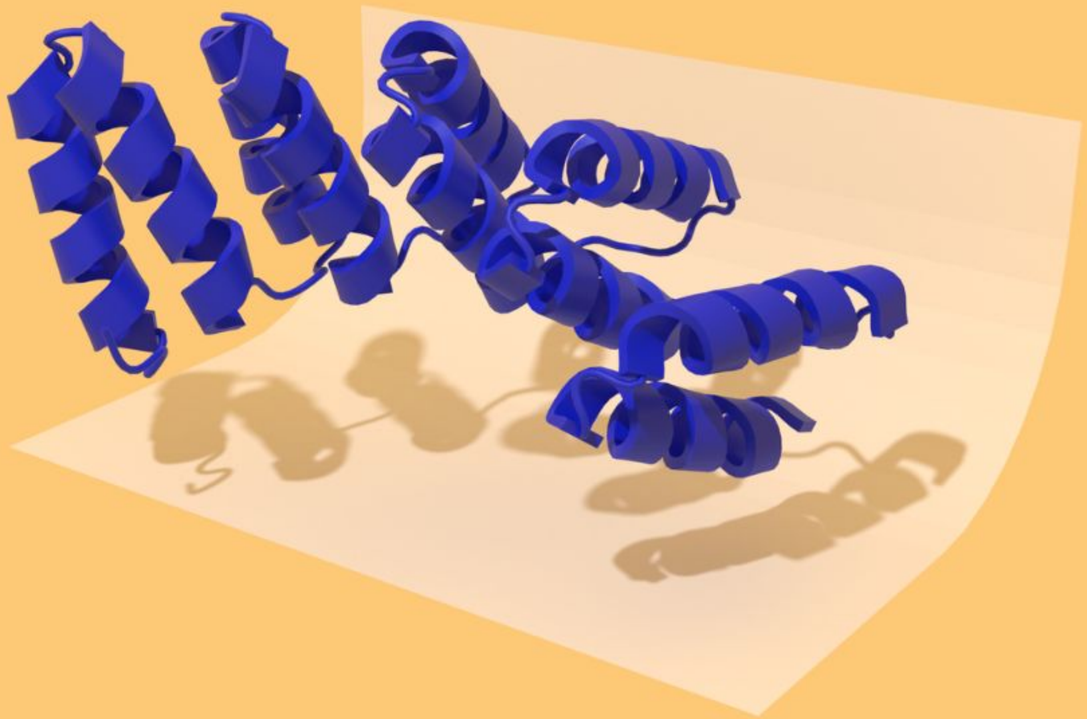
blender



Instructor: **Jan-Hendrik Müller**

Language: **English**

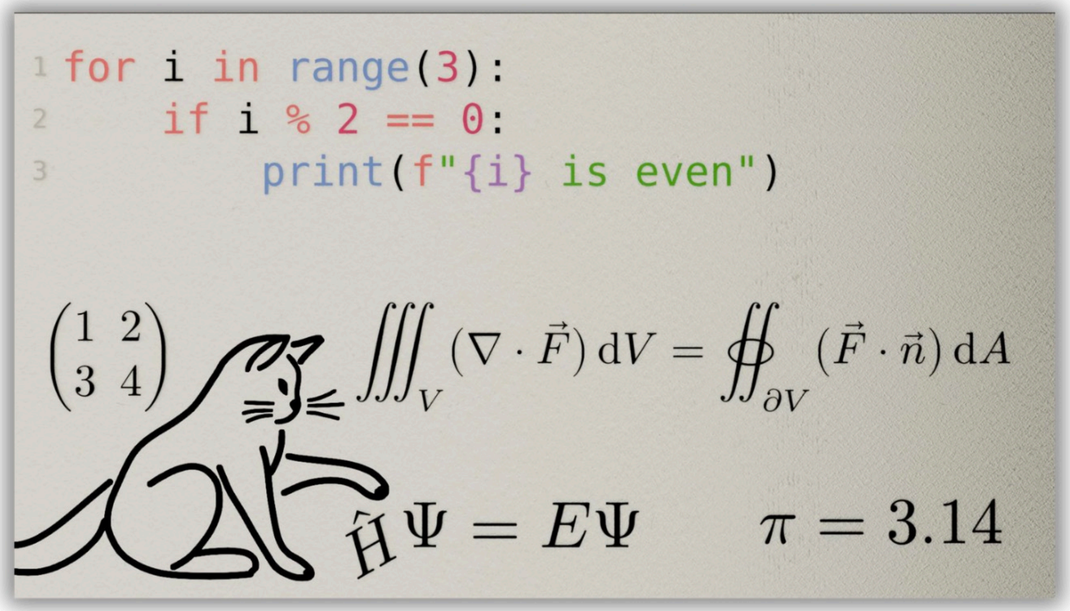
BLENDER COURSE

A first entry into 3D design, shading, and scientific animation.

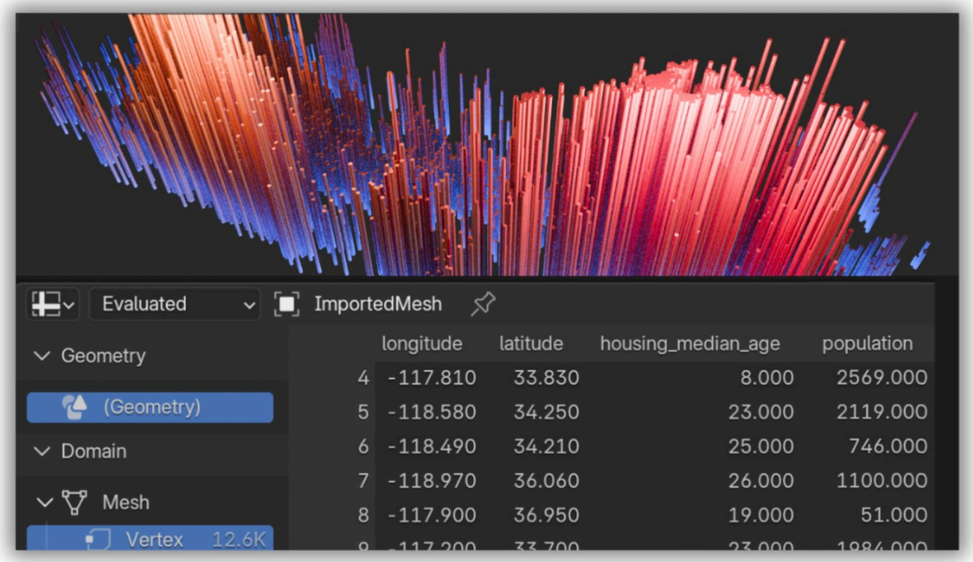
21–22 AUGUST, 2025

9:00 -17:00

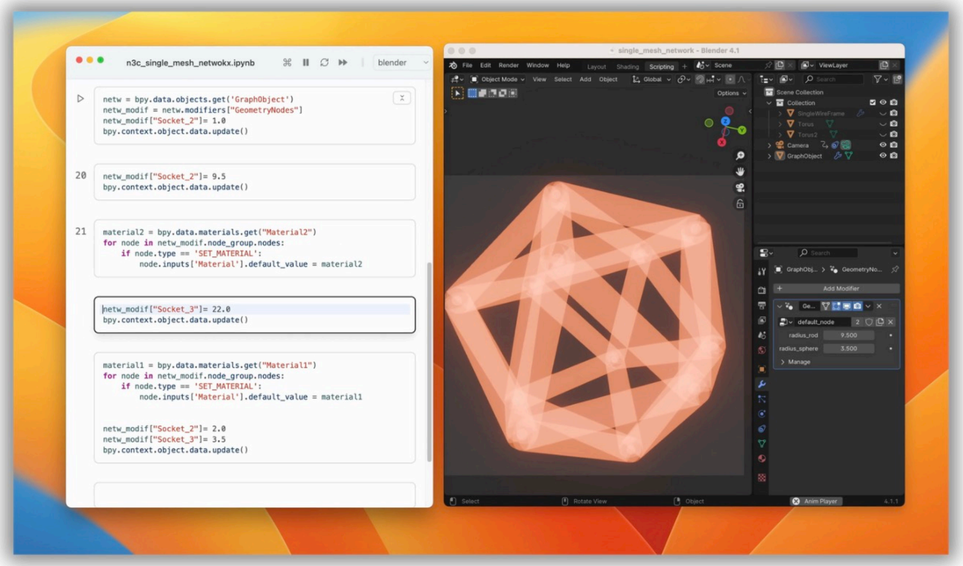
About me



https://extensions.blender.org/add-ons/typst-importer/



https://extensions.blender.org/add-ons/csv-importer/



https://github.com/kolibril13/bpy-gallery

Blender in 100 seconds

About this course

- No academic credits (ECTS) will be awarded for this course.
- A certificate will be delivered to participants who have attended the whole training

Code Of Conduct

Blender workshop

DataViz MeetUp Hamburg Code of Conduct

With the DataViz MeetUp Hamburg we want to create an inclusive and welcoming environment for everyone involved. We want to ensure a harassment-free experience at our events as well as in our online community. Therefore, we expect all attendees, speakers, or online contributors in our DataViz MeetUp Hamburg group as well as at our events to adhere to the following policy.

Our Policy

We do not tolerate harassment in any form. Harassment includes but is not limited to:

- Discriminatory language or imagery that targets gender, gender identity and expression, disability, age, sexual orientation, physical appearance, body size, race, ethnicity, religion, or technology choices.

- Displaying sexual images in public spaces.

- Intimidation, bullying, stalking, following, unwanted photography or recording.

- Sustained disruption of talks or other activities.

- Inappropriate physical contact or unwelcome sexual attention.

Participants who violate these guidelines may be sanctioned or asked to leave the event or group at the discretion of the DataViz MeetUp Hamburg event organizers or group admins.

Reporting Concerns

If you experience or witness any behavior that makes you feel uncomfortable, we encourage you to report it to a member of our team. If you feel comfortable, you may speak directly with one of our organizers, who will be introduced at the start of each event. The group admins can also be reached via direct message on the MeetUp channel, if you prefer to approach us online. Of course, you may also ask a trusted individual at the event to report on your behalf.

Our team is committed to addressing issues promptly and thoughtfully, so please reach out to us if you have any concerns.

Schedule

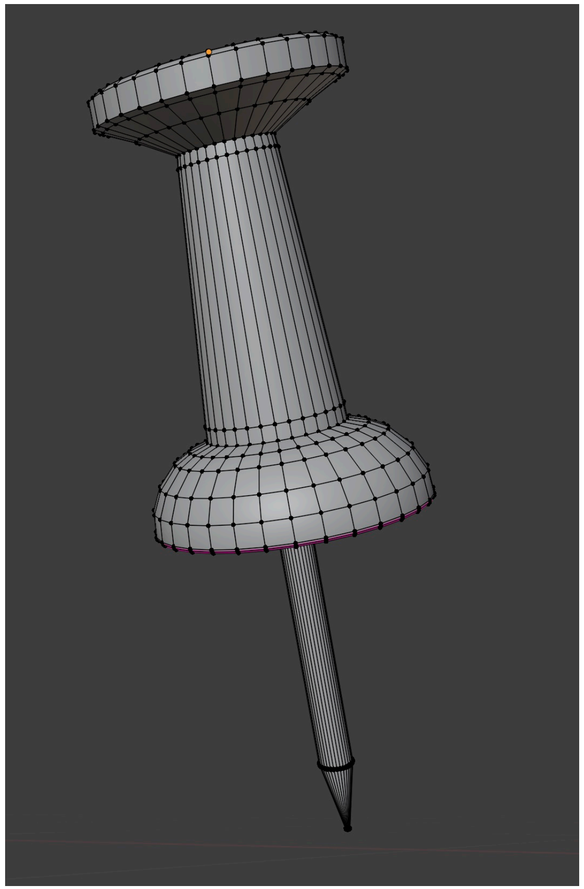
Blender for Scientific Animation: 21-22.8.2025

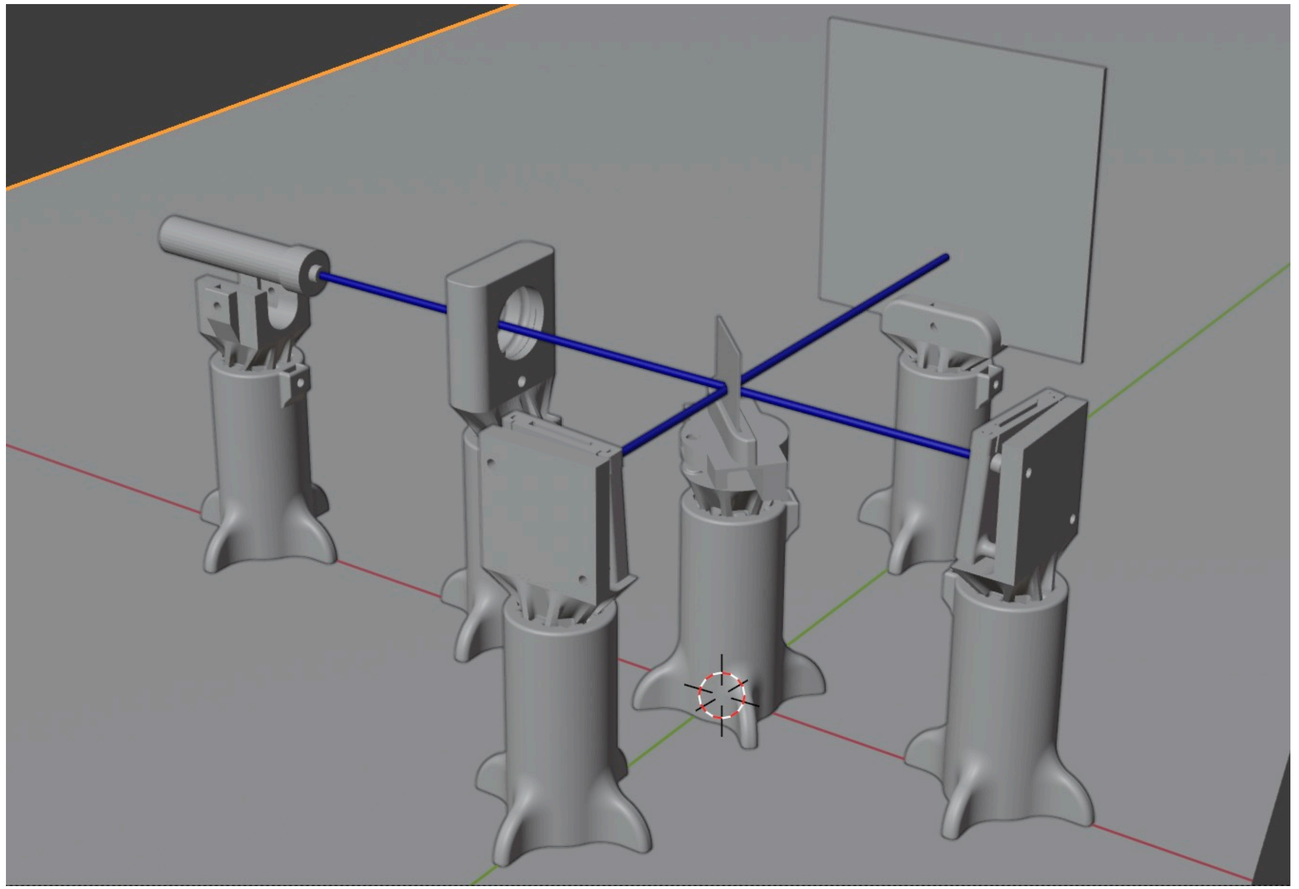
Time	Thursday	Friday
9:00	Blender-Intro	Geometry Nodes
10:00	UI Navigation & Mesh Manipulation	
11:00		
12:00		
13:00	Lunch break	
14:00	Material & Light	Scientific Extensions
15:00		
16:00		
17:00	Course Ends at 17:00	

Course Impressions

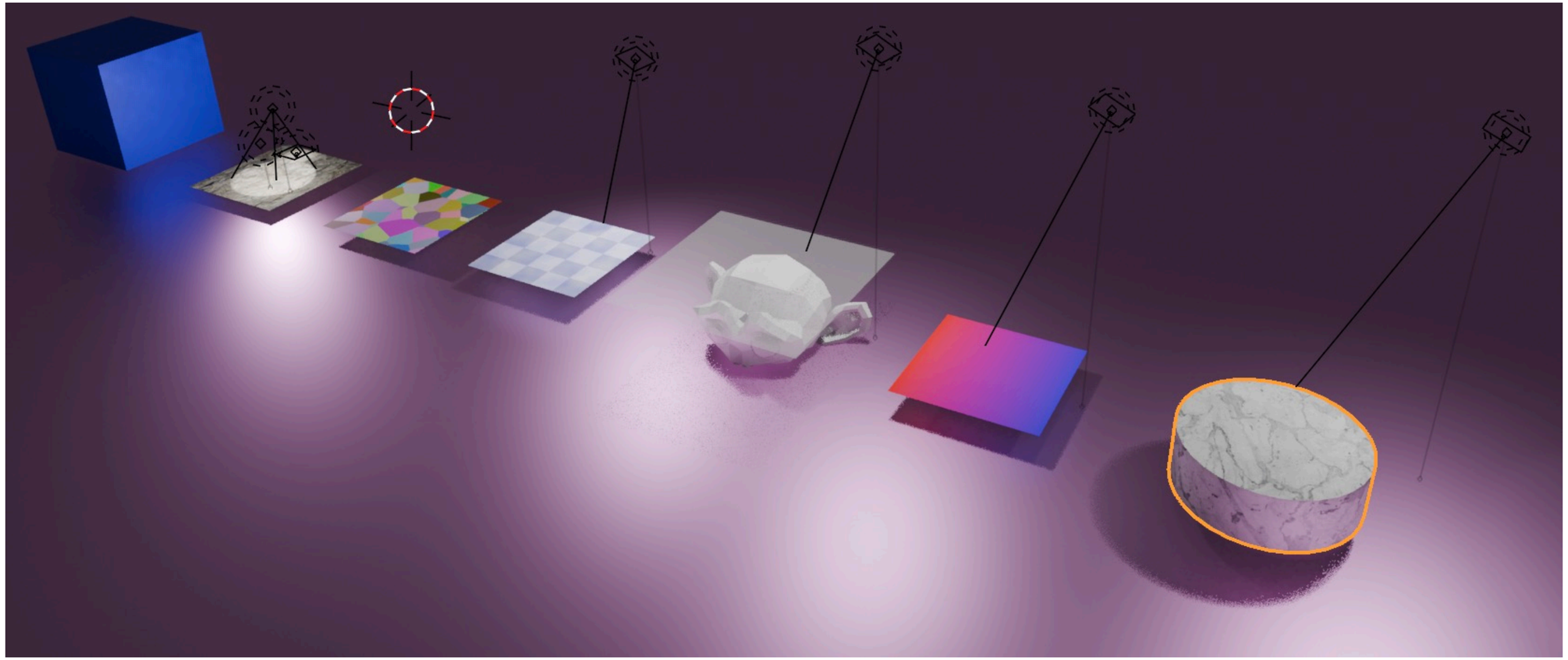
Course Content

Interface and mesh manipulation

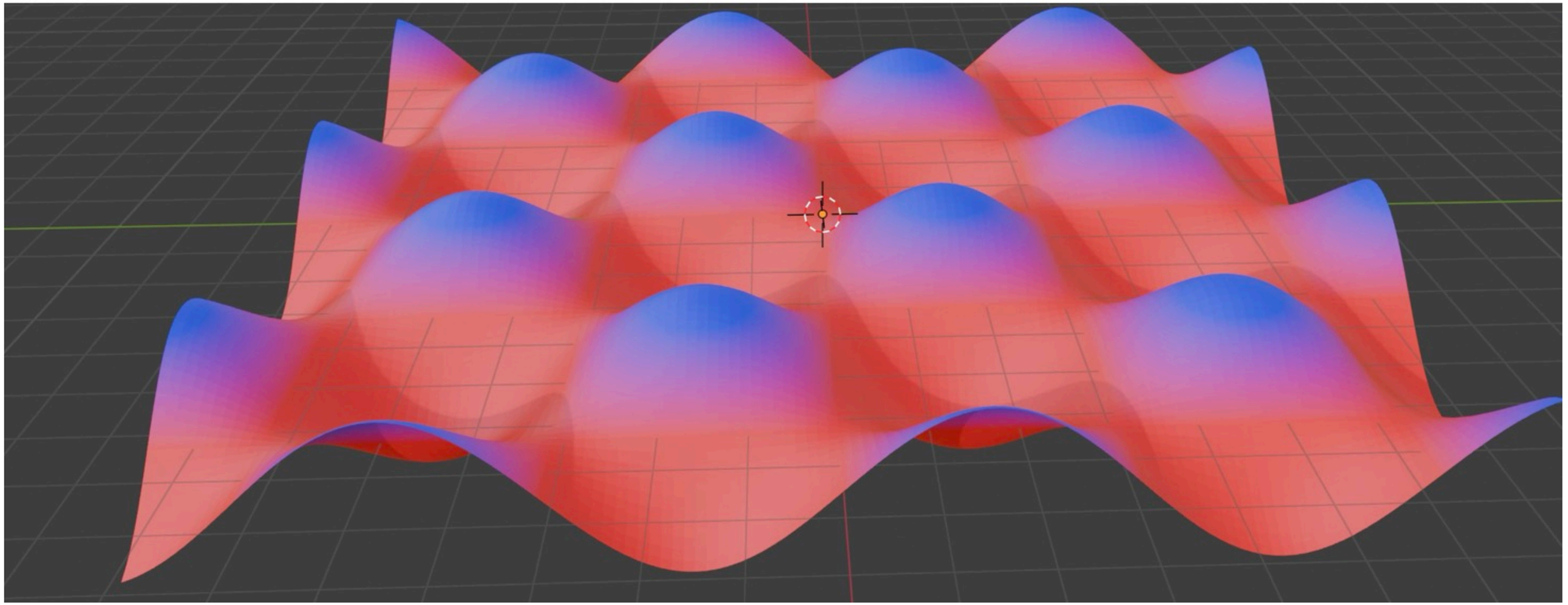


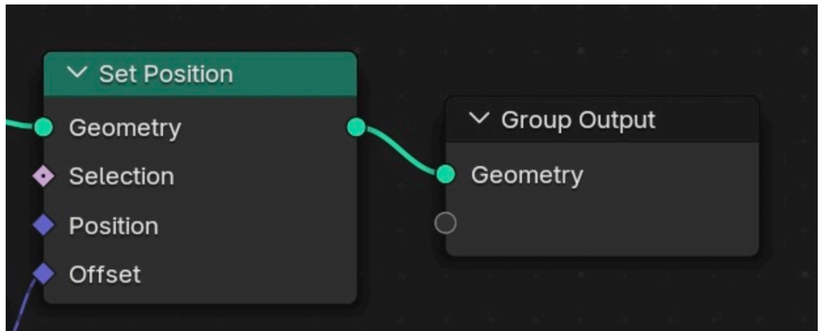


Shader and Light

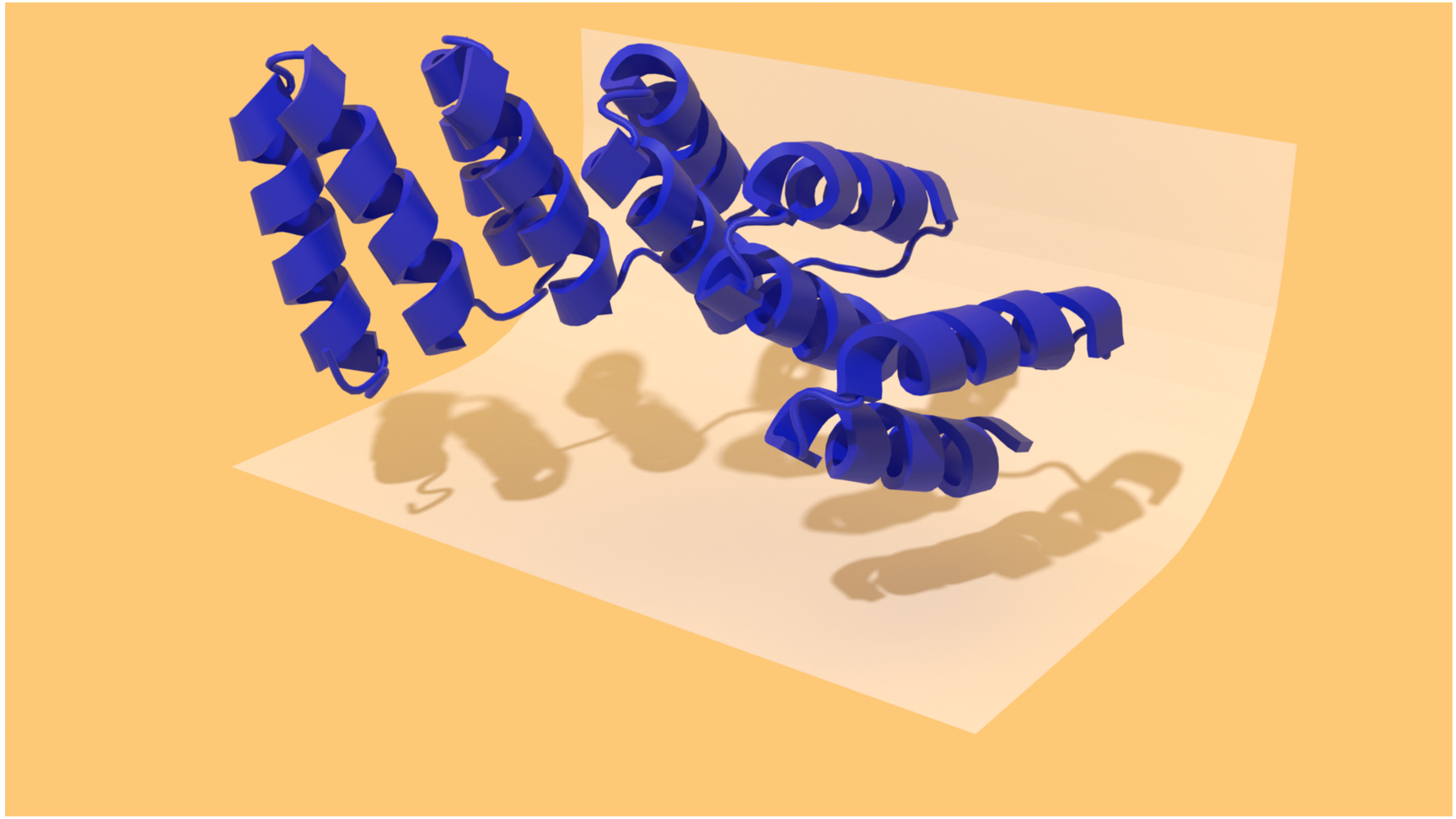


Geometry Nodes





Scientific Extensions



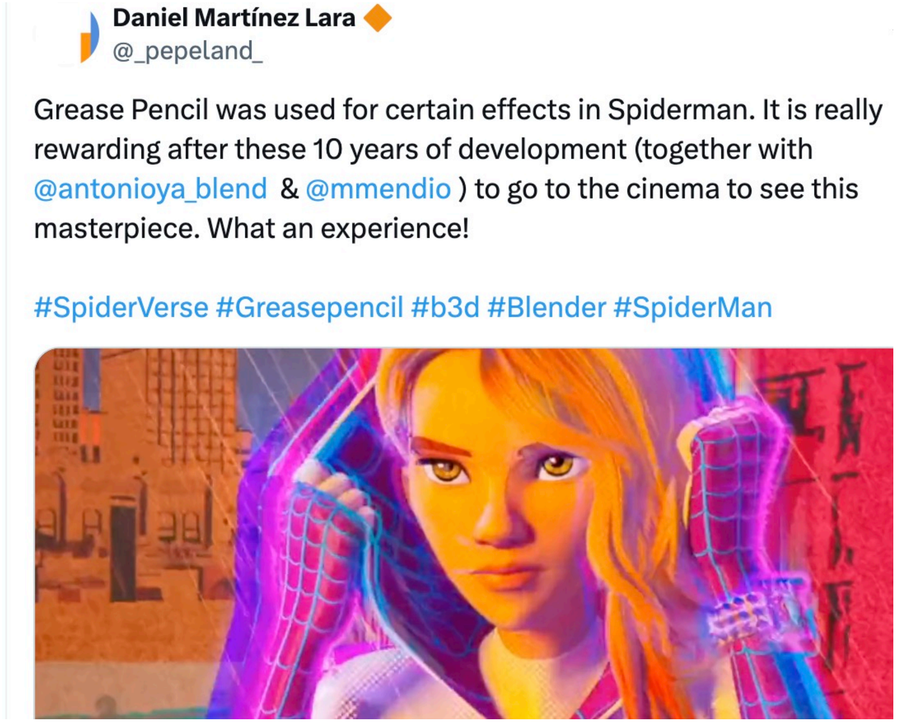
Requirements

- Blender 4.5.1: https://www.blender.org/download/
  (Blender 4.5.2 released yesterday, will work as well)
- (Optional) PureRef: https://www.pureref.com/
- Laptop
- Mouse

Why learn Blender?

Movies


r/blender · 5 mo. ago
babuloseo
Flow was made with Blender and just won an Oscar.
News & Discussion
"A WONDROUS TRIUMPH." CHRISTIAN BLAUVELT, IndieWire
FESTIVAL DE CANNES 2024 OFFICIAL SELECTION UN CERTAIN REGARD
"SIMPLY STUNNING." DAVID FEAR, RollingStone
"A JOY TO EXPERIENCE." DAVID ROONEY, The Hollywood
Flow
A FILM BY GINTS ZILBALODIS
OFFICIAL ENTRY · LATVIA · BEST INTERNATIONAL FEATURE FILM
97TH ACADEMY AWARDS
17K
306
1
Share
Report


Daniel Martínez Lara
@_pepeland_
Grease Pencil was used for certain effects in Spiderman. It is really rewarding after these 10 years of development (together with @antonioya_blend & @mmendio) to go to the cinema to see this masterpiece. What an experience!
#SpiderVerse #Greasepencil #b3d #Blender #SpiderMan

Games

Concept Art for Star Citizen — Blender Conference 2024

Blender
1.2M subscribers
Subscribed
2.2K
Share
Download
Clip
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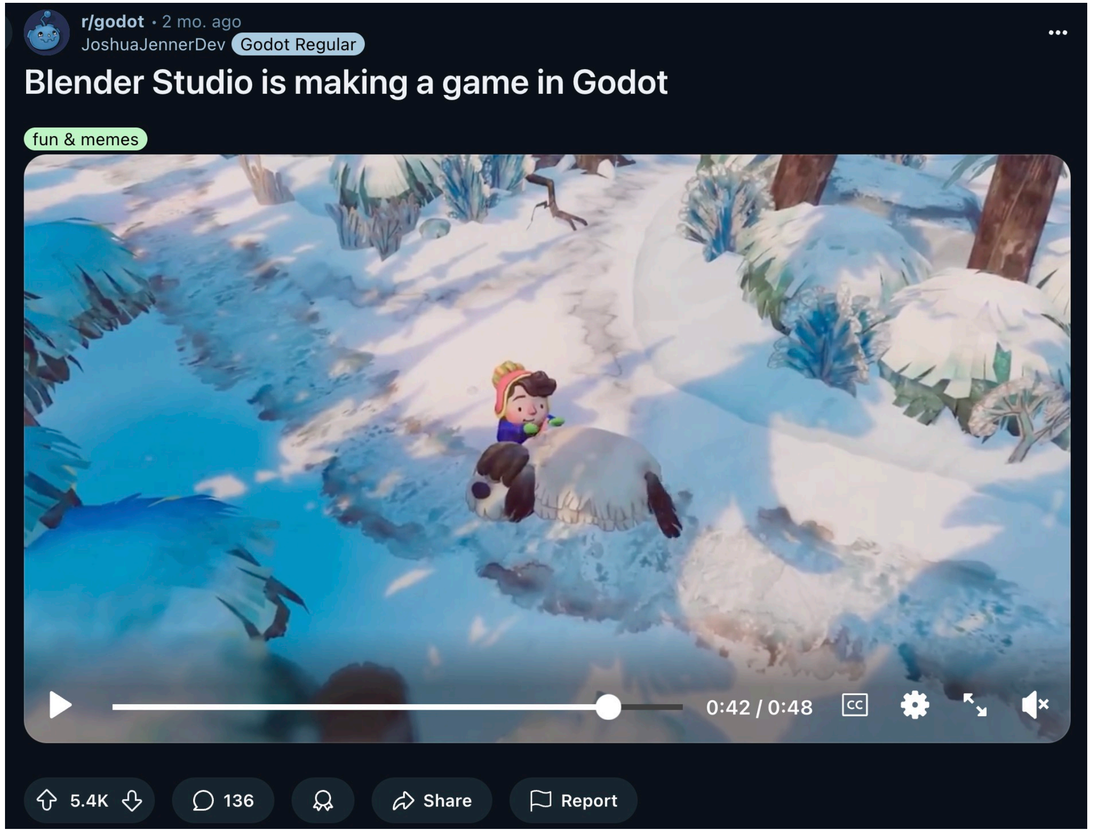
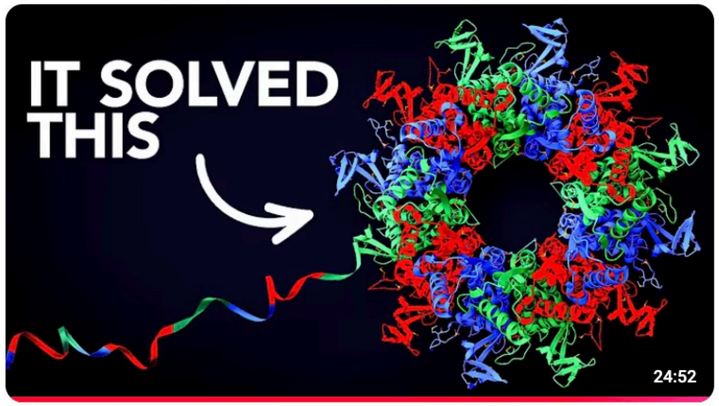


Science



AlphaFold - The Most Useful Thing AI Has Ever Done

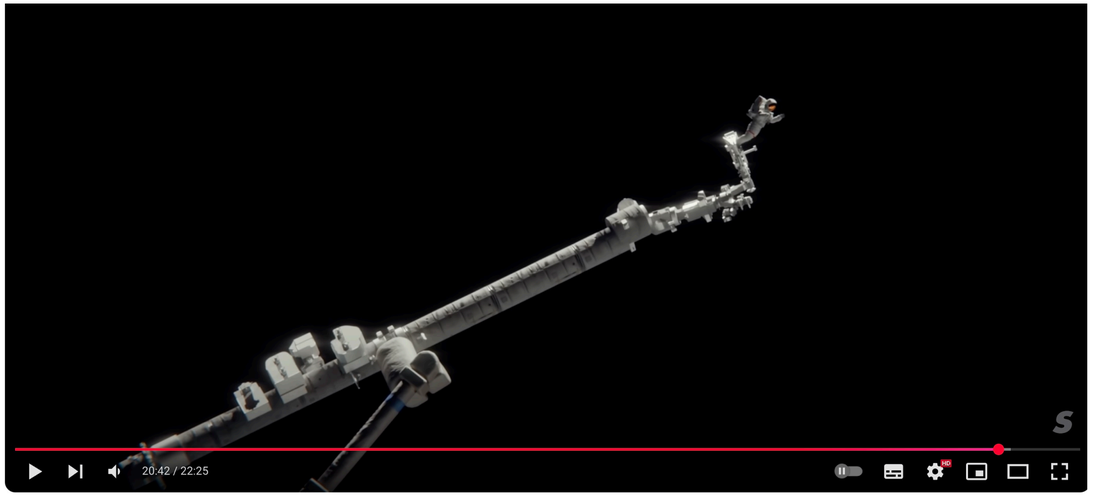
9.1M views • 5 months ago

Veritasium

A huge thank you to John Jumper and Kathryn Tunyasuvunakool at Google Deepmind; and to D

4K Subtitles

10 chapters How to determine protein structures | Why are proteins so complicat



Das unglaubliche Design der ISS

Simplicissimus
2.12M subscribers
Subscribe

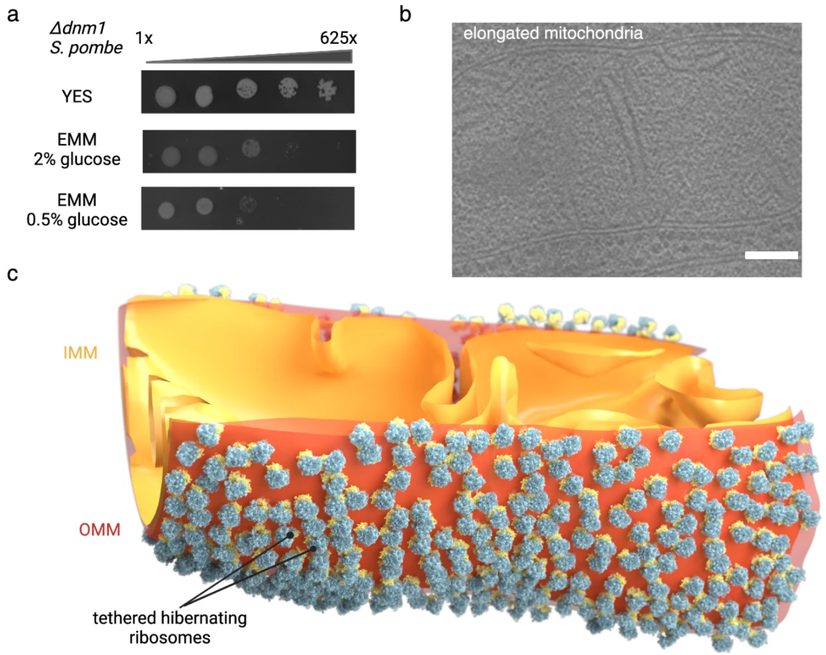
68K Share Download Clip Save

1.2M views 2 months ago

Checkt die Emma Wohlfühlwochen einfach auf https://simpli.deals/emma55 aus und spart mit dem Code SIMPLIEMMA zusätzliche 5% auf die bereits bis zu 50% reduzierten Produkte von Emma (Werbung)

Fig. 4: Ribosome tethering is independent of Dnm-1 mediated mitochondrial fragmentation.

From: Ribosomes hibernate on mitochondria during cellular stress

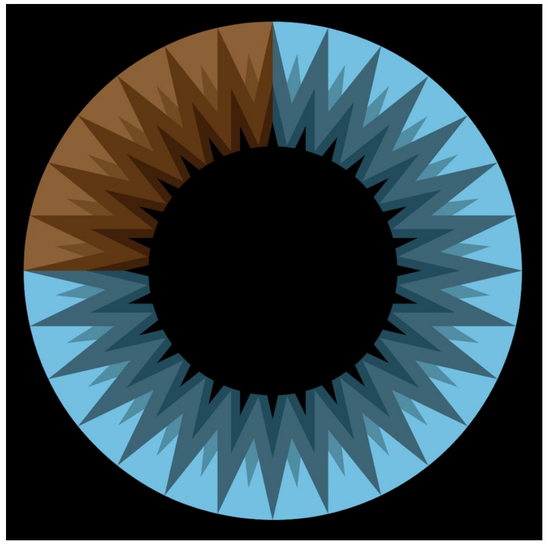


a Viability assays of *S. pombe* WT and Δ*dnm1* strains cultured at 30 °C in either YES or EMM with high (2%) or low (0.5%) glucose concentration and imaged after 3 days of growth. **b** Computational slice through a representative cryo-ET reconstruction of a mitochondrion from a Δ*dnm1* cell imaged at day 7 of glucose depletion. Scale bar 100 nm. **c** Segmentation of the mitochondrion shown in (**b**), superimposed with the position and orientation of OMM-bound ribosomes aligned by STA. The OMM is depicted in red, and the IMM and its cristae are shown in orange. Ribosomal proteins and RNAs of the LSU and SSU are colored cyan and yellow, respectively.

Education - Contest

Education - Contest

https://some.3b1b.co/



Summer of Math Exposition

SoME4, summer 2025

The Summer of Math Exposition (SoME) is an annual competition fostering the creation of excellent math content online. You can participate as either a creator or judge. Learn more

Timeline

The competition unfolds in three phases:

- **Phase 1: Join and create** current

  From 01 Jun, 14:00 to 02 Sept, 13:59

  Sign up as a participant or a judge. Creators begin working on their projects and can share progress, find collaborators, or ask for help in the Discord server.

  Join in →

- **Phase 2: Peer Review and Voting**

  From 03 Sept, 14:00 to 17 Sept, 14:00

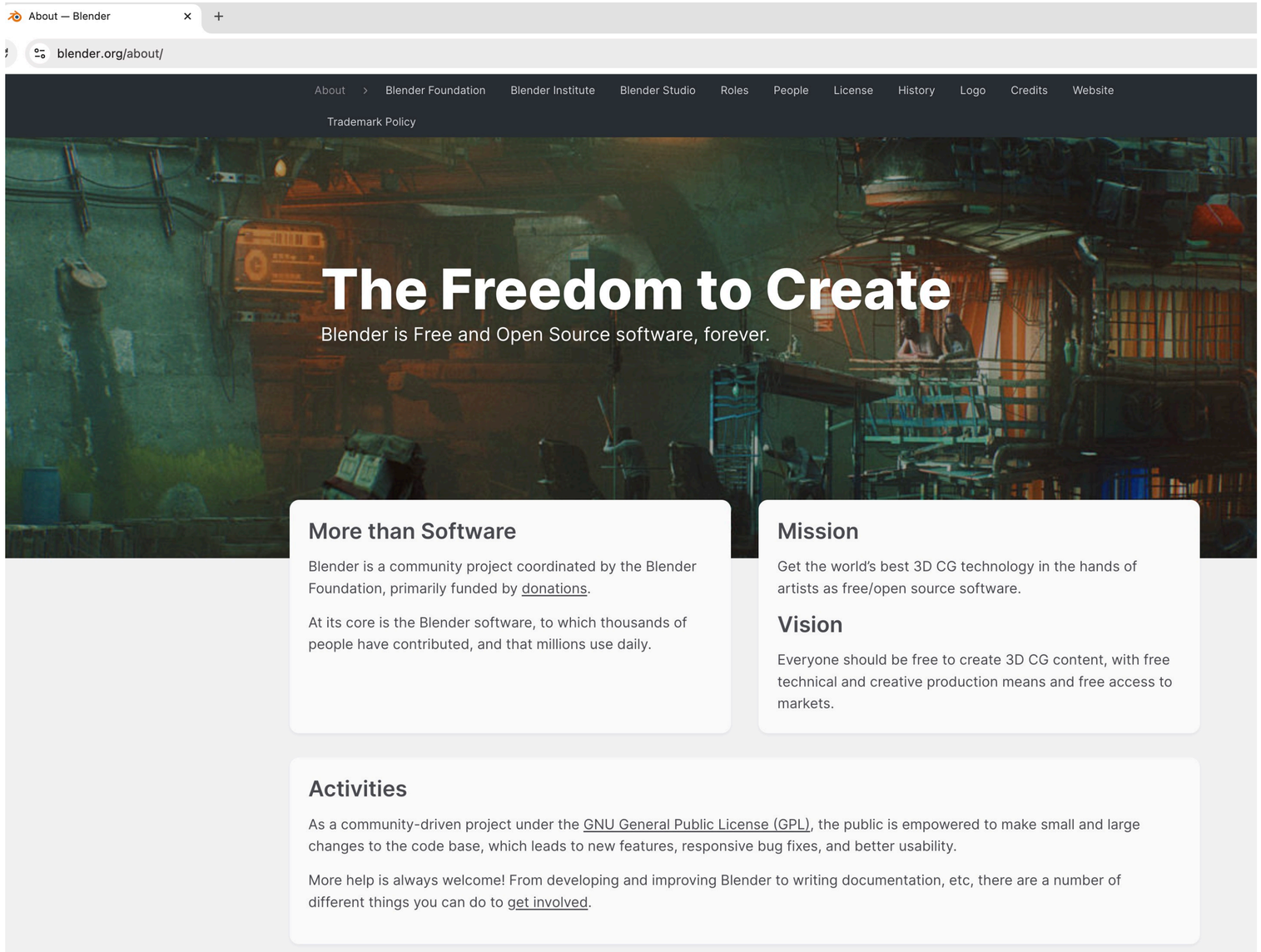
  This is the heart of the event. You'll be shown a series of entries to review, vote on, and give constructive feedback. It's a chance to reflect, learn, and help others improve.

- **Phase 3: Results and Feedback**

  From 15 Sept, 16:00

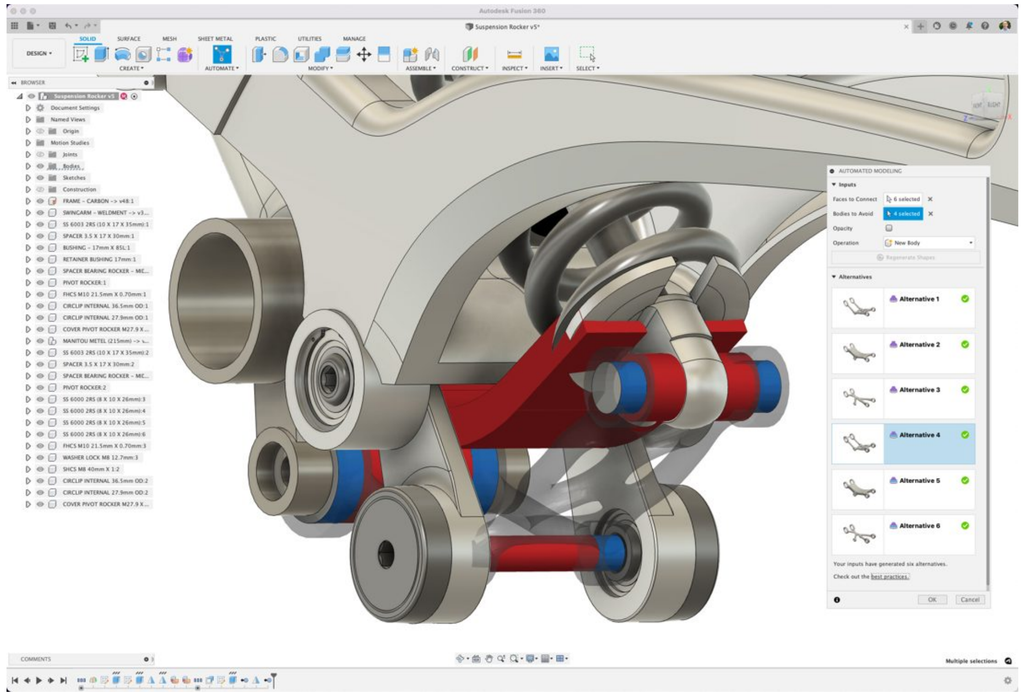
  The top entries and full rankings are revealed, along with the feedback that was shared.

Forever Open Source & Free

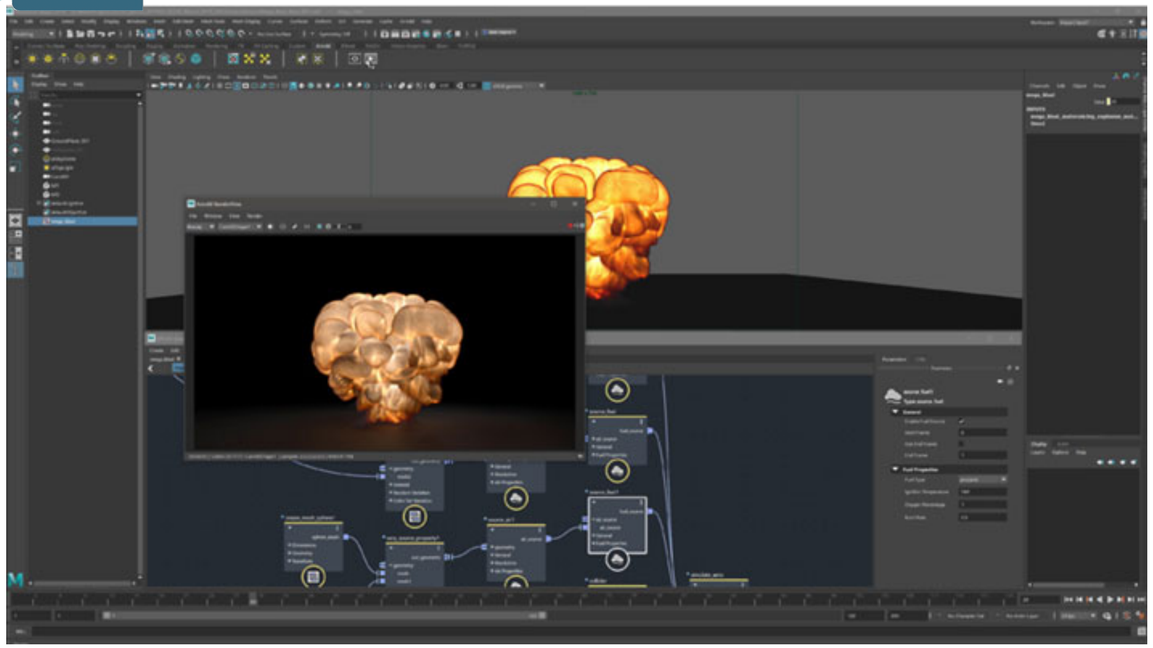


Alternatives

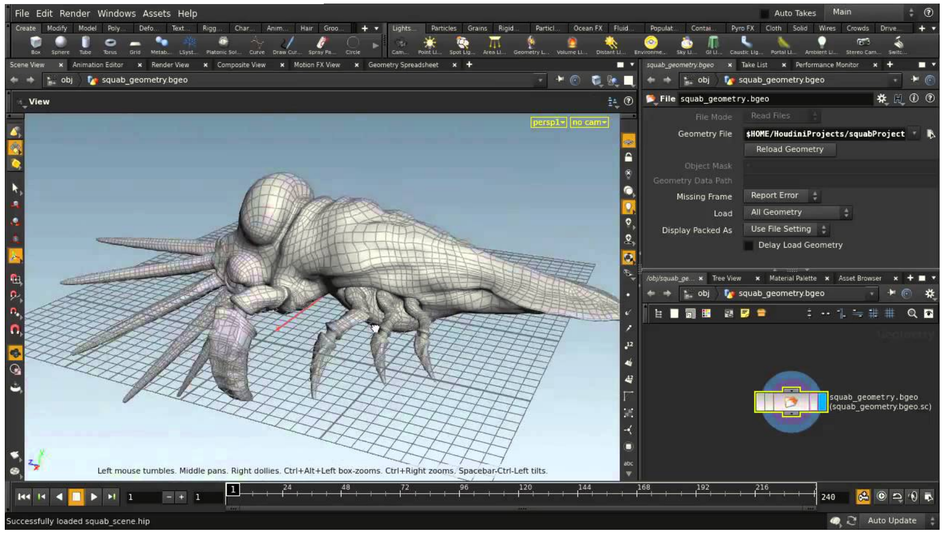
Autodesk
Fusion 360



Maya



Houdini™



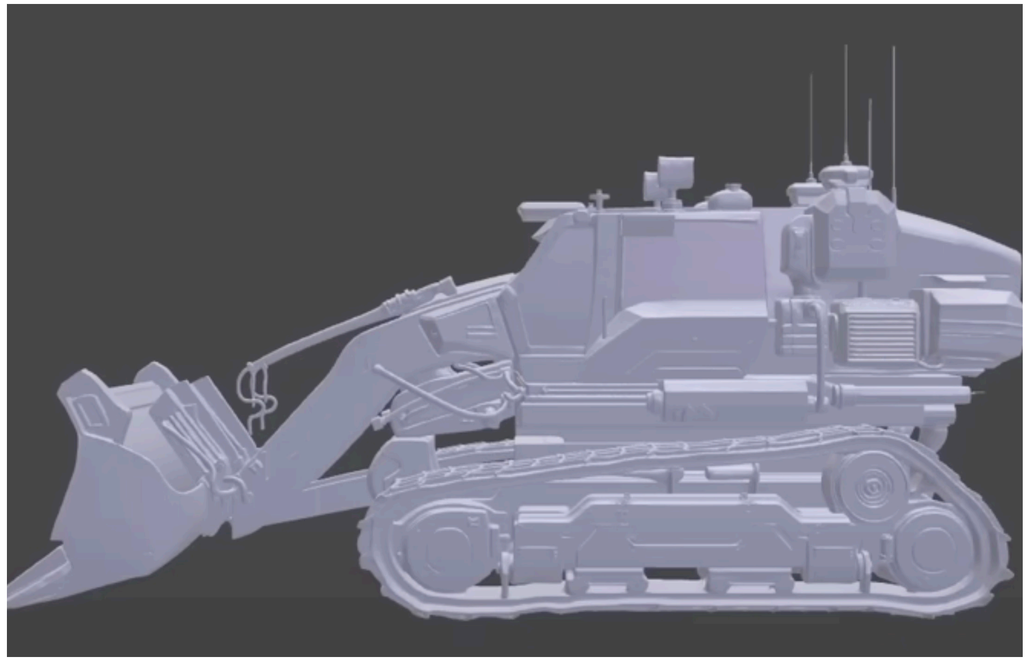
Alternatives (Table made with GPT 4o)

🧰 CAD vs Mesh Modeling Software – Features & Pricing Overview

Software	Type	Best For	Parametric	Sculpting	Animation	File Types	Price	Notes
Fusion 360	CAD	Product design, engineering	✅	❌	❌	STEP, STL, IGES, DXF	€540/year *(free for hobbyists)*	Cloud-based, includes CAM tools
SolidWorks	CAD	Mechanical engineering	✅	❌	❌	STEP, IGES, STL	€3,000+/year	High-end engineering tool
AutoCAD	CAD	2D plans, architecture	✅ *(limited)*	❌	❌	DWG, DXF	€2,000+/year	Focus on drafting and schematics
FreeCAD	CAD	Open-source parametric modeling	✅	❌	❌	STEP, STL, OBJ	Free	Open source, community-driven
Rhino 3D	CAD / NURBS	Architecture, industrial design	✅ *(via Grasshopper)*	❌	❌	3DM, IGES, STL, OBJ	€995 one-time	Excellent NURBS and scripting support
Blender	Mesh Modeling	Animation, games, visualization	✅ *(via Geometry Nodes)*	✅	✅	BLEND, FBX, OBJ, STL	Free	Open source; procedural and sculpting combined
Maya	Mesh Modeling	Film, TV, character animation	❌	✅	✅	MB, FBX, OBJ	€2,200/year	Industry standard in animation
3ds Max	Mesh Modeling	Game assets, architectural viz	❌	✅	✅	MAX, FBX, OBJ	€2,200/year	Widely used in AAA game and archviz pipelines
Cinema 4D	Mesh Modeling	Motion graphics, visual effects	❌	✅	✅	C4D, FBX, OBJ	€850/year or €3,000 one-time	Excellent for motion design and MoGraph
ZBrush	Sculpting	Digital sculpting (characters)	❌	✅✅✅	❌	ZTL, OBJ, FBX	€370 one-time	Best for detailed organic sculpting
Modo	Mesh Modeling	Modeling, rendering, animation	❌	✅	✅	LXO, FBX, OBJ	€1,800/year	Known for fast and intuitive modeling workflow
Wings 3D	Mesh Modeling	Simple polygon modeling	❌	❌	❌	OBJ, STL	Free	Lightweight and beginner-friendly polygon modeler
SketchUp	Hybrid (CAD-like)	Architecture, interior design	✅ *(basic intuitive)*	❌	❌	SKP, DAE, STL	Free basic / €335+/year	Easy to learn, widely used in architecture

What about AI?

create an photorealistic image of this scene for a journal cover:
In-cell architecture of the mitochondrial respiratory chain



Are We Screwed? (A New Hi-res 3D Shape From Image Method)

Gleb Alexandrov
232K subscribers

Subscribed

7.2K

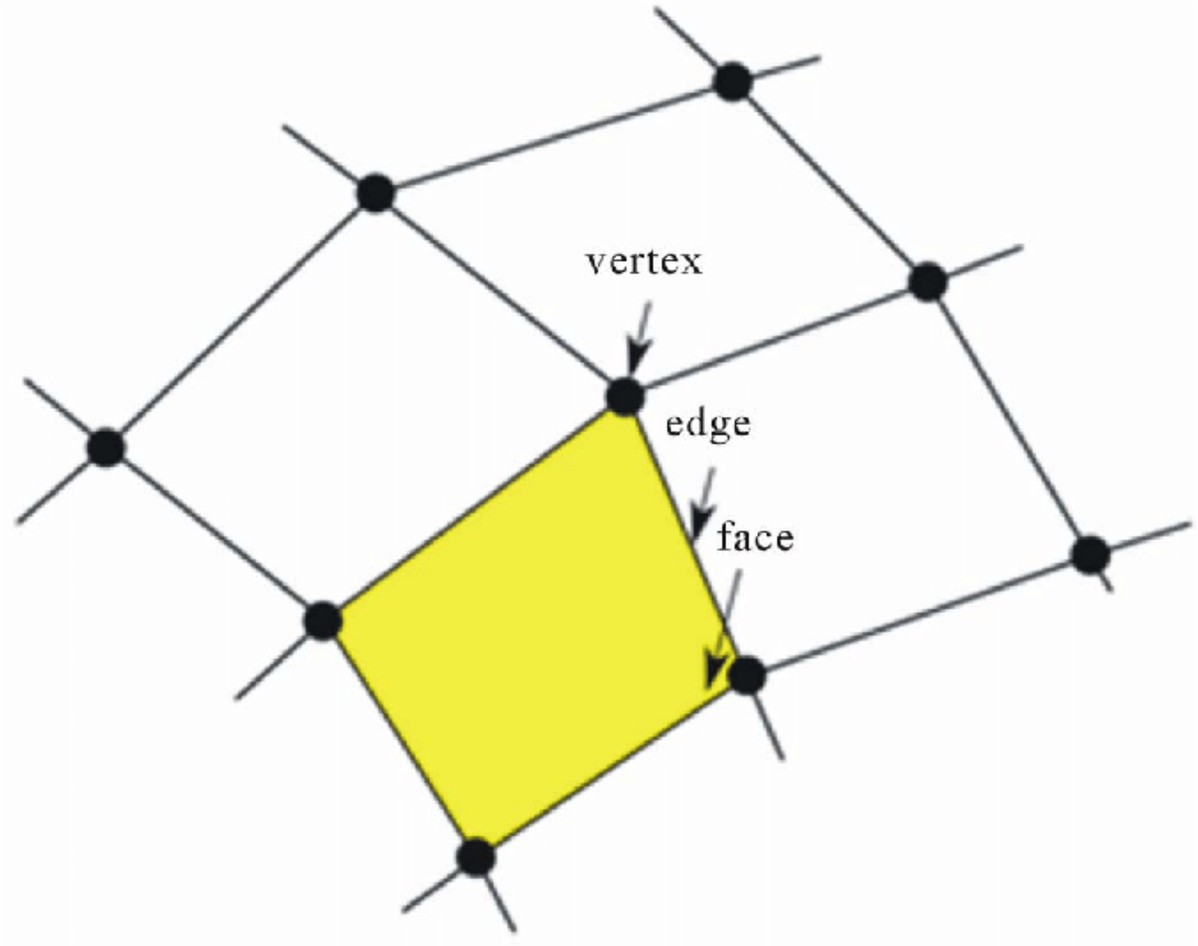
151K views 1 month ago

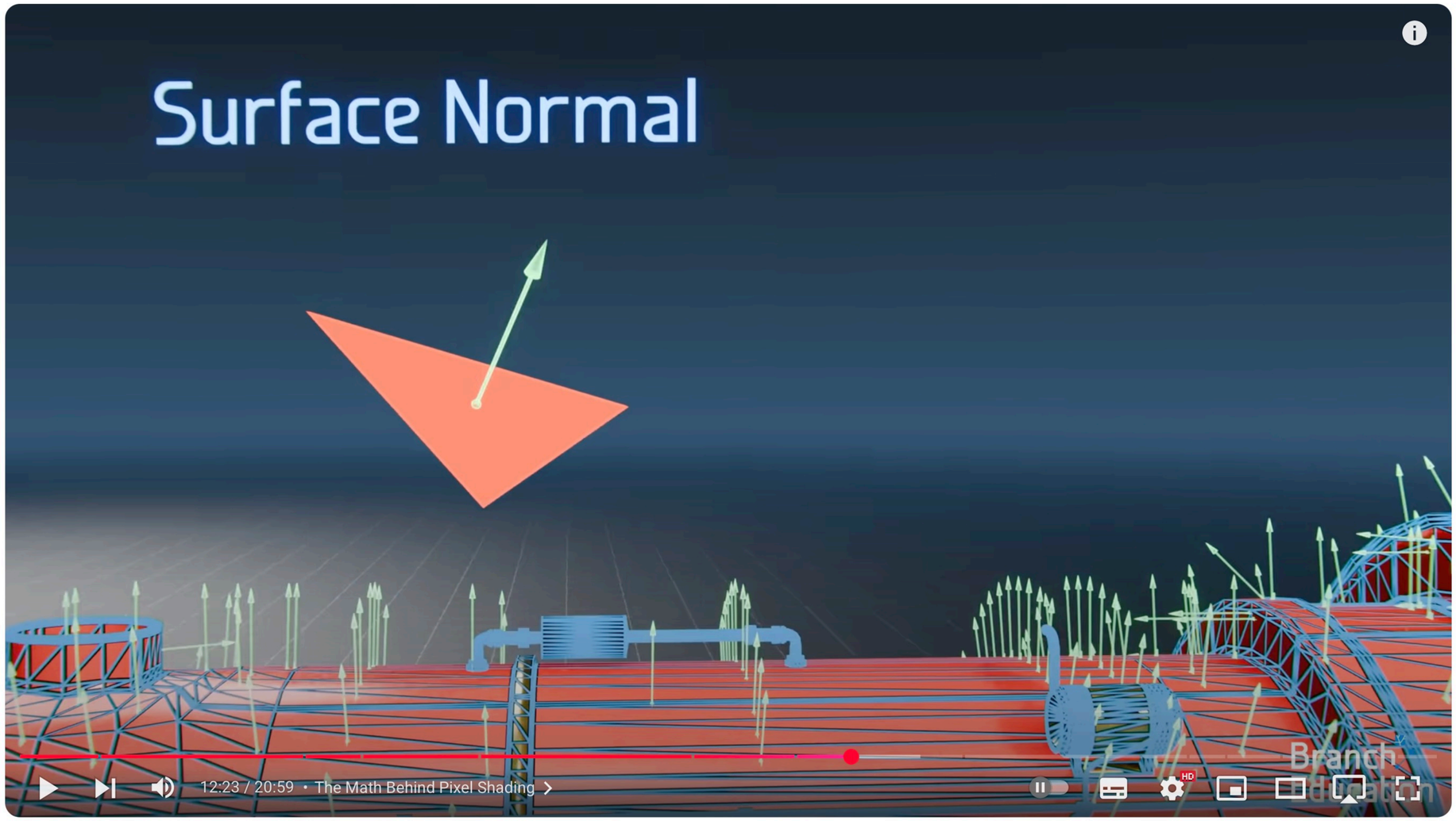
Interface & Mesh Manipulation

Jan-Hendrik Müller
Blender 4.5.1

August 2025

Vertex, edge face





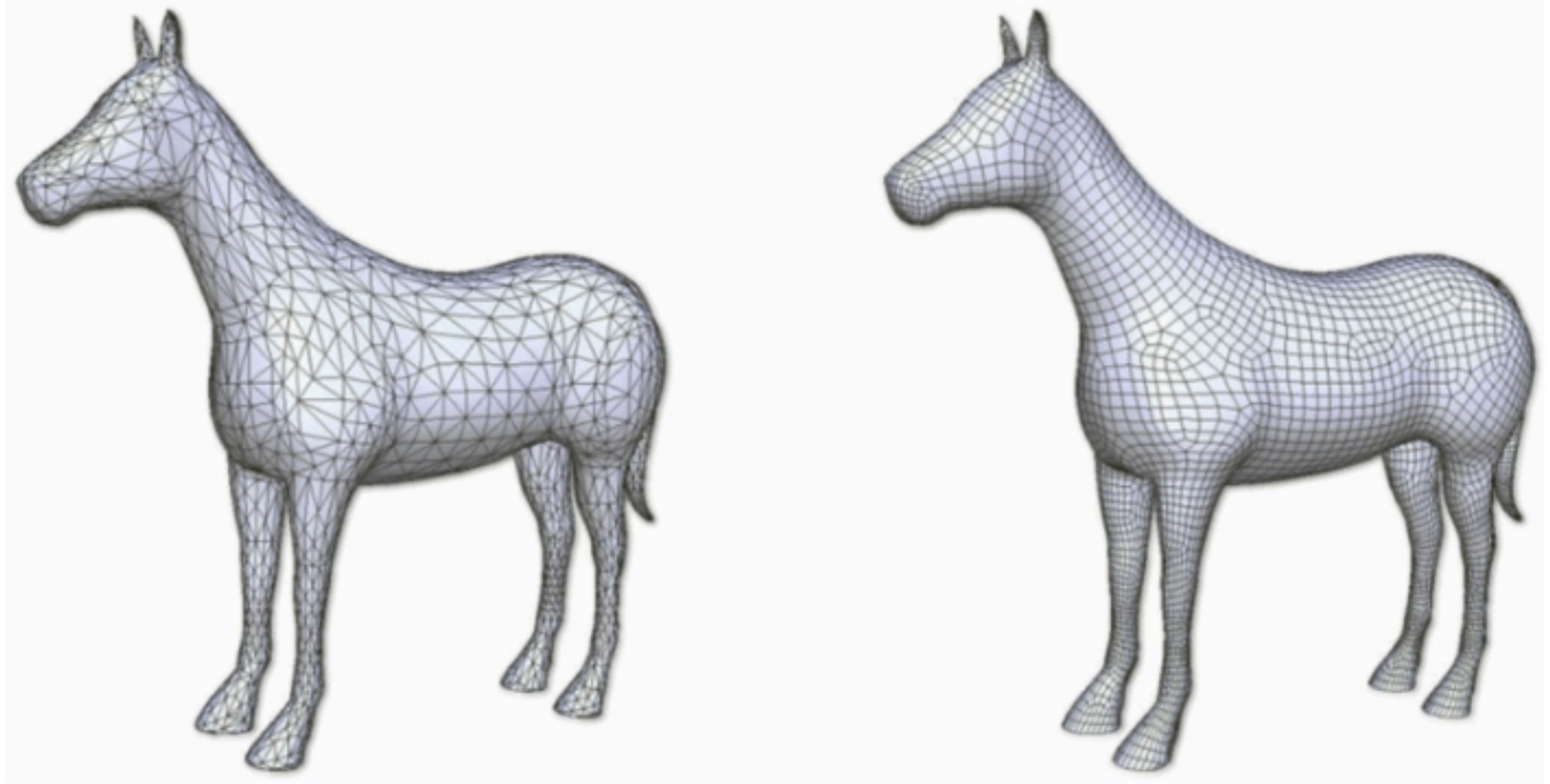
How do Video Game Graphics Work?

Branch Education
2.46M subscribers

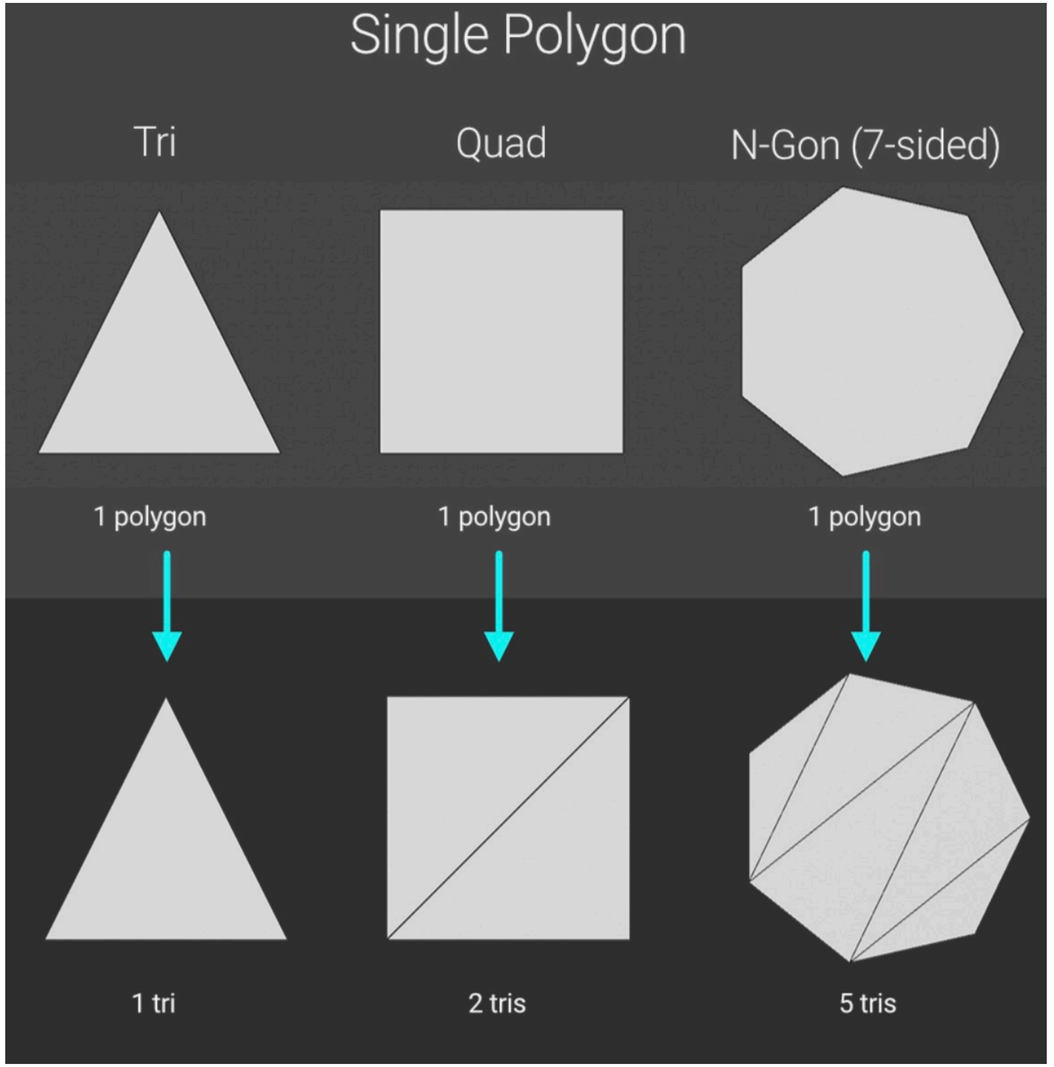
Join | Subscribed | 289K | Share | Thanks | Clip | Save

4.6M views 1 year ago #GPU #Algorithm #Graphics

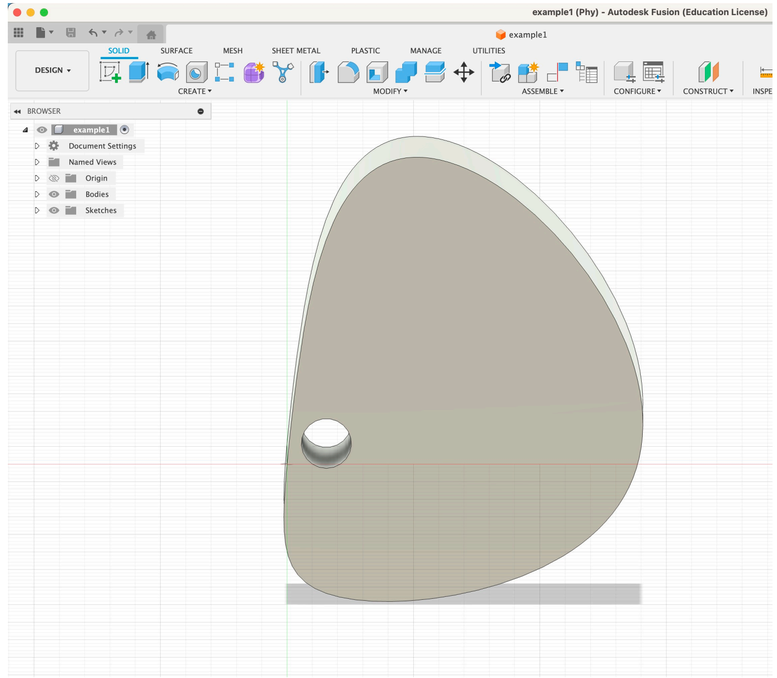
https://www.youtube.com/watch?v=C8YtdC8mxTU



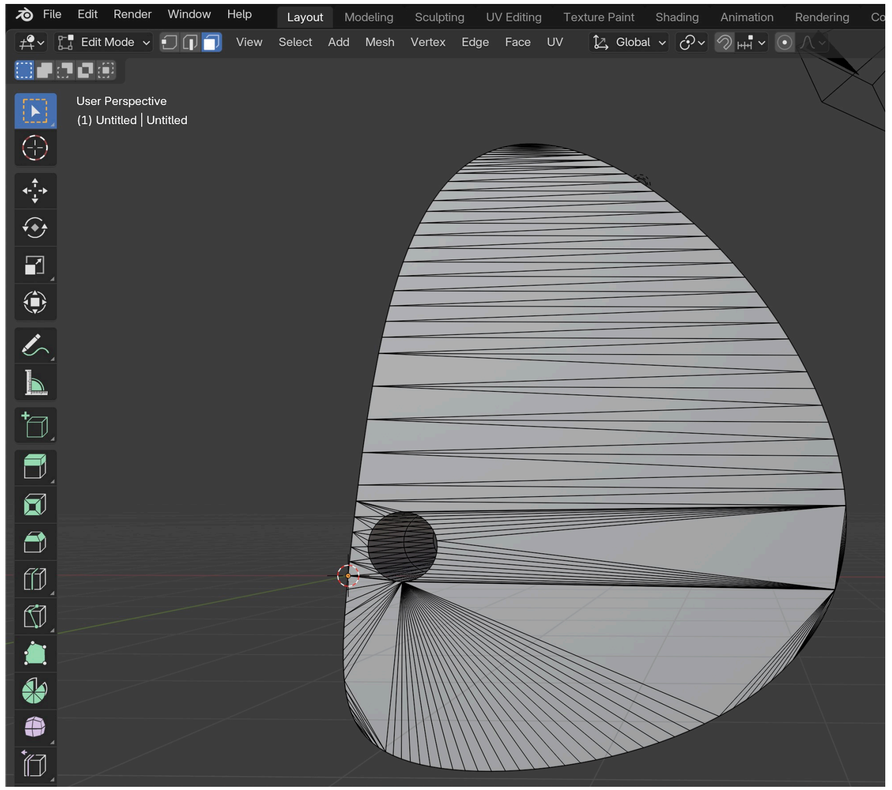
6: Triangle Mesh (a)-Quad Mesh (b)[35].


Single Polygon
Tri
Quad
N-Gon (7-sided)
1 polygon
1 polygon
1 polygon
1 tri
2 tris
5 tris

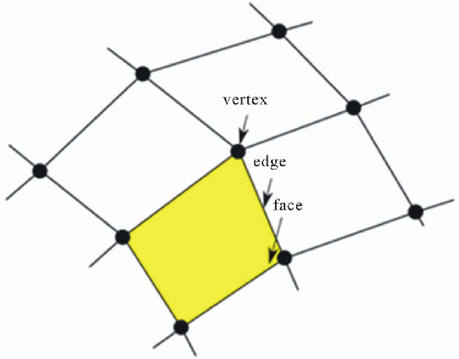
AutoDesk Fusion



Blender



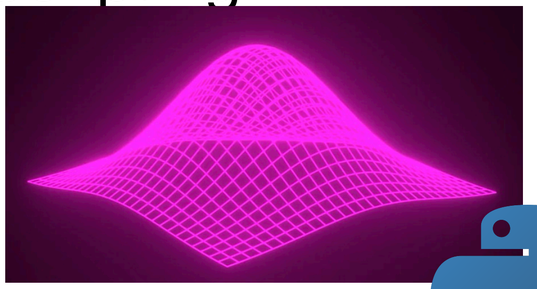
Vertex, edge face



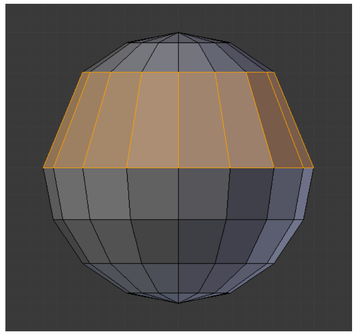
Mesh Manipulation

Sculpting

Scripting

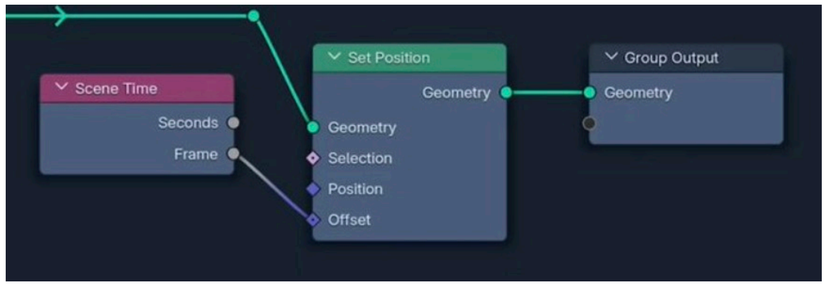


Mesh editing

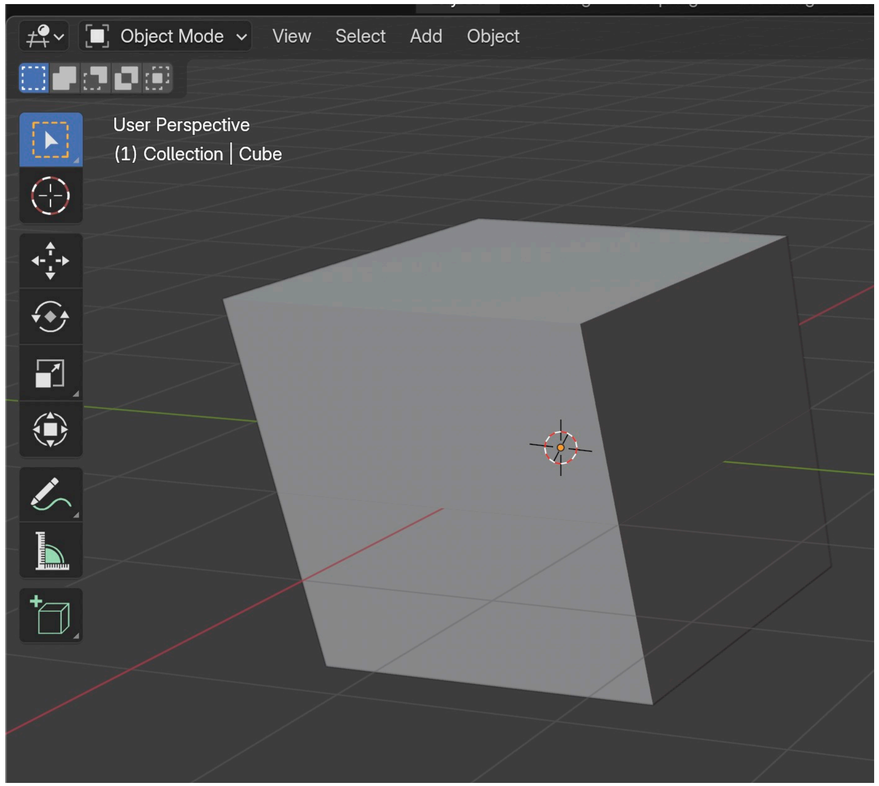


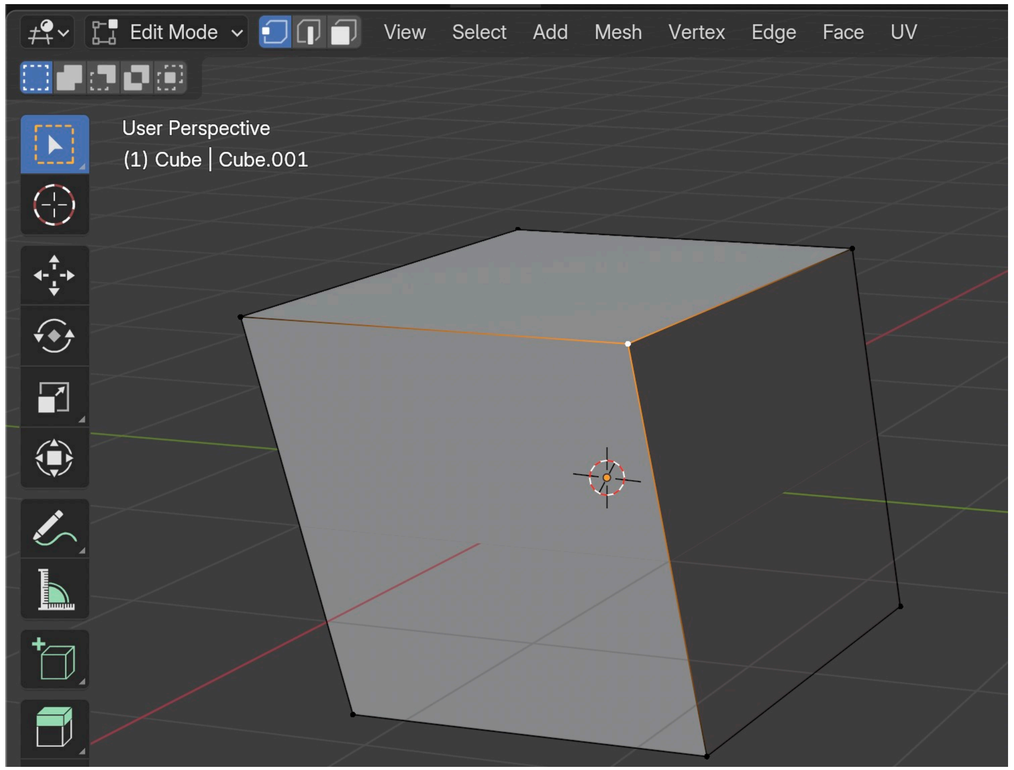
Modifier

Geometry Nodes



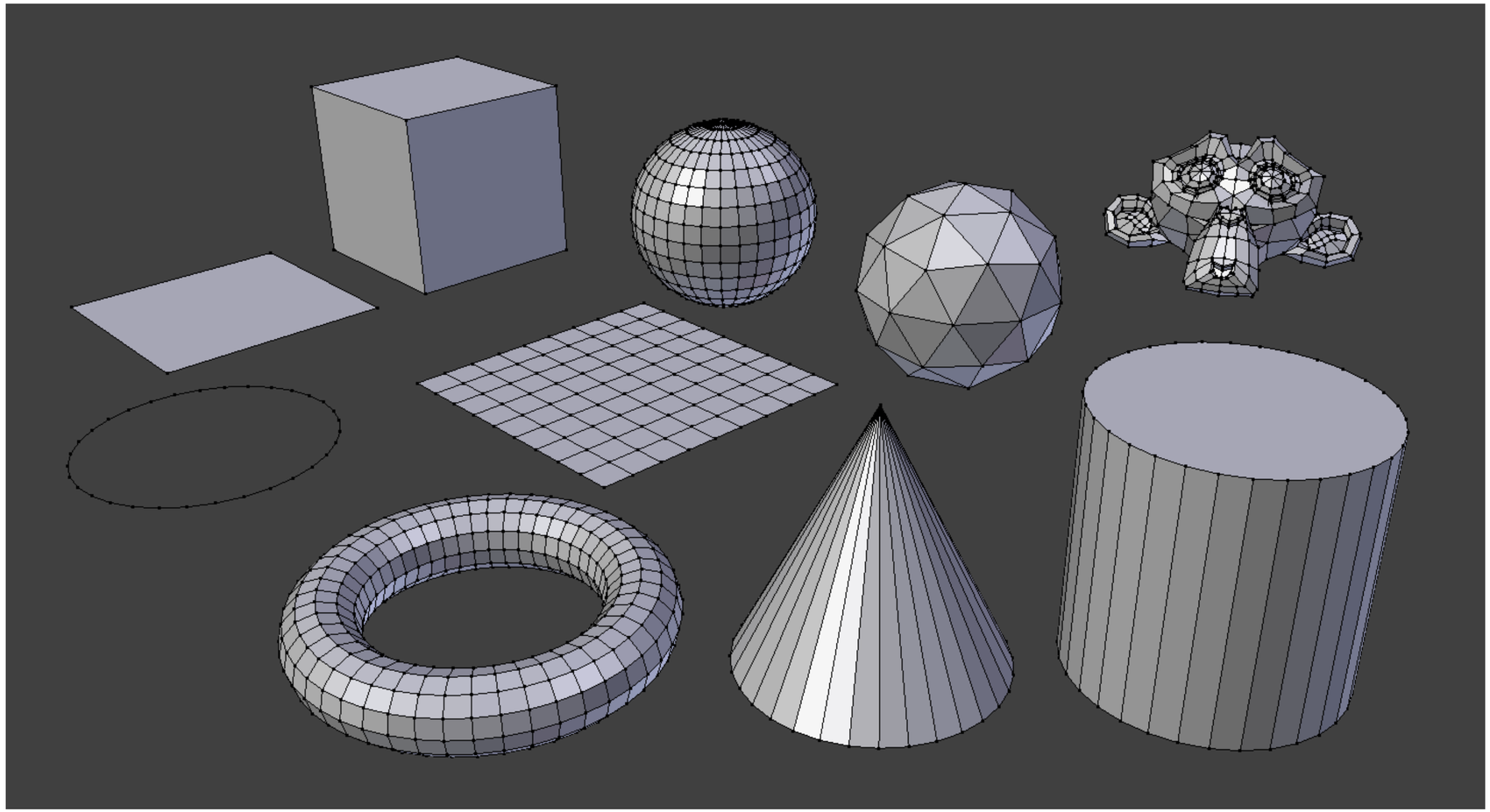
Object Mode, Edit Mode





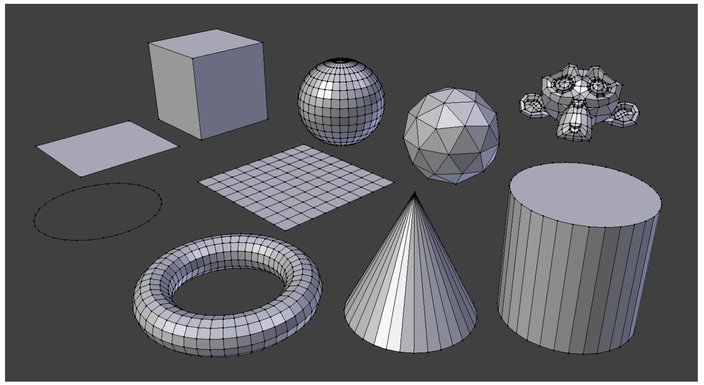
<- Tab to change ->

Default meshes

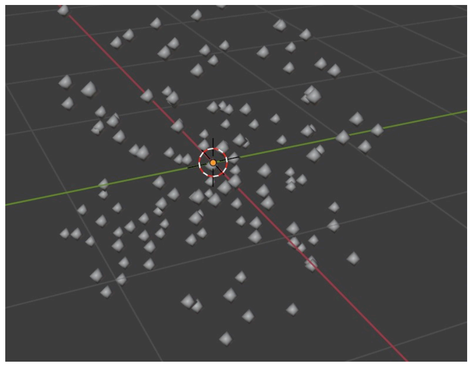


https://docs.blender.org/manual/en/latest/modeling/meshes/primitives.html

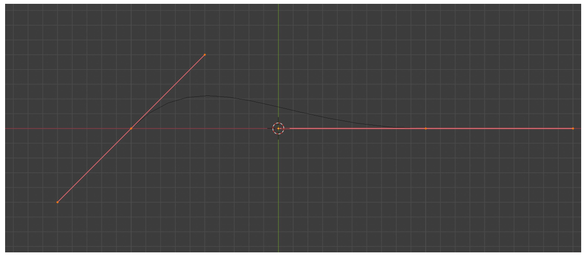
Blender Objects



- Mesh – Vertices, edges, faces (for 3D models)



- Point Cloud – Unconnected points, used in simulations

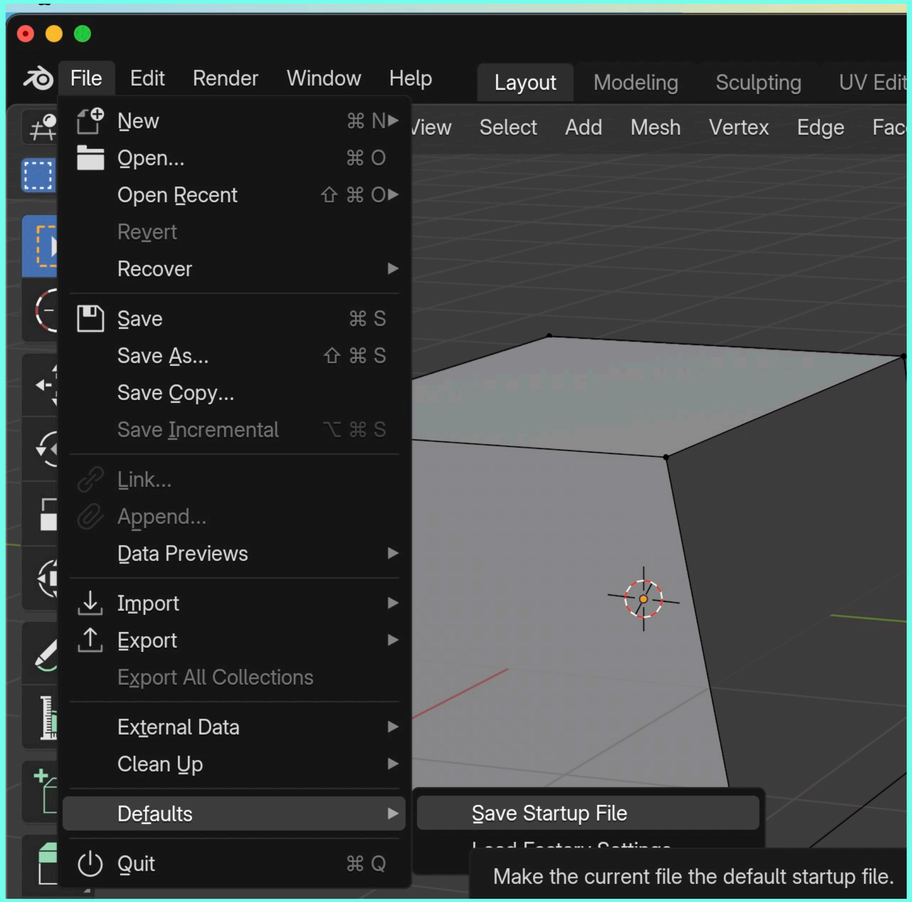


- Curve – Smooth shapes defined by control points

- Grease Pencil – 2D/3D strokes for drawing and animation

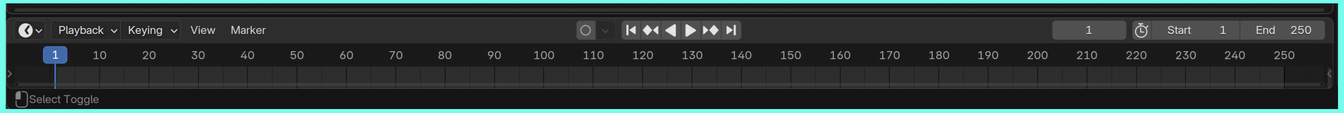
Task 1

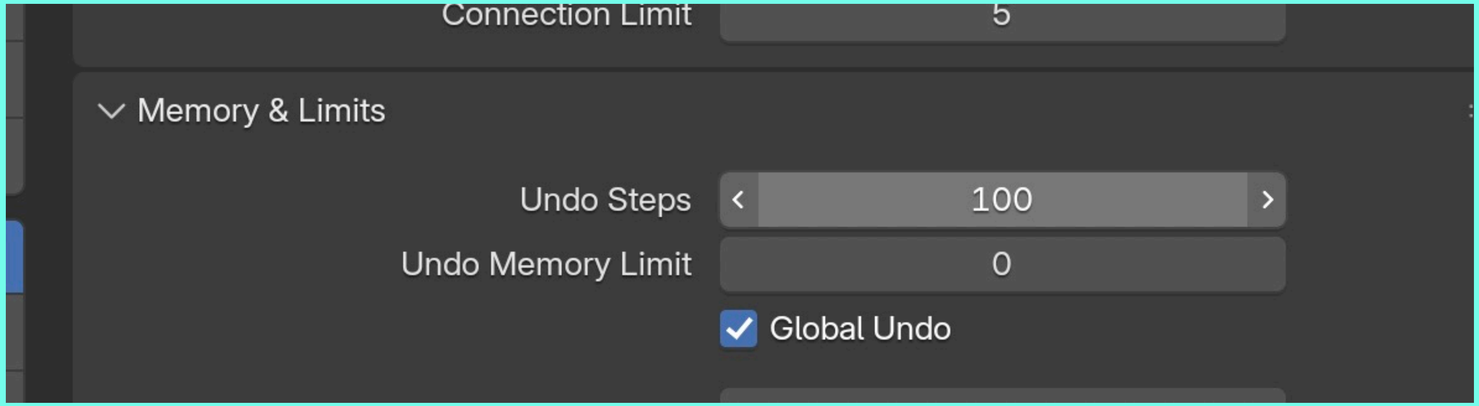
- Open „hello_blender.blend“
- Save it as startup file.



What Changed?

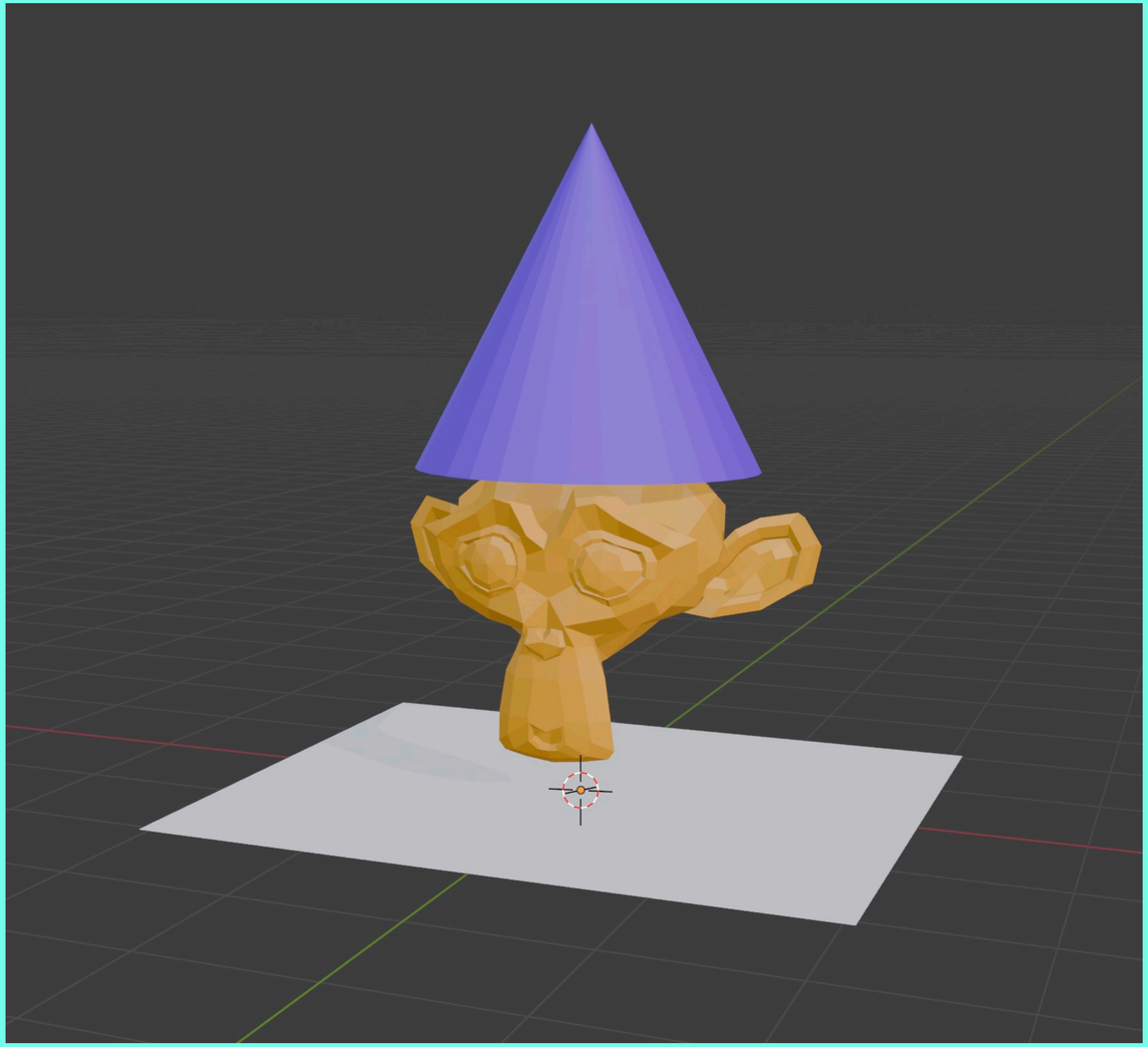
- Most tabs closed.
  Only („Layout „Shading“ and „Geometry Nodes“ remain)
  „Timeline“ panel hidden
- Undo Steps to 100
- Save as startup file





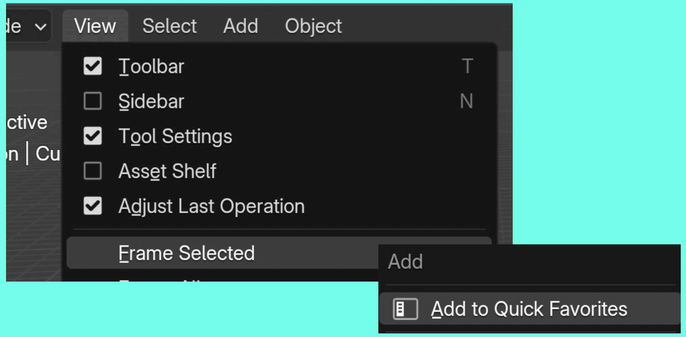
Task 2

- Add Objects
  - Shortcut: Shift A or „Search“ and add objects.
- Add a Plane, A Monkey, and a cone
- Grab objects with „G“
- Scale objects with „S“

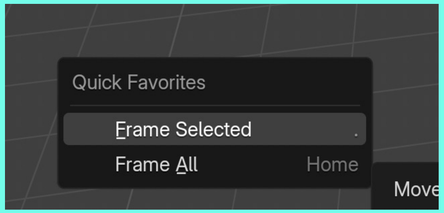


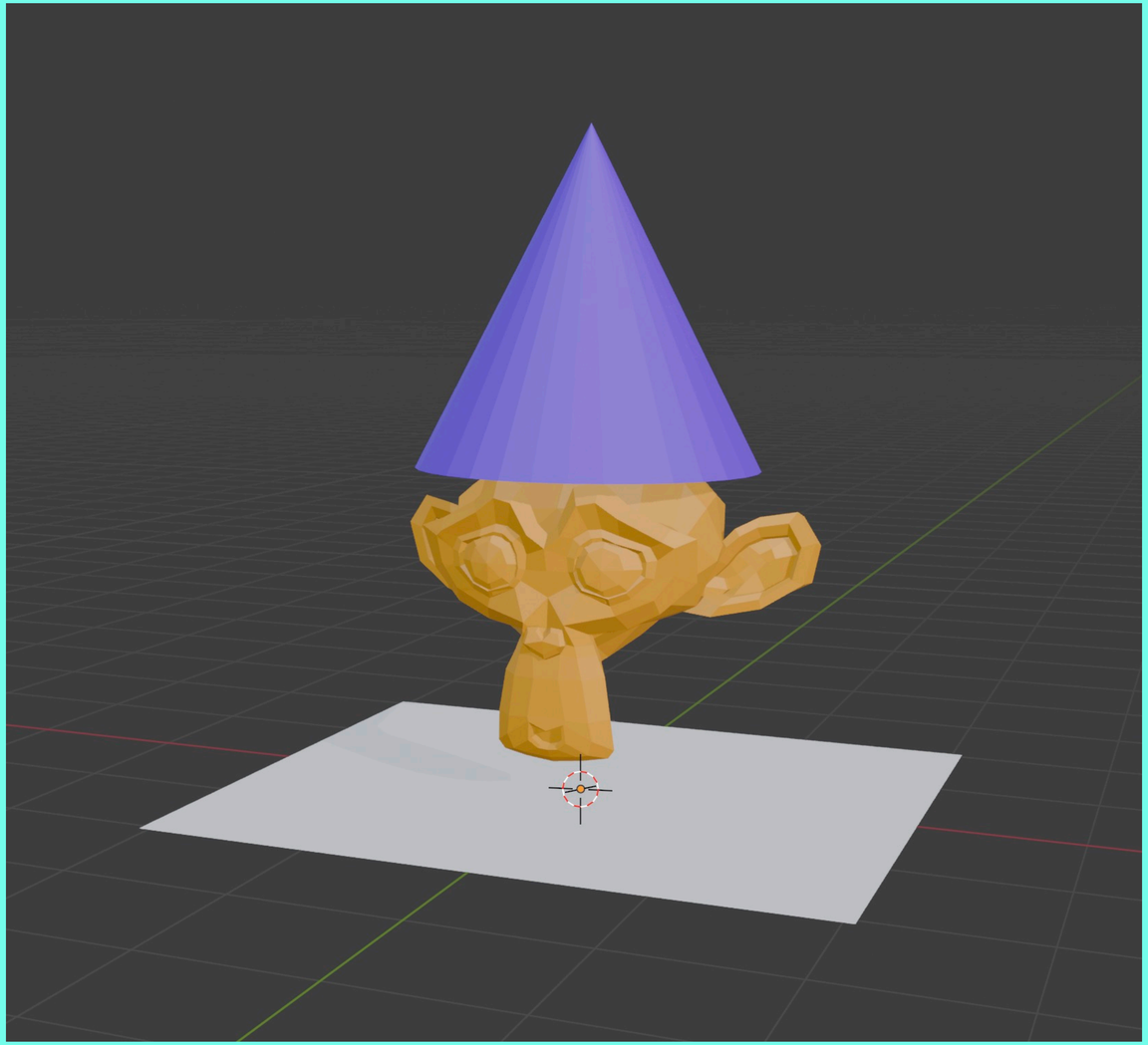
Task 2 B

- Add „Quick Favorit“

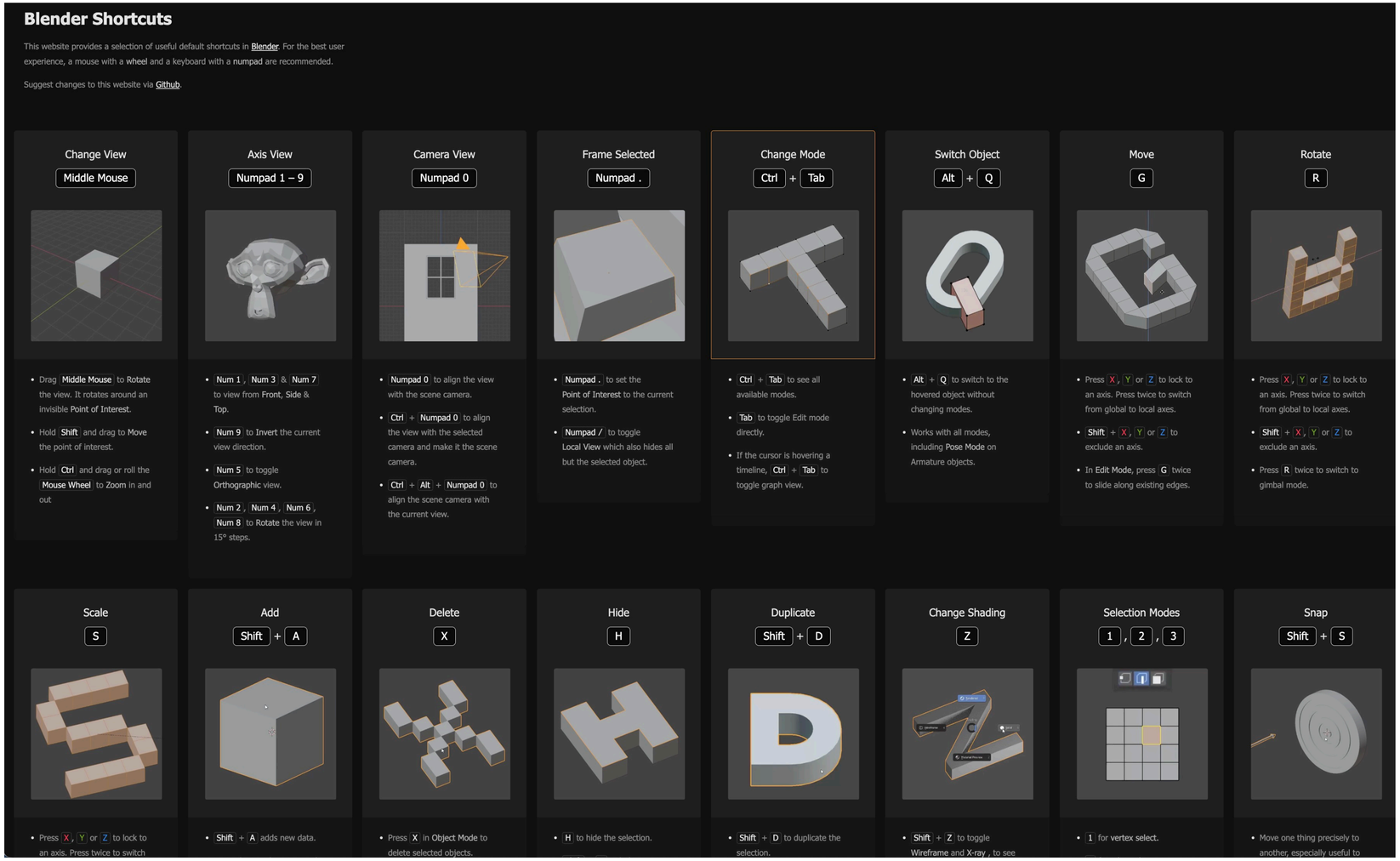


- Press Q





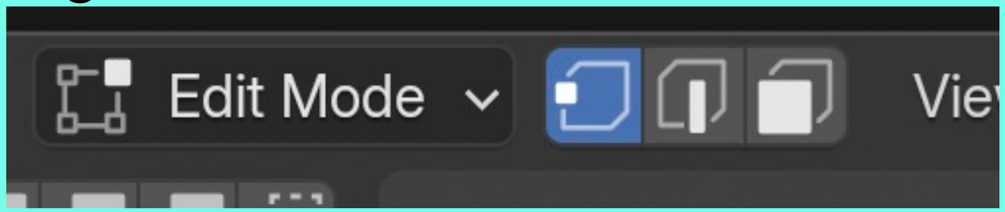
Important Shortcuts



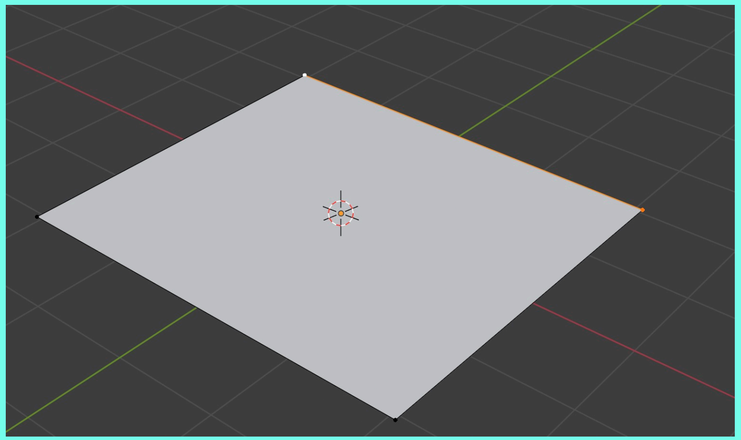
https://hollisbrown.github.io/blendershortcuts/#ChangeMode

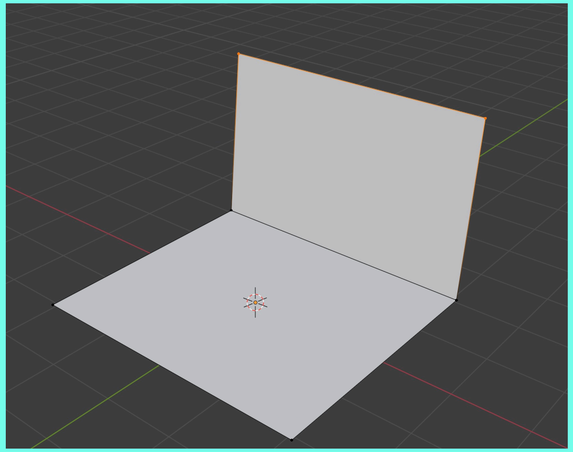
Task 3

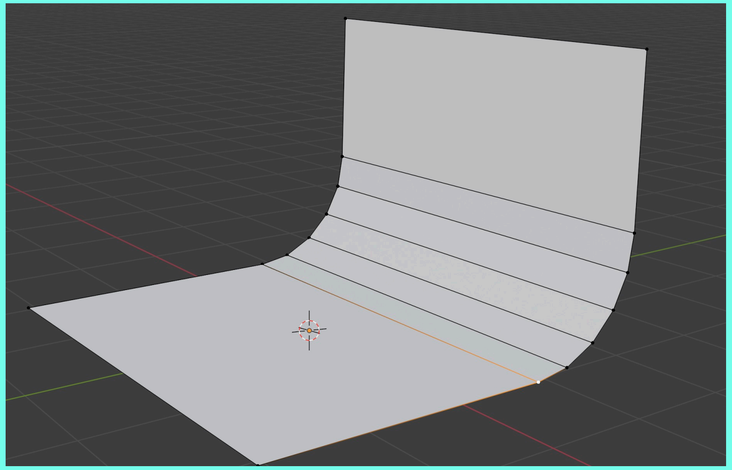
Change selection with 1, 2, 3



- Create a „BackDrop“
- Start with a Plane
- Select Edge. Next use keys: E (Extrude), G (Grap), Z (axis)
- Control+B „Bevel“
- Shade Smooth

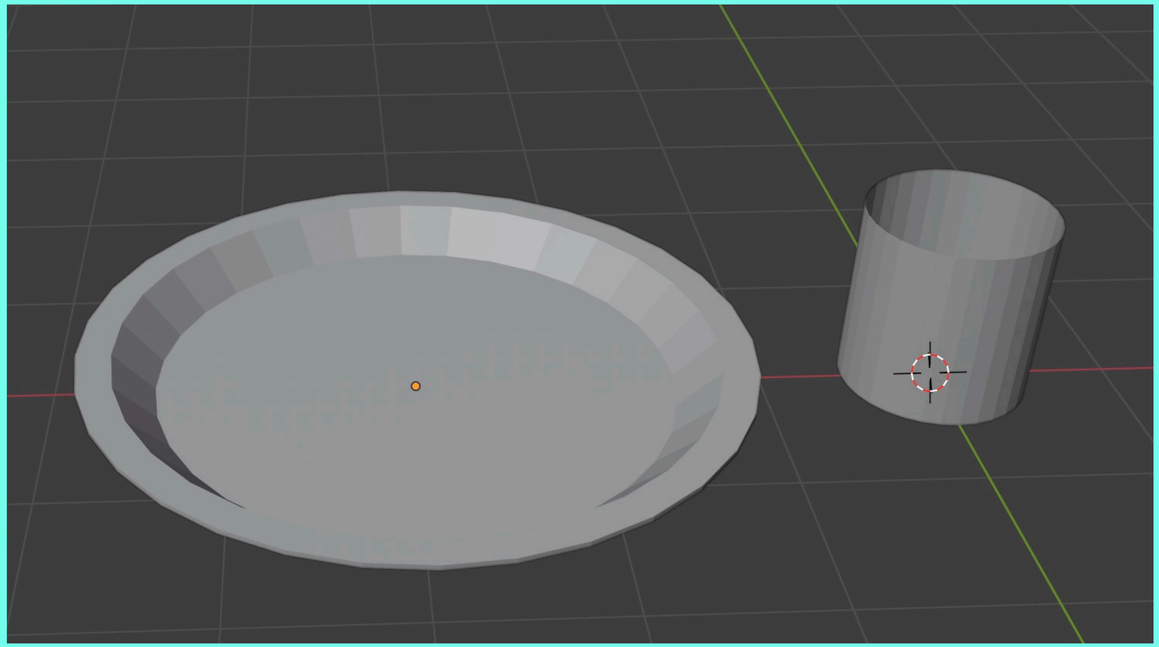


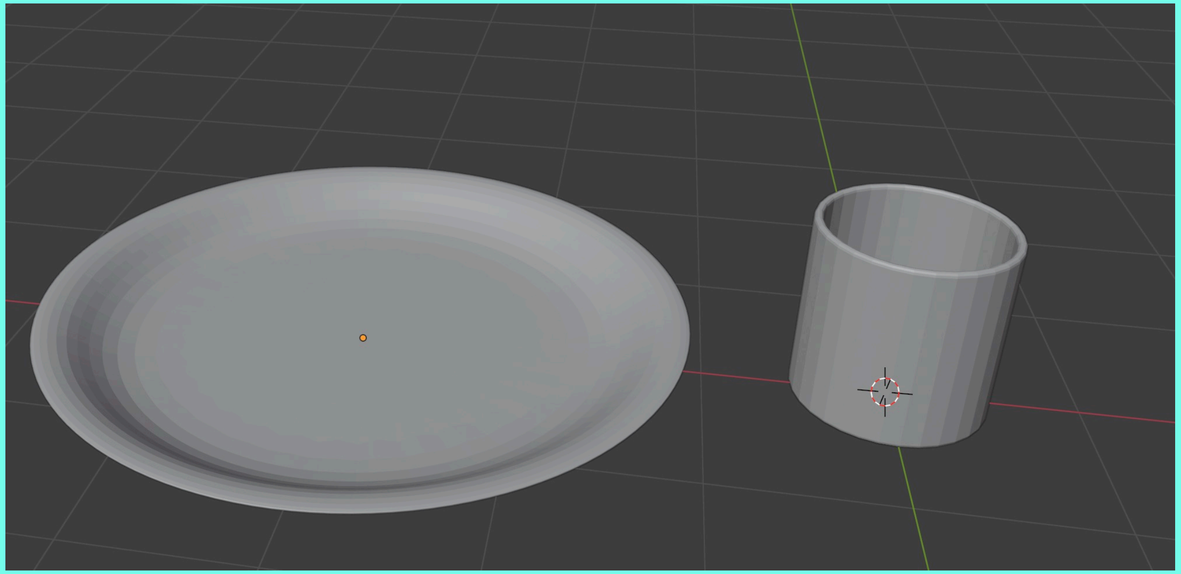




Task 4

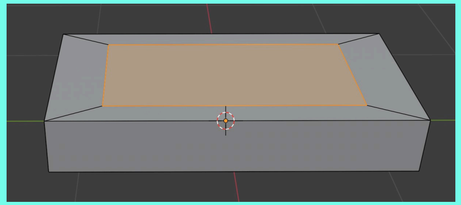
- Model a plate & a cup
- Start with circle or cylinder
  - In edit mode, use „**e**“ extrude
  - **Solidify Modifier**
  - **Bevel Modifier**

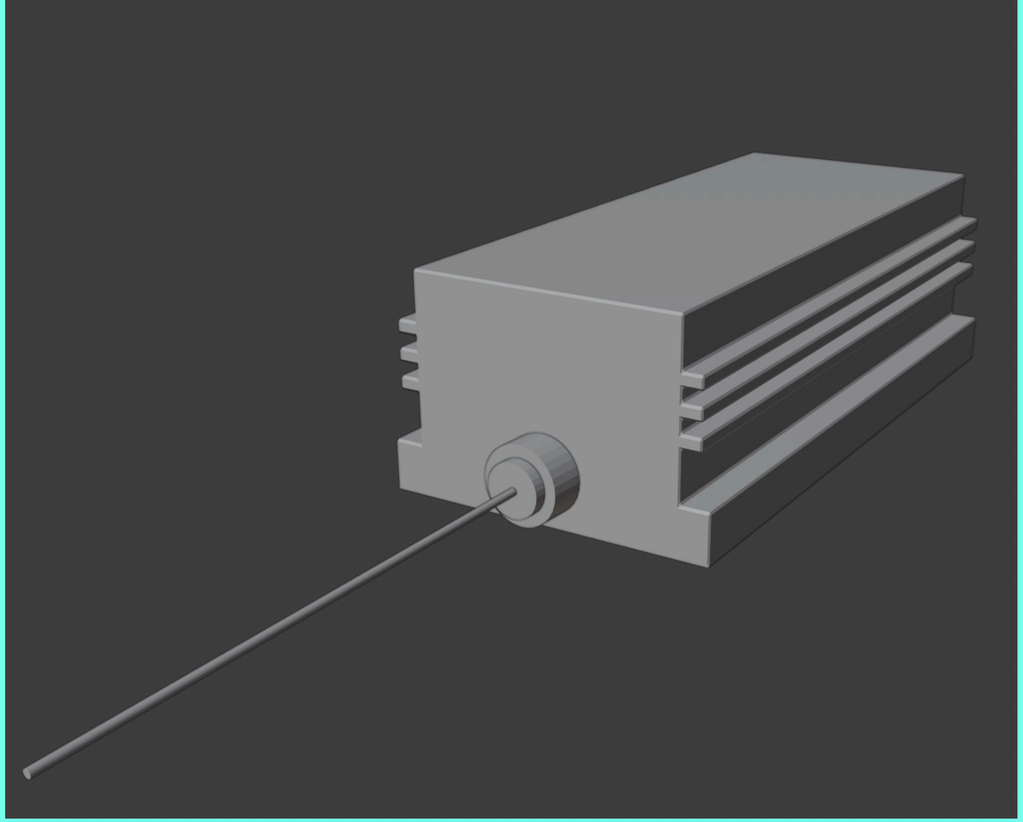




Task 5

- Model a laser
- Start with a plane
  - Insert Plane (i)
  - **Loop Cuts**
  - **Mirror Modifier**

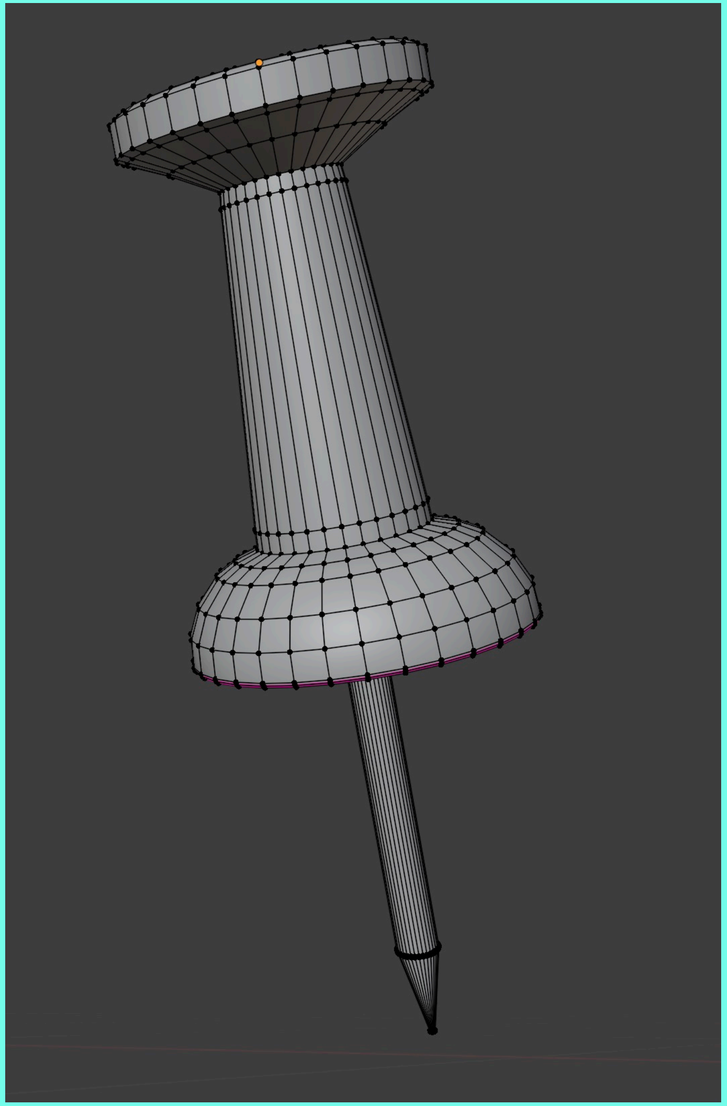




https://biglasers.com/product/435nm-dpss-lasers/?srsltid=AfmBOopnau24kkghgwanE7_VSqGPFDZ61B6l-1Xp_RGeotxFwMLB-9Yz

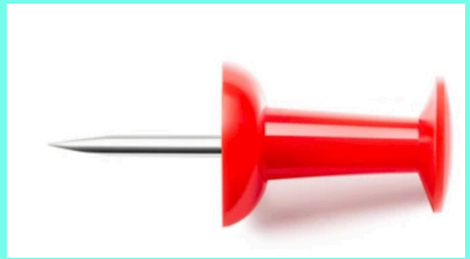
Task 6

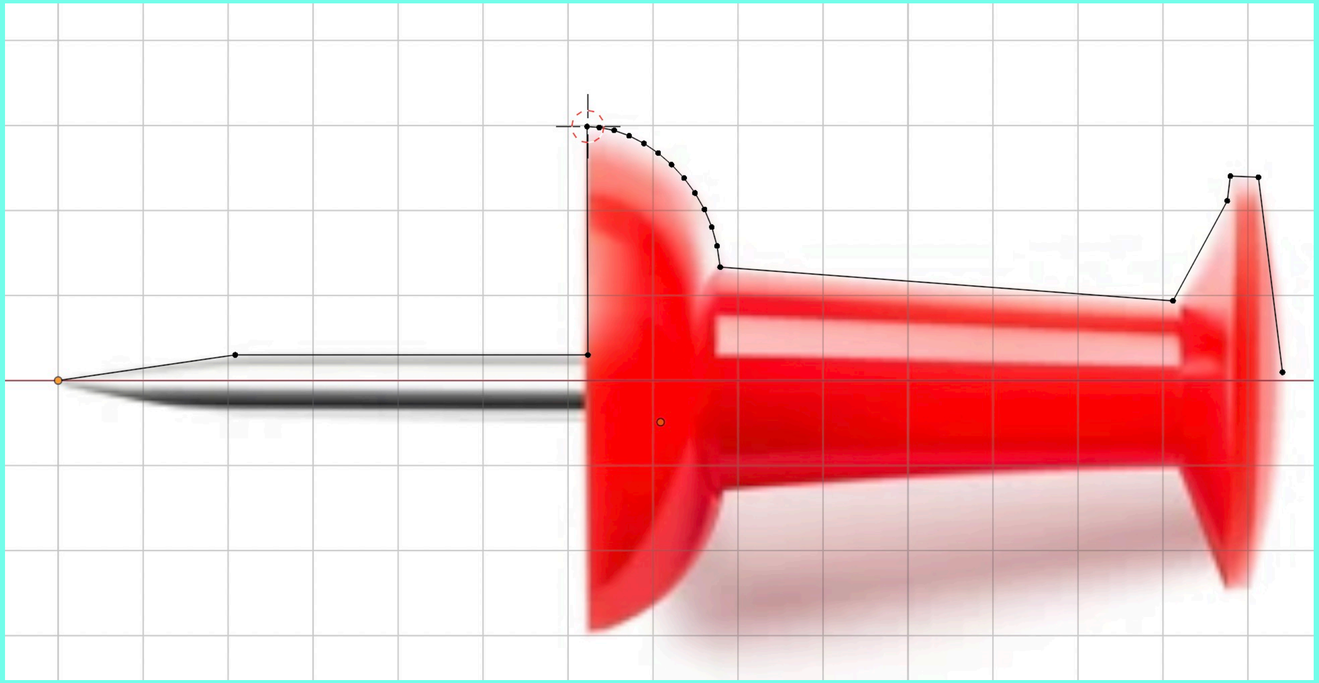
- Model a pin

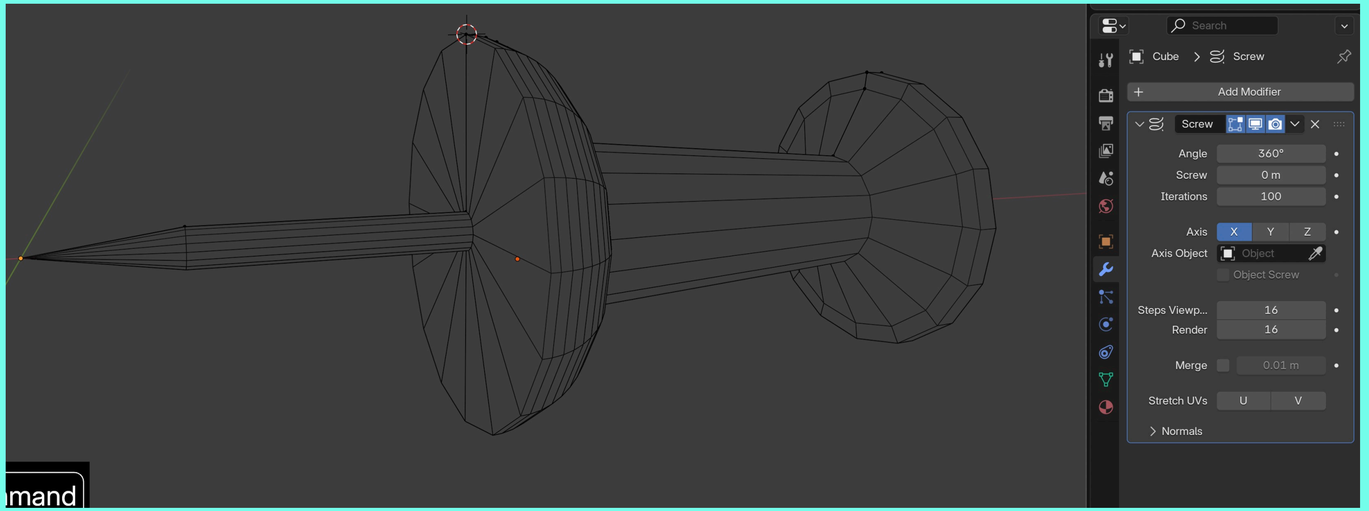


Task 6

- Model a pin

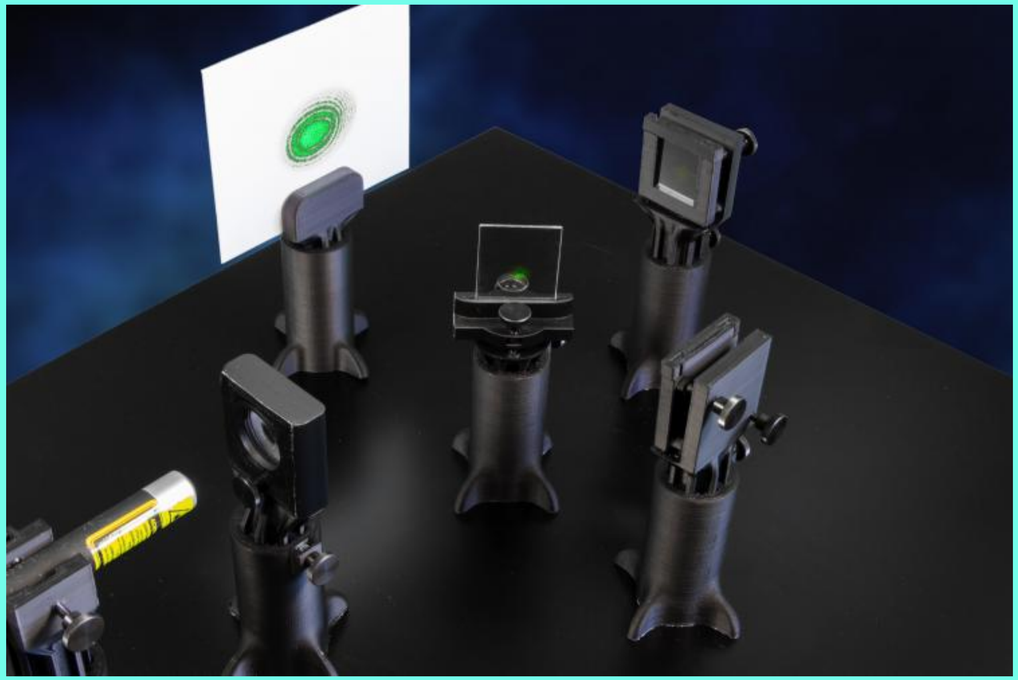






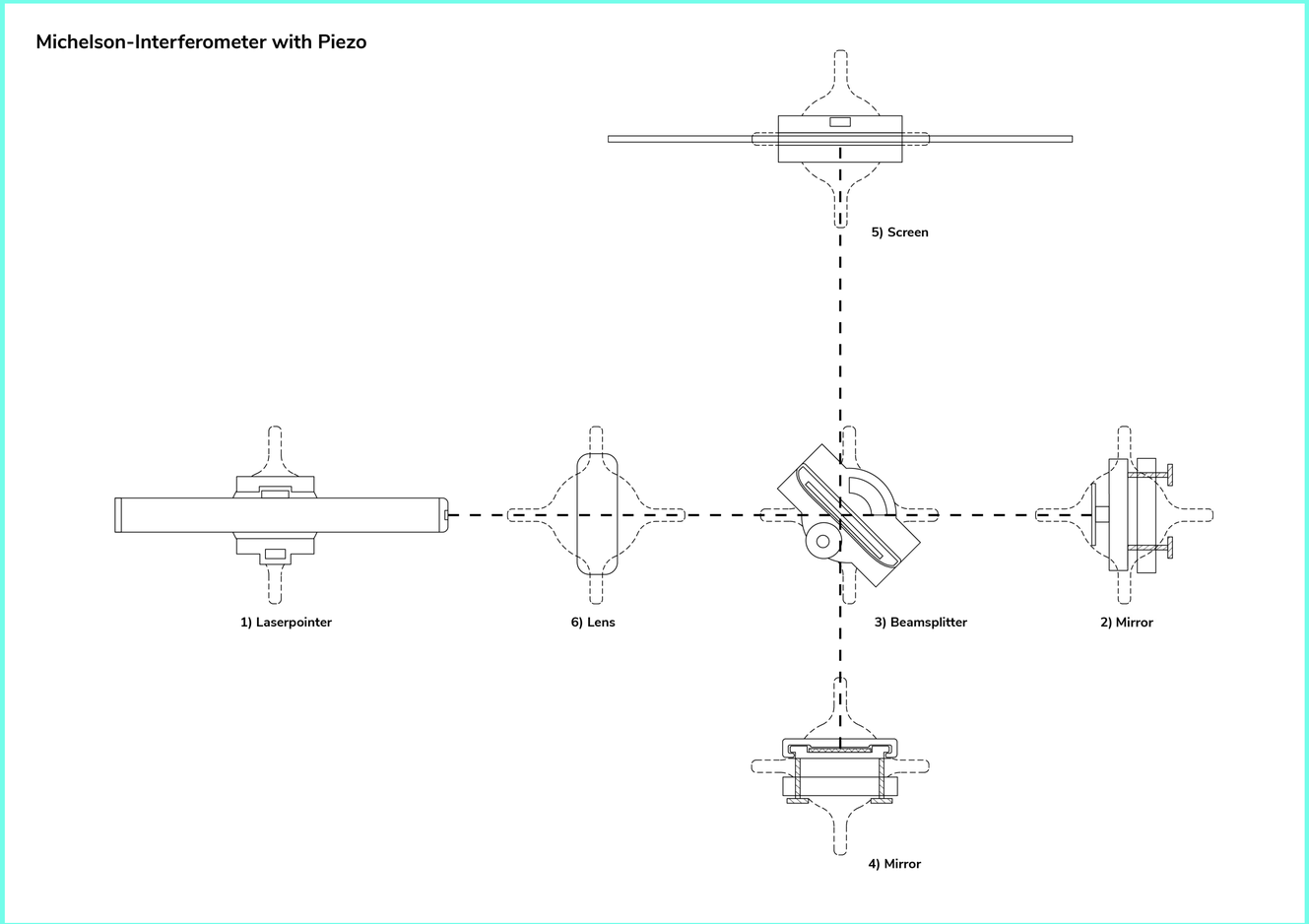
Task 8 - Use assets

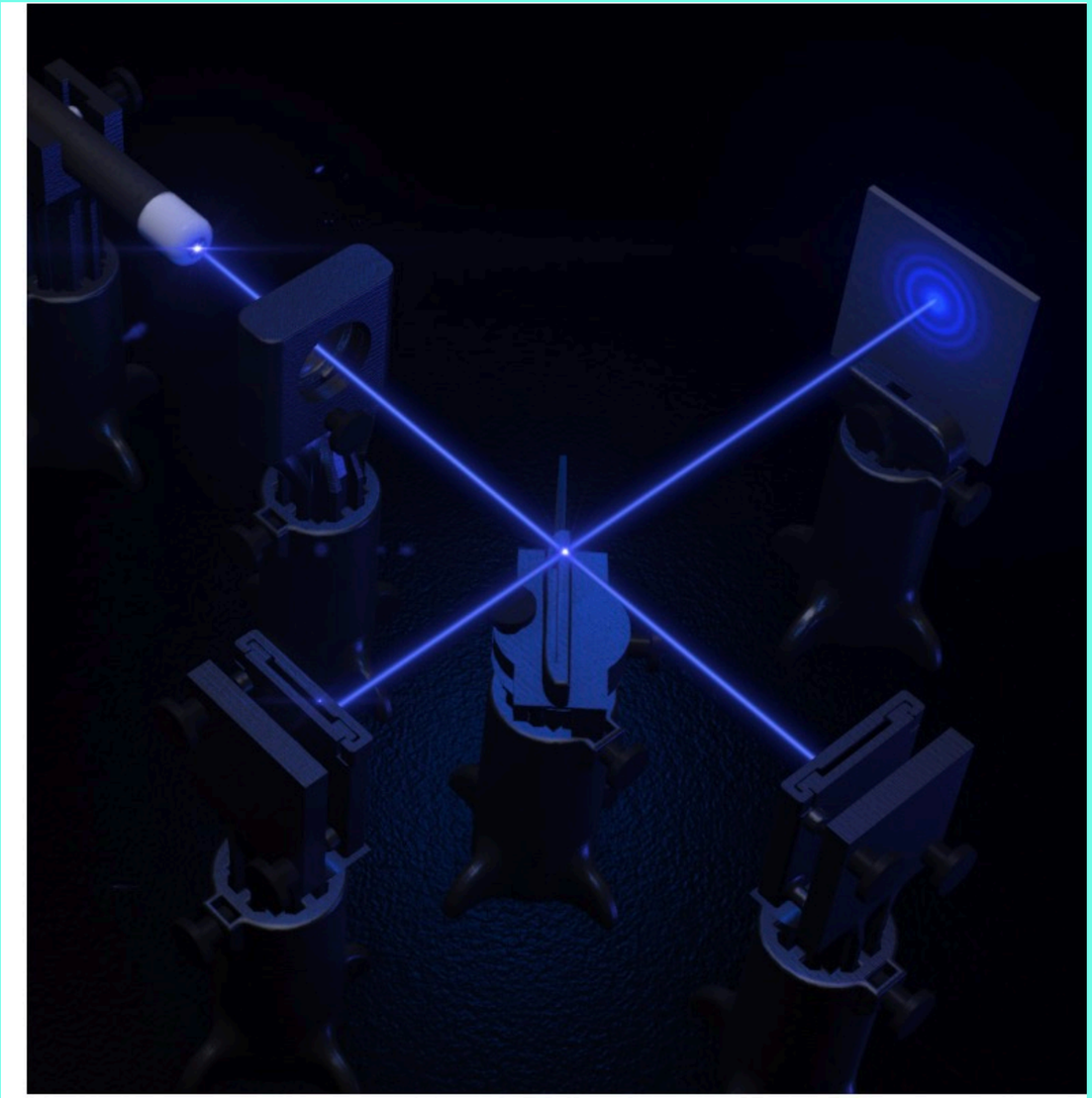
https://scoollab.web.cern.ch/laserlab3D

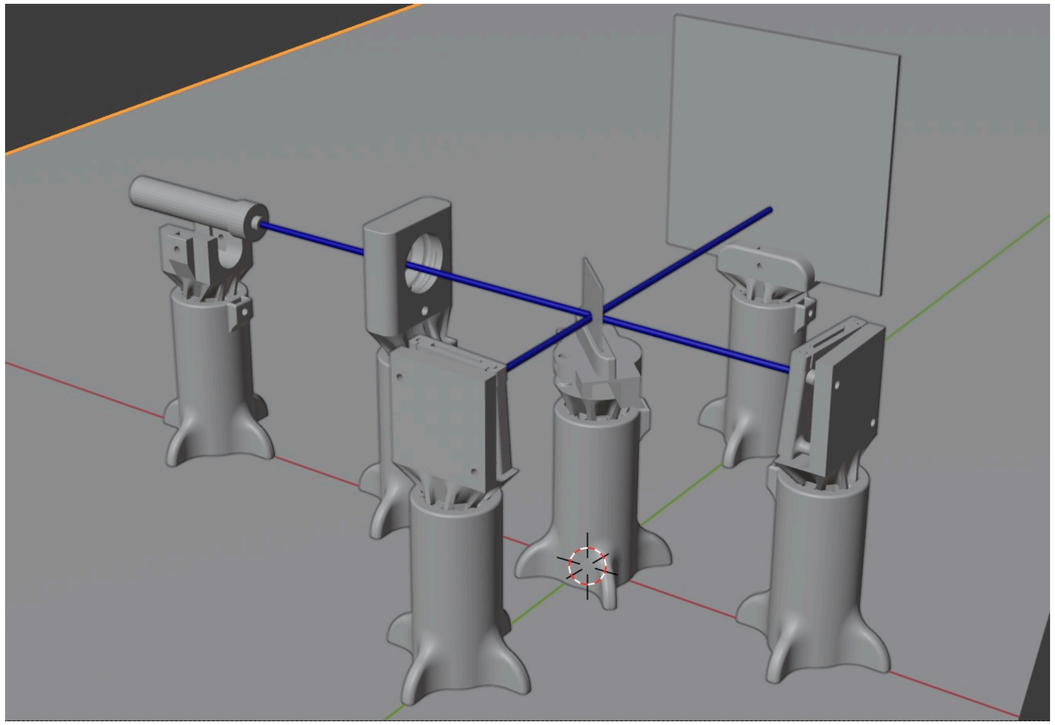


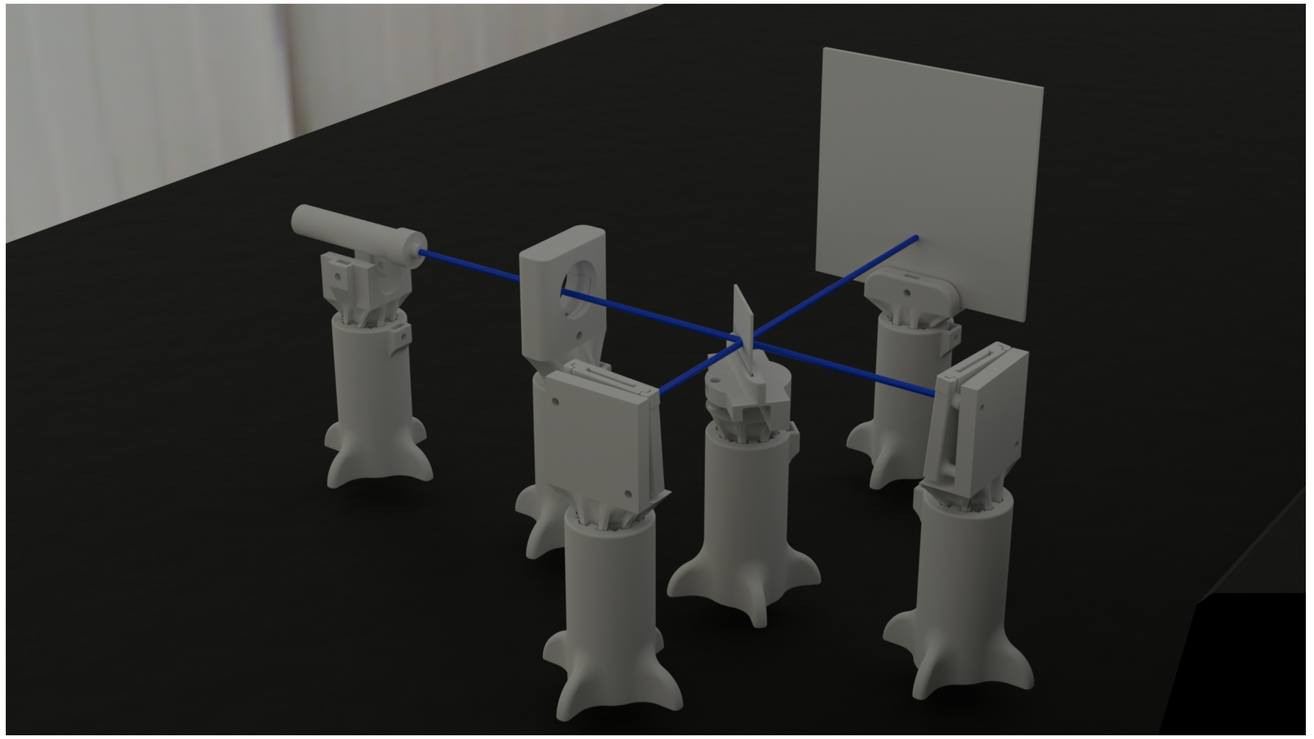
https://www.cgfigures.ca/assetlibrary

Task 8 - Use assets

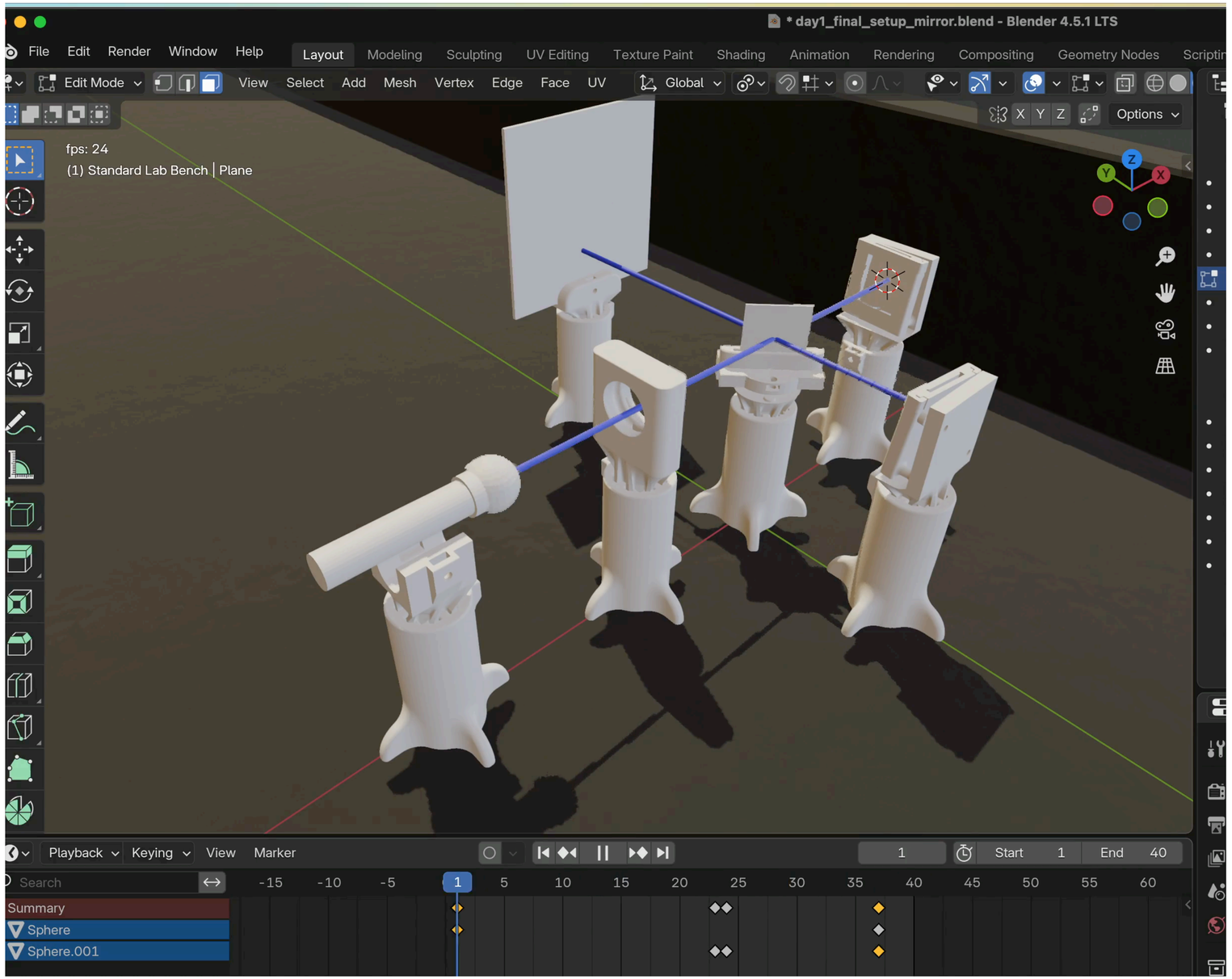




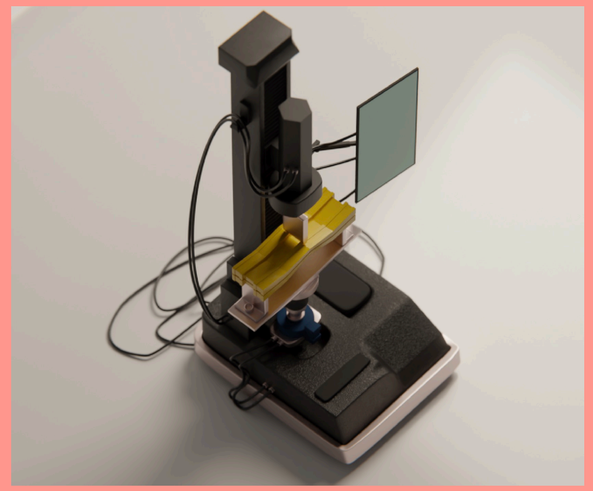




KeyFrames

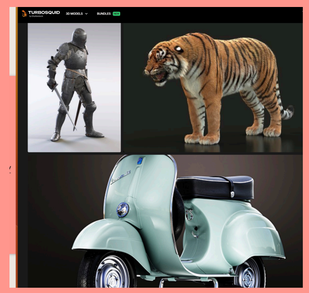

* day1_final_setup_mirror.blend - Blender 4.5.1 LTS
File Edit Render Window Help
Layout Modeling Sculpting UV Editing Texture Paint Shading Animation Rendering Compositing Geometry Nodes
Edit Mode View Select Add Mesh Vertex Edge Face UV
Global
Options
fps: 24
(1) Standard Lab Bench | Plane
Playback Keying View Marker
Start 1 End 40
Search
Summary
Sphere
Sphere.001

Further assets resources

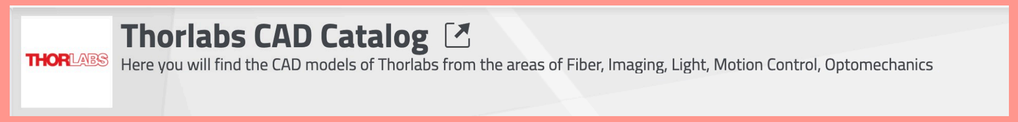


https://www.blendswap.com/
(Sometimes low quality)

https://polyhaven.com/

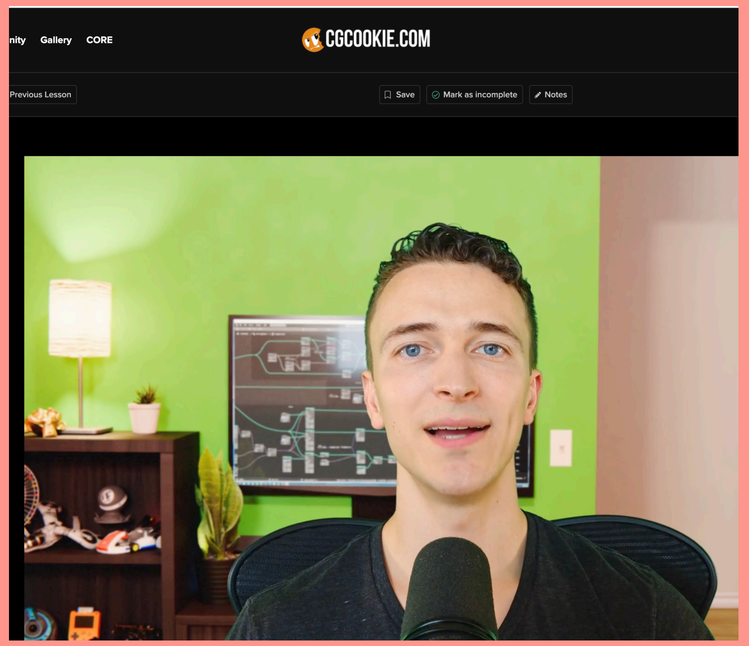


https://www.turbosquid.com/
Always very high quality ($$$)



https://www.thorlabs.de/

Further resources



https://cgcookie.com/lessons/modeling-a-sci-fi-crate-c7f9187f3995deb8

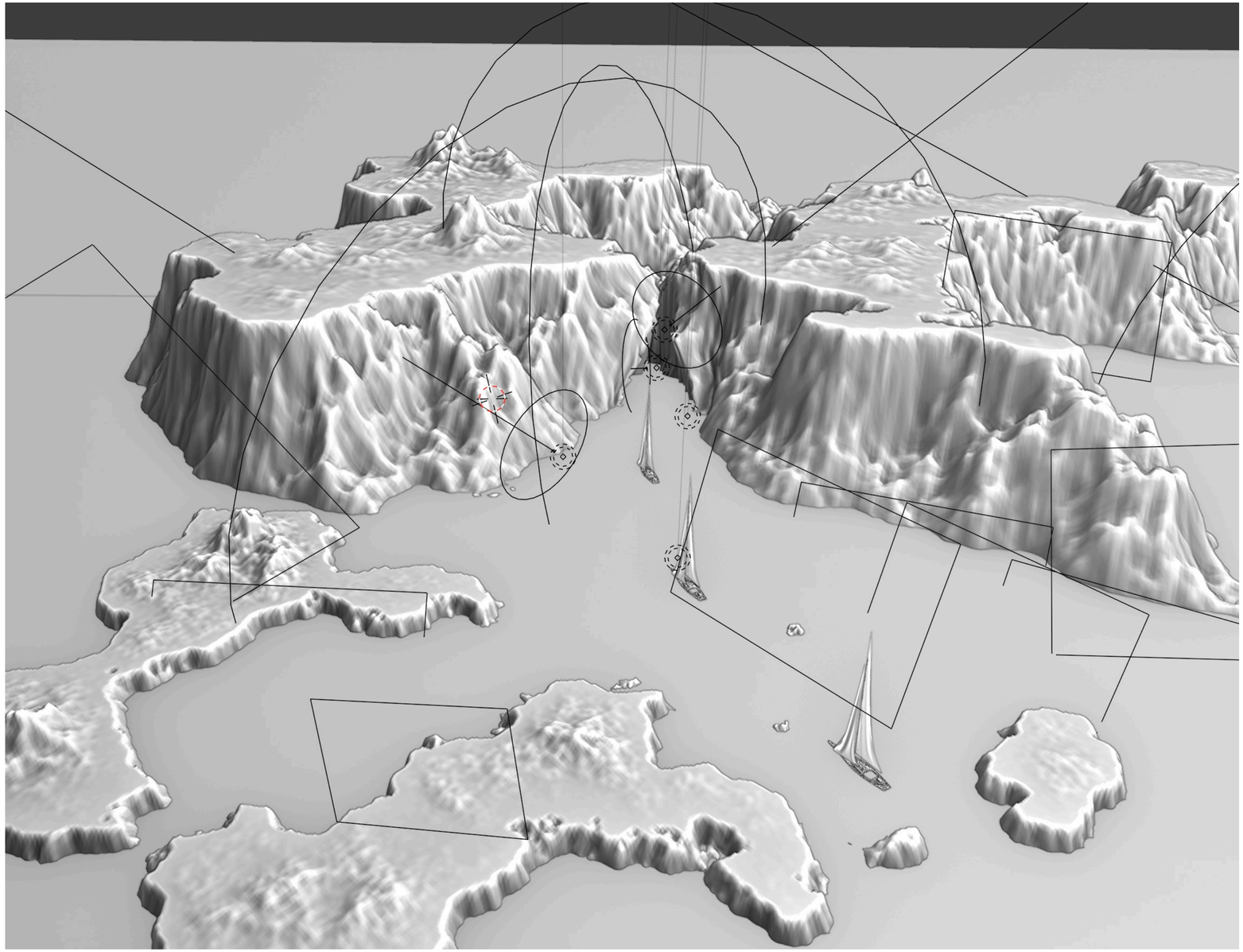
https://www.youtube.com/watch?v=QeAQx-MgQtQ

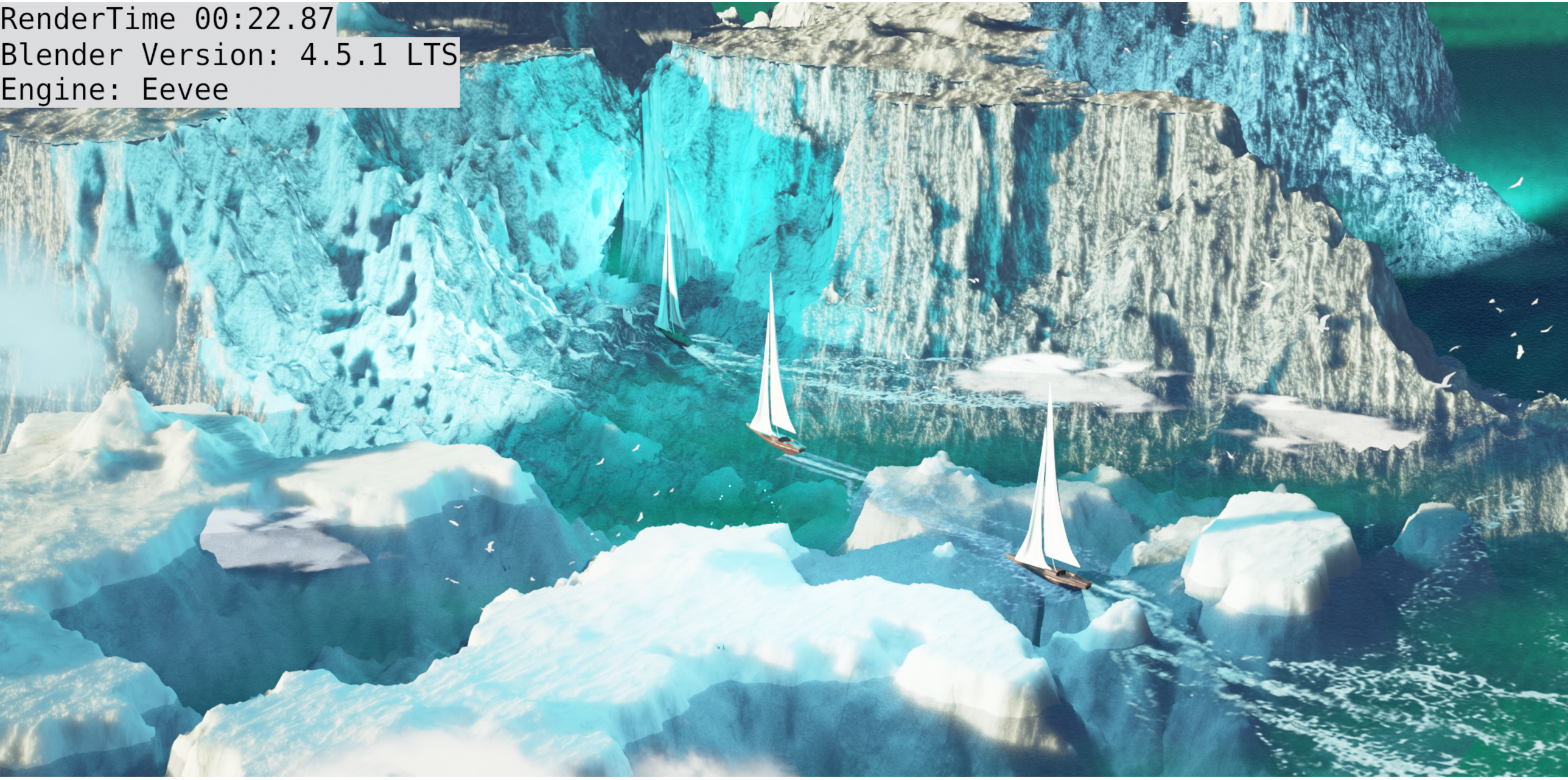
Materials & Light

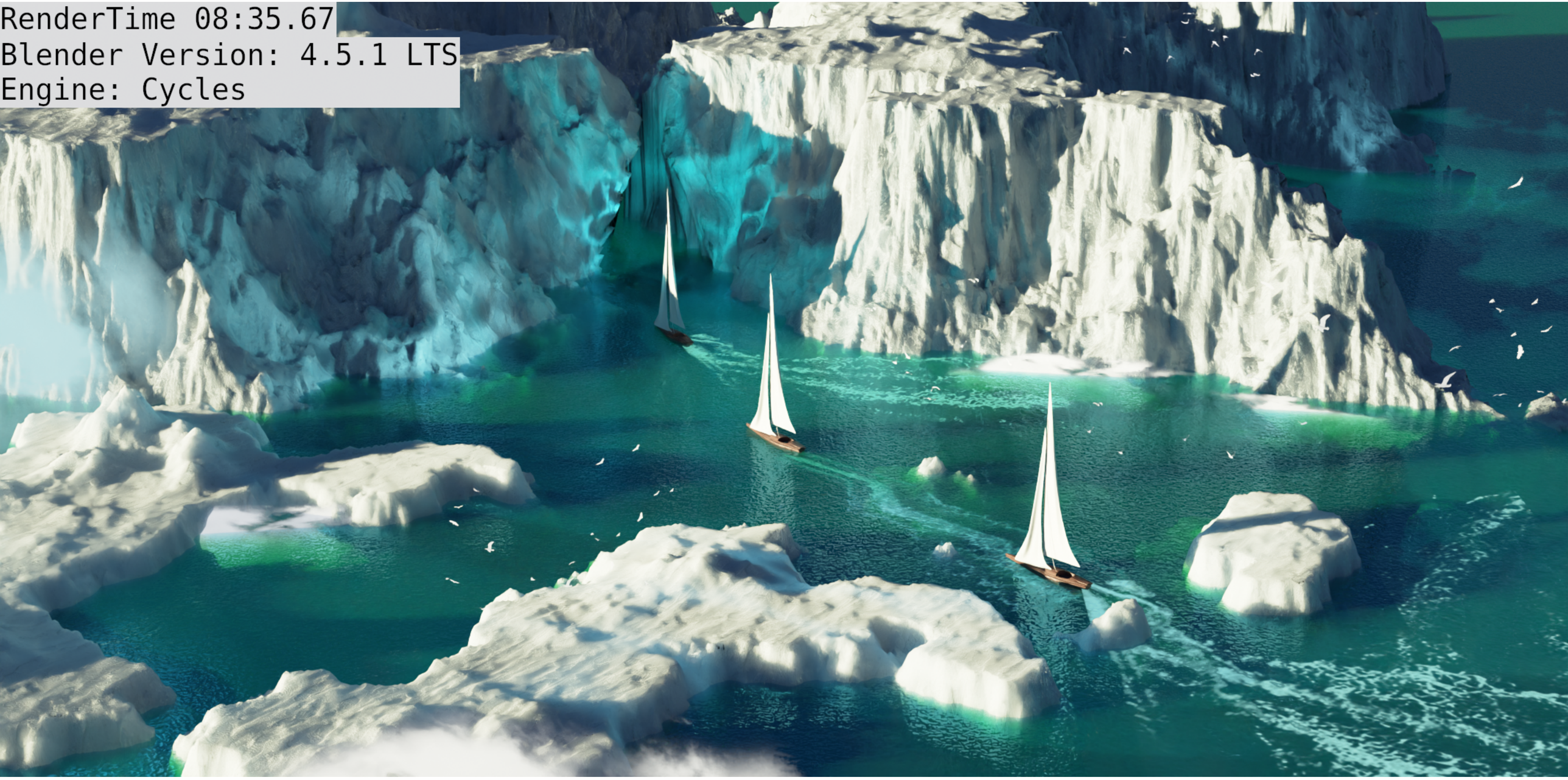
Jan-Hendrik Müller
Blender 4.5.1

August 2025

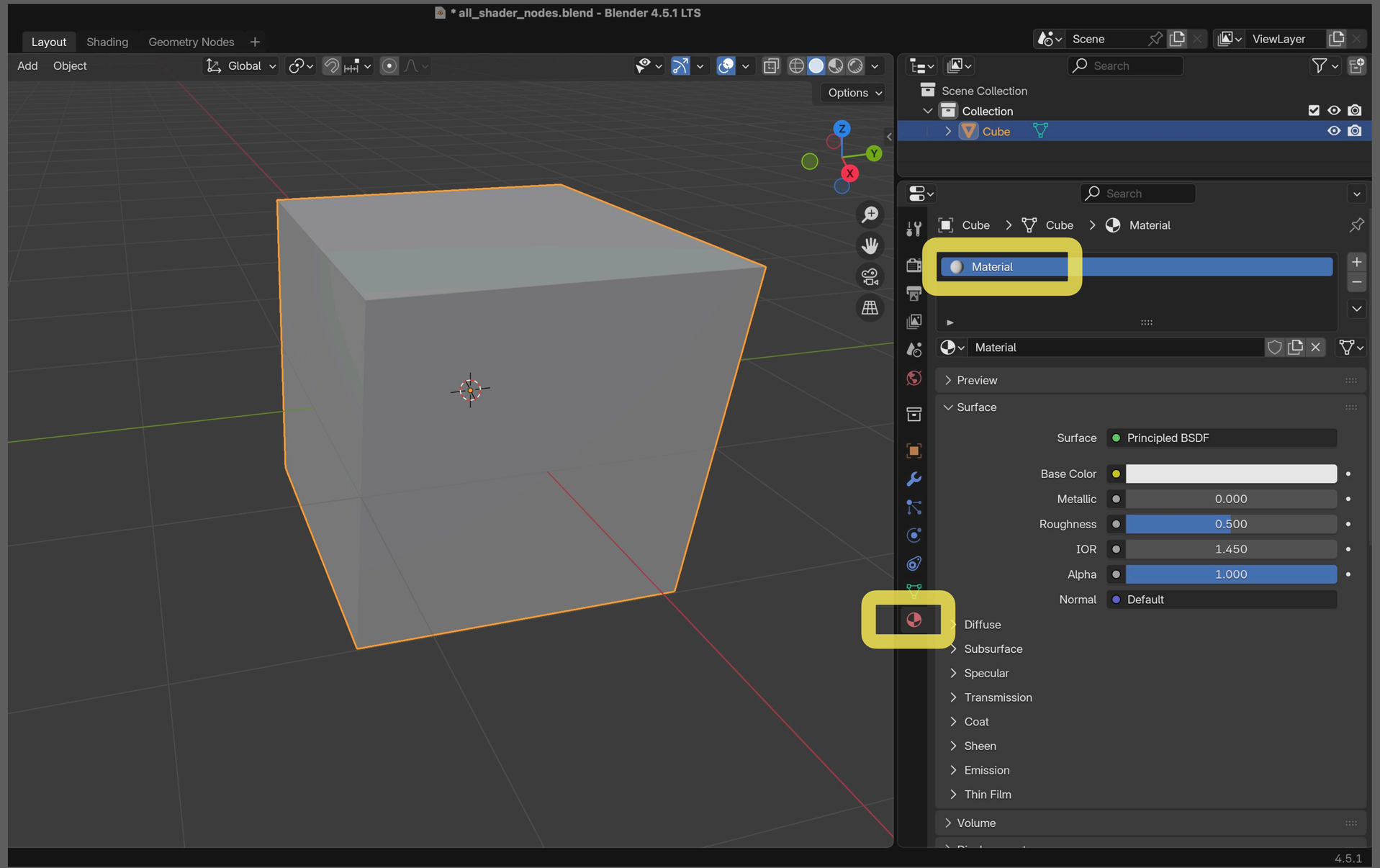
Motivation



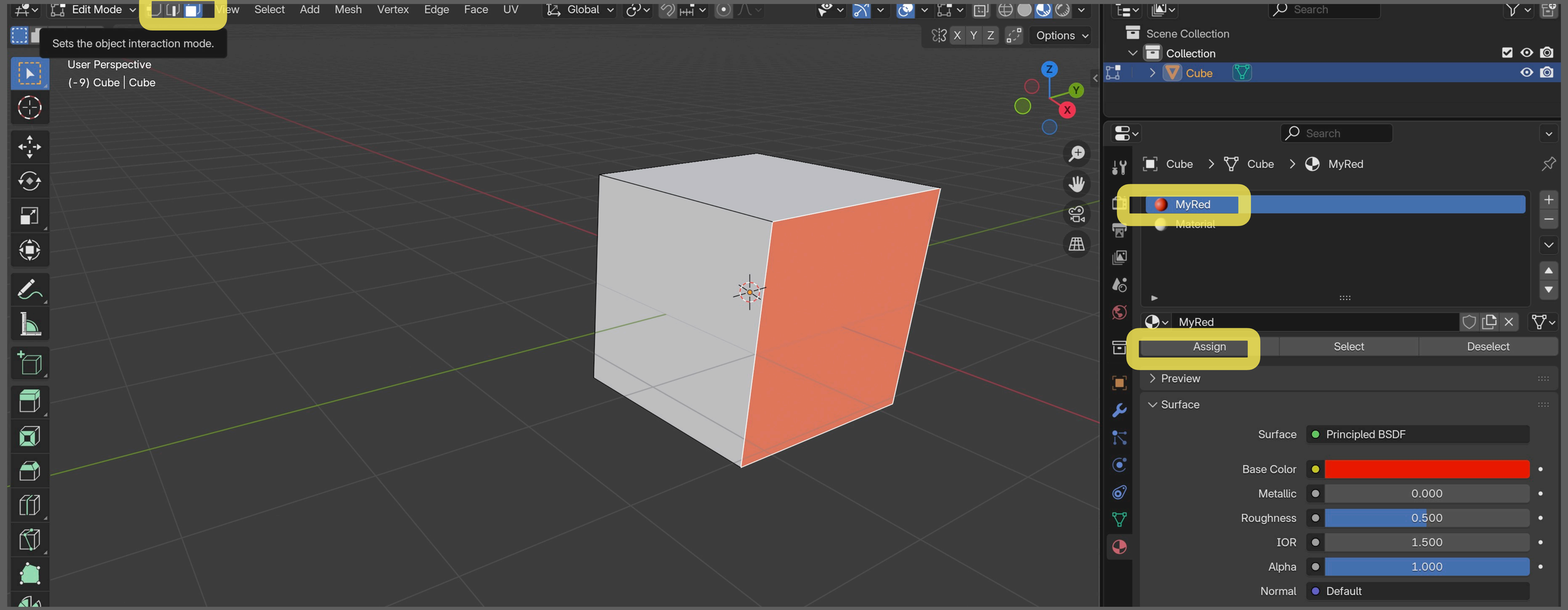

RenderTime 00:22.87
Blender Version: 4.5.1 LTS
Engine: Eevee


RenderTime 08:35.67
Blender Version: 4.5.1 LTS
Engine: Cycles

Material

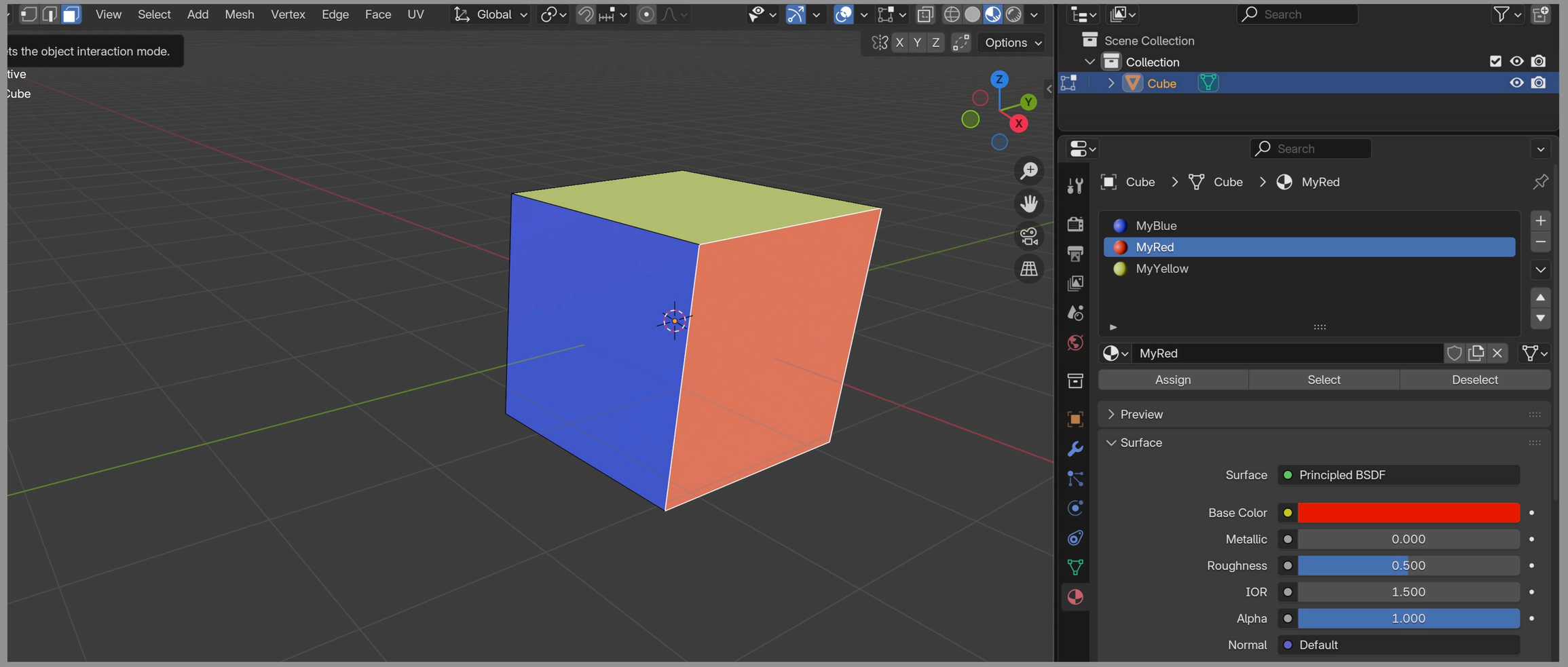

* all_shader_nodes.blend - Blender 4.5.1 LTS
Layout
Shading
Geometry Nodes
Add
Object
Global
Options
Scene
ViewLayer
Search
Scene Collection
Collection
Cube
Cube
Cube
Material
Material
Material
Preview
Surface
Surface
Principled BSDF
Base Color
Metallic
0.000
Roughness
0.500
IOR
1.450
Alpha
1.000
Normal
Default
Diffuse
Subsurface
Specular
Transmission
Coat
Sheen
Emission
Thin Film
Volume
4.5.1

Material - Assign to Face

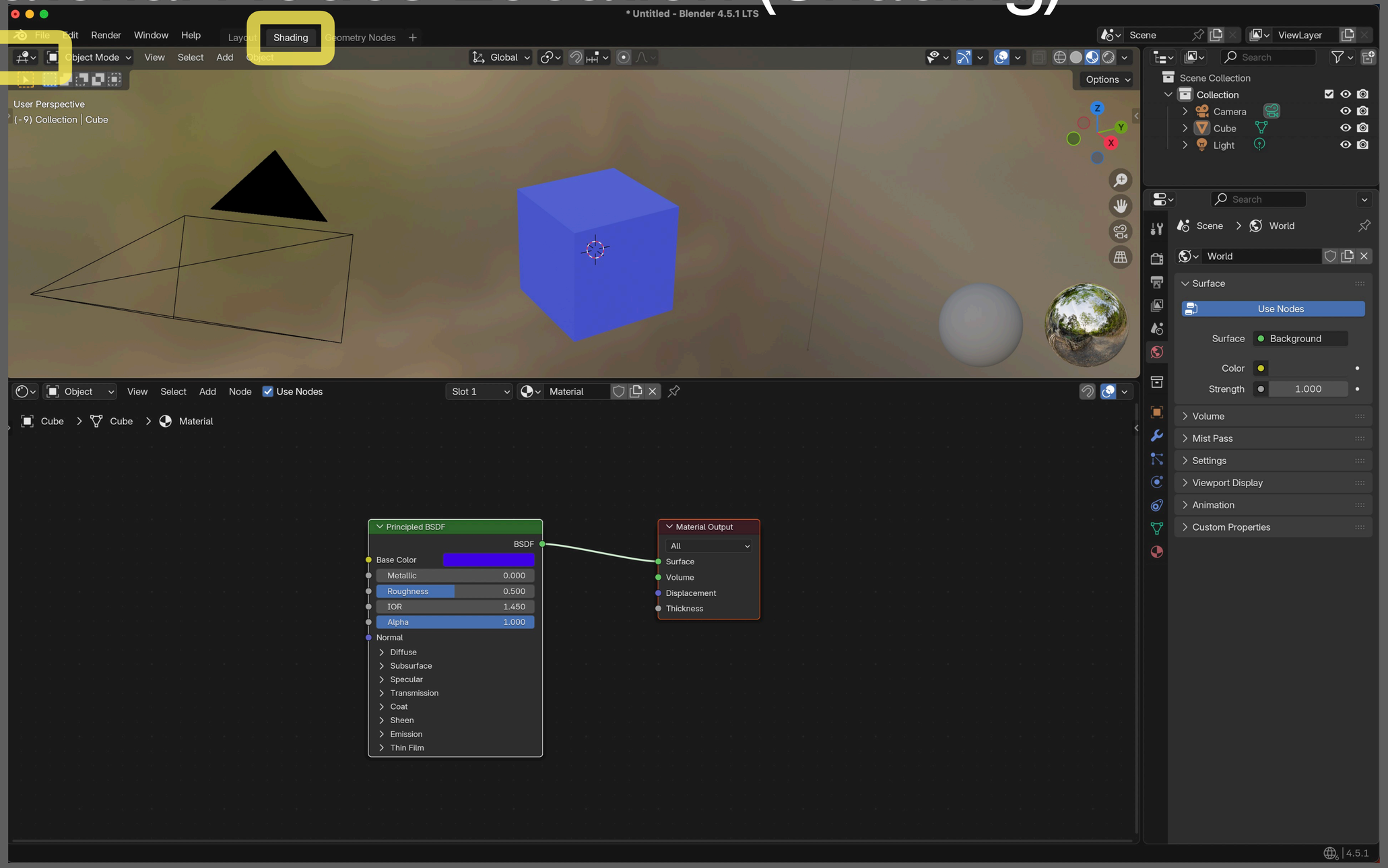


Material - Assign to Face

Task : Create a cube with 3 materials



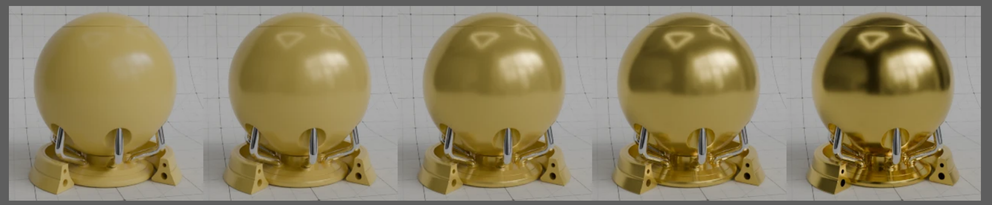
Material Nodes Location (Shading)



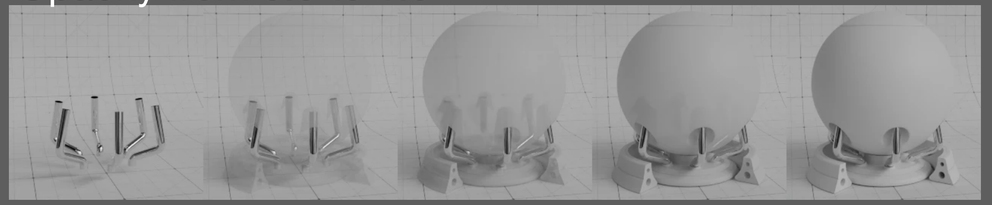
PrincipledBSDF

- A BSDF (*Bidirectional Scattering Distribution Function*) describes how light is reflected, refracted, or scattered when it hits a surface.

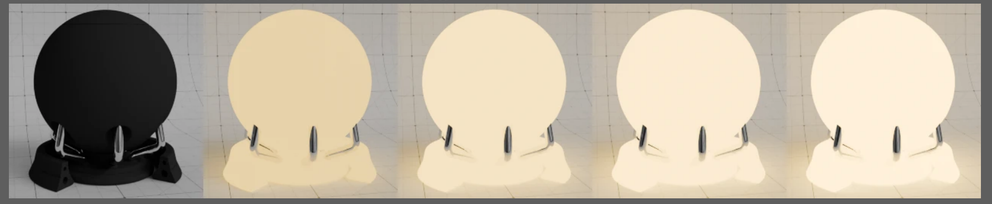
Metallic from 0.0 to 1.0

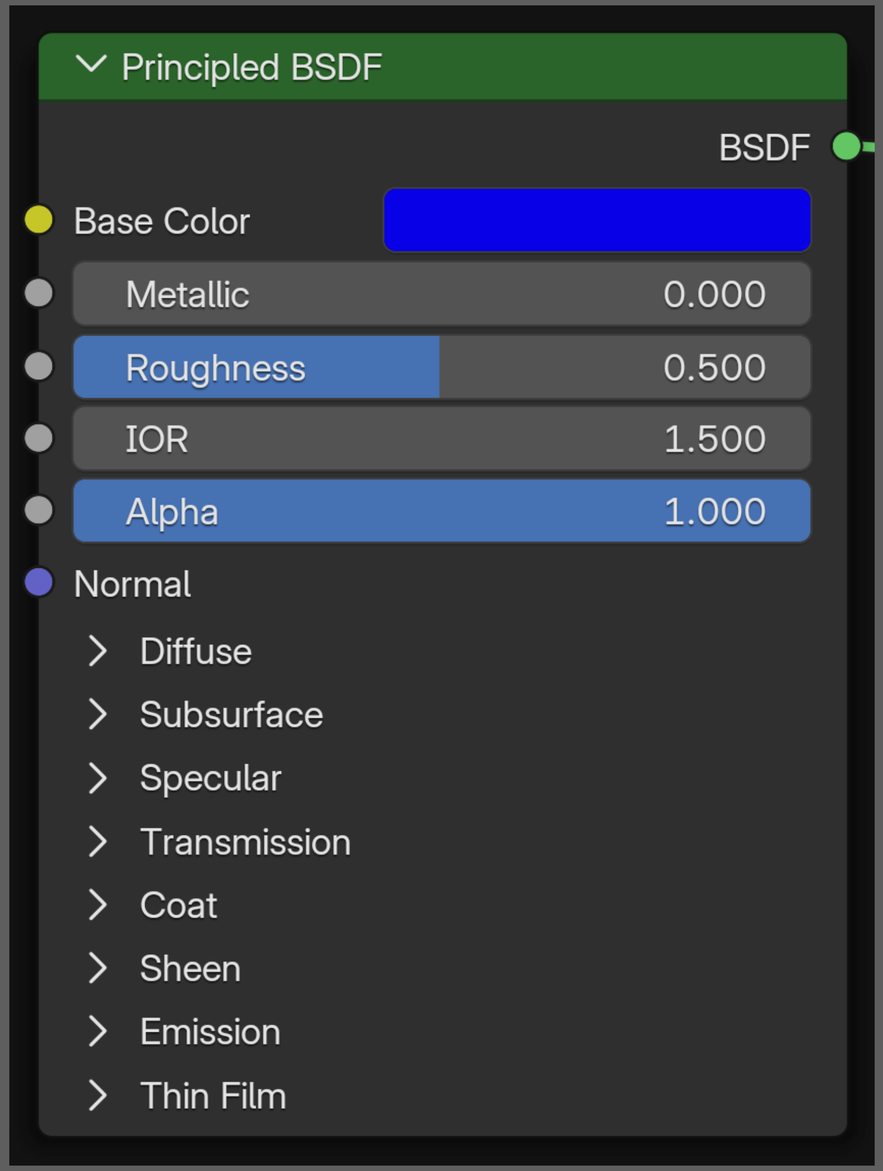


Opacity from 0.0 to 1.0



Emission from 0.1 to 1.0

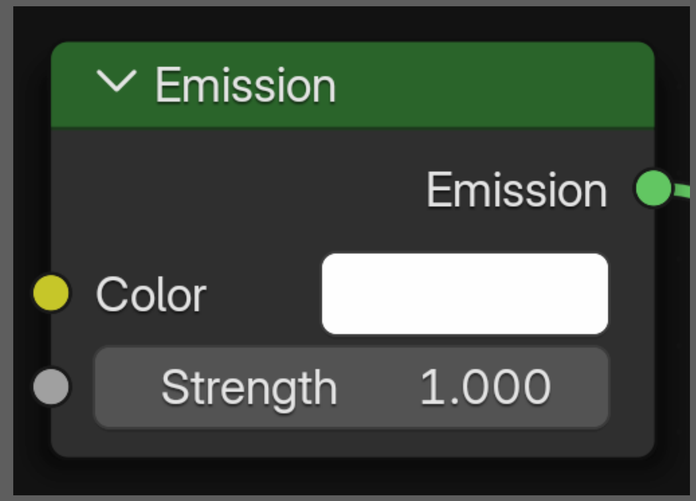




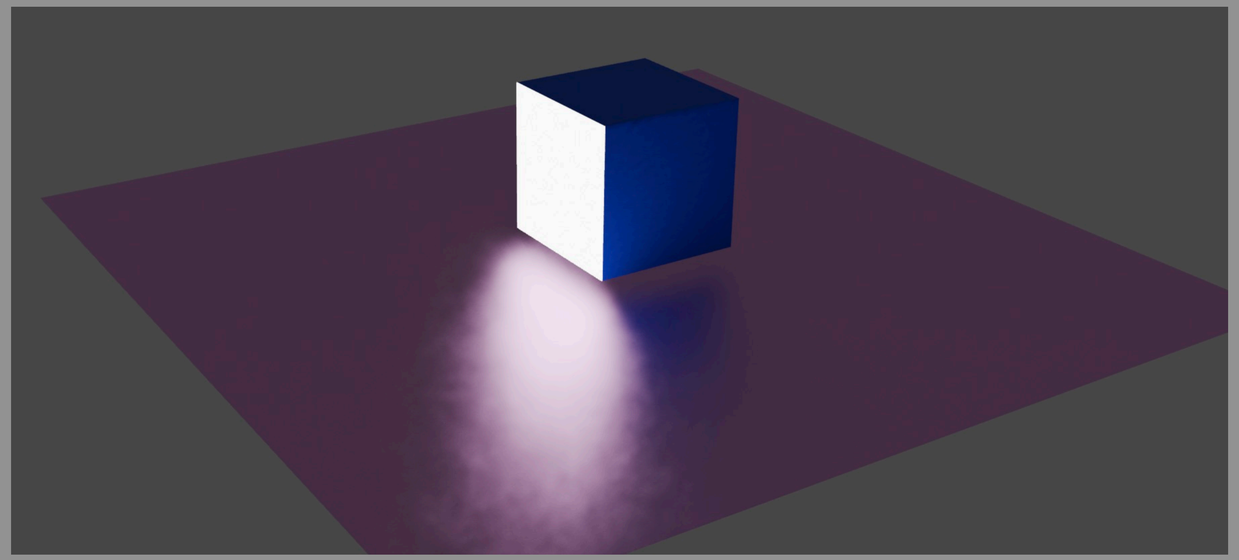
More examples at: https://docs.blender.org/manual/en/latest/render/shader_nodes/shader/principled.html

Emission

- Make object “shadeless” (strength = 1)
- Emits light and can be used as illumination
- Not affected by other lights



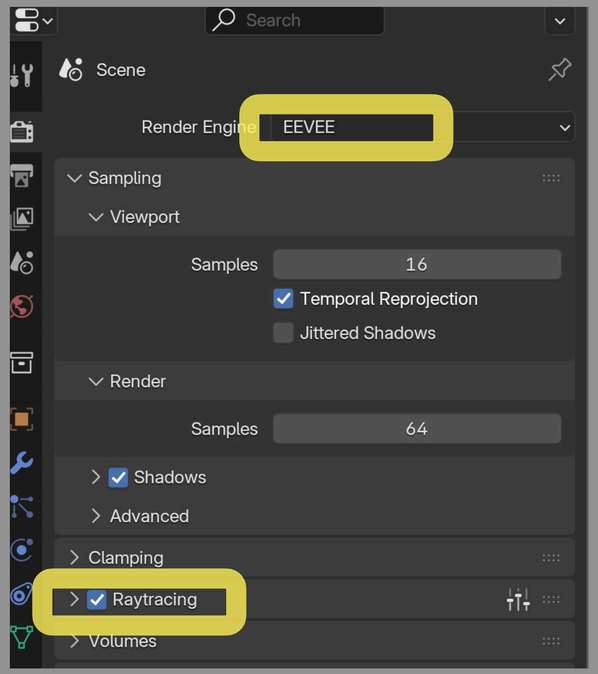
Material Scene

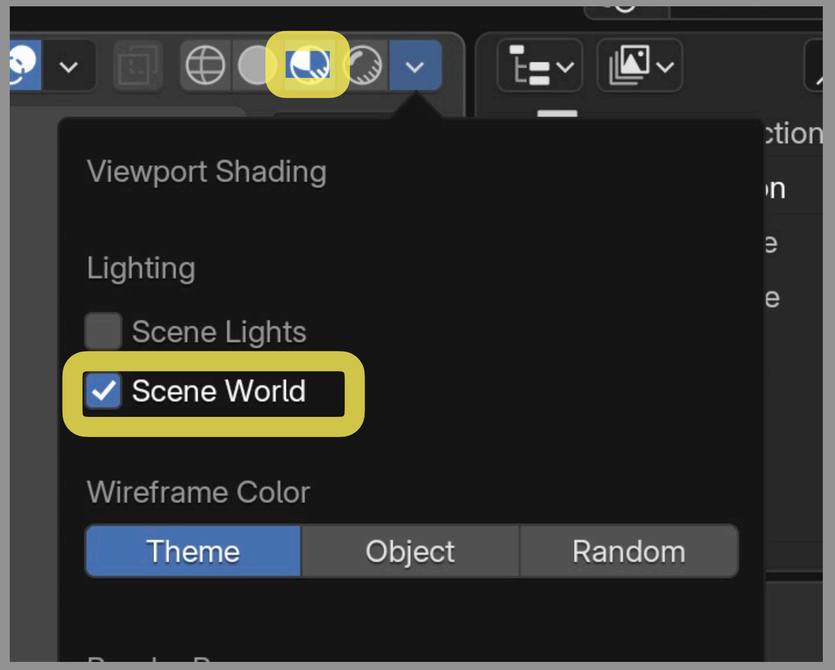


Task

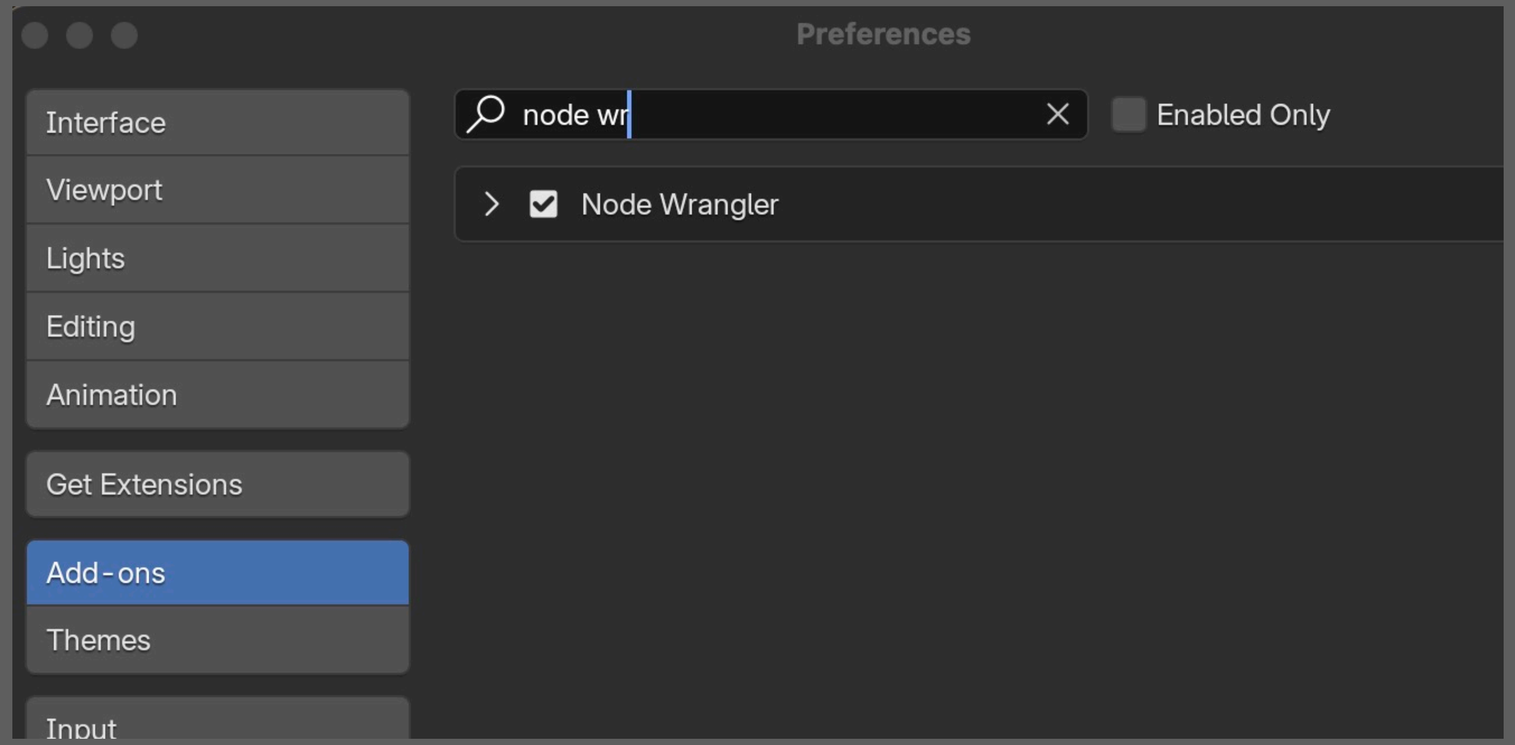
- Reflective surface
- Cube that emits light from one side

Settings

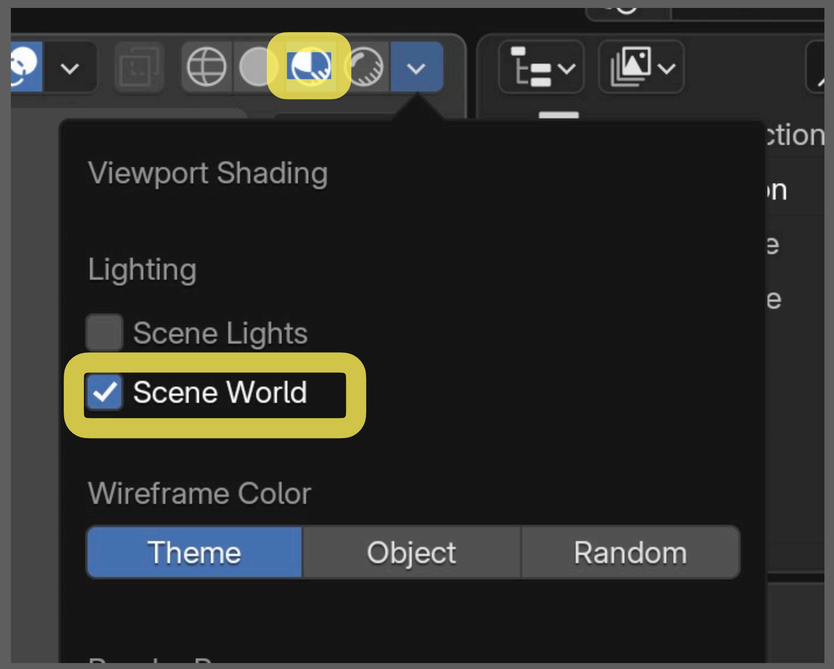


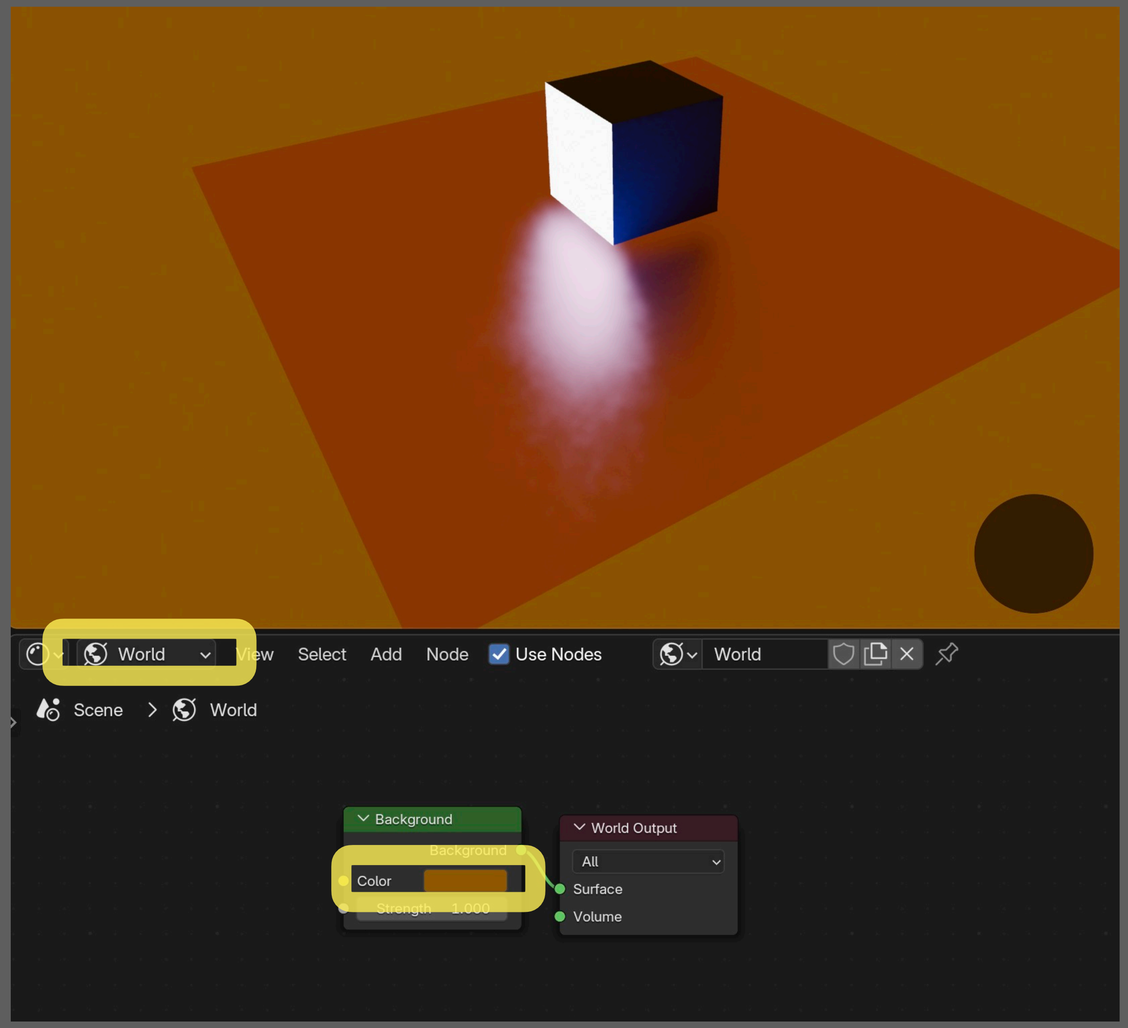


Node Wrangler Extension



Scene World lighting





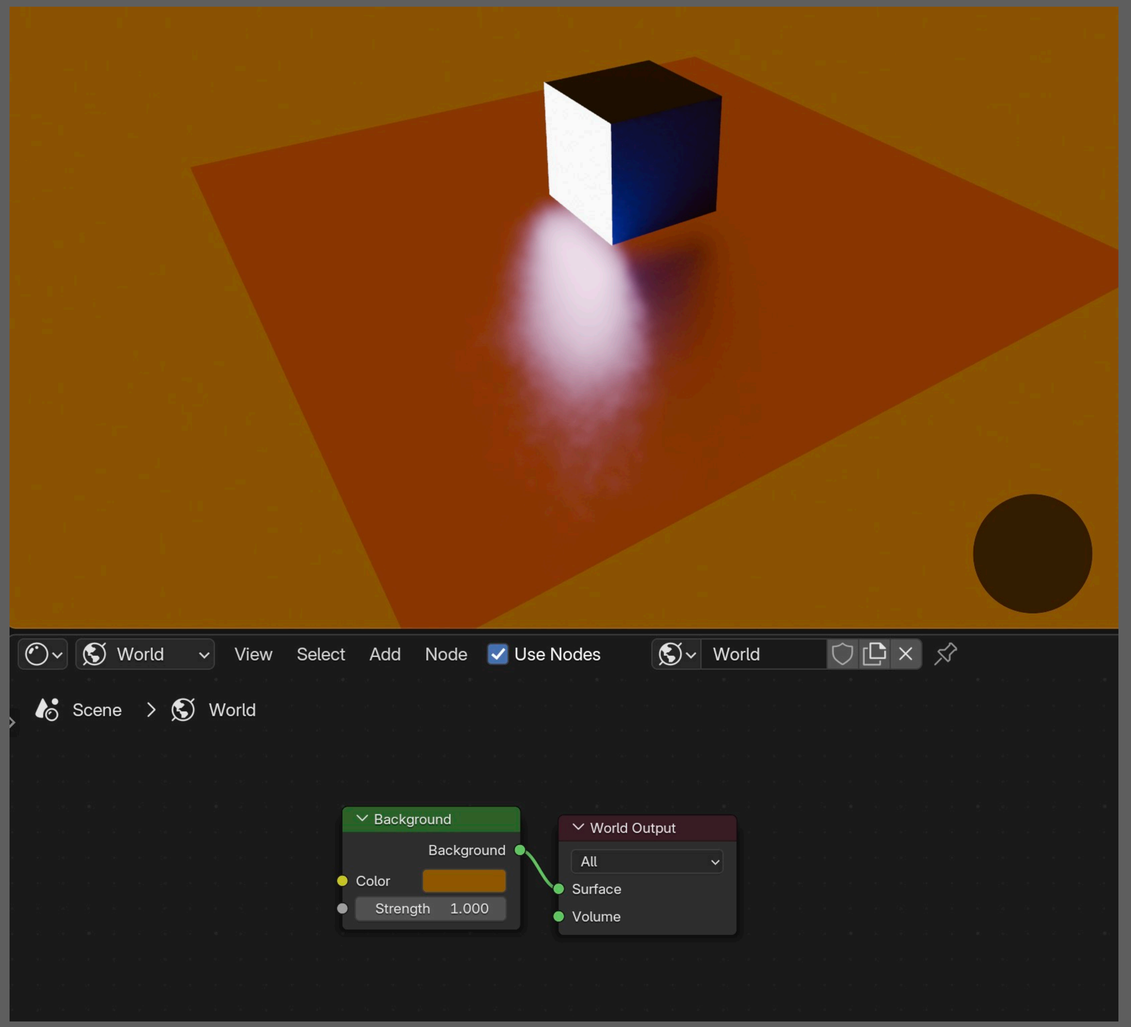
Task:

Create this scene

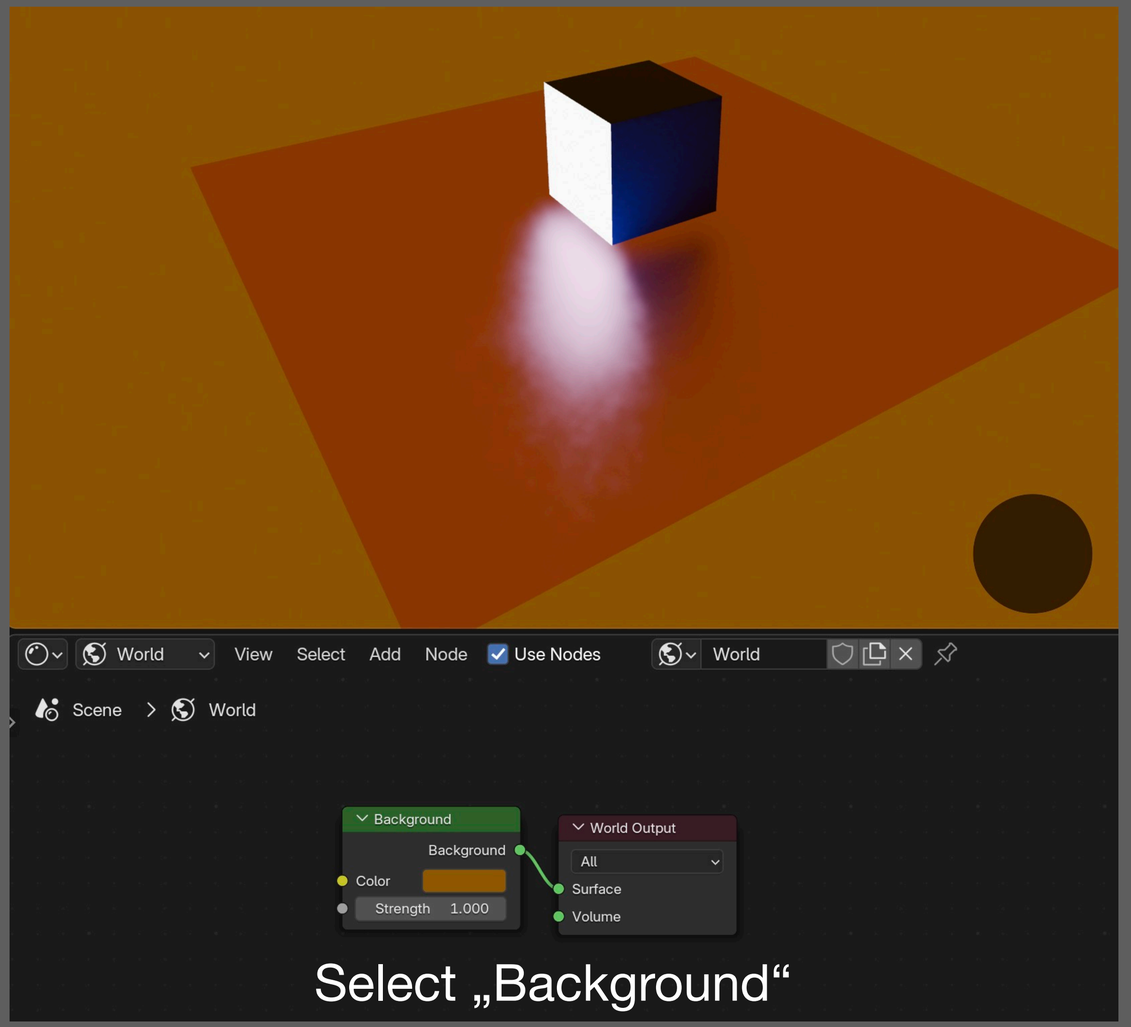
Use Environment Texture

Task:

Create this scene



Use Environment Texture



Select „Background“

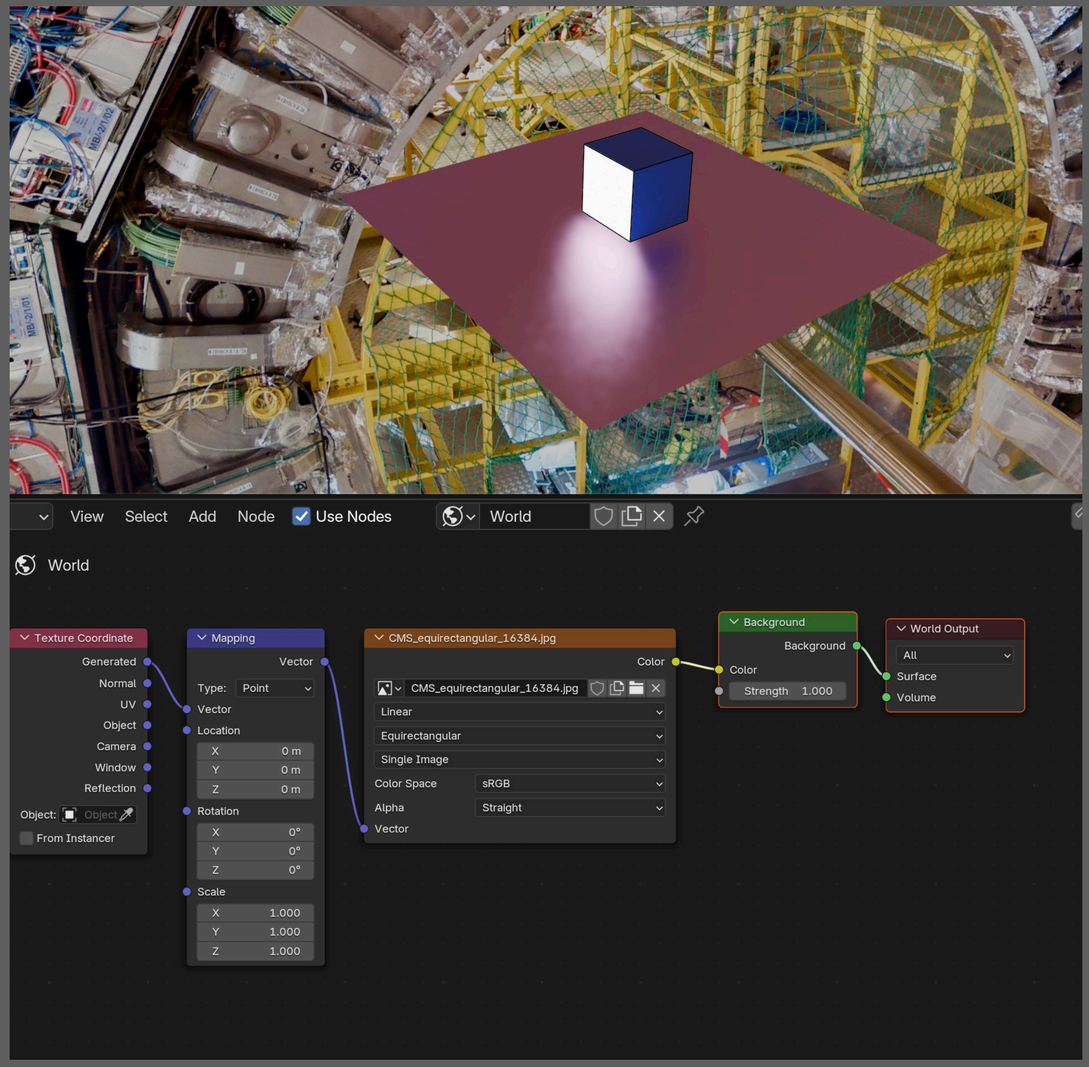
Press „Command +T“

Open HDRI

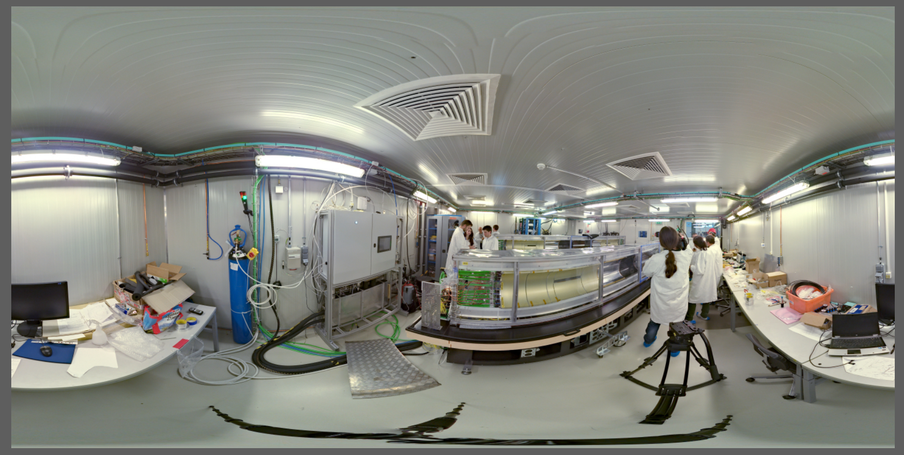
Use Environment Texture

Task:

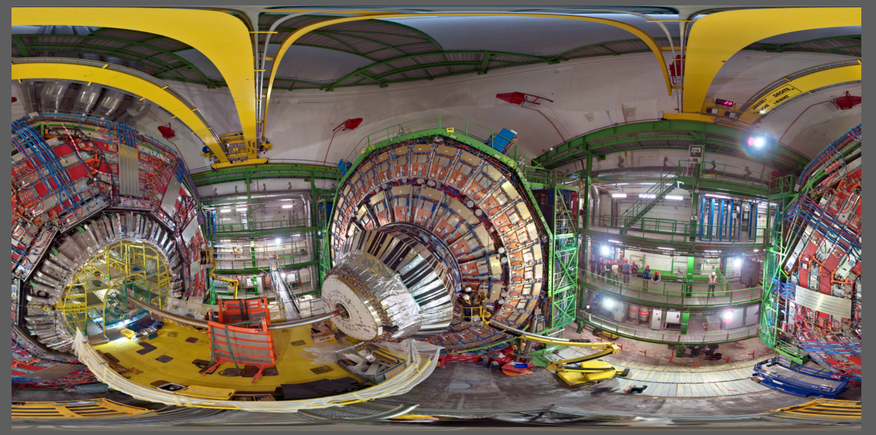
Create this Scene



HDRI - Resources



https://cds.cern.ch/record/2252595



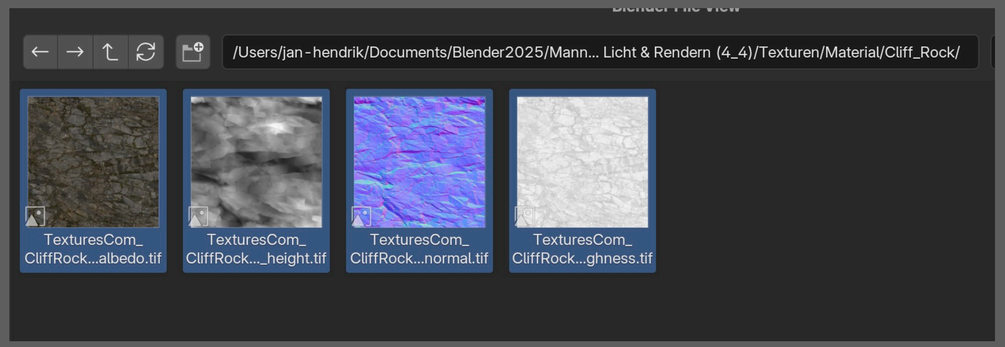
https://polyhaven.com/a/qwantani_moonrise_puresky

Setting Up Materials

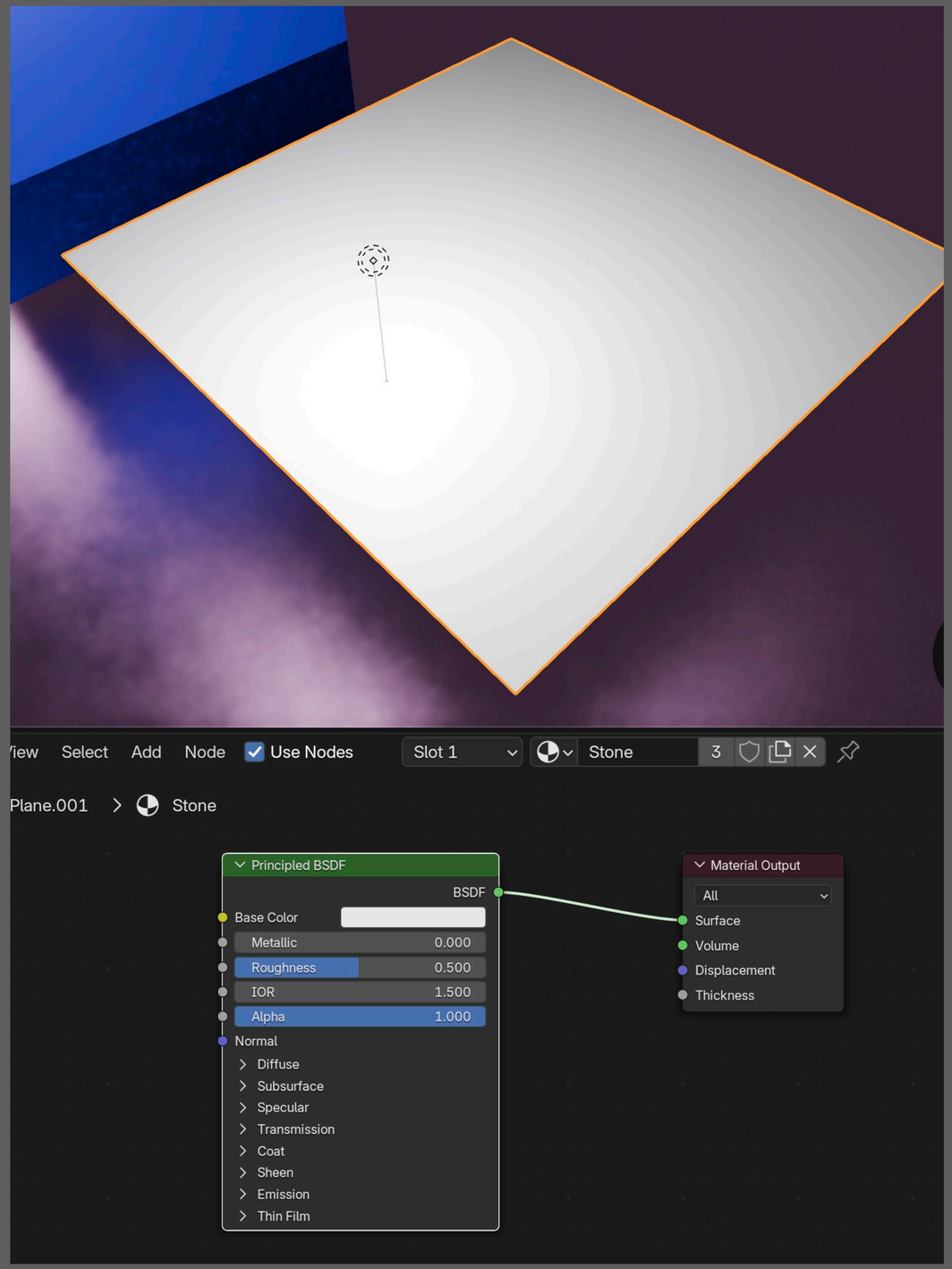
Task

Select Principled BSDF

Press „Command+Shift+T“



Open Cliff Rock Texture

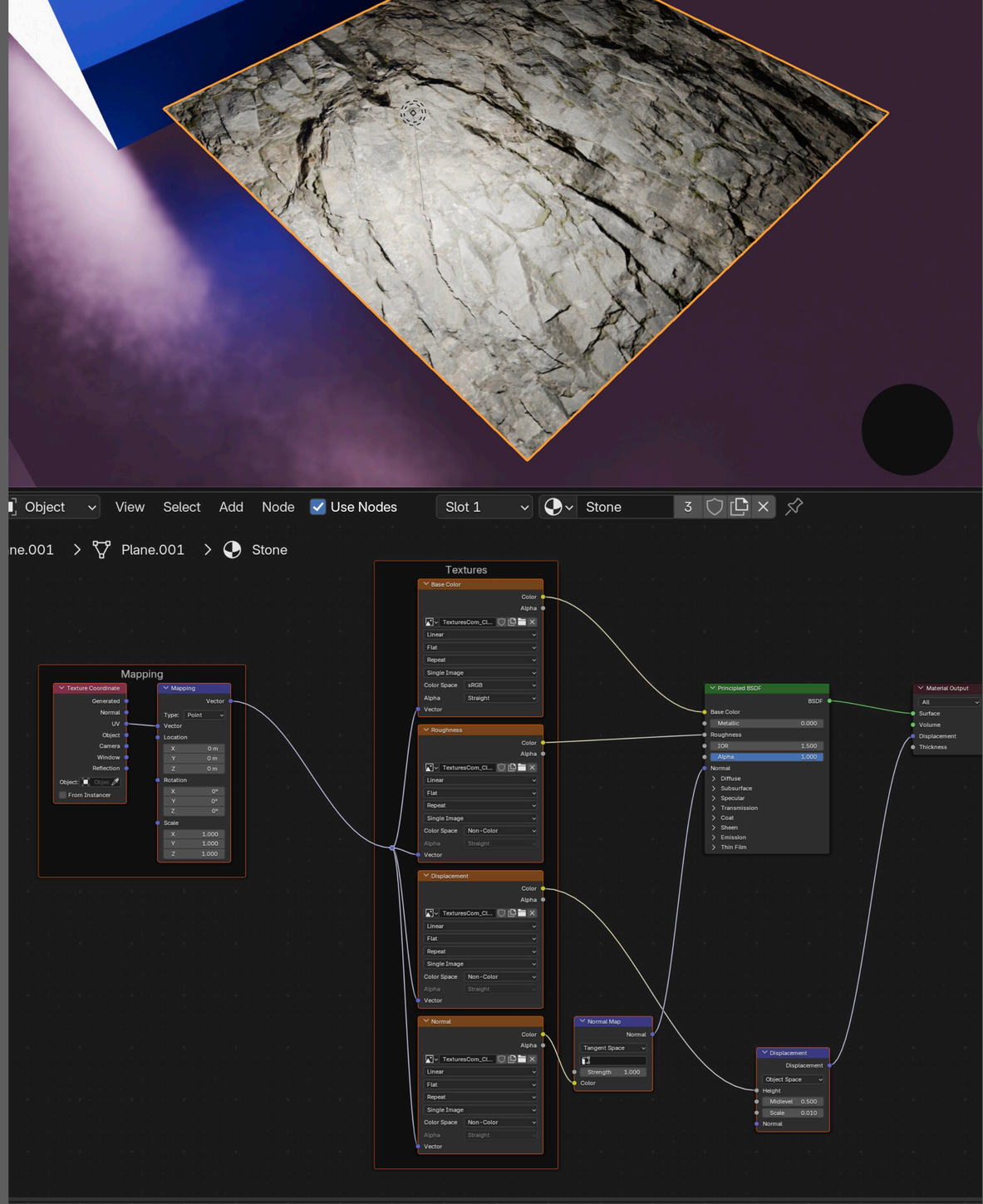


Setting Up Materials

Task

Next:

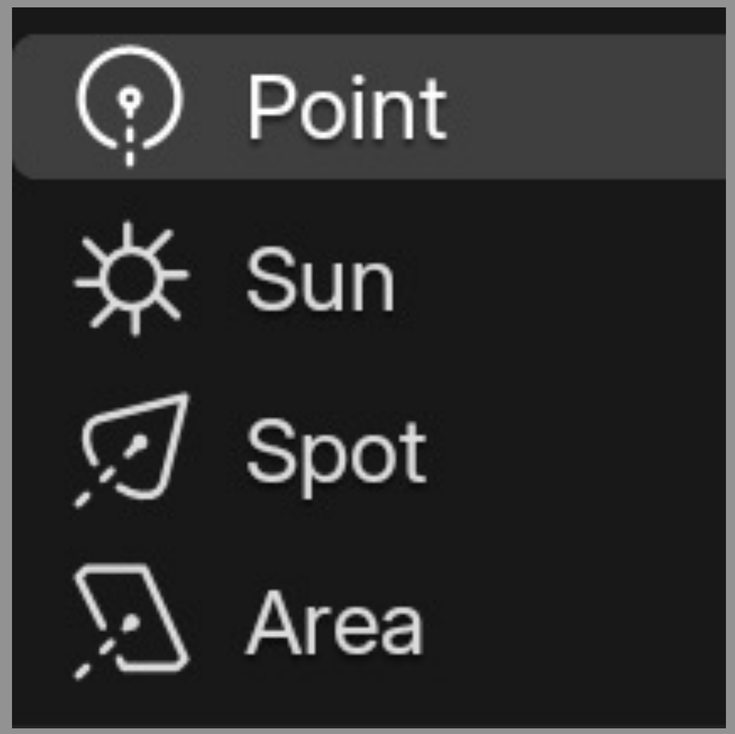
- Add a „Point Light“ to the scene, move it around
- Mute the Nodes one by one (M) and see what happens
- Move sliders in the „Mapping“ panel.

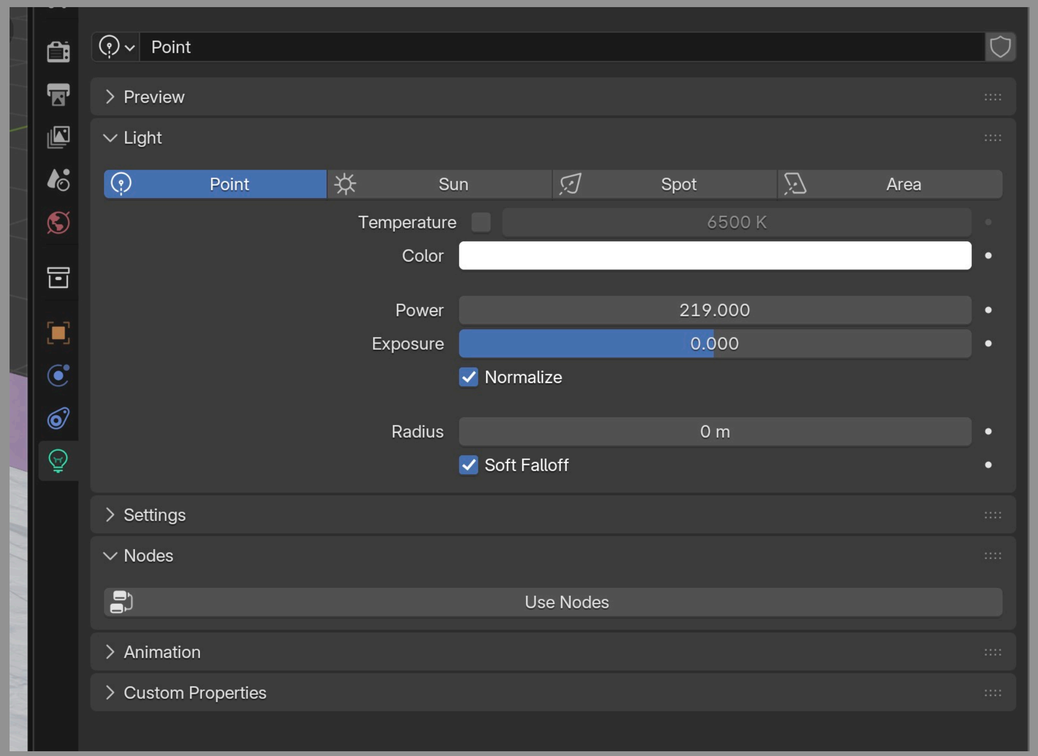


More Light Sources

Task

Use these light sources in your scene
Change properties in this side panel



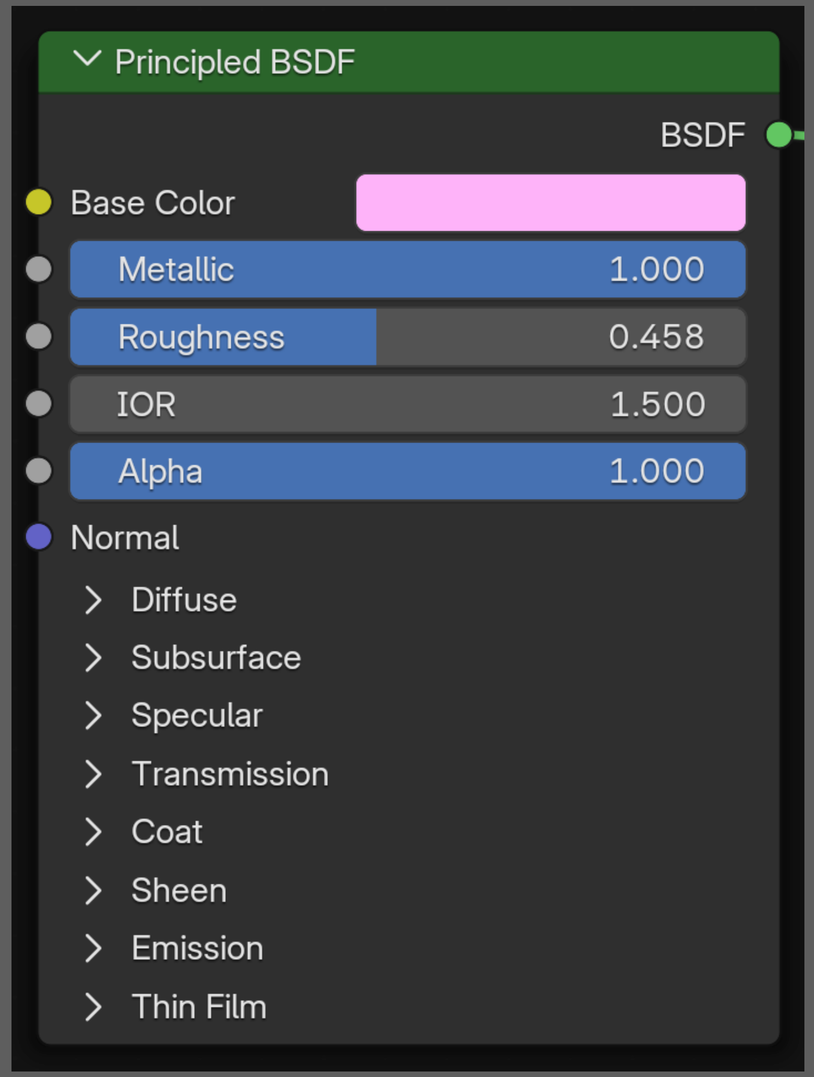


More on Nodes

Yellow: Color input

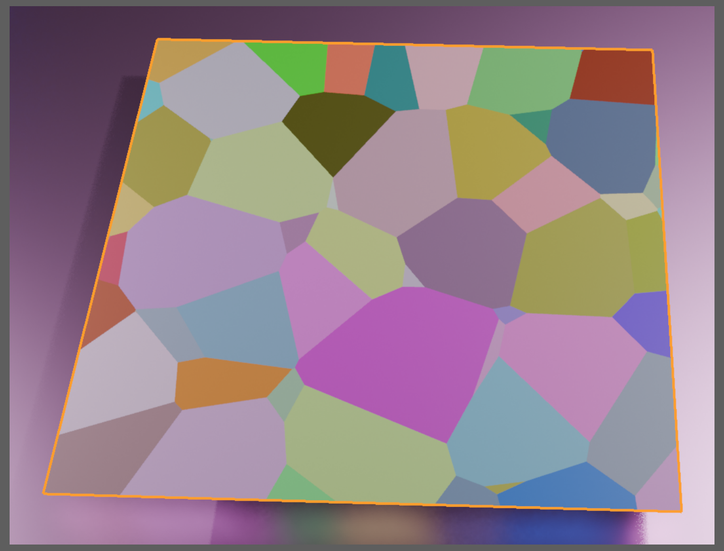
Grey: Numerical Value

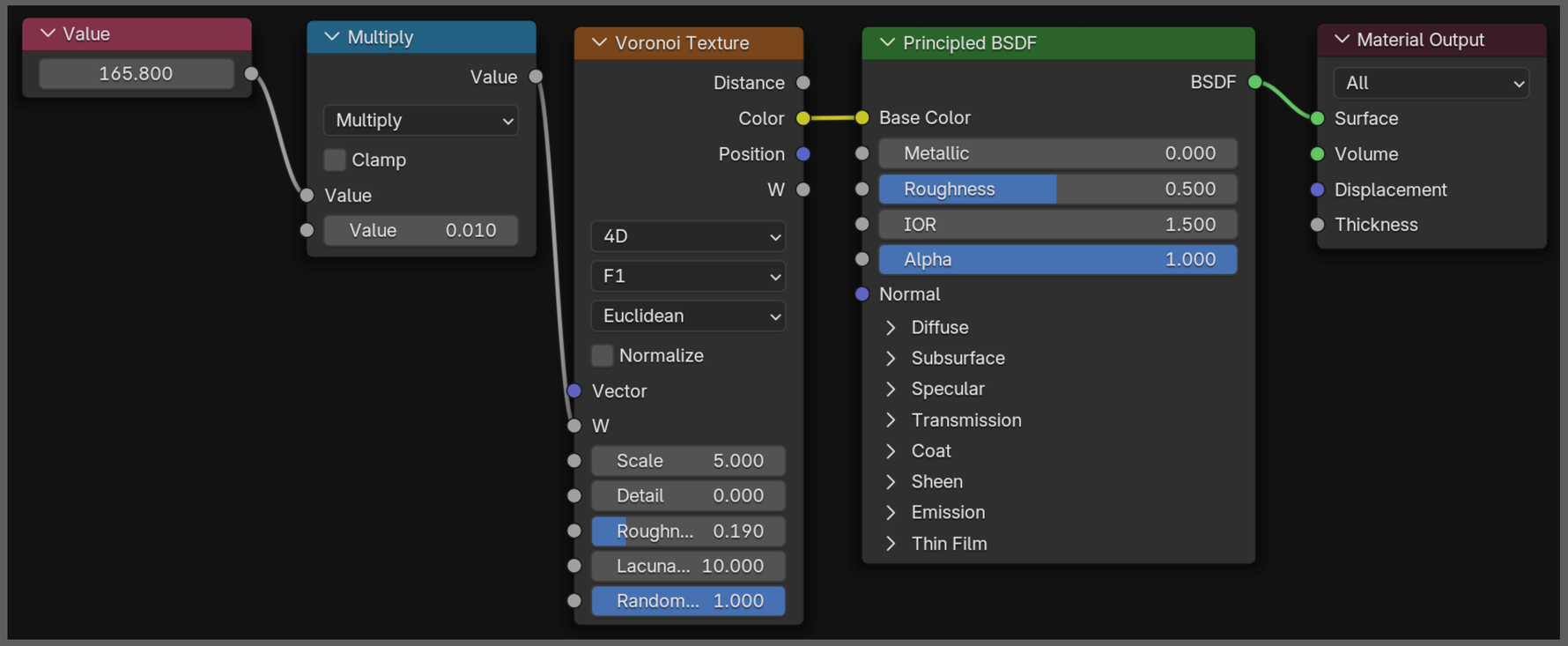
Blue: Vector



Green: Shader

Textures

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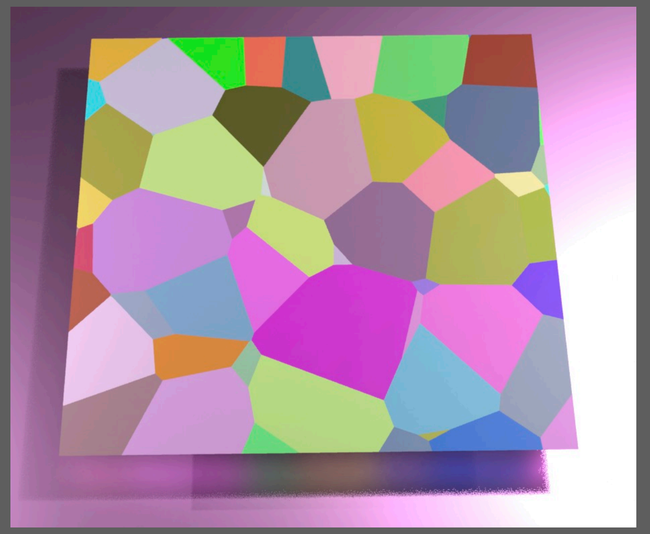
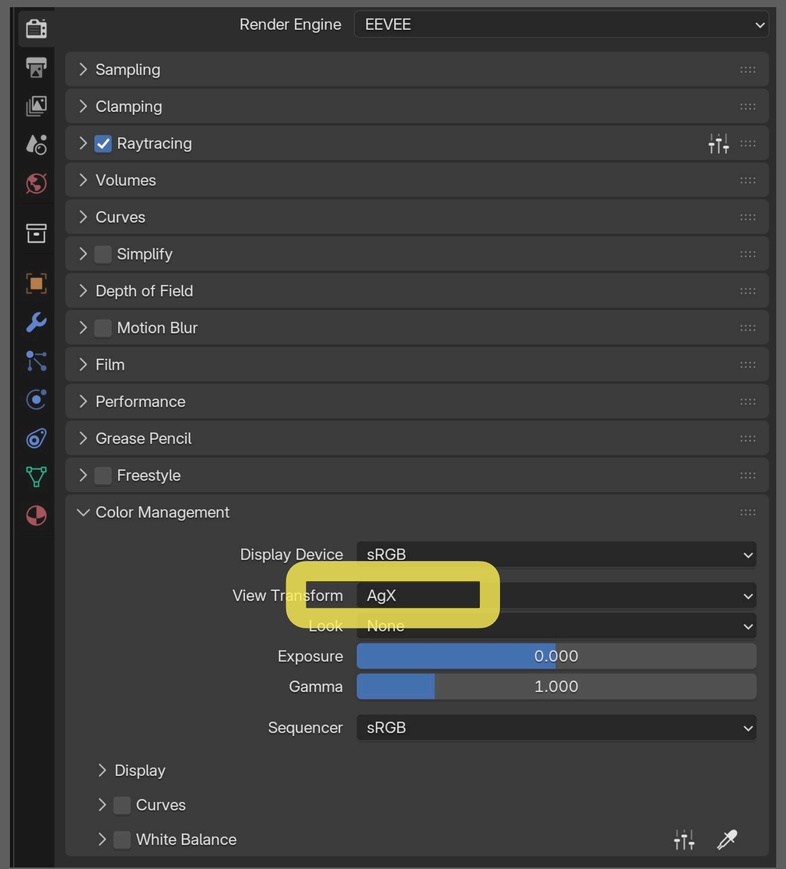
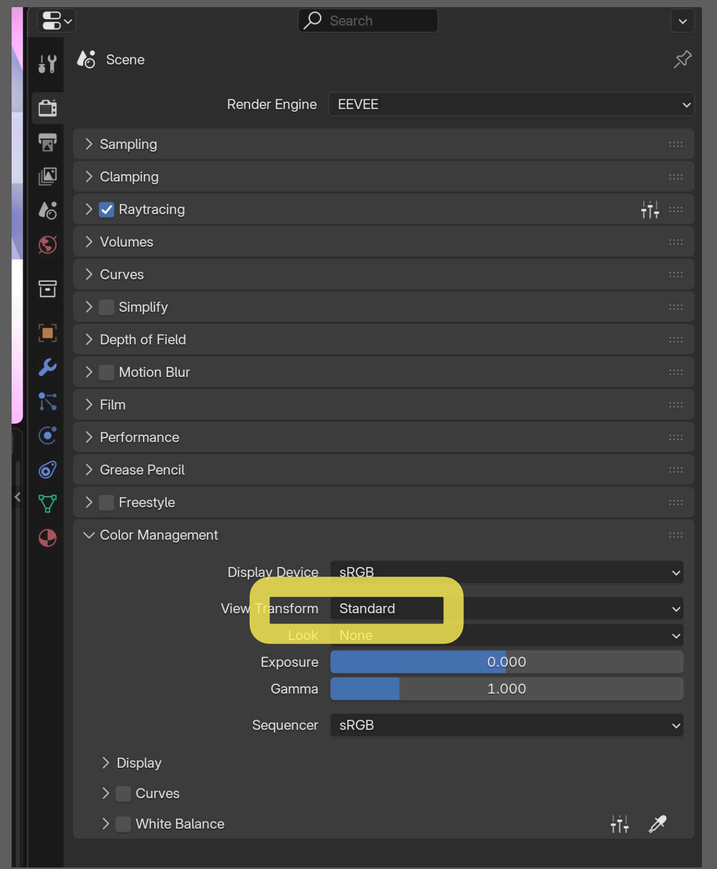
165.800
Multiply
Value
Multiply
Clamp
Value
Value 0.010
Voronoi Texture
Distance
Color
Position
W
4D
F1
Euclidean
Normalize
Vector
W
Scale 5.000
Detail 0.000
Roughn... 0.190
Lacuna... 10.000
Random... 1.000
Principled BSDF
BSDF
Base Color
Metallic 0.000
Roughness 0.500
IOR 1.500
Alpha 1.000
Normal
Diffuse
Subsurface
Specular
Transmission
Coat
Sheen
Emission
Thin Film
Material Output
All
Surface
Volume
Displacement
Thickness

Viewport color settings

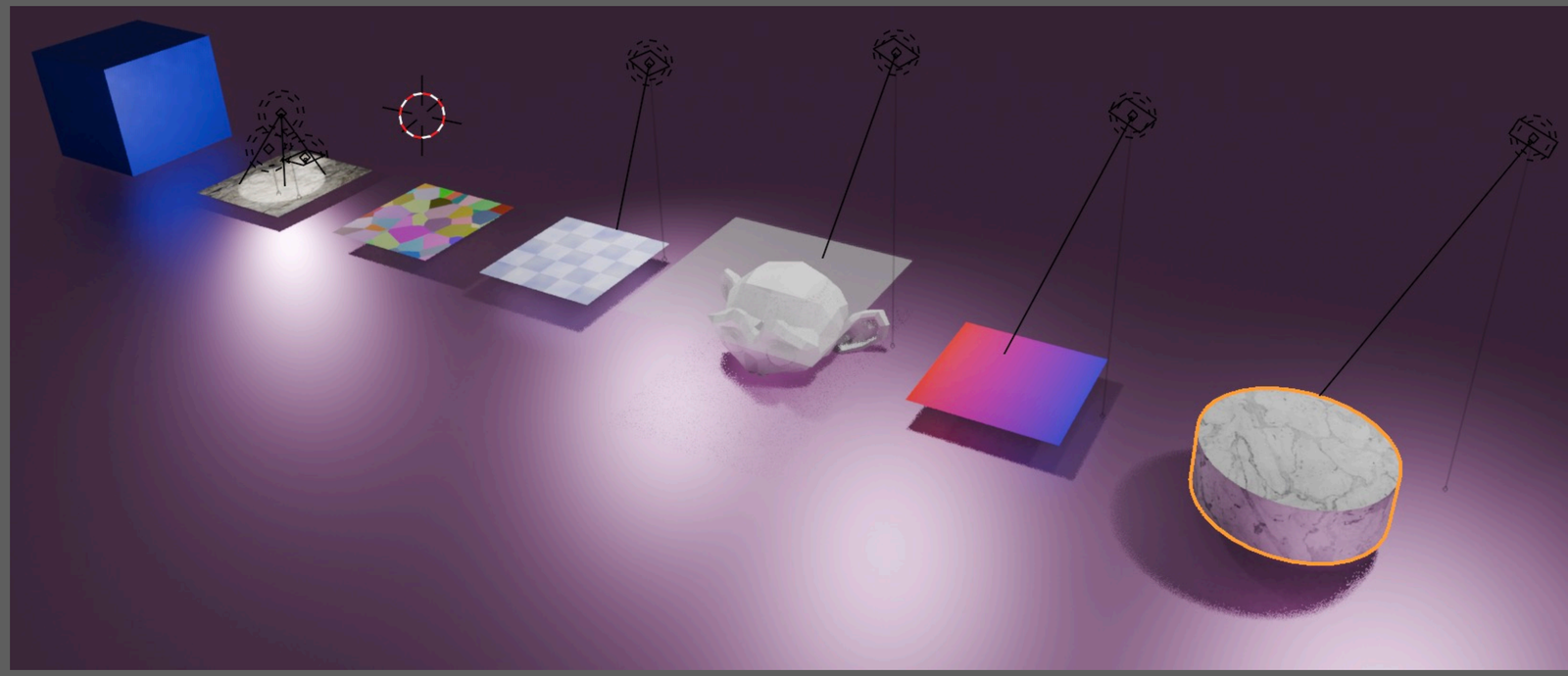




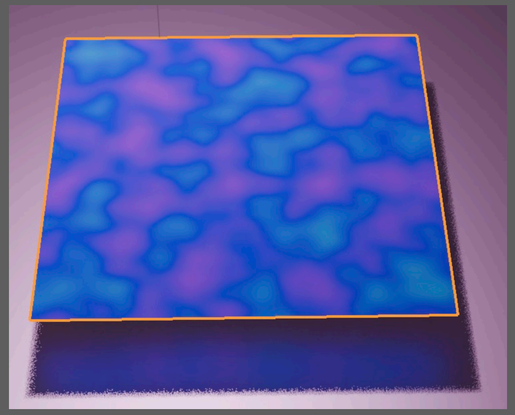


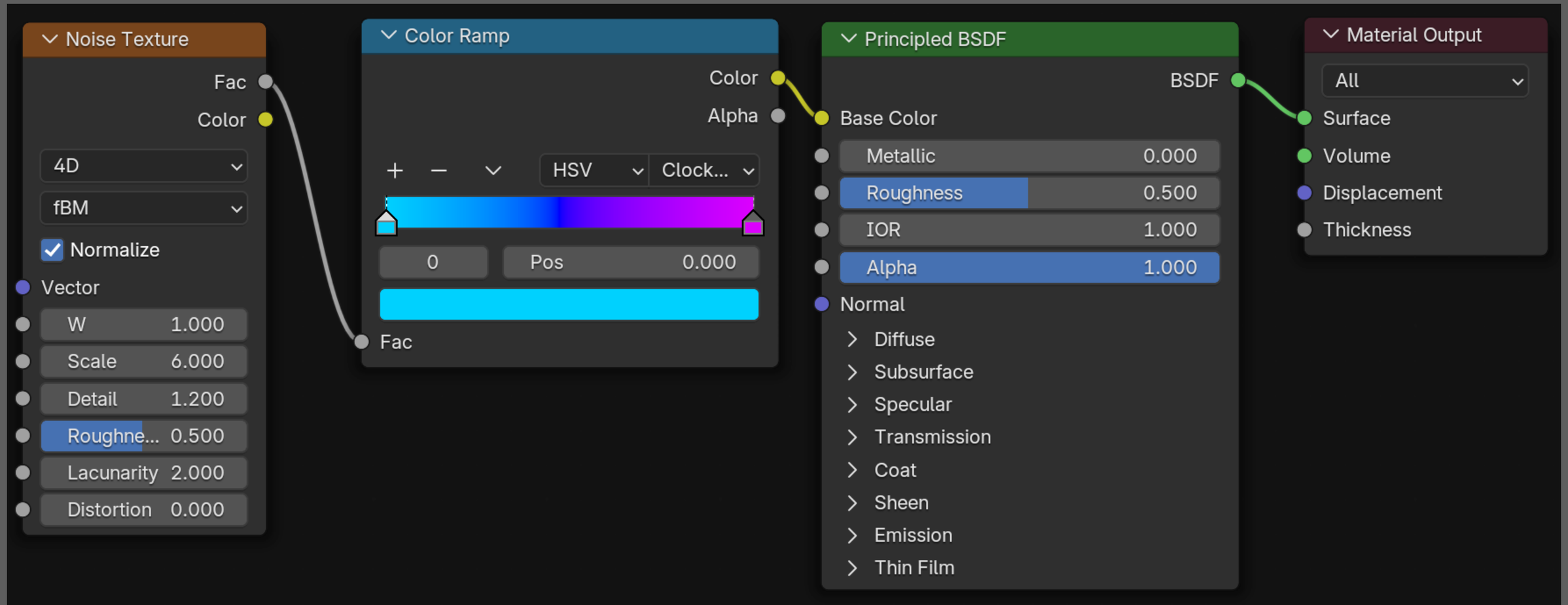
Progress Tracking

- useful to get a version history
- Motivating to see progress



Textures

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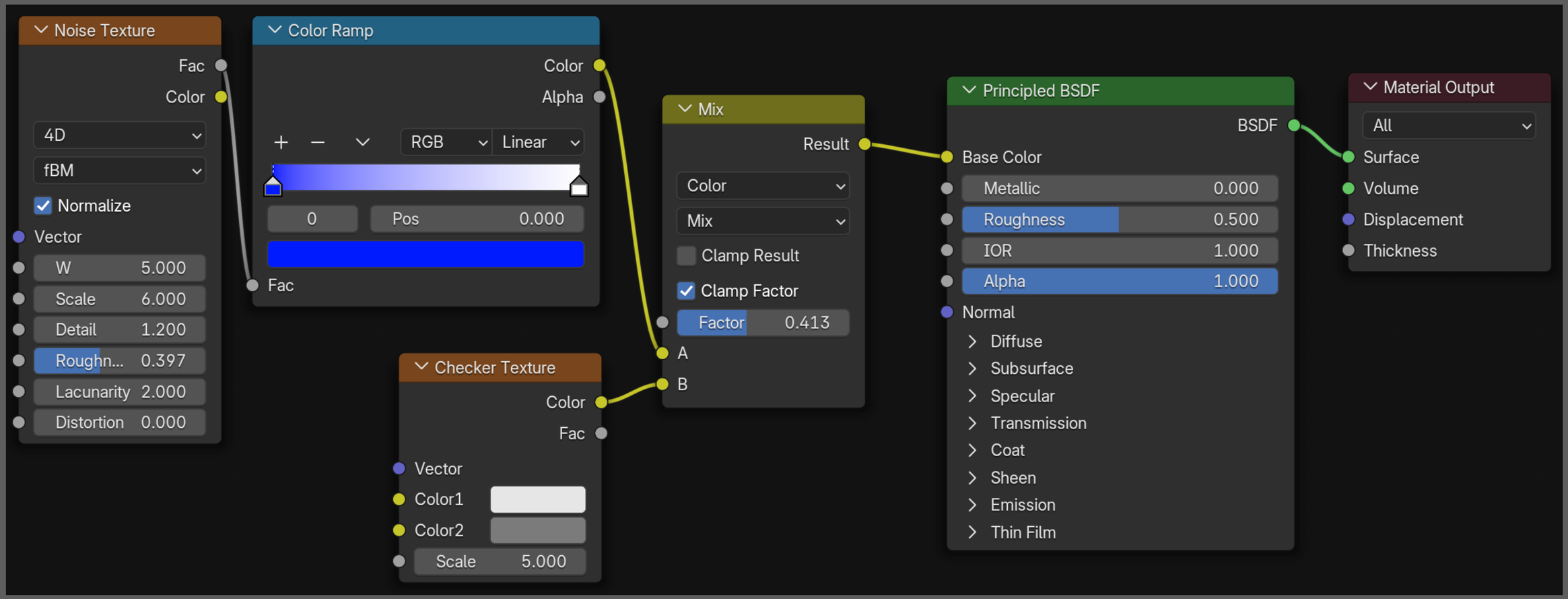
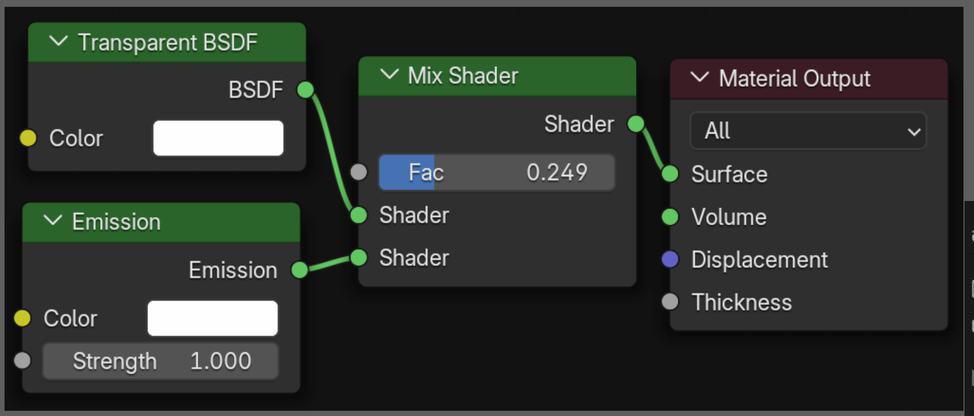
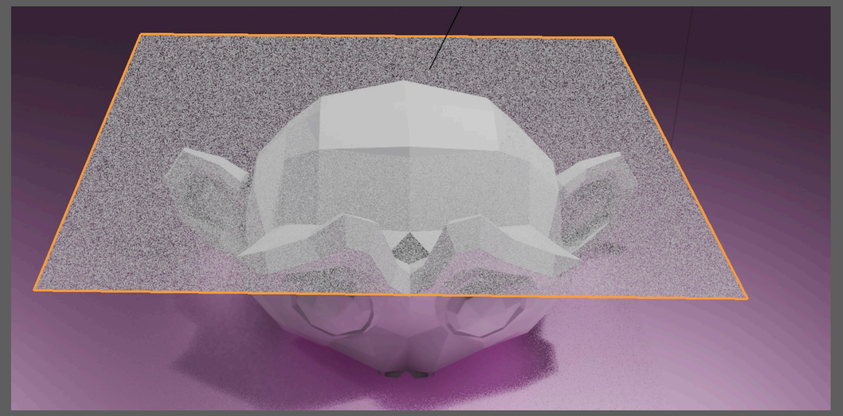
Fac
Color
4D
fBM
Normalize
Vector
W 1.000
Scale 6.000
Detail 1.200
Roughne... 0.500
Lacunarity 2.000
Distortion 0.000
Color Ramp
Color
Alpha
HSV
Clock...
0
Pos 0.000
Fac
Principled BSDF
BSDF
Base Color
Metallic 0.000
Roughness 0.500
IOR 1.000
Alpha 1.000
Normal
Diffuse
Subsurface
Specular
Transmission
Coat
Sheen
Emission
Thin Film
Material Output
All
Surface
Volume
Displacement
Thickness

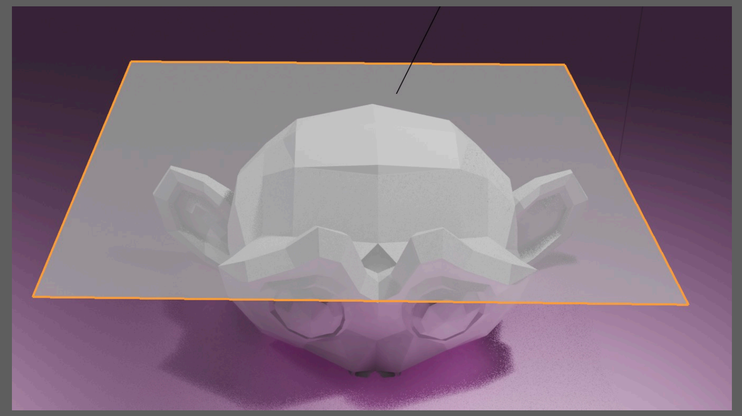
Mix Color

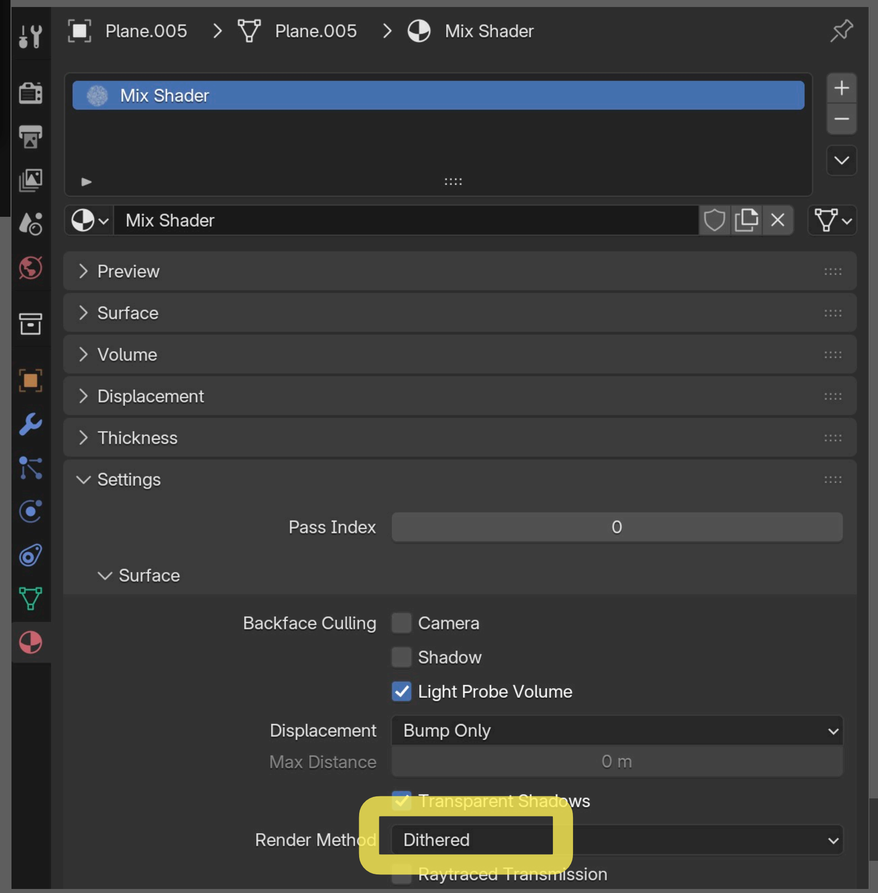

Noise Texture
Fac
Color
4D
fBM
Normalize
Vector
W 5.000
Scale 6.000
Detail 1.200
Roughn... 0.397
Lacunarity 2.000
Distortion 0.000
Color Ramp
Color
Alpha
RGB
Linear
0
Pos 0.000
Fac
Checker Texture
Color
Fac
Vector
Color1
Color2
Scale 5.000
Mix
Result
Color
Mix
Clamp Result
Clamp Factor
Factor 0.413
A
B
Principled BSDF
BSDF
Base Color
Metallic 0.000
Roughness 0.500
IOR 1.000
Alpha 1.000
Normal
Diffuse
Subsurface
Specular
Transmission
Coat
Sheen
Emission
Thin Film
Material Output
All
Surface
Volume
Displacement
Thickness

Mix Shaders


Transparent BSDF
BSDF
Color
Mix Shader
Shader
Fac 0.249
Shader
Shader
Material Output
All
Surface
Volume
Displacement
Thickness
Emission
Emission
Color
Strength 1.000

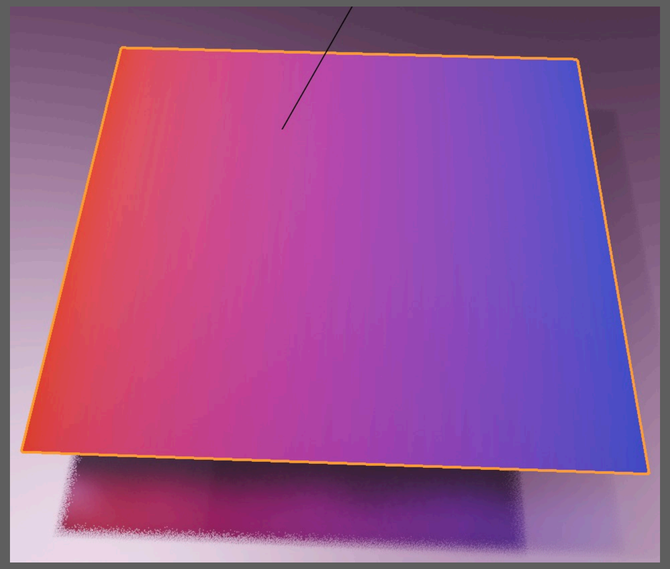


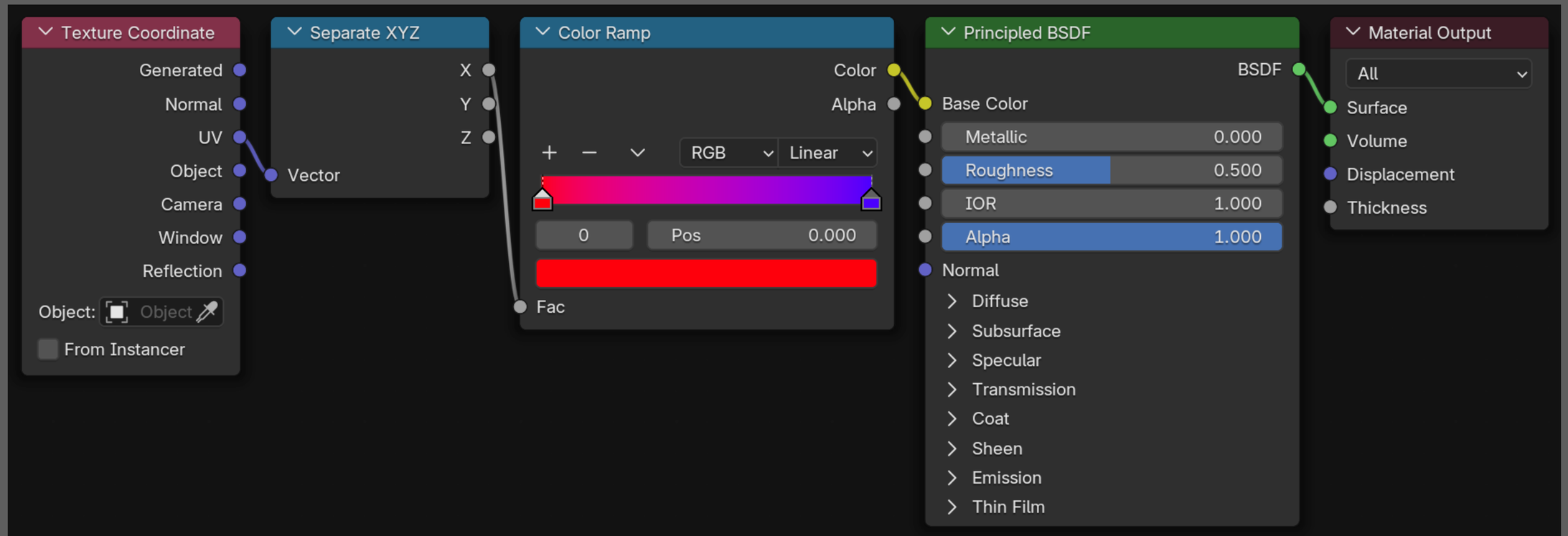



Plane.005
Plane.005
Mix Shader
Mix Shader
Mix Shader
Preview
Surface
Volume
Displacement
Thickness
Settings
Pass Index 0
Surface
Backface Culling
Camera
Shadow
Light Probe Volume
Displacement Bump Only
Max Distance 0 m
Transparent Shadows
Render Method Dithered
Raytraced Transmission


Render Method Blended

Gradient




Texture Coordinate
Generated
Normal
UV
Object
Camera
Window
Reflection
Object:
Object
From Instancer
Separate XYZ
X
Y
Z
Vector
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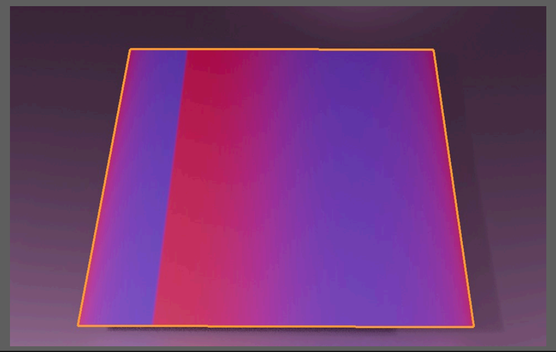
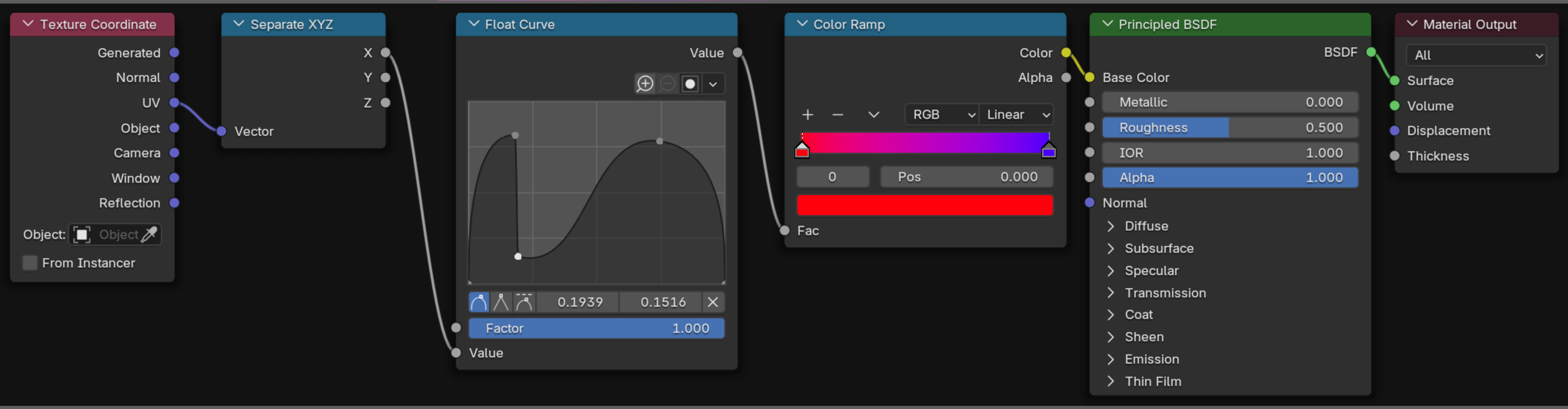
Color
Alpha
RGB
Linear
0
Pos
0.000
Fac
Principled BSDF
BSDF
Base Color
Metallic
0.000
Roughness
0.500
IOR
1.000
Alpha
1.000
Normal
Diffuse
Subsurface
Specular
Transmission
Coat
Sheen
Emission
Thin Film
Material Output
All
Surface
Volume
Displacement
Thickness

Float Curve

- Remaps the input values

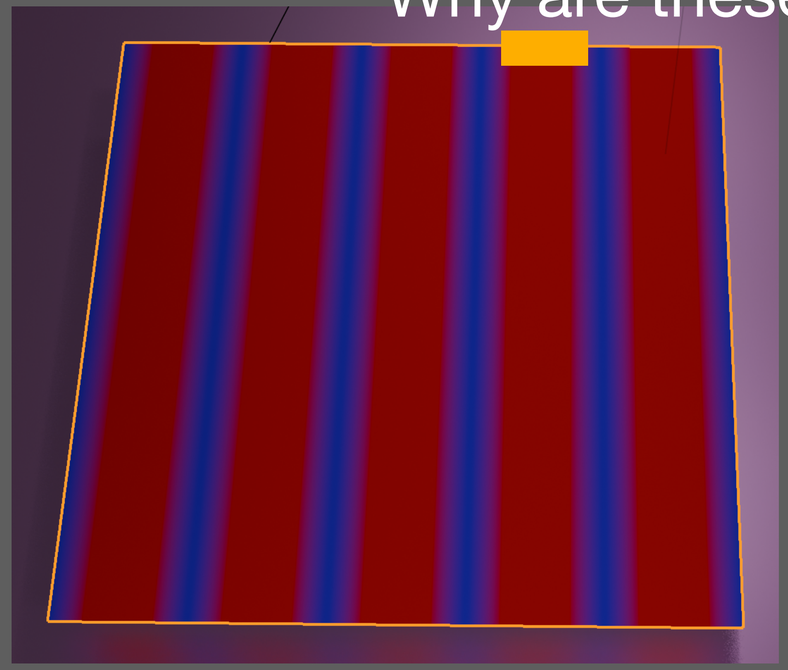


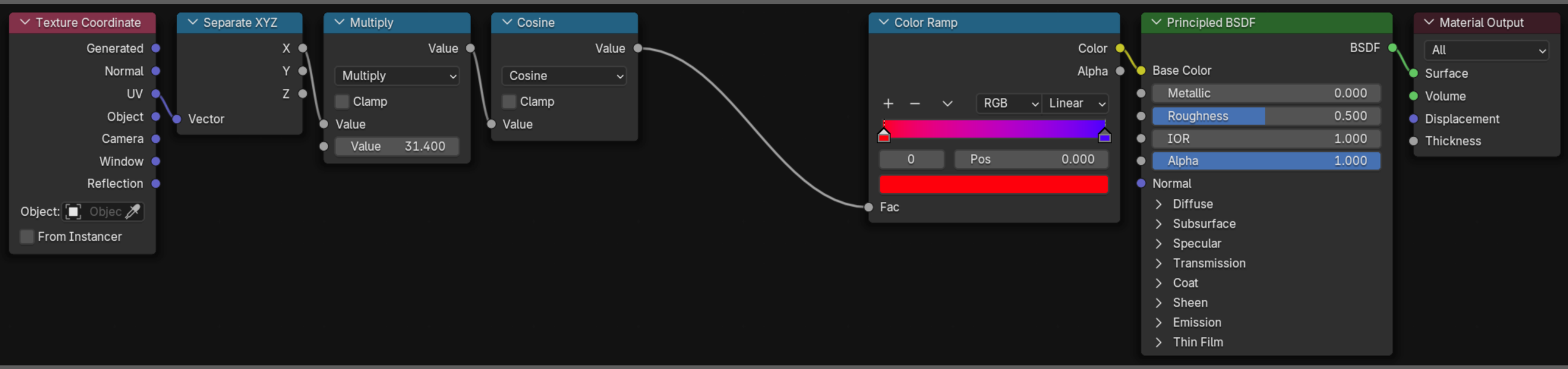


1D-Wave

$$f(x, y) = \cos(k\,x)$$

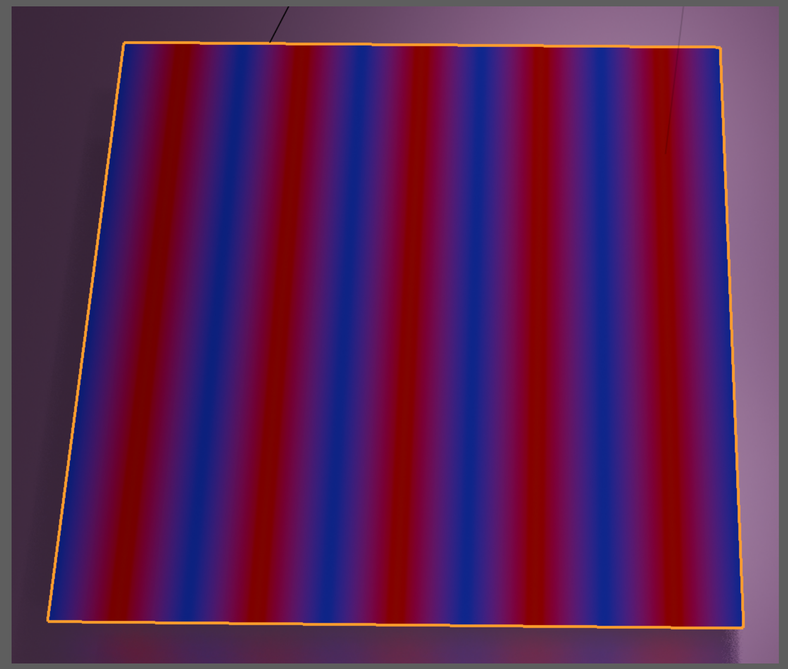
Why are these stripes so long?

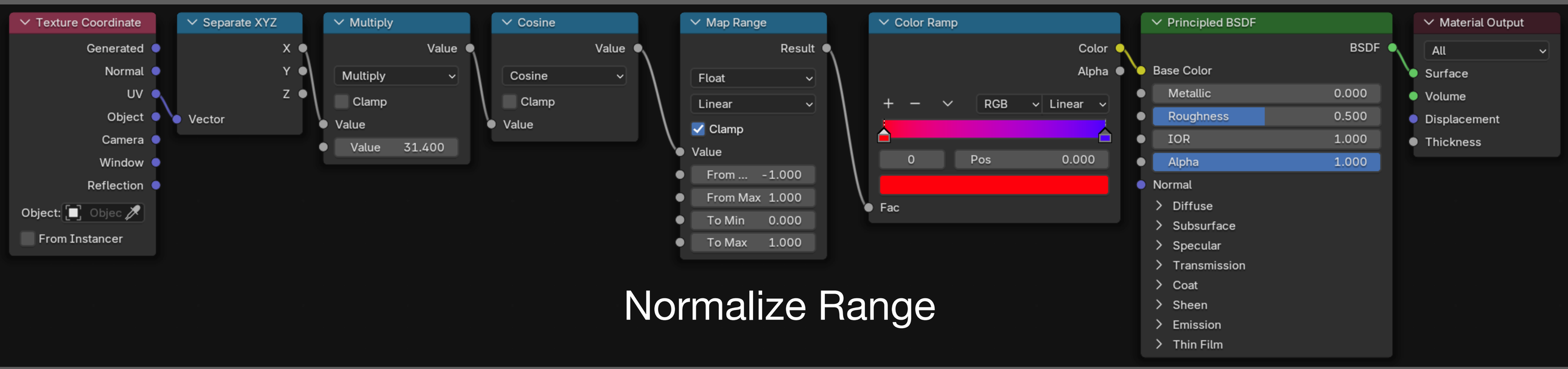




1D-Wave

$$f(x, y) = \cos(k\,x)$$

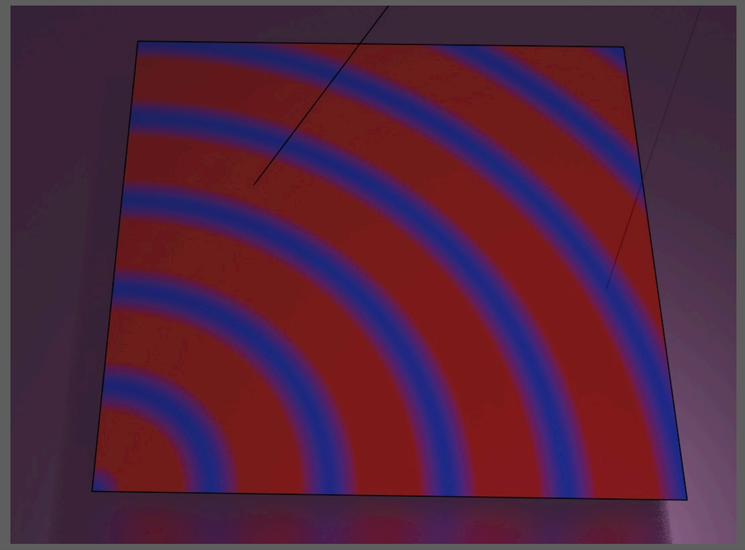


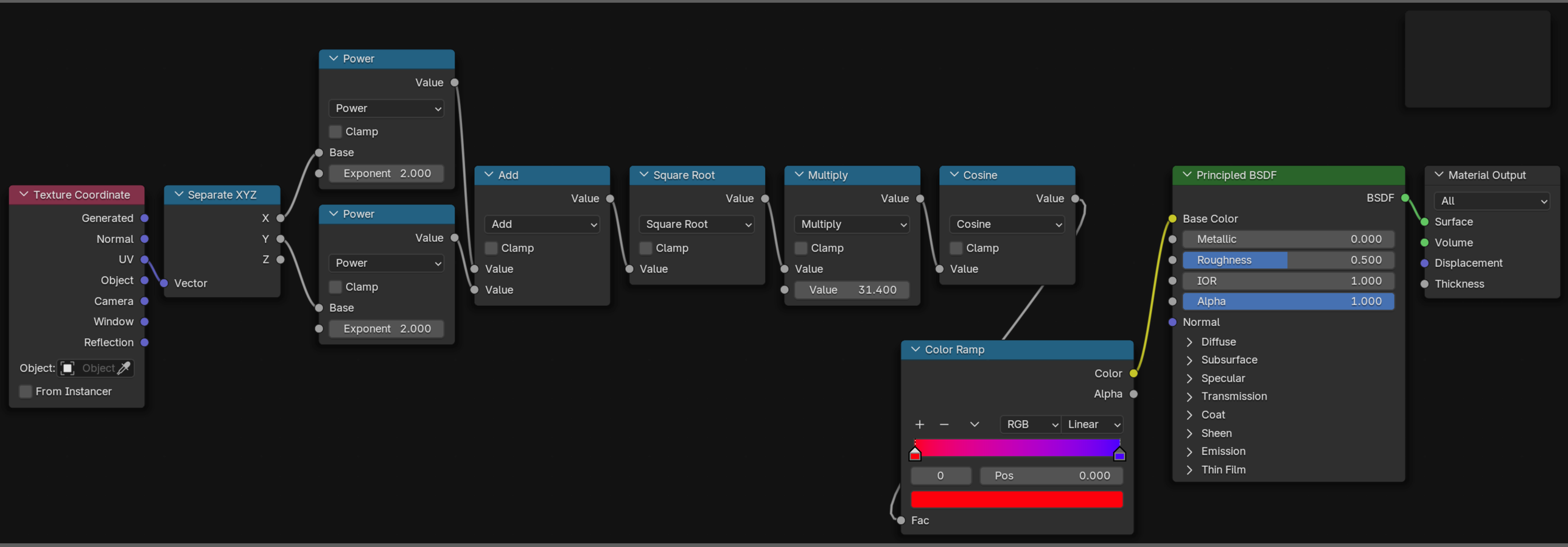


Normalize Range

2D-Wave

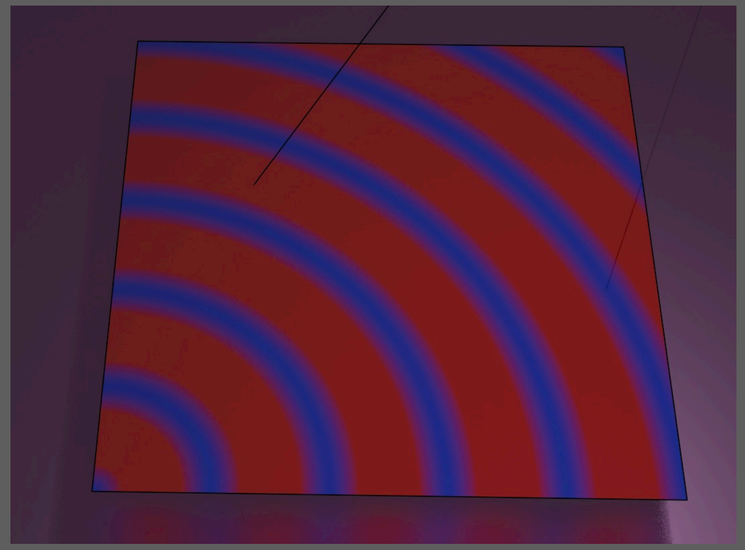
$$f(x,y) = \cos(k \cdot \sqrt{x^2 + y^2})$$

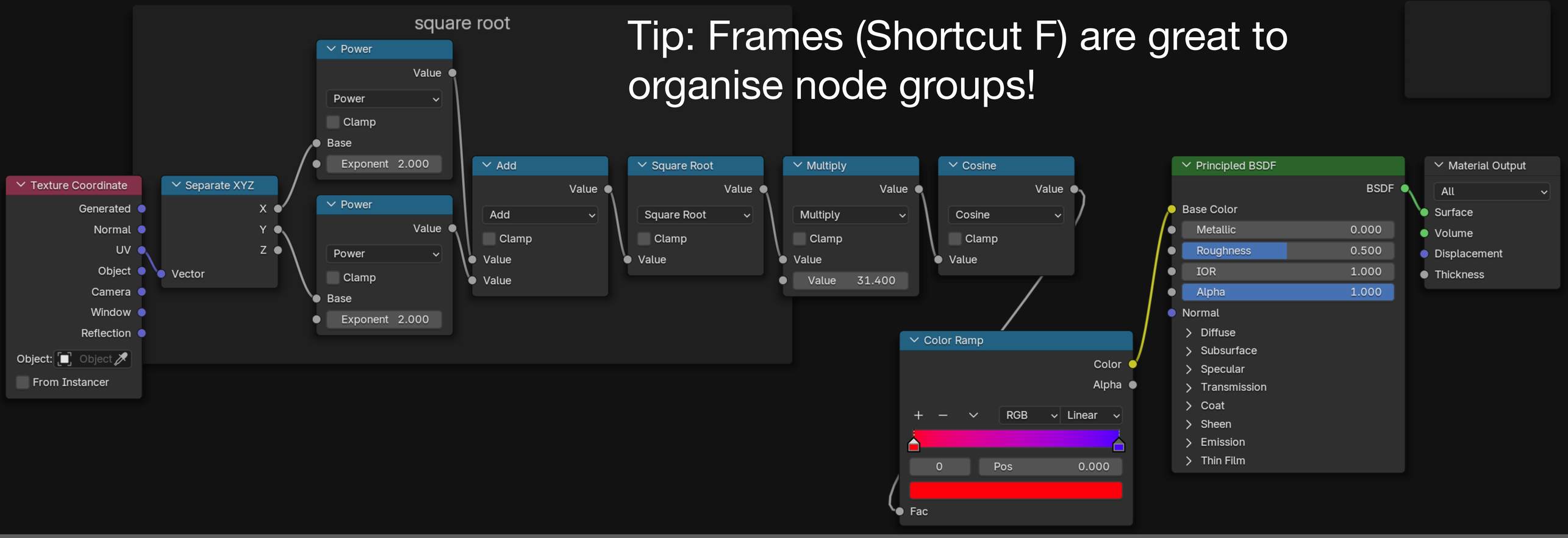




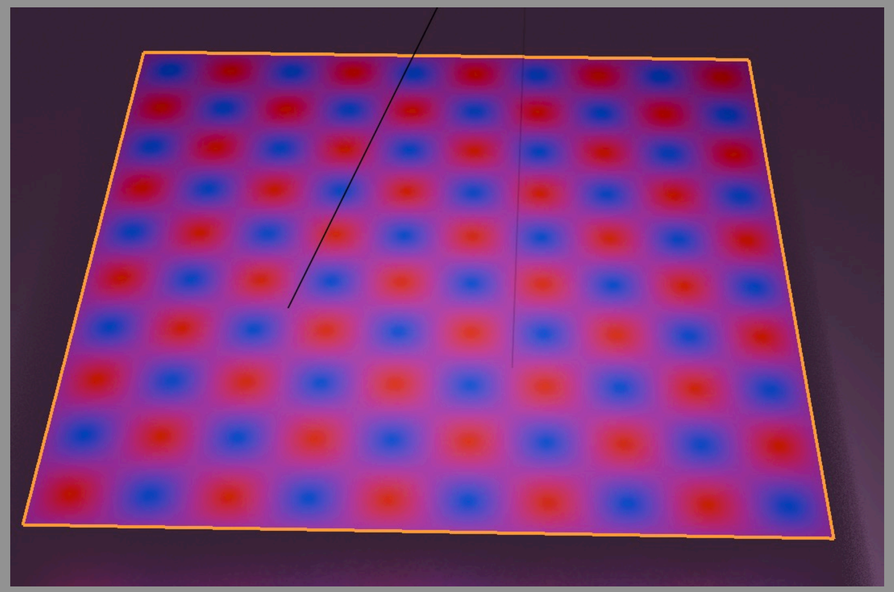
2D-Wave

$$f(x,y) = \cos(k \cdot \sqrt{x^2 + y^2})$$





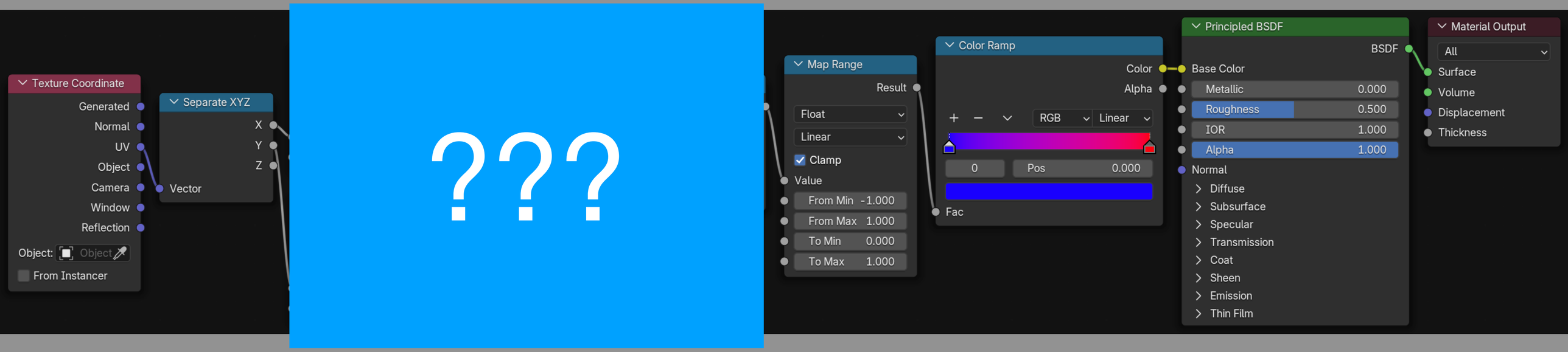
2D-Wave



Task

Create a 2D sine pattern

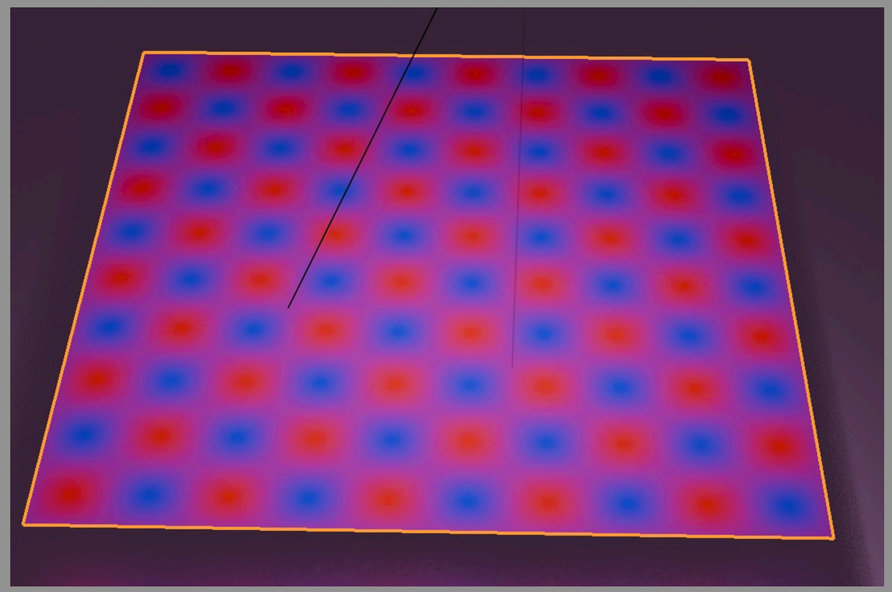
$$f(x, y) = \sin(kx)\ \sin(ky)$$

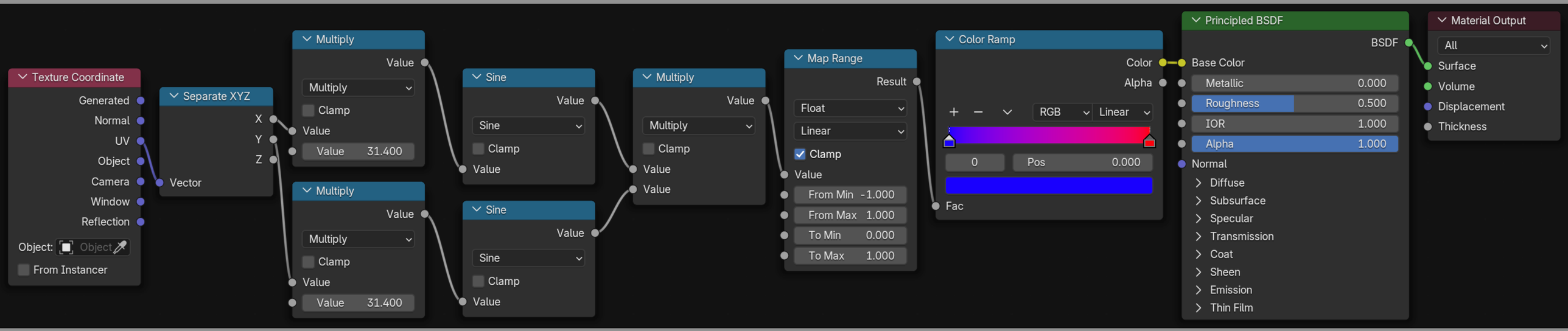


2D-Wave

Solution

$$f(x, y) = \sin(kx)\ \sin(ky)$$



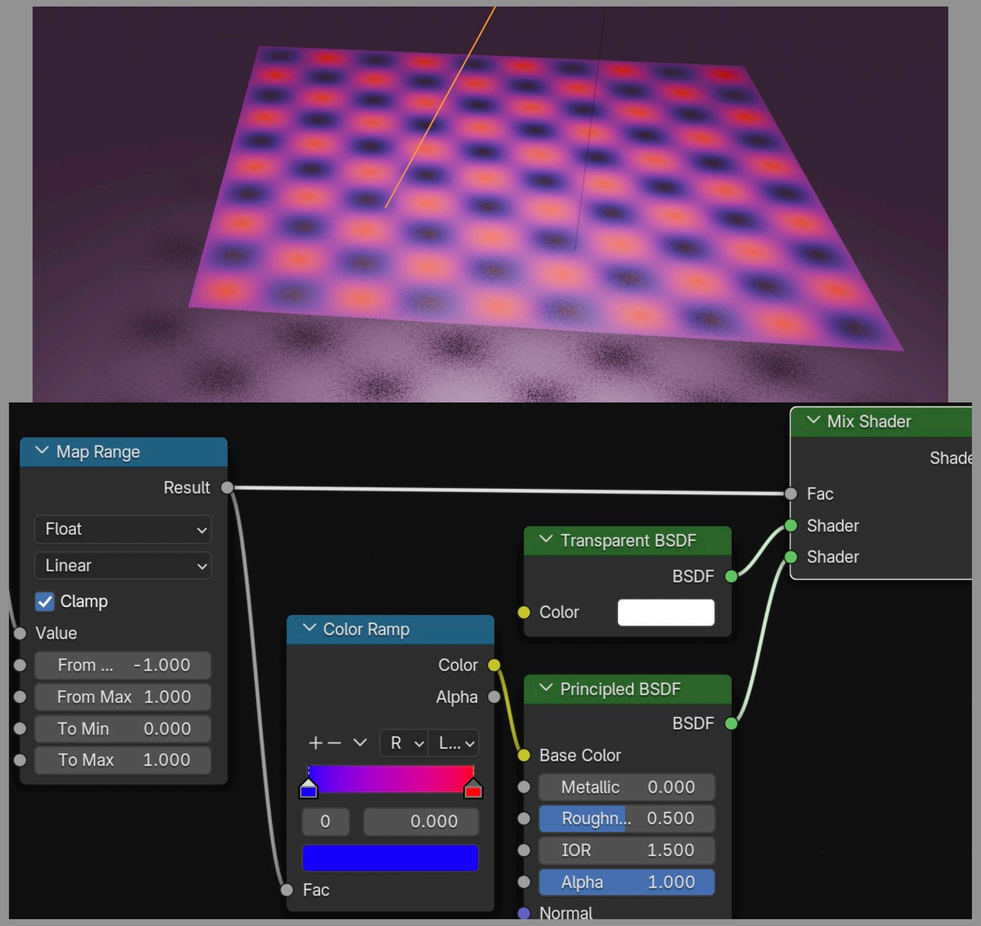


2D-Wave

$$f(x, y) = \sin(kx)\ \sin(ky)$$

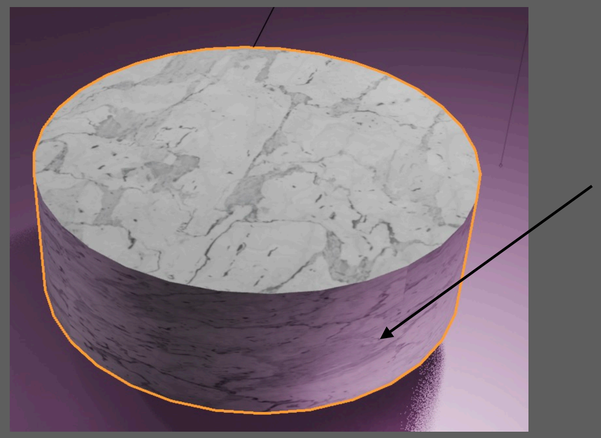
Task:

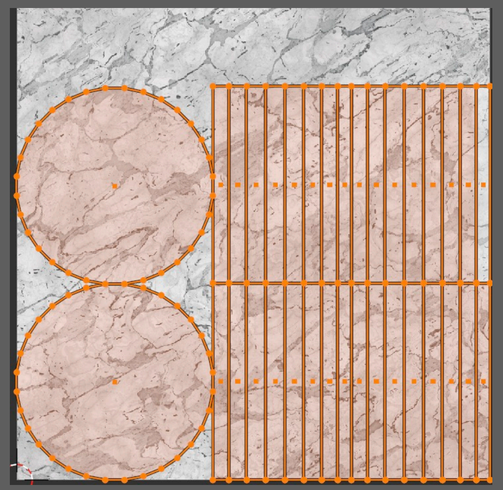
- Explore further ideas:
  - Transparent areas
  - Metallic areas
  - Different colors
  - Mix with other textures



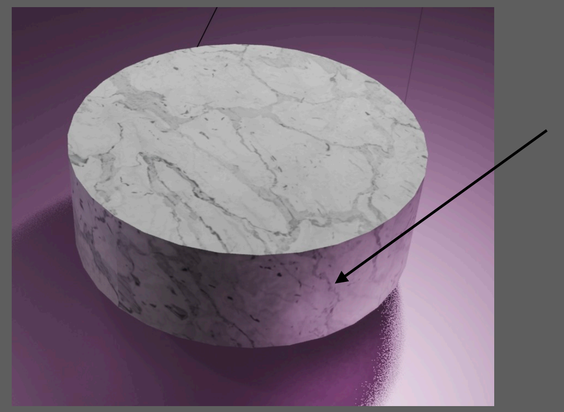
UV unwrapping

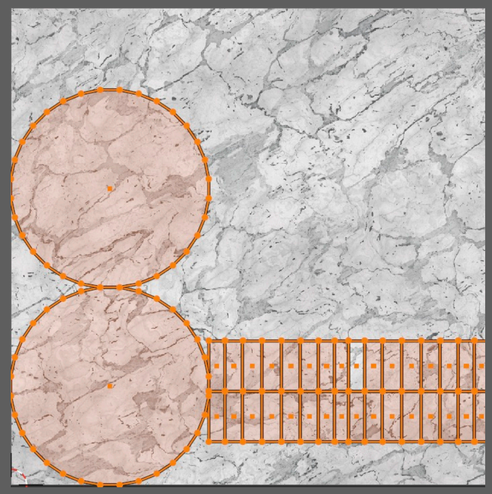
What we have





What we want

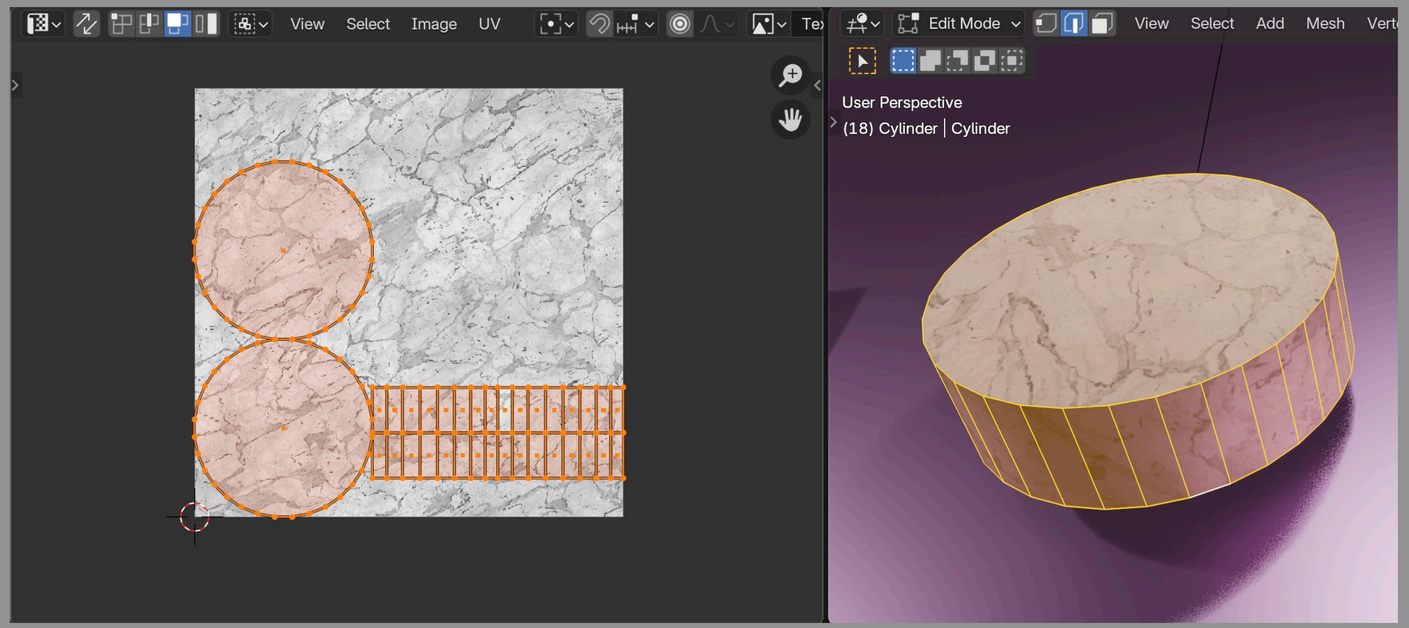




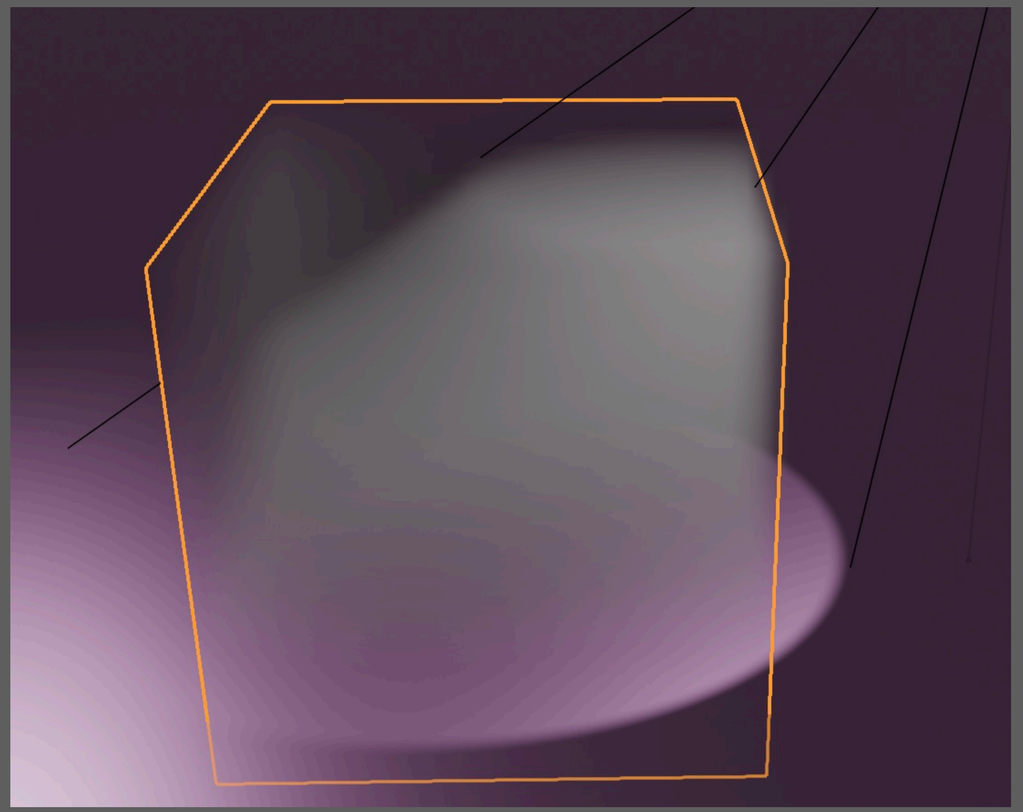
UV unwrapping

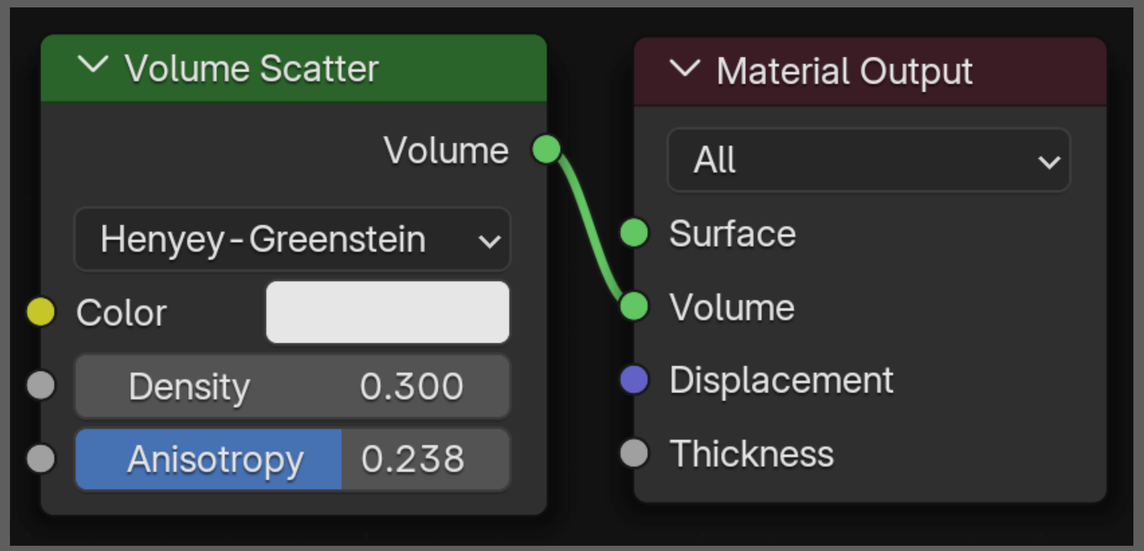
Task

- Add a cylinder, and scale down in z direction
- Add the „Marble“ material (using the node wrangler)
- In edit mode, select all faces.
- Scale the faces in the UV editor



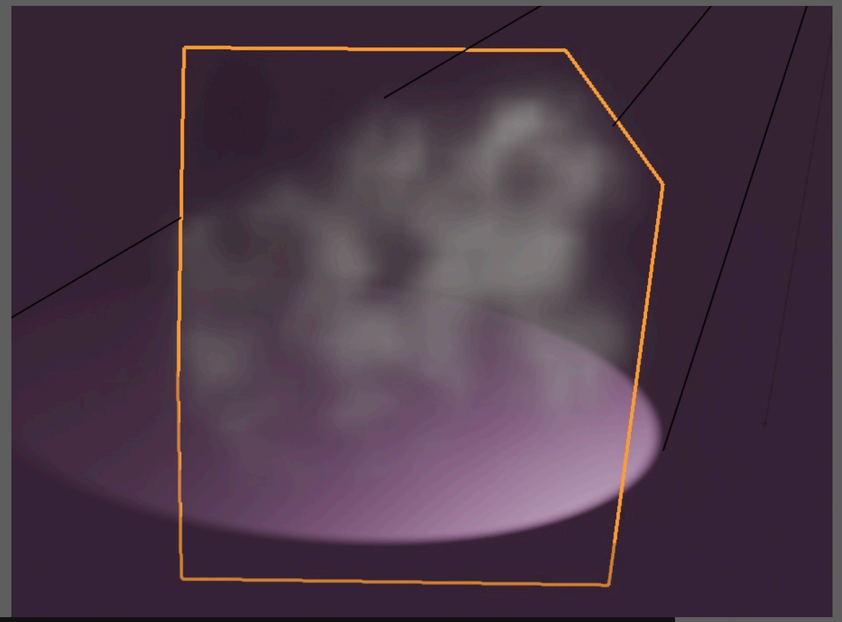
Volumetric Shader

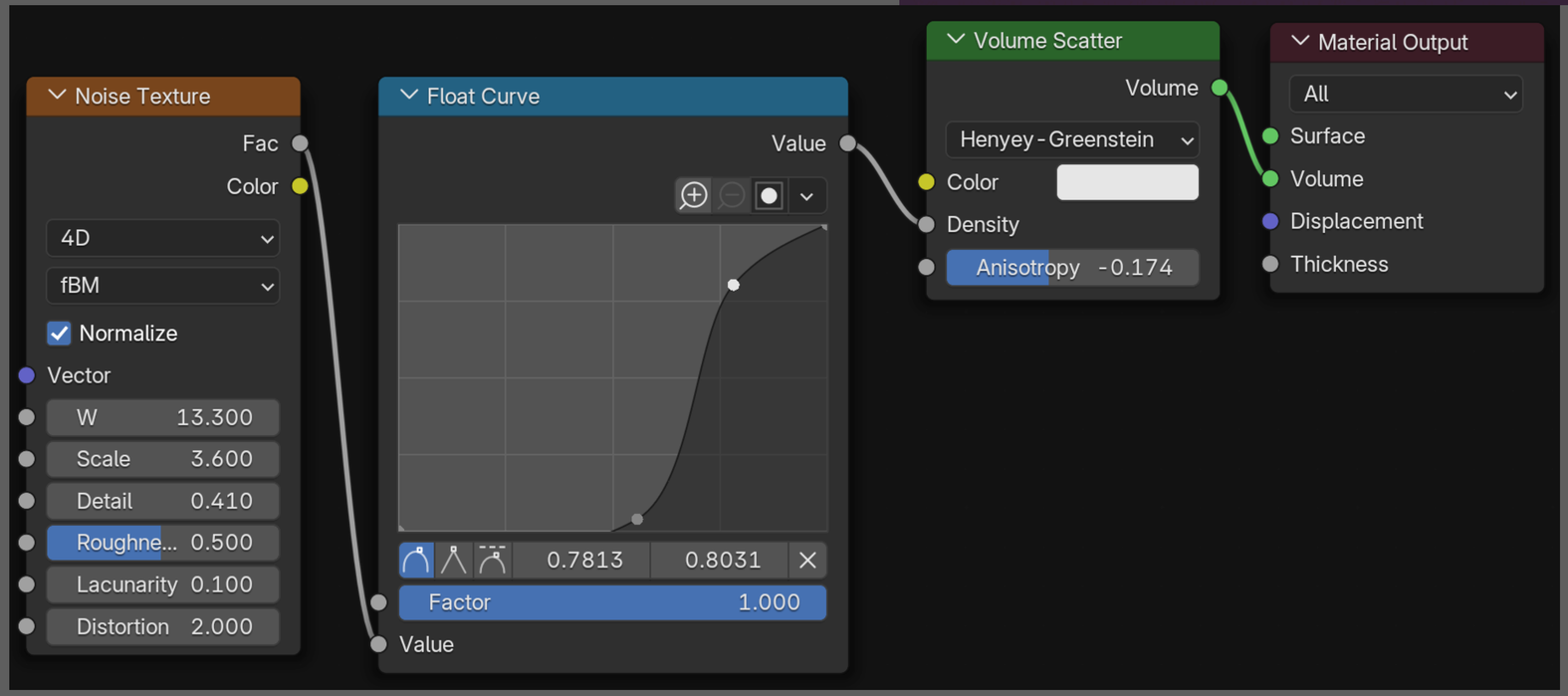




Volumetric Shader

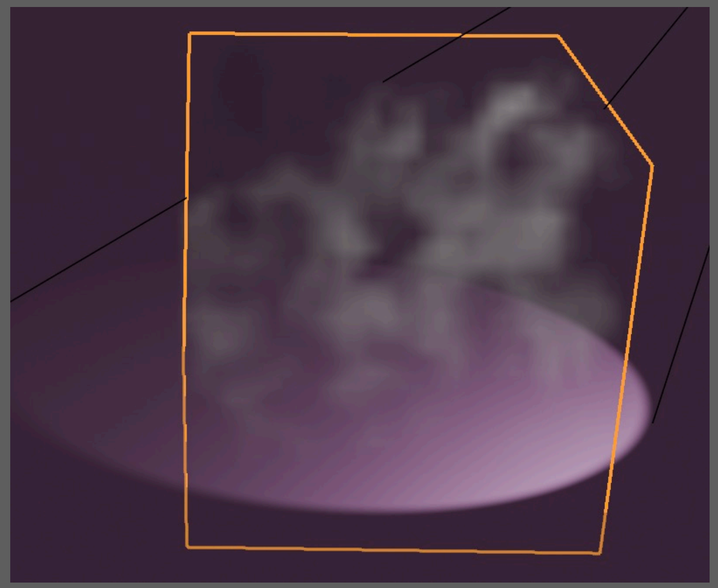
- Fog

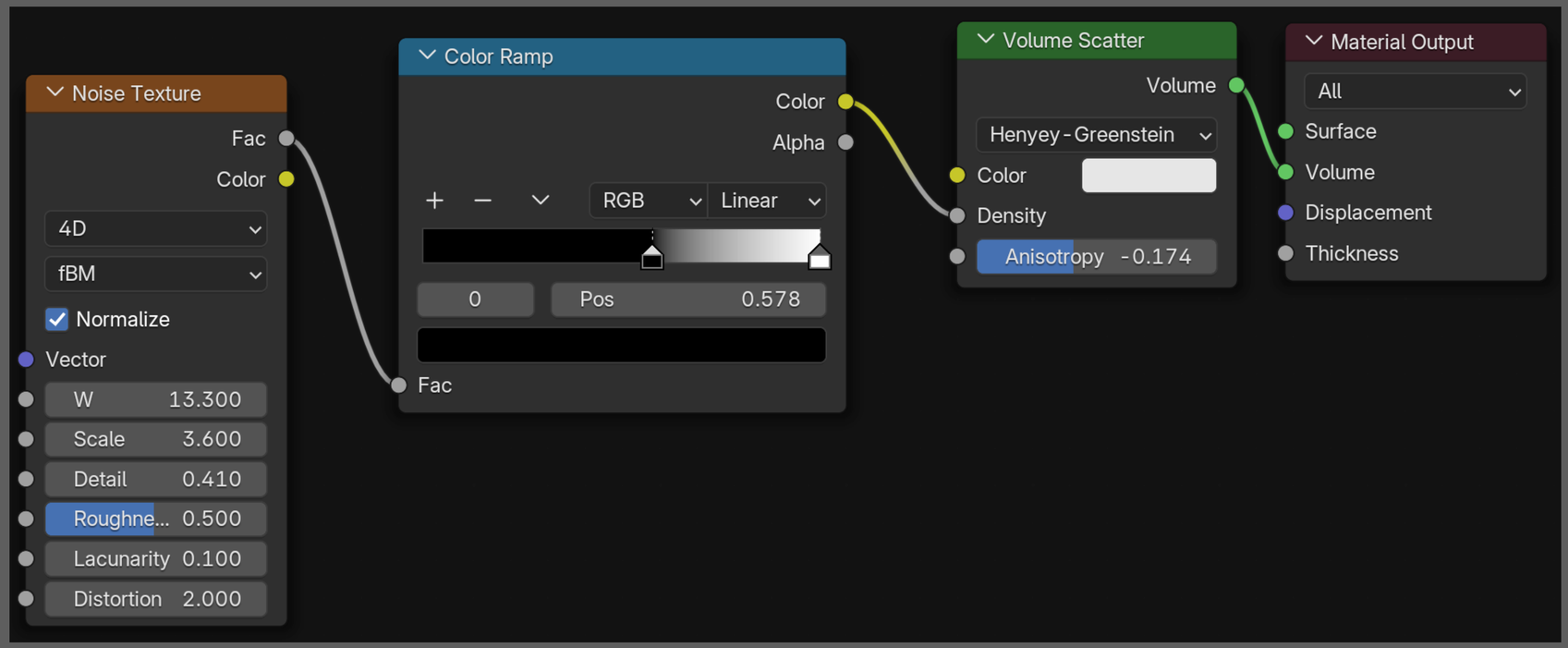




Volumetric Shader

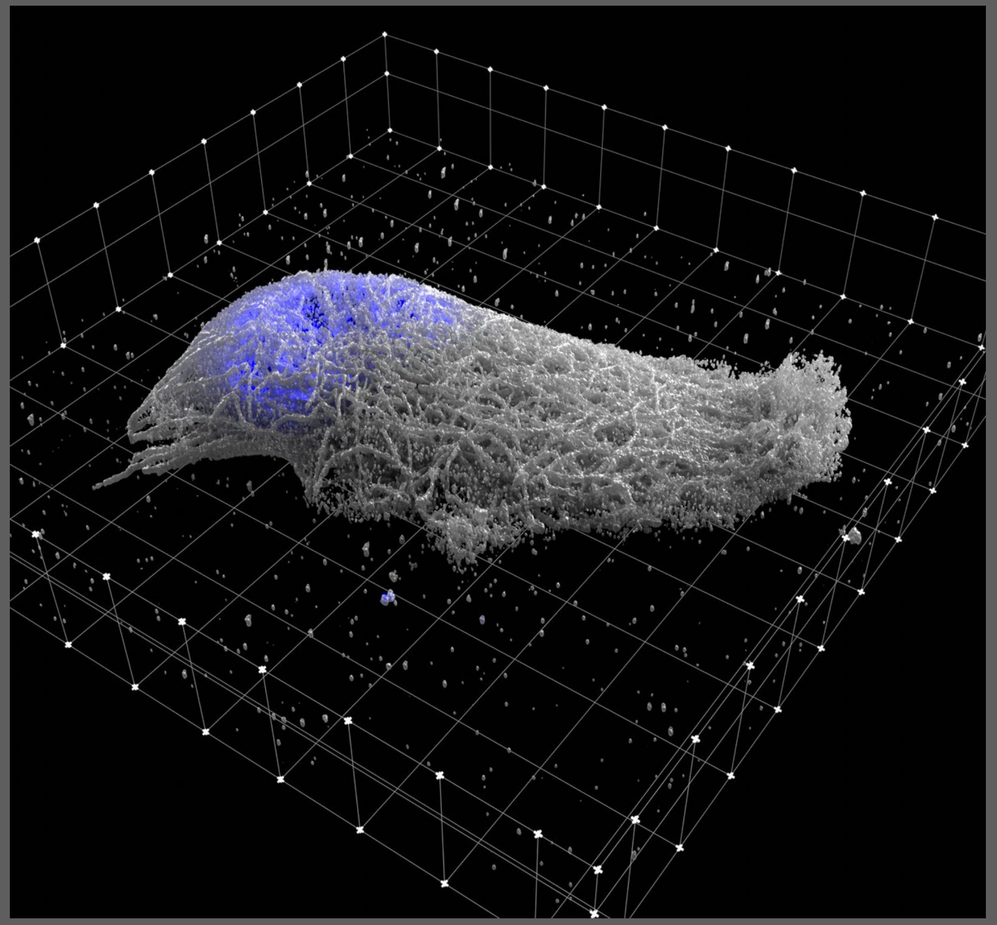
- Fog
- Also possible to manipulate with Color Ramp



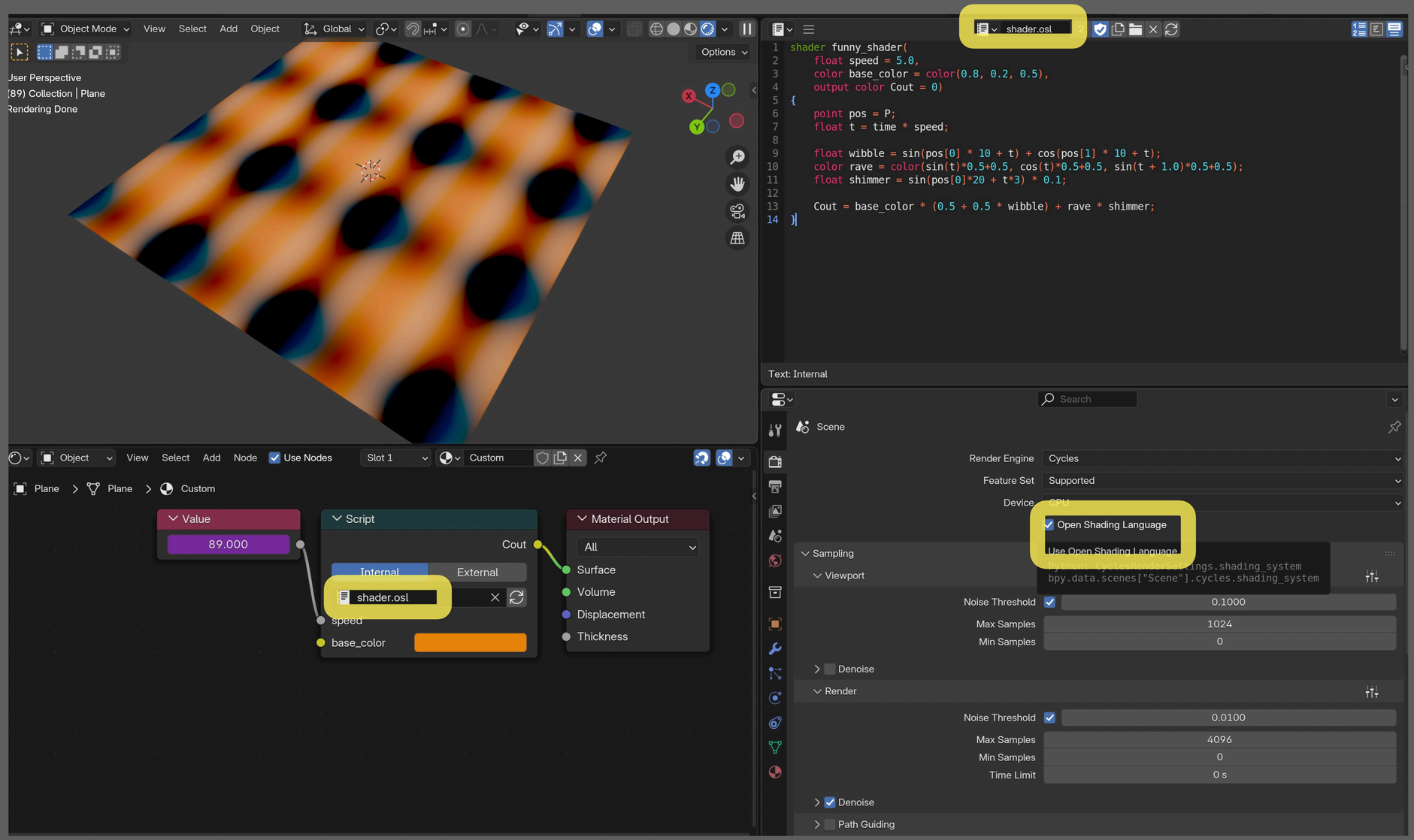


Volumetric Shader

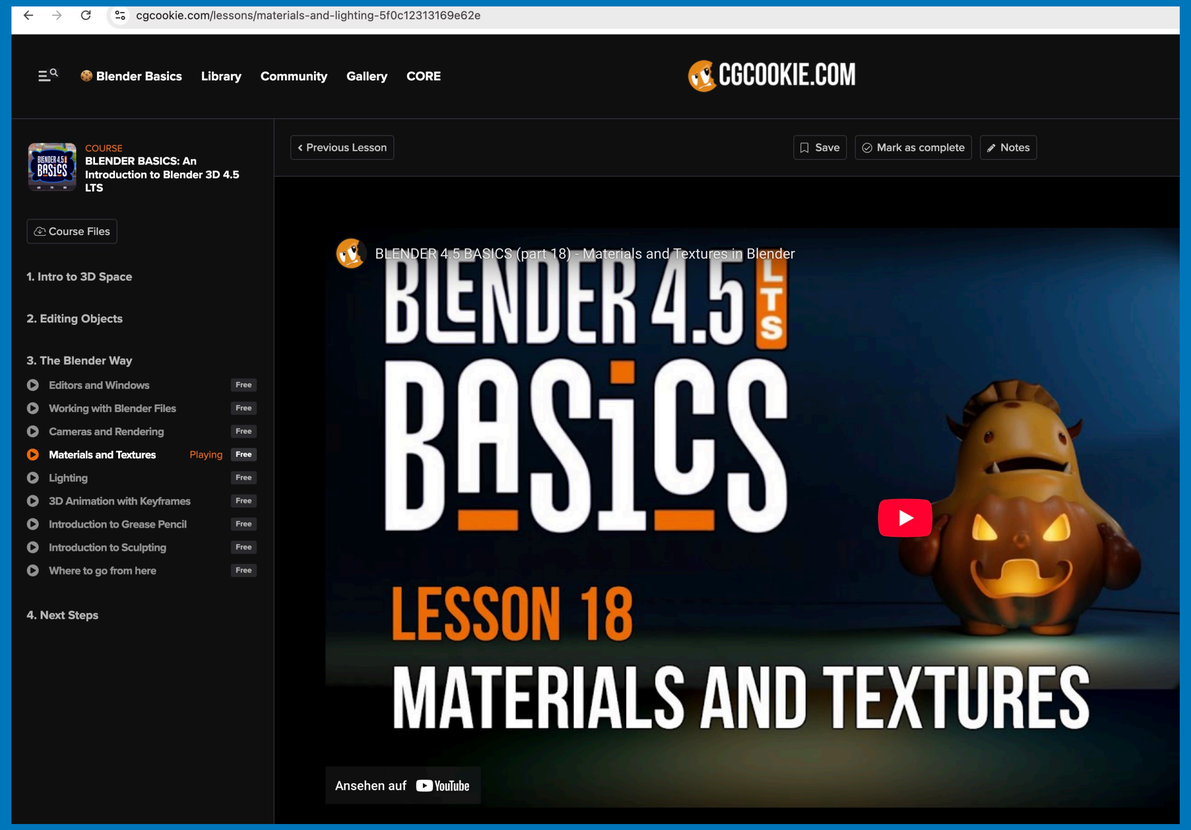
- Image Stacks via „Microscopy Nodes“



Shader Nodes - Open Shading Language



Further Resources



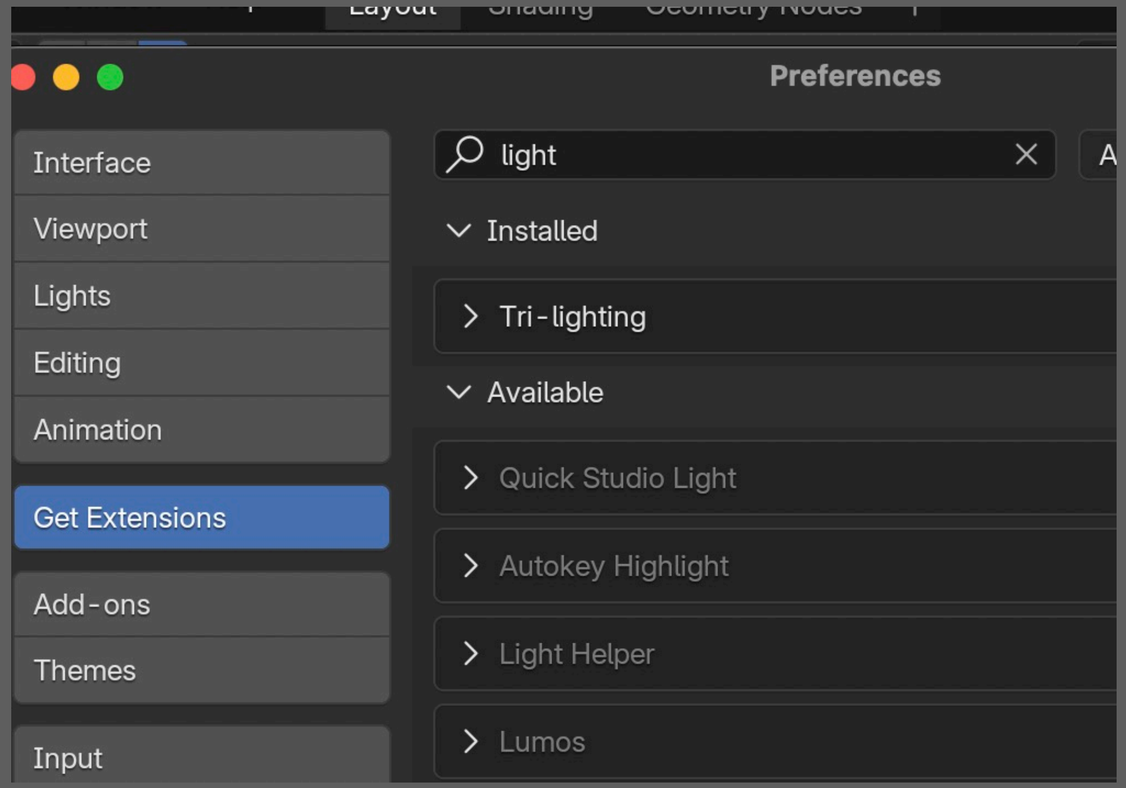
https://cgcookie.com/lessons/materials-and-lighting-5f0c12313169e62e

Last task for today

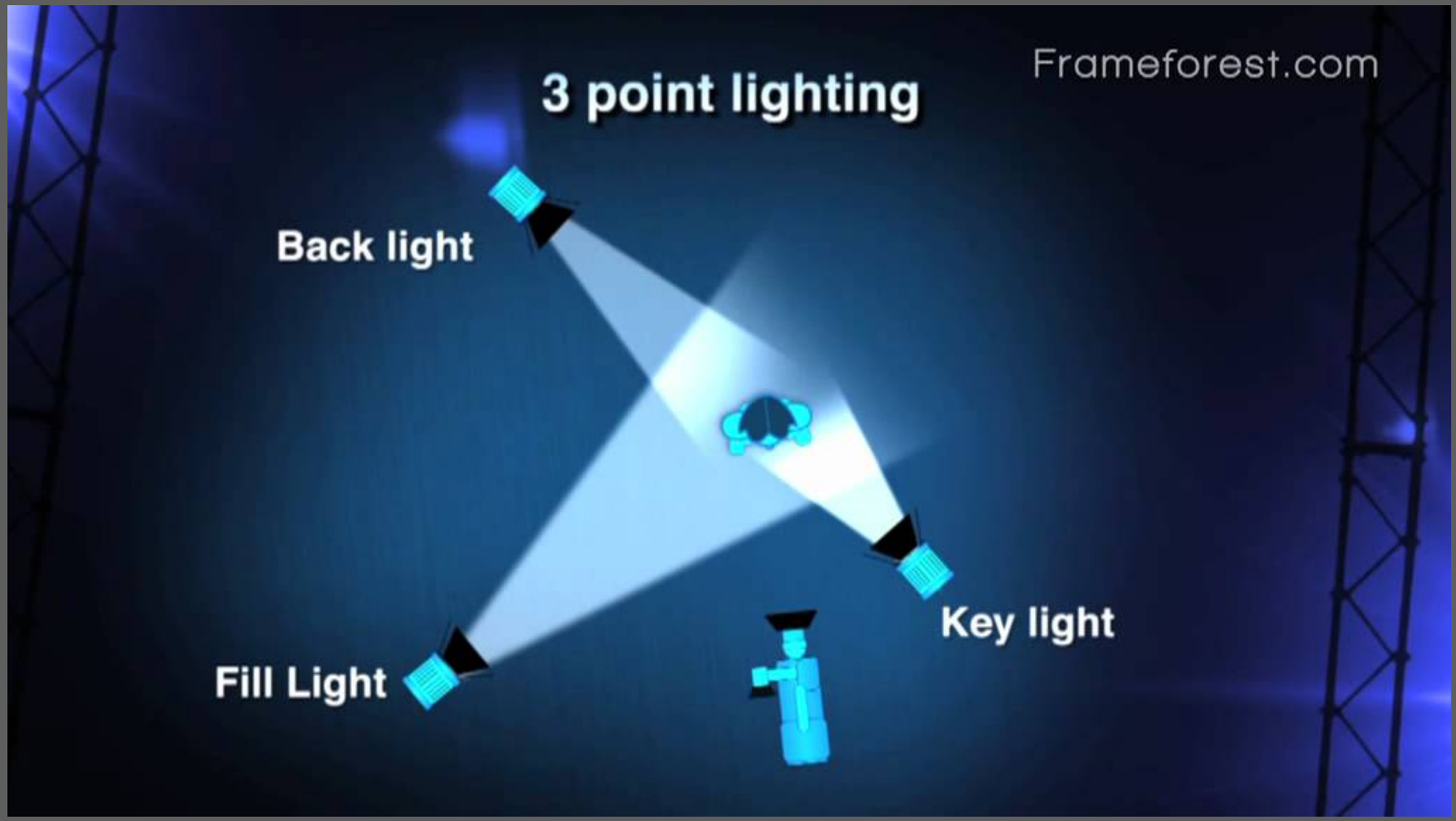
- Model one simple object you can find in the lab
- Add materials
- Add lights
- Render result

Day 2

3 Point Lighting

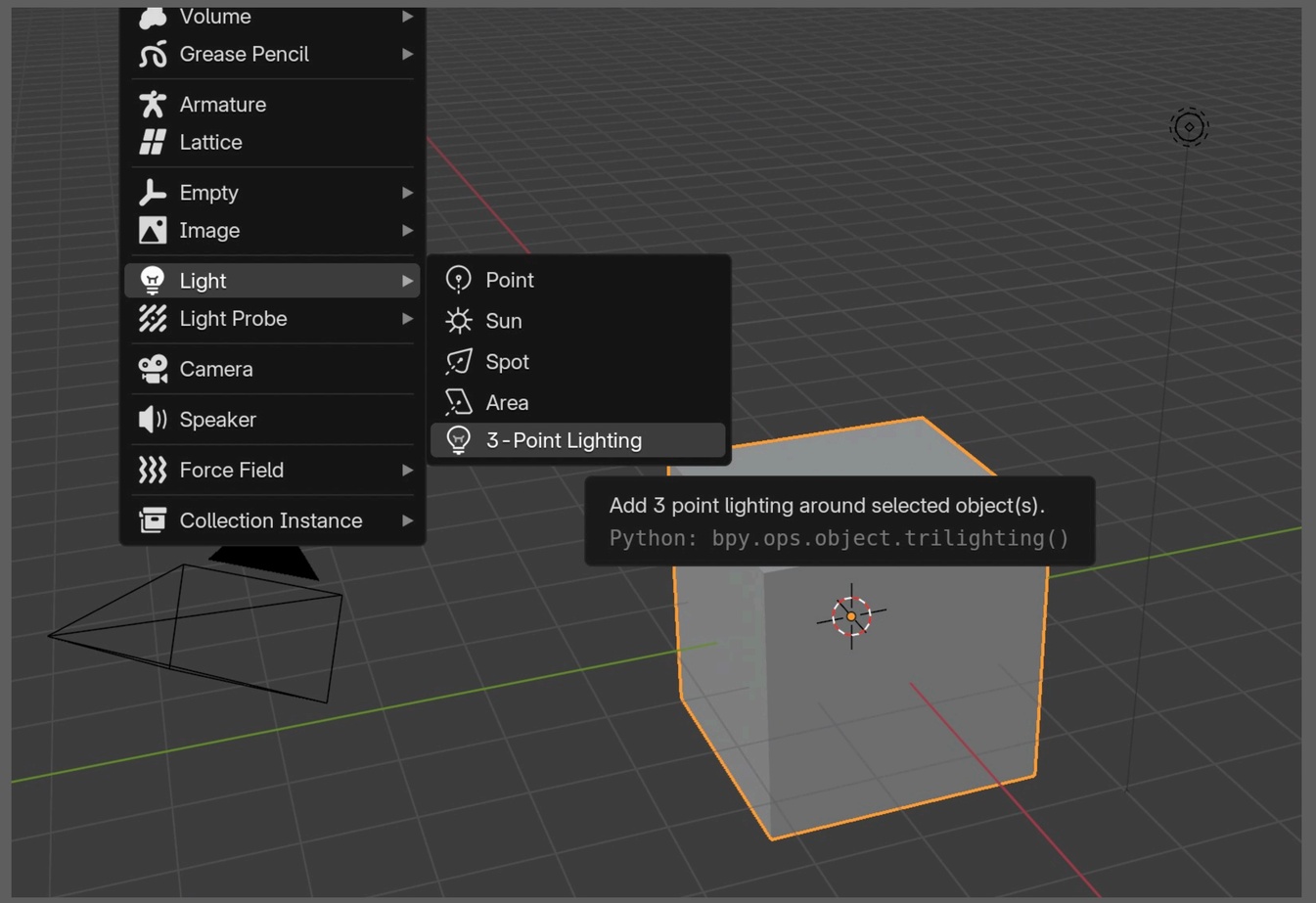


3 Point Lighting

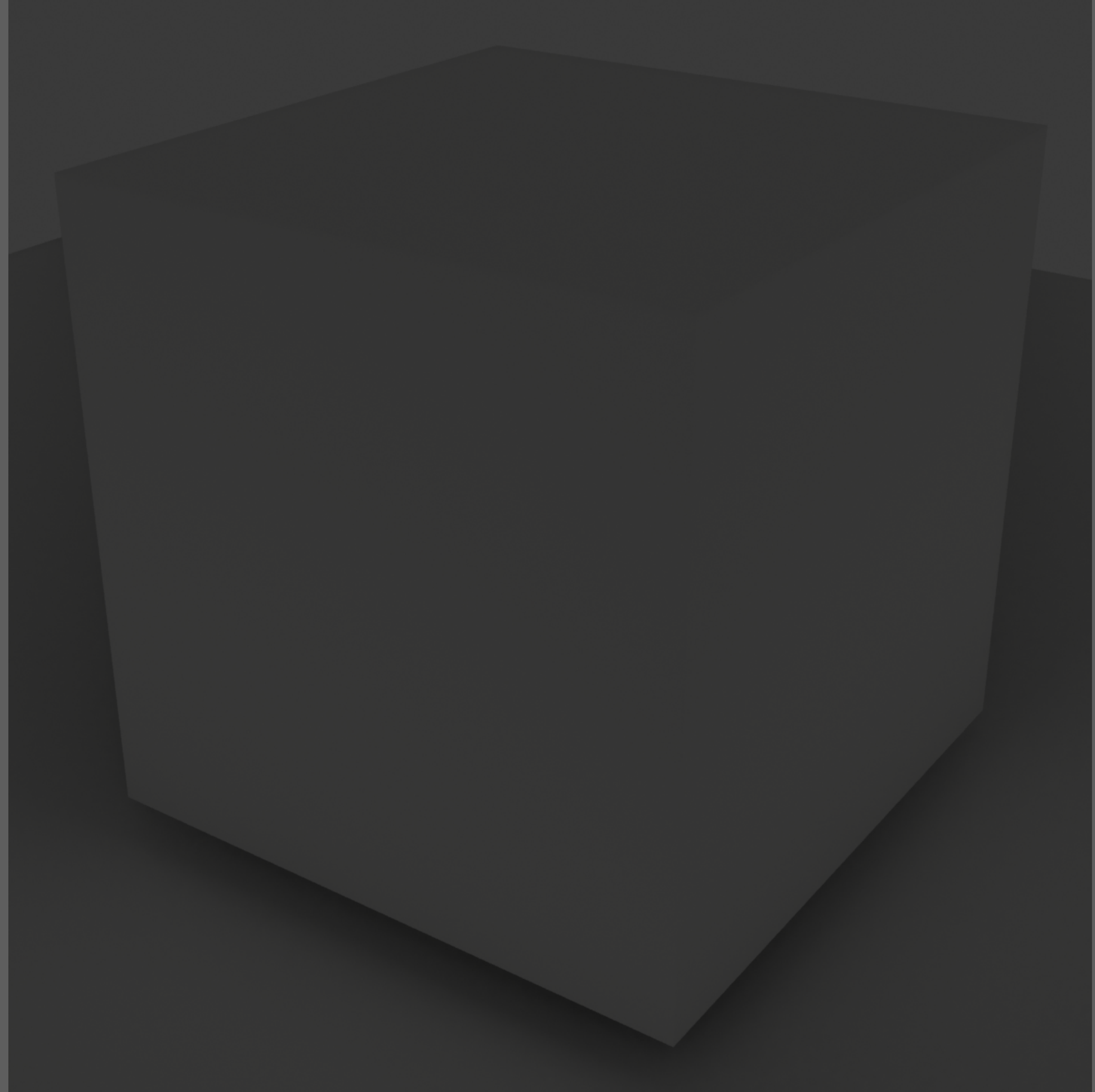


https://youtu.be/pBt8qdO03-k?si=_tZbteFPP5_heiCT

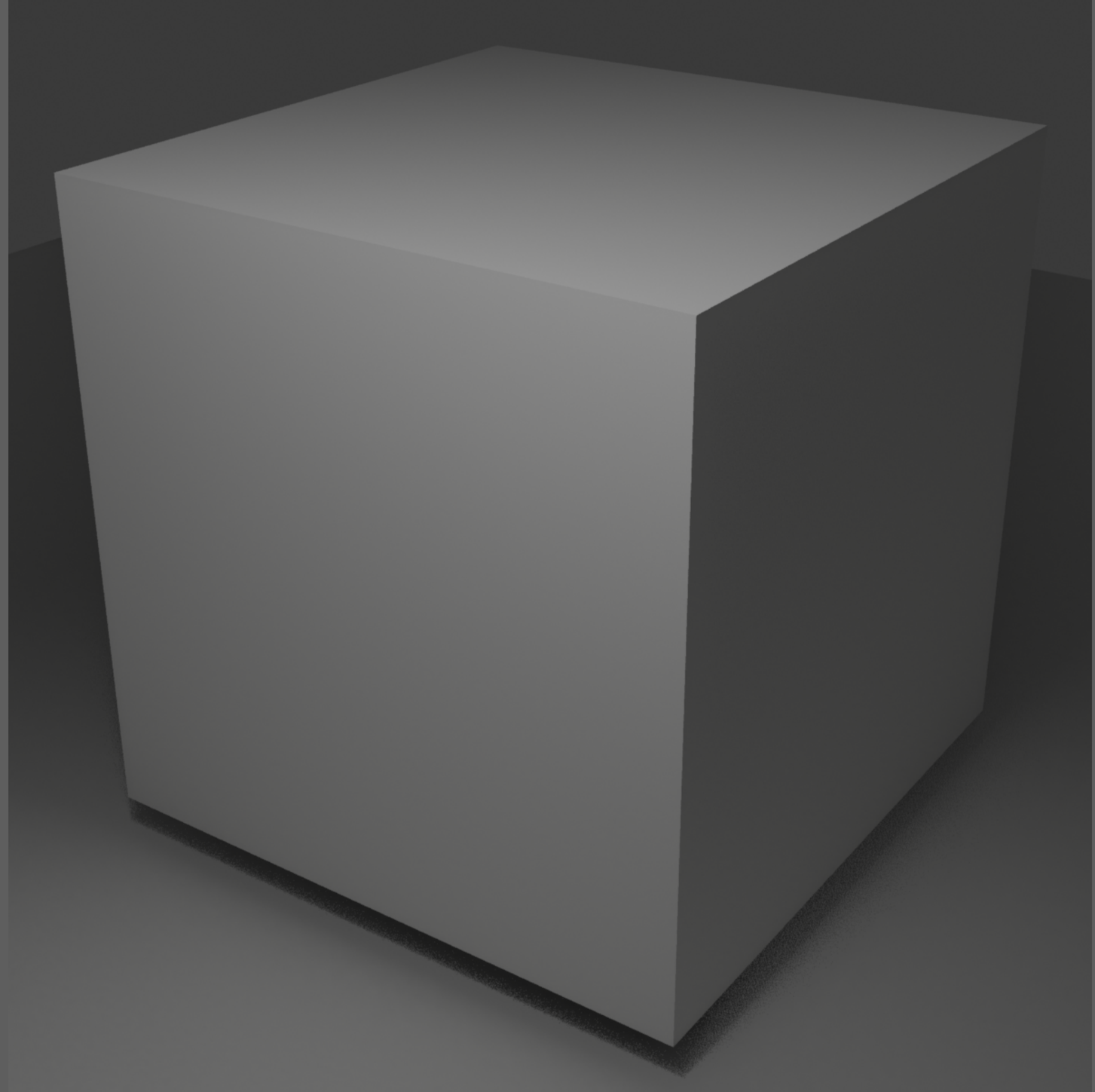
3 Point Lighting



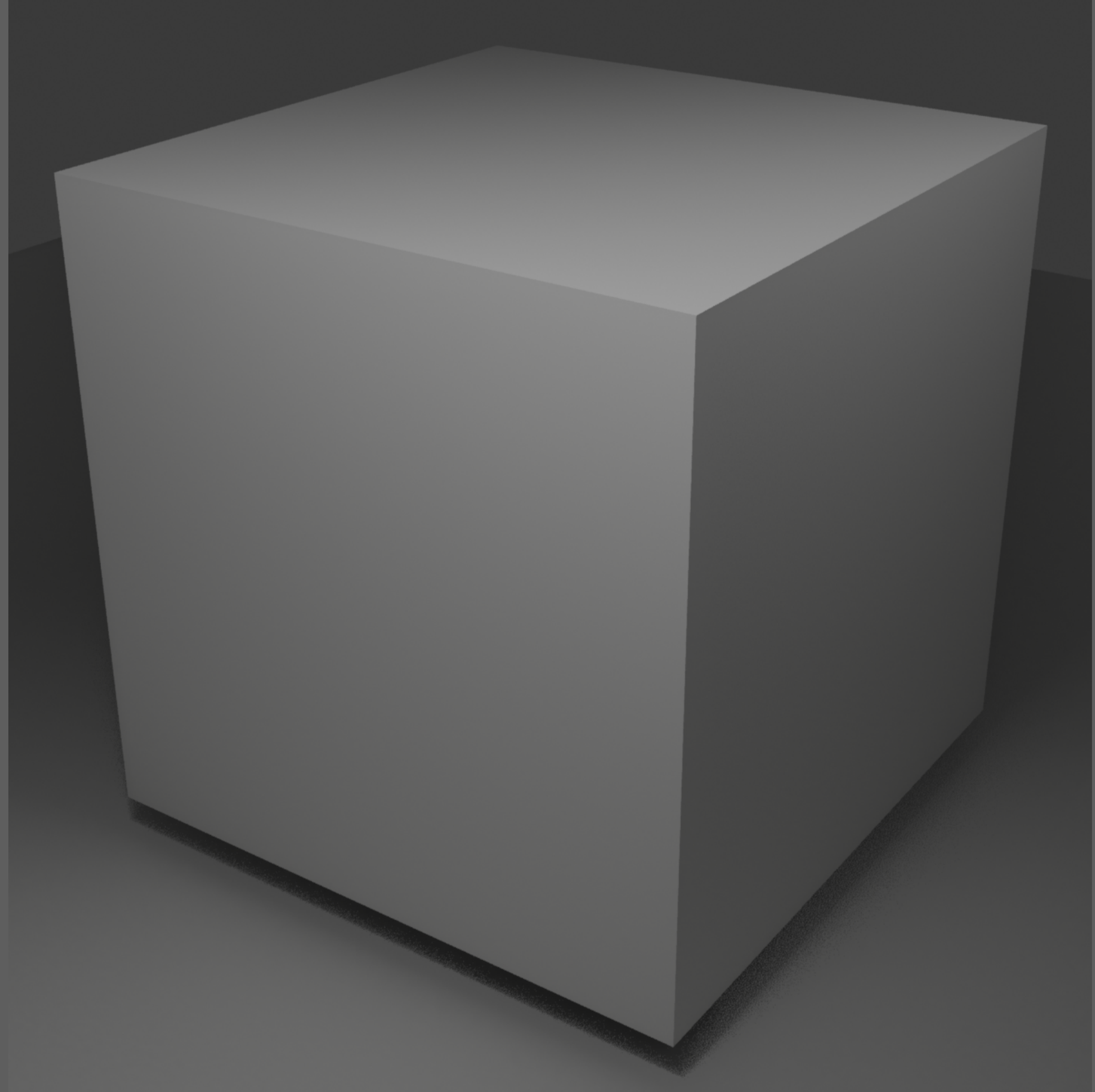
Light



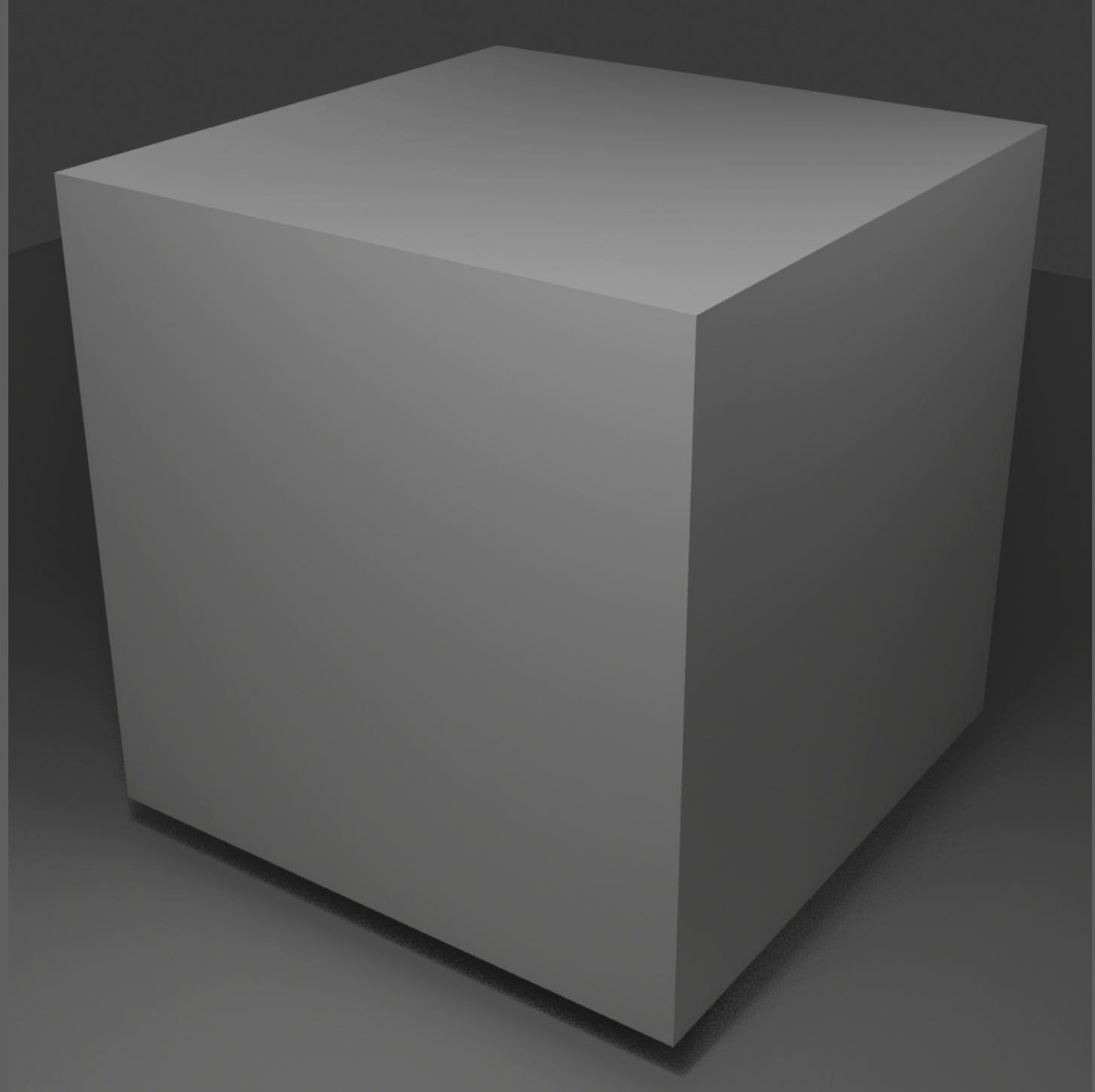
Key



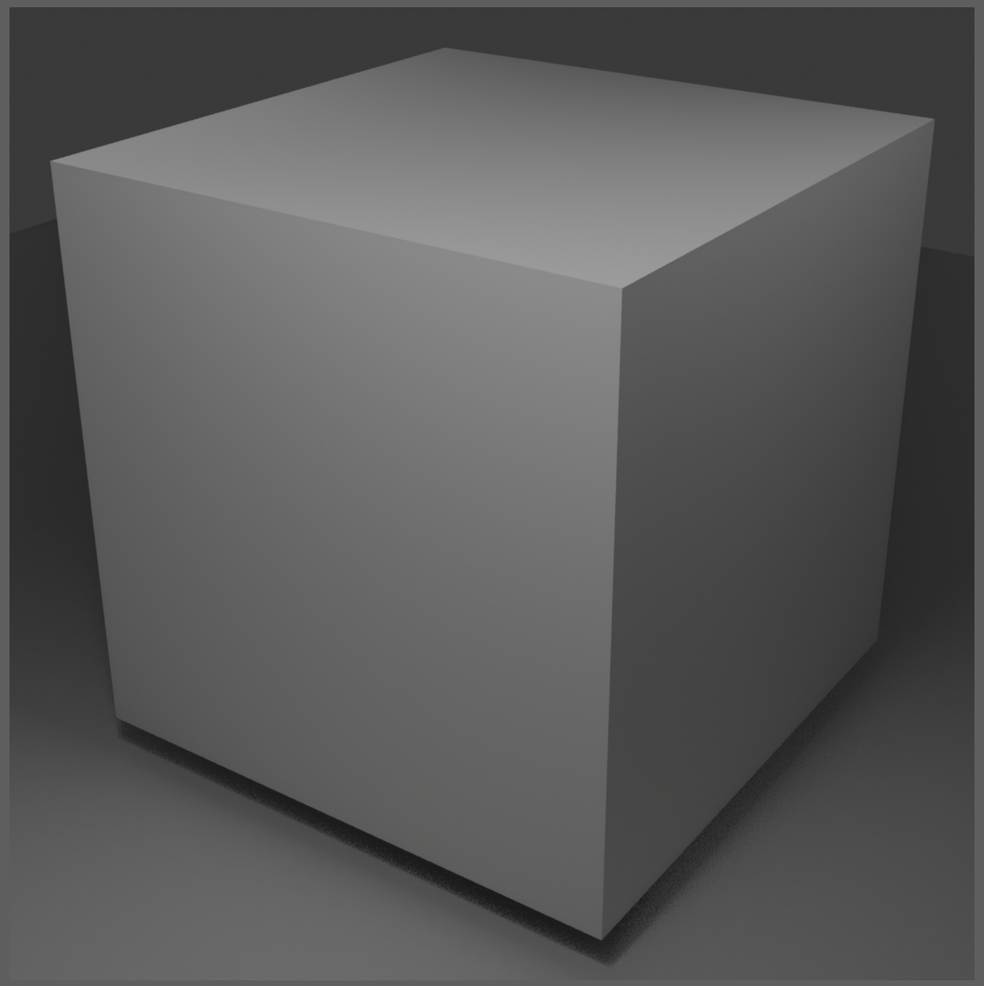
Fill



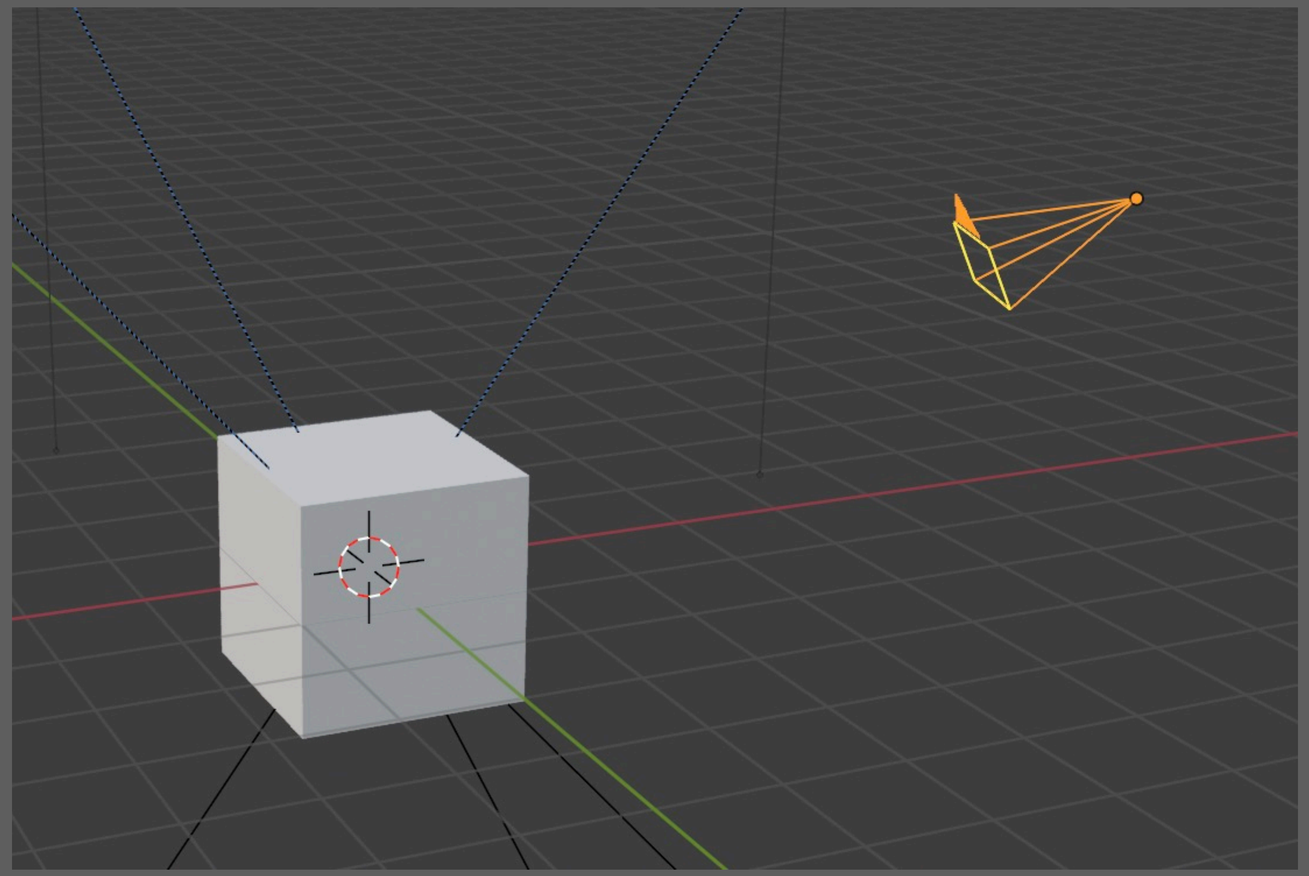
Back



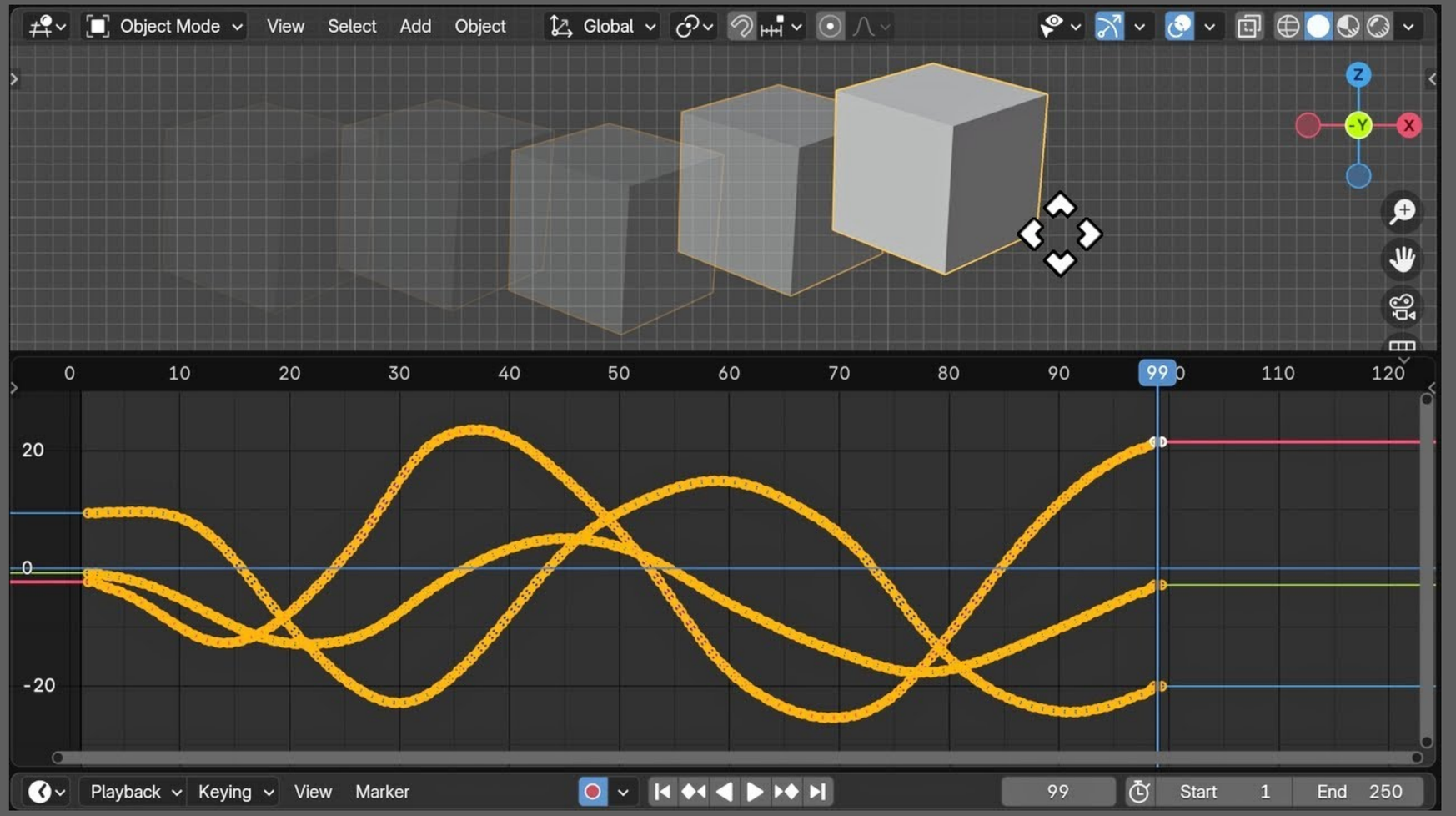
Task: Try 3 Point Lighting on your object



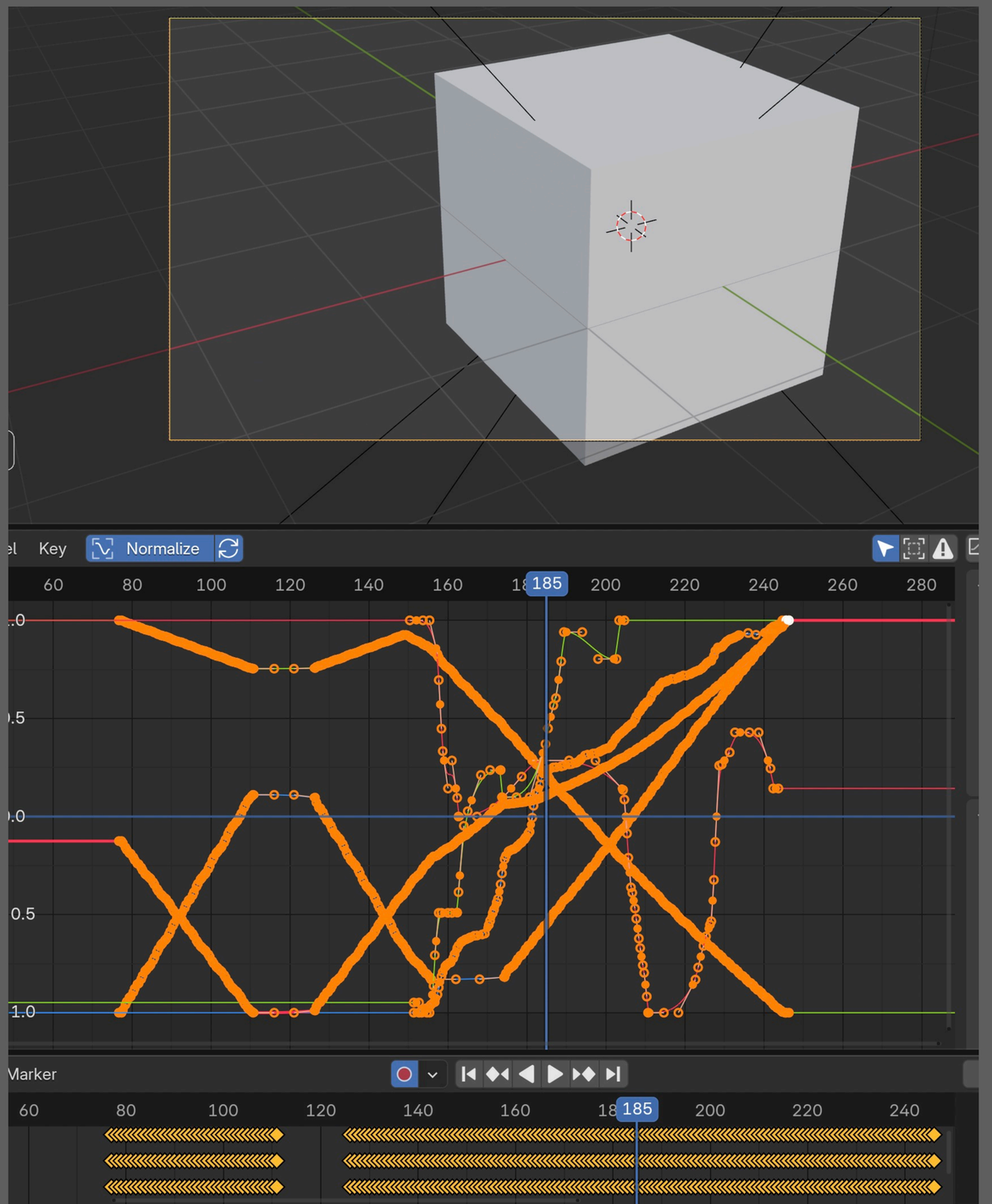
Camera Movement



Camera Movement



https://www.youtube.com/watch?v=QLLZF9h1bbs


Key
Normalize
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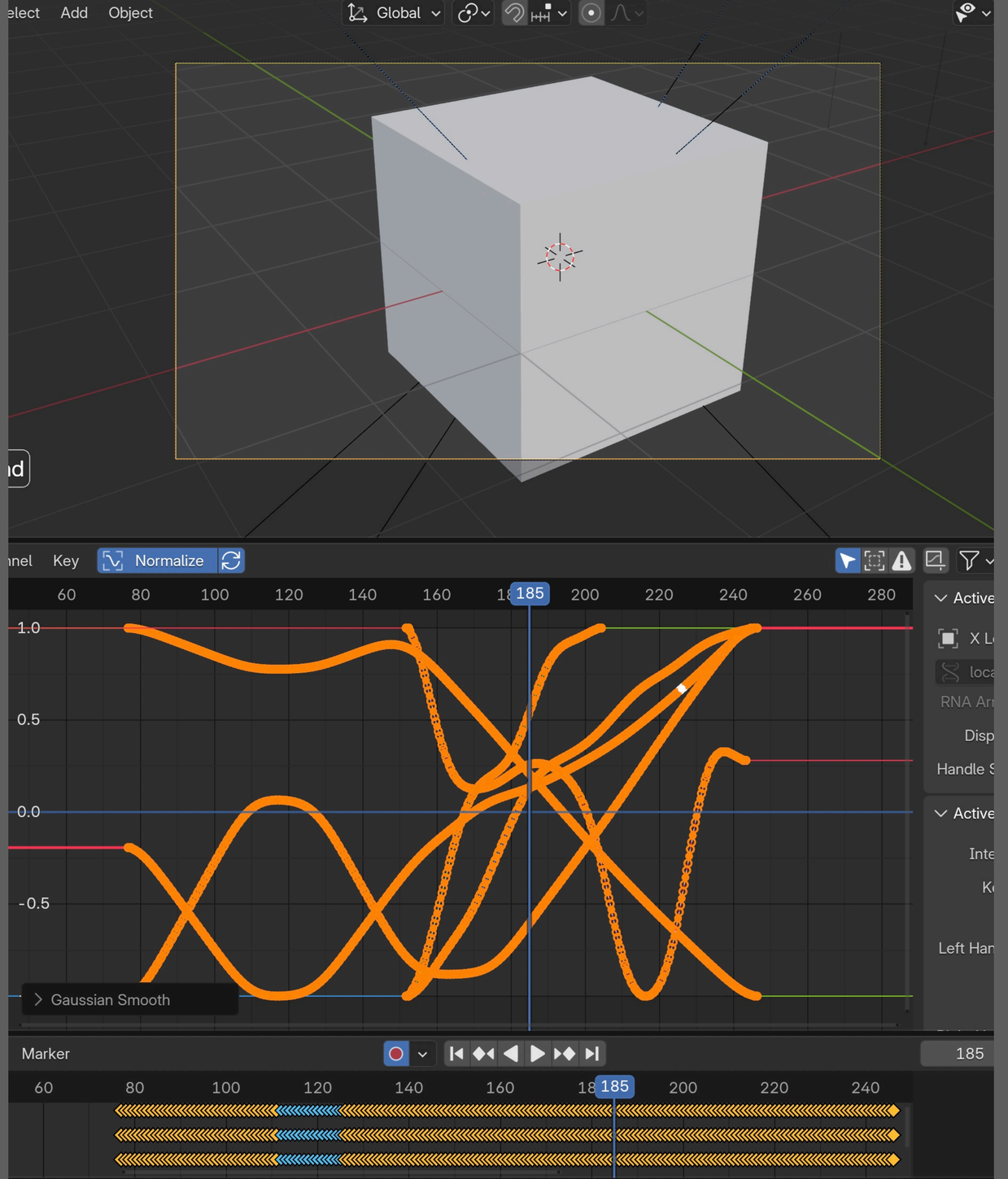
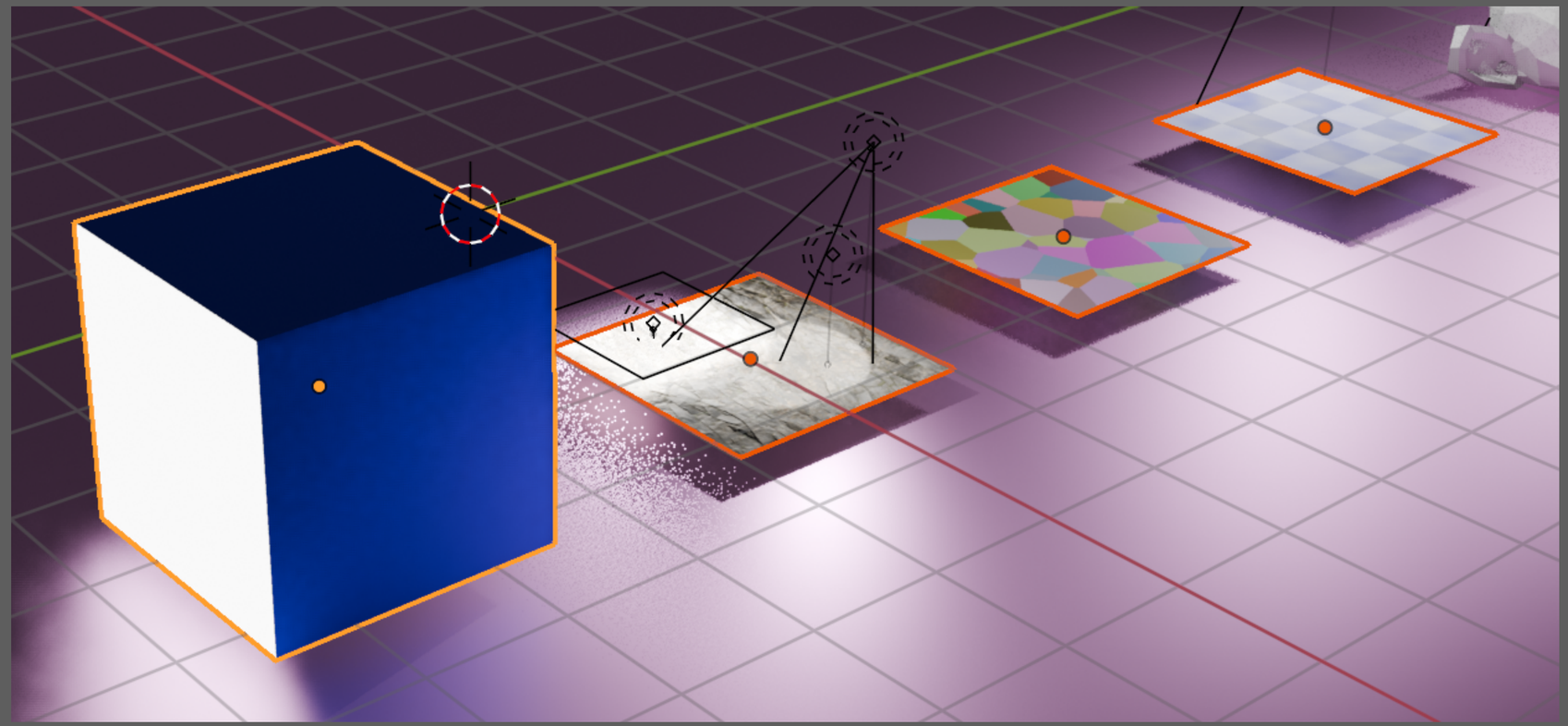
80
100
120
140
160
185
200
220
240
260
280
0.5
0.0
0.5
1.0
Marker
60
80
100
120
140
160
185
200
220
240

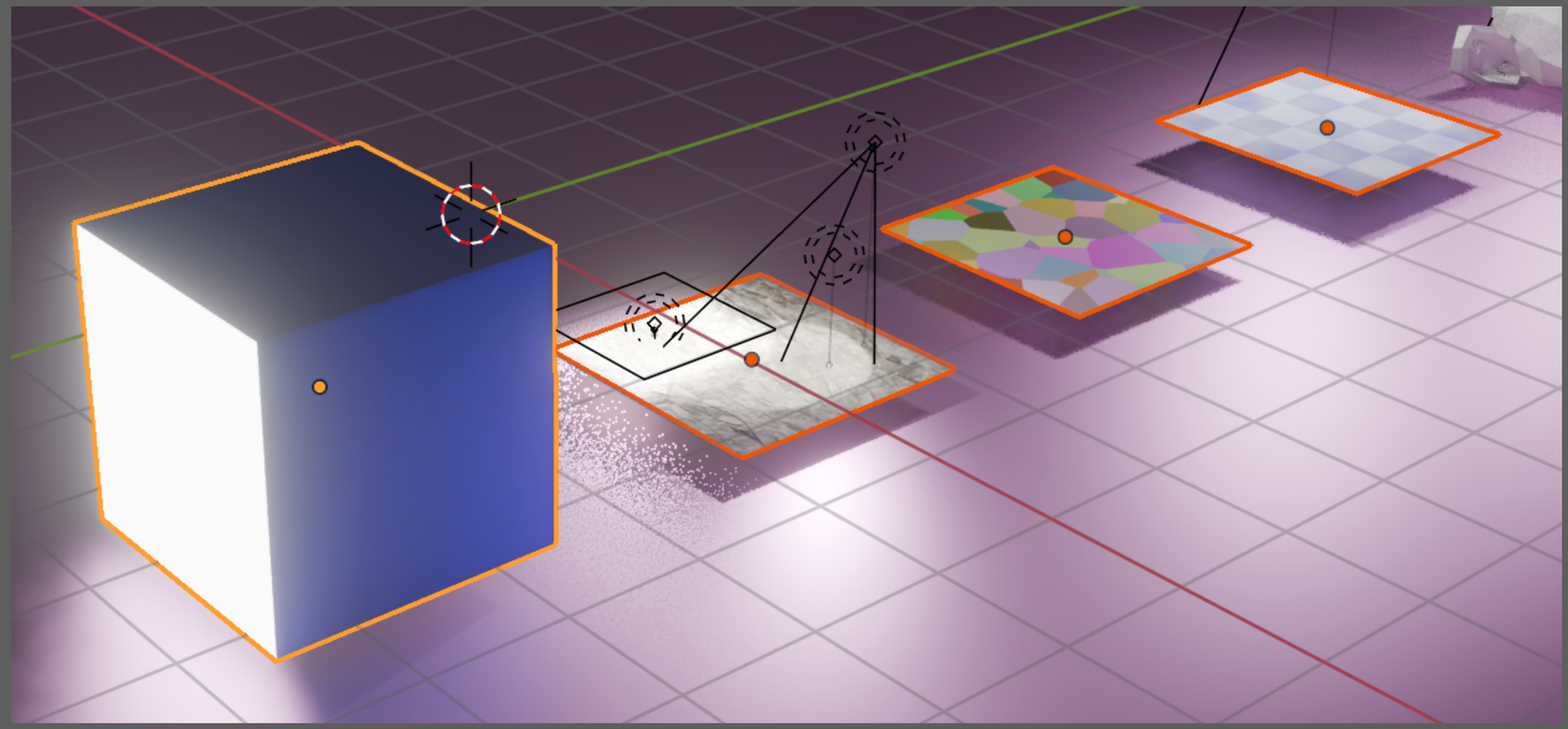

elect
Add
Object
Global
nel
Key
Normalize
60
80
100
120
140
160
185
200
220
240
260
280
1.0
0.5
0.0
-0.5
Gaussian Smooth
Active
Marker
185

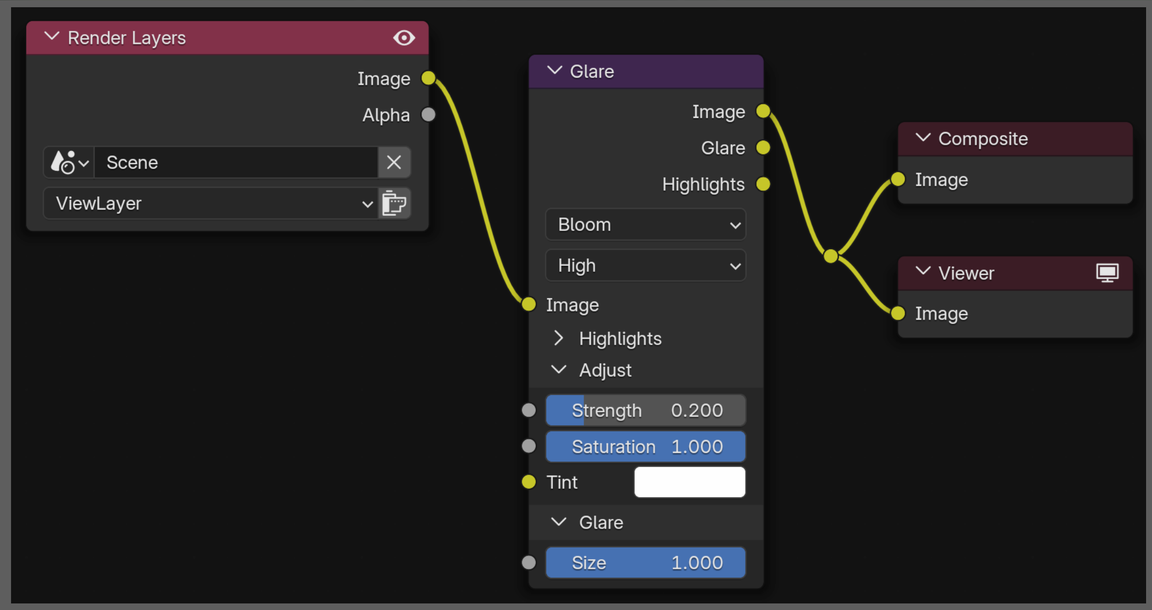
Compositor

Jan-Hendrik Müller
Blender 4.5.1

August 2025






Render Layers
Image
Alpha
Scene
ViewLayer
Glare
Image
Glare
Highlights
Bloom
High
Image
Highlights
Adjust
Strength 0.200
Saturation 1.000
Tint
Glare
Size 1.000
Composite
Image
Viewer
Image

Further Resources

https://www.youtube.com/watch?v=PYTXvo29AsY