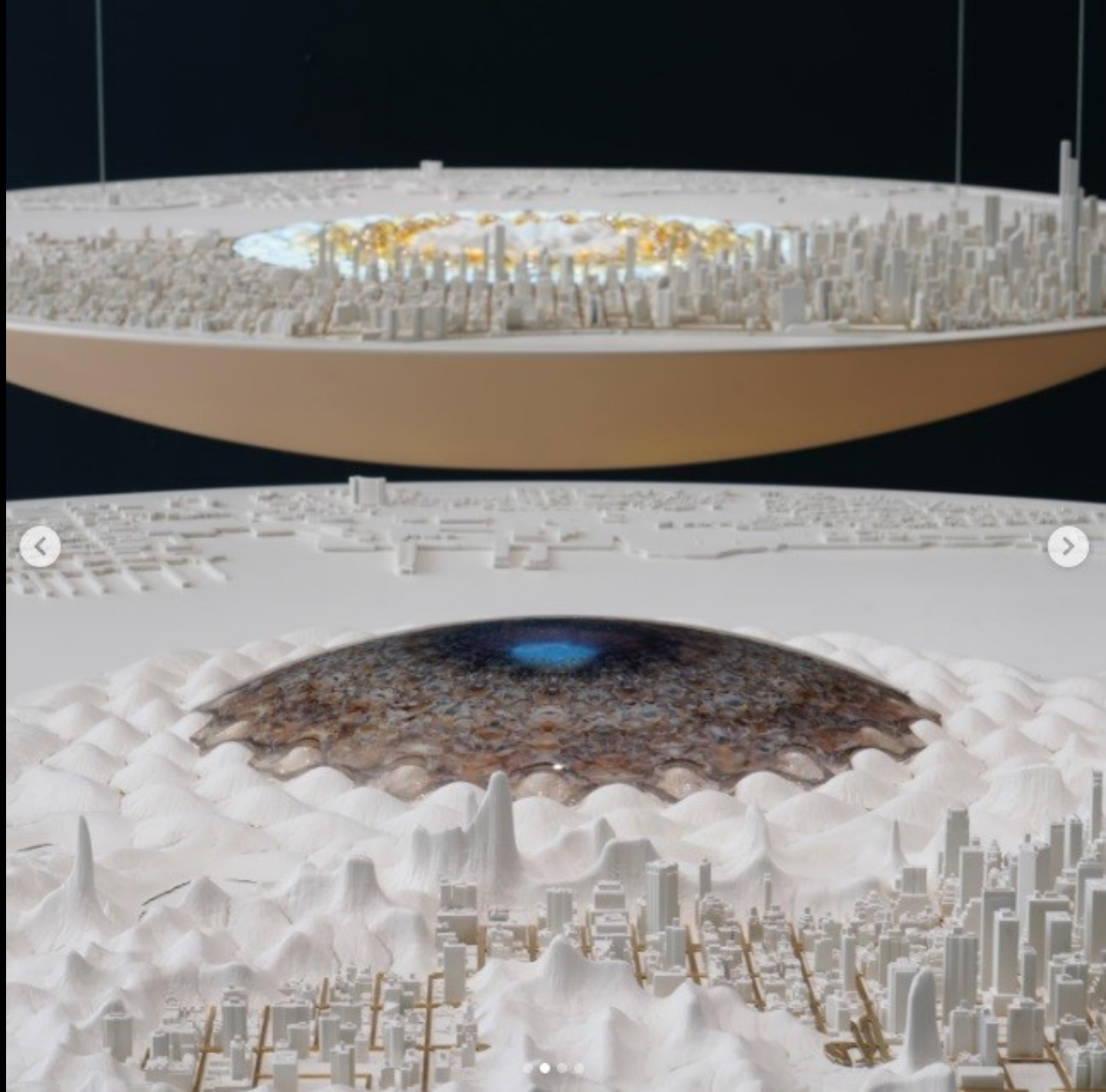
- Parks
- Residential
- Mixed-use
- Commercial
- Institutions
- Industrial





- Oak Tulp Forest
- Oak Hickory Forest
- Appalachian Oak Pine Forest
- Floodplain Forest
- High Salt Marsh
- Shrub Swamp
- Maritime Beach Community
- Maritime Rocky Intertidal Community
- Lenape Village Site







2100:  
First Megalopolis colony  
Urban vision

2200:  
Conception of Man-Nahāta  
Expansion of Megalopolis

2300:  
Birth of Man-Nahāta  
Contraction of Megalopolis

2400:  
Growth of Man-Nahāta  
Design by decay

