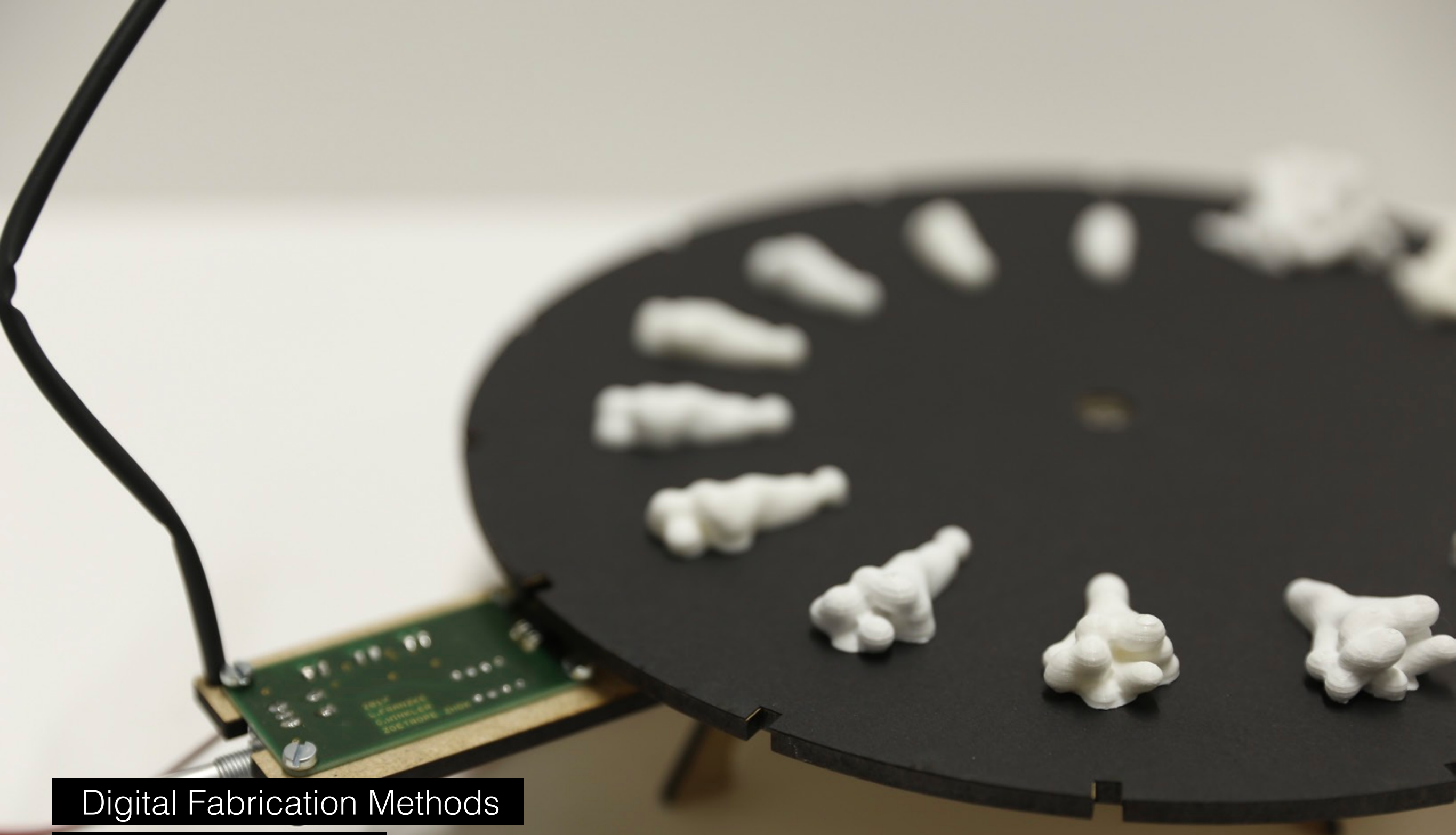




Digital Fabrication Methods

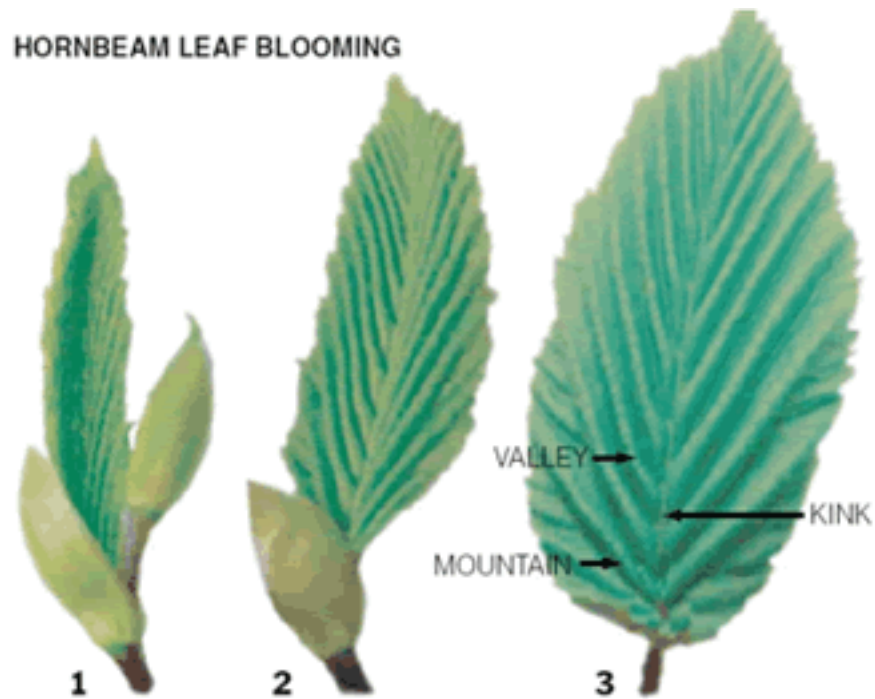
Mutable Processes

Luke Franzke, Clemens Winkler - 2017

MIURA-ORI PATTERN



HORNBEAM LEAF BLOOMING



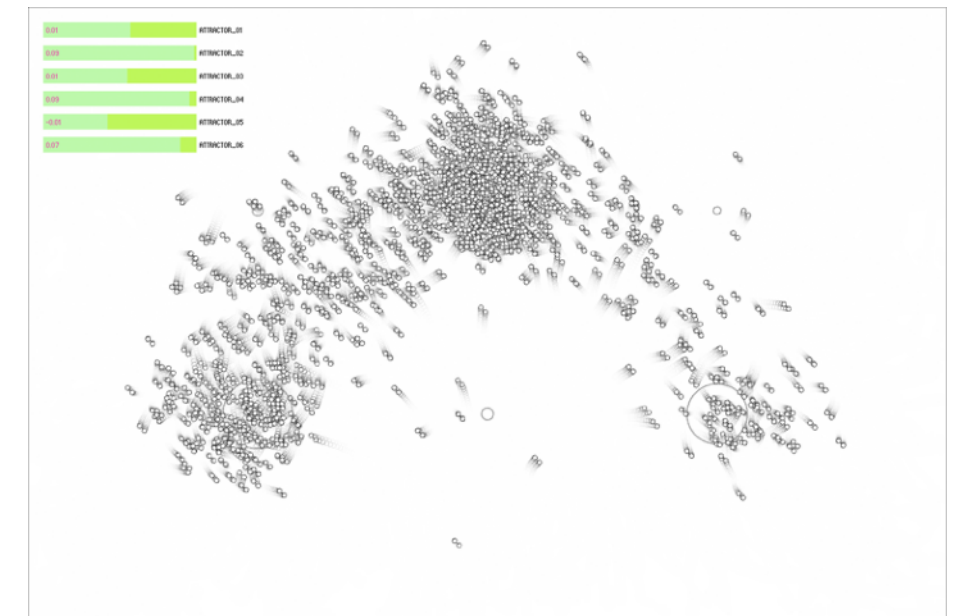
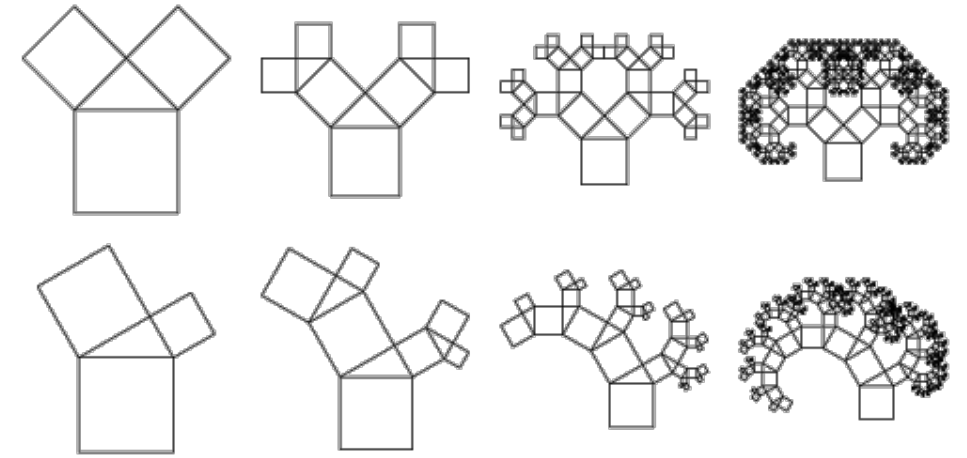
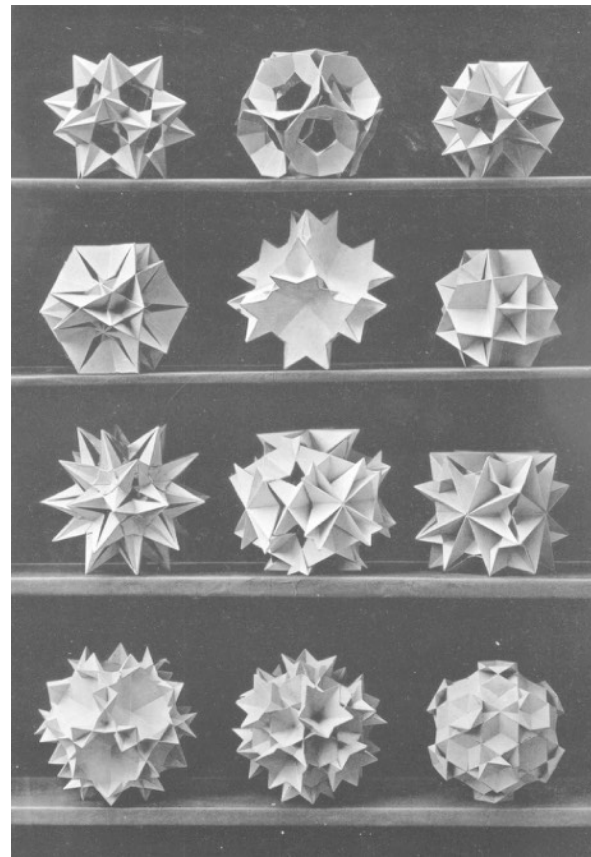
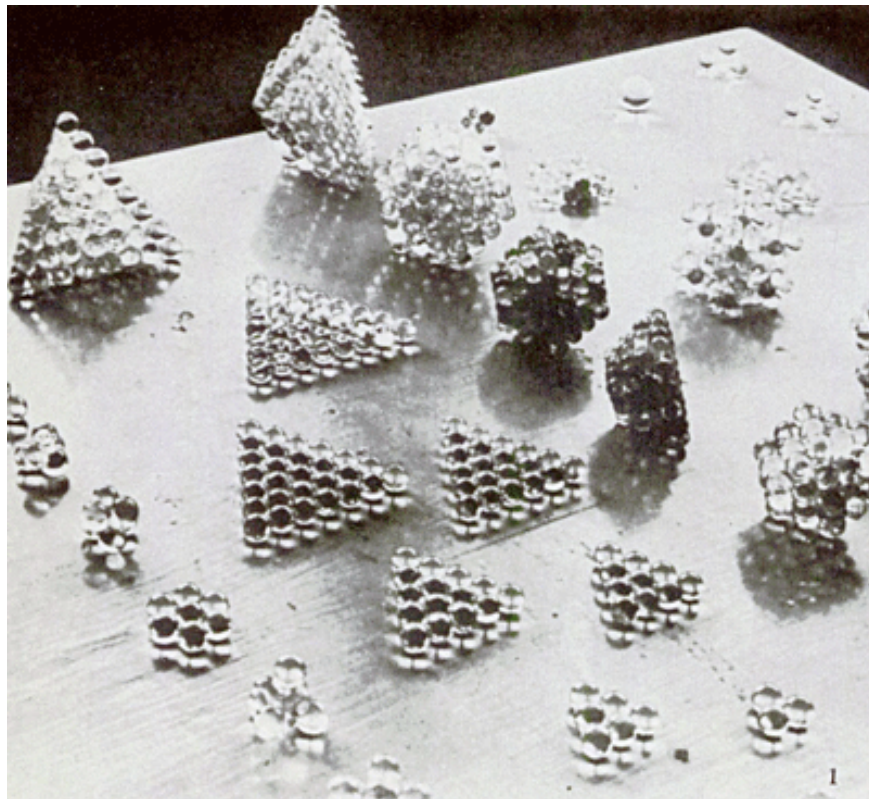
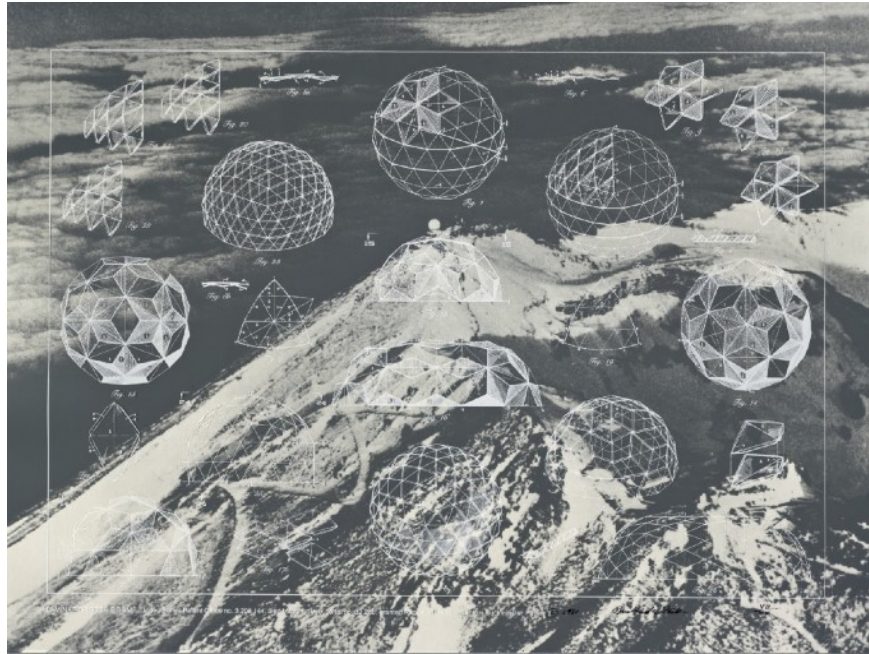
HOW IT HAPPENS

As an enclosed bud unfolds, the creases in the relatively stiff skin of the leaf emerge in the Miura-ori pattern.

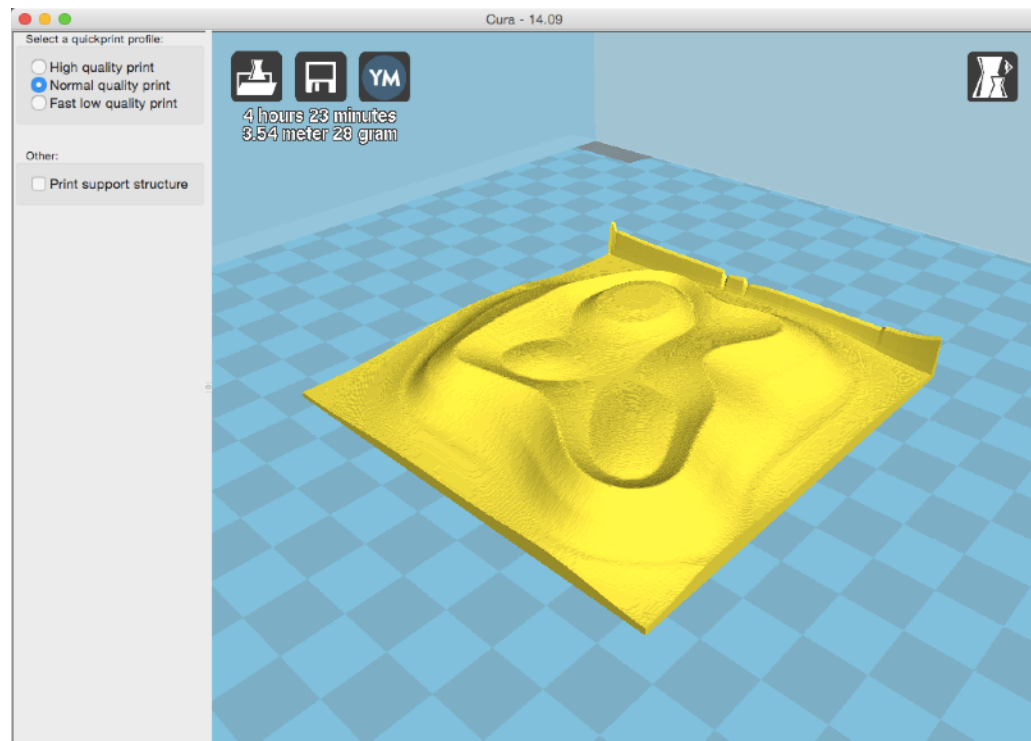
Inspired by Nature



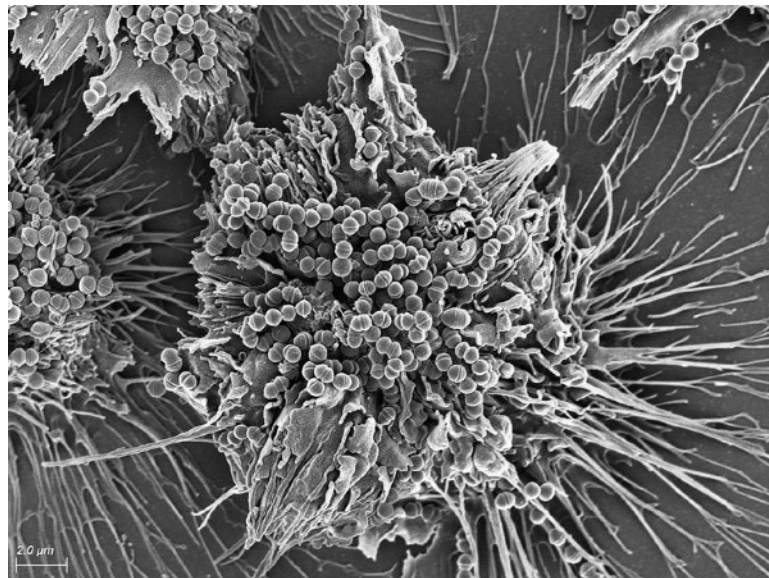
Biological Processes, Slime Molds and Stinkhorn Mushrooms



From Buckminster Fuller to digital aided designs

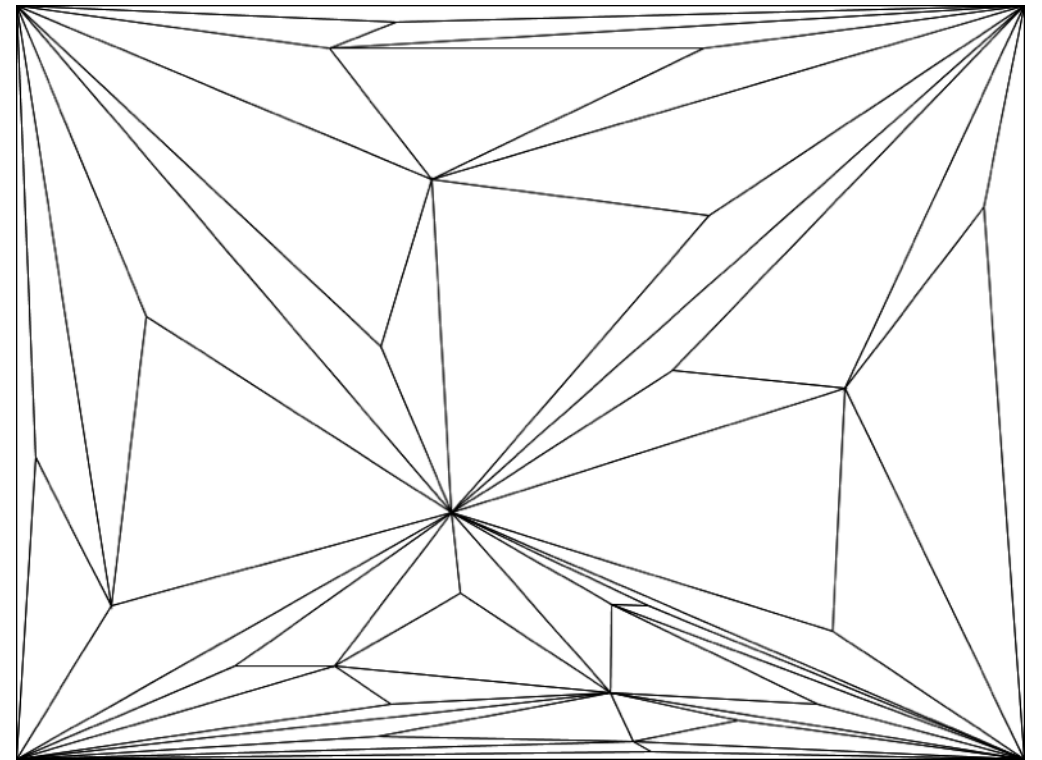


Melting



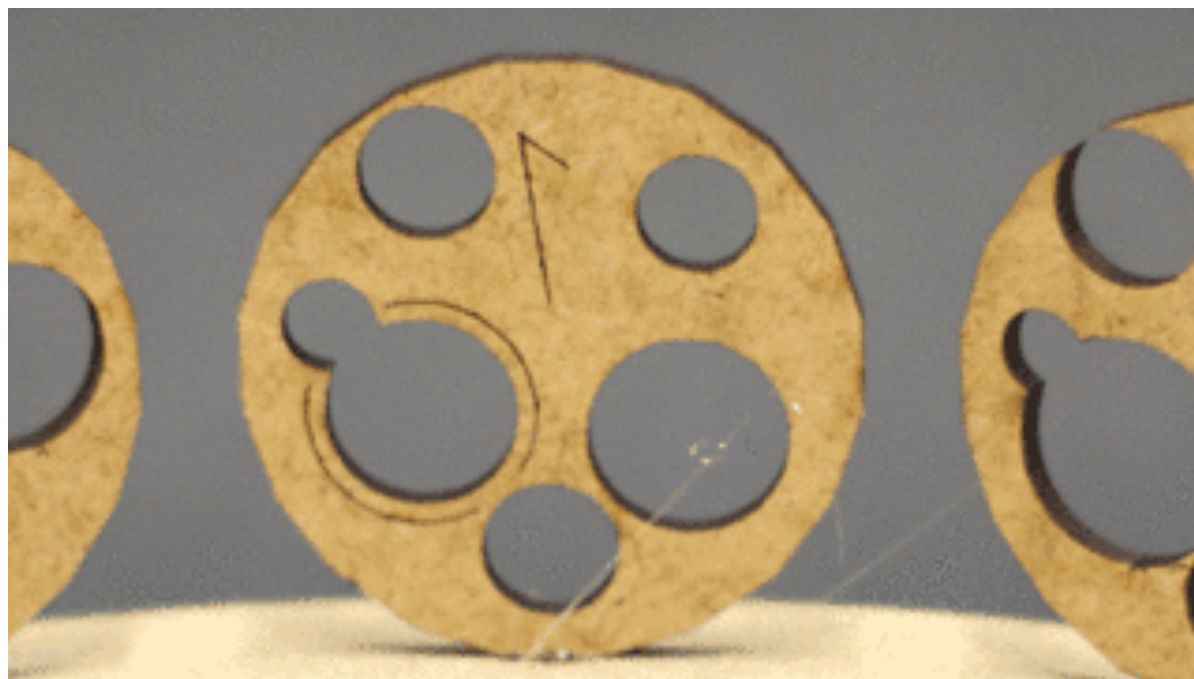
Growing

in the process....



Crystallizing

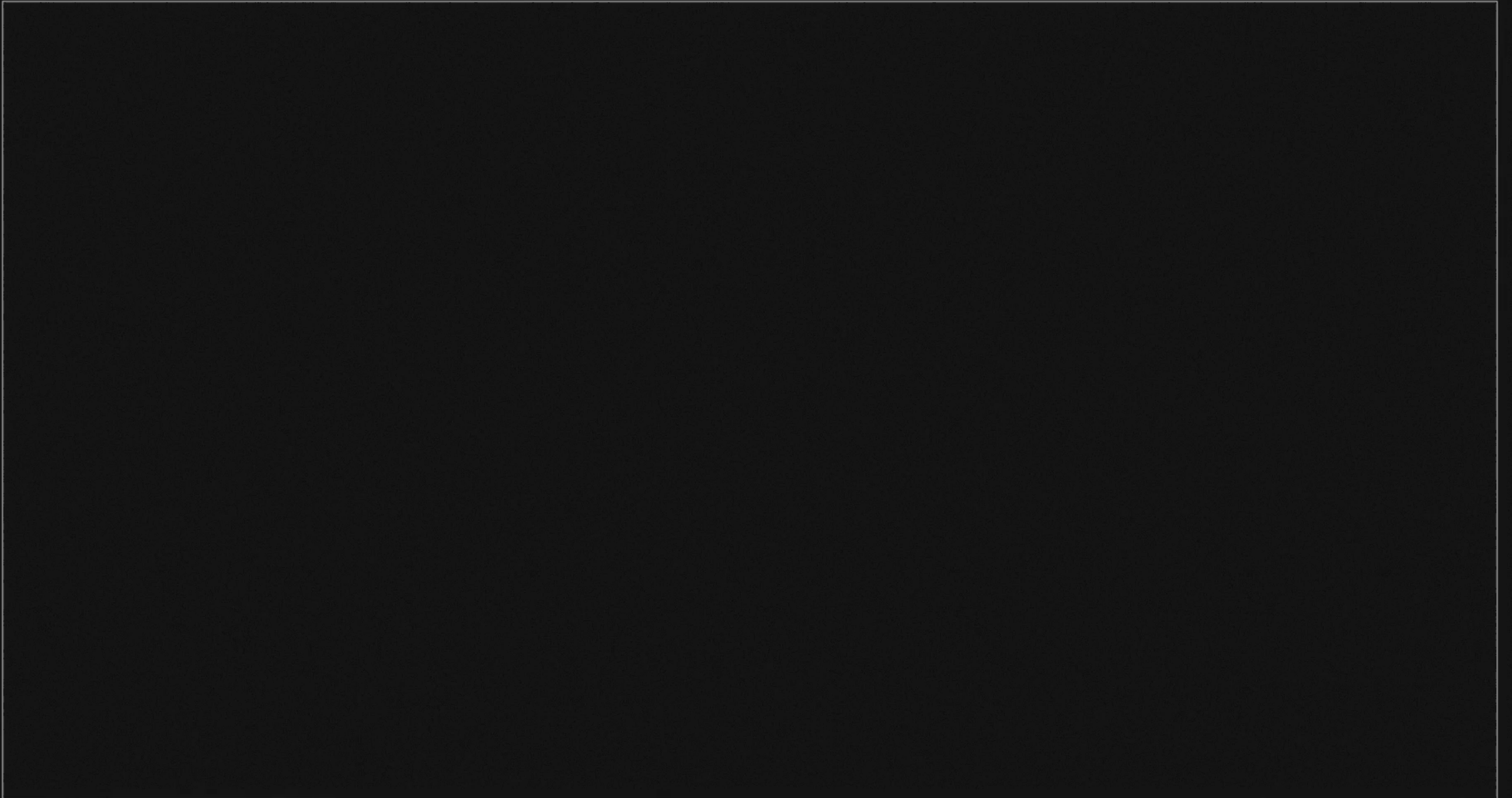




Building Material Animations



Zoetrope, Nervous System, 2014

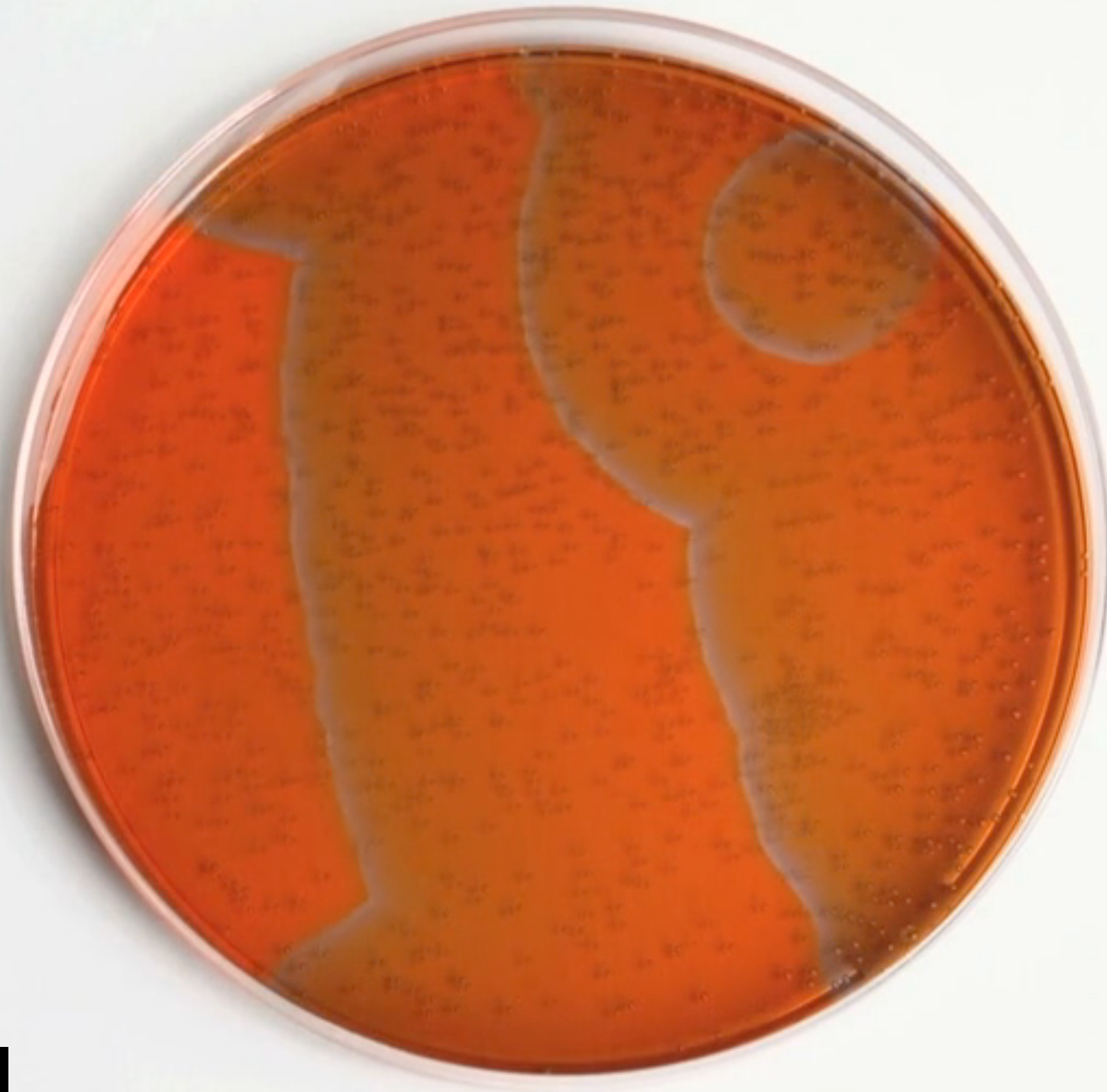




Neri Oxman , Wanderers, 2014



Neri Oxman , Pneuma 1, 2012



SCIENCE SOURCE®

Reaction Diffusion



Reaction Diffusion



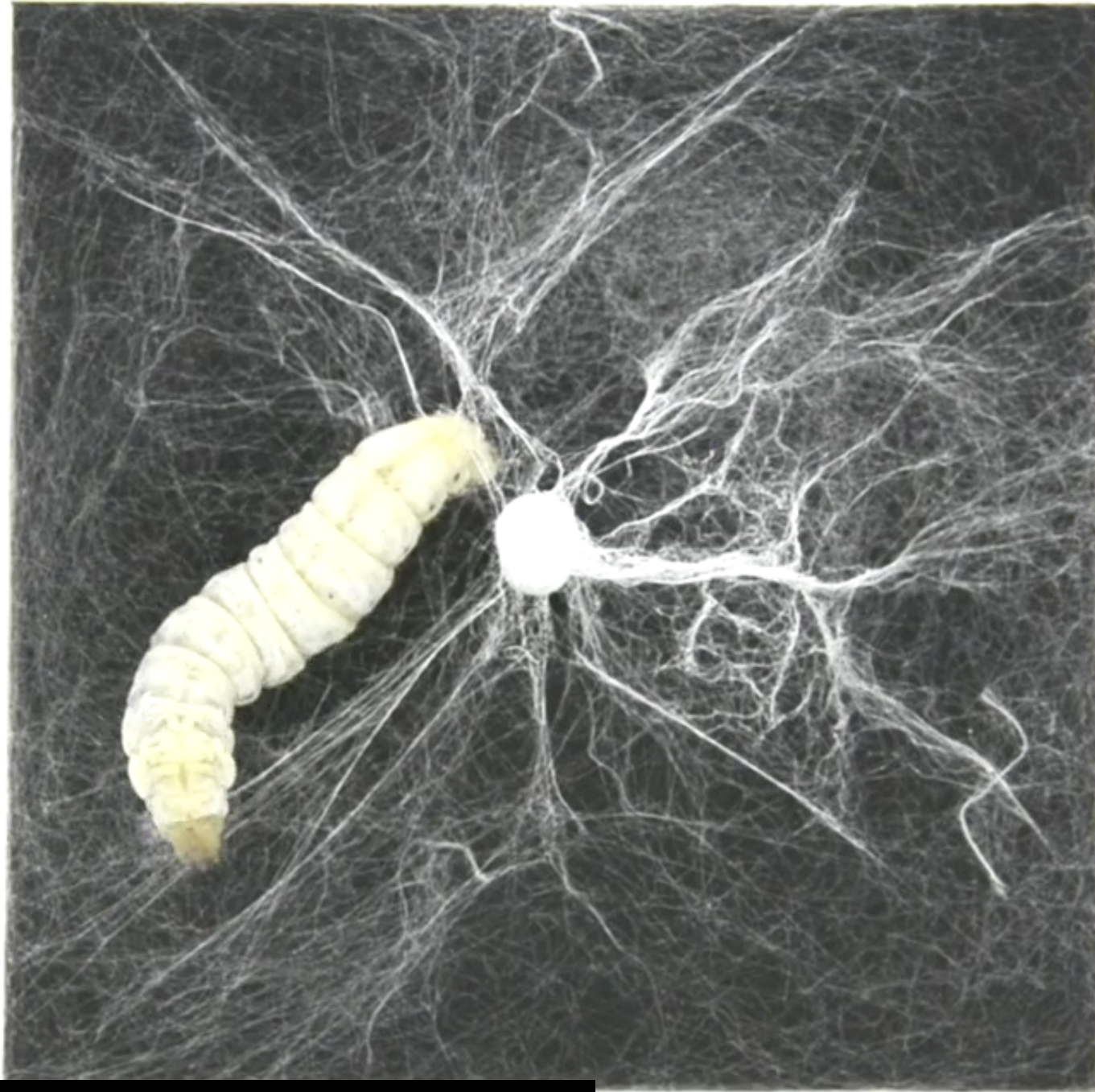
Reaction Diffusion: Karsten Schmidt



Reaction Diffusion: Karsten Schmidt



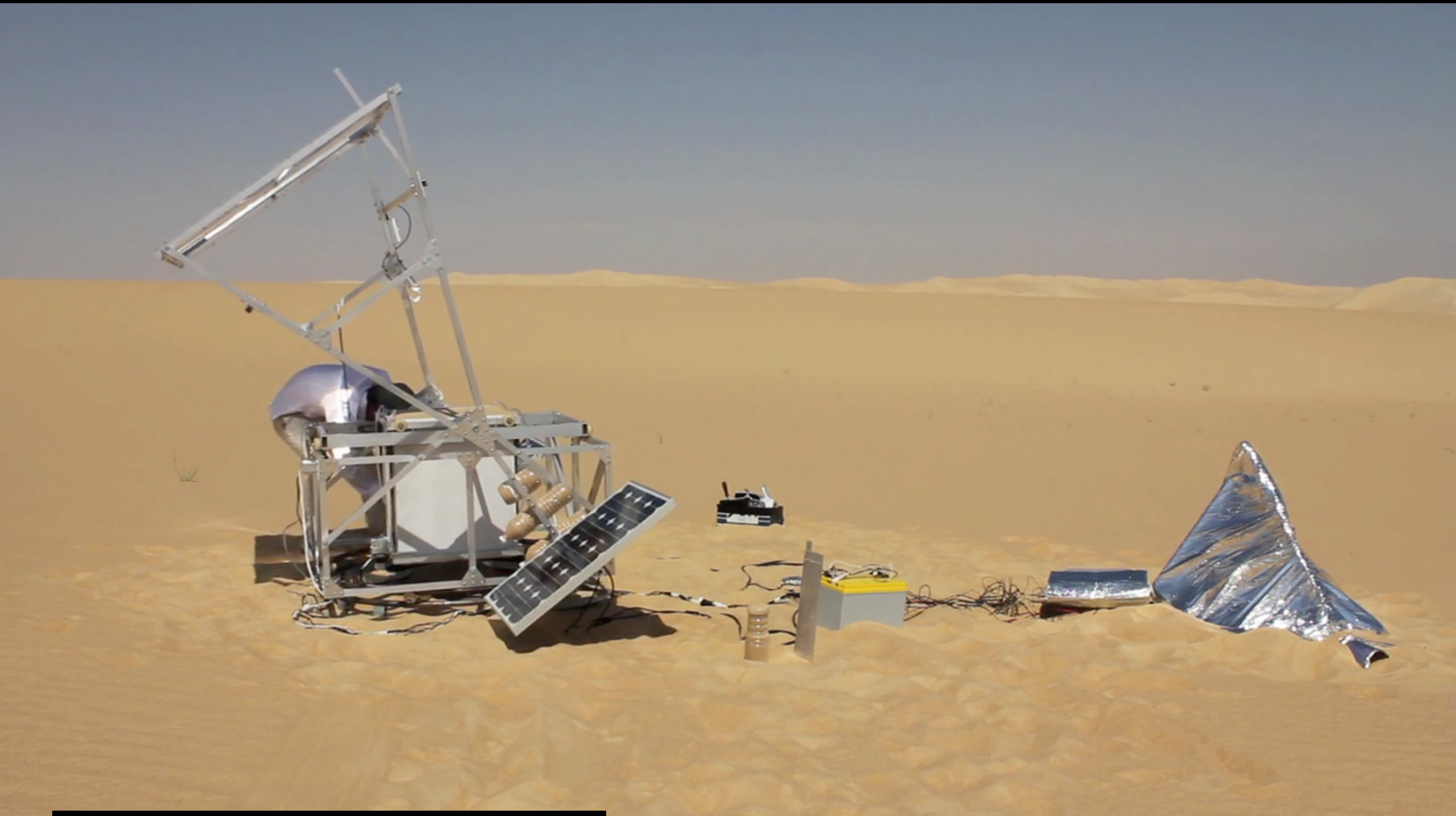
Generative Forms from Material: Jolan Van Der Wiel



Silk Pavilion, Mediated Matter Group, 2013



Silk Pavilion, Mediated Matter Group, 2013

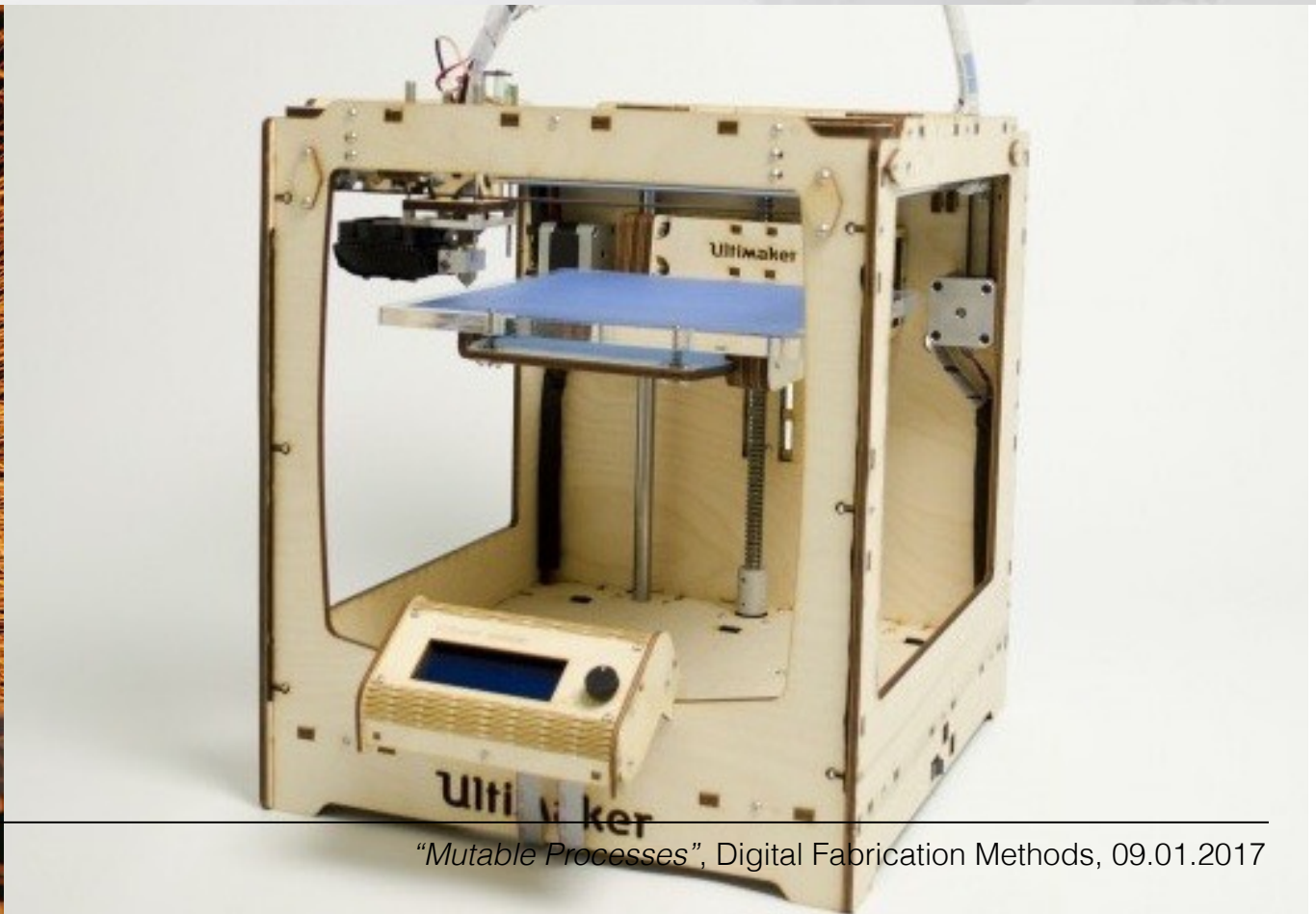


Solar Printer, Markus Kaiser, 2011

Tools



Digital Fabrication Tools

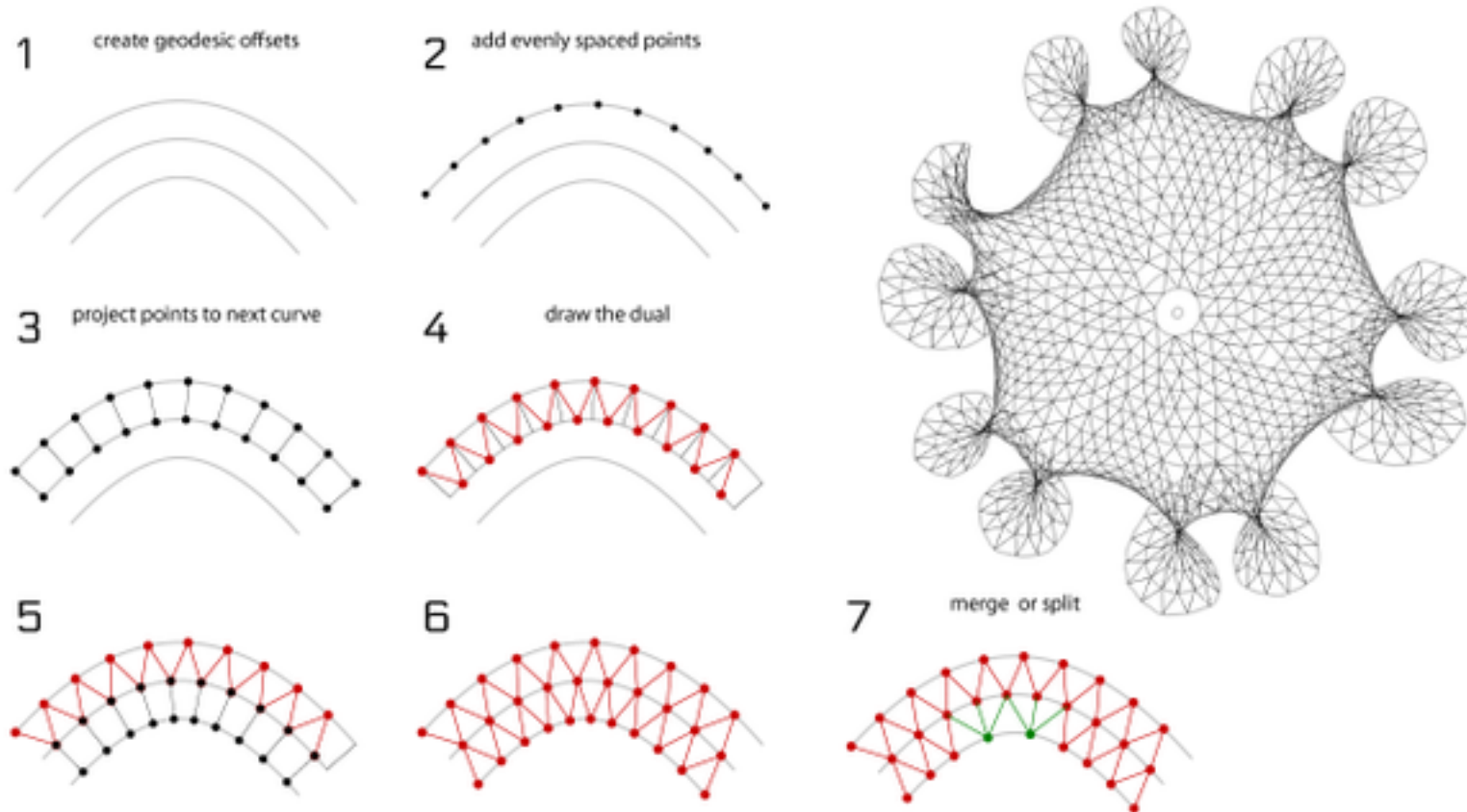


"Mutable Processes", Digital Fabrication Methods, 09.01.2017

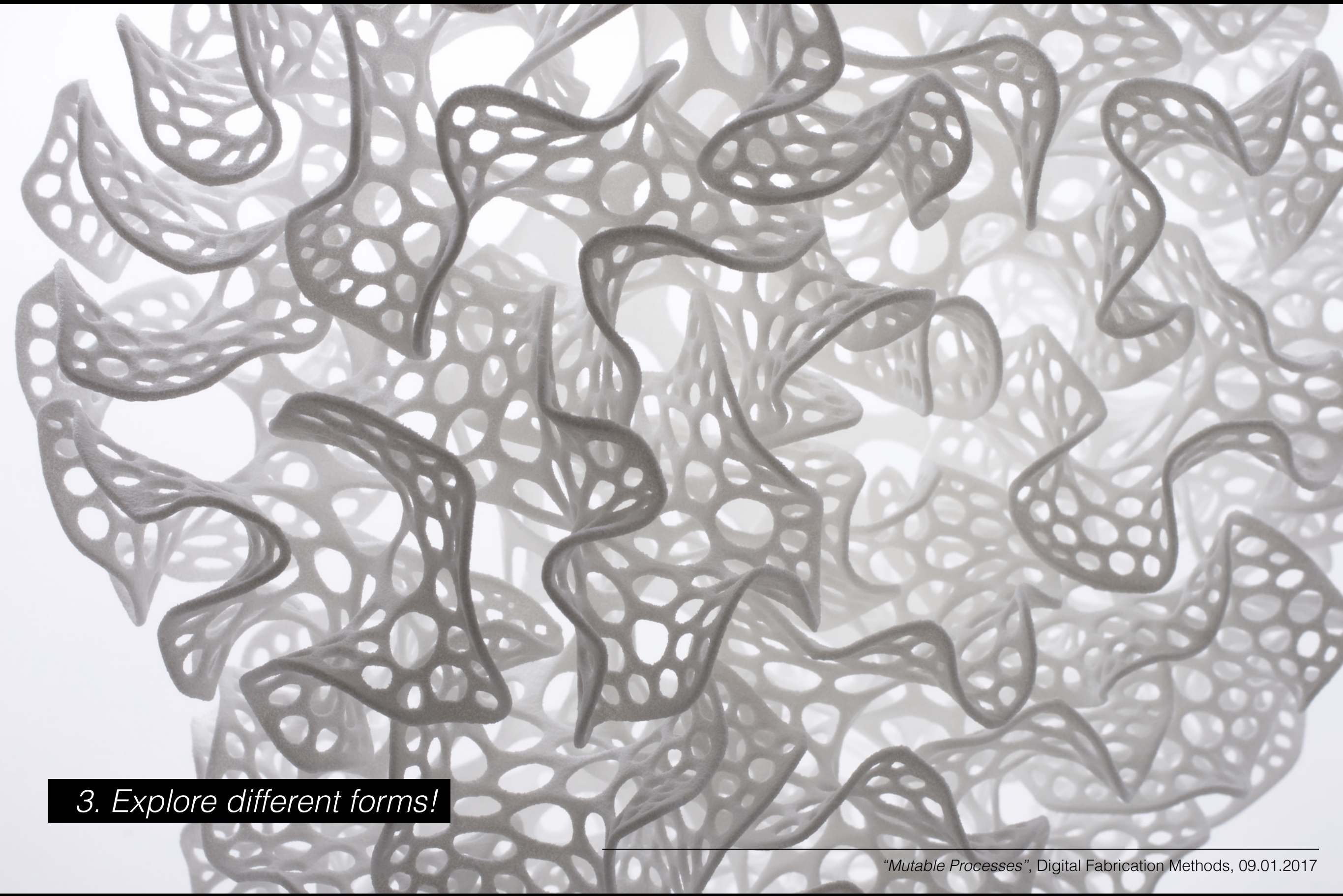
Methods



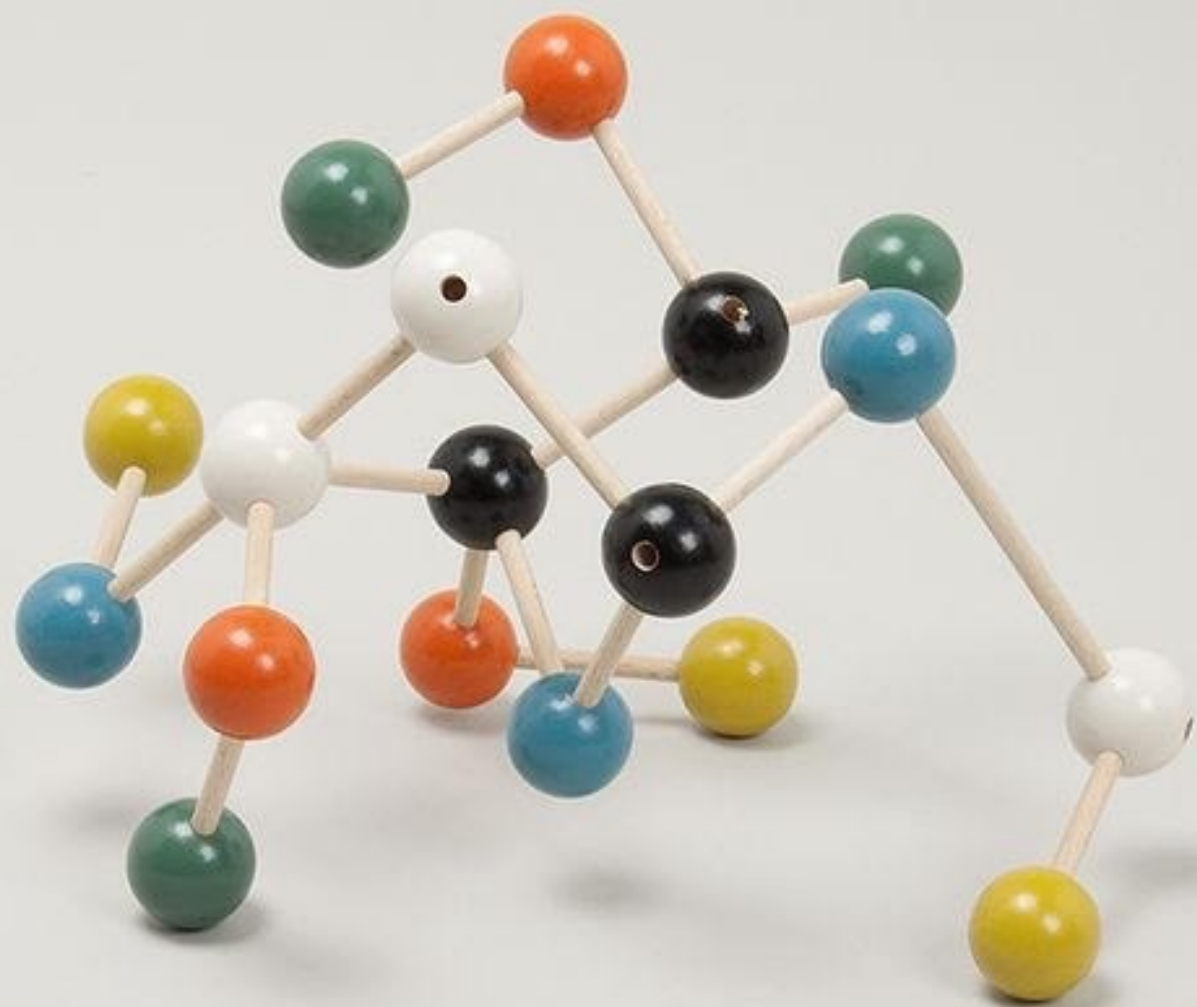
1. Observe!



2. Investigate!



3. Explore different forms!



4. Start Building with Simple Geometries!

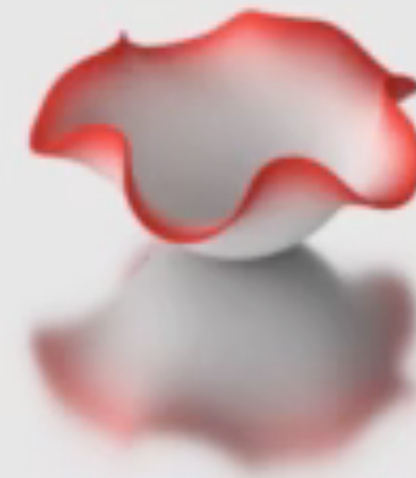


From Growth to Form

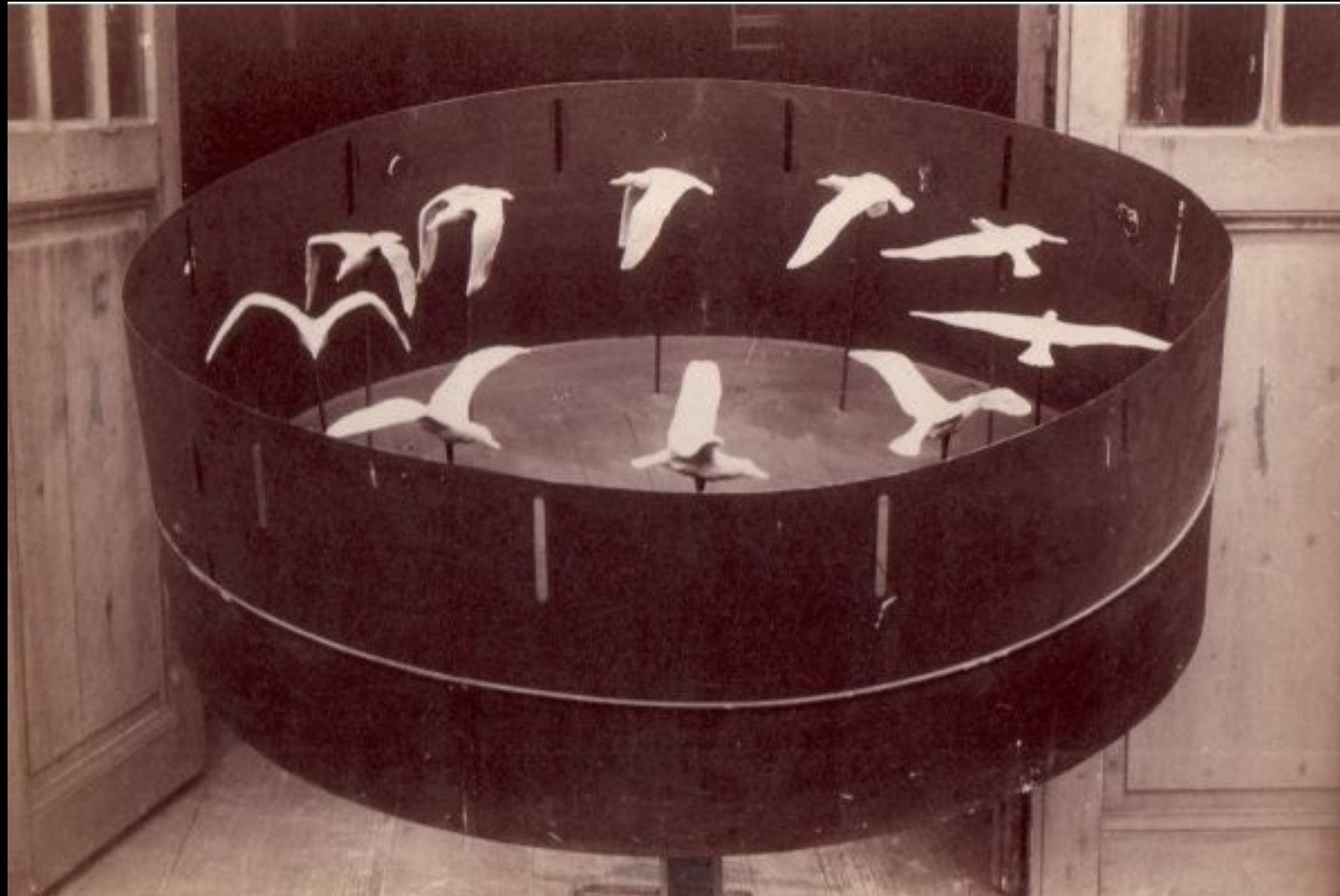
distinct structures emerge
from different spatial
distributions of growth rate



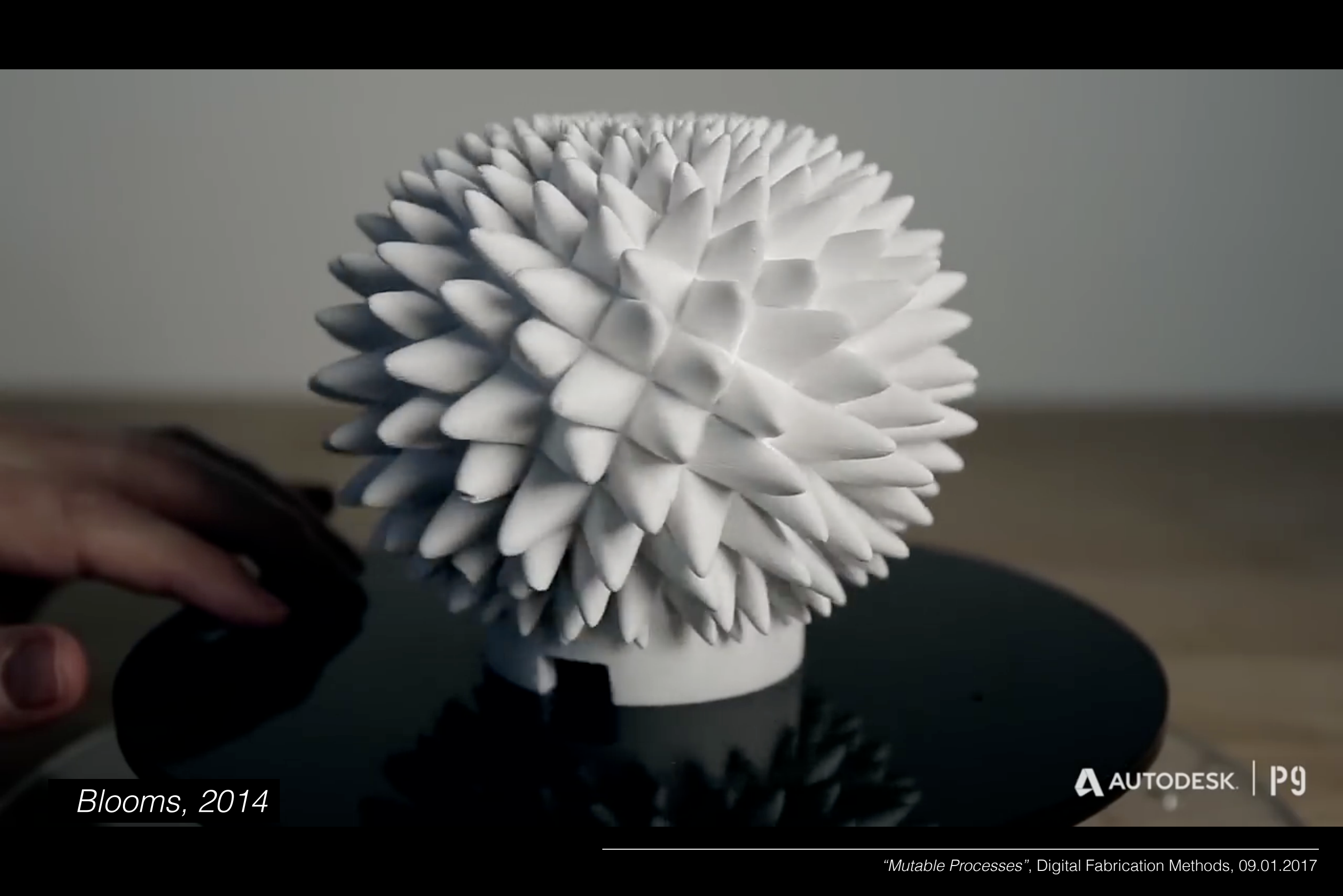
edge-based growth



Animating Dynamic Processes with Digital Fabrication



Zoetrope, 1887



Blooms, 2014

 AUTODESK. | pg