iteration³

week 3

feedback

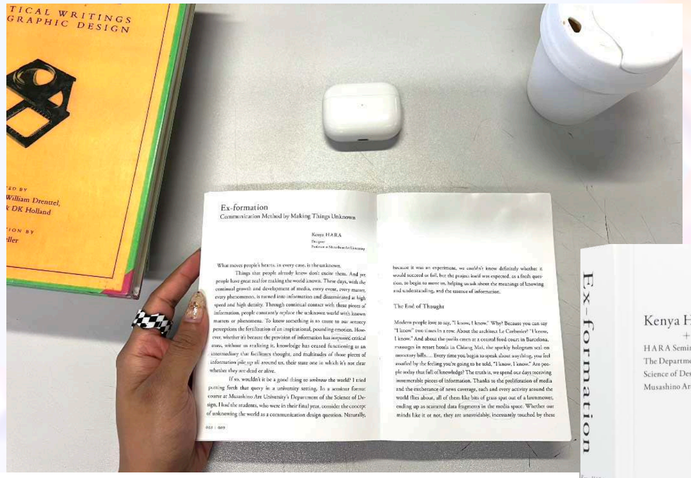
Challenge the notion that my week wasn't purposeful.
Time spent learning is also purposeful.

How do I theoretically and practically subvert the toolkit?

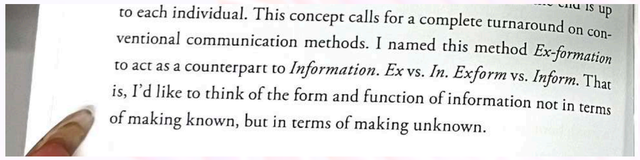
Employ different approaches:

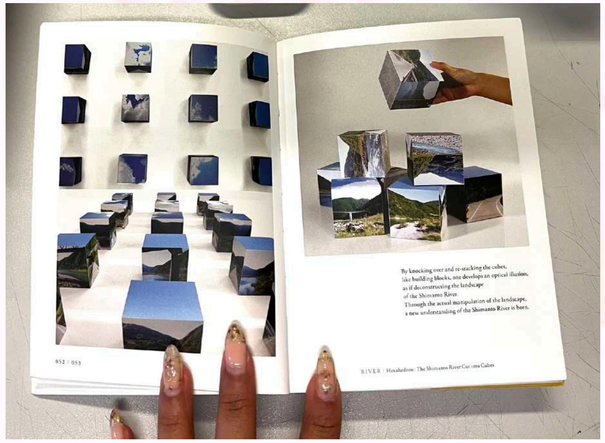
1. *Limited toolkit*
2. *Different tools entirely*
3. *Reverse process*
4. *Play with one tool*
5. *Lesser used or most used in my thing*
6. *Limited process*

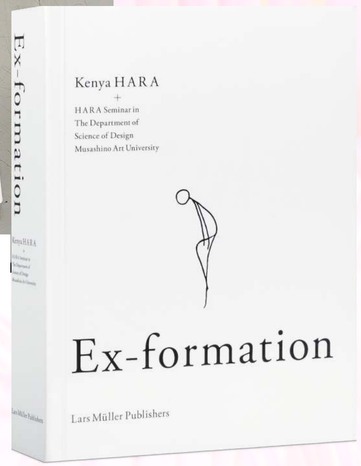
All of these can be part of my iterative process
Test out one restriction to inform the next iteration



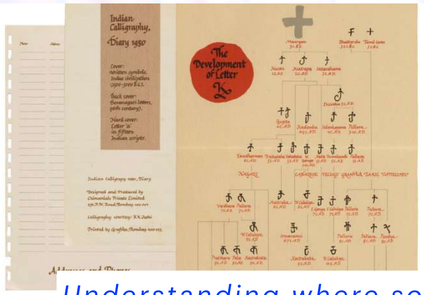
"Consider the concept of unknowing the world as a communication design question"


to each individual. This concept calls for a complete turnaround on conventional communication methods. I named this method *Ex-formation* to act as a counterpart to *Information*. *Ex* vs. *In*. *Exform* vs. *Inform*. That is, I'd like to think of the form and function of information not in terms of making known, but in terms of making unknown.

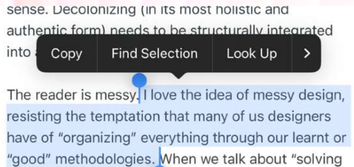


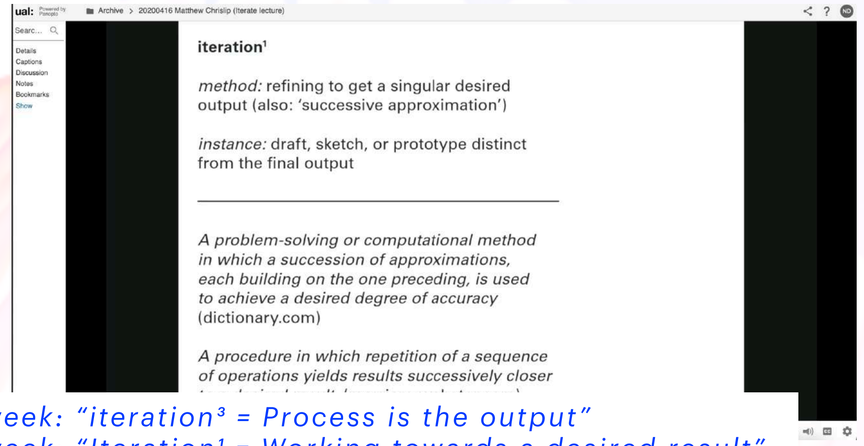


To what extent is an order of things imperative to the outcome?



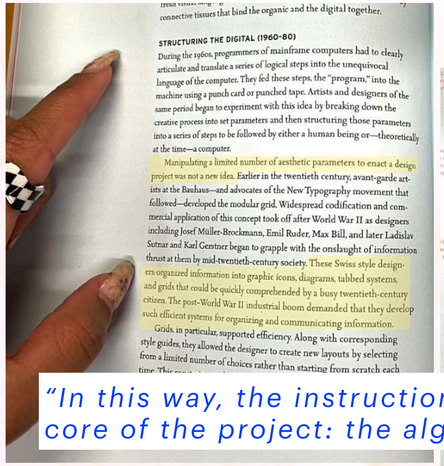
Understanding where something comes from, to add new meaning



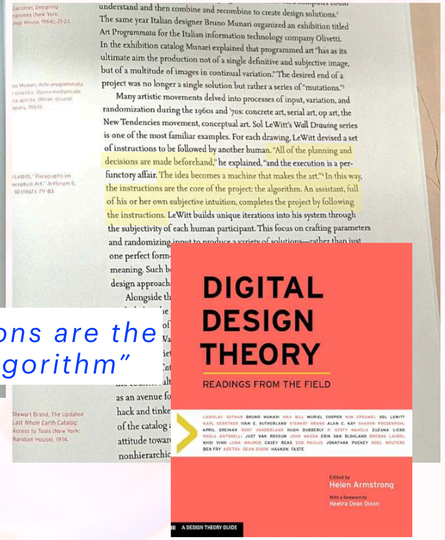


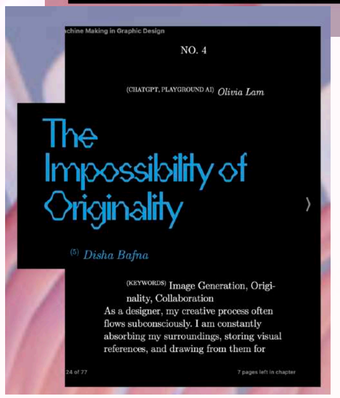
Last week: "iteration³ = Process is the output"
This week: "Iteration¹ = Working towards a desired result"

Subverting this, what if we work where we come to the point of making something imperfectly (changing the natural order of "rules" in Blender, but still producing an outcome)?



"In this way, the instructions are the core of the project: the algorithm"





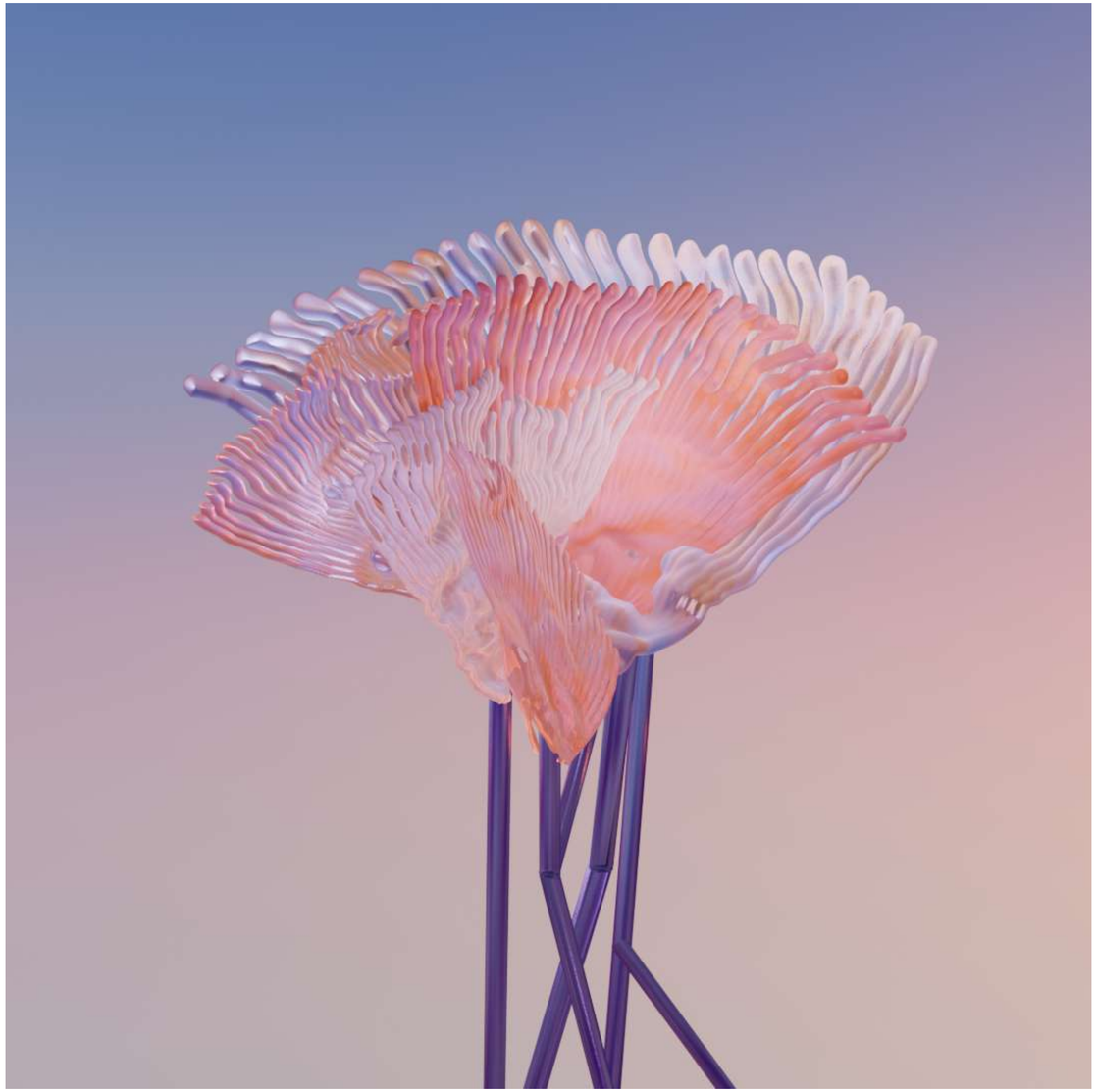
re-blending blender

original.blend

current toolkit

RULES

1. *Add bezier curve*
2. *Go to edit mode*
3. *Shape*
4. *Move closer to origin*
5. *Convert curve to mesh to subdivide*
6. *Add an array modifier*
7. *Create a circular array along an arc*
8. *Add displacement modifier*
9. *Click new texture and add noise to create the ridges*
10. *Rotate and position*
11. *Right click and convert to curve*
12. *Go to data > geometry to add thickness and create closed caps*
13. *Convert back to mesh*
14. *Add a remesh modifier to smooth*
15. *Go to sculpt mode to smooth and finalise shape*
16. *Duplicating the coral leaves*
17. *Position the coral leaves*
18. *Change materiality*
19. *Create and position cylinder objects*
20. *Slice cylinder objects*
21. *Add shading*
22. *Add lighting*

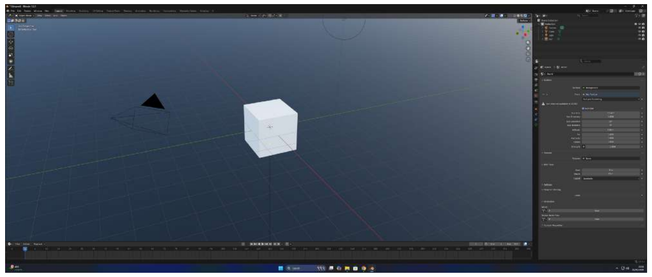
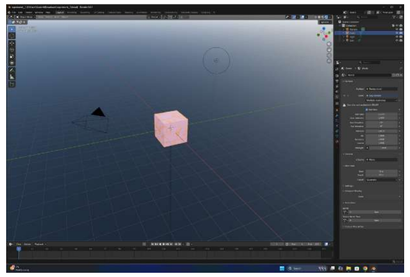
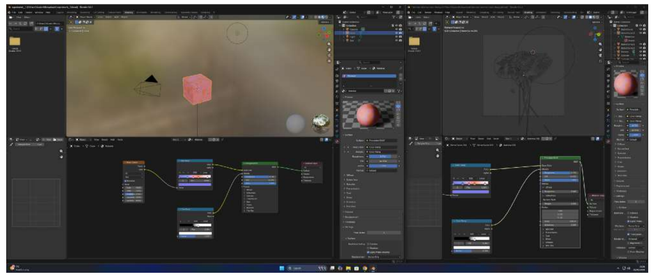
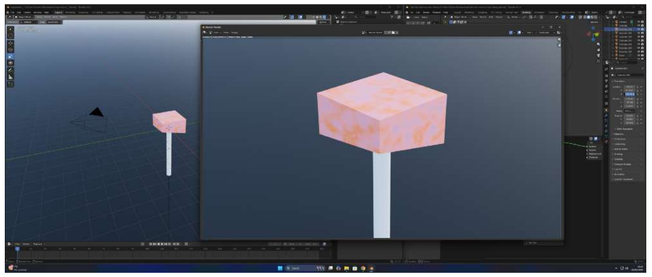
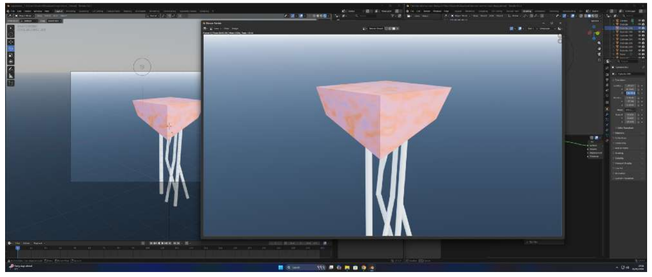
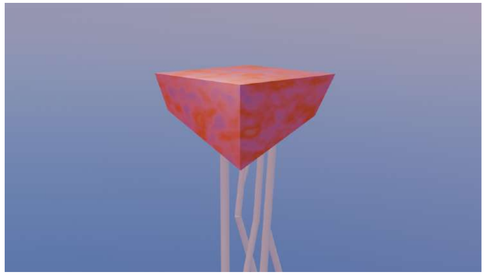
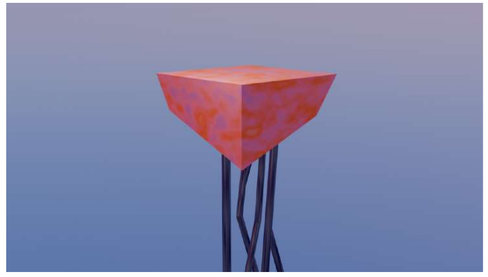
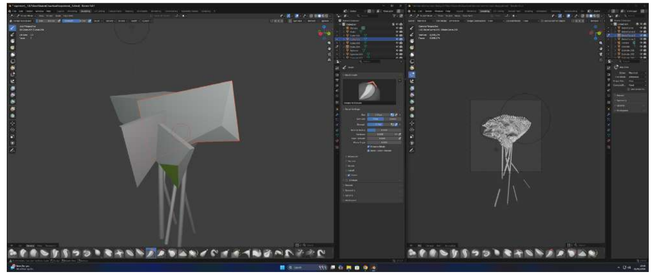
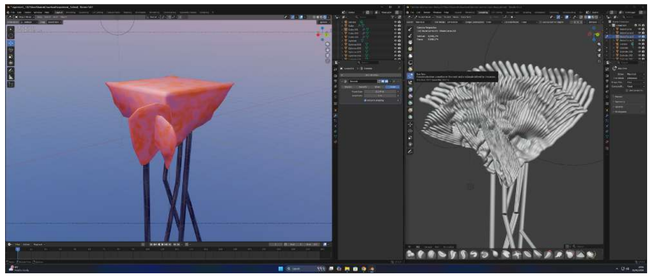
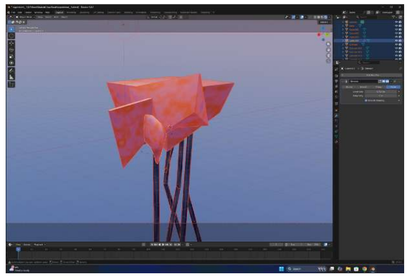
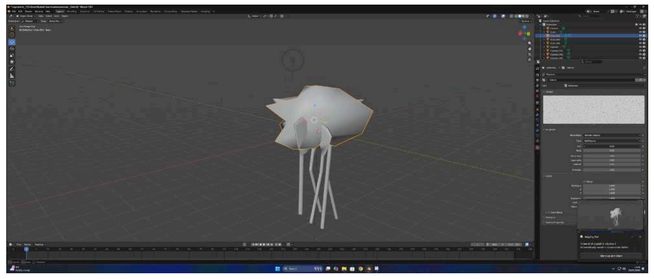
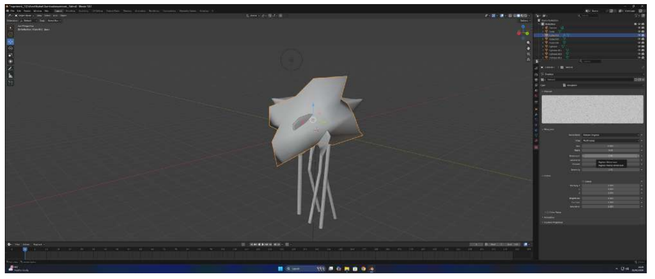


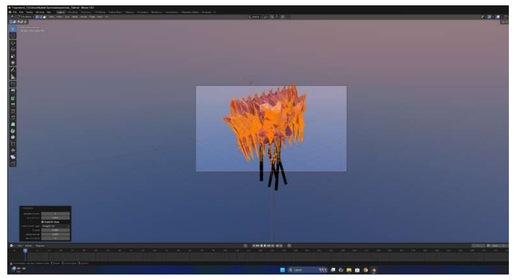
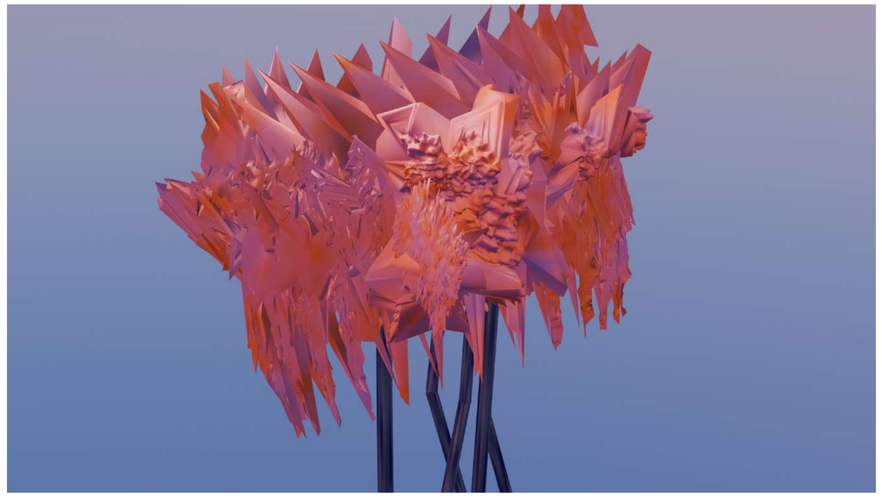
experiment_1.blend

reverse toolkit

RULES

1. *Follow exactly the order of steps 2-23 to recreate the coral, even if they don't work. Mark in red the steps that "go wrong".*
2. *Add lighting*
3. *Add shading*
4. *Slice cylinder objects*
5. *Create and position cylinder objects*
6. *Change materiality*
7. *Position the coral leaves*
8. *Duplicating the coral leaves*
9. *Go to sculpt mode to smooth and finalise shape*
10. *Add a remesh modifier to smooth*
11. *Convert back to mesh*
12. *Go to data > geometry to add thickness and create closed caps*
13. *Right click and convert to curve*
14. *Rotate and position*
15. *Click new texture and add noise to create the ridges*
16. *Add displacement modifier*
17. *Create a circular array along an arc*
18. *Add an array modifier*
19. *Convert curve to mesh to subdivide*
20. *Move closer to origin*
21. *Shape*
22. *Edit mode*
23. *Add bezier curve*

Unexpected visual, looks organic yes but not the same.
Interesting how the steps need to be followed in a particular order.

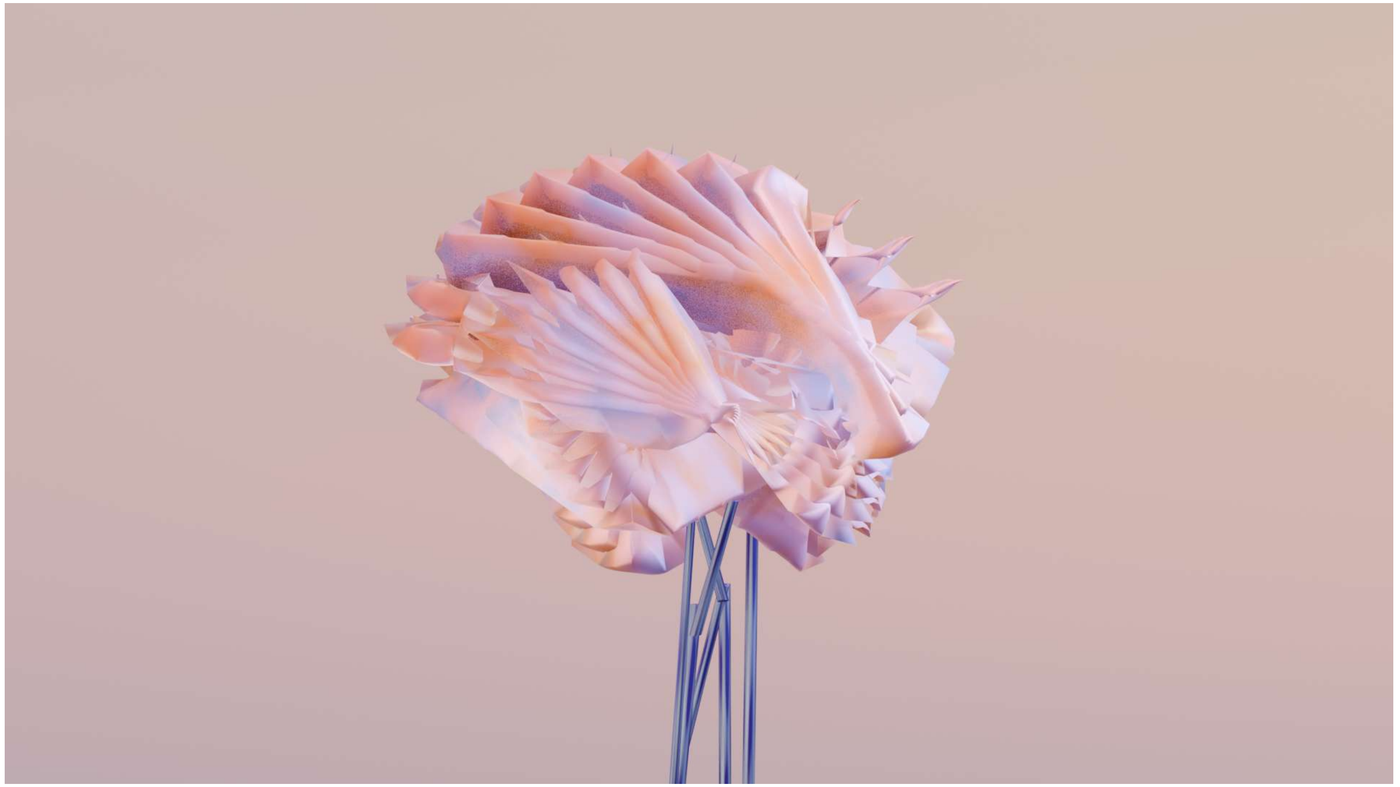
experiment_2.blend

selective toolkit

RULES

1. *Steps 4, 7, 8, 9, 12, 15, 17, 21, and 22 didn't work in the previous experiment, thus are uncooperative and deserve to be cancelled.*
2. *Steps 14 & 23 produced insignificant results, observe if they do something now.*
3. *Now follow a new order, with the uncooperative steps omitted. Follow the subsequent steps in their exact order, even if they don't work. Mark in red the steps that "go wrong".*
4. *Add lighting*
5. *Add shading*
6. *Create and position cylinder objects*
7. *Change materiality*
8. *Add a remesh modifier to smooth*
9. *Convert back to mesh*
10. *Right click and convert to curve*
11. *Rotate and position*
12. *Add displacement modifier*
13. *Add an array modifier*
14. *Convert curve to mesh to subdivide*
15. *Move closer to origin*
16. *Add bezier curve*

Nothing went wrong!



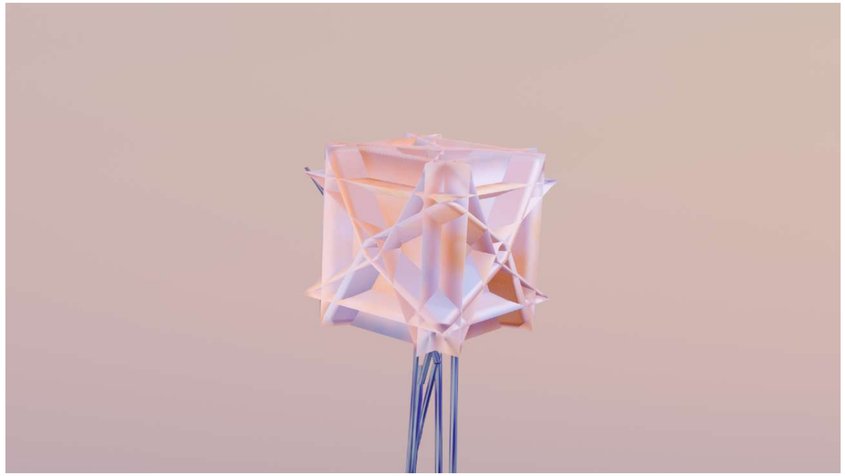
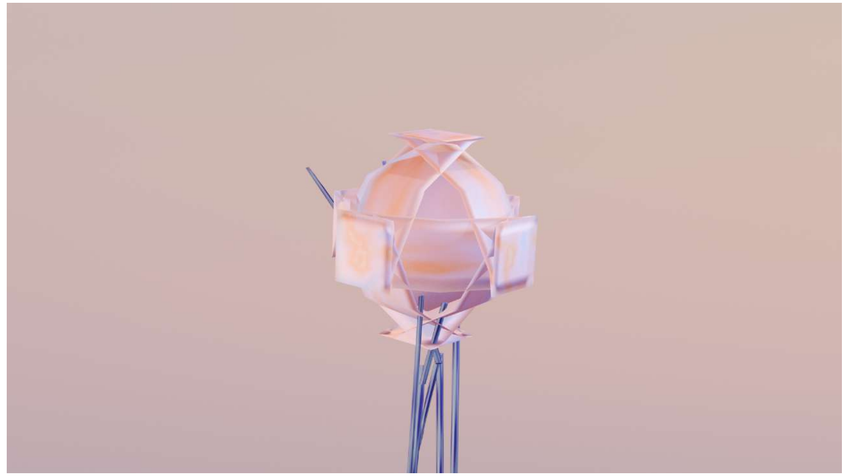
Looks a lot like the original

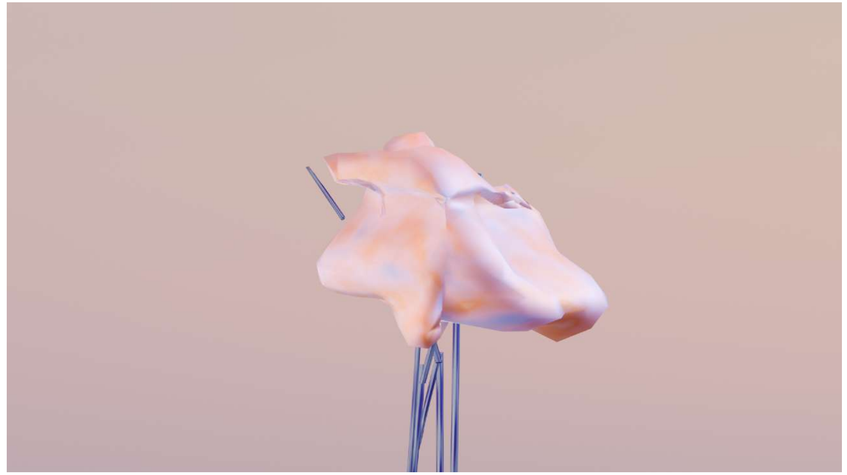
experiment_3.blend

selective toolkit 2.0

RULES

1. *Experiment_2.blend was successful.*
2. *Go back and only change the displacement modifier.*

Interesting that the smallest of changes (in the large scheme of things) makes the software produce such varying results

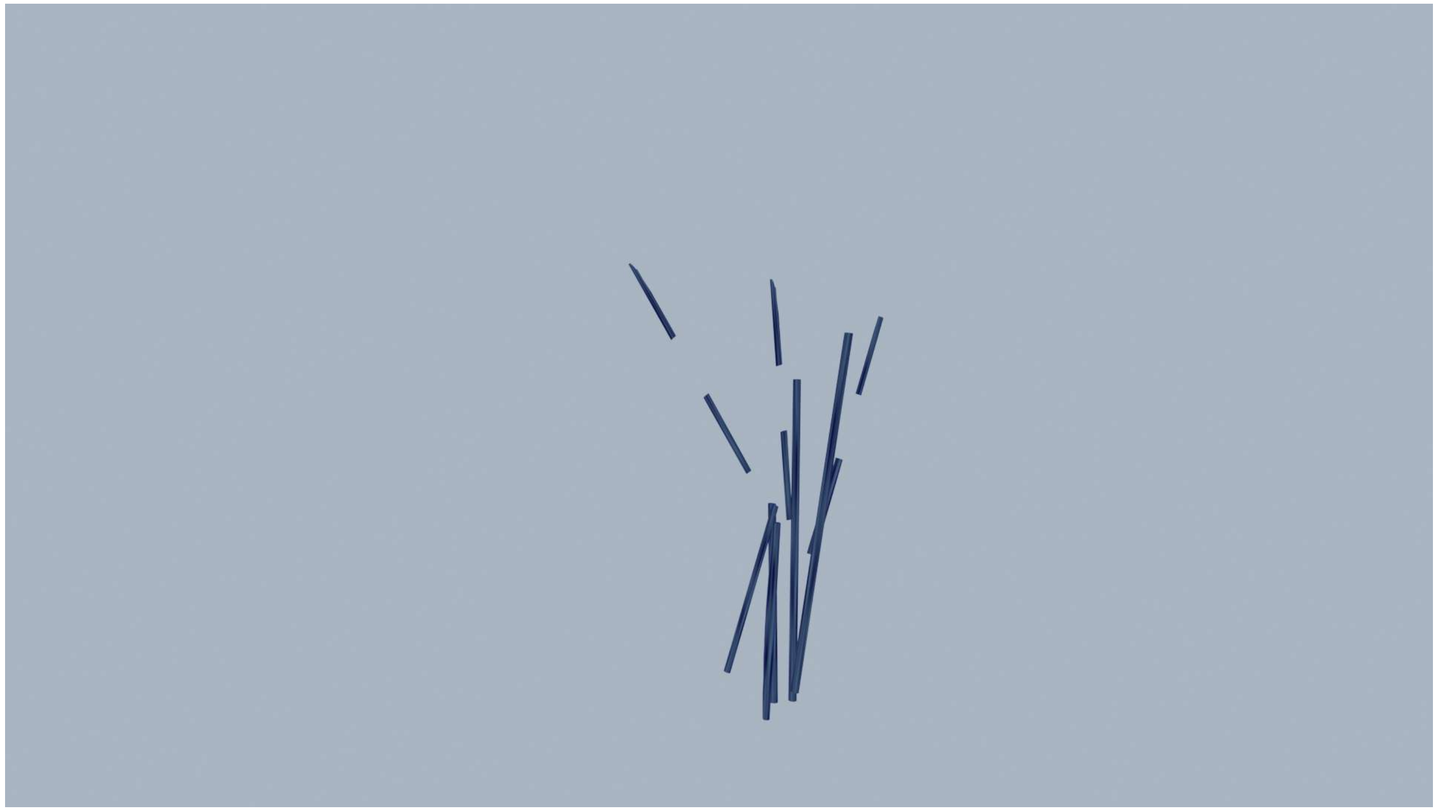
experiment_4.blend

selective toolkit 3.0

RULES

1. *Recognise that the uncooperative steps only failed to cooperate because we were testing the logic of the system's orders*
2. *Steps 4, 7, 8, 9, 12, 15, 17, 21, and 22 should be reintroduced.*
3. *Mark in red the steps that don't work.*
4. *But, 23 steps is too many. So work with these 10 steps:*
5. *Add bezier curve*
6. *Go to edit mode and shape*
7. *Convert curve to mesh to subdivide*
8. *Add an array modifier*
9. *Create a circular array along an arc*

9. *Rotate and position*
10. *Right click and convert to curve*
11. *Duplicating the coral leaves*
12. *Change materiality*
13. *Create and position cylinder objects*
14. *Add shading*
15. *Add lighting*



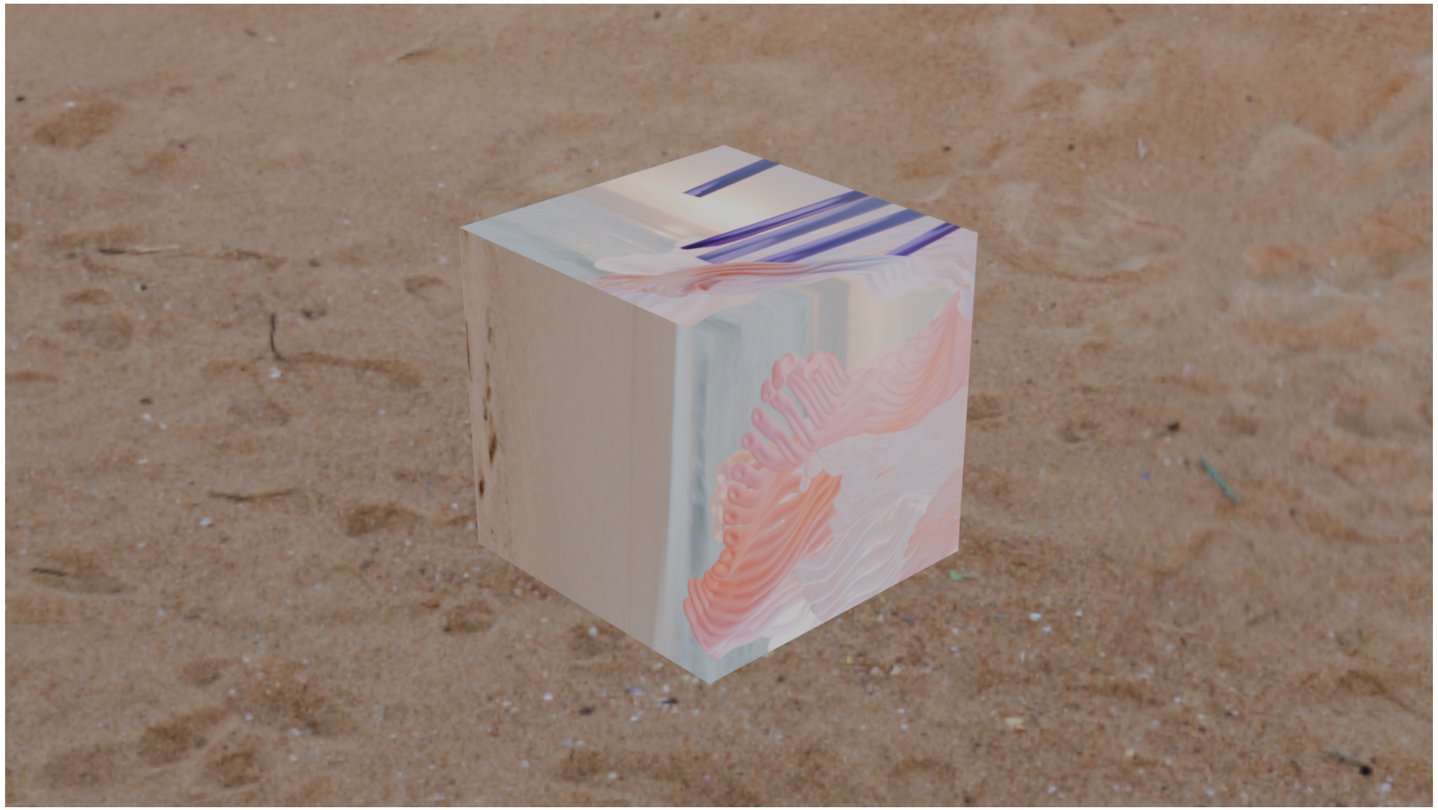
???

experiment_5.blend

limited toolkit

RULES

1. *Consider the basics that appear when you open Blender. You start off with:*
   i. *a cube*
   ii. *a never-ending grey expanse*
   iii. *world light (set to grey)*
   iv. *light and camera already in place (a scene)*
   v. *grey object material*
2. *You are only allowed to change materiality (including environment). Nothing else*
3. *How do you recreate the coral? Does Blender still function as expected?*



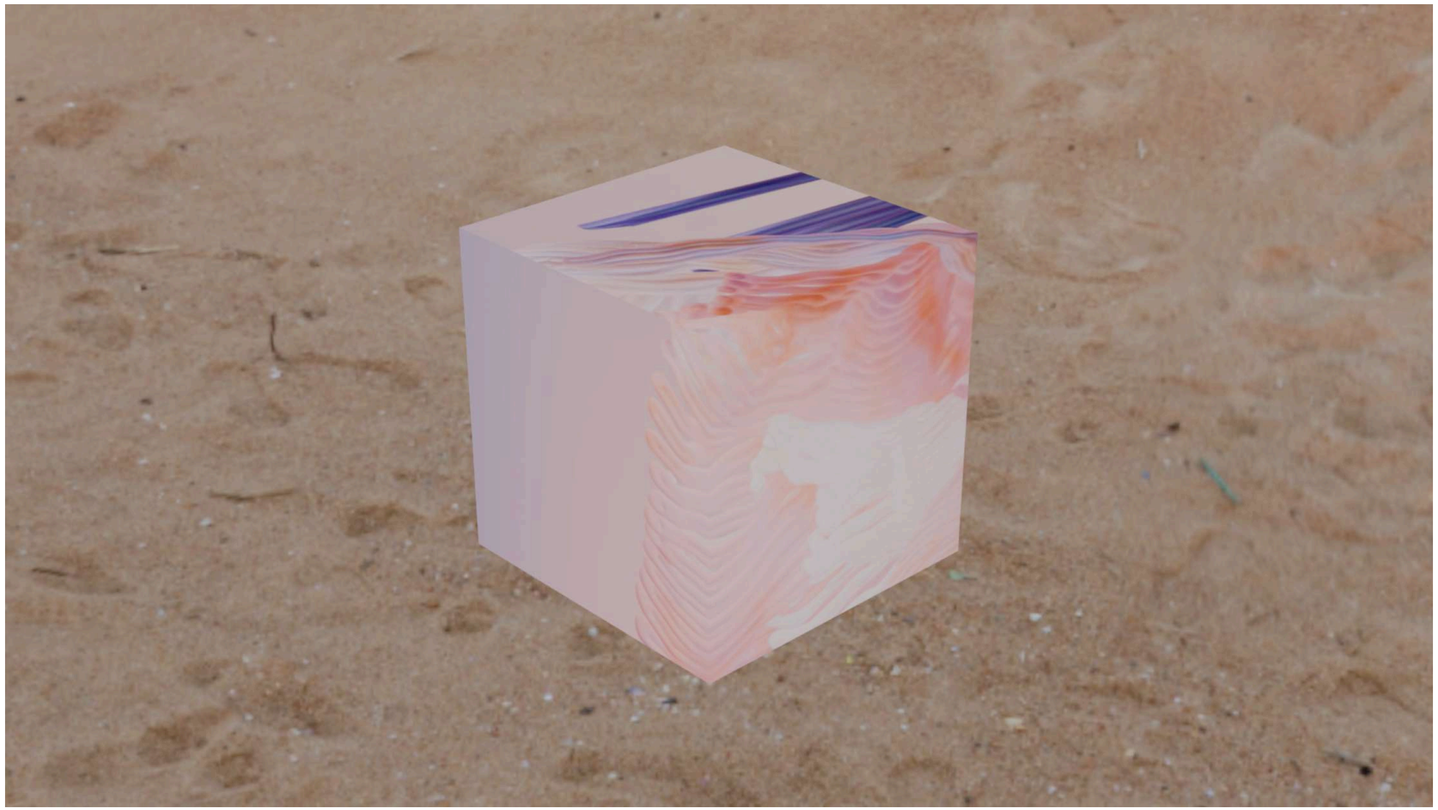
Does the cube still represent a coral?

experiment_6.blend

limited toolkit pro

RULES

1. *Consider the basics that appear when you open Blender. You start off with:*
   i. *a cube*
   ii. *a never-ending grey expanse*
   iii. *world light (set to grey)*
   iv. *light and camera already in place (a scene)*
   v. *grey object material*
2. *You are only allowed to change materiality. Nothing else*
3. *You are allowed to add motion to change perspective.*
4. *How do you recreate the coral? Does Blender still function as expected?*



Does the cube still represent a coral?

experiment_7.blend

limited toolkit pro 2.0

RULES

1. *Follow on from experiment_6.blend*
2. *You are allowed to change materiality.*
3. *You are also allowed to sculpt the object with one tool of your choice. Nothing else*
4. *You are allowed to add motion to change perspective.*
5. *How do you recreate the coral? Does Blender still function as expected?*

Are we getting closer to the original coral? Is this a different coral?

experiment_8.blend

limited toolkit pro 3.0

RULES

1. *Follow on from experiment_6.blend*
2. *You are allowed to change materiality.*
3. *You are also allowed to sculpt the object with one tool of your choice.*
4. *It should be a different tool than the one you previously used in experiment_7.blend. Nothing else*
5. *You are allowed to add motion to change perspective.*
6. *How do you recreate the coral? Does Blender still function as expected?*

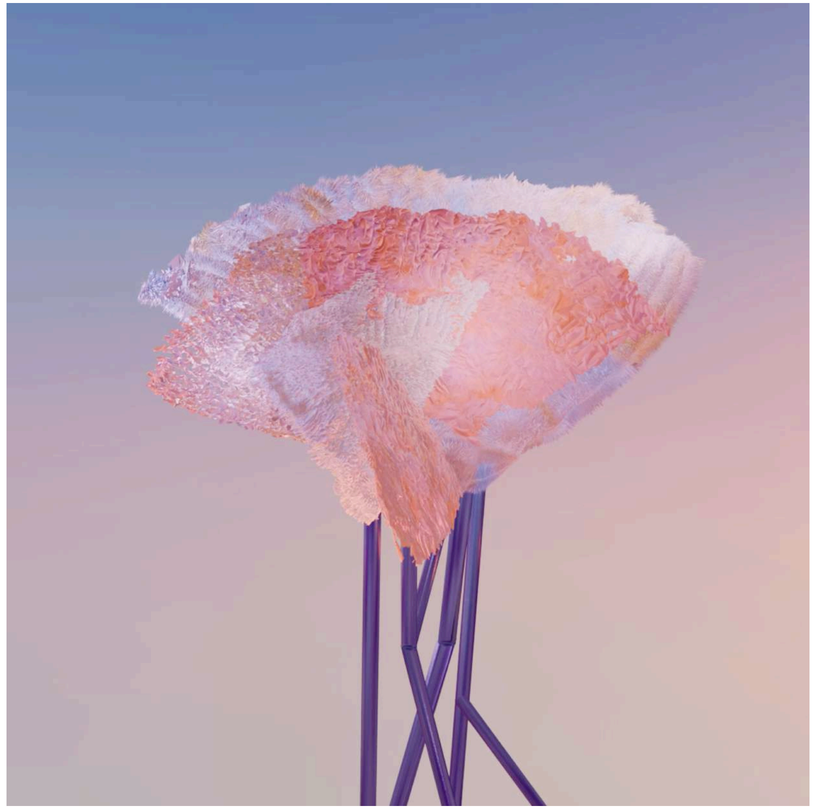
The cube is no longer a cube, but are we getting closer to the original coral? Is this a different coral? What is a coral?

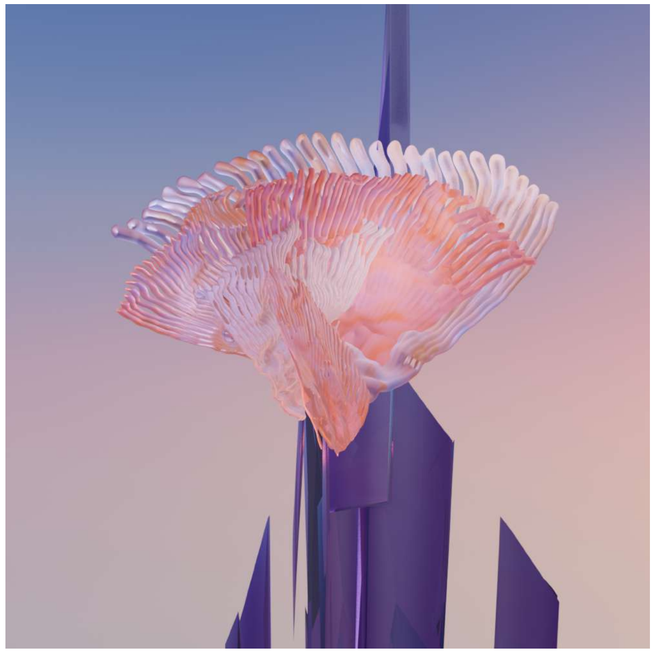
experiment_9.blend

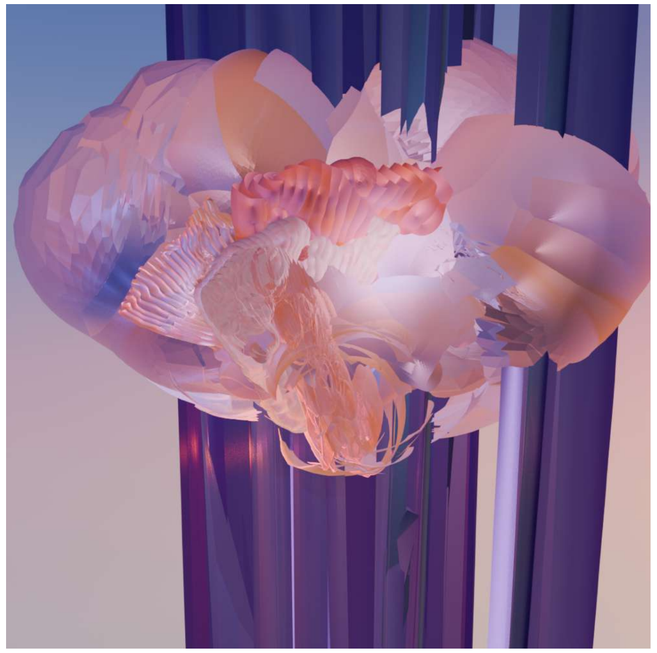
one modifier

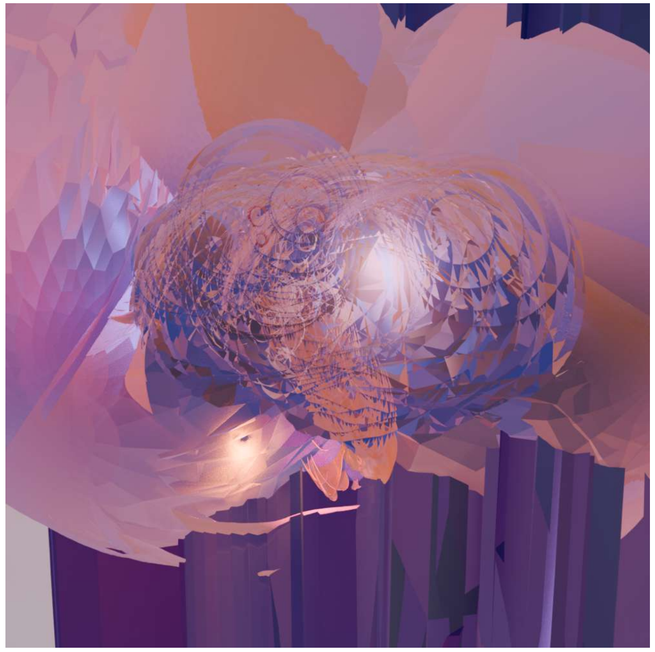
RULES

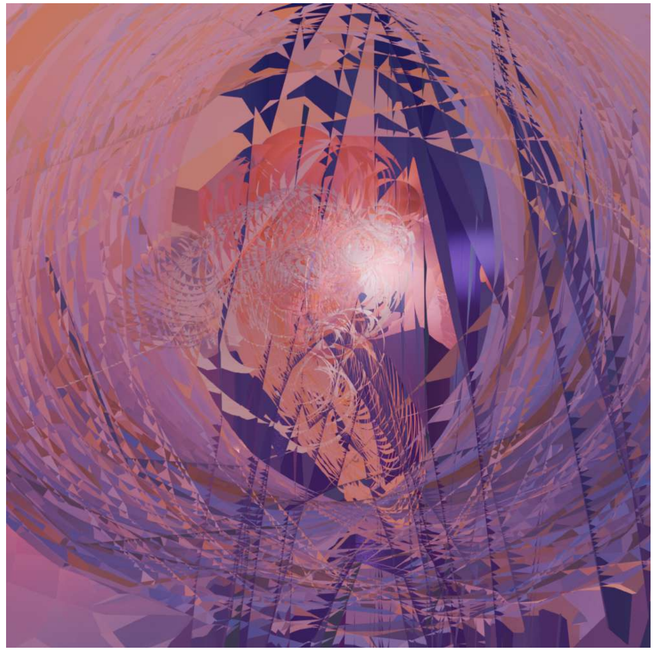
1. *Pick up from your original object, as it is.*
2. *You are not allowed to change anything, but the displacement modifier.*
3. *How can you dismantle the object? How far can you push the software with one tool? Can you “crash” it?*











The more displacement I added, the more it lost meaning.

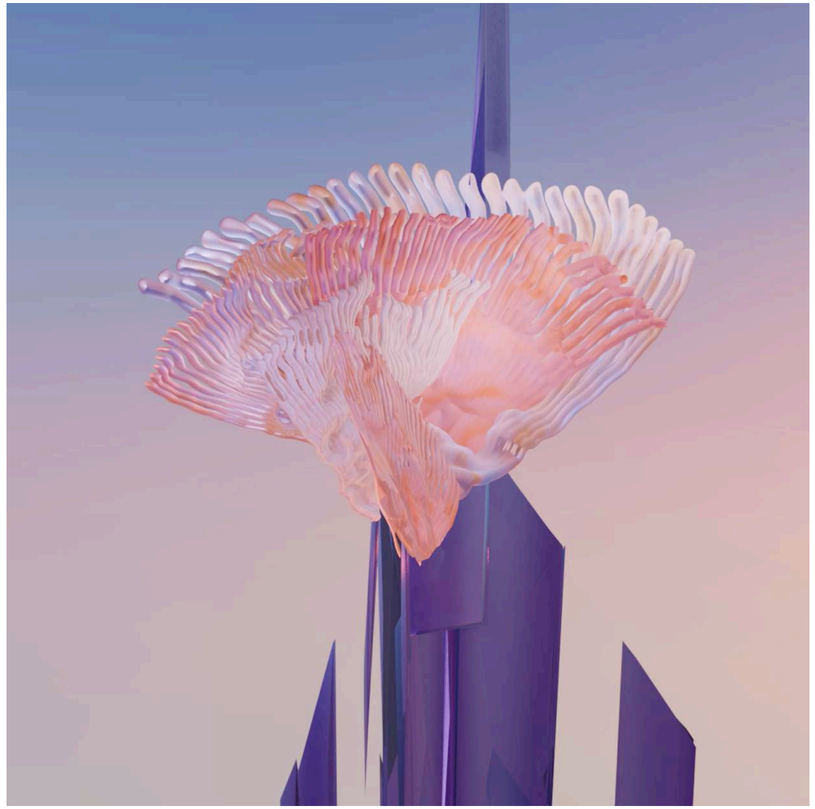
Despite the software seeming "broken", it produced an output, and thus it was challenged but it pushed through.

experiment_10.blend

time-bender

RULES

1. *Pick up from your original object, as it is.*
2. *Add key frames at the start and the end, and change some basic geometry.*
3. *Sculpt the object by scrubbing the timeline.*
4. *How does time as a tool allow you to vary the object?*



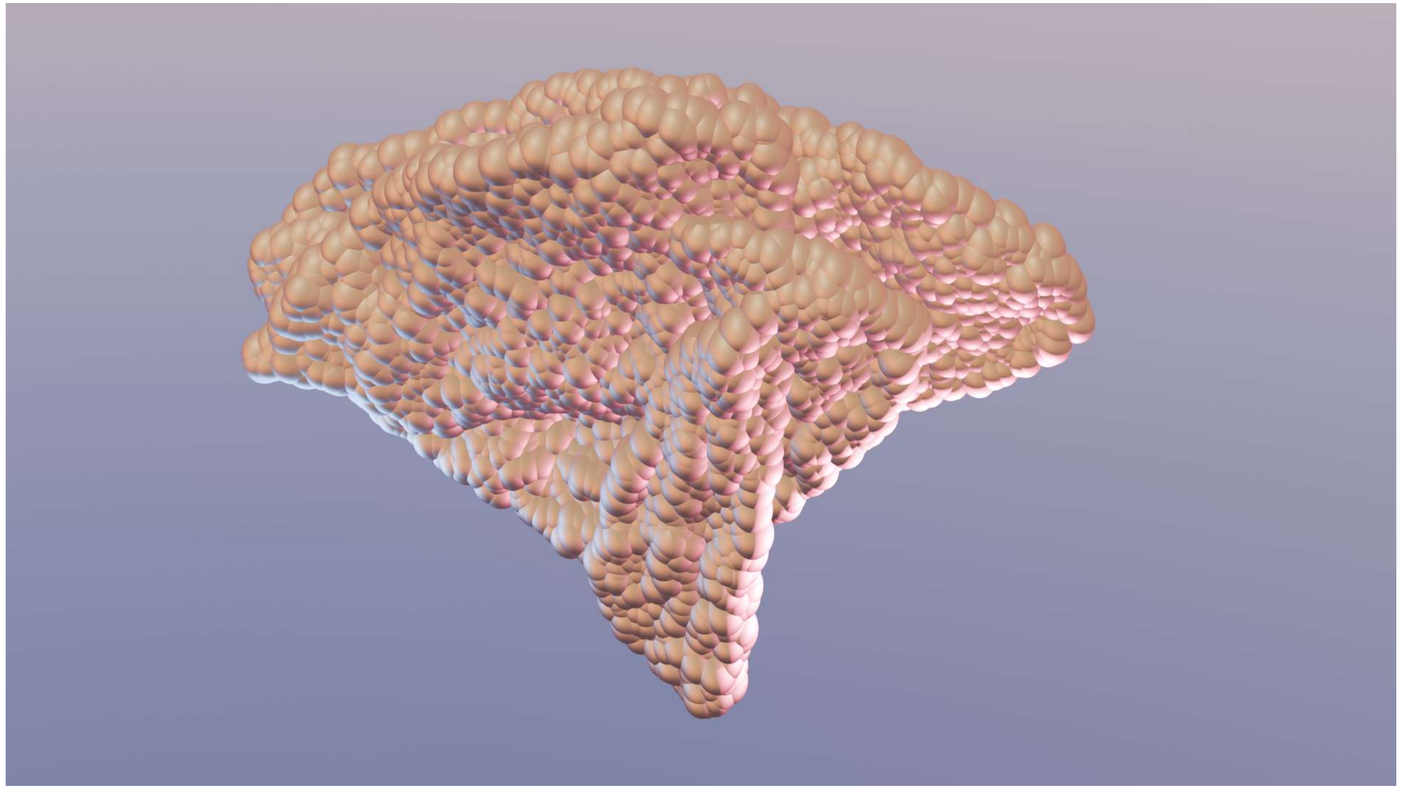
how does time change the outcome of the displacement tool?

experiment_11.blend

re-shaping the shape

RULES

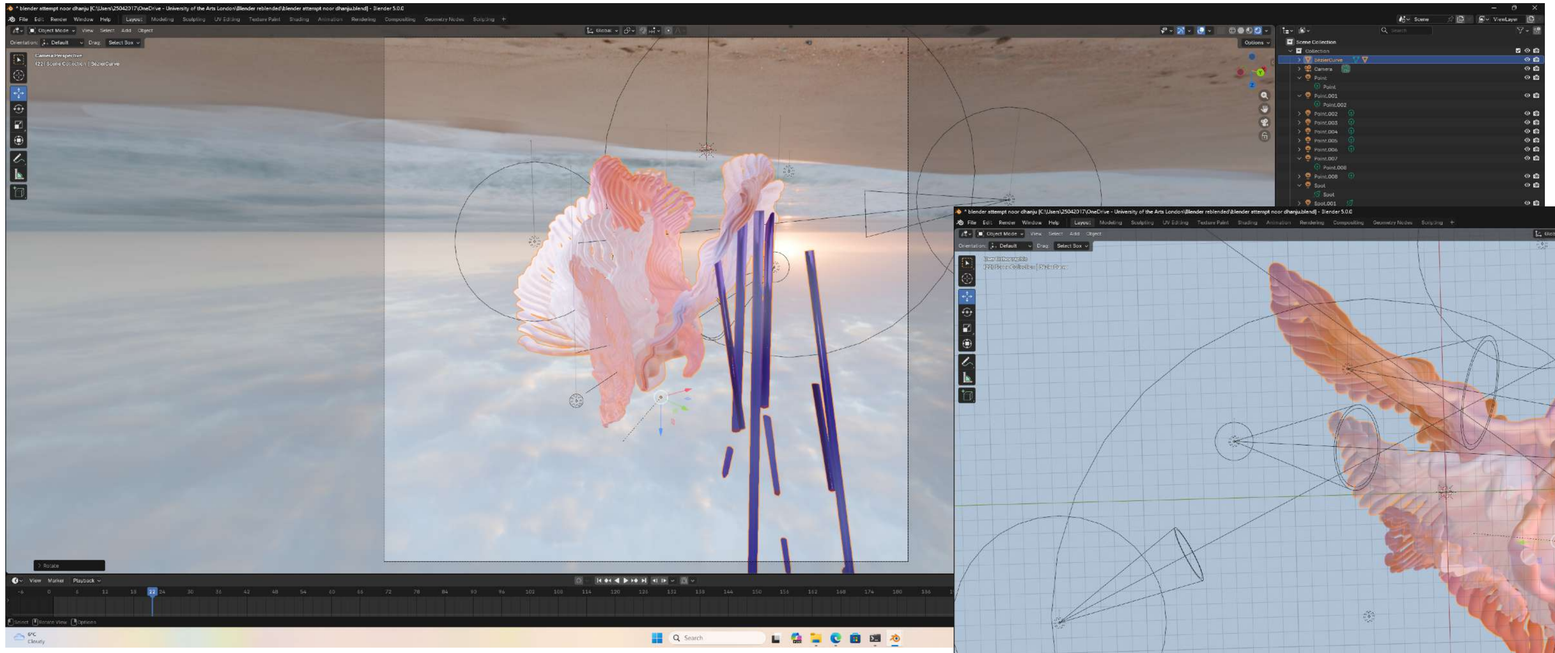
1. *Keep the mesh of your object, but insert other objects to create the same shape.*

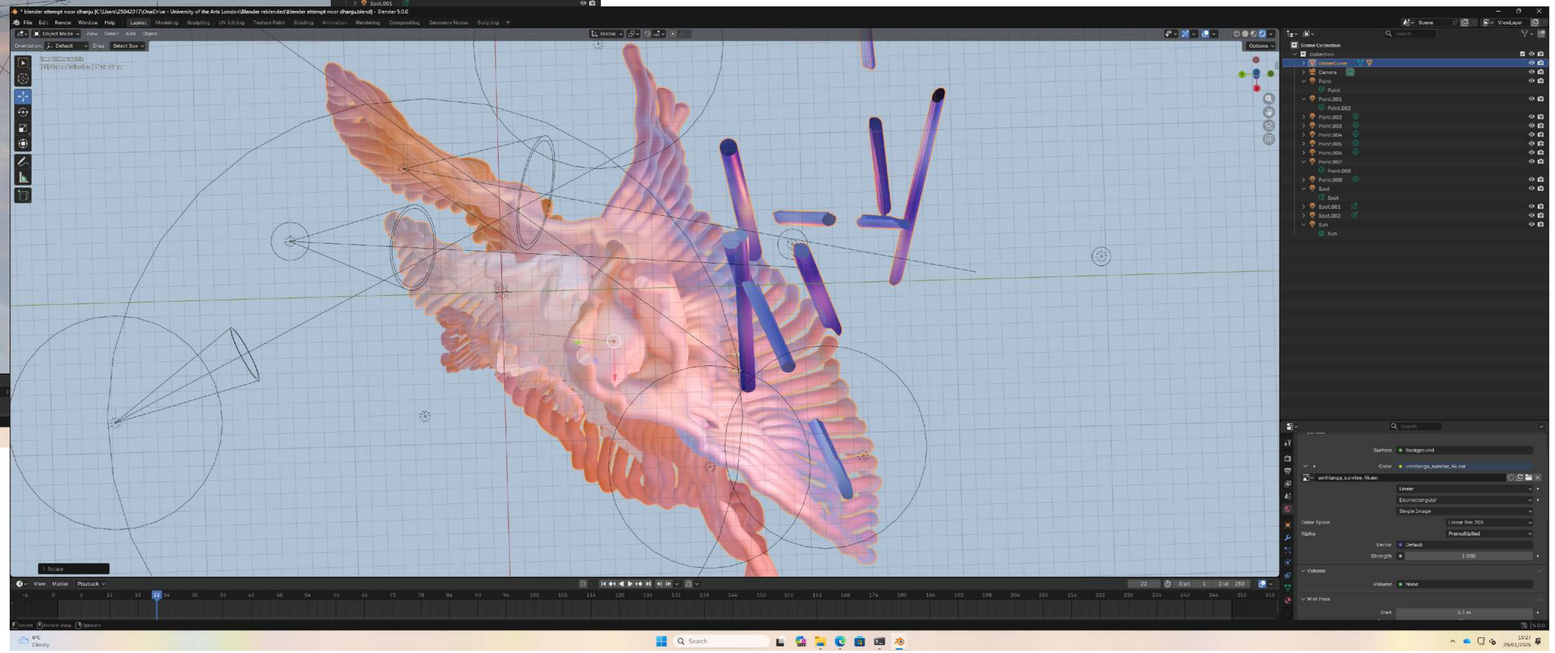


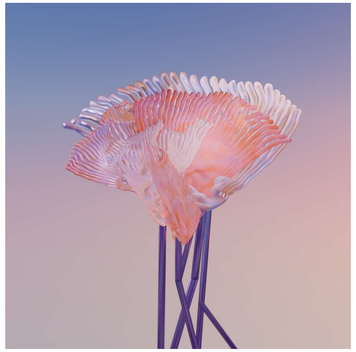
Is the object still the same if it is comprised of different parts?

RULES

1. *Change the perspective of your 3D object/camera view*
2. *Consider: is it really a 3D object? What does it look like from other perspectives*







Is my 3D object truly 3D if it only caters to 1 perspective of viewing it?

where I'm at now…

a two-pronged rabbit hole

manipulating the order of the process
(how does changing the order change the outcome?)

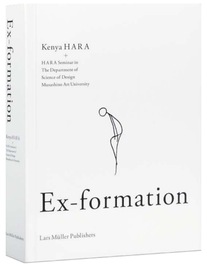
interrogating the importance of certain tools
(to what extent are they required in the process?)

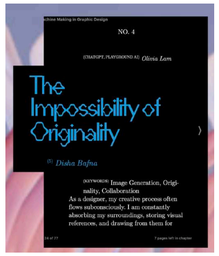
PROCESS

The most important aspects of a process are time, relationship and change.

Reflecting on this statement, I wanted to understand if these factors applied to my exploration. Whilst these were applicable, I was surprised to discover that order and toolkit were the most imperative factors, producing the most variation.

Hacking the order and toolkit produced interesting but extremely varying results. Initially, I deemed certain results more successful than others since I was comparing the output to the original coral. However I was forced to interrogate my stance; no one output is more 'correct' or 'beautiful' than the other, because all terms are invented? A 3D rendered model is deemed 3-dimensional, despite us viewing it through a 2-dimensional screen. An image of a coral on a cube could also be called a coral. Further, what I was referring to as a coral for so long could in fact be deemed an anemone. I considered, who decides what something is?





LOGIC

Constraints sharpen the perspective on the process and simulate play within the limitations.

The constraints I added this week allowed me to progress, and simulate play within the limitations.

Being able to access certain tools or systems whilst being restricted to others made me question how both Blender and I navigated the limitations. At points we stepped forward certain steps forced us to stop the logical workflow.

This process reflected my own positionality: as a queer Indian girl who is also a Third Culture Kid, I often have to 'hack the system' because I don't have access to all the 'tools' others might be.

As Armstrong reflects in Digital Design Theory, post World War II designers from the West had to tackle the challenge of rapid relaying of information, thus Swiss design grids became the norm, for legibility and repeatability (2016). A considerable amount of digital design logic is informed by the rules that were written by Western designers based on their understanding of the preceding tools.

Thus my experiments, all developing from a result in a previous iteration, approached the point of breaking the understanding of what can be done in Blender. I wanted to break the order of Blender.

INPUT

Input should come from our external and complex environment: nature, society, and its human interactions.

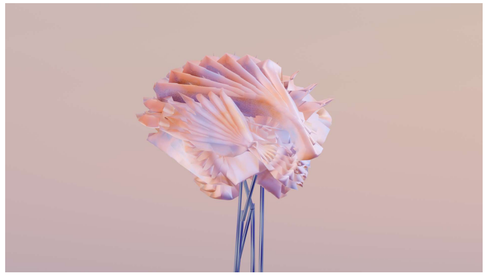
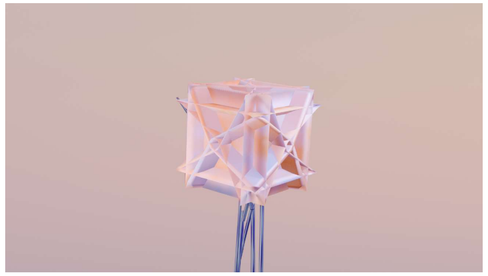
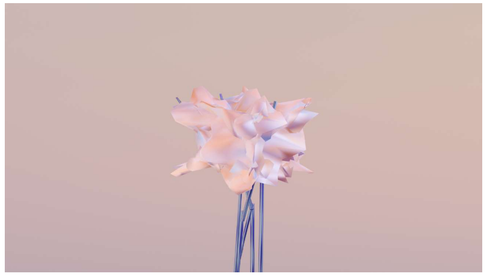
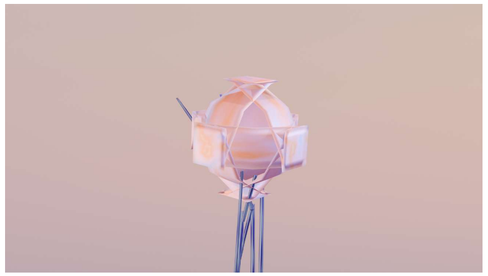
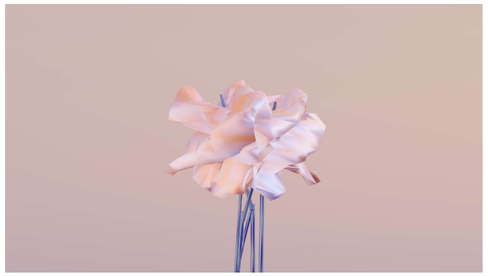
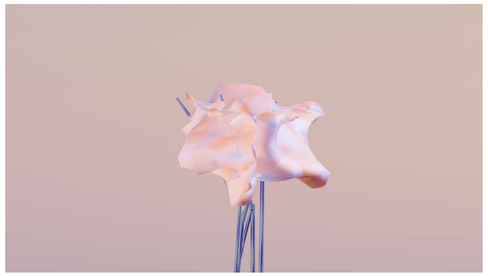
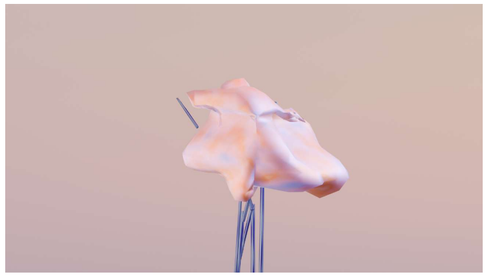
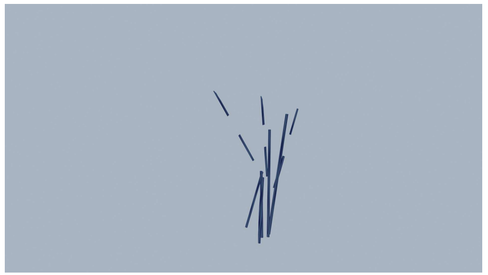
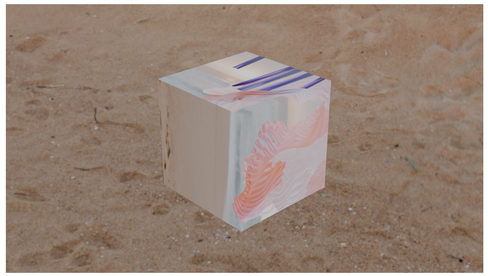
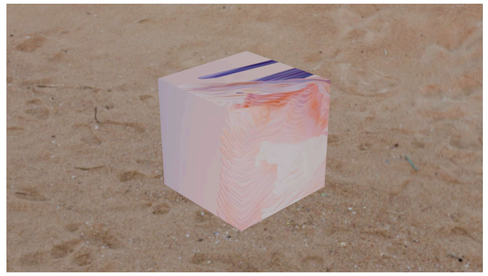
This week I explored the theory of digital design, and questioned where the input into Blender originates, an open-source software that was initially developed by Dutch animation studio NeoGeo for their internal workflow.

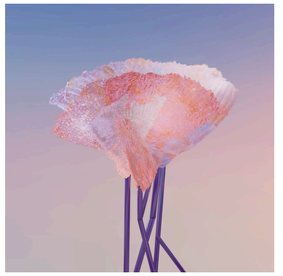
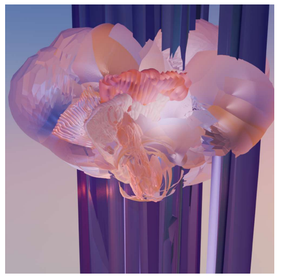
Being open-source, it is accessible to all, and whilst I struggled with one version of the software, all previous versions are available for free on their website (allowing people with different computer systems to access it).

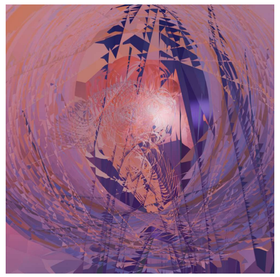
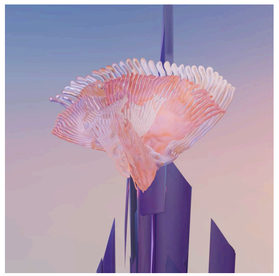
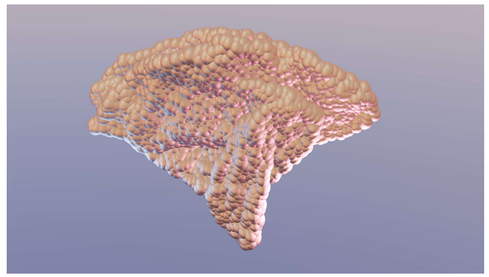
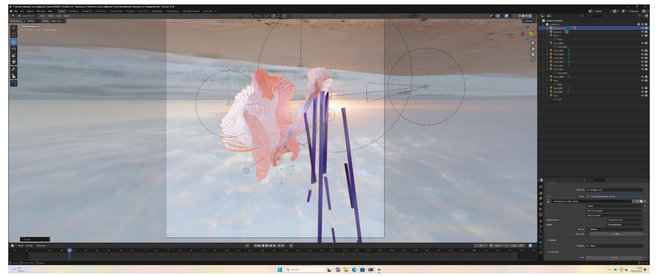
However, the language is full of jargon, and the interface is intimidating. Further, which other perspectives and lived-experiences were involved in developing the program as it is now?

– Rules from the 'Conditional Design Manifesto'

Week 3

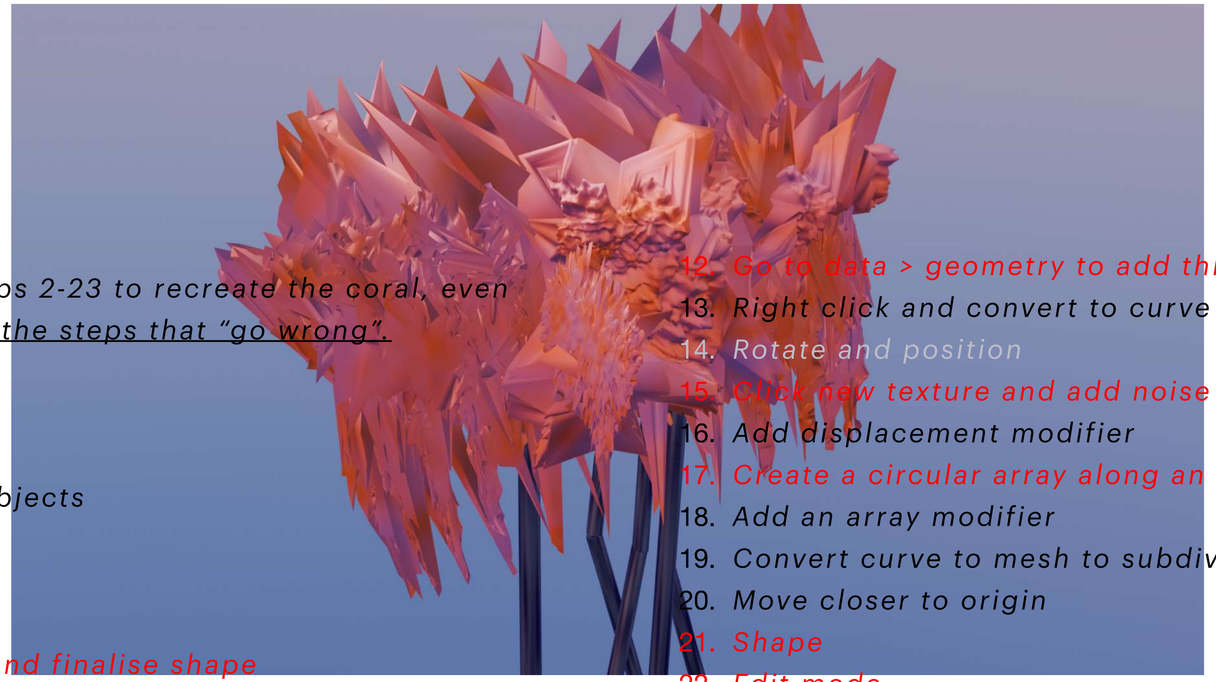




Week 3

experiment_1.blend

reverse toolkit



RULES

1. *Follow exactly the order of steps 2-23 to recreate the coral, even if they don't work. Mark in red the steps that "go wrong".*
2. *Add lighting*
3. *Add shading*
4. *Slice cylinder objects*
5. *Create and position cylinder objects*
6. *Change materiality*
7. *Position the coral leaves*
8. *Duplicating the coral leaves*
9. *Go to sculpt mode to smooth and finalise shape*
10. *Add a remesh modifier to smooth*
11. *Convert back to mesh*
12. *Go to data > geometry to add thickness and create closed caps*
13. *Right click and convert to curve*
14. *Rotate and position*
15. *Click new texture and add noise to create the ridges*
16. *Add displacement modifier*
17. *Create a circular array along an arc*
18. *Add an array modifier*
19. *Convert curve to mesh to subdivide*
20. *Move closer to origin*
21. *Shape*
22. *Edit mode*
23. *Add bezier curve*

Week 3

experiment_2.blend

selective toolkit

RULES

1. Follow exactly the order of steps
2. Add lighting
3. Add shading
4. Slice cylinder objects
5. Create and position cylinder objects
6. Change materiality
7. Position the coral leaves
8. Duplicating the coral leaves
9. Convert back to mesh
10. Right click and convert to curve
11. Rotate and position
12. Add displacement modifier
13. Add an array modifier
14. Convert curve to mesh to subdivide
15. Move closer to origin
16. Add bezier curve

Nothing went wrong!

22. Edit mode
23. Add bezier curve

Steps 4, 7, 8, 9, 12, 15, 17, 21, and 22 didn't work in the previous experiment, thus are uncooperative and deserve to be cancelled.

Steps 14 & 23 produced insignificant results, observe if they do something now.

Now follow a new order, with the uncooperative steps omitted. Follow the subsequent steps in their exact order, even if they don't work. Mark in red the steps that "go wrong".

1. Add lighting
2. Add shading
3. Create and position cylinder objects
4. Change materiality
5. Convert back to mesh
6. Add a remesh modifier to smooth

iteration^3	method	method	method	method	instance	instance	instance	instance
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