

Get the true process of learning a
3D modeling software

Research

From
2D to 3D

Theory

Prototyping

Final Project

Editing &
Music

**References
and research
inside!**

Gabueva Ksenia

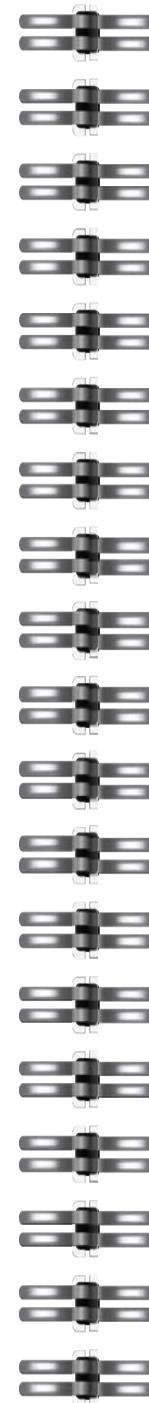
3D FOR DUMMIES

At the end you will make one finished project!



Content

Introduction 1.0	4
Introduction 2.0	6
Chapter 1. Research	9
2d research	10
3d research	22
Chapter 2. From 2D to 3D	31
2D prototyping	32
Chapter 3. Theory	37
Tag Align to spline	40
Tag Vibrate	41
Boole	42
Bend	43
Surface	44
Explosion	45
Chapter 4. Prototyping	47



Chapter 5. Final project	55
Sequences development	56
Chapter 6. Editing & Music	77
Frames	78

Introduction 1.0

What is this book about?

3D for Dummies is a personal diary with my way of learning and development. I presented it as a regular instructional/reference book for beginning users, I showed my project process as an example in a practice chapter.

Chapters in the book are divided in a chronological way. I started with a research, looking at the things I liked and working with them. My process led me to 3D and I started exploring this world, did more research which basically was close



to the first one but the way I looked at things has changed.

After research, I have studied some technical issues and got knowledge that would allow me to create a composition from my head.

Step by step I was working on forms and materials, developing it by creating more animations and pieces.

Eventually came to the development of the sequence of the final project and its implementation.

Introduction 2.0

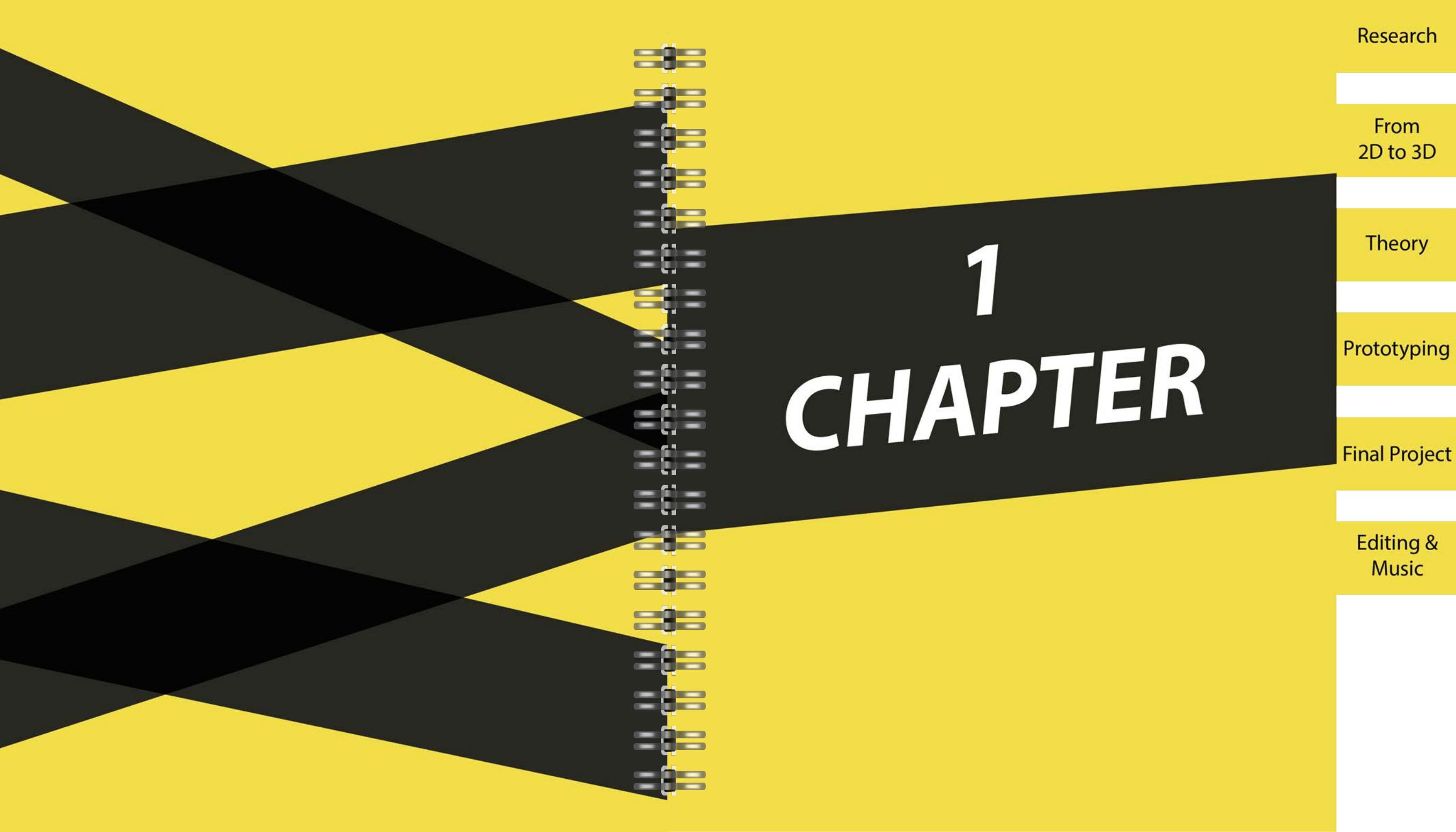
What is the project about?

The goal is to convey the feeling of owning the luxury products. It is not for everyone, it is limited, high qualified, so the location was chosen by this idea, the place is kind of uninhabited. In the centre of sand desert you find this oasis which becomes a treasure for dehydrated travelers - like customers who are looking for the best cosmetic products in a huge world of offers. Each product is independent and submitted individually it shows the ability of using them separately but still they are one collection that can be seen in the last frames. The scene is cycled and a camera literally comes back to the first view. From nothing to the finished products



because every collection has a story behind, a lot of work and processes of manufacturing that is also demonstrated with product animations. The real products are presented in a surreal world, the idea is to create a story where the products exist, a fairy tale that attract customers to make a purchase and become a part of this world and the fabulous promotion. This experience of using luxury limited products is translated in each scene. Restraint color palette, calm music, exaggerated textures and materials are forced to evoke emotions and desire of owning the products.

P.s. This project was made with quarantine limitation on 7 years old Mac book Pro.



Research

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Music

Research

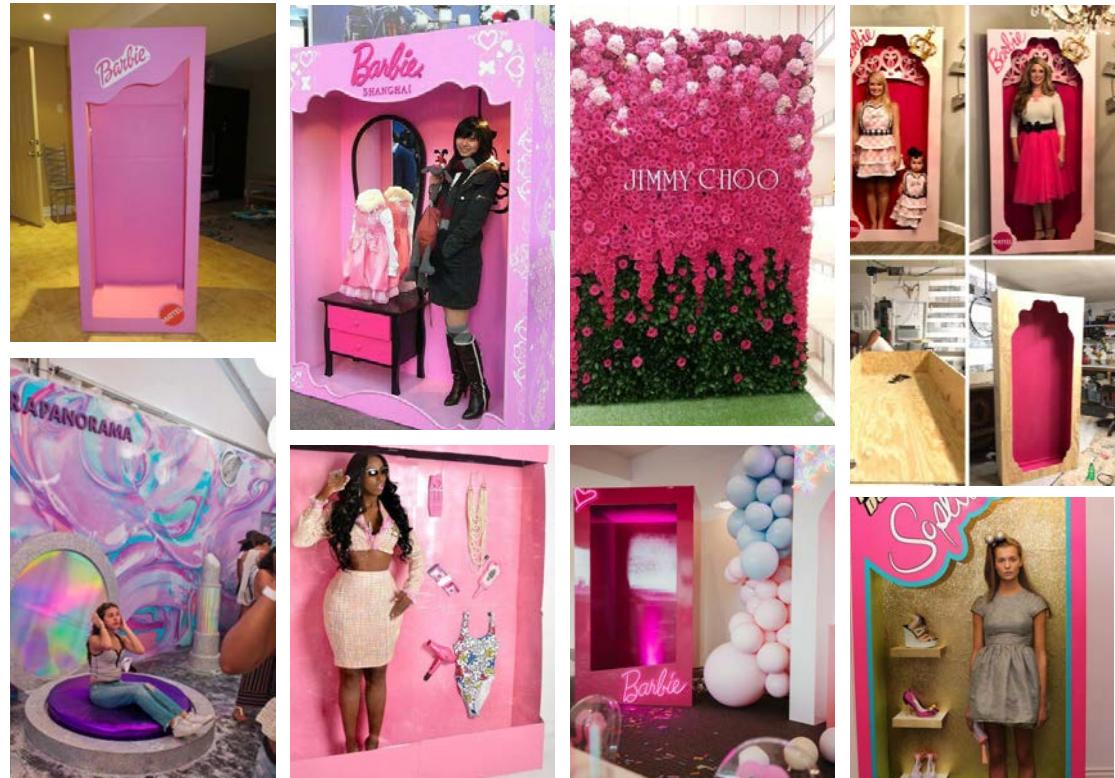
January 27th

I started my research with collecting photos I liked, then I divided them into groups, such as cosmetics packaging and cosmetics design. In general I was interested in that area and wanted to tried both ways.



February 2

I found this kind of photozones which brand also use to promote products, I thought about to make something like this for the exhibition, because people would definitely take photos with this!

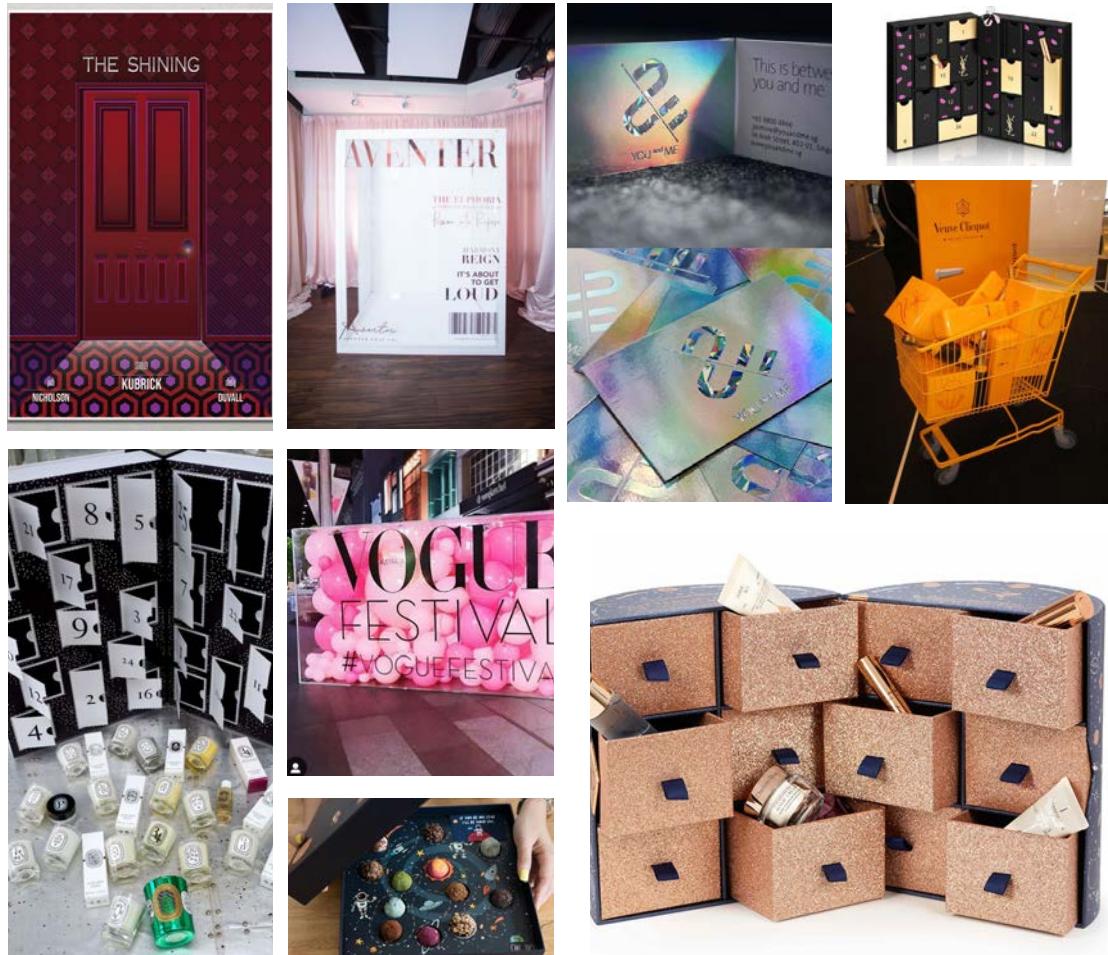


February 3rd

Then I decided to stop on advent calendar packaging, because the installations are different area but I was interested more in packaging.

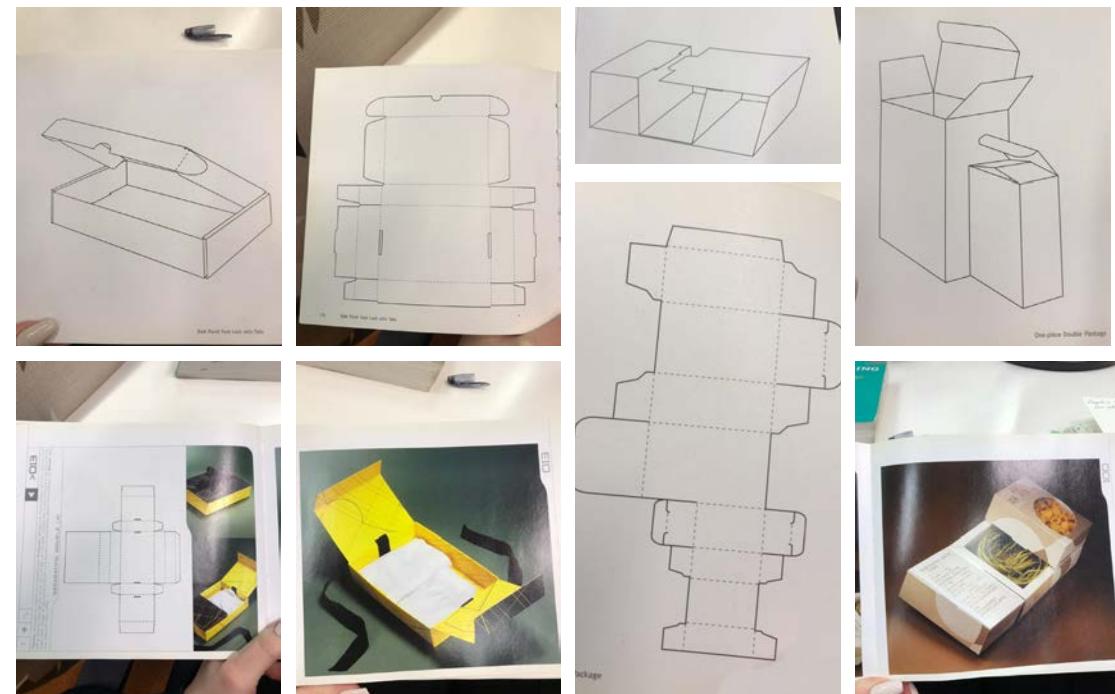


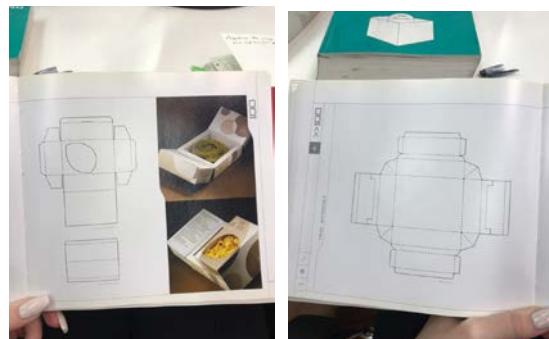
I completely rejected the idea with photozones. Advent calendars attracted me with their complexity and I wanted to try to create one.



February 8th

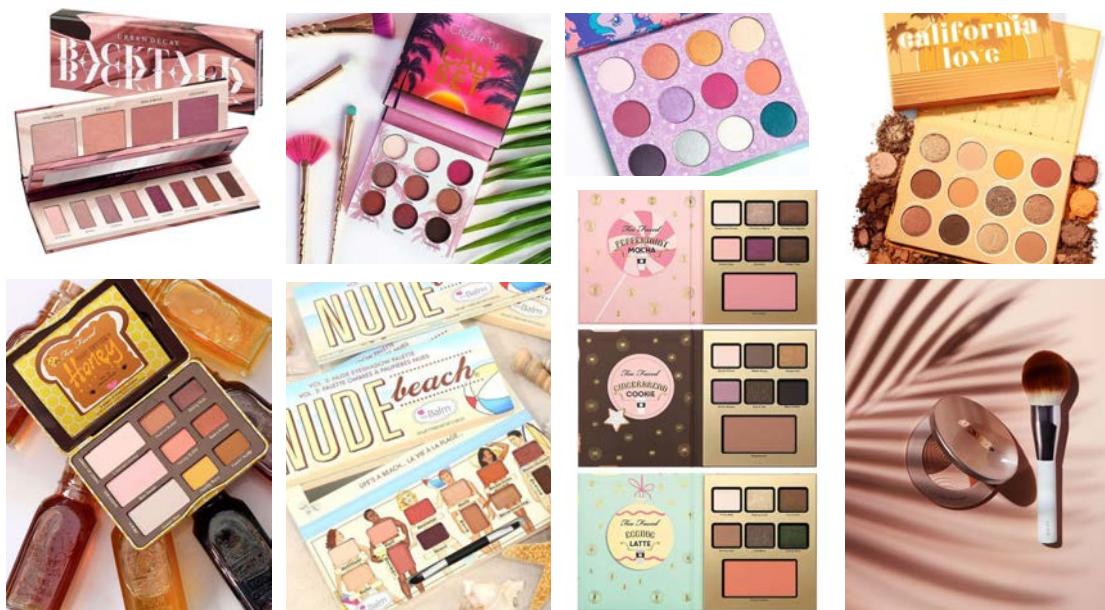
I did some research about creating complex packaging, also I found a physical example of unusual box and started looking at it as a future model.

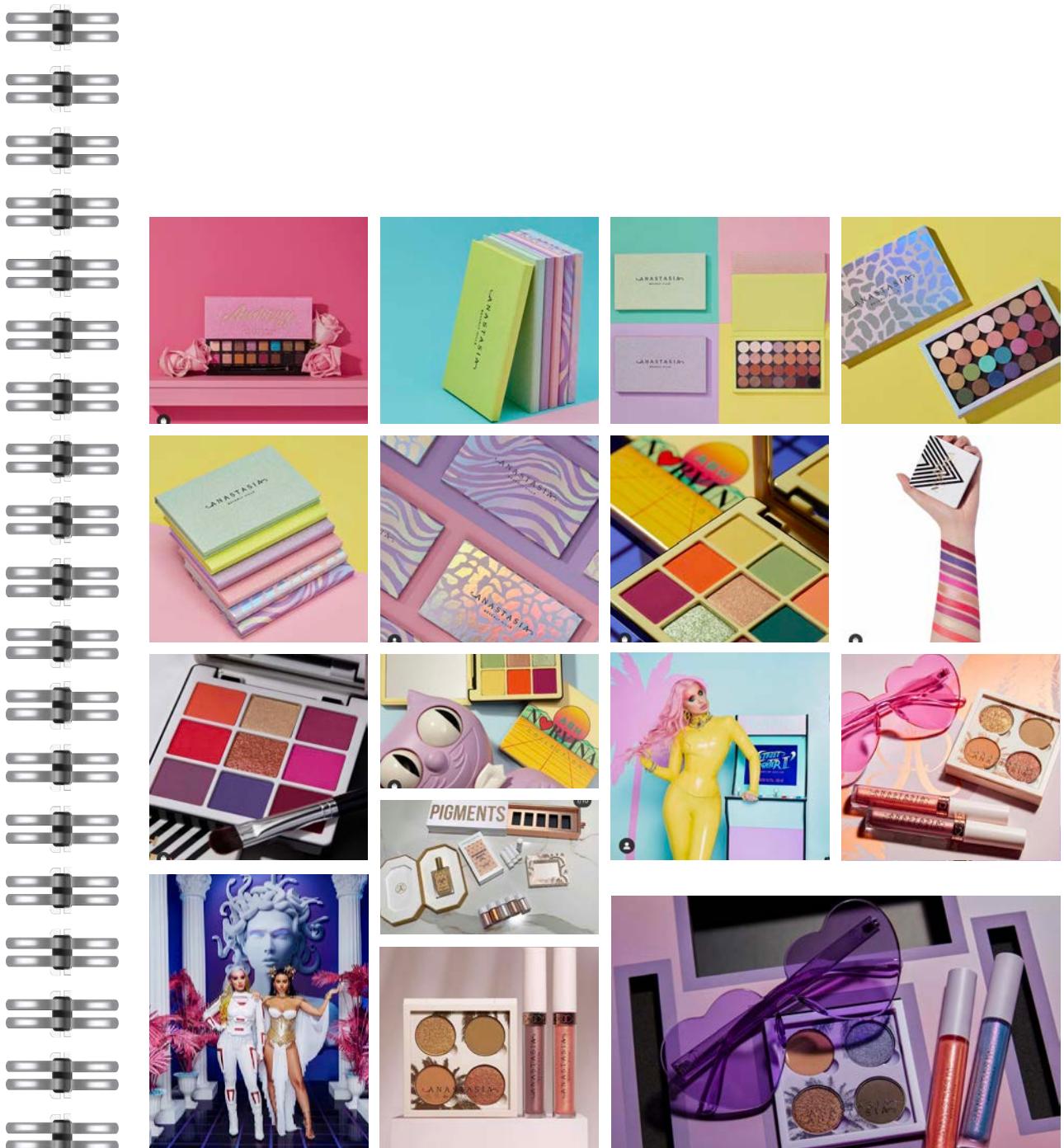
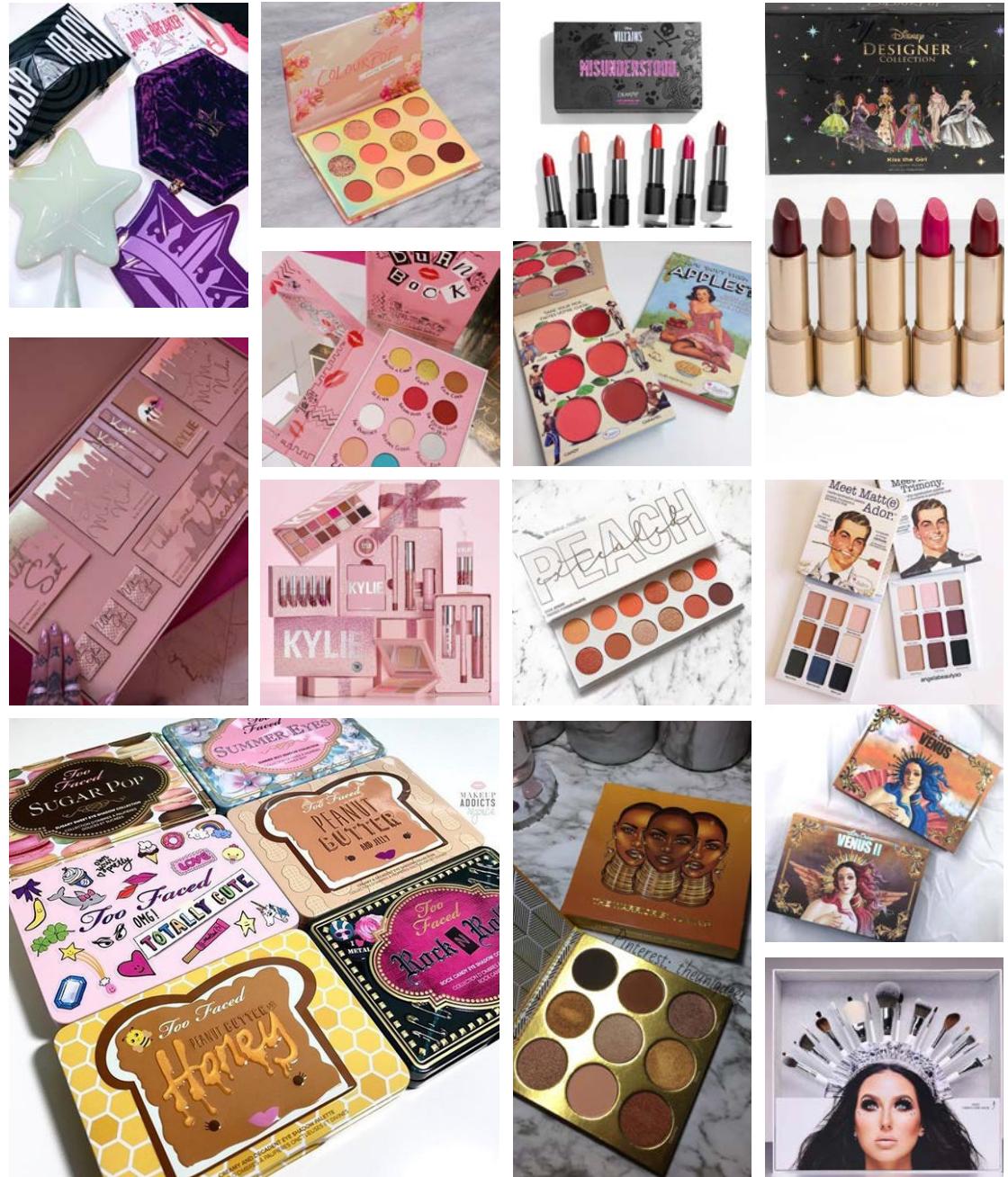




February 12th

I realised that working with a form of boxes was not that I wanted to do for my final project, so I turned my attention to the 2D design things on the packaging and did more research to highlight general points and found some rules.





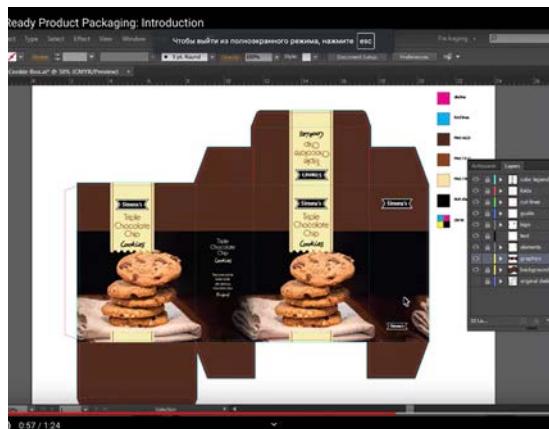
February 17th

I found this project with an idea of minimalism design.



February 29th

I watched the packaging tutorial.



March 11th

I looked how brands sell their products in websites with choosing descriptions, photos, etc.



ПАЛЕТКА РУМЯН L.A. LIGHTS BLUSH & HIGHLIGHT

КАЛИФОРНИЙСКОЕ СИЯНИЕ!

Нет отзывов [НАПИСАТЬ ПЕРВЫЙ ОТЗЫВ](#)

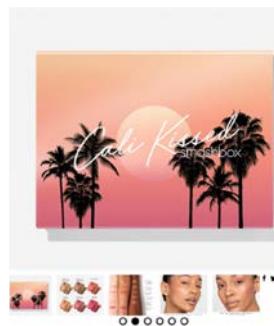
2890 РУБ румяна (5.8 г), хайлайтер (2.9 г)

Оттенок: Malibu Berry

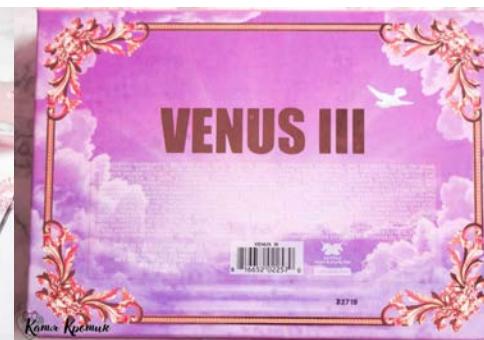
[УВЕДОМИТЬ О ПОСТУПЛЕНИИ](#) Введите почту, чтобы получить уведомление о поступлении товара.

[РАССЧИТАТЬ СТОИМОСТЬ ДОСТАВКИ](#)

4 человека сейчас смотрят этот товар

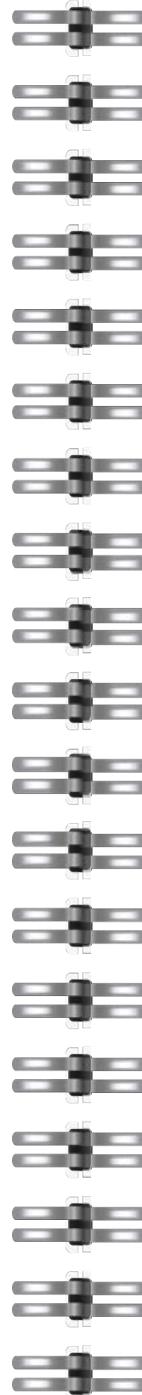


March 16th



March 16th

This Tom Ford promotion changed my entire world, it has influence on me, my view and understanding of what I want to do. The perfect materials combined with incredible textures that exist in a different reality. It belongs to our world but

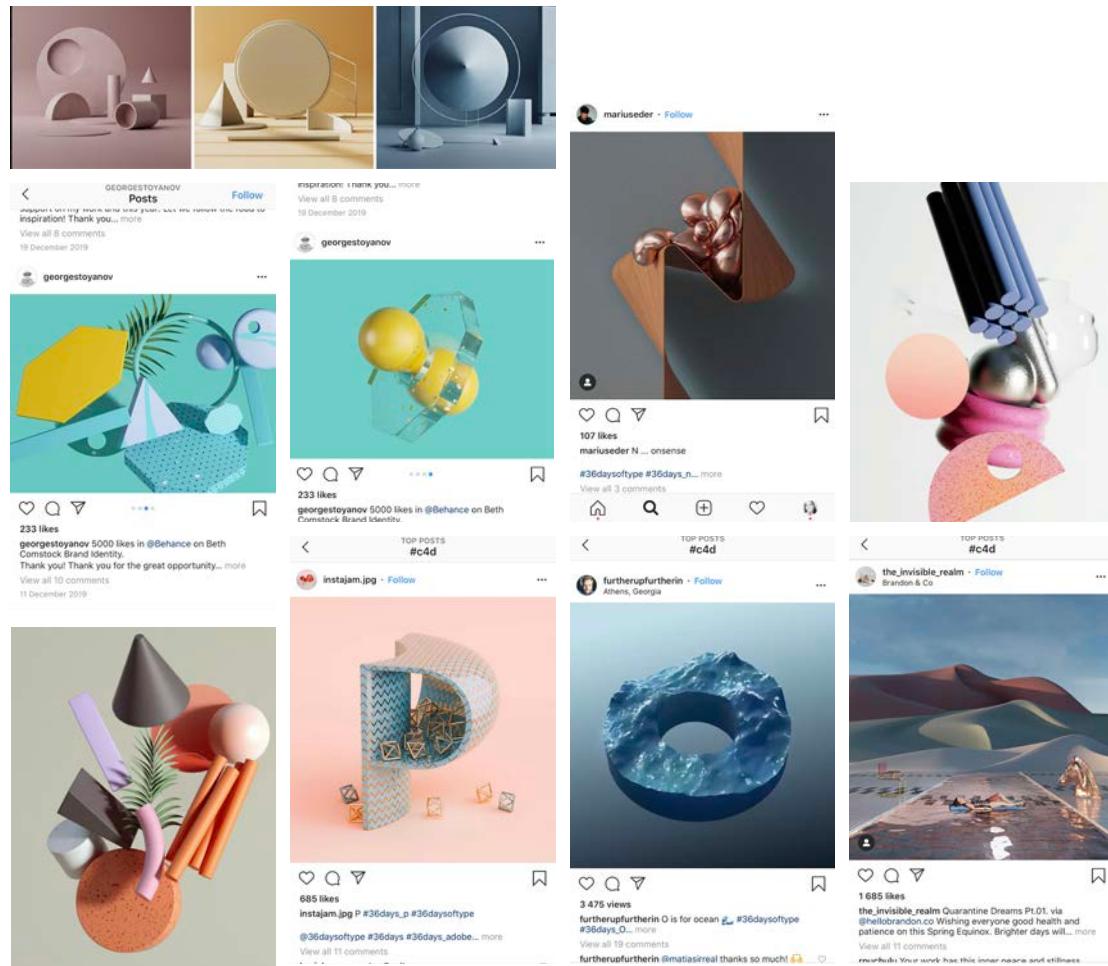


this is so unreal. Also it creates a story that attracts people to continue watching.

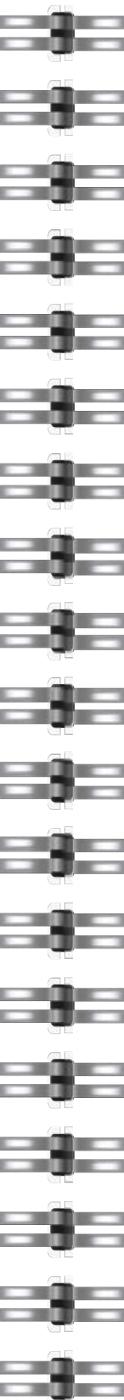


March 30th

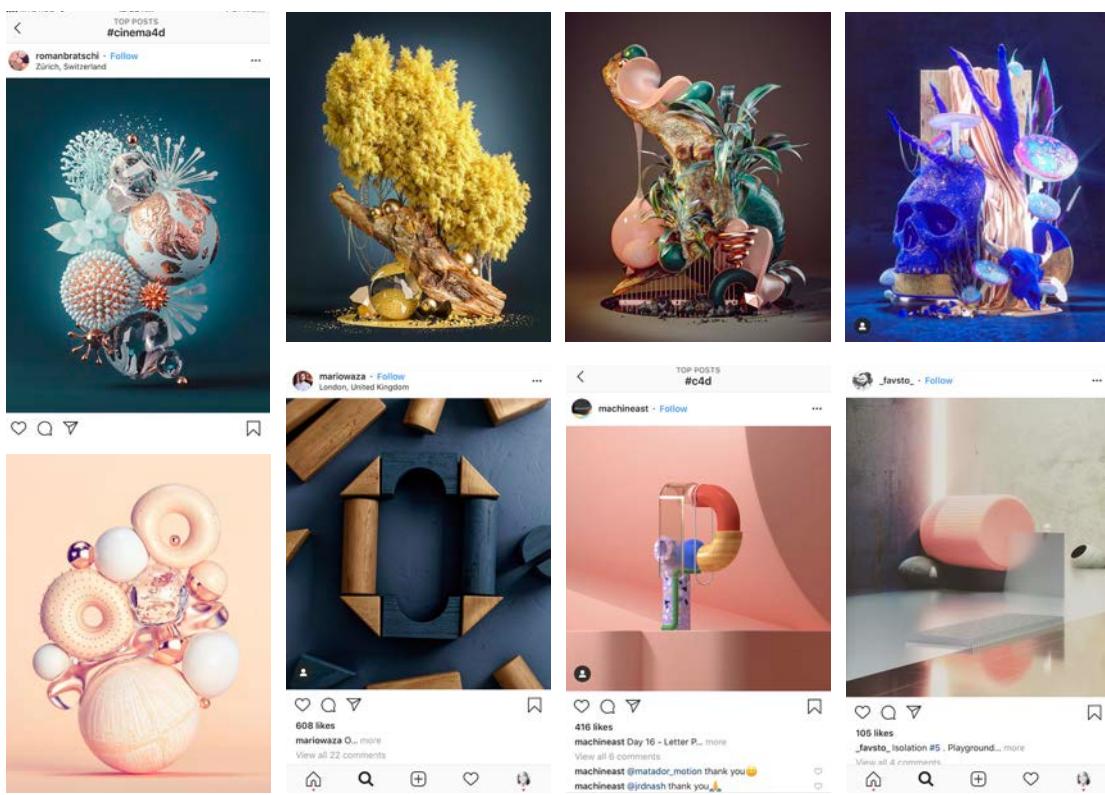
When I decided to work with 3D, I did another research that focused on compositions, textures and forms.



Research 3D

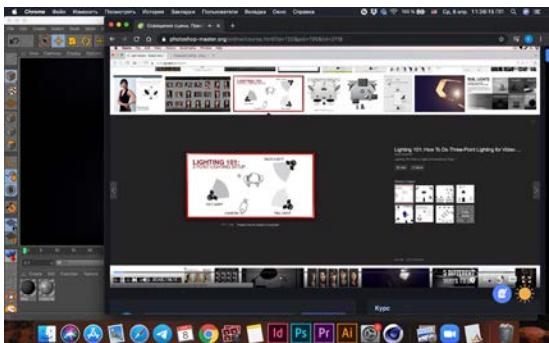


I was inspired by Roman Bratschi a lot, his way of putting textures together creating a surreal abstract still life is fabulous.

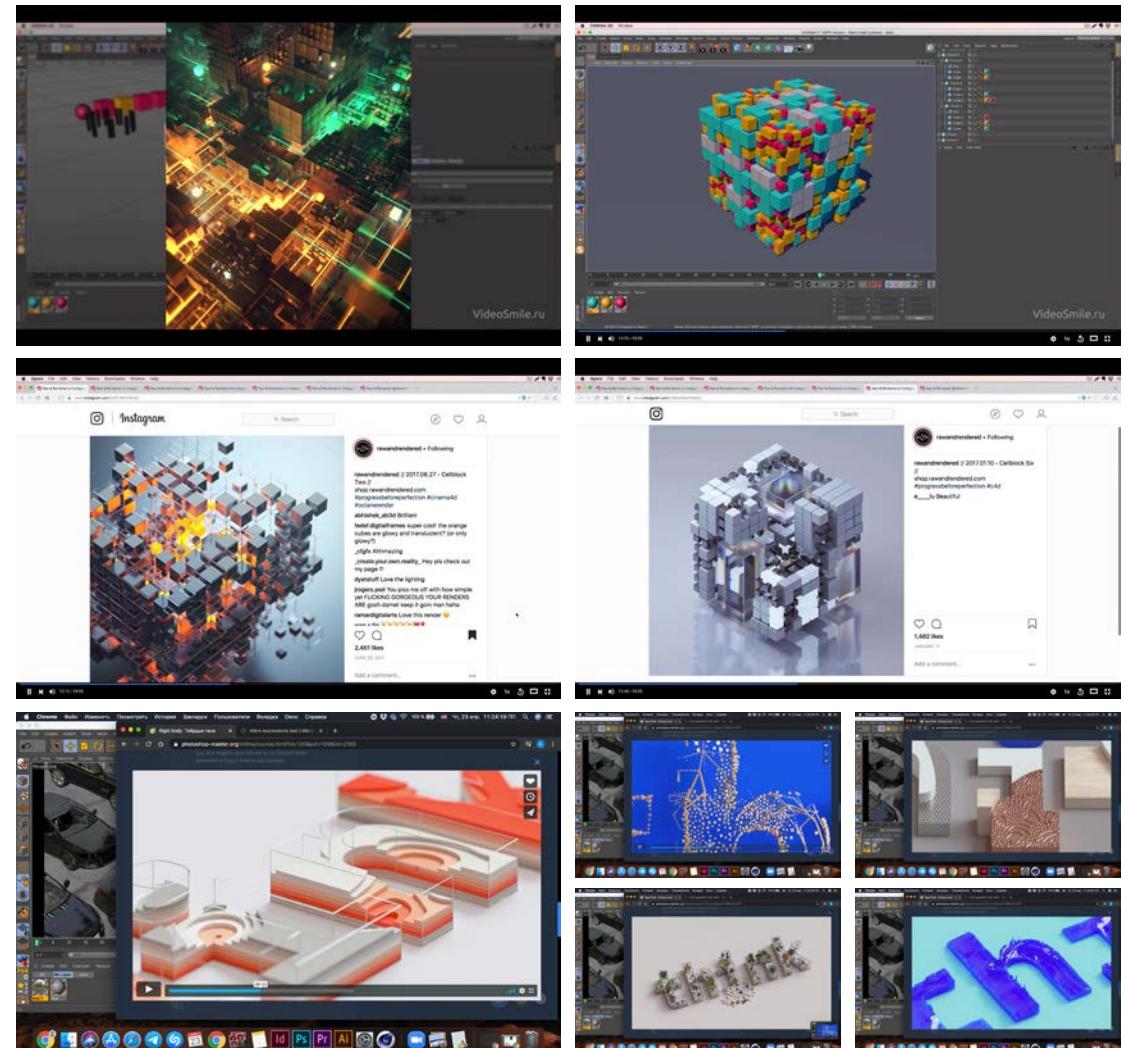


April 8th

A great example of one perticipence in Golden Bee confirms that 3D is more wider and can be used not only in games, promotions, advertisements, movies, but in exhibition as well.
Also 3D uses the principles of lightening from photo shoots.



April 20th



May 20

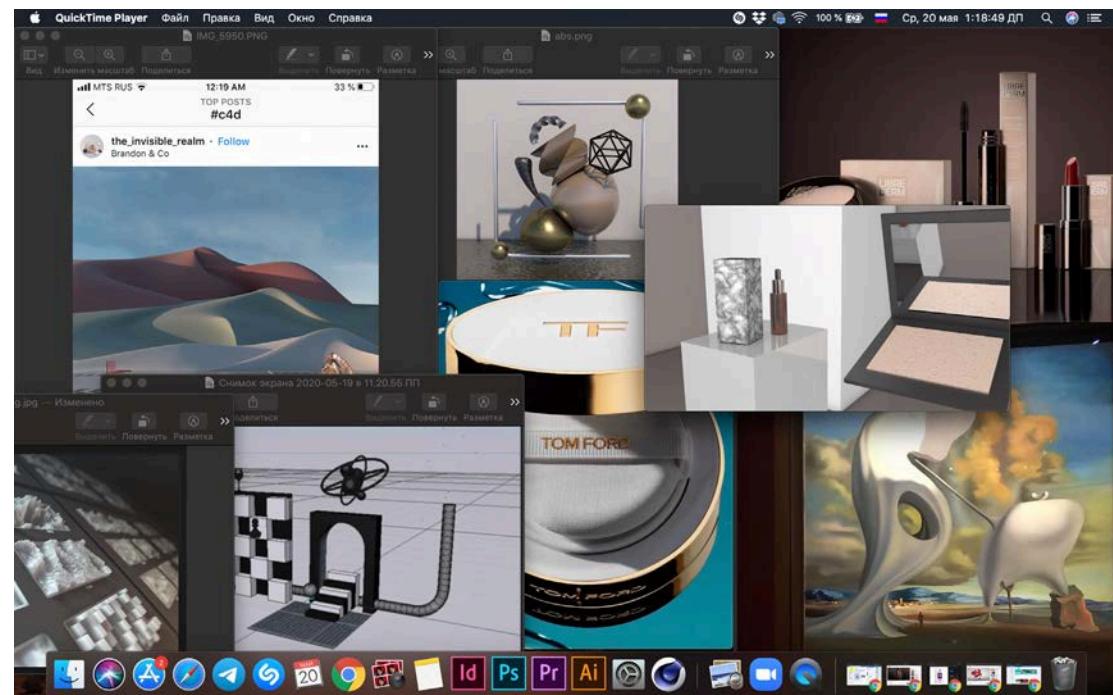
I was getting inspiration from the world around me, for example, the incredible texture in the photo below I took in the bathroom after hot shower and then I have got the idea with mirror animation in my project where it changes its structure.



Карл Уорнер и его телесный пейзаж.



I did a mood board where I also placed photos from Salvador Dali's exhibition, in his works I was attracted to the background and tried to find an appropriate decision for my project.





2

CHAPTER

From
2D to 3D

Theory

Prototyping

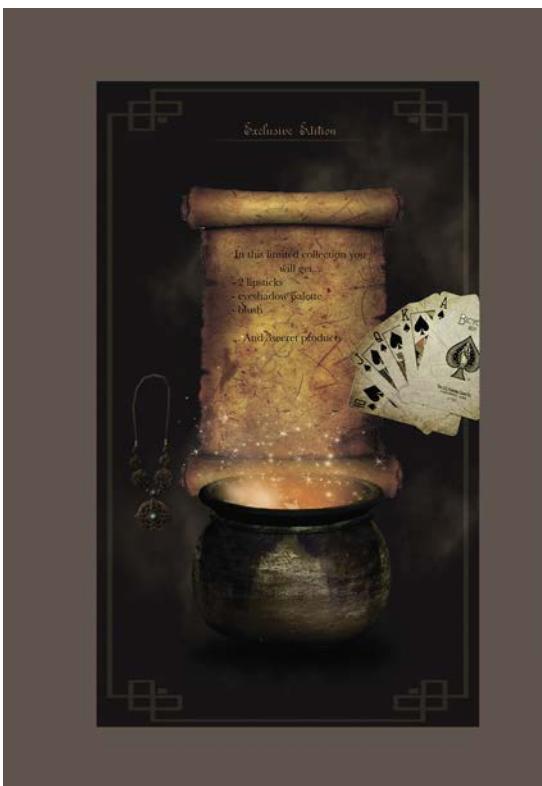
Final Project

Editing &
Music

From 2D to 3D

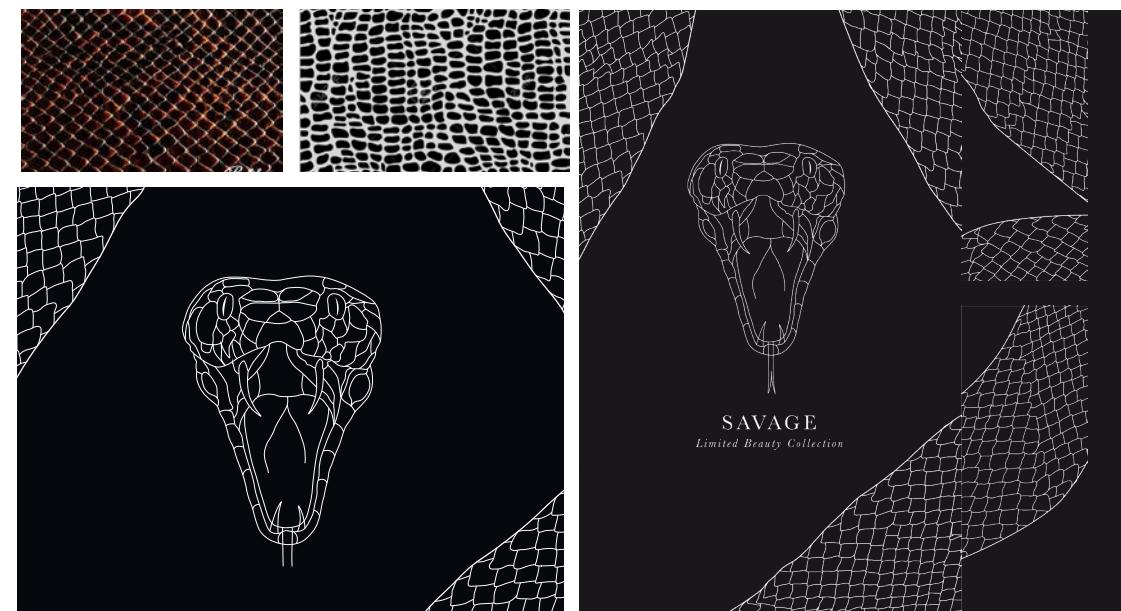
February 3rd

My first attempt to make a design for advent calendar was unsuccessful because it was too primitive.



March 3rd

Another try with slightly different concept for my own collection was fail as well, because it did not have a strong concept and background, I did not fully realise what I was doing and why.



March 16th

I developed my cosmetics collection.
I did some research about
information signs, for example, it
can tell consumers that the product
expiration date will end 12 months
after opening, or the company does
not do test on animals, etc.



This limited edition, fashion-forward eye shadow kit is the ultimate makeup artist's palette. Ten shades - ranging from a neutral beige to galaxy black - deliver intense color, so you can create an endless array of custom looks.

SAVAGE EYE SHADOW PALETTE

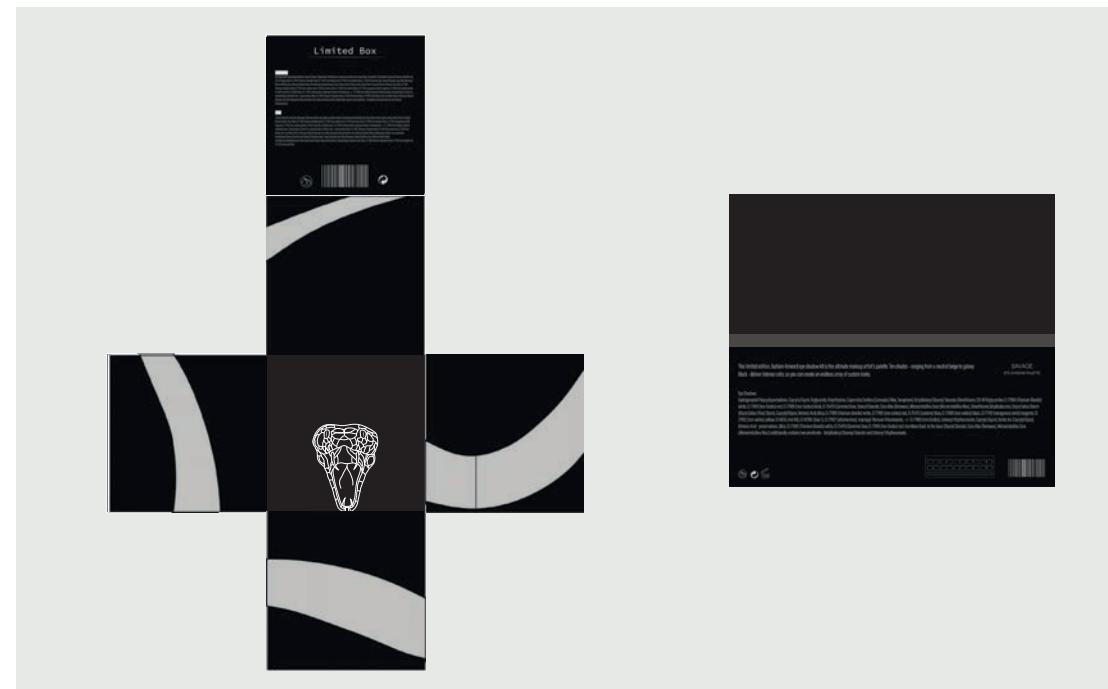
Eye Shadows

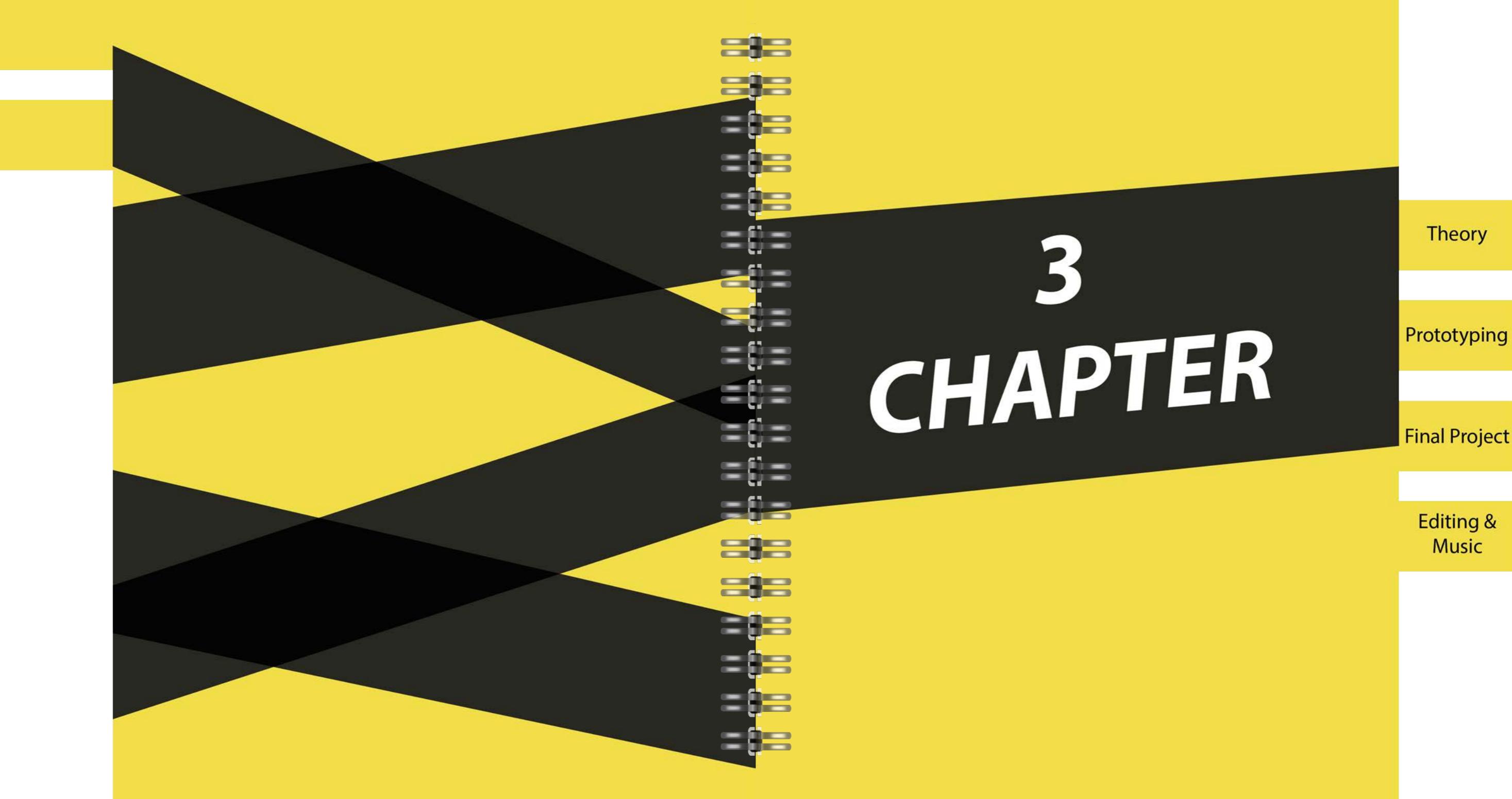
Hydrogenated Polycyclopentadiene, Caprylic/Capric Triglyceride, Polyethylene, Copernicia Cerifera (Carnauba) Wax, Tocopherol, Octyldodecyl Stearyl Stearate, Dimethicone, C10-18 Triglycerides, Ci 77891 (Titanium Dioxide) white, Ci 77491 (Iron Oxides) red, Ci 77499 (Iron Oxides) black, Ci 75470 (Carmine) blue, Stearyl Stearate, Cera Alba (Beeswax), Microcrystalline Cera (Microcrystalline Wax), Dimethicone,Octyldodecanol, Oryza Sativa Starch (Oryza Sativa (Rice) Starch, Caprylyl Glycol, Behenic Acid, Mica, Ci 77891 (titanium dioxide) white, Ci 77491 (iron oxides) red, Ci 75470 (carmine) blue, Ci 77499 (iron oxides) black, Ci 77742 (manganese violet) magenta, Ci 77492 (iron oxides) yellow, Ci 16035 (red 40), Ci 42090 (blue 1), Ci 77007 (ultramarnes), Isopropyl Titanium Irisostearate, +/- Ci 77499 (Iron Oxides), Cetearyl Ethylhexanoate, Caprylic/Glycol, Sorbic Acid, Caprylic/Glycol, Behenic Acid - preservatives, Mica, Ci 77891 (Titanium Dioxide) white, Ci 77491 (Iron Oxides) red, Hue Moon Dust: to the base (Stearyl Stearate, Cera Alba (Beeswax), Microcrystalline Cera (Microcrystalline Wax) additionally contains two emollients - Octyldodecyl Stearyl Stearate and Cetearyl Ethylhexanoate.



March 18

I developed my box and put my
palette back cover next to the
packaging to see how they work with
each other. But the problem was still
there.





3

CHAPTER

Theory

Prototyping

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Editing &
Music

Theory

Reflectance

• Do not touch the layer below the deleted layer

• Global reflection brightness and

• Global reflection specular brightness

• Add ... new layer -> Beckmann -> the most realistic
(different ways of making reflectance).

• Double click layer -> add new one. ->

-> 100% reflection -> you do less 100% -> 50%

• Shiny' layer ->

-> Type ... Beckmann

-> Average to maximum

• Roughness -> from glossy to blurry ->

-> the reflection is white if its 100%

0% = mirror (but impossible) do it like 10%

• Fresnel layer - it is how object works when you are looking directly at the object perpendicular is not reflective, like when you look straight down to the water you can see through it, but when you look at the glossy angle it's reflective.

?What type of fresnel effect there are?

?How fresnel effect works?

Theory



Plastic

• Reflectance ->

-> delete the layer ->

-> add beckmann -> 1 layer -> about 40%

-> change the reflectance

-> opacity about 10% -> specular strength about 5%

-> Bumb -> texture -> noise

Glass



• Transparency ->

-> Reflection Preset -? Beer

Milk

Water

w Glass -> it changes the index of reflection

• Reflection always deletes the things ->

-> roughness are default!

Tags Align to Spline

(Atr.)

- Object ->

Plane XY / XZ / XY - rotate

- Tags -> Align to Spline - let objects to glue to the trajectory

- Spline Path - you need to show the trajectory

- Position - let you rotate the trajectory

- In order to use it in the centre of the circle (trajectory) you need to press on plugin transfer (on the left menu)

- To connect objects you need to highlight objects and put them inside one another

- Tag to the main object and then connect to the trajectory!

-- To hide the trajectory you need to turn it off from render view.



Tag VIBRATE

Tag -> Vibrate - chaotic moves

- In Atribute tabs you need to turn on things you want to animate

- Enable Position (ON)

- Amplitude - which axes

- Frequency - lower frequency to make the movement smoother

- Enable Scale - scale

- Enable Rotation - rotate things

- SEED - CHAOTIC MOVE

Camera -> tag vibrate -> position -> you get like a earthquake

Atom Array

- Atom Array - mostly use with main objects to create a grid of the objects

sphere-> type->icosahedron (it is just a type)

segments - amount of atoms

Atom Array - Attr ->radius cylinder - radius of those dots

Subdive - the quality becomes better

Object BOOLE

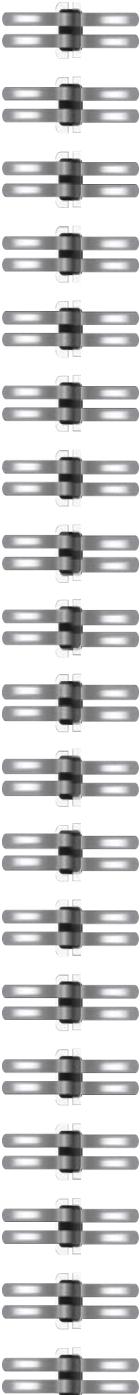
Boole

- works like three-dimensional masks
- cuts one object from another
- saves parameters
- you can come back at any time and correct the figure
- works with 2 layers of hierarchy

- Type Boole (ON)
- High quality - always (destroys the grid)
- Create single object -> converting objects into polygons -> you get 1 connected object

- Hide new edges - make it easy to hide lines

All the animation can be made with a Tag Vibrant using rotation and position



DEFORMER BEND

HOT KEY - **O** - to get close to the object

- Bend - bending something

- Cube Bend - if you press SHIFT + Bend you will get automatically the bend size of your main object

- Size - the size of cell where Bend works

- Strength - how much you bend the object

- Keep Y-axis Length (ON) - to save the original length

You do not distort the object you work with polygons

Surface

Surface - allows you to position the object on the surface of another object, while the original object begins to deform, taking into account the second object

(Landscape)

-> arrow runs on the surface

1 object can be placed on the surface of another!

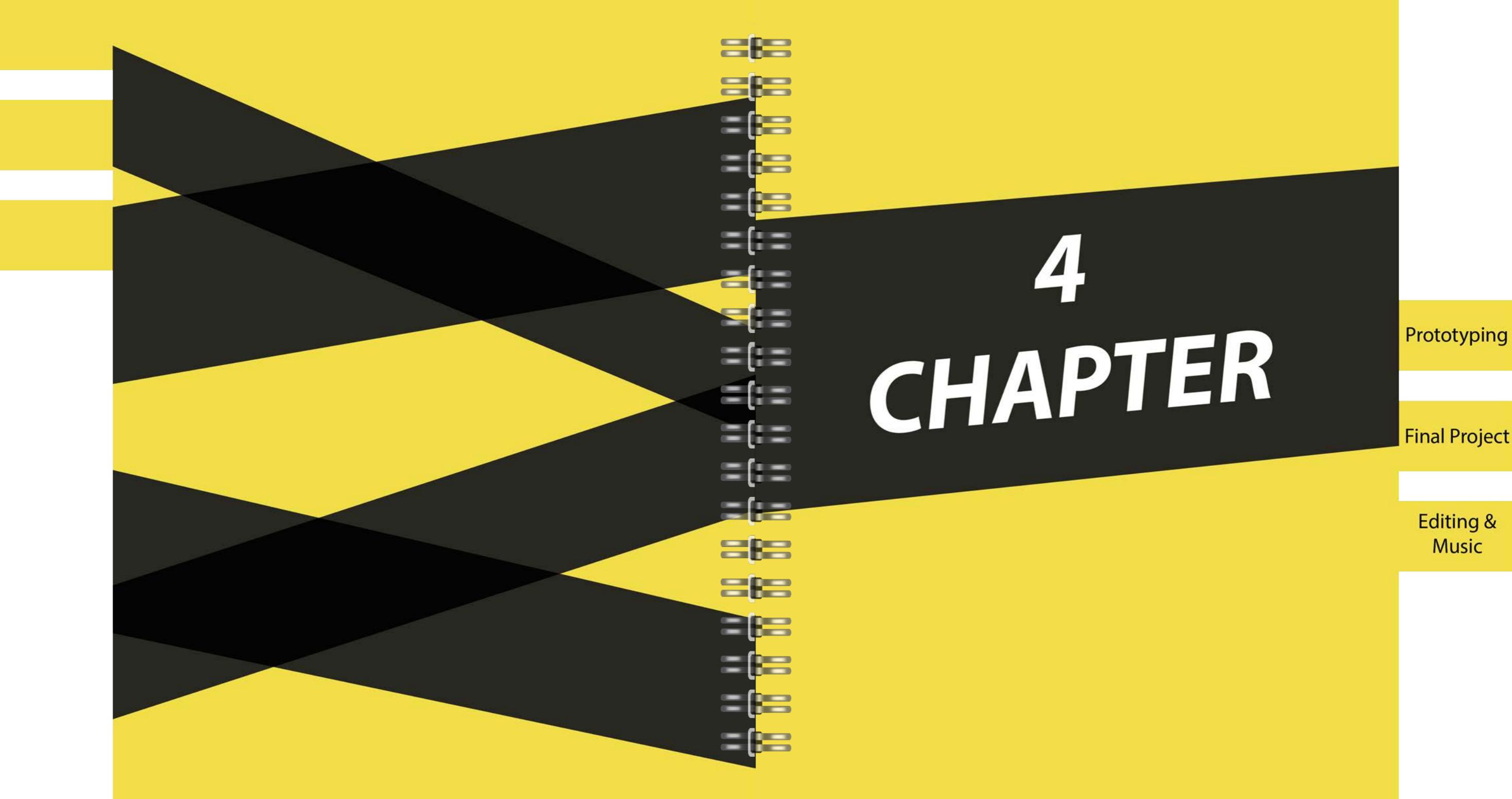
PSO - reset all transformations of the object and it will return to world coordinates

- To change the Landscape -> Object ->
- > Rough Furrows -> 0
- > Fine Furrows -> 0



EXPLOSION

- EXPLOSION** -
- It is intended for the explosion of objects, the spread of polygons, distance from each other, while slightly reduced
 - Strength - how far the objects will go from each other (you can animate it)\
 - Speed - if it is too much for you
 - Angle speed - how much they rotate during circular expansion, if it is 0, then just fly away from each other
 - End size - the size of pieces in the end
 - If all pieces are flat -> Simulate -> Cloth -> Cloth Surface -> Thickness - allow you to make thickness out of flat objects



4

CHAPTER

Prototyping

Final Project

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Prototyping

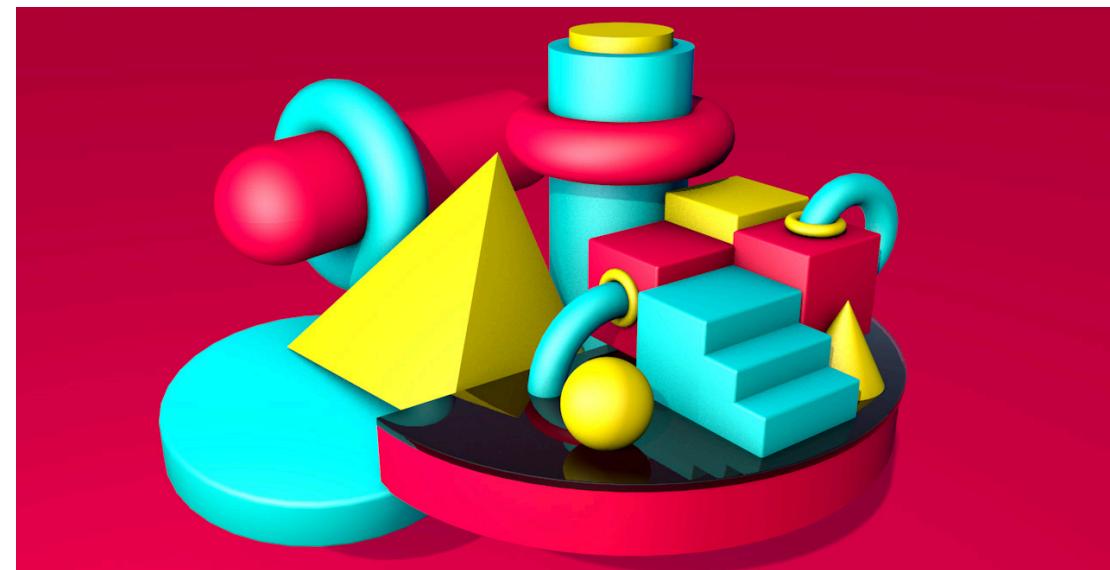
March 15th

It is my first video, where I have learnt how to animate water, objects and a camera. I used the same principle in my final project where I created some moving waves on the water.



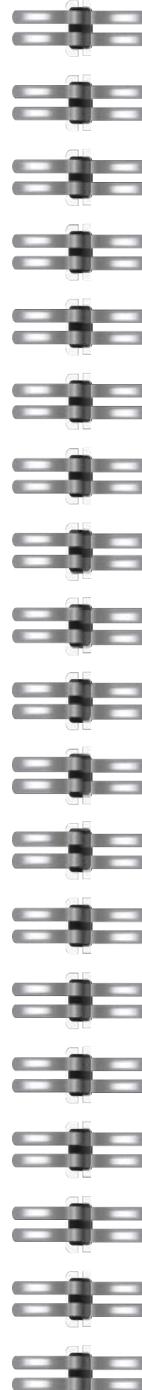
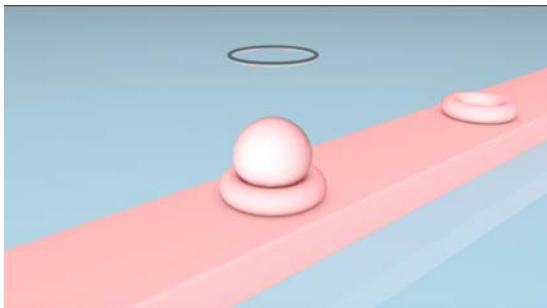
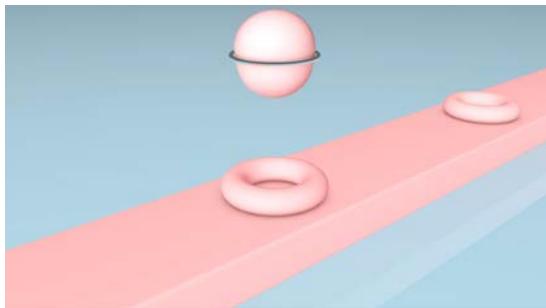
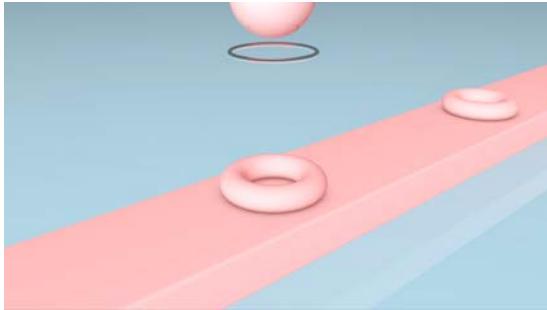
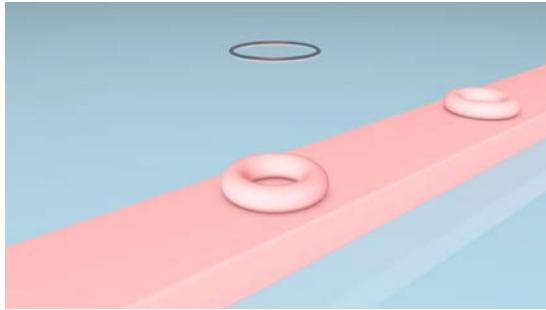
March 15th

This is my first abstract composition where I put all my knowledge at that moment after 2 days of studying the program.

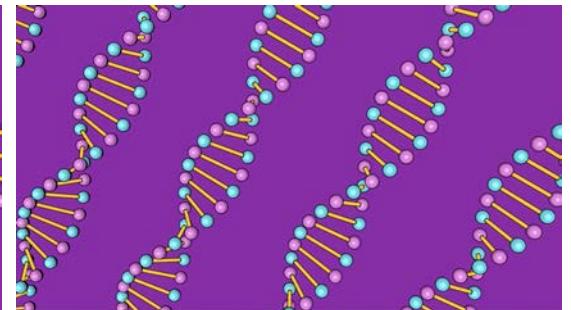
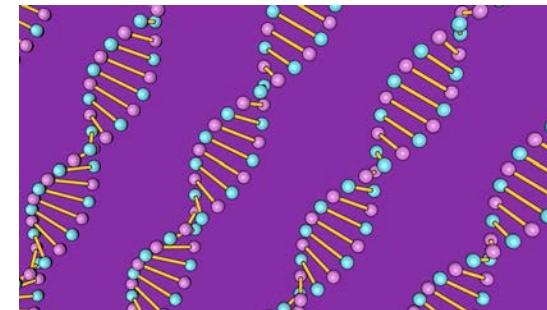


March 22

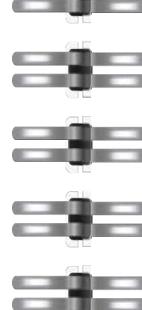
I was learning and trying new features, materials, lighting, animation rules that I would use in the final video. I was interested in different object conditions and in art direction like the animation with laptop on the next slide.



April 20th

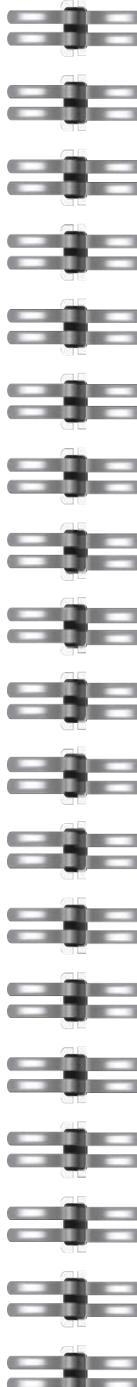
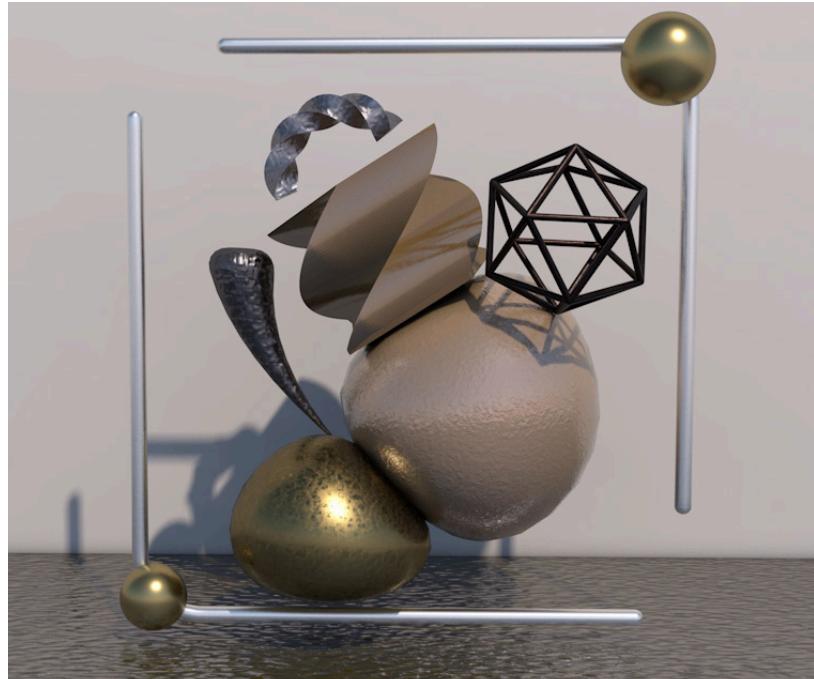


April 16th



April 28th

In this composition I experimented with materials, textures and deformers. I found what I was interested in and developed this direction later.



May 15th

My first attempt to create a piece for final video. The weaknesses of this animation are that the materials are not exaggerated and surreal like in a previous composition.





5 CHAPTER

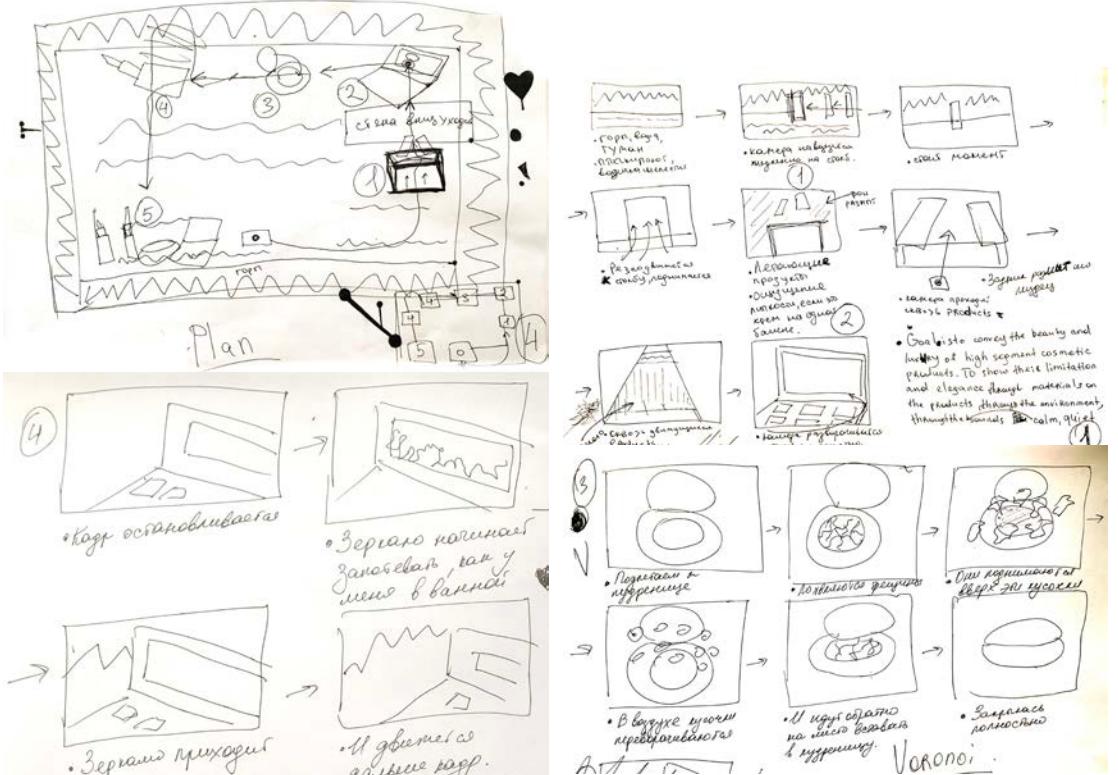
Final Project

Editing &
Music

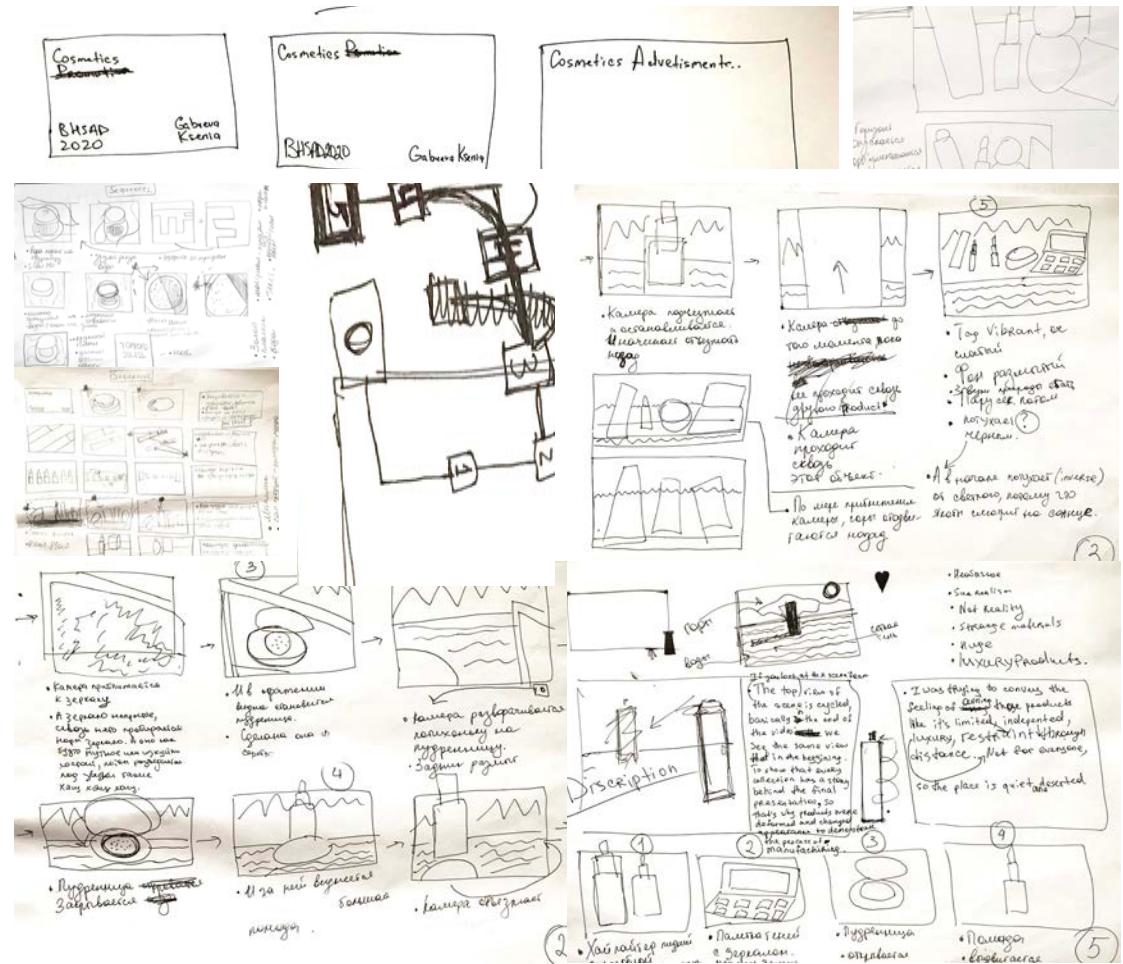
Final Project

Sequences

This is my plan for the final project with every scene and every animation. It shows the cycled composition and development notes.

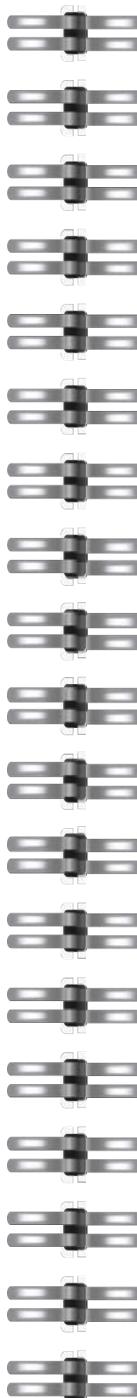


The photos quality is bad due to lack of equipment in quarantine.



May 20

These screenshots show the looping of the composition, also it is more clear that the island is an oasis in the centre of sand desert.

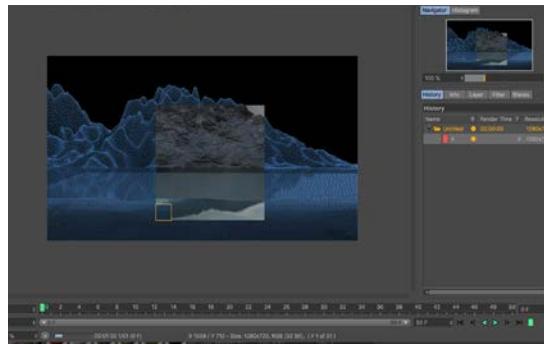


Here I experimented with lipstick metal material, tried to choose which one has more associations with a real one to balance the realism and surrealism.



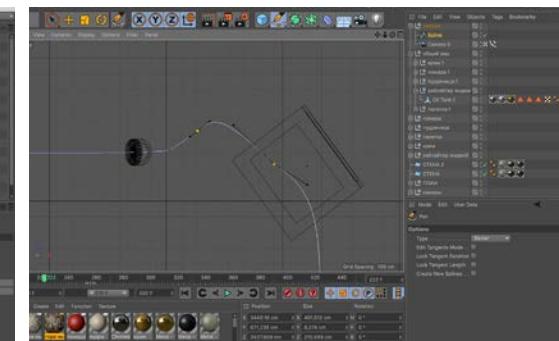
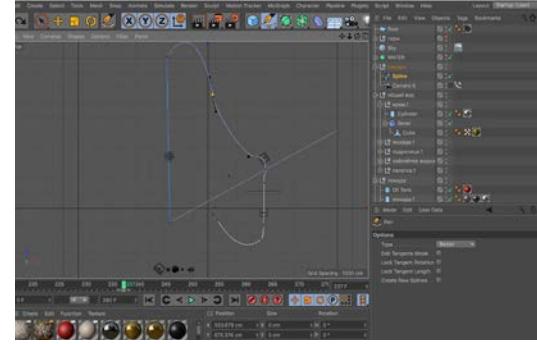
May 21st

Render is a very important step of creating videos, it also takes a lot of time to prepare each frame, for example, the scene with cream and a wall was really heavy, so it took 20 mins per one frame.

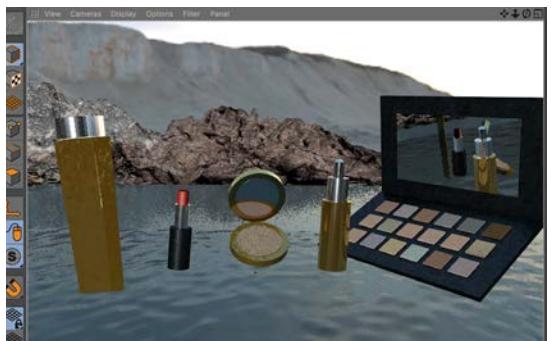


May 22

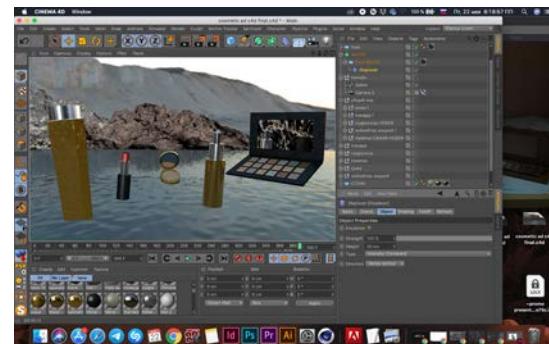
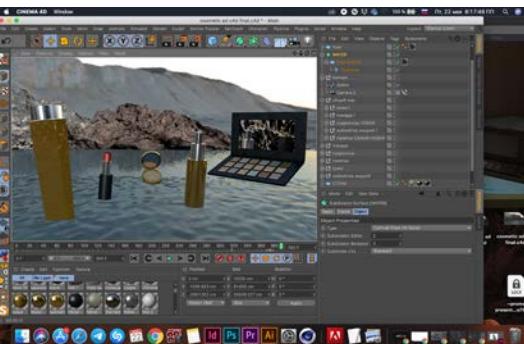
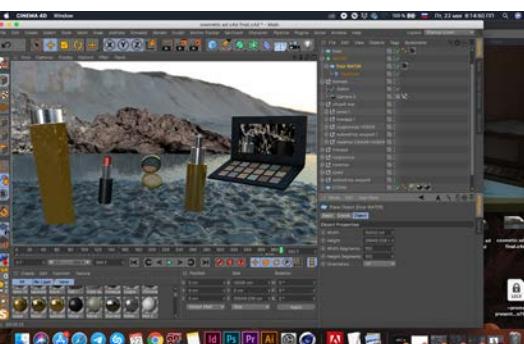
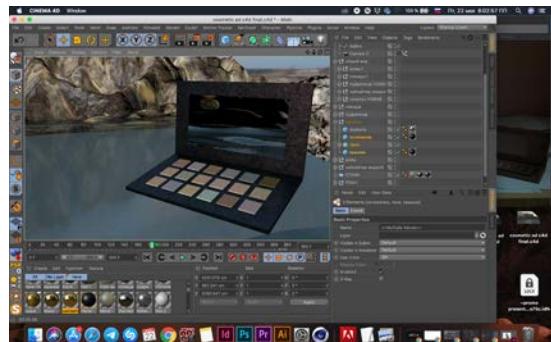
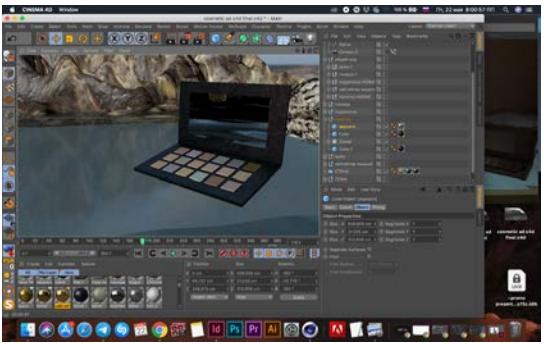
I changed the camera way and now it is smoother and has more cycled trajectory.



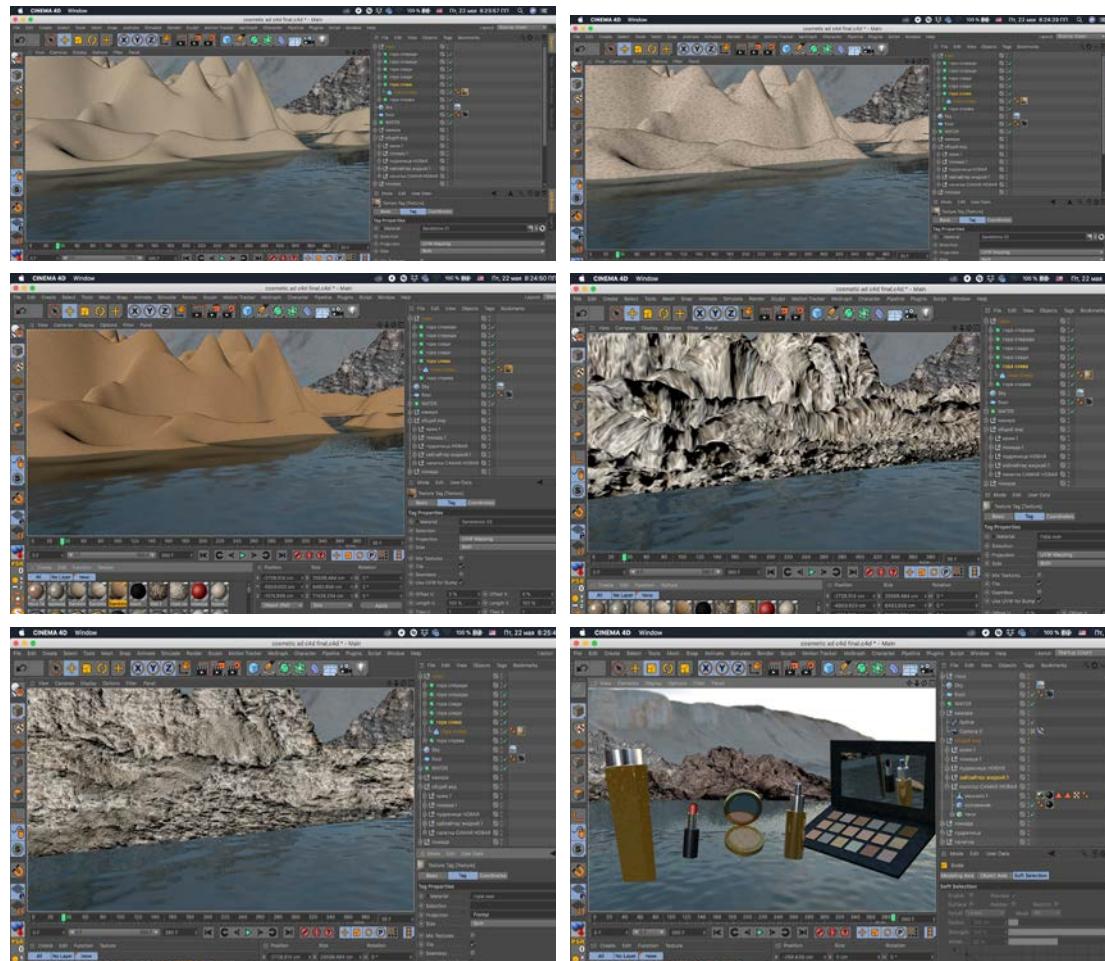
To understand the size ratio of my cosmetics I made a composition with real products that I found at home. I changes sixes and eye shadows palette.
I also experimented with textures to make products really bright and gold.



As I mentioned before I changed the appearance of eye shadows palette because it reminded a laptop, I replaced the mirror with a smaller one like in a real palette.

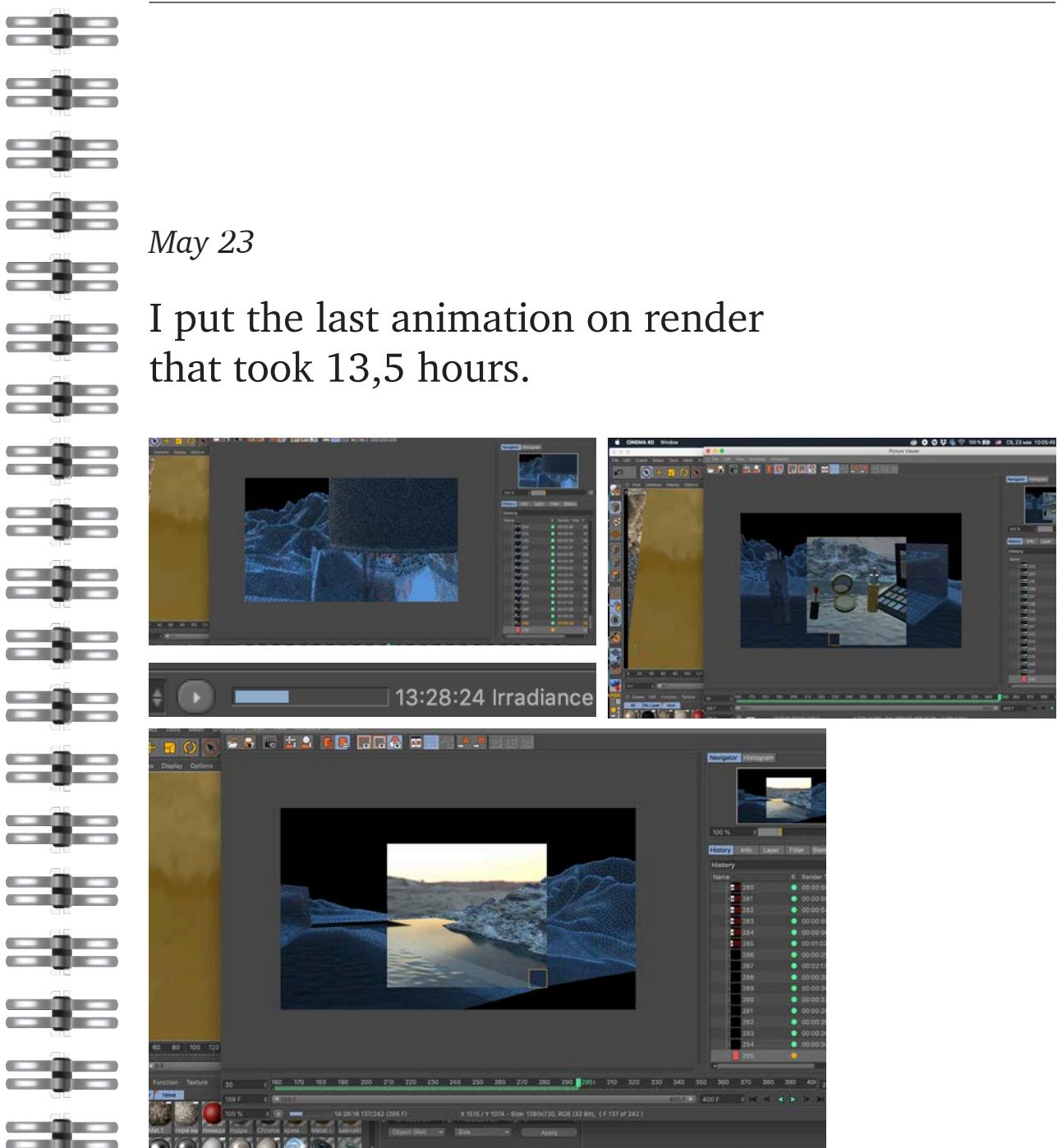


Also I tried different materials on landscape and stopped on a surreal one.



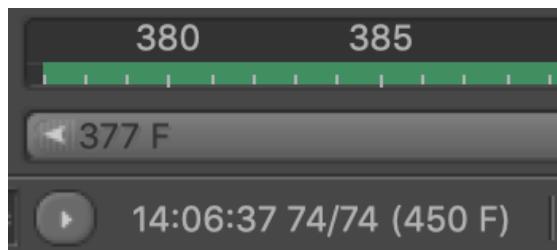
May 23

I put the last animation on render that took 13,5 hours.



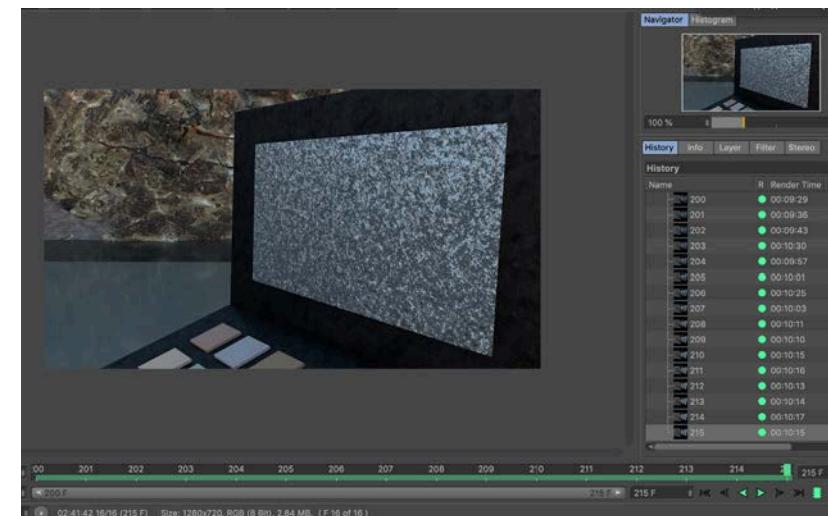
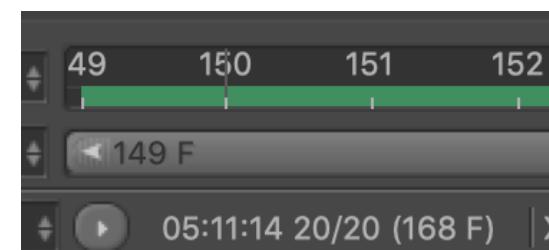
May 24th

One more developed scene with animation that also took 14,5 hours of rendering.

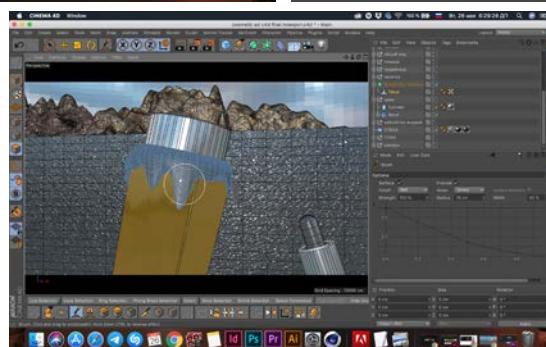
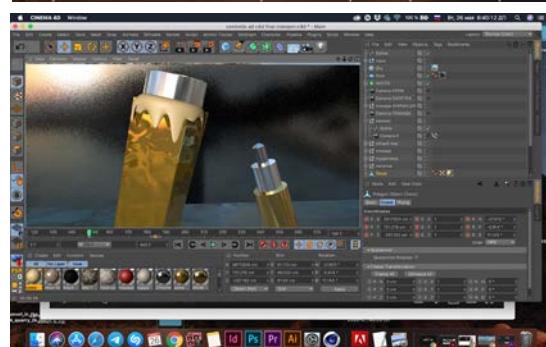


May 26

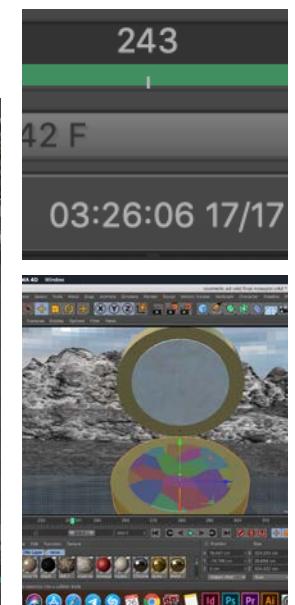
The scene with changing mirror took a little bit more than 5 hours.



Firstly I drew cream drops with brushes, put a material and then put it on render that took more than 5 hours as well.

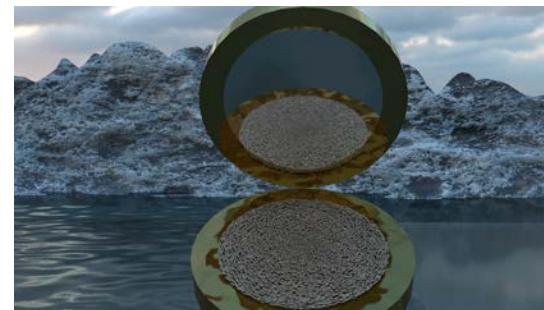
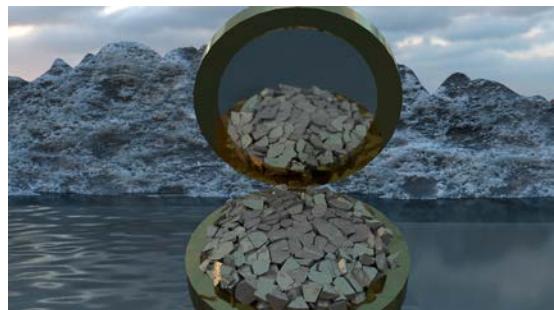


For the first time for powder I made a really big and massive pieces flew apart this animation looked inappropriate. The render for changing the scene took 3,5 hours.



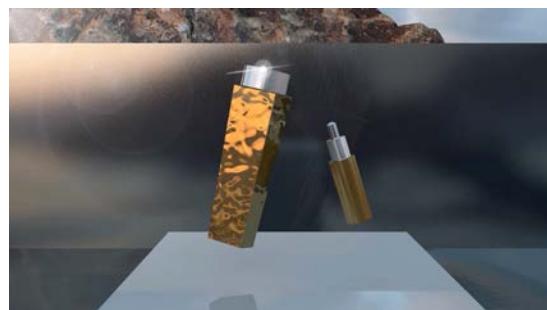
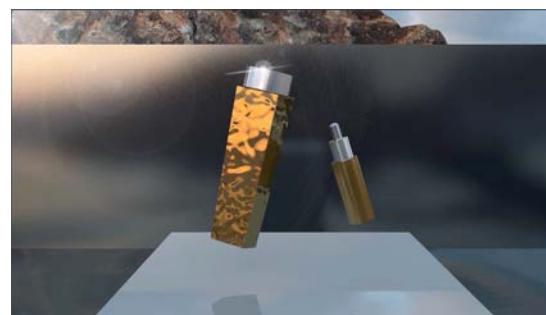
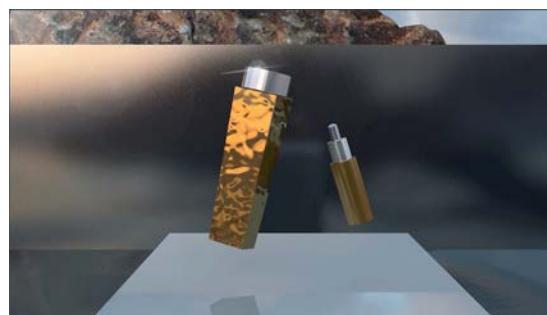
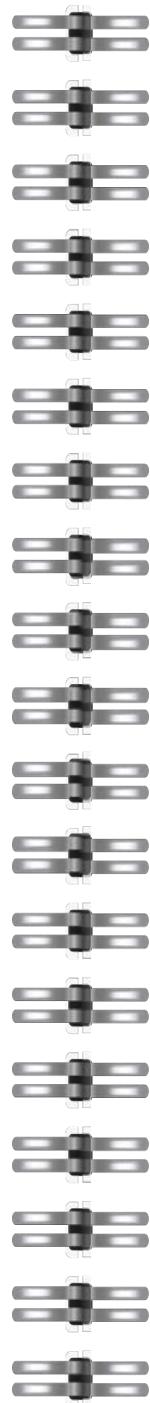
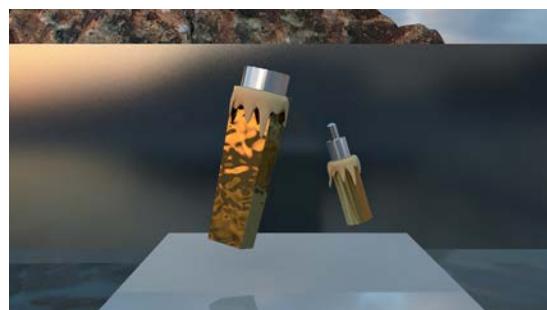
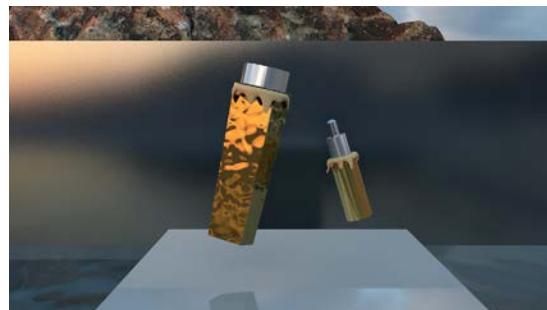
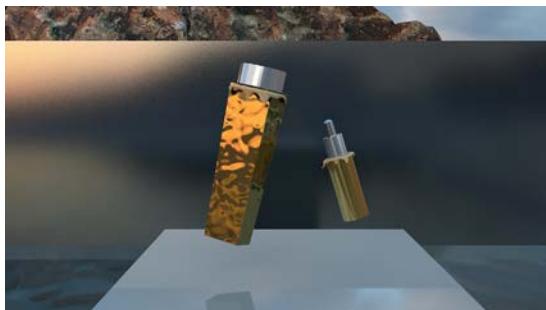
May 28

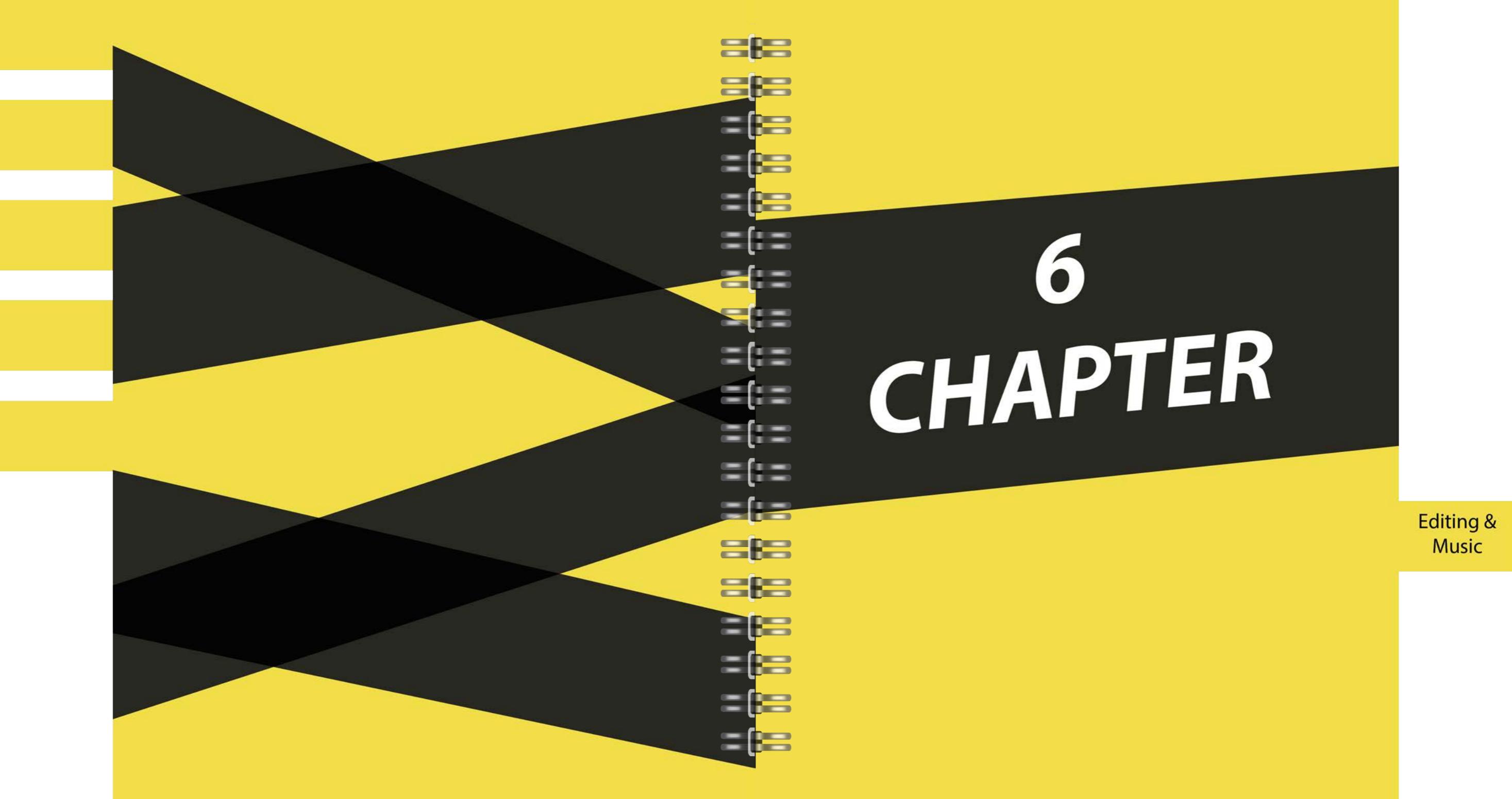
So I developed this scene and made pieces really small.



May 29

I also changed the scene with because it needed more elegant movement there.





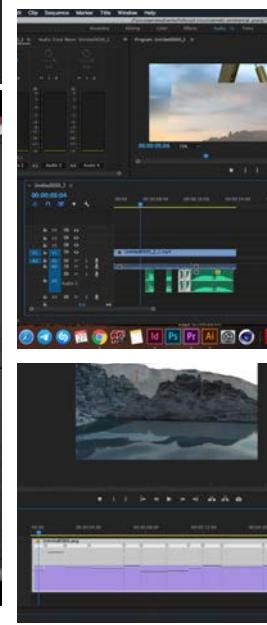
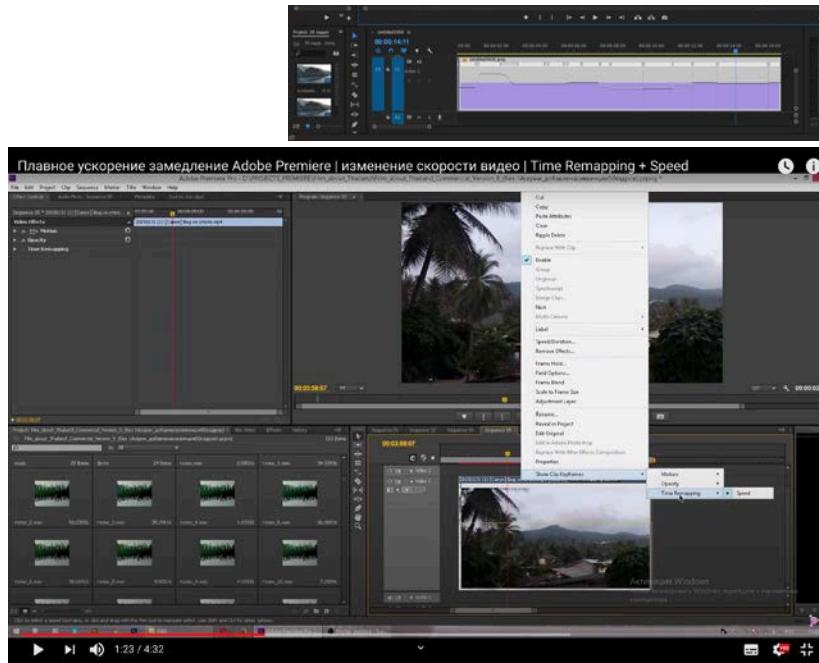
6 CHAPTER

Editing &
Music

Editing & Music

May 29

While editing in Premiere Pro
I slowed some frames to make the
whole video smooth and gentle.
At the beginning I added a frame
with title and in the end a black
fading screen.



In a scene with powder I decided to
make a reverse frames to add more
dynamic to the video.

