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***ETH*** zürich

# 2BRICKS2GETHER

An exercise on Mesh Subdivision, Implicit Modeling, 3D printing & Design

October 11<sup>th</sup>, 2021

**ETH** zürich

**DARCH**

Departement Architektur

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Institute of Technology in Architecture  
Faculty of Architecture / ETH Zürich

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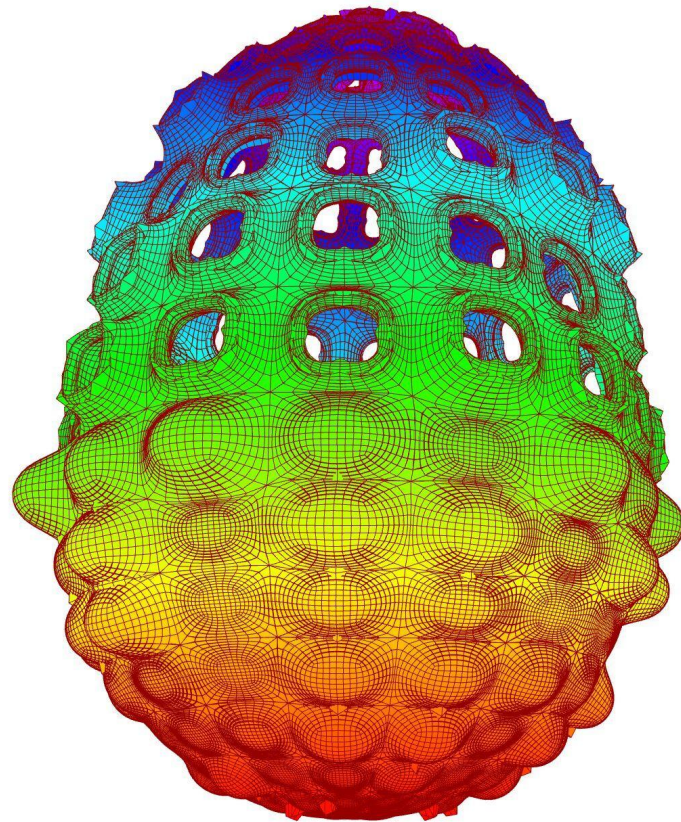
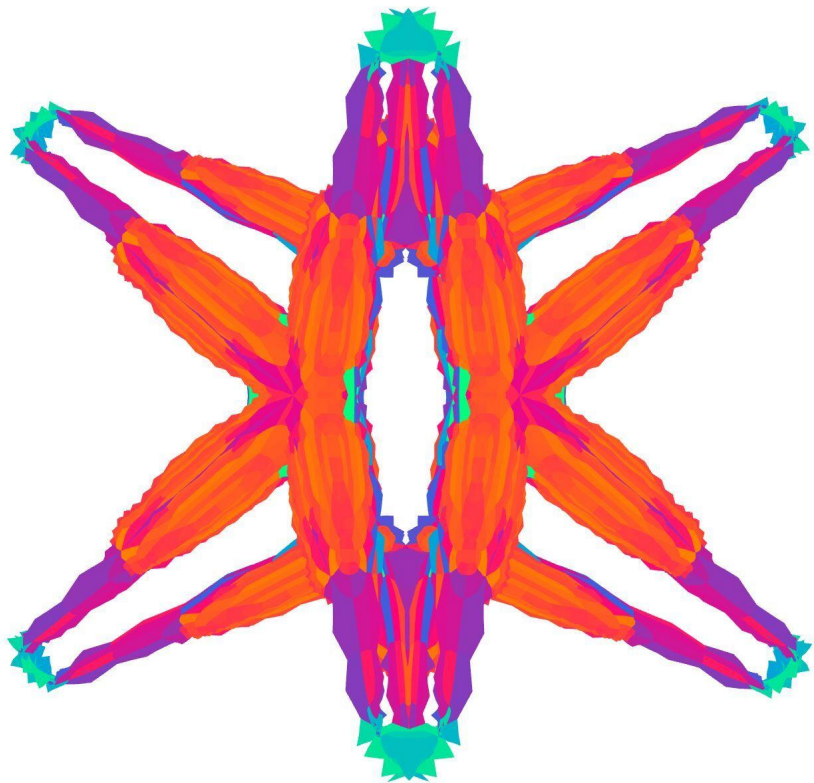
***‘Architecture starts when you carefully put two bricks together.  
There it begins’.***

**Ludwig Mies van der Rohe**



*Kolumba Art Museum, Zumthor*

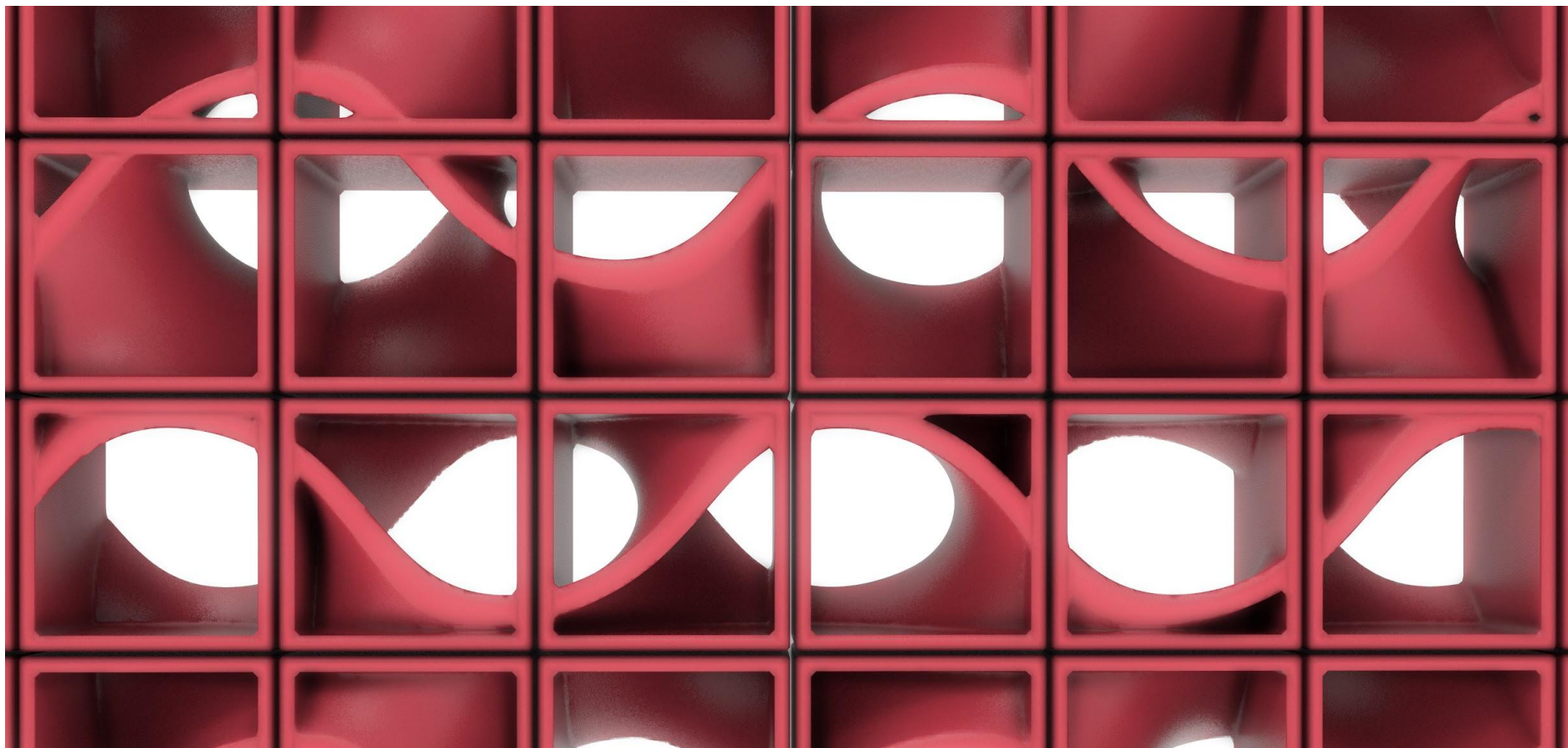
# Use Mesh Subdivision...



Software : Mola Library, Dillenburger, Shammas, Bernhard

**...or Volumetric Modeling...**

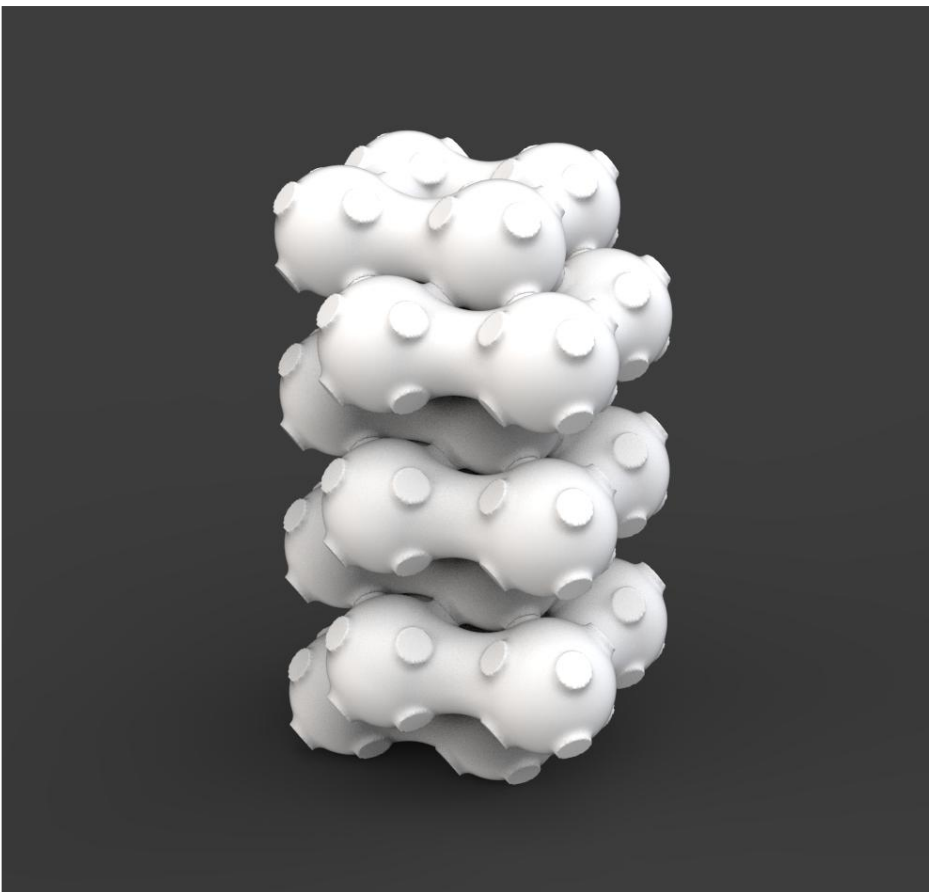




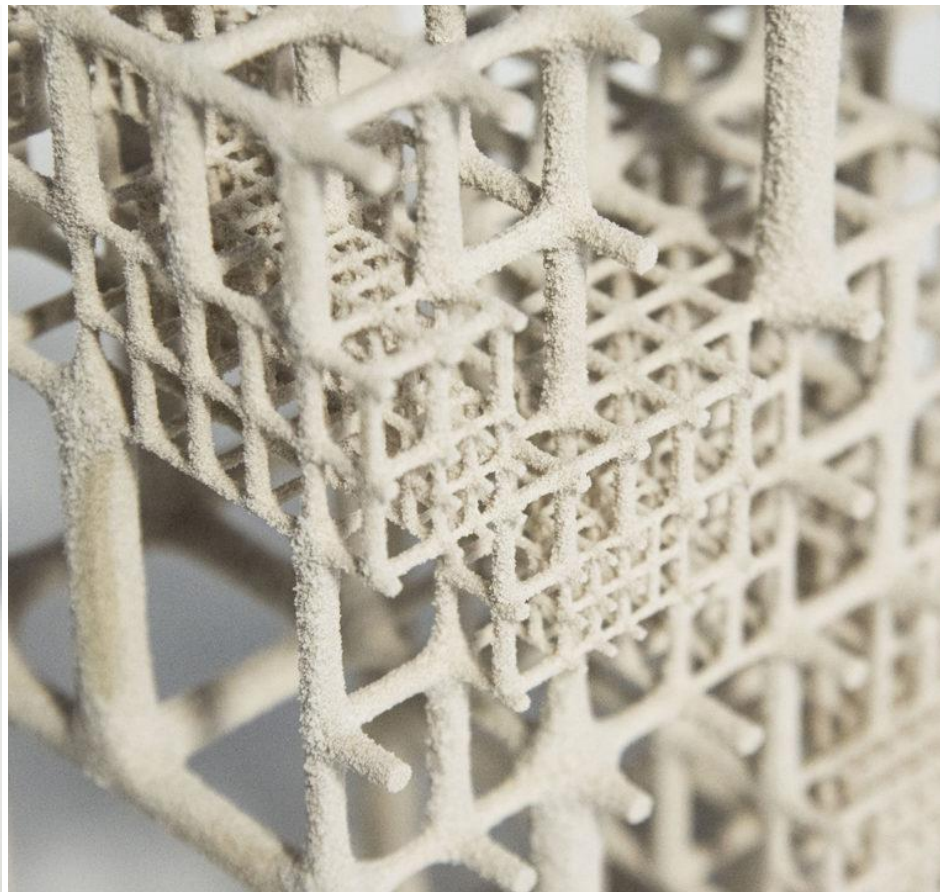
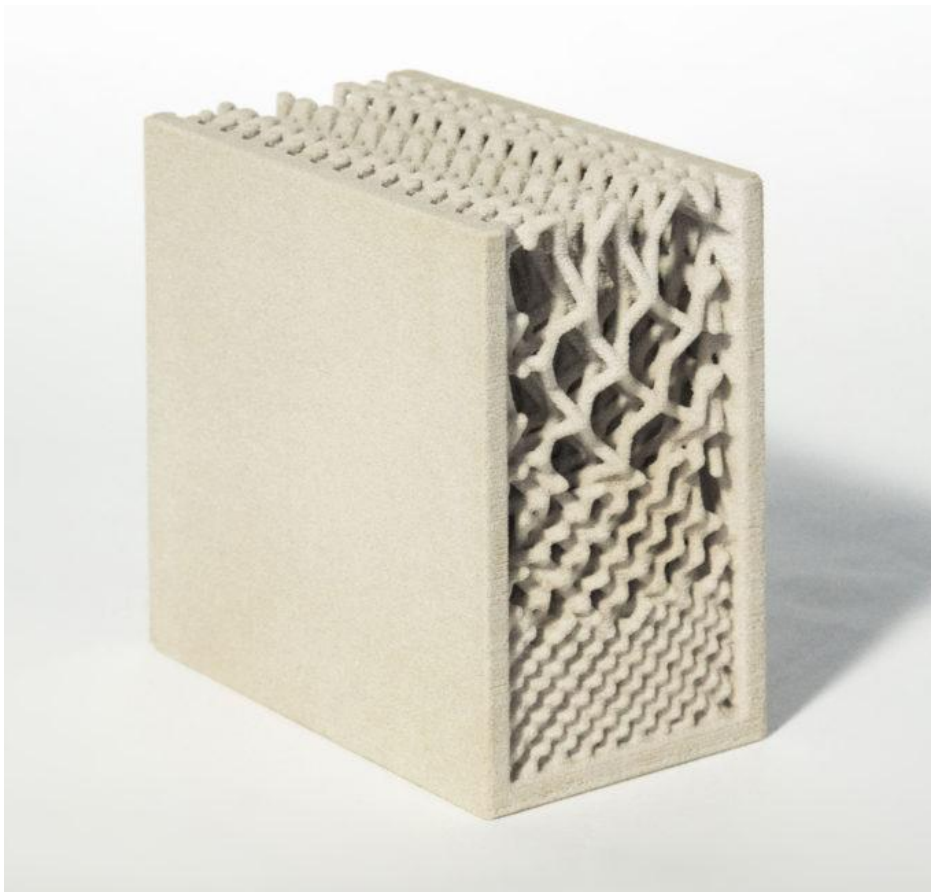
*Software : Axolotl, Bernhard*



**...to design smart bricks...**



*Prof : Bernhard - Students : Mangliar, Schulte*



*Prof : Bernhard, Anton, Bedarf - Students : Pastrana, Regalado*

**...within a bespoke composition.**

# SUBMISSION

## GROUPS

- . 6 groups total (5x3 + 1x2)
- . 1 3D printer per group (Cluster's Prusa)

## CONTENT

- . Concept with mood images and sketches
- . Algorithmic strategy / Major features of your program (using Mesh Subd or VM)
- . Researches and iterations / From digital (renderings) to physical (3D prints)
- . Final proposal / At least 3 renderings (+ 3D prints optional)

## FORMAT

- . 10 min presentation + 10 min discussion
- . Google slides / Use the template on your Gmail drive
- . Presentation in the cluster and remote on zoom (guests)

## DATE

Presentation on October 22nd from 3 pm to 5 pm

# WEEK 1

MON

11

TUE

12

WED

13

THU

14

FRI

15

2bricks2gether / Mesh subdivision  
9am – 12pm

2bricks2gether / Mesh subdivision  
9am – 12pm

2bricks2gether / City engine &  
Blender introduction  
9am – 12pm

2bricks2gether / Volumetric  
Modeling - Python  
9am – 12pm

2bricks2gether / Volumetric  
Modeling - Axolotl  
9am – 12pm

2bricks2gether / Mesh subdivision  
1 – 5pm

2bricks2gether / Mesh subdivision  
1 – 5pm

COMPAS course  
12:45 – 3pm

2bricks2gether / Volumetric  
Modeling  
1:30 – 3pm

2bricks2gether / Volumetric  
Modeling - Axolotl  
1:30 – 4pm

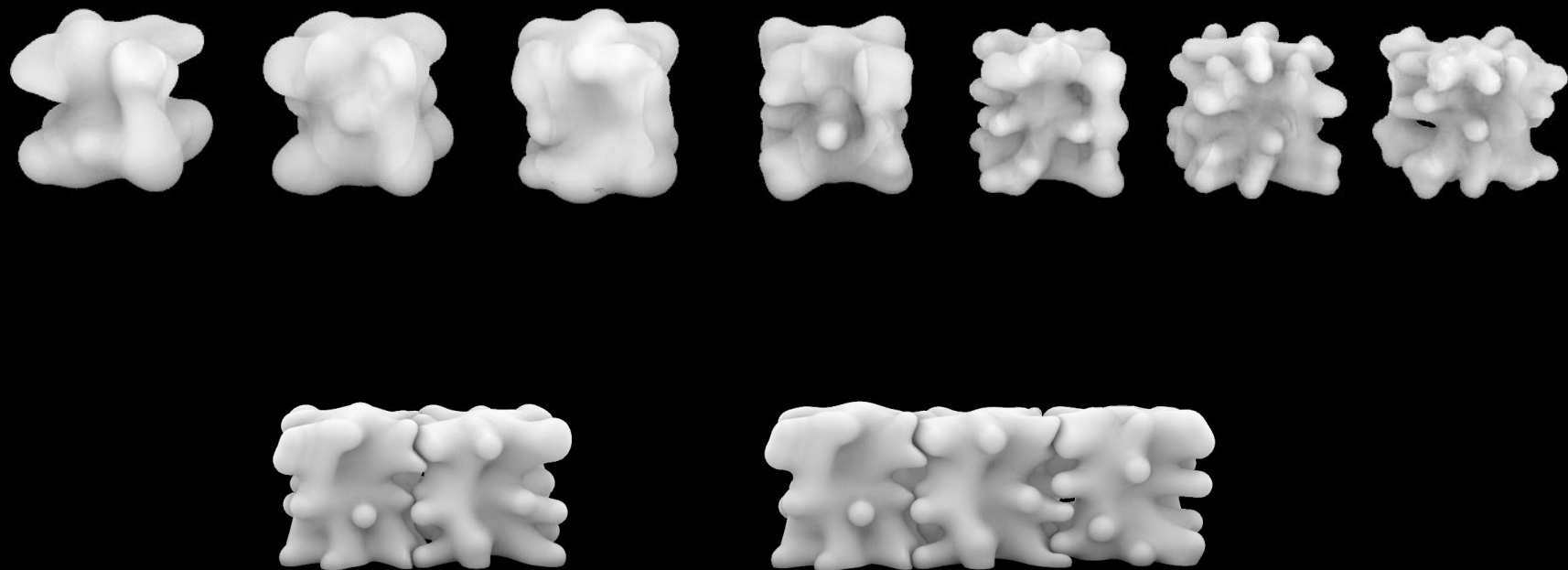
Office hours Russel Input lecture  
3 – 5pm

2bricks2gether / Group formation +  
Brainstorming  
3 – 5pm



# WEEK 2

MON 11	TUE 12	WED 13	THU 14	FRI 15
<div>2bricks2gether / Volumetric Modeling - Axolotl 9 – 10:30am</div> <div>2bricks2gether / Prusa Introduction - Weiting &amp; Fen 10:30am – 12pm</div>	<div>2bricks2gether / office hours 9am – 12pm</div> <div>Russel Input lectu 9 – 10am</div>	<div>2bricks2gether / Group work + office hours 9am – 12pm</div>	<div>2bricks2gether / Group work + office hours 9am – 12pm</div>	<div>2bricks2gether / Group work + office hours 9am – 12pm</div>
<div>2bricks2gether / Marirena &amp; Matthias Lectures + Tutorials 1 – 4pm</div> <div>2bricks2gether / Group work + office 4 – 5pm</div>	<div>2bricks2gether / Group work + office hours 1 – 5pm</div>	<div>COMPAS course 12:45 – 3pm</div> <div>2bricks2gether / Deskcrit 3 – 5pm</div>	<div>2bricks2gether / Group work + office hours 1 – 5pm</div>	<div>2bricks2gether / Group work + office hours 1 – 3pm</div> <div>2bricks2gether / Presentations 3 – 5pm</div>



*Tutors : Mitropoulou, Skevaki, Clemente - Students : Maneka, Griffioen, Anthraper*