

3D Art making ECA

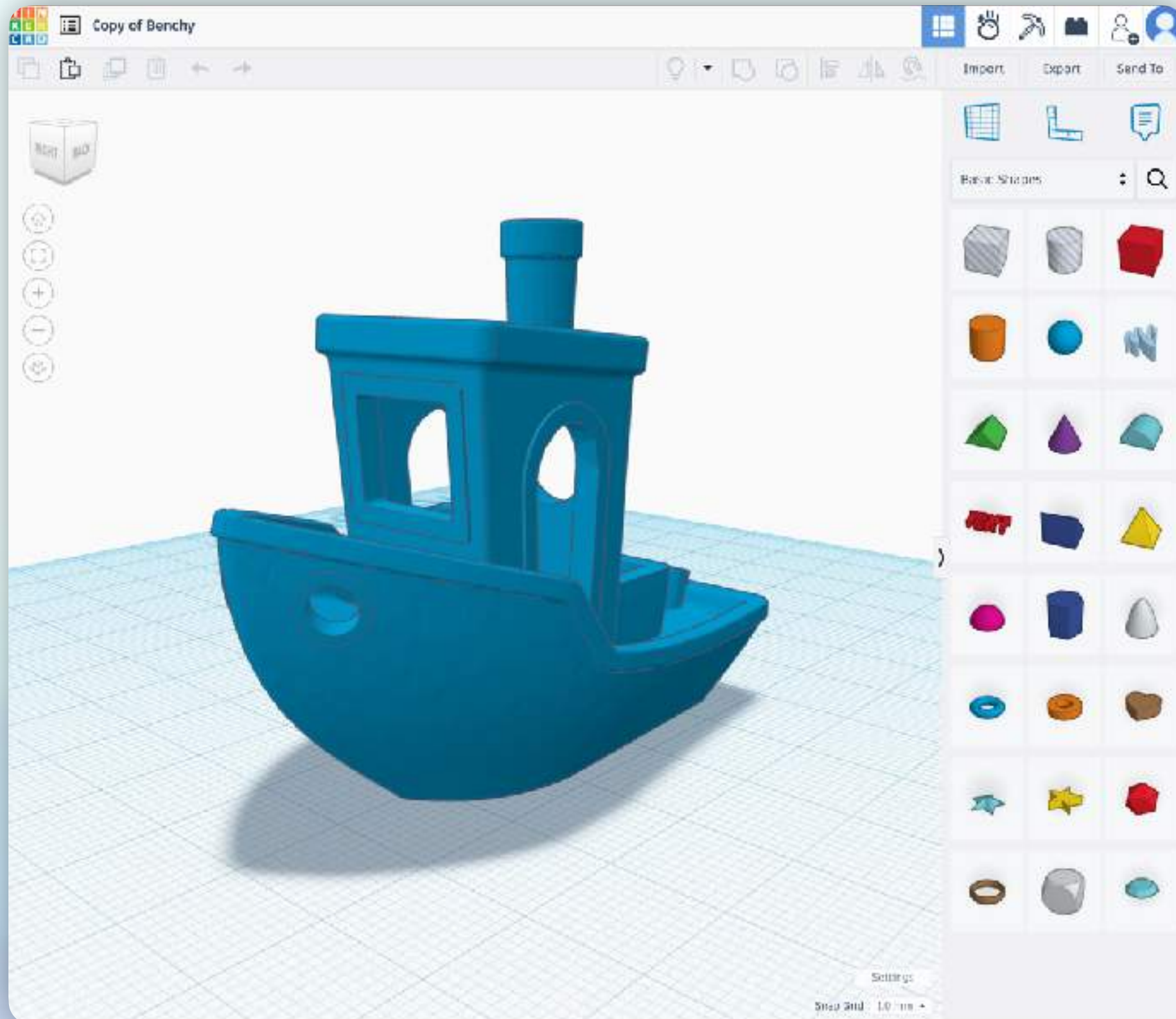
Block C - Session 1

What is a 3d model?

- Digital representation of a 3D object
- For various purposes
 - Game assets
 - Visual effects
 - Engineering
 - 3D printing
- Mass distributable
- No material or physical constraints

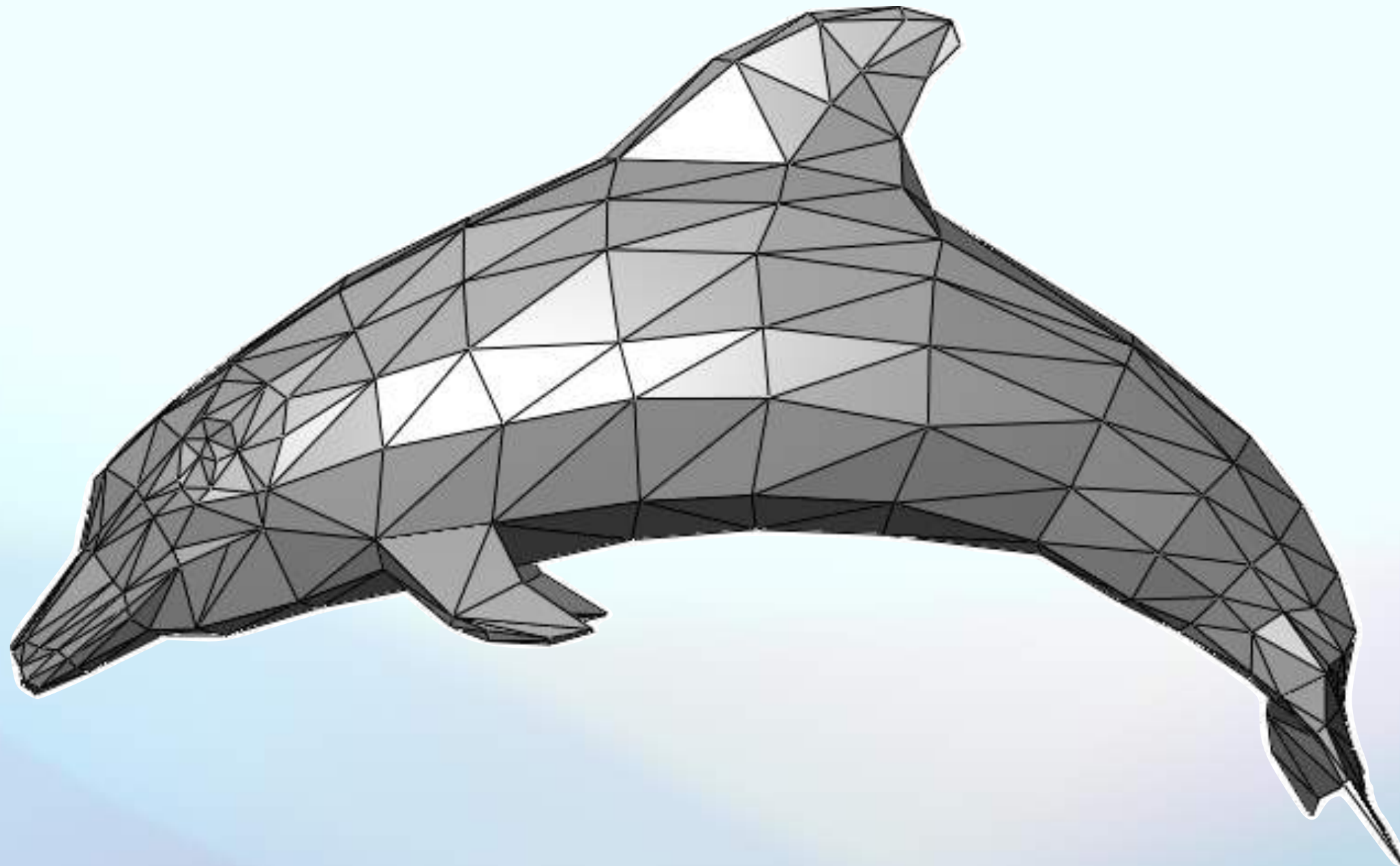


Digital representation of an 3D form



Mesh

- Collection of vertices, edges, and faces that define the shape of a 3D object.

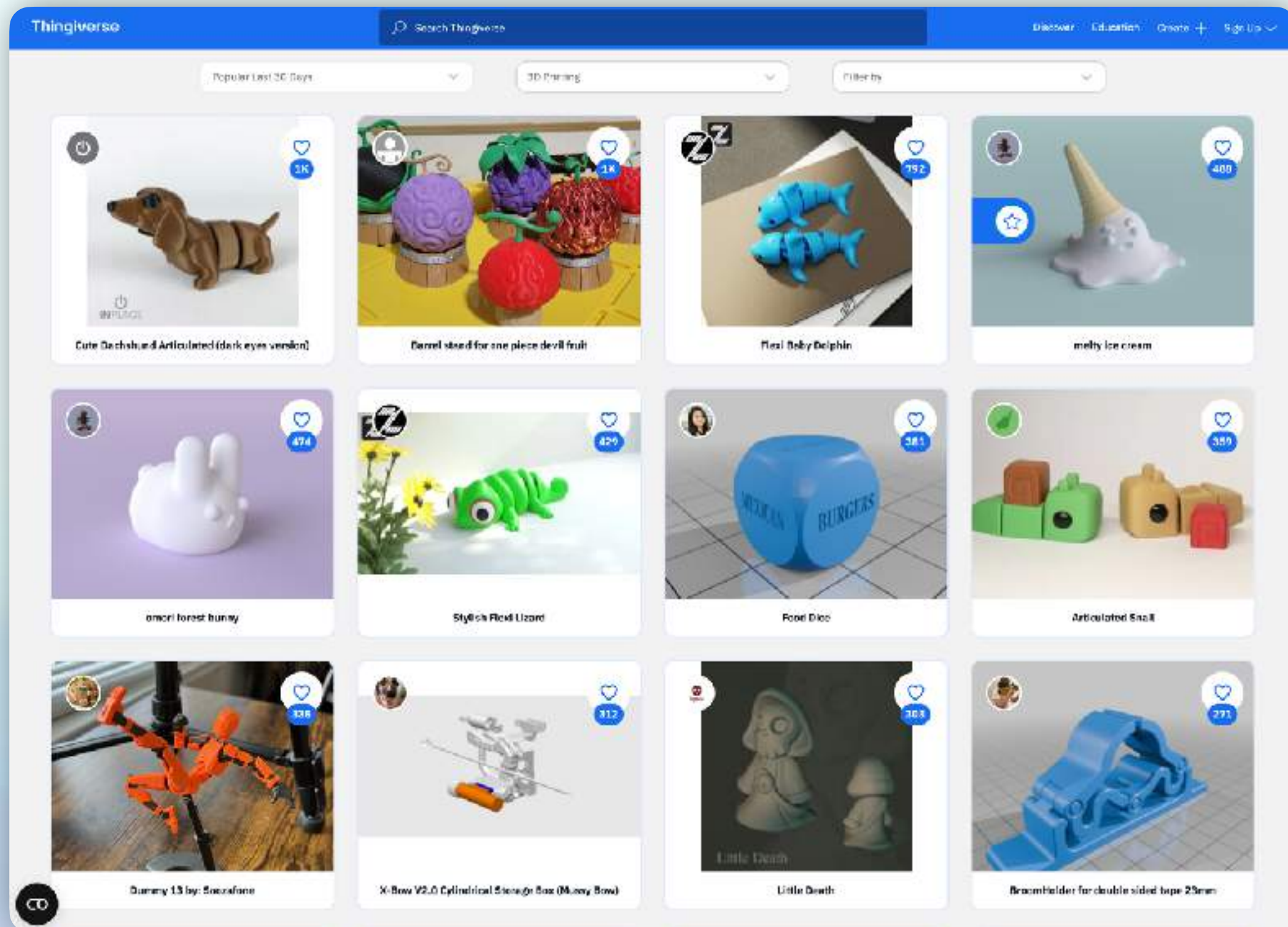


.STL File - Standard Triangle Language



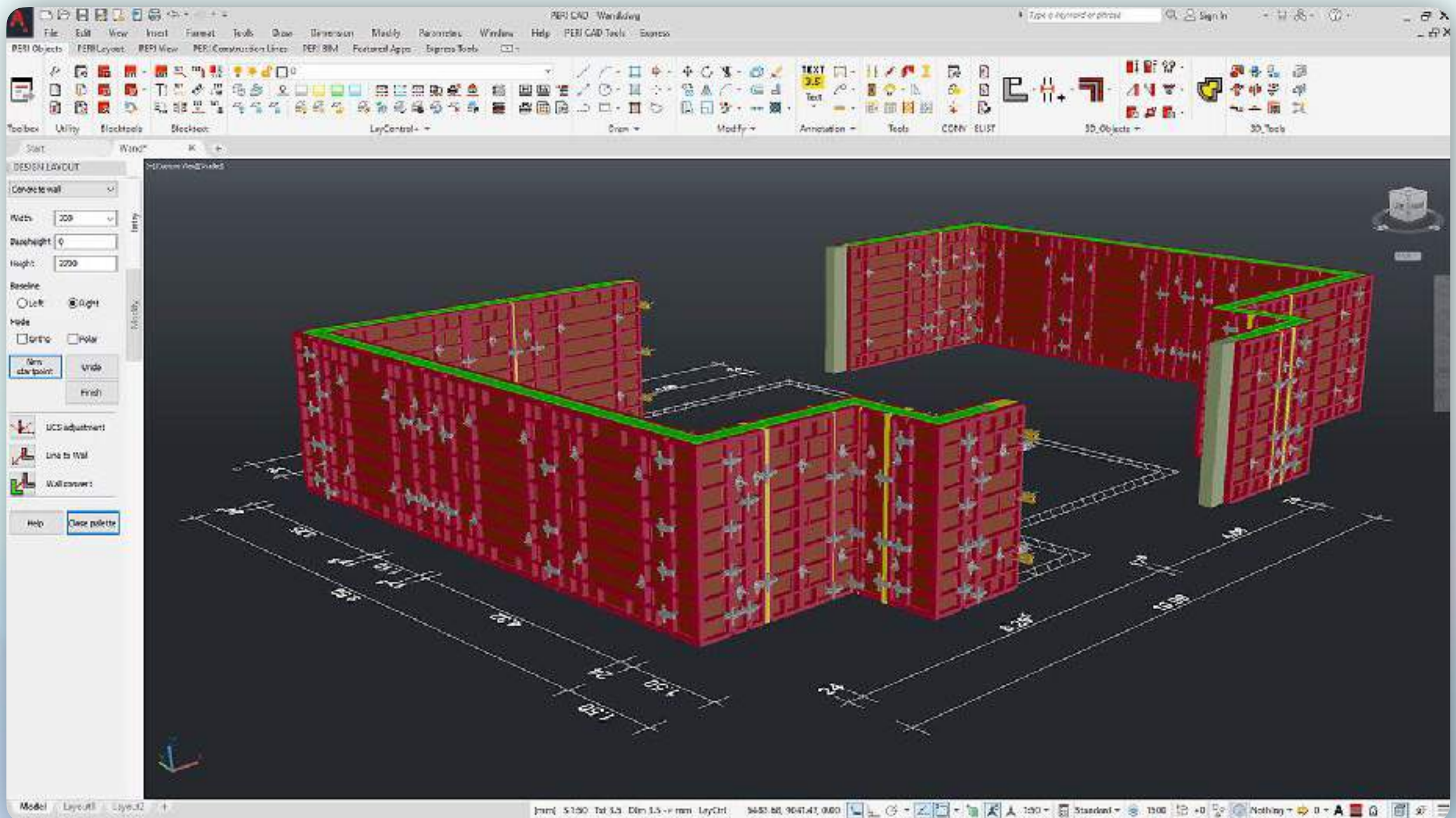
Mass distributable

Game assets, 3D printing



No material or physical constraints

Increased precision - Engineering, Visual effects



3D Modeling programs



AUTODESK®
TINKERCAD®



AUTODESK
Maya



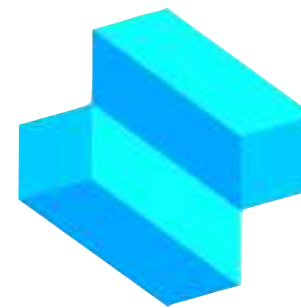
NOMAD



AUTODESK®
FUSION 360™



onshape®



Shapr3D

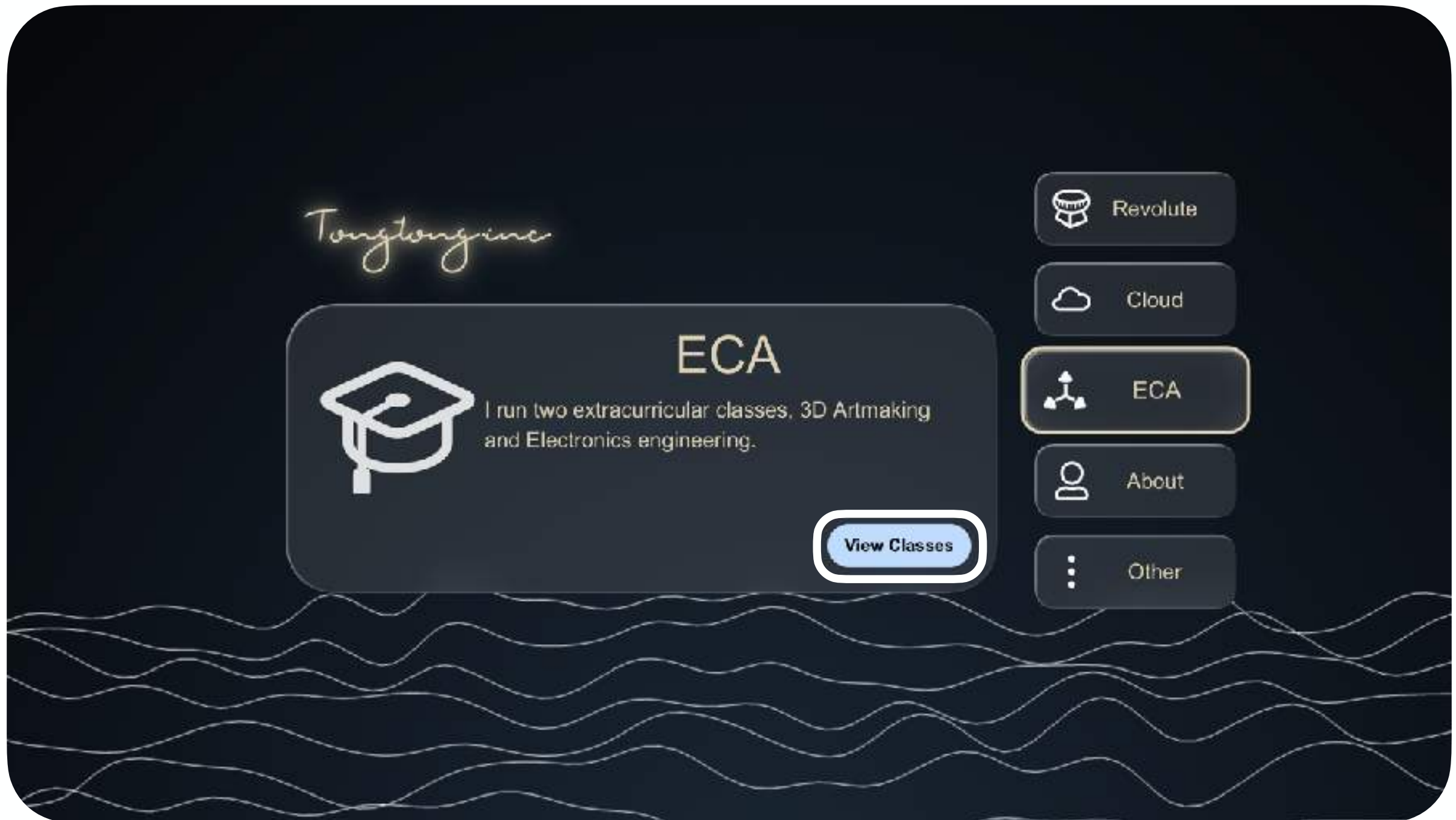


SketchUp



SculptGL

tongtonginc.com



tongtonginc.com

Exploring ECA

3D Art Making

SculptGL

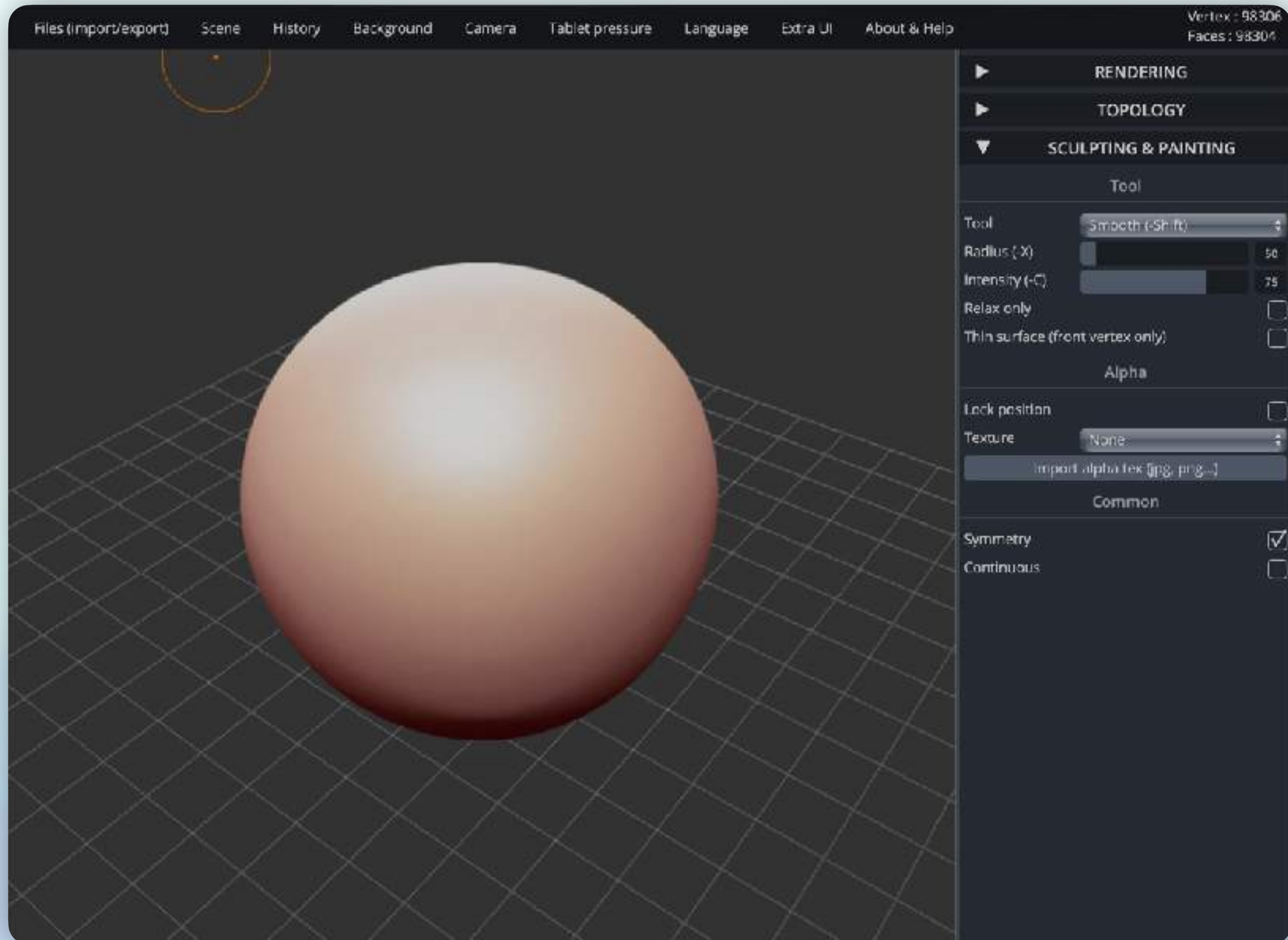
lesson1

Electronics Engineering ECA

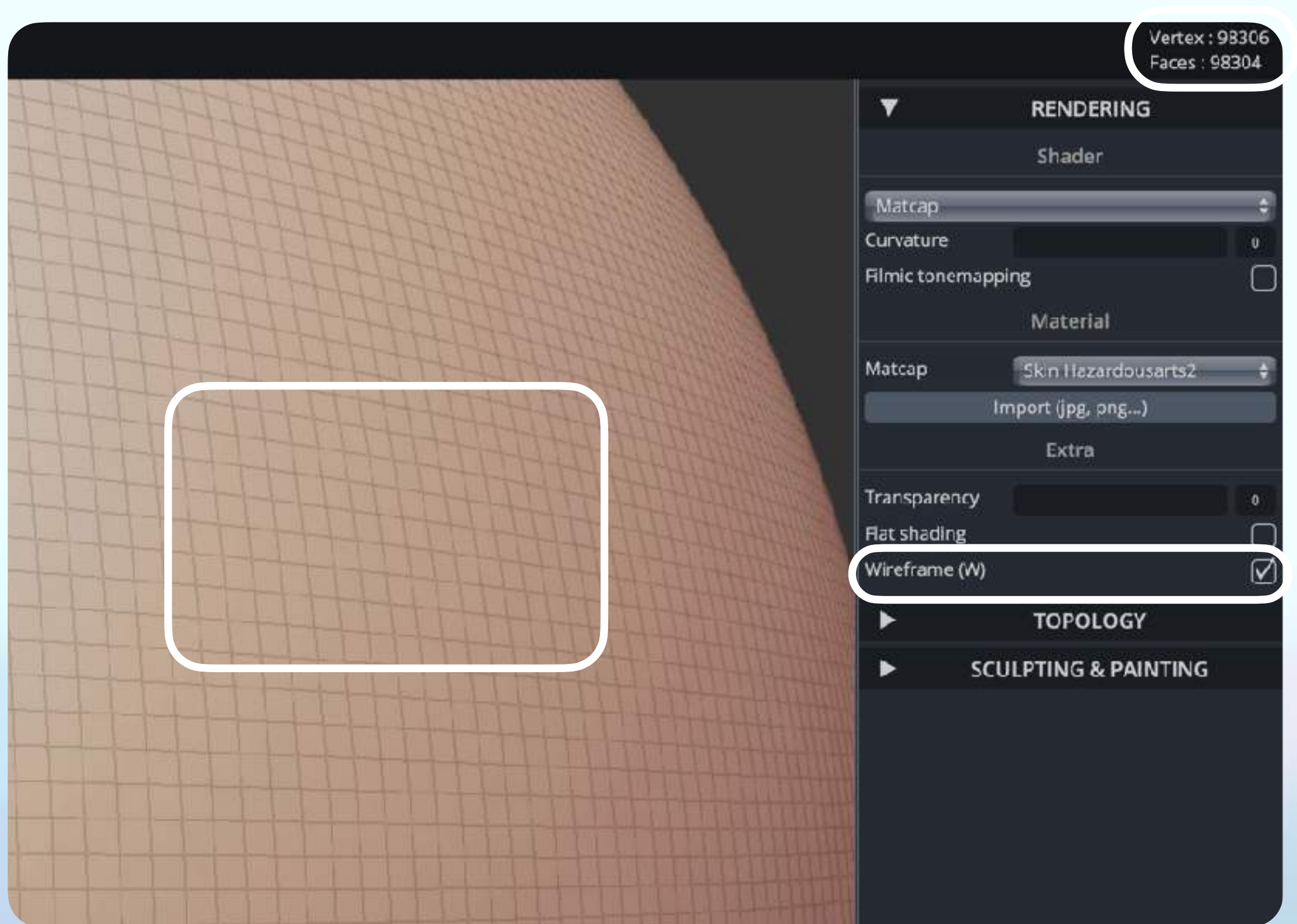
Arduino IDE Download

Lesson 3

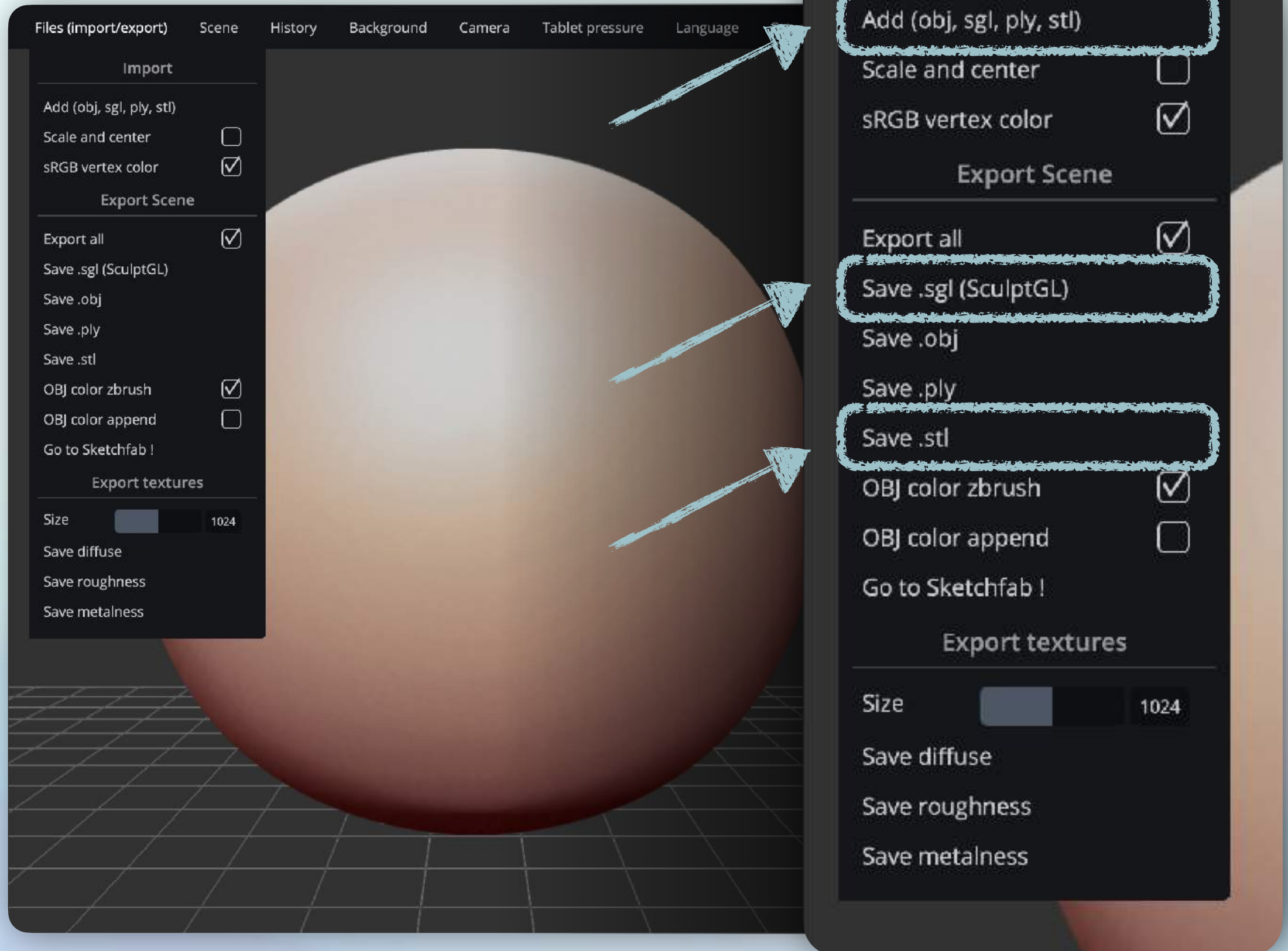
Sculpt GL



Mesh



Save and load



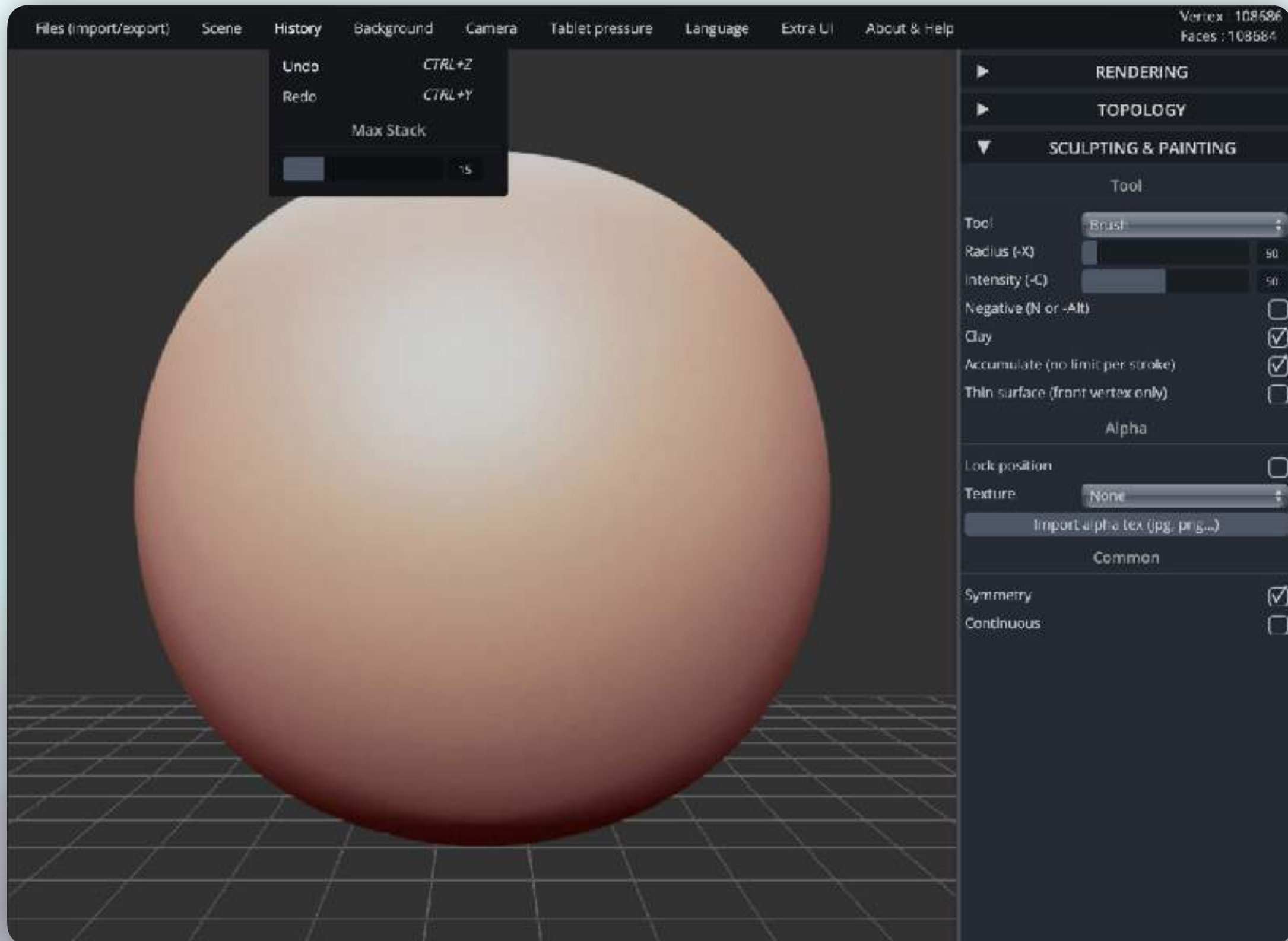
!!!!!! WARNING !!!!!!

THIS WEBSITE DOES NOT AUTO SAVE

YOUR WORK IS GONE IF YOU RELOAD

IN ORDER TO SAVE YOU HAVE TO EXPORT

Undo redo



Undo redo

Scene

History

Background

Camera

Tablet pre

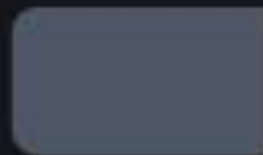
Undo

CTRL+Z

Redo

CTRL+Y

Max Stack



15

Undo red

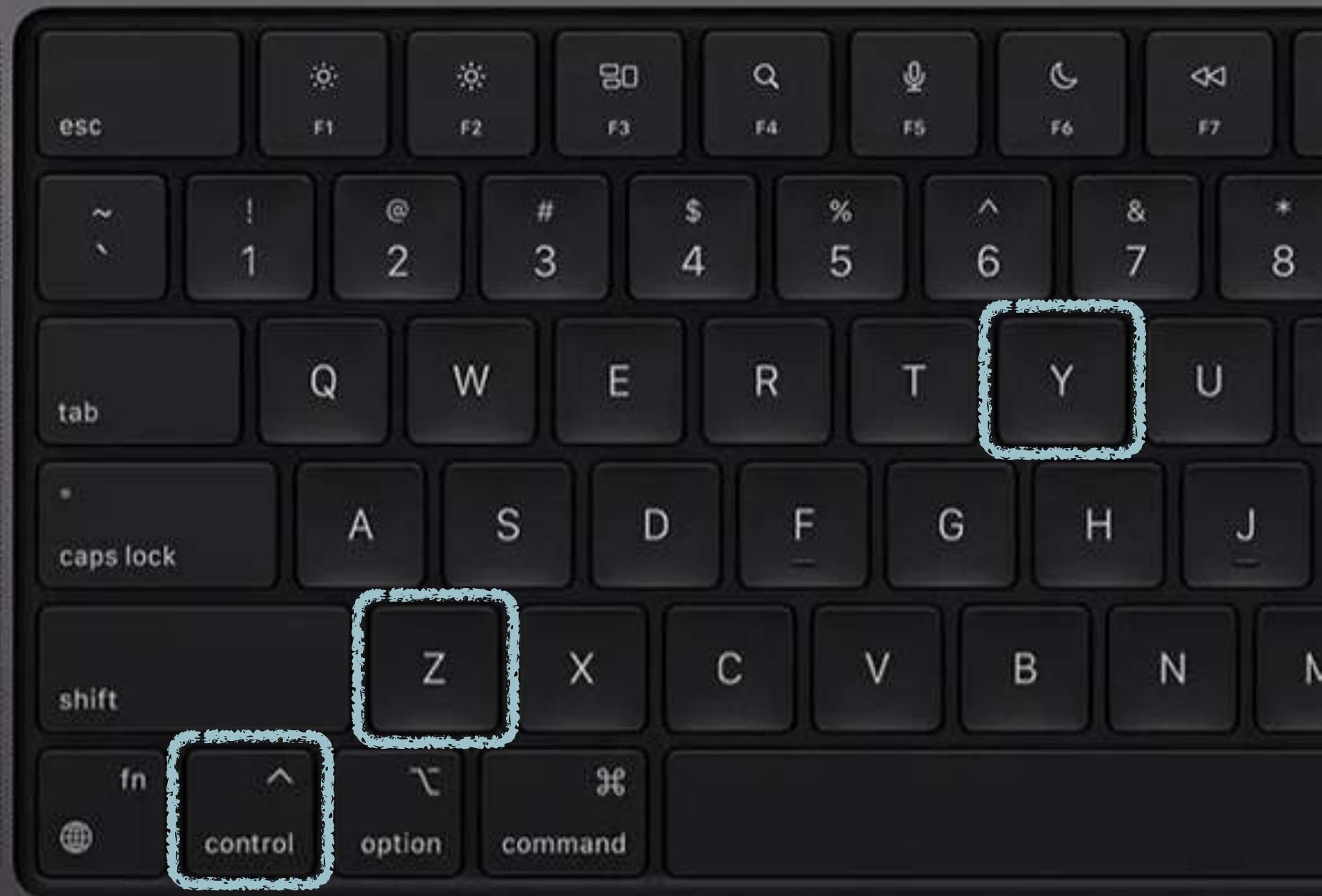
ground Camera

CTRL+Z

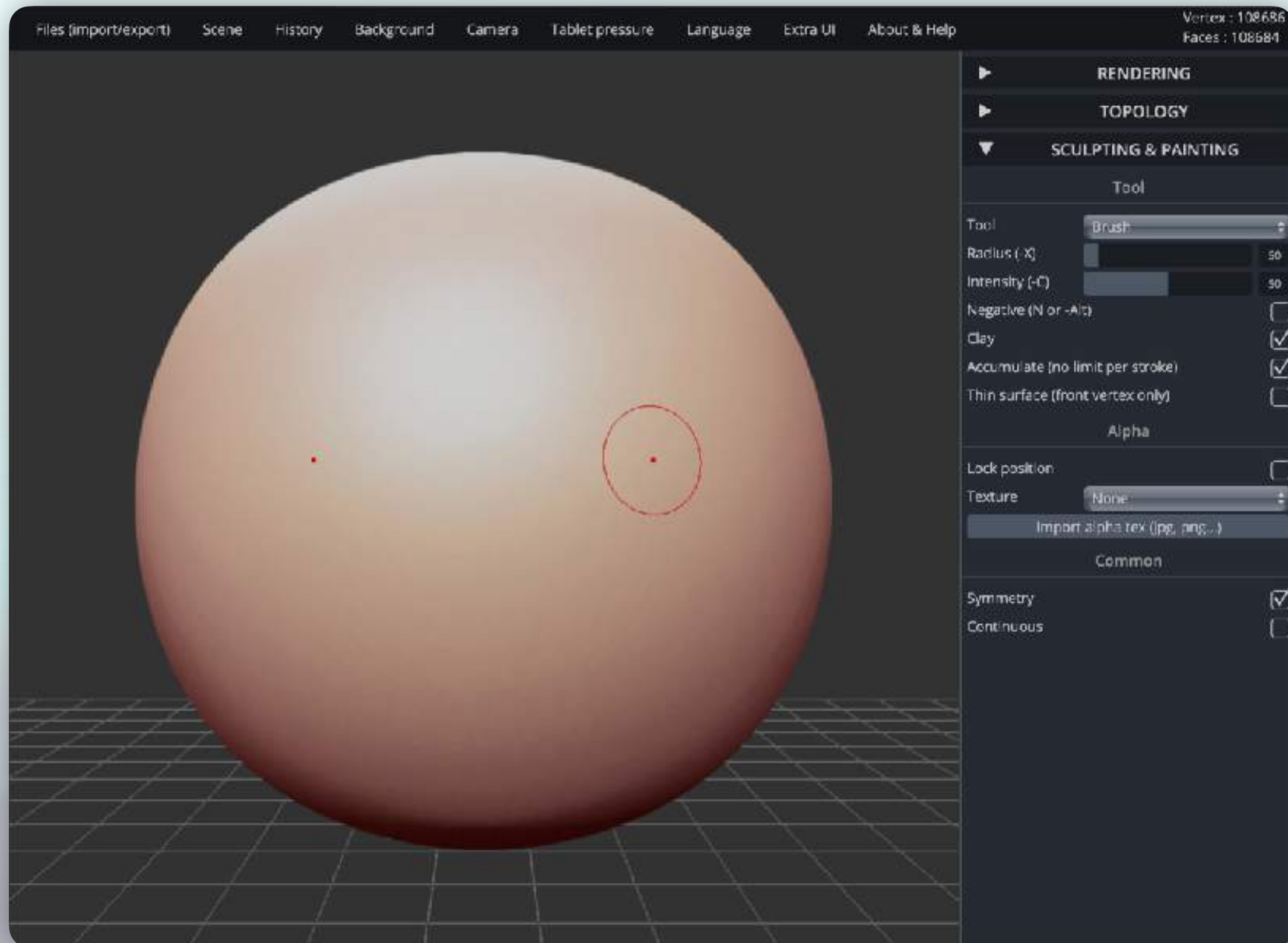
CTRL+Y

Stack

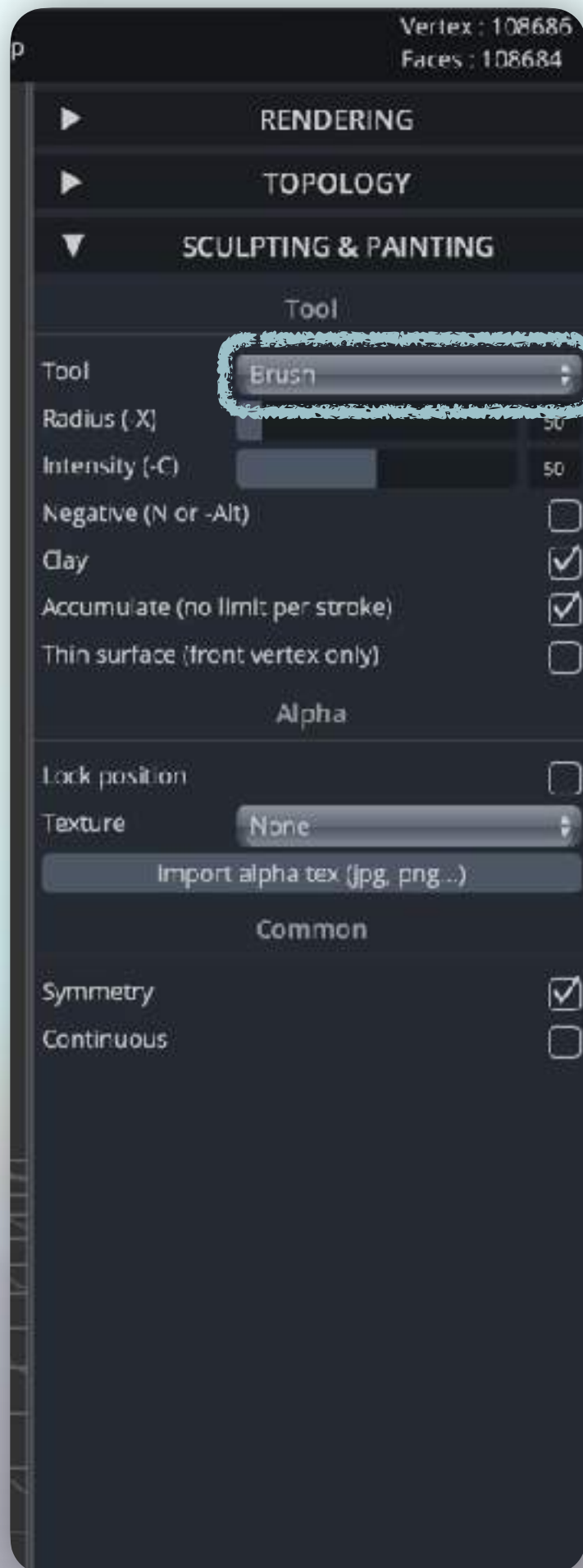
15



Sculpting tools



Sculpting tools



- ✓ Brush
- Inflate
- Twist
- Smooth (-Shift)
- Flatten
- Pinch
- Crease
- Drag
- Paint
- Move
- Masking (-Ctrl)
- Local scale
- Transform (E)

Vertex: 108686
Faces: 108684

▶ RENDERING

▶ TOPOLOGY

▼ SCULPTING & PAINTING

Tool

Tool: Brush

Radius (-X): 50

Intensity (-C): 50

Negative (N or -Alt): ☐

Clay: ☒

Accumulate (no limit per stroke): ☒

Thin surface (front vertex only): ☐

Alpha

Lock position: ☐

Texture: None

Import alpha tex (jpg, png...)

Common

Symmetry: ☒

Continuous: ☐

- ✓ Brush
- Inflate
- Twist
- Smooth (-Shift)
- Flatten
- Pinch
- Crease
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- Local scale
- Transform (E)

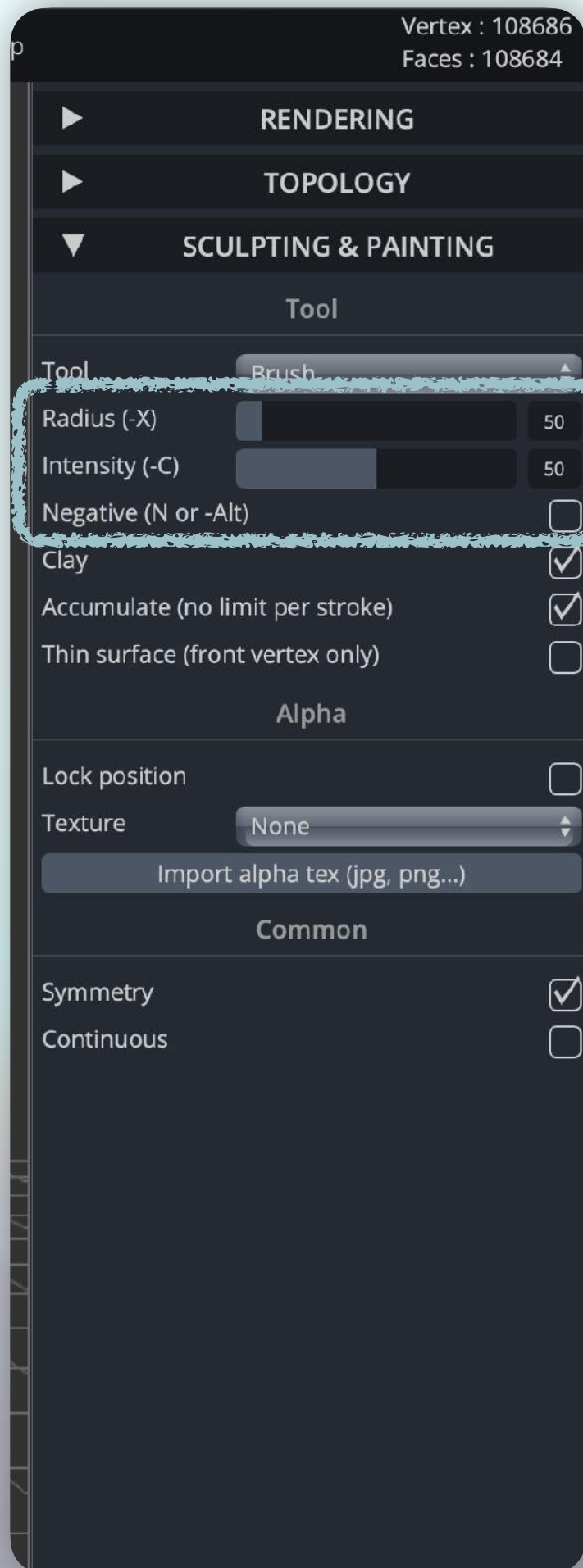
Radius (-X): 50

Intensity (-C): 50

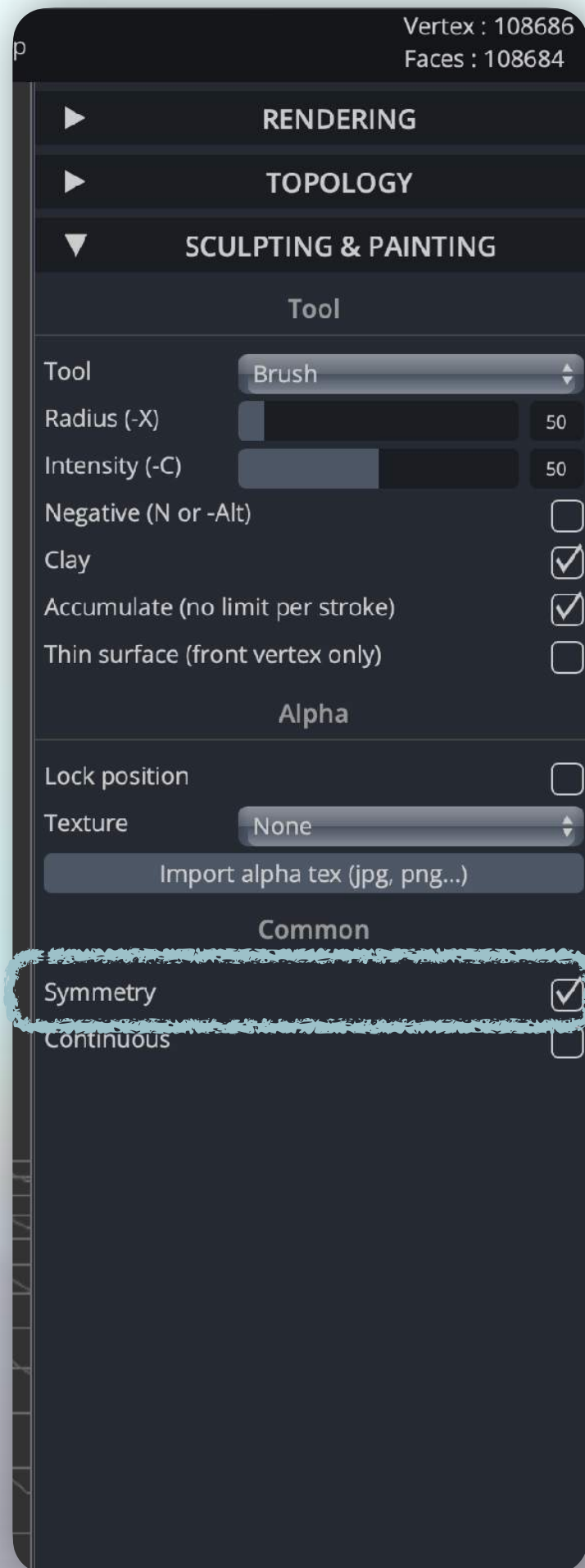
Negative (N or -Alt): ☐

Symmetry ☒

Sculpting tools



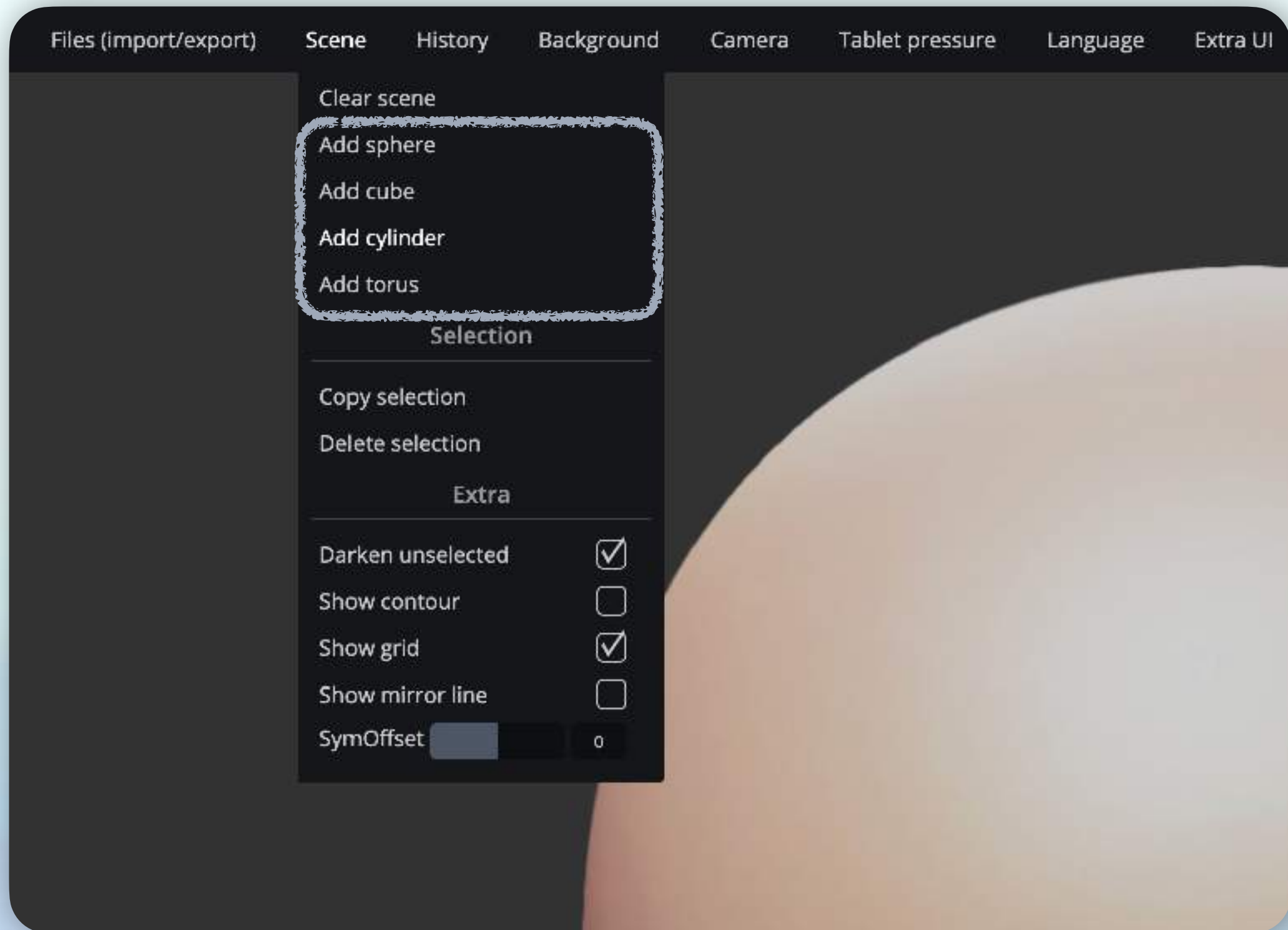
Sculpting tools



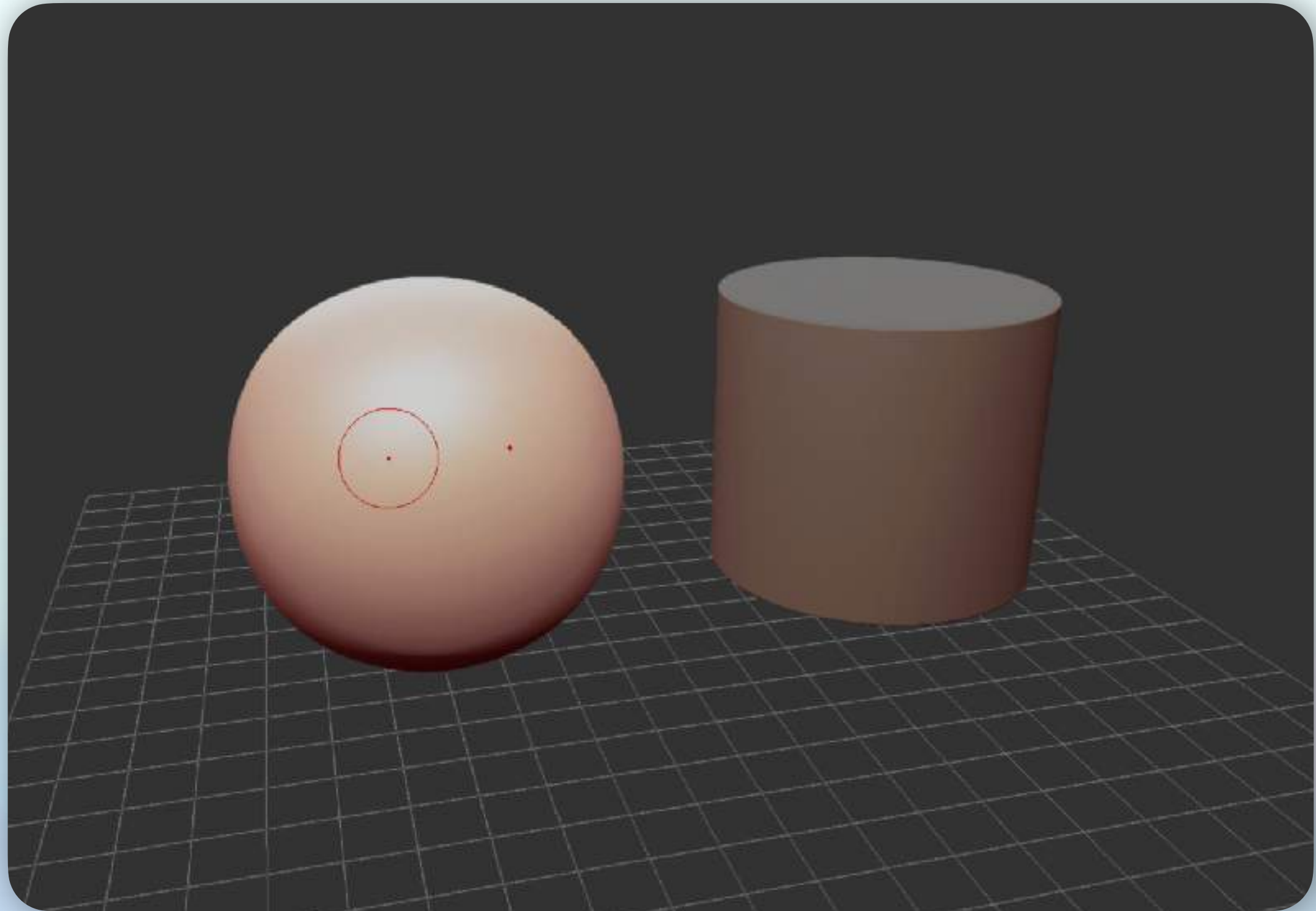
Symmetry



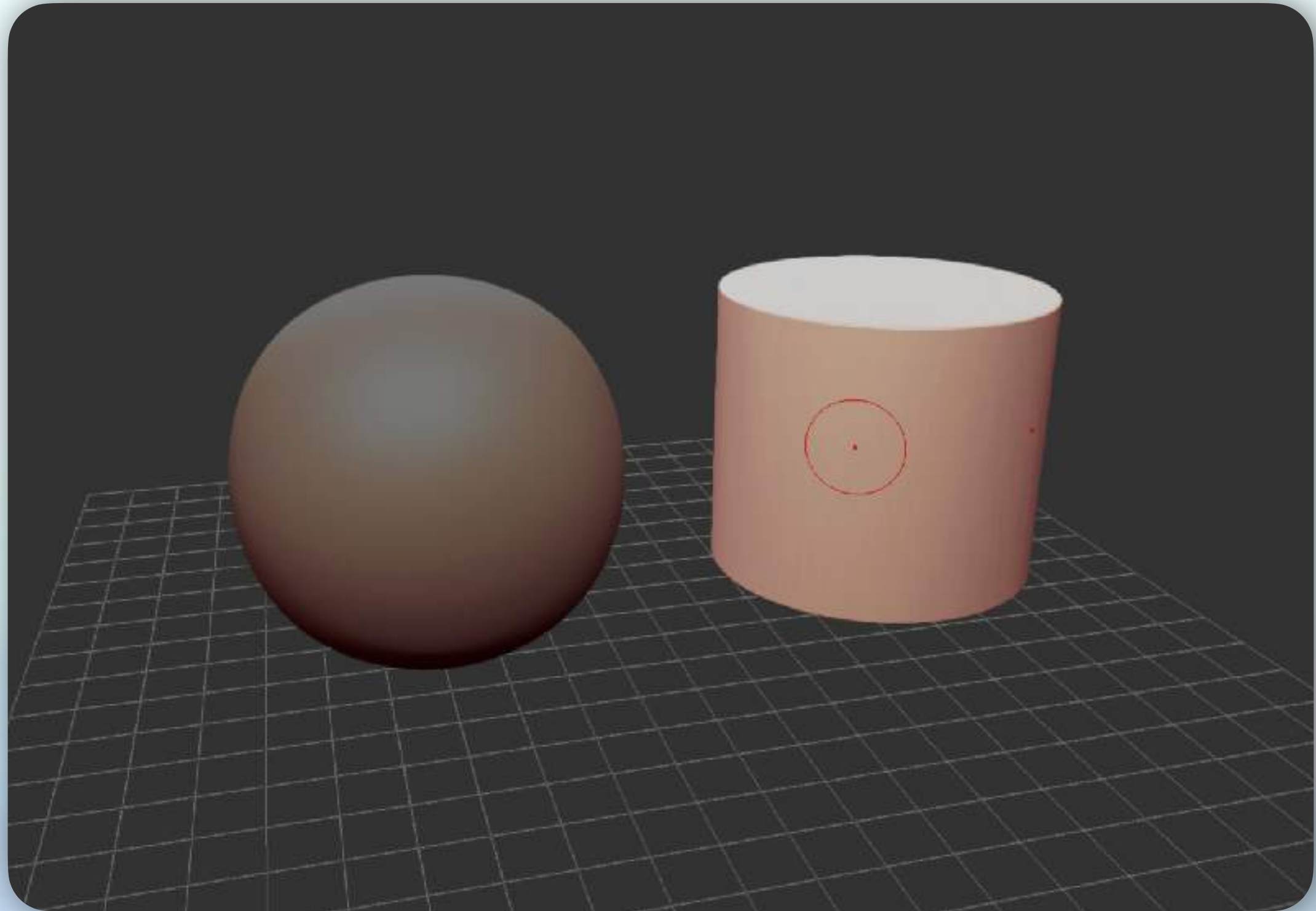
Adding new shapes



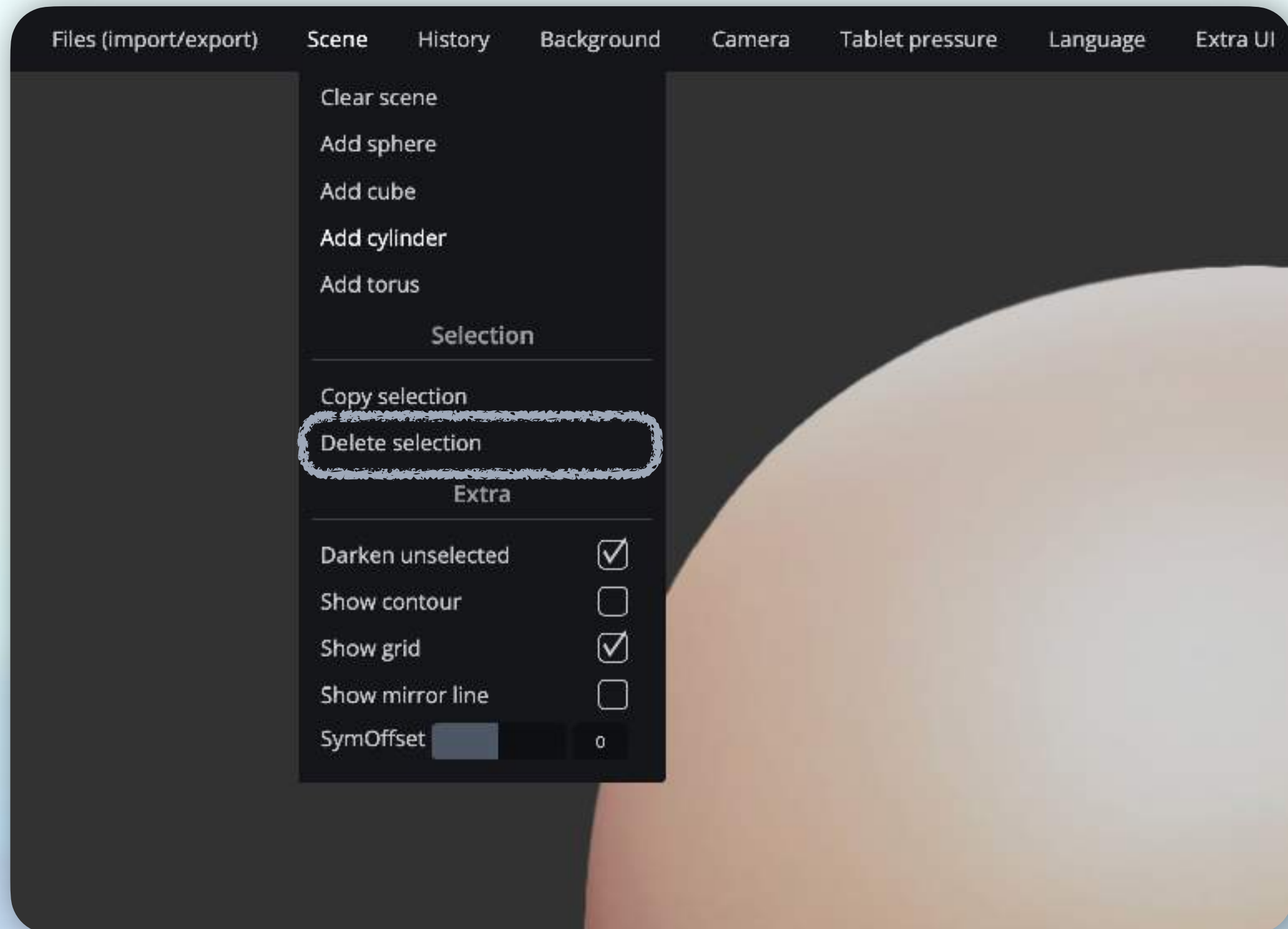
Selecting objects



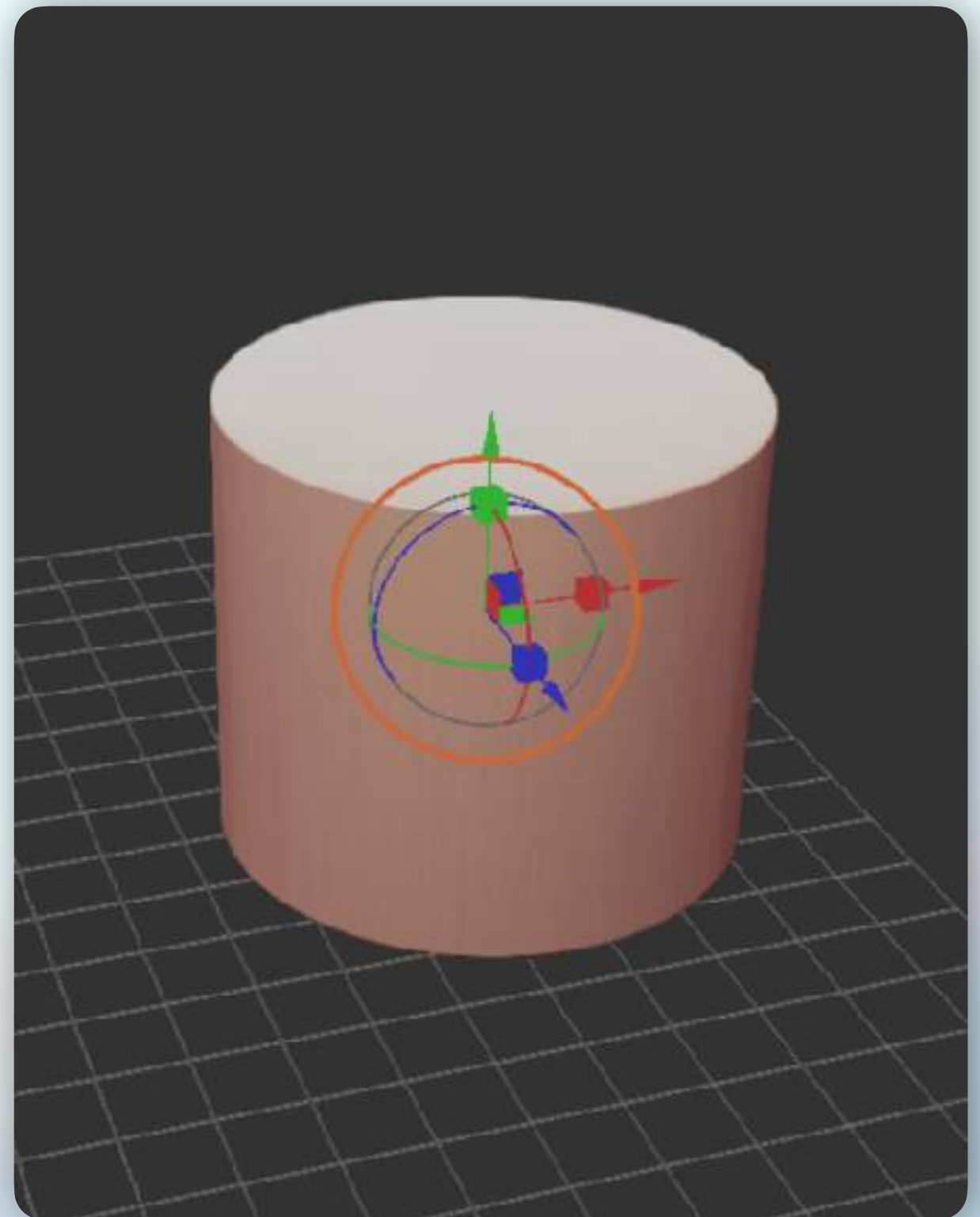
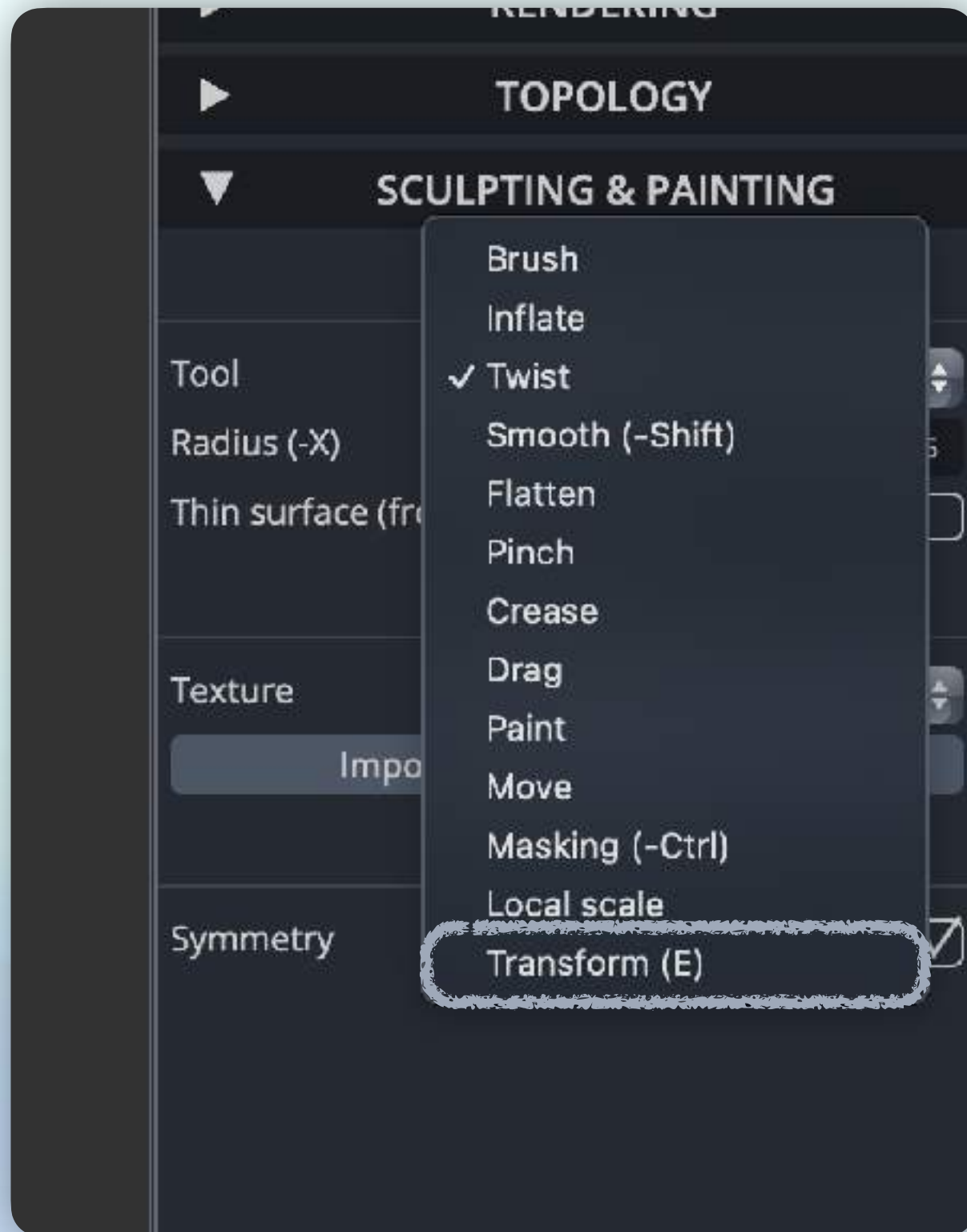
Selecting objects



Removing objects



Transform tool



3D Sculpting Timelapse



https://www.youtube.com/watch?v=abJga-xZA_o

