



VFX: PORTFOLIO

(Element 1)

Ruili Wu



VFX:
Moving Image Portrait

RATIONALE

For this project, we were asked to produce a moving image portrait in the form of a short visual effects film. With this project, I will let my audience experience an easy and calm way to watch the amount of ambient via a simple panel, a window of any transport, in my case it will be from a train.

To achieve my project, I created a mindmap and storyboard to make clear what I want to illustrate for my outcome, and then, I research useful fonts to make my film realistic and credible. Softwares that would be used are Photoshop to do matte-painting, Toon boom for some animations, and Nuke to do tracking and work with greenscreen. But, previously, I will have ready my shots from my storyboard.

IDEA

My idea is to show a personal city through the window with a character's perspective through a traveling journey. I took the freedom to depict a background that represents part of my life and my culture. Thus the best way to show it is by a quiet and calm mood looking through a window. Showing the city from the window while traveling is because I can see different images around my living place, even further away or from a sky view easily, and this is one of the reasons that I like to travel.

Therefore, I would like to portray this way of observing our world, one side has lots of skyscrapers, the other side has mountains, trees, ancient buildings, animals, or any other variations at any time of the day.

RESEARCH

The inspiration that I have for my task comes from a music video scene called *Yokubari* (Ayase), what I like from this clip is the creative composition and the storytelling in a peaceful way. Then I collected several images of buildings and objects to complete my matte-painting.

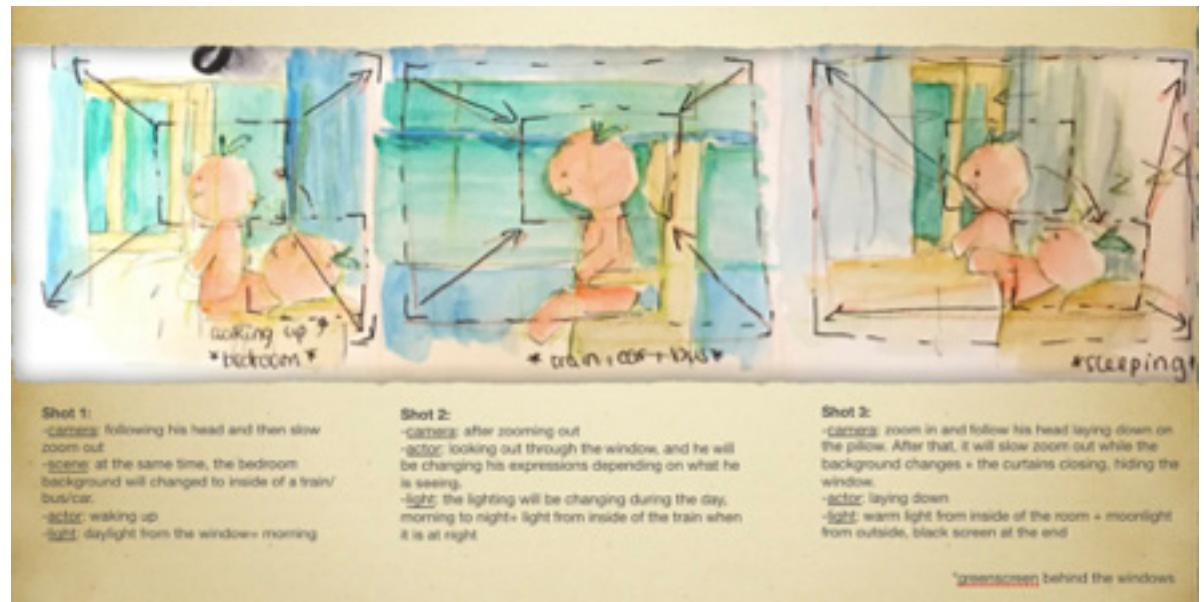
As research, I have images of transport's windows, the design of a bedroom for the background of my project, and various iconic landscapes of some cities and holidays to apply them into my environment. Furthermore, I have images of a city it shows different moods by the sky, which I have as a light reference because the lighting that I will use is changing during the video, bright at the beginning and dark at the end.



STORYBOARD

In the story, our character is waking up in the morning, traveling on the train/ and then laying down on the bed at night. While he/ she is traveling, he was experiencing the different landscape of various places and at any moment of the day as time goes by.

Previously, I was planning to animate an orange as a character because it will add cuteness and comedy to the film. However, I removed it since the landscape reflects my likes, thus the camera is in the character's point perspective. In that way, the audience could feel involved in the video and could take it personally when they are observing the landscape.



I had made a first version of my storyboard with the orange character, all details are practically the same except the current version is from the person's point of view.

STORYBOARD



I have 6 shots on my storyboard. The first one, the character is blinking and a bright light illuminates the background as an introduction of my project, I guess I will create this effect in After Effect or Toon Boom. Then in the second shot, the character is waking up and looking at one part of the room, from the roof to the window next to him/ her. When he or she stops at the window in shot three, it has a transition to a train's window, like the character is traveling and looking outside. After looking a long time through the window, the daylight starts being dark, and the background changes again in shot five, the same as in the third scene. Finally, the curtains close and everything gets dark, turn into a black background, therefore, the character falls asleep.

The scene is located in two different places and they switch to each other naturally due to the similarity of their windows. One scene is a bedroom, maybe I will shoot it at home and another one is a train which I will draw on Photoshop, thus the green screen will be located on the room's window.

I made a rough animatic to imagine how my outcome would be. The link is: https://artslondon-my.sharepoint.com/:g/personal/r_wu0920191_arts_ac_uk/EUNz5iVlxpAtlx-8y6zNMBYKSQEUUxxb-QN4hNasi5LyA?e=2gVxLm

In this storyboard, I will have to shoot the first two shots with a camera in the room, which the greenscreen will be placed on the window. Shots 3, 4, and 6 will be photos plus the environment when it is necessary to apply. The first frame, when the person is blinking will be animated and the curtains closing in the sixth shot will be recorded.

Thus I will film my shots in the following order:

- 1, 2, and 5 are videos placed in the bedroom
- 3, 4, and 6 will be photos of the windows

MOODBOARD

The mood that I want to transmit is calm and quiet as it is showing a person having a peaceful journal, so there will not too many drastic movements.

The light will change along the day, from day to night. The colors of the light are orange mixing purple to show the sunrise and sunset, purple at night, and yellow with orange during them. And the directions always come from the window, but maybe I will add some warm lights from inside of the train at nightfall, which this way is more realistic. From shot one to the middle of shot four, the light will be bright and warm as it is morning and afternoon, then in the last two shots will be purple to dark light.



ENVIRONMENT

My environment will be introduced behind the window of a room and train which my character will look through. The background is a city where I mixed with amounts of buildings, objects, and several things that are important to me and describe me personally as a portrait.

It will be presented in a parallax way where the buildings will set in different layers and different distances to highlight the depth. The buildings that are not important will be represented as skylines with a single color and the significant ones will have details on them and different objects in between. On the nearest layer to the character's eyes, people and animals are walking or playing around which they are animated.

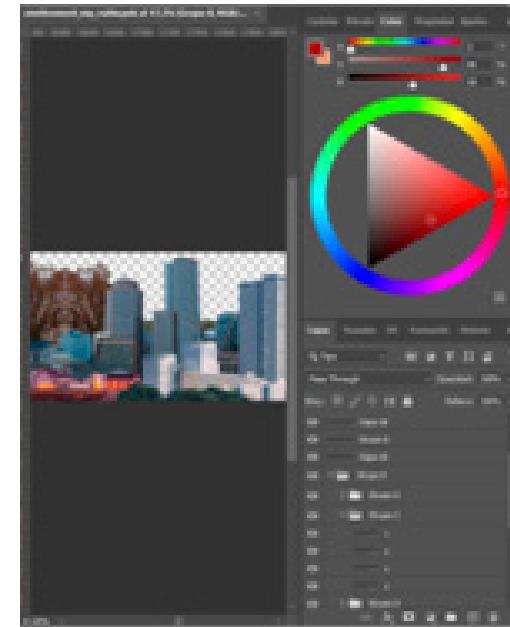
Furthermore, many parts belong in the sketch to holidays and dairy routine. I will include several animations to give a cinema-graph effect because it can depict a calm environment and interactive movements.



This is a rough sketch for my environment that will add behind the window, for the final outcome it could be longer. I draw the buildings in different colours to highlight their importance, some of them are just for filling up the background. Blue for significant objects or buildings, green and pink for decorations. Then, I have people too, which some of them will be animated.

MATTE PAINTING

I have collected several pictures of buildings to make the background for my project. Most of them are from the website unsplash.com. Then, in Photoshop, I made a large layer to sketch the background for shot 4 when it is traveling through the train. The images I have chosen are repeated along with the picture, highlighting the number of buildings. Finally, I will add a color layer over that to finish my skylines. After that, I will animate a camera, moving from the right to the left side.



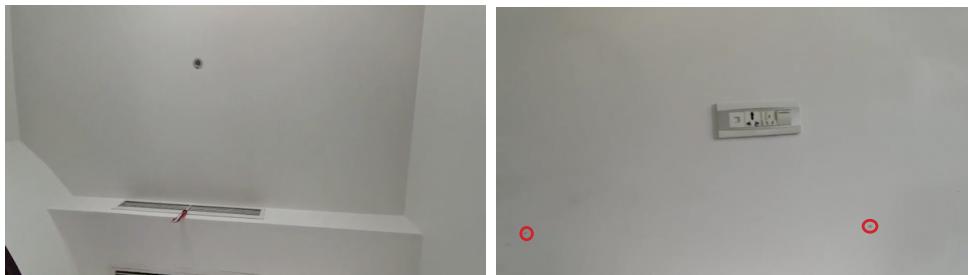
SHOT LIST

The graphic below is my shot list where I have prepared tasks for each shot to complete. At the moment, I have filmed every shot with the camera and the 6th shot completed. However, I still have to work on the blinking animation on the first shot, complete and add the landscape placed on the window from shot 2 to shot 5 and finally, I will set the lightings when it is necessary, for example, daylight for shots 2, 3 and 4, nightlight in shot 4 and 5. Thus in that way, our traveling journey will be done.

SHOT 1		SHOT 4	
SHOT 2		SHOT 5	
SHOT 3		SHOT 6	COMPLETED <input checked="" type="checkbox"/>

TEST SHOT RESHOOTING

For the shooting, I prepared my materials such as a green screen, tracking markers, and a smartphone instead of a camera. In this test shooting, I only needed to shoot three scenes which are shot 1, shot 2, and shot 5.



These are my test shots for the second scene, where the character is looking through the window but waking up from the bed. In the right image, I stuck tracking makers on the wall to add the window later in Nuke. However, I was not comfortable with the shot due to the angle, thus I recorded other different takes.

In my second reshoot for the first two scenes. I was sitting near to my desk, then I shot from flipping a book moving to the left, focusing the window. I could not fit the whole window because it was too large and I was right beside it. Despite this, the angle was perfect for me because it depicted what I planned, also, it was easy to cut the green cloth for that small area of glass.

Nevertheless, I did not use the footage in the end as it was not what I describe on my storyboard. I recorded in that way to watch observe if the improvisation worked.



Footage for shot 1 and 2. Flipping the book and the watch through a window.

In the other one, I film the window of my room but I add some shots that were not on the storyboard which is sitting on a chair, reading a book located on the desk, and then seeing around through the window. When I sit next to the window, I realized that the whole window does not fit in the filming, therefore, I decided to include one half of it.

For both of them, I used a wide-angle to record, in that way, I can inform what is around the character, the audience could understand where the scene is placed.

The green screen will be stuck on the wall or window, right on the area where four tracking marks are. Thus I will cut the green cloth with the exact size needed.



Test shot with green screen (shot 2)

Furthermore, I have several test shots for the fifth scene from my storyboard which I close the curtains and everything goes black. I filmed it without the greenscreen at night, to watch the effect that it has when there are no lights. However, for the next time, I will shoot it in the daytime and I will set the lightings on Nuke for the next time.

After I have the test shots, I tried to apply the green cloth on one half of the window, but the sides seem strange because they do not fit well.

I reshotted the shots 2 and 5 with a green-screen on it and with good lights too. But I was not convinced with the fifth reshotted because the blind clogged when I tried to pull it down completely. In the end, I chose the first try of shot 5.



Shot 5 (test)



shot 5 (reshot)

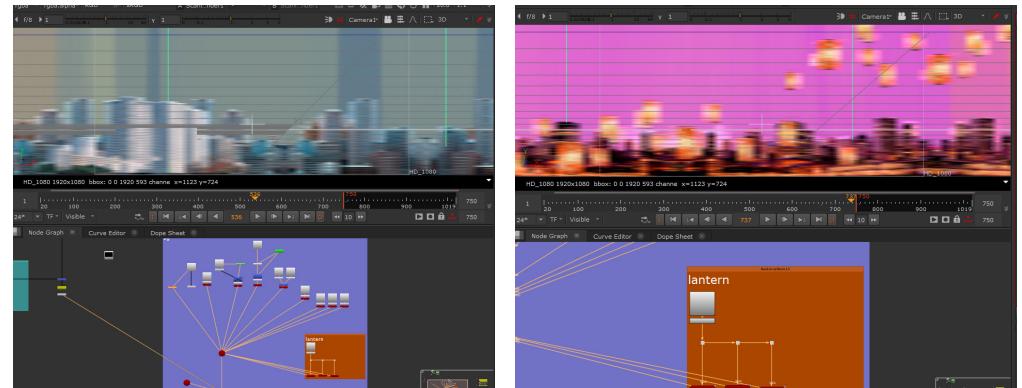
PROCESS

One of the more important stages for my project is the animation of my background. After having all my buildings in different layers, I export them to .png files and import them into Nuke.

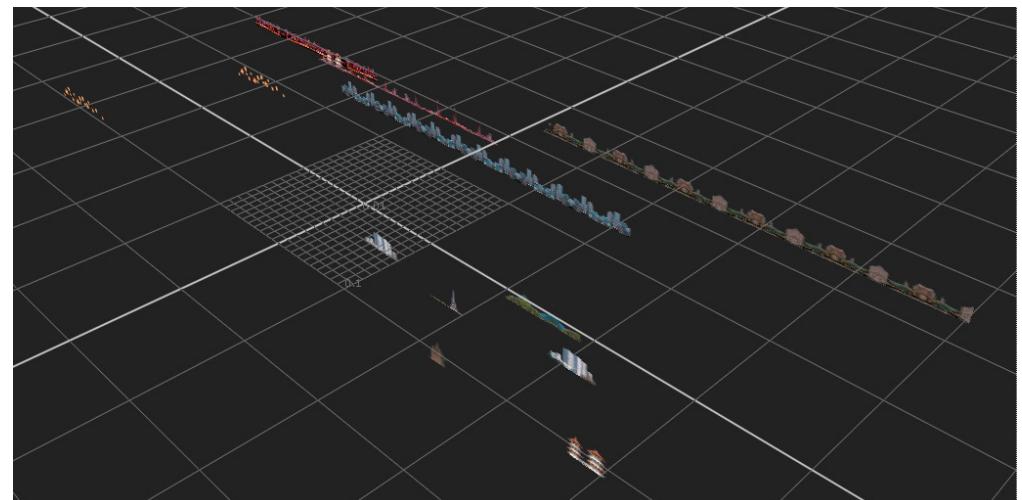
Firstly when I drag the image to the software, I was struggling with the backgrounds because it was filled with white where I need it transparent, however, when I change to the alpha channel and added the permit node, the layer was successfully fixed. Plus the graphic quality as well, in the first try, the background looked a bit blurry. After following the same step once again, it works again.

Secondly, I did the parallax by having my layers changing their z values in the 3D perspectives, in which I have many buildings in front of the window and many objects at the end. Besides, I animated the lantern going up by setting their y and z values. On the other hand, I rendered the environment and I decreased the resolution to work quickly.

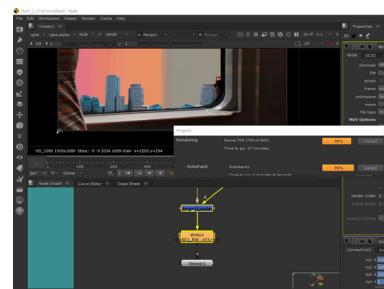
Finally, I applied them all in the footage. As a result, the animation was moving like the audience is sitting on the train. However, there were many parts that I have to improve, for example, adding glass texture to the window because it seems that the window has no crystal layer on it. Thus my first reaction to it was the windows were a bit fake.



Parallax animation making.



Buildings' placing for the parallax and the latern animation



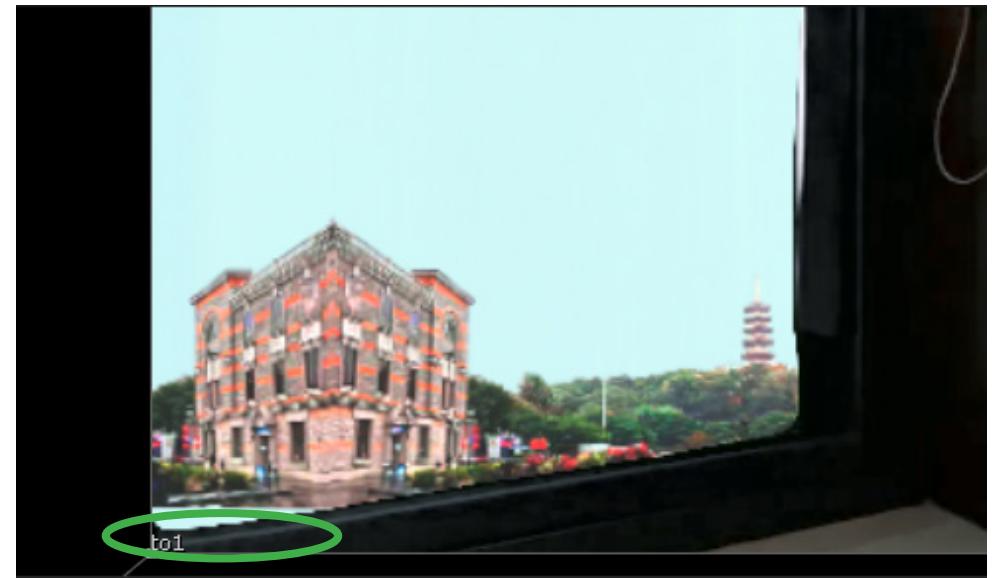
Parallax rendering

There were errors when I added the environment. For example, the sky was the largest picture, so when I had the other layers, it showed the sky above which I did not mean to. After several tries, I managed to fix it by setting the scale and hide the part below the objects. At the same time, I set the lighting from outside the window, from bright to dark with the node “grade”.

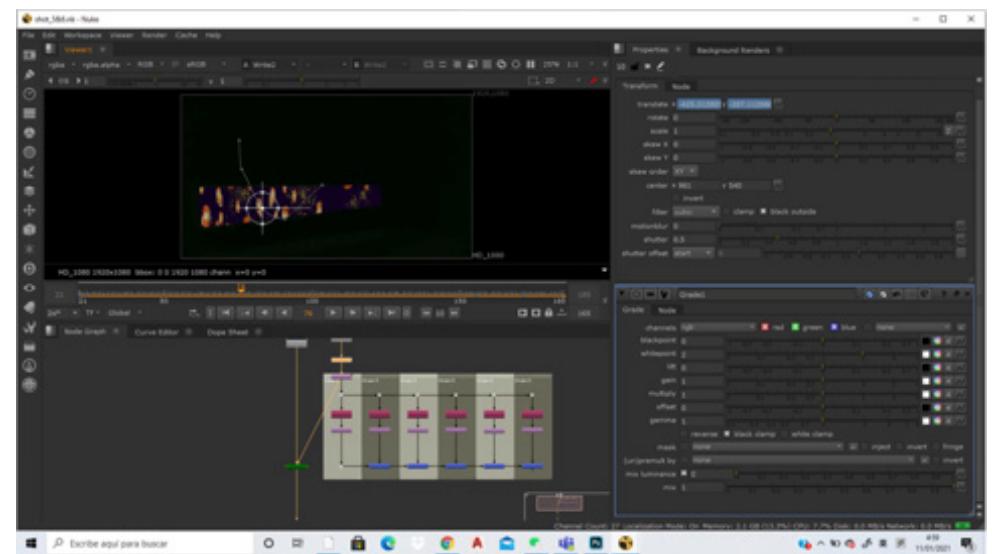
I did a rotoscoping in shot 5 on the window, where I was pulling down the blind, to replace from the background shot to a landscape that I have designed.

After catching every movement and checked that the roto is being well animated in all frames, I imported the photoshop file to add the environment for the shot.

The background is the number of lanterns floating at night. For the animation, I moved around the picture from down to upward to animate the lights flying. Moreover, I changed the white point with the grade node to make the environment darker. As a result, it works due of the lantern are going up, however, I was not able to animate every light with different speeds and directions. Thus I will look for more tutorials on managing photoshop layers in Nuke.



The zone involved inside of the green circle is the sky because the building layer is not wide enough to fill the gap.



Rotoscoping the window. Importing psd file and animating it.

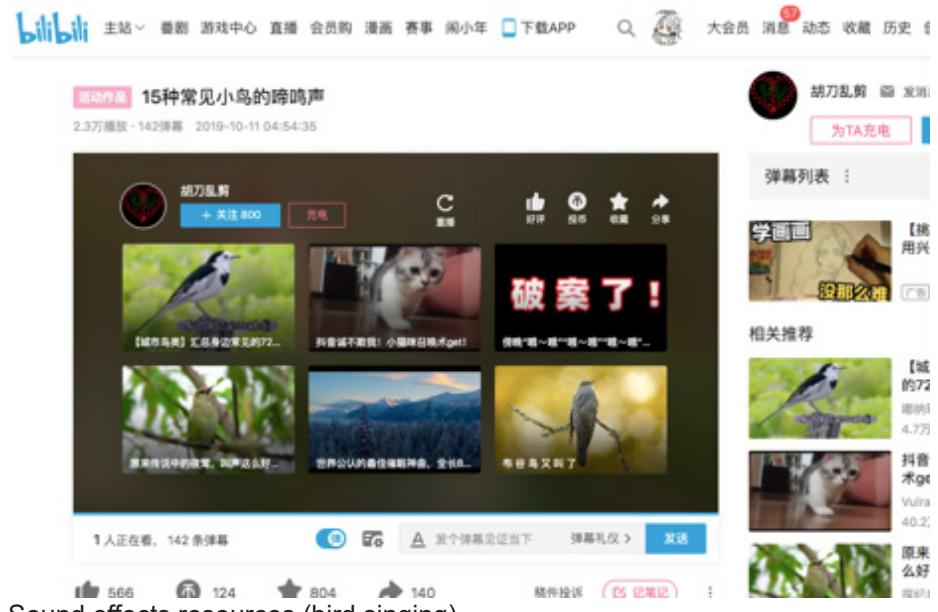
The screenshot shows a dual-monitor setup. The top monitor displays Adobe Premiere Pro with a project titled 'Mezclador de pista de audio: shot2,3_4'. The timeline contains video clips for 'shot02_RW_v01.mov' and 'shot3_4_2.png', along with four audio tracks labeled A1 through A4. The bottom monitor displays the 'Voice Memos' application, which lists several recordings: 'New Recording 8' (4 Feb 2021, 00:02), 'curtain' (3 Feb 2021, 00:16), 'shot1, 2, 5' (28 Jan 2021, 00:22), and 'shot 3, 4' (28 Jan 2021, 00:17). A tooltip on the bottom right of the Premiere Pro interface reads 'Test edit with the audio added (on premiere)'.

I planned to record sounds effects to define the actions and ambient to my outcome. Then, I will apply quiet background music to depict the mood. I will choose calm music due to I don't have any dramatic scenes, it fits the traveling moment.

The curtains and the sheets rubbing are recorded by my phone, to fit in the action that is taken in the shots.

The birds singing and the train traveling are taken from the Internet as I need them to set the atmosphere.

At nighttime, I was planning to introduce frog croaking, because I often heard croakings at night in summer. However, I did not find a suitable one to apply it.



CRITICAL APPRAISAL

The project was successful because the outcome looks what I expected with some arrangements. I tried to achieve my shots the same as the storyboard.

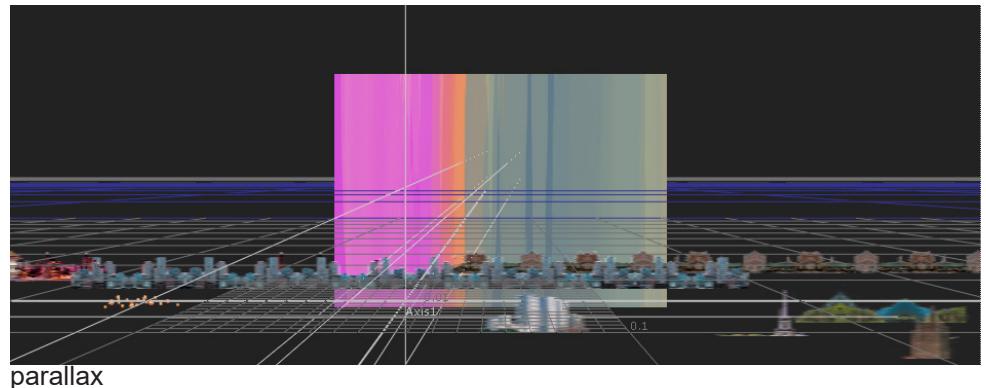
One of my favourite scenes is the ending when I pulled down the blind. I applied the background by rotoscoping the window.

Moreover, the filming of the first footage was another satisfying stage due to it was the result of several tries with different angles and contents. Finally, I achieved a suitable shot for the outcome because I could compare between footages and which one can fit perfectly.

Meanwhile, I discover several strengths such as including the eye animations on it, I added a blurry view in those first seconds plus a few blinking to depict the character is waking up and sleepy.

The simple side of the project was the research because I can take inspiration on themes or artwork pieces that I am interested in. Without a shadow of a doubt, it was joyful to share and able to create something related to my likes. In this case, was the dynamic of the music video *Yokubari* by Ayase where the girl was sitting next to the car window and it was passing around the beautiful nighttime city.

The complicated part was the planning of the shots because in my first storyboard I was not sure where to include the greenscreen since I tried to have an animated character. After few changes, I decided to do the same but placing us in the character's point of view.



_PATHWAY > 2nd_years > Block 3 > Weekly tutorials_Principles of VFX > 01Intro_3denvironment > Recordin

Name	Modified	Modified By	File size	Sharing
01Intro_3denvironmentPt1.mp4	October 22, 2020	Billie Vine	105 MB	Shared
03Intro_3denvironmentPt3.mp4	October 22, 2020	Billie Vine	184 MB	Shared
04Intro_3denvironmentPt4.mp4	October 22, 2020	Billie Vine	104 MB	Shared
02Intro_3denvironmentPt2.mp4	October 22, 2020	Billie Vine	82.6 MB	Shared

3D environment tutorials

Due to the circumstances (COVID 19), I was not able to be at the University, as consequence, I could not book for greenscreen room and a camera, that was the reason of my shooting condition. Furthermore, as the classes were online, it was difficult to adapt since there were not the same interaction as we were in person, also, when my Internet had bad connections I can not hear clearly what they talked.

On one hand, I was truly lucky to film lots of test shots whenever I need to. But on the other hand, I had to wait good lighting from outside as the inside make unnecessary shadows on the window.

To improve my mistakes, I will cover the greenscreen better to avoid a strange curve so the environment could fit better in it. Furthermore, the colour of the background with the footage had high contrast, thus it seems fake when I brought the two objects together. Despite this, it has a small curve and a white gap on the right side of the window which makes their combination even weirder.

On the other hand, I realized that my windows in every shot have no reflection or a glass texture which seems like they do not have a crystal on them.

Another weak point is the environment. I just copied and pasted the same buildings along with the picture and their colours are not unify, in other words, the color palette is not clear. Thus it may feel that the different buildings are separated like they do not belong as one city. After comparing my sketch with my environment, I noticed that I included a small percent of what I designed in my sketch (such as the Tour Eiffel, mountains, and buildings). Nonetheless, I forgot to add the animations, trees, and other main buildings as I planned. Thus for the next time, I will check once again my designs after having them completed.

Additionally, when I was pulling down the blind in shot 5 there was an up and down weirdly because it can not go down smoothly. As an alternative, I will try to move out the unnatural seconds from the footage and connect the remaining cuts.



The footage with the greenscreen on it, as we can see on the two right corners, they are curved instead of pointy.

These pagodas were taken from a daytime photo, thus they seem strange with a nighttime environment. They are just darker with the grade node

The scenes indeed shot are completely different from what I draw in the storyboard, for example, in the storyboard I included curtains but in the actual film it has not, or I just filmed a tiny part of my window instead to fit in the shot. However, I changed those details due to I was traveling to different places on those days, thus the shooting place was unsure.

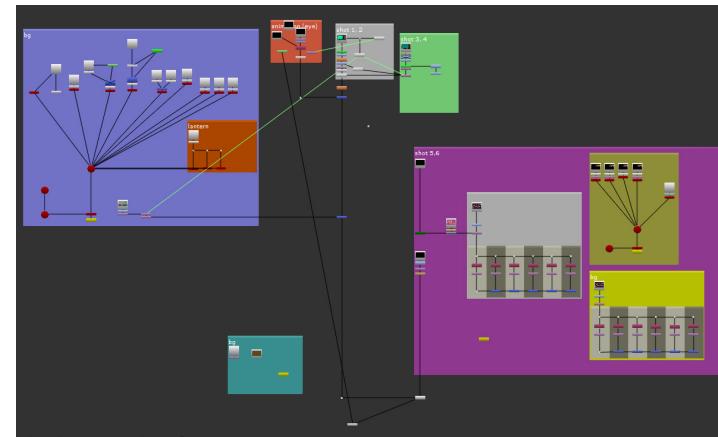
Through this project, I developed many skills to organize my working pace such as preparing a shot list after the storyboard. Before making a shot list I was used to relying on my initial ideas or storyboard, but I realized how easy and completed is to have my tasks listed beside every shot, thus I can remember what I need for shooting every scene.

Despite this, the tutorials helped a lot in my making, especially, for the parallax animation. I was satisfied with this scene because it depicted perfectly traveling footage as if the person is sitting in any transport looking through the window. Apart from the tutorials updated, I searched lots of Nuke's guides on YouTube or LinkedIn.

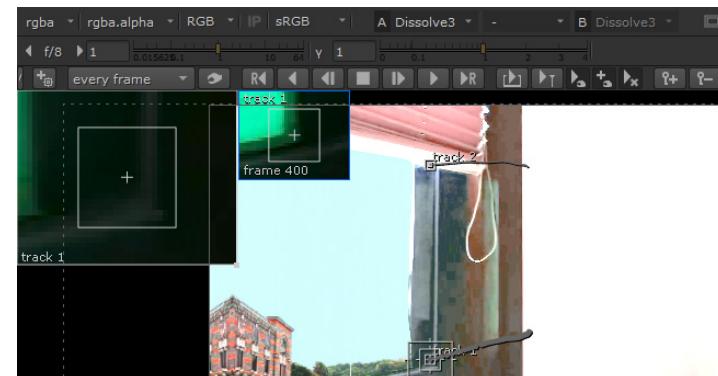
Moreover, I learned a lot of technical skills from this project, for example: **animating in a 3D environment** where I adjoint several layers in different z values to have depth in the landscape; **setting the camera** which I can focus any part of my 3D scene; **png image files**, firstly when I import them into the software, it depicts different from what I exported in photoshop (png file with transparency) but the problem solved when I added a prem ult node; **lighting with grade node** I was able to change the mood of my background just adding brightness or darkness; **color hue node to change the coloring** where I was not convinced to and filter it as it suits to the background; **After Effects**, I never touched this software before, so I looked for the amount of tutorials for my eye's animation in the beginning; and, managing with the **greenscreen**, how to add my environment on that by using a primate node.

Apart from Nuke and After Effects, I started to use Premiere better. Before, I edit my videos by adding the footage, but now, I understand many functions such as graphics and picture animations and the audio volume settings.

During the making, I met several tutorials with my pathway leader which I was arranged my outcome. Asking out my doubts helped me a lot to edit my shots similar to what I draw on my storyboard. For example, matching two shots by dissolve, tracking the window or the lights, and adding the animation rendered in the alpha channel. After watching the outcome several times, the change was amazingly different before the tutorials. Her advice helped me a lot to complete my outcome.

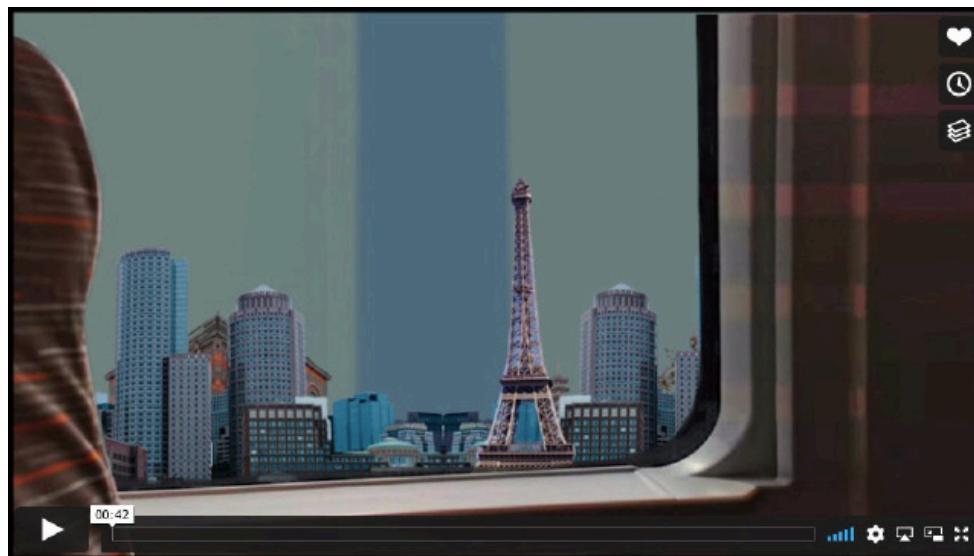


Node graph of my outcome



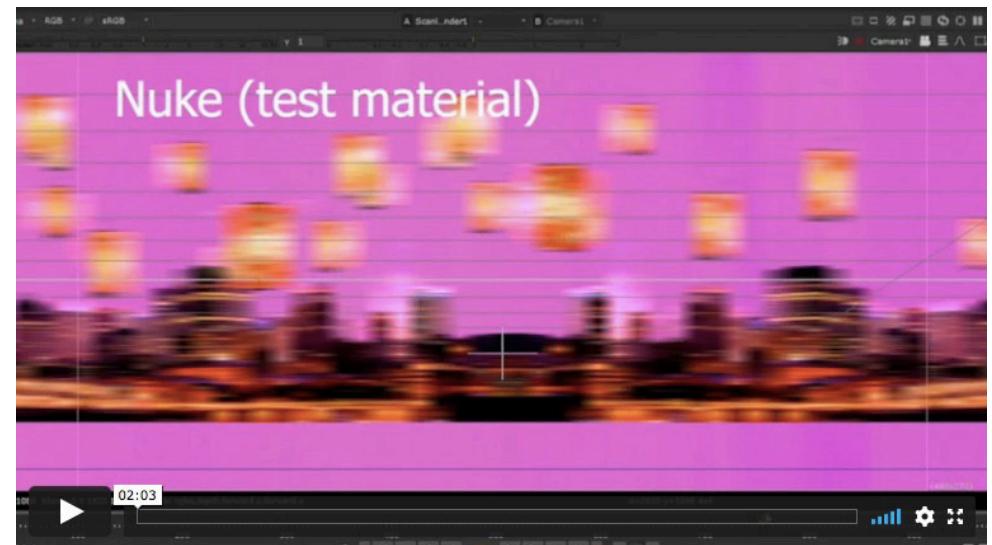
Tracking the window using the corners as trackers

LINKS



OUTCOME: <https://vimeo.com/515569862>

Password: 1234



SHOWREEL BREAKDOWN: <https://vimeo.com/515571757>

Password: 1234

BLOG

<https://bavfxruiliwu.myblog.arts.ac.uk/>

Password: lccvfx

BIBLIOGRAPHY

2020. [online] Available at: <<https://www.youtube.com/watch?v=bYCnmFmkd4s>>

Bilibili.com. 2021. 哔哩哔哩 (°- °)つ口 干杯~-bilibili. [online] Available at: <<https://www.bilibili.com/>>

Producciones, L., 2020. [online] Available at: <<https://www.youtube.com/watch?v=YQcx6OfRGGA>>

Unsplash.com. 2021. Beautiful Free Images & Pictures | Unsplash. [online] Available at: <<https://unsplash.com/>>

Exploratory Practice Visual Effects

Collaborative with 3D



RATIONALE

In this project, we were asked to produce a digital piece of work in response to a chosen artist or work of art placed in groups of two or three. We will consider and evaluate others' work of art and interpret this in several ways, for example, a modern version of old art, or create something with a similar theme, or a parody.

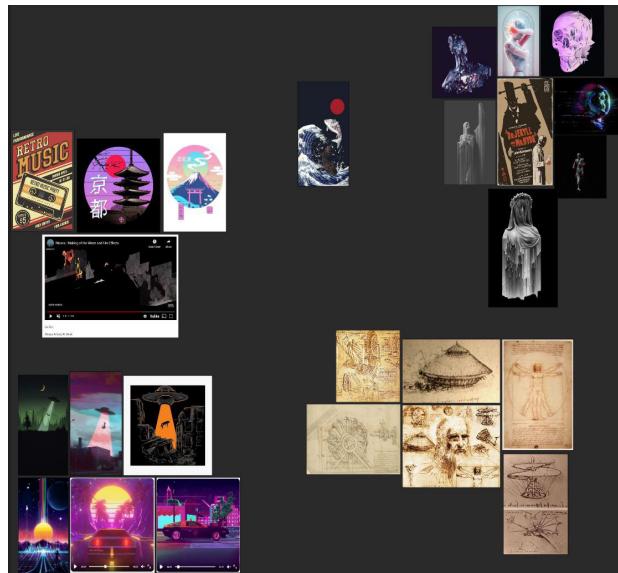
To achieve our project, we will search for paintings that we are interested in and discuss our ideas via Teams. Then having decided on our idea, we will create a storyboard and mood board, then move onto the filming of the shot. After we will distribute our works, one creating 3D animation in Maya and one adding visual effects in Nuke for our CG composition. Finally, when the outcome is rendered, we will add suitable background music on it for uploading onto Vimeo.

We searched separately several illustrations as inspiration for our ideas.

The images that my teammates collected were UFO, pictures in Neon colouring, and Japanese artworks.



Claude Monet. Series of The Rouen Cathedral



I



D



E

1. 2nd of May
2. 3rd of May
3. Saturn eating his son

A



Claude Monet. Series of The Rouen Cathedral

On the other hand, I picked *series of Rouen Cathedral* by Claude Monet in 1892-1893 that belong to the impressionism movement. This series illustrates the different daylights on the Cathedral like the variety of filters that we set to our photos by using a phone's application. Therefore, I was planning to shot a place and changing the filter along with the film, portraying that everything can change due to the time is passing and the environmental circumstances.

And also three works are done by the painter Francisco Goya are, *the 2nd of May*, *the 3rd of May* (1814), and *Saturn Devouring His Son* (1820-23). His painting style is one of the bases for the impressionism style as their colouring and brushing are truly similar. The first two paintings illustrate a Spanish history moment in the second and third of may in 1808. And the last painting mentioned framed a bloody moment from the myth of Saturn. Lots of Goya's storytelling paintings inspired me to make another storytelling short film depicting the importance of recording one moment of the history.



Spaceship. 1. wide vertical shot, 2. perspective from the bottom

In our first idea was to film a spaceship catching a person while it is flying around, and when the UFO is picking up the person, we will change the filters or colourings during that stage.



Then, we went outside to film some useful source material for our CG compositing. I recorded random places, such as buildings, skyscrapers, parks, and rivers to search for one suitable for our project. However, we rethink our idea after several meetings.

STORYBOARD

Shot 1

Camera: wide angle

Scene: outdoor city (live action)

Actor: walking around there until the ovni catch him

Ovni: flying around for few seconds and stops when it see a person there

Light: nighttime environment, ovni's lights (changing into multicolor when it catch the person)

Sound: environment sound (cars, people talking or walking), ovni flying and engine (when it is taking the person)

After deciding on our idea, we made the storyboard and a rough animatic to show a sketch of our outcome.

From our shots, we want to describe we do not have to prove that an imaginative object exists but we do not have to prove to deny its existence, plus the unexpected situation could happen anytime as concepts, like the covid 19 infecting gravely all of the sudden, thus we have to be prepared to know how to act.



We shortlisted two paintings the *Bridge Claude Monet* and *The Great Wave Of Kanagawa* while drawing the storyboards My teammate also saw another Japanese art that is really peaceful and inspirational. She has made three storyboards for these paintings.

Our project is based on the artwork *Snow In Miyajima*, done by Kawase Hasui in 1929, Japan, and the concept is to appreciating peaceful moments by feeling our environment just like the print. We filmed our footage in a park with a river due to the angle and the environment that fits our art piece selected. We started with a wide shot of the scene and we zoomed on the water when we turned to our second shot.

Snow In Miyajima is an observational, symbolic, and cultural artwork about Japan's snowy landscape. it contains Japanese elements such as the lake with the Shintoism shrine portraying what represent the Japanese customs on their time as the artwork is made when the ukiyoe (with color woodblock printing technique) was popular, especially in the first middle of XX century.

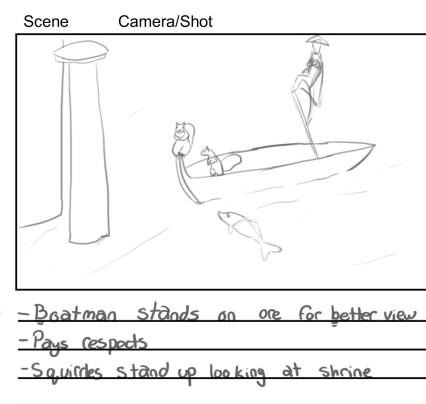
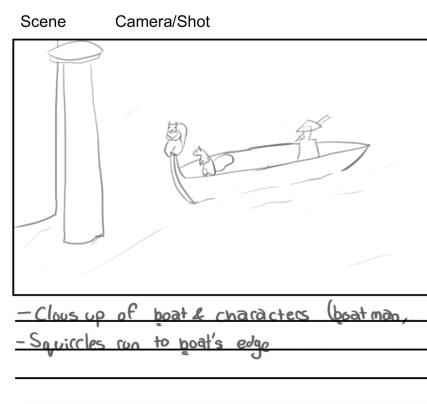
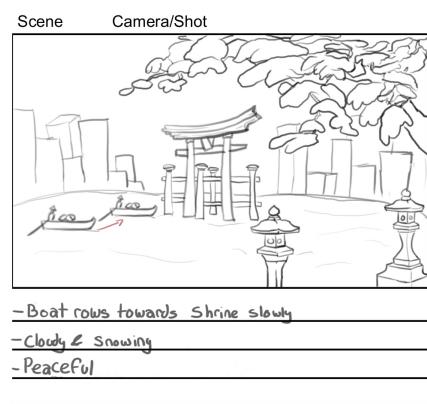
In our outcome, we try to portray a peaceful ambient as the print. The boat, with a deer and a person on it, is floating on the river as another normal routine. Through this calm scene, it shows the luckiness of having a normal day without any troubles, natural disaster and factor that interrupt one's pace.

FINAL IDEA



Snow In Miyajima, done by Kawase Hasui in 1929, Japan

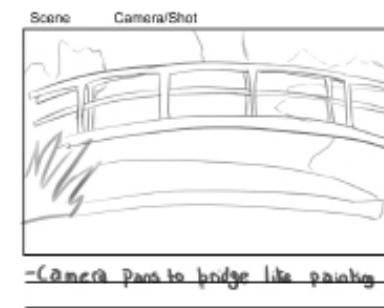
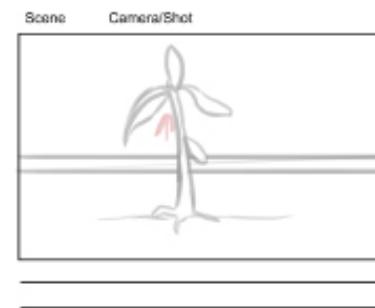
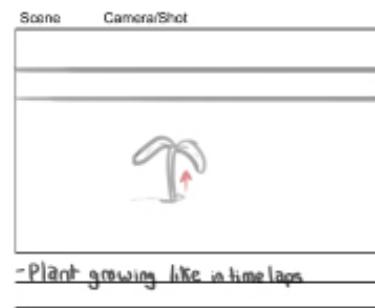
Storyboard based on *Snow In Miyajima*



STORYBOARD

In our storyboard, we have the live-action filming in the first shot which is filming a river and zooming it on one point of the background, and a 3D animation in the second shot.

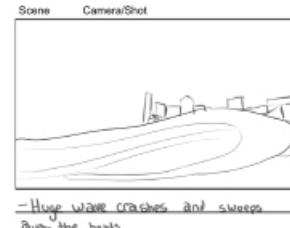
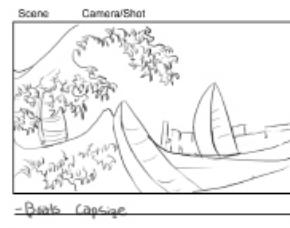
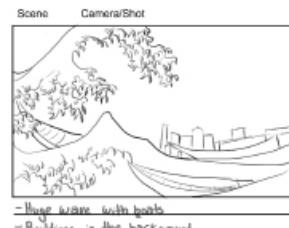
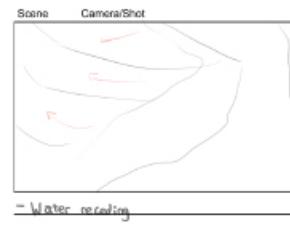
Storyboard based on *Claude Monet's bridge*

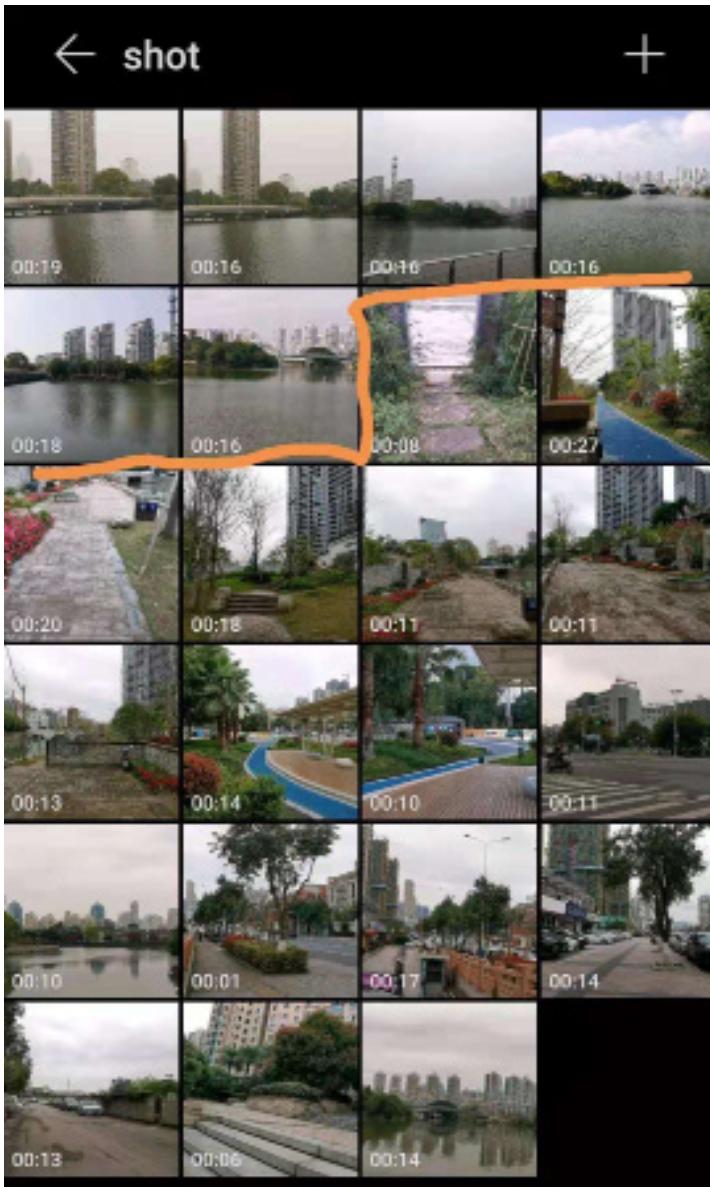


Before deciding on our definitive idea, we also made other plans. The second storyboard of Claude Monet's bridge where it starts with a close shot of one plant and as long as it is growing, the camera will zoom out and the bridge will be introduced in the end.

The third storyboard is The Great Wave off Kanagawa where a tsunami is crushing a city by filming the waving. It is adapting the old painting in nowadays situation plus a natural disaster happening at the same time.

Storyboard based on *Wave off Kanagawa*





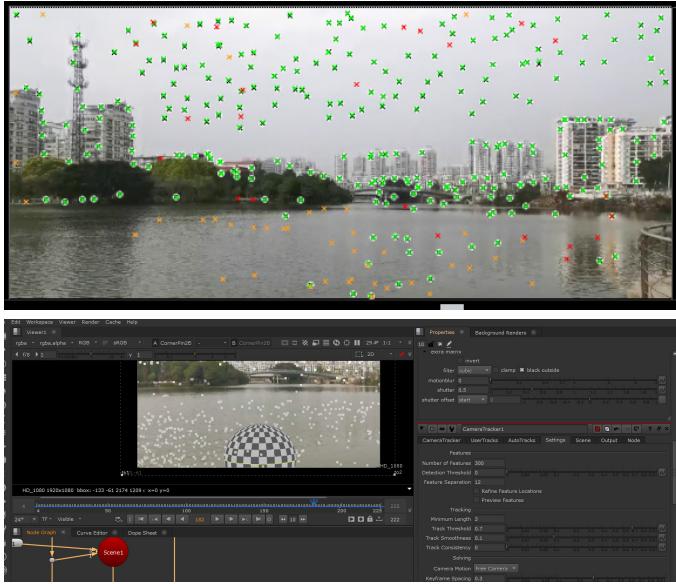
TEST SHOOT

Basing on the storyboard, I filmed the first shot several times, with different perspectives and weather. As I did not have a camera, thus I used my phone to record the live-action shot.

I tried the zoom in by setting the camera of the phone, nonetheless, I noticed that the quality and the filters changes while it is zooming. Then when it is zoomed in, the footage seems a bit blurry.

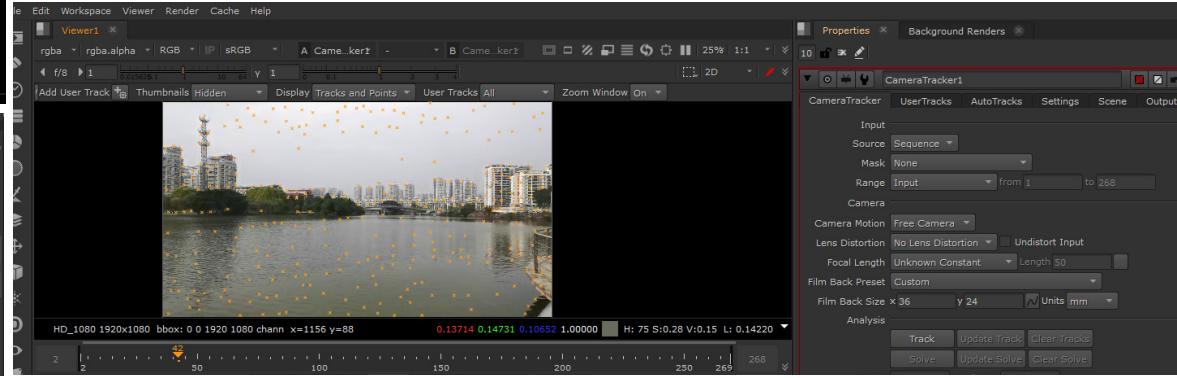
Therefore, I recorded the place again by walking into the bridge of the landscape. The lucky thing is that the weather was cloudy on that day, so there is not harsh sunlight if it is sunny.

The six firsts footage are for the final idea, and the rest were for the first idea that we made before.



NUKE: Camera Tracking (shot 1)

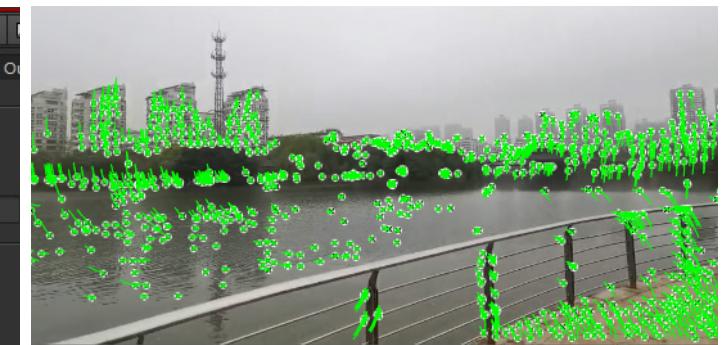
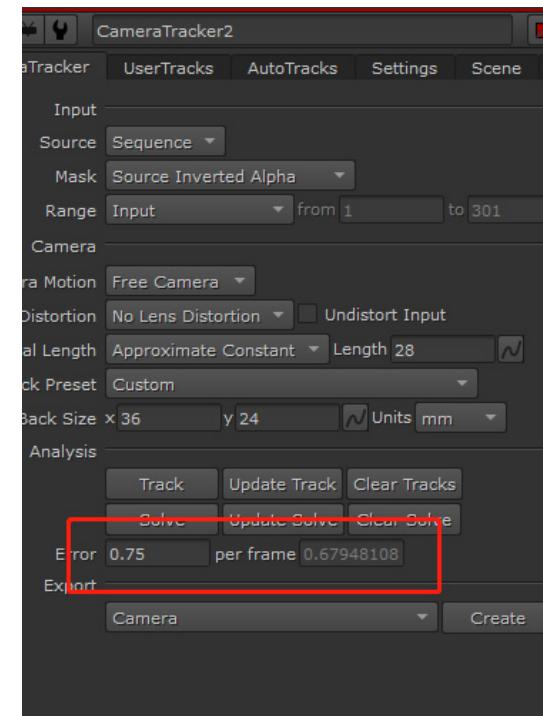
Camera tracking 1st try



The first camera tracking was not successful as I did not introduce the data correctly, thus when I watched my teammate sharing her screen, we noticed that the 3D animation was not steady in the live-action shot, it looked like they are two different and separated elements.

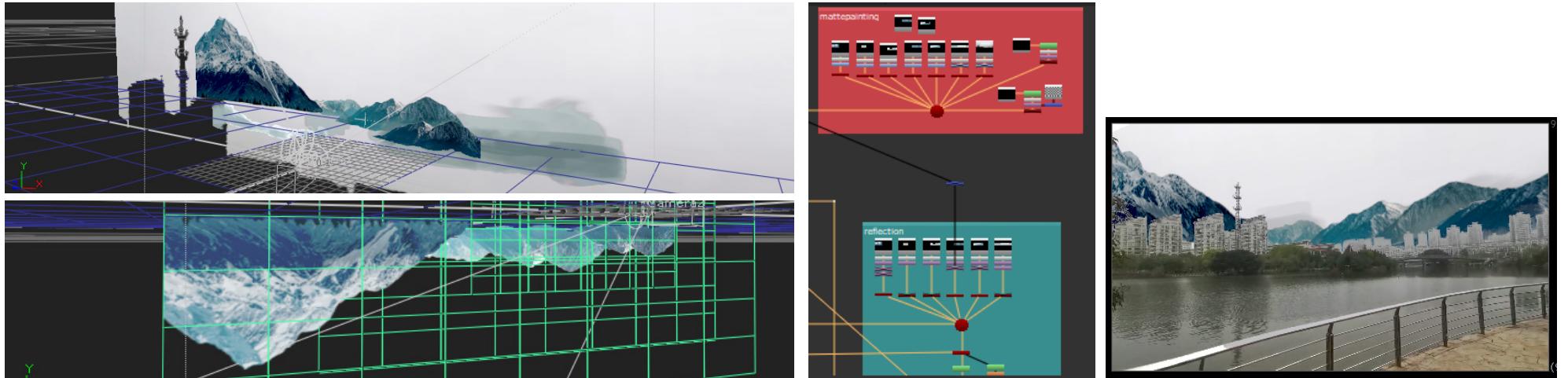
After I redid the camera tracking and I found many mistakes by asking my teachers. For example, in the first trial, I tracked the shot with the footage 960 per 540 pixels when I had the project settings in HQ 1920 per 1080 pixels. Furthermore, I changed the properties of the lenses and the camera movements to have the camera track exactly.

To check if the tracking worked, I applied some geometries like cubes, spheres, and planes plus the axes x, y, z and review it several times to make sure if the elements are moving towards the camera moves smoothly.



Camera tracking final try

Finally, I exported it in a .ext file so it can be opened in Maya when I send it to my teammate.



As the artwork chosen illustrated, there were mountains at the back of the whole image, then my teammate designed the matte painting with several mountains with fog over them. I exported the layers one by one to manage it easily into Nuke.

Firstly, I set the keylights of the shot in alpha, where everything except the sky is in white, that way, I can add the mountains over the sky and behind the foreground. Having the keylights, I started to add the layers in cards connecting with the scene.

Secondly, I continued to add their reflection on the water just copying and pasting them and plugging a mirror node after the layer. After positioning and reviewing the result, I noticed that the reflections are over the reflections of the building that are in front of the mountains. As a solution, I reduce their opacity to highlight the constructions' reflections.

Finally, I watched the footage several times with the matte painting on it, as a conclusion, the background followed nicely the trackings and looks natural like the mountains existed in the reality.

MATTE PAINTING



Doing 3D compositing was the key to changing the whole atmosphere for our outcome.

I have received several versions of 3d animation files, the first pairs of the animation were rendered in monochromatic gray, the second pair, shot 1 have no plane under the shrine the boat, and the final pair are the 3D models in textures but without alpha channels, thus I asked her to render the same shots but with alpha. Then I tested them in the first shot footage.

The 3D animation in the footage caught perfectly the camera movements which fit smoothly in the plate. However, the models look they are in front of the plate because the fence on the right bottom corner is behind it, then I set the keylights to depict the fence over the animations. Therefore, the 3d object is acting on the water.

As the animation is on the river, I had to apply the reflection as I did with the matte painting in the background. With on frame from the animatic, I brought up transforms, rotos, and conerpins to turn down the models as a mirror. However, it did not work due to I animated the reflection to fit with their opposite.

There were trials that I did with the first files, when I add it over the footage, it just an outline moving around the place.

I rendered the shot without the last four seconds as the 3D animation was made for the first eight seconds following by shot 2.

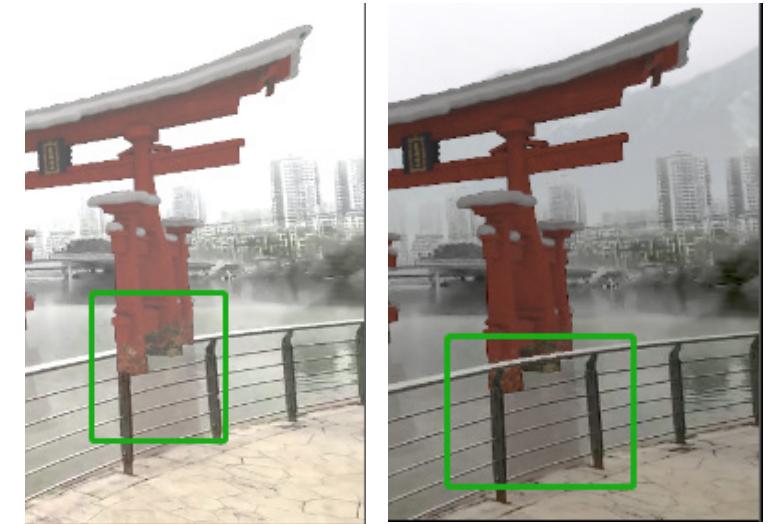
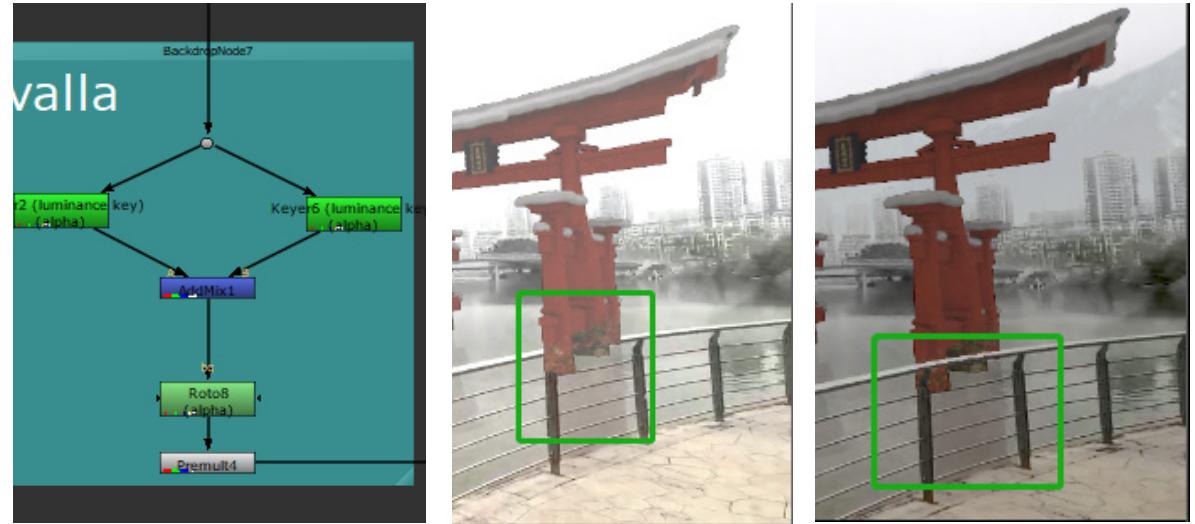
CG COMPOSITING



KEYLIGHT, REFOR- MAT

I resize my outcome in high-quality 1080 pixels. I forgot that the size of the 3D animation and the live-action shot was different, the 3D is in 1920 per 1080 pixels and the footage was 960 per 540 pixels which I resized in a new Nuke script.

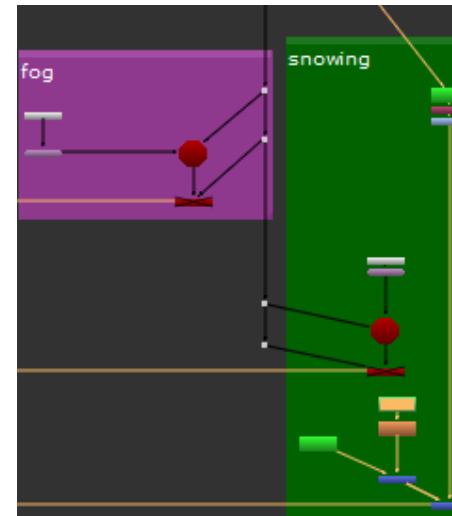
In the new script, apart from the resize, I added again the snow and fog because if I had them rendered before, the 3D models would not be involved in the weather as the models will be over them in the resize. Thus I applied the same environment and the keylights of the fence in the new script.



S H O T 2



I noticed that the colour of the water in the second shot is different from the first shot. The water looks greener in the first shot, however, when it turned to shot two the water is white and gray, it seems that they are not in the same place. And over it, I inserted the snow on this shot also.



WEATHER

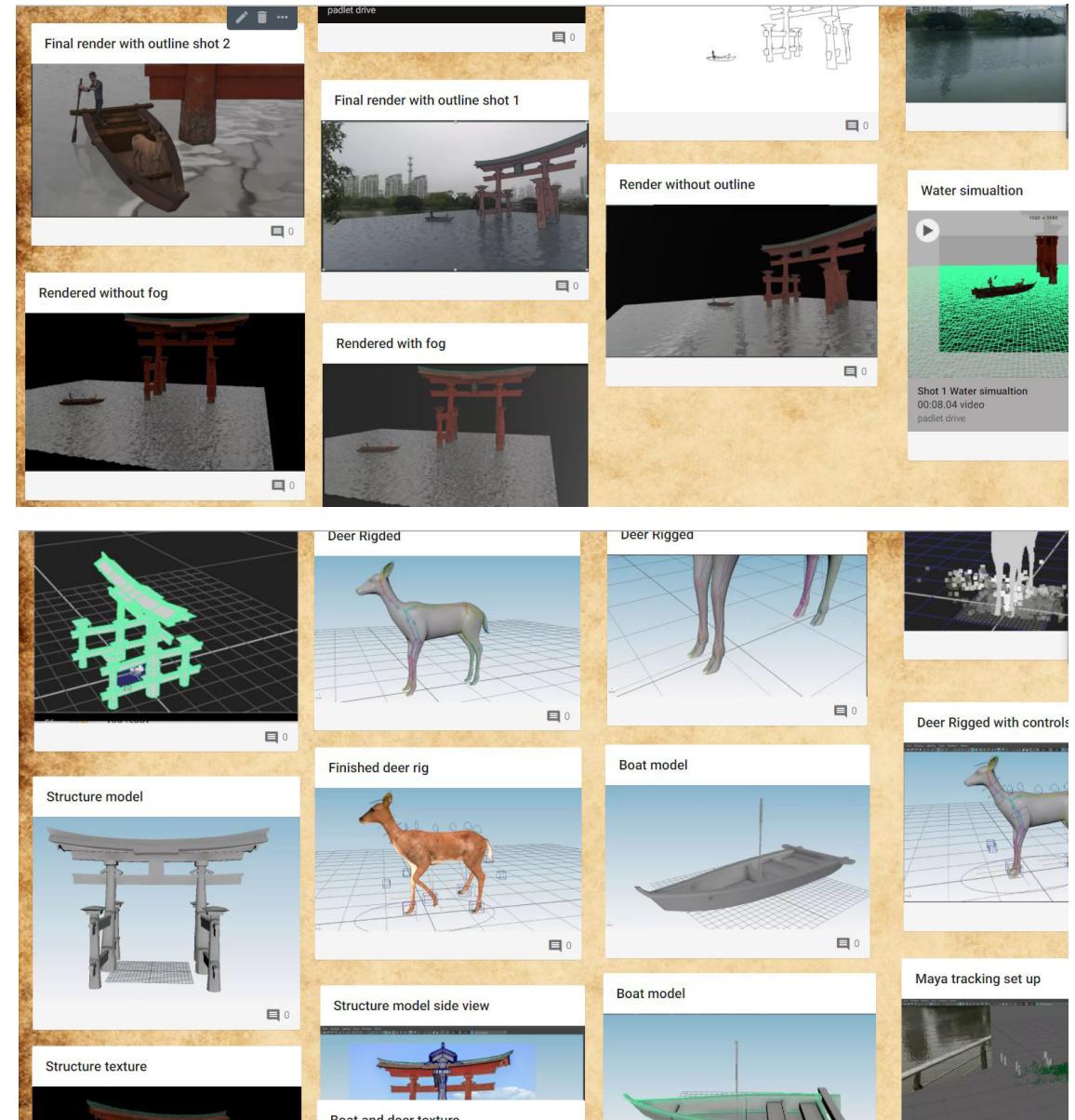
To assimilate the weather of the painting, I added fog and snow in the shot.

Apart from applying the snow, I set the colour of the footage whiter with grades, keylight, and roto to imply the snow accumulated around the scene.

3D MODELS

Those pictures are the 3D models that my teammate had used for the animation. Many of them were downloaded from websites and build in Maya.

When we were choosing the character for the boat, we had three options, a thin guy, a muscular man, and the one that it is in the final outcome, a mustache man wearing black suit. I opted for the third one due to his texture, color, wearing, face, and hairstyle can fit in an Asian style, plus the painting looks peaceful and quiet. in contrast, we had another guy, but his look was more for a calm, colorful and happy atmosphere.





MATTEPAINTING

In fact, we planned to applied outlines on the outcome as the artwork chosen has an essential lineart, thus we would like to imitate that style by lining the elements in the footage and the matte painting. I had tried two ways of the outline work, one is drawing the line in Photoshop and import it to Nuke and another was adding a black roto shape behind the mountains in Nuke, however, they did not work as the grade is affecting them, consequently, in the result, the black lines tend to a lighter colour.



Overall, the outcome was successful as it reached to our expectations. The creation of the weather, the animation, the live-action shot chosen and the mattepainting are good interpreted from our idea based on the artwork Snow In Miyajima.

The snowing and the fog effect changed the real weather of the shot, plus the white color around the scene imitating the accumulation of the snow makes it more credible that it is a winter snow in the plot when in the reality, it was a cloudy day.

Thanks to trying several times the camera tracking, the 3D animations followed smoothly the trackers and the camera movement. Unlike the first trials where the two elements were no interaction, the 3D models were moving strangely.

The mattepainting looks natural as the movement of the animation. I think that the audience would consider that the mountains are at the back in reality if it is at the first glance.

Having so many test shots, we made a good decision of choosing the first shot since the others are too blurry or difficult to track.

Furthermore, the audio was well chosen. One is the background music which is relaxing and calm, it is suitable for the outcome as the scene has no drastic movements, there is just a boat peacefully swimming to the shrine plus the cuteness of the deer movements highlights how innocent is the atmosphere is. Another sound effect is the water running, this sound makes the river more vivid, in other words, it is almost like we are in the same place as the character and watching them rowing.

CRITICAL APPRAISAL



Blog: <https://bavfxruiliwu.myblog.arts.ac.uk/2021/06/18/vfx-3d-collaborative/>

Password: 1234

Outcome: <https://www.bilibili.com/video/BV1SK4y137mm/>

Process: https://juliechart.lofter.com/post/4bc8da48_1cc43bbef

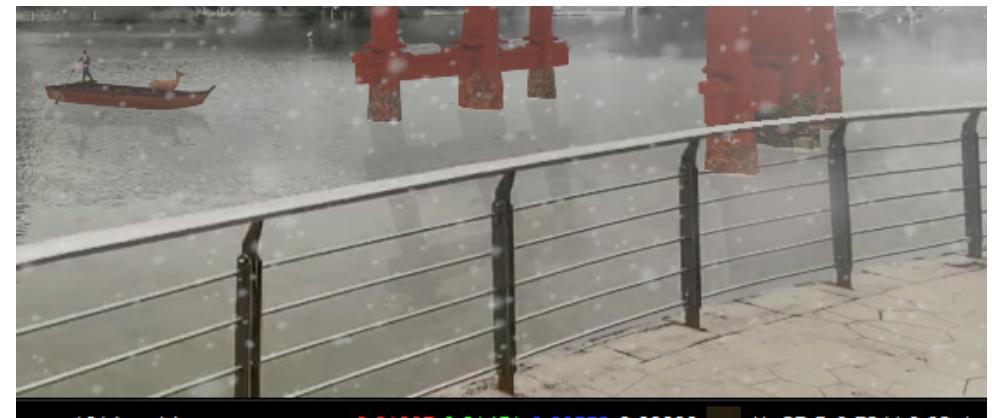
The mistakes that I would like to fix are:

-the reflection of the 3D animations. I had rendered a version with the reflections, but as long as the animation was moving towards the camera, I was animating the mirror as well and when I watched it rendered, the reflections on the water were moving strangely, changing its length in many frames and it is not following their reverse as I expected. Then we opted for the version without the reflections. To improve it, I may ask for the same 3D file plus the reflection on it.

-there is too much grading that the mountains at the back are barely visible, just like few gray triangle shapes at the back. Next time, I will use a keymix to remain their original colours.

In this project I learned amount knowledge about CG compositing and more new skills in Nuke such as changing the weather of the shot, adding a 3D animation, managing with alpha channels, and colour correcting.

Working in pairs was an incredible experience, especially when the two members are from different departments, thus we can apply our own skills and give birth to an amazing piece of work.



Reflection of the animation



Matte painting after grading

**Click here
WIN £ 100**

Exploratory Practice Visual Effects:

Invisible VFX



RATIONALE

We were asked to develop a short narrative on the theme of invisibility with creative freedom on how we interpret it.

To achieve our project, we discussed our ideas plus a mood board and storyboard of them to illustrate our outcome happenings based on what we have researched as inspirations for it. Having our storyboard designed, we will move on to the test shots filming and make a shotlist plus a calendar to manage our time being ready on the deadline date. For the shots refinements, we will use Nuke for adding visual effects, Photoshop for creating animation layers, and Premiere for our outcome editing and others animations.

IDEA GENERATION

SYNOPSIS

Mahjong pieces on the table are playing on their own and then starting to move around. then they notice that the playing is getting strange and really variable, such as mahjong Jenga, or forming different forms with the pieces.

I achieve this idea because I thought that the backs of the mahjong would be easy to manage and joint the image on the back for avoiding overthinking methods to portray my concept. However, after sharing my idea with the class and assigned to work in pairs, I rethink the idea again and then, discuss it with my teammate.

Developing my idea generation, I started thinking from the word “invisibility”. I did watch several examples that could include this theme in an outcome, such as, apples floating, pieces of wood moving by themselves, removing people from the background and etc. Behind them, they were using wires and cleaning techniques for making the effect.

My first idea was using Mahjong pieces revealing others' images or messages by moving on their own and changing their positions such as reveal a picture guessing game. I will be throwing or pushing the pieces, in this way, it seems that they are alive.

With the mahjong, I am planning to show that there's a lot of background behind one image. For example, many stereotypes can define one's personality, customs, etc. We relate it to invisible because there are multiples perspectives behind one object, however, those amounts of view are unseen due to we sometimes take a lot of cases too simple.



After discussing our interpretation of the task, I opted for my teammate's idea. Her story was about a person who found a website that could earn one hundred pounds by clicking on a button. Once he clicked it, he received that amount of money after checking his phone, then he continued the same steps to win more cash until he realized that he is disappearing and losing himself. The idea she wanted to portray was not to lose oneself by being avaricious.

Her idea was based on a short film called Transfigure which illustrates a girl who was fixing herself on photoshop and every edit that happens to her, for example, when she was adding blush on her face, it appeared on her real face too. Then, after several editing, the laptop was not under control and erasing her mouth. She panicked, thus she turned off the laptop and left the room. However, the computer recovered and deleted the girl's head in the software, consequently, she fell down with her head cut out on the street. https://youtu.be/GoxiAjSFY_U

Another inspiration for her idea was a video from Youtube that the editor is working on footage where there's a character that has a green cloth on his face then the head will be invisible in the final outcome. <https://youtu.be/Ov4a2g3gBRY>

FINAL IDEA



https://youtu.be/GoxiAjSFY_U

CONCEPT

Everything we do is an outward manifestation of our inner desires. Desire can push us forward, but too much of the pleasure of being satisfied can suffocate us in it. Don't lose yourself in desire. Don't be greedy.

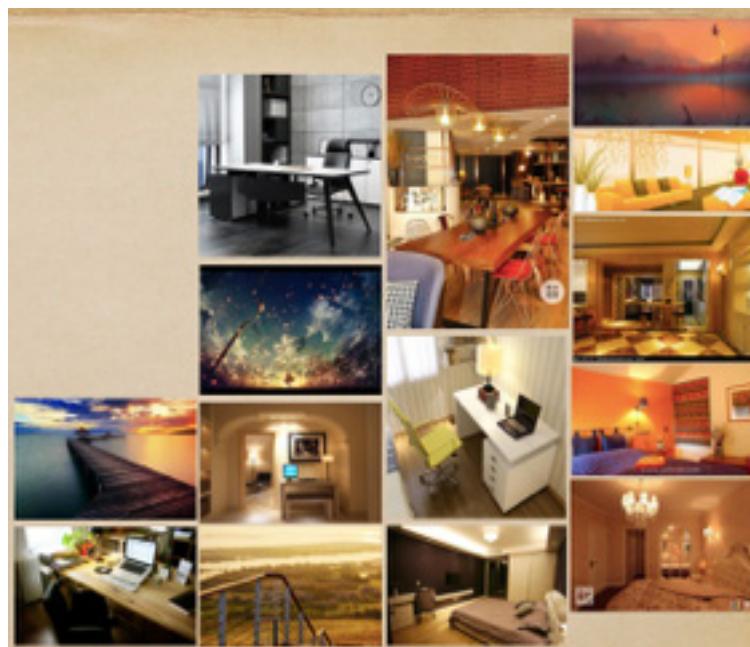
STORY

A is a recent college graduate. One day, she posted a message on the web page, saying that if you click this link, you will get a dollar to your account. Curious, A clicked on the link, and after a while, a message popped up on her mobile bank saying 100 pounds. At this time, "A" is a little surprised. She was looking at the computer again. It said 150 pounds for carrying on click. She paused and clicked the link again, and sure enough. The bank received 150 pounds. · After she clicked several times crazily, her hands began to be transparent and gradually began to go down. · She flurried of the computer, but the mouse moved by itself, and slowly she disappeared into the room.

MOODBOARD

I was in charge of the moodboard making. I chose a quiet and peaceful mood for our project because the protagonist disappears silently in the end, thus this atmosphere fits perfectly along with the short film, such as disappearing silently and not being noticed by anyone.

Furthermore, I thought about changing from warm colour to cold colour to create that mystic disappearing action in the end. However, we decide that staying on the environment lighting is the best option for focusing on the character's actions.



STORYBOARD

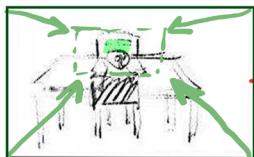


We have made two versions of storyboards.

My teammate made the first version of it, having a total of seventeen shots with a small description on many of them. The story begins with a wide shot of the person looking at the computer from the back and then zooming in on the screen to look at the content. Another burst-up shot to the character to focus on her surprised face followed by shots of the person clicking the mouse with the laptop and phone by side.

After, focusing again on the person's expression when she receives a notification, seeing his happiness about the website page, the camera keeps filming the character clicking continuously until his hand starts to disappear. Framing on the character panicking, she turned down the laptop to survive, however it did not work. And the scene ends with the character fading away.

STORYBOARD 1



SHOT 1
Scene:
Camera/shot: zoom in on the laptop's screen
Actor: looking around on the computer
Light: daylight



SHOT 2
Scene:
Camera/shot: focusing on the computer
Actor: reading the website contain
Light: daytime, plus the laptop screen light



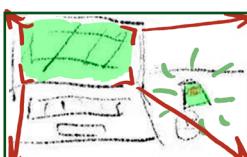
SHOT 3
Scene:
Camera/shot: change to the character's expression
Actor: surprised
Light: daytime, plus the laptop screen light



SHOT 4
Scene:
Camera/shot: turning to the laptop's screen again
Actor: clicking the mouse
Light: daylight, screenlight



SHOT 5
Scene:
Camera/shot: screen , website loading
Actor: waiting
Light: screenlight



SHOT 6
Scene:
Camera/shot: zoom out
Phone: screen turn on when it receives a notification
Actor:
Light: 2 screenlight and daylight

STORYBOARD 3



SHOT 13
Scene:
Camera/shot: focusing the laptop
Actor: trying to close down the laptop but he/she can't because her opposite hand is disappearing
Light: screenlight, coldlight



SHOT 14
Scene:
Camera/shot: zoom out following the hand and wide shot of the scene
Actor: panicking
Phone: falling because the character is not able to grab it
Light: screenlight, dark cold atmosphere



SHOT 15
Scene:
Camera/shot: wide shot of the scene and zoom in at the end
Phone: falling on the chair
Actor: disappeared
Light: screenlight



SHOT 16
Scene:
Camera/shot: zoom in on the phone
Actor: disappeared
Light: screenlight
Phone: turned on with the notifications on it



SHOT
Scene:
Camera/shot:
Actor:
Light:

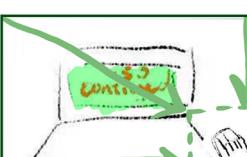


SHOT
Scene:
Camera/shot:
Actor:
Light:

STORYBOARD 2



SHOT 7
Scene:
Camera/shot: swipe to the character
Actor: looking at the phone
Light: daylight, phone screenlight from above



SHOT 8
Scene:
Camera/shot: zoom in to the hand clicking the mouse
Actor: clicking the mouse
Light: daylight plus screenlight



SHOT 9
Scene:
Camera/shot: focusing on the phone
Actor:
Phone: screen on when receives a notification
Light: daylight, screenlight



SHOT 10
Scene:
Camera/shot: switching scenes between the mouse and the phone screen
Actor: clicking the mouse
Phone: receiving notification
Light: daylight, screenlight



SHOT 11
Scene:
Camera/shot: focusing on the hand
Actor:hand disappearing
Light: daylight turning to coldlight



SHOT 12
Scene:
Camera/shot: zoom out:
Actor: surprised
Light: coldlight, cold atmosphere

The changes that I made in the new version are practically in the end. In the last shots, where the character put down the laptop in shot 14 from the first version, I modify it as he kept the laptop half-opened because her other hand is starting to fading away. After that, I added a shot where the phone is falling down as the person had it firstly on her hand for checking the notifications. Furthermore, I combined shots 9, 10, and 11 from the old version since that way to highlight the person being addicted to the relaxed way of gaining money.

In our last version of the storyboard, there is 1 shot. The place of shooting is an indoor room, concretely in a living room filming one character and technological devices next to her.

SHOOTING

In the part of the story where the people are disappearing, we thought of putting a green cloth over where they need to disappear and then erasing it in nuke.

Then the mouse itself moves up that part is to use the fishing line to pull the mouse movement.

Those web pages that appear on the computer are animated briefly.

After watching the first shooting, we found some parts that could be fixed, such as, adding tracking markers on the laptop and phone's screens, there is no need to add green cloth for the cleanup, no more movements because it will complicate the clean up thus we decide to avoid rushing camera and action moves and two test shoots for one shot which one is with the person and another without her for a painless cleanup.

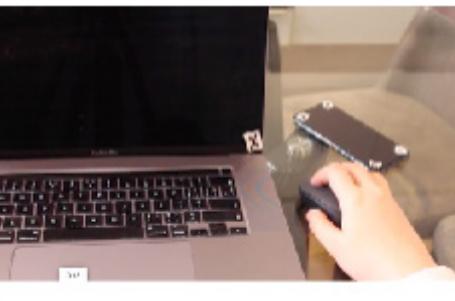
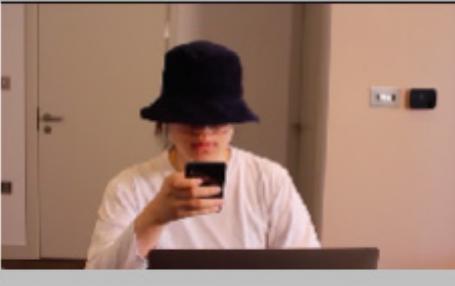
Then we kept on doing our reshooting. This time, it was better than the first trial, however, we forgot to make the same shot without the person on it, therefore, we fixed them by cloning with rotopaint.

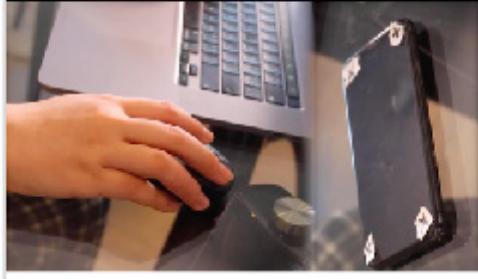
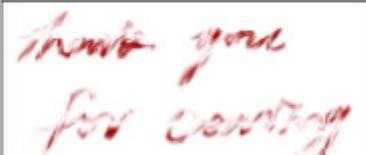
Furthermore, we improve the reshoot of shot 14 where the laptop and the mouse are moving by themselves, we added fishing wires on them thus their movements would look naturally after cleaning up.



Having our shots filmed, we made the edit of our outcome. Many shots from the storyboard were deleted and changed for a better plan. For example, we remove the last two shots (shots 15 and 16) from the storyboard which illustrates the phone falling down after the protagonist disappeared and zooming in on its screen as we consider that they can not fit into the film logic, in other words, from an audience view, it seems weird as an ending.

Thus we changed to filming the table with the computer and the smartphone on there. Plus, we changed shot 13 and shot 14 from the storyboard also, such as the camera perspective and actor's movements, those modifications are visible in our shotlist and final outcome.

SHOT LIST:			
SHOT 1	VFX		
<ul style="list-style-type: none"> <u>camera</u>: zoom in <u>scene</u>: room <u>actor</u>: looking around on the computer <u>light</u>: daylight <u>sound</u>: keyboard and mouse clicking, bgm 	 <ul style="list-style-type: none"> • <u>vfx</u>: screentracking 		
<ul style="list-style-type: none"> <u>camera</u>: focusing on the computer <u>actor</u>: reading website contain <u>light</u>: daylight, plus the laptop screen light <u>scene</u>: room <u>sound</u>: bgm 	 <ul style="list-style-type: none"> • <u>vfx</u>: adding website on the screen computer 		
<ul style="list-style-type: none"> <u>camera</u>: change to the character's expression <u>actor</u>: surprised <u>light</u>: daylighth, and the laptop's light from above <u>scene</u>: room <u>sound</u>: bgm 	 <ul style="list-style-type: none"> • no vfx 		
<ul style="list-style-type: none"> <u>camera</u>: turning to the laptop's screen again <u>scene</u>: room <u>actor</u>: clicking on the mouse <u>light</u>: daylight, screenlight <u>sound</u>: bgm, mouse clicking sound 	 <ul style="list-style-type: none"> • <u>vfx</u>: website on the laptop screen 		
			<ul style="list-style-type: none"> • no vfx
SHOT 5			
	<ul style="list-style-type: none"> <u>camera</u>: screen , website loading <u>scene</u>: <u>actor</u>: waiting <u>light</u>: screenlight <u>sound</u>: bgm 		
SHOT 6			<ul style="list-style-type: none"> • <u>vfx</u>: phone and laptop screen
	 <ul style="list-style-type: none"> • <u>camera</u>: zoom out <u>actor</u>: <u>phone</u>: screen turn on when it receives a notification <u>light</u>: screenlights and daylights <u>sound</u>: notification, bgm • <u>vfx</u>: phone screen 		
SHOT 7			<ul style="list-style-type: none"> • no vfx
	 <ul style="list-style-type: none"> <u>camera</u>: swipe to the character <u>scene</u>: <u>actor</u>: checking the notification <u>light</u>: daylight. phone screenlight from above <u>sound</u>: bgm 		
SHOT 8			<ul style="list-style-type: none"> • no vfx
	 <ul style="list-style-type: none"> <u>camera</u>: zoom in to the hand clicking the mouse <u>scene</u>: clicking the mouse <u>actor</u>: <u>light</u>: daylight plus screenlight <u>sound</u>: clicking on the mouse, bgm 		

SHOT 9	<ul style="list-style-type: none"> <u>camera</u>: focusing on the phone <u>phone</u>: screen on when receives a notification <u>scene</u>: <u>actor</u>: <u>light</u>: daylight, screenlight <u>sound</u>: notification, bgm 		• <u>vfx</u> : phone screen	
SHOT 10	<ul style="list-style-type: none"> <u>camera</u>: switching scenes between the mouse and the phone screen <u>scene</u>: <u>actor</u>: clicking the mouse <u>phone</u>: receiving notification <u>light</u>: daylight, screenlight <u>sound</u>: bgm 		• <u>vfx</u> : phone screen	
SHOT 11	<ul style="list-style-type: none"> <u>camera</u>: focusing on the hand <u>scene</u>: <u>actor</u>: hand disappearing <u>light</u>: daylight <u>sound</u>: bgm 		• <u>vfx</u> : clean plate	
SHOT 12	<ul style="list-style-type: none"> <u>camera</u>: zoom out <u>scene</u>: <u>actor</u>: surprised, close the laptop <u>light</u>: daylight <u>sound</u>: bgm 		• <u>vfx</u> : clean plate on the hand	
SHOT 13	<ul style="list-style-type: none"> <u>camera</u>: normal shot focusing on the character <u>scene</u>: <u>actor</u>: panicking <u>light</u>: daylight <u>sound</u>: bgm 		• <u>vfx</u> : clean plate	
SHOT 14	<ul style="list-style-type: none"> <u>camera</u>: turn to the laptop <u>scene</u>: <u>actor</u>: disappeared <u>laptop and mouse</u>: opening and moving by a fishing wire <u>light</u>: daylight <u>sound</u>: mouse moving, laptop opening, bgm 		• <u>vfx</u> : screen track	
SHOT 15	<ul style="list-style-type: none"> ENDING <u>camera</u>: <u>scene</u>: <u>actor</u>: <u>light</u>: 		• no vfx	

This is the shotlist that we prepared to organize the shot editing. The boxes coloured in yellow are the shots that need some visual effects on them and the same but framed in red are the important footages that have to be done first. Plus, to work quickly, we distributed the visual effects shots. I am in charge of shots 1, 2, 4, 12, and 14 from the shot list and she will work on shots 6, 9, 10, 11, and 13. We deal with it in this way because my shots are focusing mainly on the laptop screen, thus I have to design the website animation also. Same as the shots she is working on have the phone on the footage, then she will create an animation for the phone's screen.

May								
						1	2	
3	4	5	6	7	8	9		
		shot list schedule	10am tutorial clean plate pdf	essay	essay			
10	11	12	13	14	15	16		
Essay (Billie)	invisibility 3D collab	Aldo (tutorial) 3d collab (send shot to Sowmya)	invisibility	invisibility	essay	essay		
17	18	19	20	21	22	23		
Essay (Billie)	essay	Aldo (tutorial) 3d collab invisibility	invisibility	invisibility	essay	essay		
24	25	26	27	28	29	30		
essay	essay	Aldo (tutorial) Essay submission	invisibility	invisibility	invisibility (clean plate ready)	3d collab pdf		

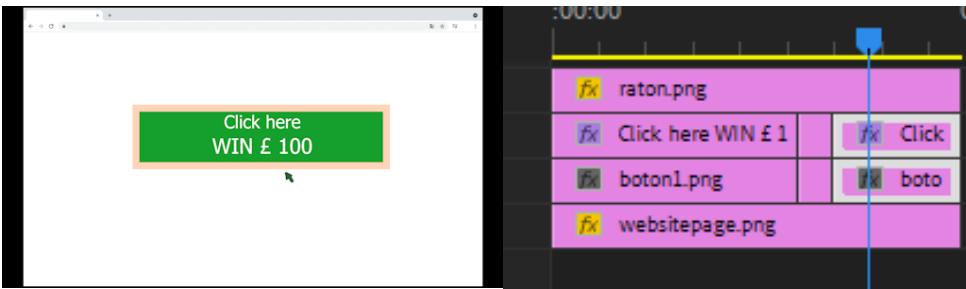
Calendar for the time management

June								
		1	2	3	4	5	6	
invisibility 3d collab (pdf)	invisibility	Aldo (tutorial) invisibility	invisibility	Invisibility (website, animation ready) Submission EP	3d collab	3d collab pdf		
7	8	9	10	11	12	13		
invisibility	invisibility (finishing others vfx shots)	Aldo (tutorial) pdf	invisibility	invisibility	3d collab	invisibility		
14	15	16	17	18	19	20		
pdf	pdf	pdf	pdf Essay (Post date)	Submission EP (EC)				
21	22	23	24	25	26	27		
28	29	30						

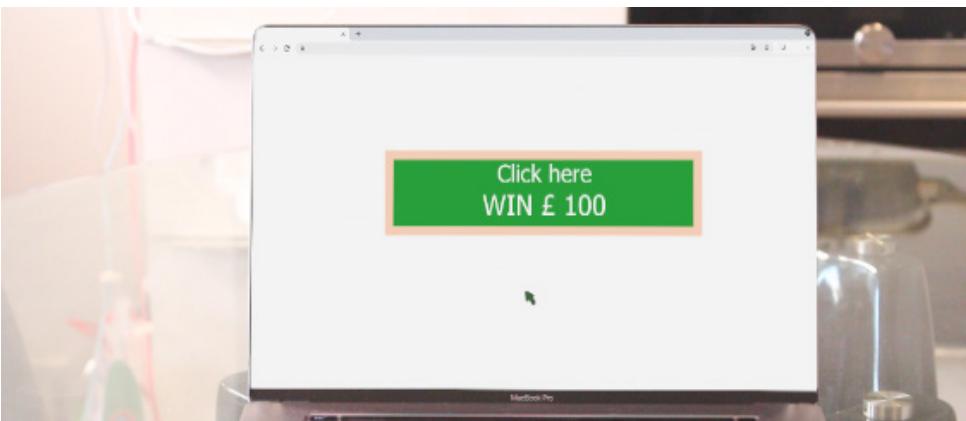
CALENDAR

DEADLINES		
Essay	Tutorial	17 of May
	Upload	26th of May
INVISIBILITY (VFX)	Clean plate	29th of May
	website design, phone notification animation	4th of June
	Other vfx	8th of June
	PDF (Invisibility, 3d collab)	17th of June

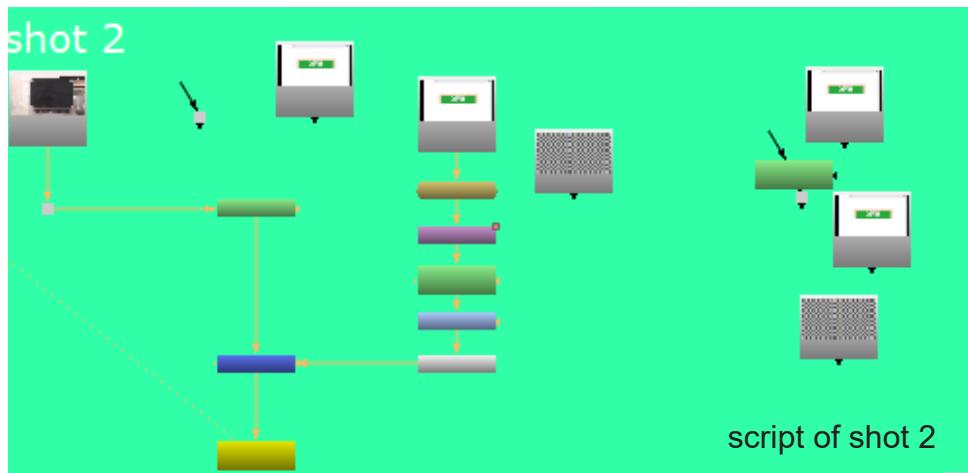
In our calendar, we noted the dates for tutorials with the teacher, days that the projects we would work on and the deadlines dates for each project to manage our time.



making on the website animation on the laptop's screen



screenshot of the footage



NUKE: SHOT 2, 4

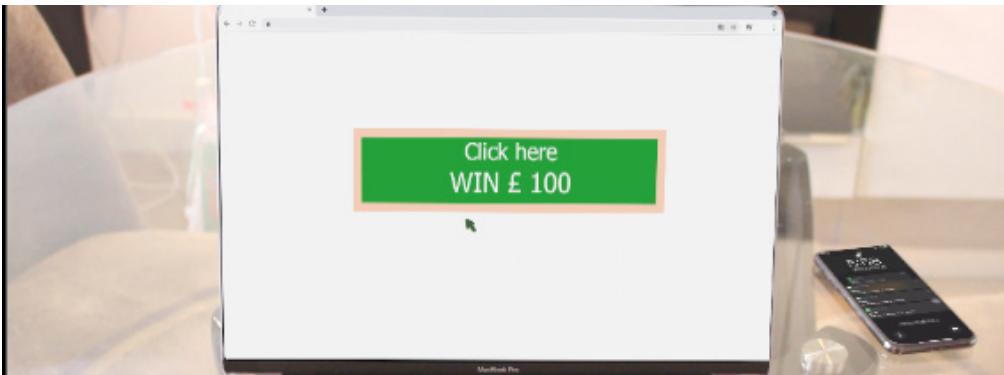
The shots with visual effects that I am working on are shots 1, 2, 4, 12, and 14 which the last two need clean up and the first three shots just need to add a new screen on the laptop.

SHOT 2. In this shot, I shorten the footage (frame) and I added a new screen on it.

SHOT 4. Same in shot 2, I cut off a part of the video and put the website on the laptop screen.

I create the laptop's screen animation with Photoshop and Premiere. Firstly I took a screenshot of a google chrome website and then, I did some cloning on Photoshop to remove letters and some personal privacy. Then, I created two different colours of the button, thus the effect of clicking on it could be more obvious when the mouse cursor is over it.

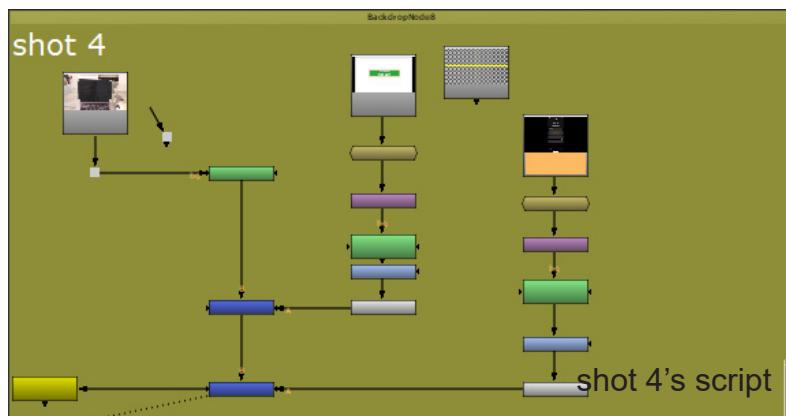
Having fixed our layers, I imported them on Premiere and started to work on the animation.



Shot 4. Footage with screen of the laptop and the phone



Shot 4. Footage without screen on the phone



NUKE: SHOT 2, 4

Firstly I just animated it randomly three times differently for each shots. The first one is the cursor moving randomly avoiding the button, the second is the mouse clicking once on the center and the third is the mouse clicking on the button consecutively thus the rectangle is swapping in two colours.

Secondly, I tested them adding on the shots in Nuke, then I rendered them out to watch the result. When I reviewed them several times, I realized that the cursor is not moving along with the hand which is grabbing the mouse, thus their movements looked a bit awkward, it seems like the person is not controlling the mouse and the cursor is moving around by itself.

Finally, I redid the animations of the cursor led by the hand's movements thus the next trials could be more natural as I render them out.

In shot 4, I added also the phone's screen as I asked for my teammate. Nonetheless, after checking the shotlist and the storyboard, I realized that at this moment there is not any notification from that website page, thus I removed the phone's screen animation on this shot.

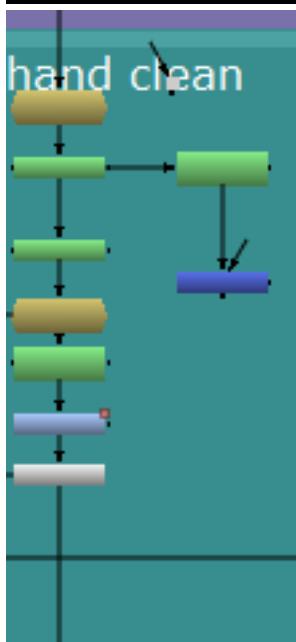
For the first shot, I change the screen to the two following shots, however, due to the deadline date is close I just cut off few frames for the final edit. I consider that modifying in that way would not alter drastically the whole outcome.



SHOT 12 is one of the cleaning-up shots from our outcome where the protagonist is observing her hand disappearing and turn down the laptop.

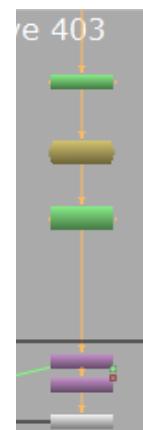
I started cleaning the whole left arm from the arm to the shoulder by cloning with roto paint in a particular frame using a framehold.

After that, I separated few parts of the arm without the hand with a roto. In the footage, the arm is lifting up and down, thus I made a whole sleeve, lower arm sleeve, and two cuffs (one cuff when the hand is on the table and another when the arm is lifting up) samples, that way, it will be easy to create an animation of the arm without the hand.

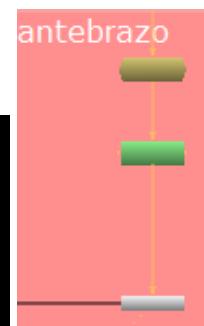


Clean plate. Clean up of the arm.
Script of the hand clean

NUKE: SHOT 12



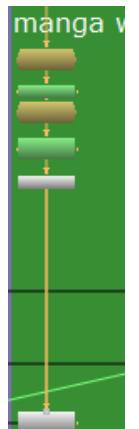
hole of the clothe



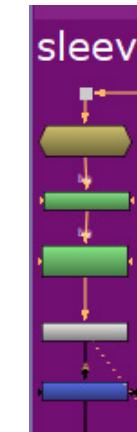
lower arm



arm



painting of the
hole



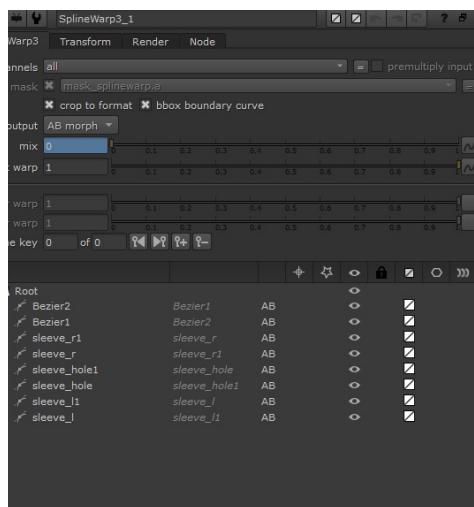
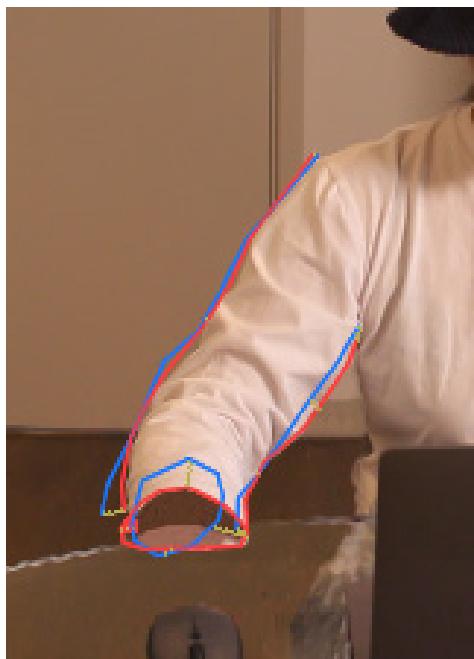
NUKE: SHOT 12

With the splinewarp, I animated the sleeve in two sections, one part on frames from 219 to 267 when the down cuff is exchanging to up cuff, and another part on frames from 236 to 546 when the character raises her arm and observes her vanished hand for a while.

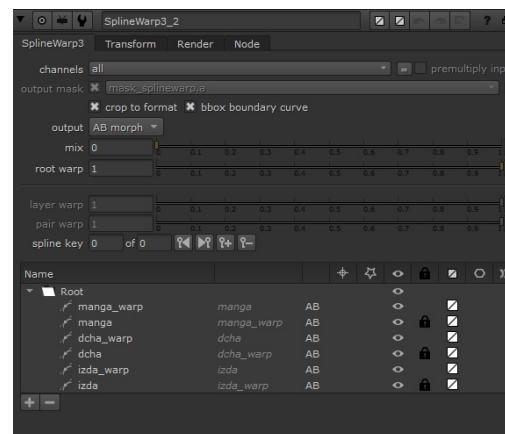
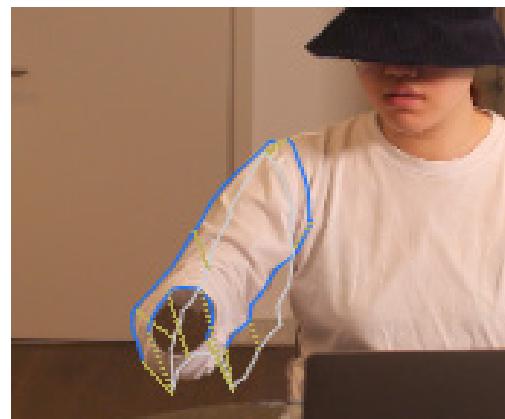
I started with the animation of the raised sleeve firstly. I have lower the opacity down to have the original plate under the sleeve warp to fit the arm movement more easily. To copy the exact motion, I set keyframes along with the footage and rendered it several versions to rewatch the sleeves gesture. Nonetheless, there are strange sharp lines and shapes around the cuffs as the animation is playing. I tried to fix them by taking closer of the roto point's feather and paint brightly the dark shapes to paste the up sleeve over the down sleeve.

Another splinewarp is located between frames 219 to 267 where the two cuffs are exchanging when the arm is lifting up. Then by using a AB morph, A connected to the down cuff and B into the up cuff, so there is a morphing of the arm without the hand on it. However, the morph looks weird due to there are strange lines moving out of the cuffs.

I have used color correcting in some frames as the lighting was changing along with the footage. For example, the roto of the framehold 479 is brighter or darker in other parts of the shot, thus I graded it by fitting with the whole shot.



219-267 frames



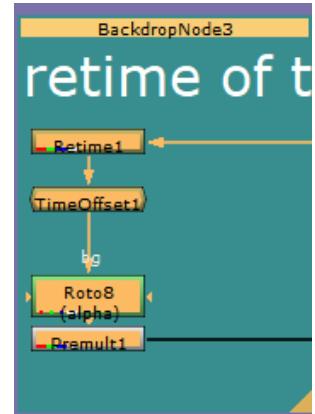
236-546 frames



frame 117



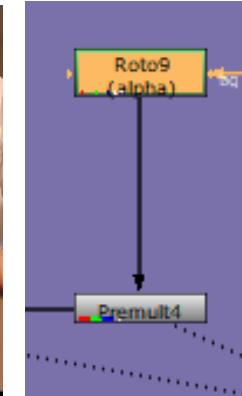
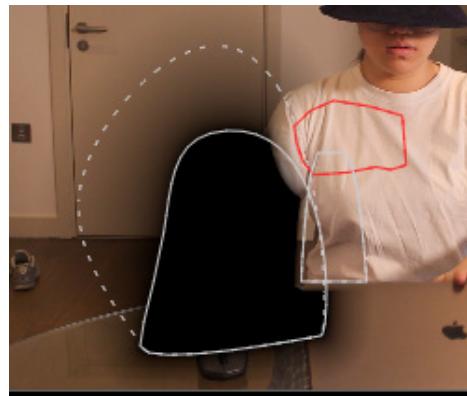
frame 548

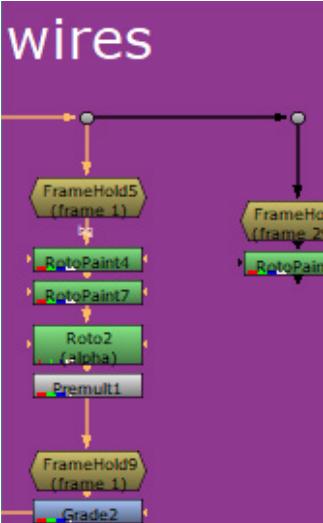
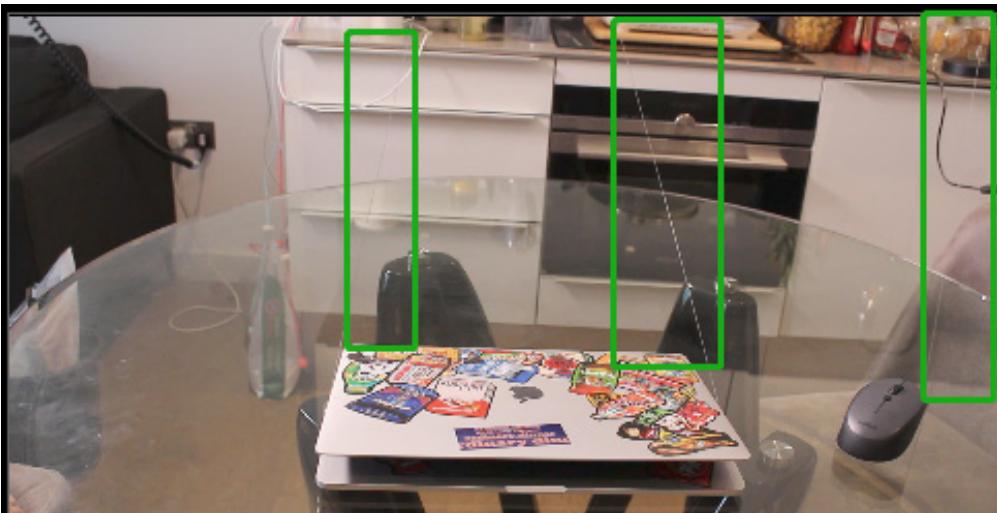


NUKE: SHOT 12

Furthermore, at the end of the footage, there is a moment when the arm lowers down on the table. Then I brought up a retime between the frames 219 to 305 (when the arm raised up at the beginning) and I reused it in the end by adding timeoffset on the frame that the arm went down.

For fixing the animation, I made three rotos around her arm thus I can take the shoulder movement from the original plate. In the result, I found out frames where the arm has layers over it, the fingers appearing near to the mask shapes, and some imperfections around the armpit.





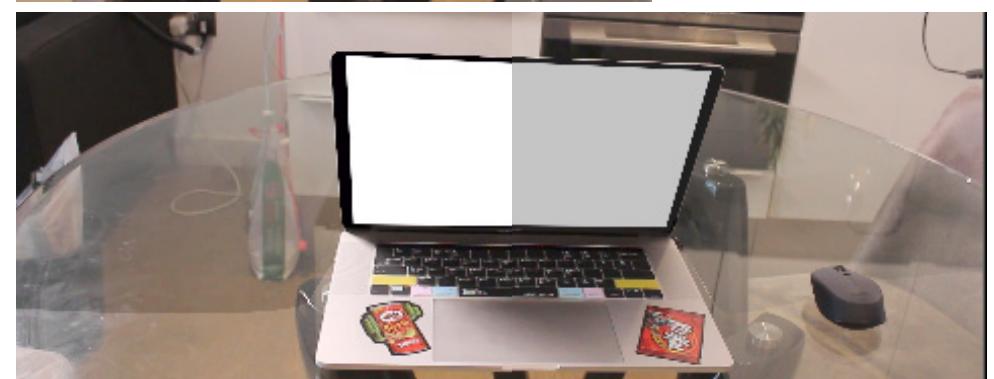
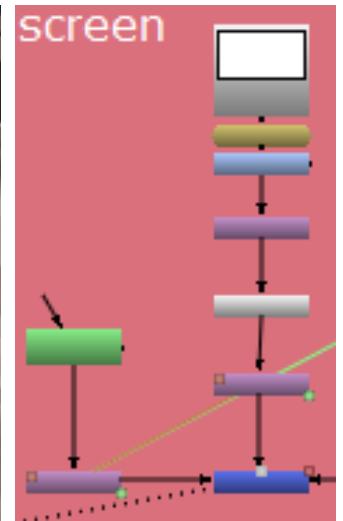
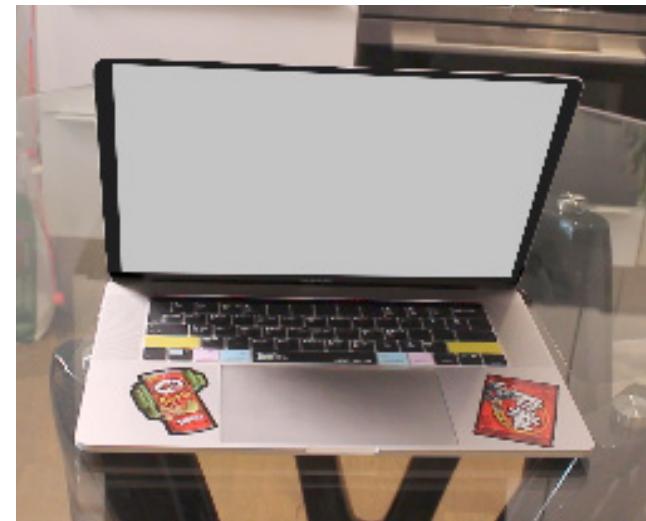
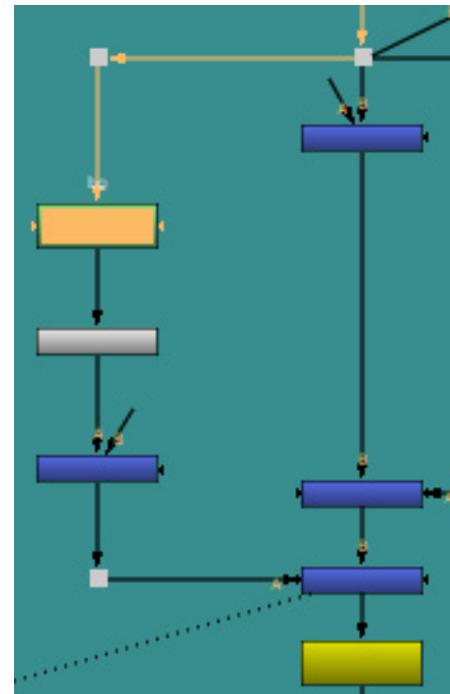
NUKE: SHOT 14

SHOT 14 is the last shot that I am working on. It is about the laptop and the smartphone moving by themselves as they are alive.

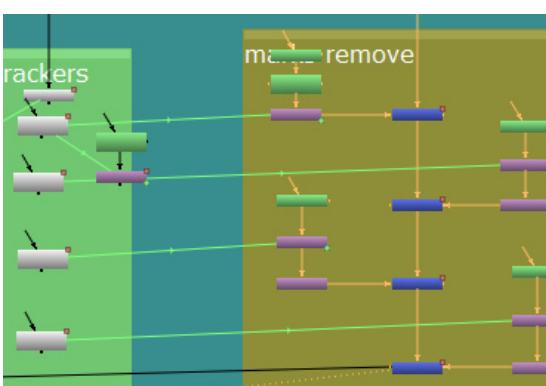
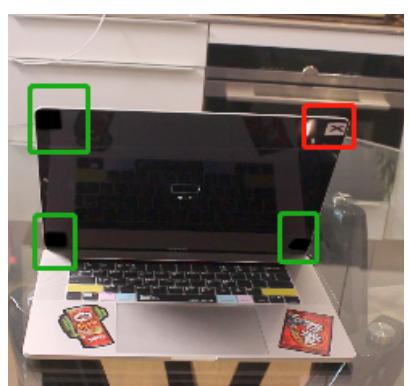
Firstly I removed the wires by adding framehold on frame 1 and cleaned the wires by cloning in rotopaint, in that way, we have a cleaned frame to mask over the rest of the footage. Then, I was involved with a roto the area where the wires are visible, practically, two-thirds of the screen horizontally. On one hand, I achieved to remove the wires on the whole footage but on the other hand, I hide half of the laptop and phone because the roto is over it. Then I did a rotoscoping of the two devices to merge them over the roto without wires. As a result, wires were removed perfectly from the shot and their movements seem natural such as their recovered alive.



Rotoscoping the devices



Grading the screen



Removing the tracking markers

The next step is to add the animation over the laptop screen. In the beginning, I tracked the four tracking markers on the corner and then add a black roto patch over them thus the markers are hidden.

Finally, I placed the animation over the laptop screen with the tracking markers, plus the timeoffset and the mix from the merge helped me to adjust it smoothly right on timing.

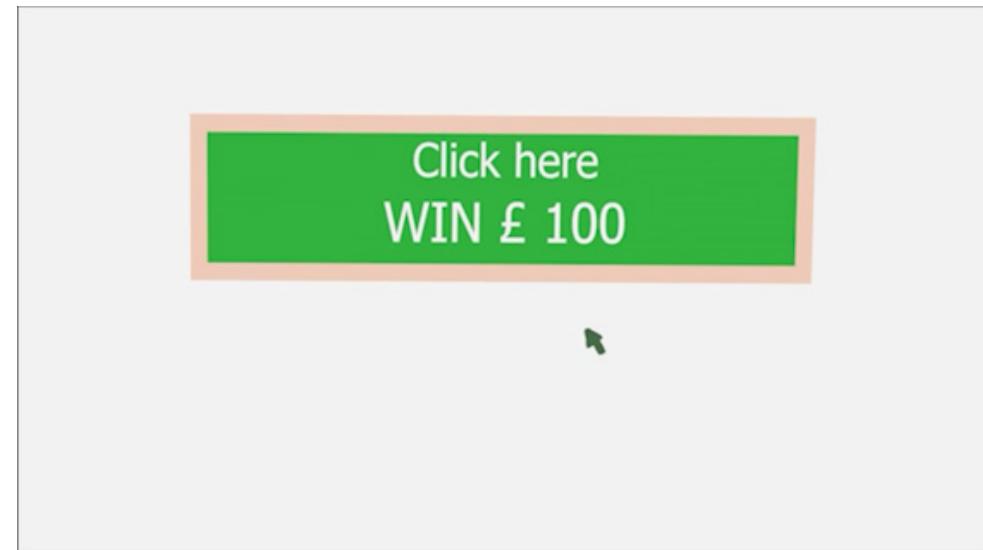
CRITICAL APPRAISAL

The final outcome is almost successful in many aspects, plus in the final edit, we hid and shorten the odd parts from the shots.

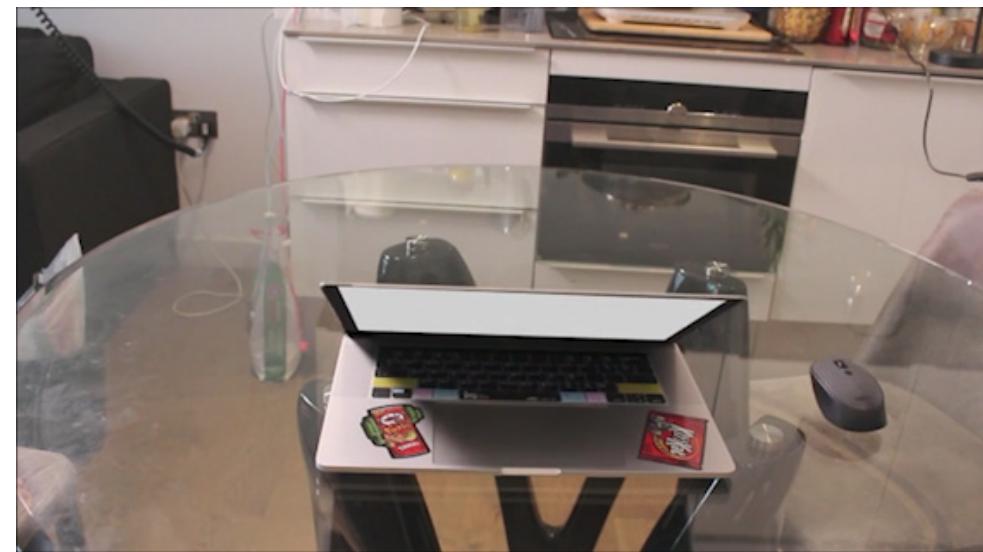
The shots 2 and 4 in the outcome seems that they are combined and zooming into the website page. I really agree with this treat because it was a bit repetitive and the story was progressing too slow, then in that way, the storytelling is continued and it portrays the same even if we have the two plates separately, in other words, it can highlight equally the character clicking on that button on the screen.

The audio, the soundtrack, and the sound effects suit perfectly the outcome, like the mouse clicking sound which makes it realistic and alive. The background music at the right timing depicted the thrilling part of our story. When I was working on the shots in Nuke, they were without any sound, so after many reviews and redoing on the shot, it looked calmly for me, plus the actor did not have so much movement, so it seems even more dead. However, adding the soundtrack to it rebuilds the whole atmosphere of the scene.

I am really glad about the shot 14 results, apart it need colour correction in some frames, the whole footage looks almost perfect to me as I clean up well the wires, and the movement on the animation over the laptop screens looks natural by the trackings I did. In addition, the rotoscoping on the mouse and the laptop worked so smoothly that seems thrilling in the outcome.



Shot 2 and 4 combined



Shot 14

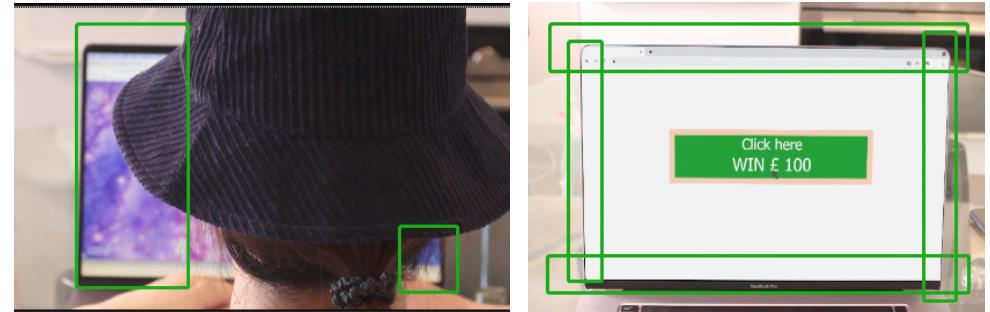
Some mistakes that I found from the outcome and also from the making of my shots.

For example, the laptop screen in shot 2 and 4 (shots where I have to add another animation on it) I expanded a lot the area for the animation that when I compared it to other shots where there is the laptop turned on (like shot 1 or shot 14) the transition between them seems pretty odd, just like the device is not the same one. The refinements I would do for the next time are to narrow the roto and have the device with the screen on as a reference when I am resizing the area.

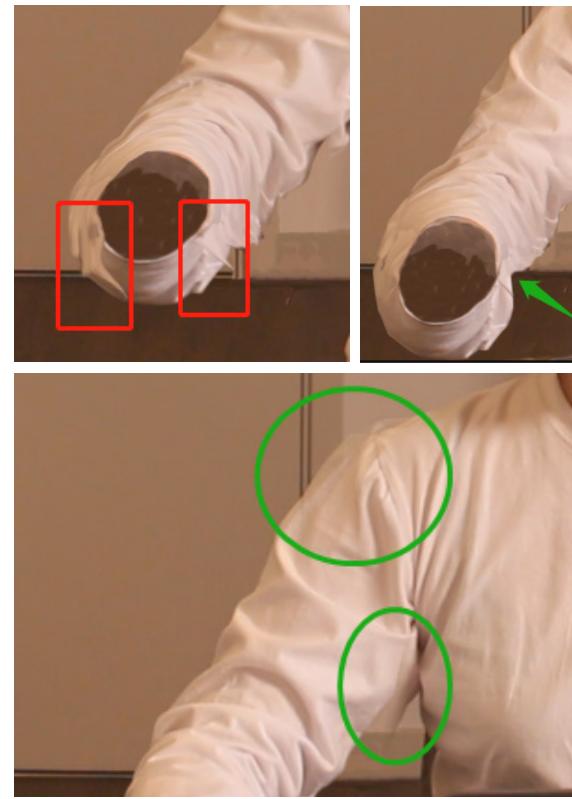
In shot 2 the camera have a slow movement that I did not notice when I already applied the new screen on the laptop, thus when the camera moved a bit, the new plate added is rigid on the centre of the shot and not following the camera movement. Maybe I will add trackers or animate the website animation to make it belong to the device projector.

In addition, there are a small group of frames in shot 12 and shot 14 that have a patch where the colour does not match with the whole frame, then sometimes it seems brighter or darker in many timings. I will correct it by animating the grade.

Obviously, I still need to work on the animation of the sleeve and the strange shapes moving around the cuffs in shot 12. This shot 12 took me weeks to fix it and it improves on every tutorial with my teacher helping and teaching me with Nuke. Nonetheless, the difficulty of the sleeve animation was challenging for me. I stressed in the beginning when the sleeve was looking extremely weird, but then, with the teacher's indications, I learned a lot of new skills in Nuke.



Screen area of the laptop



SHOT 12. Weird effects on the sleeve.

I was worried that working in pairs could have some fights when discussing an idea and a story for starting, but with several meetings, our decisions were truly steady and the roles were clearly distributed.

Having distributed our works, we worked on our own and shared it with our teammate for any other improvements. It was really helpful when you have someone that can comment on your weakness thus you can be sure on where it is necessary to refine or if the edit is fine as it is. In that way, I can be confident about what I am working on, the same as me when I check her rendered shots.

Another advantage of working in pairs is that you work twice fast on the project, I would not be able to finish such an amount of work if I was working alone.

Sincerely, I did not put a lot of effort into shots 2 and 4 because there was not enough time to have them detailed and perfectly done as same as the website design. The website animation looks simple and primitive, neither I added any link on the top. Thus I prioritized the cleaning up shot since they are important in the meaning of portraying the unique part of the story.

It was truly difficult to work in different countries and without any interactions but we were able to adapt to those COVID 19 situations.

Nonetheless, it was a shame of losing the opportunity of filming the shots with my teammates.



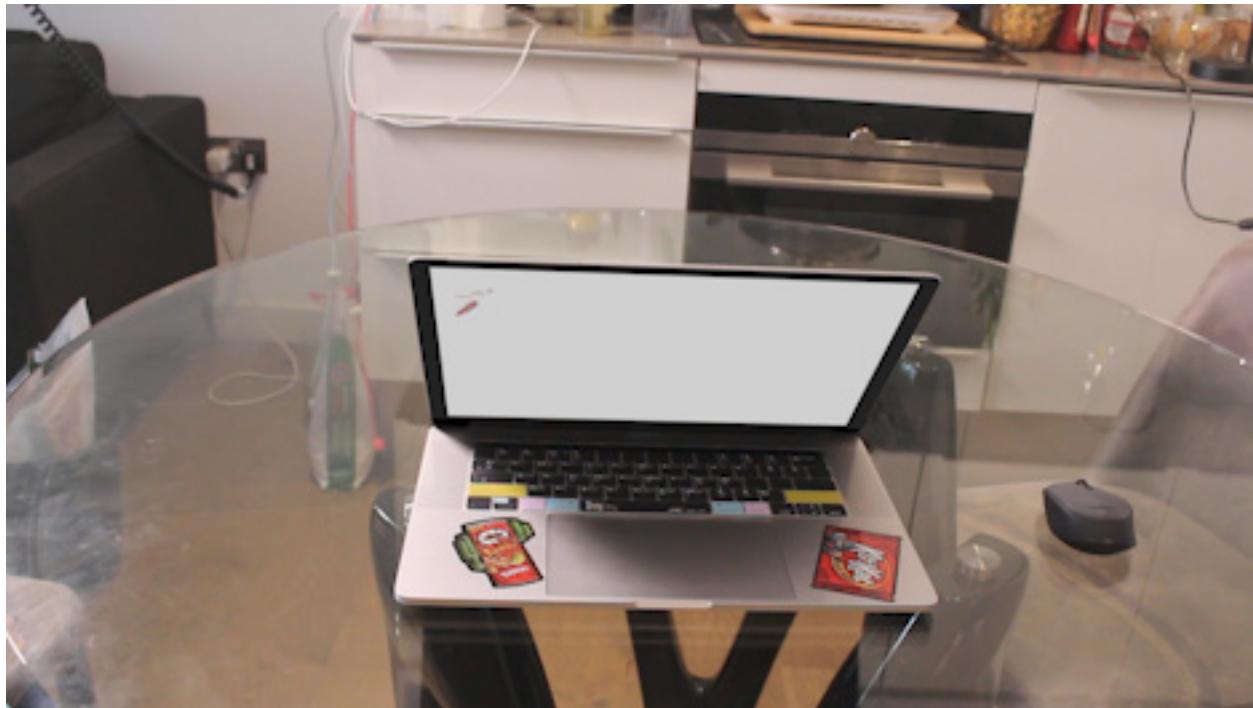
Blog: <https://bavfxruiliwu.myblog.arts.ac.uk/2021/06/18/vfx-invisibility/>

Password: 1234

Edit: <https://vimeo.com/563617576>

Outcome: <https://vimeo.com/563617576>

LINKS: Showreel



<https://www.bilibili.com/video/BV1cM4y1u7zZ/>