

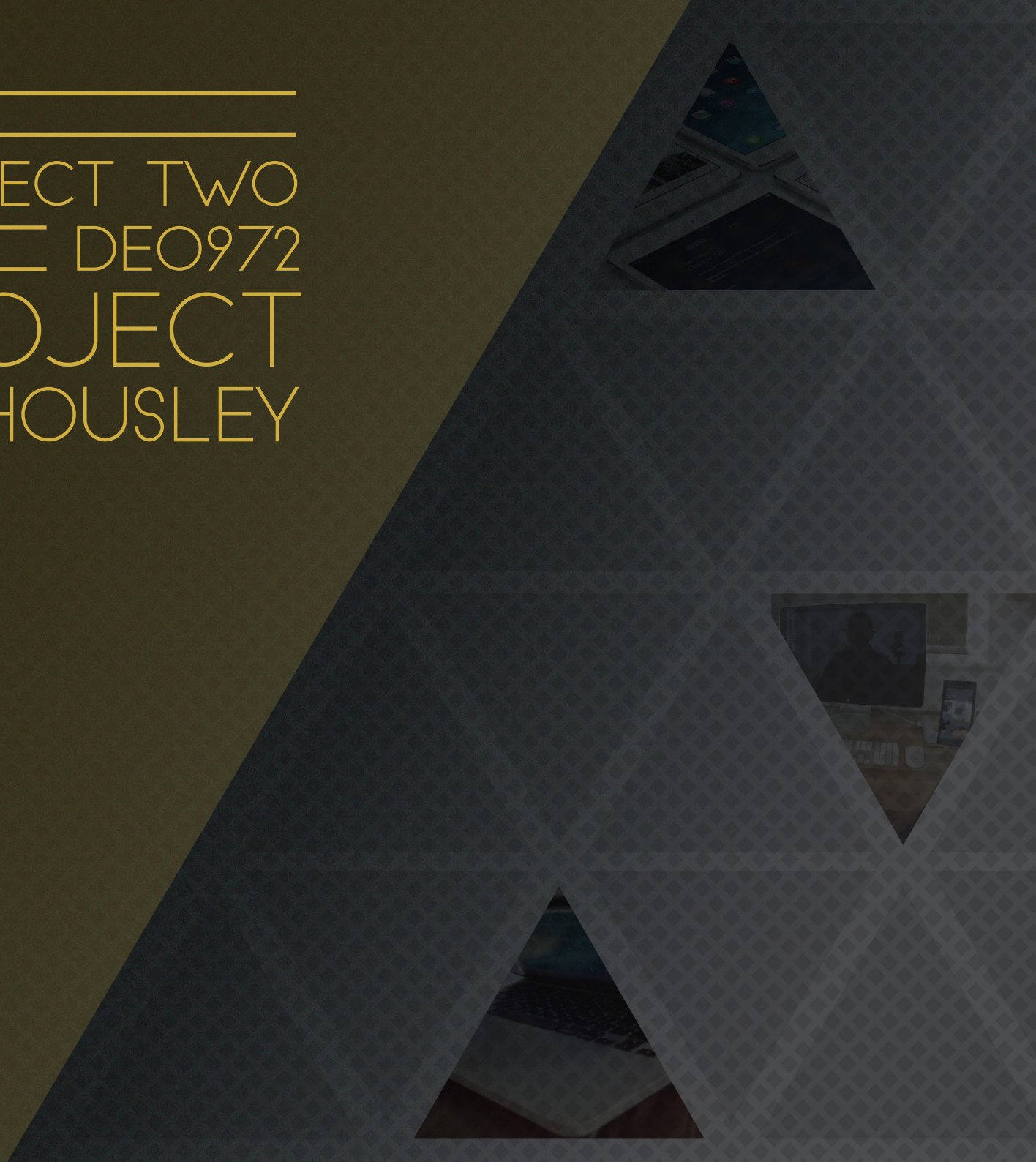
DEO974

PERSONAL PROJECT TWO

DEO972

FINAL PROJECT

BY SAMUEL HOUSLEY



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<BRIEF>

- Brief Deliverables
- Outlining The Brief

<BRIEF>

Brief Deliverables

I will create two deliverables, a **prototype** and a **design document**. I am required to create (or finalize) your prototype into a completed project and to write a document critically justifying my approach and methodology taken.

The exact subject material for the project is self-determined but the module content will embrace; visual and verbal preparation of design proposals, research and investigation; assessment of goals, audience, content and design requirements; prototype development and evaluation.

I have chosen to combine DE0974 Personal Project 2 with DE0972 Final Project to create a more in depth project and a double module.

<BRIEF>

Outlining The Brief

After reading the briefs I went through outlining exactly what I needed to produce and what kind of theme my project was going to take.

It was clear I needed:

1. **Prototype** - Created using the most appropriate tools to resolve my design problem or concept.
2. **Design Document** - This will be structured in a similar way to previous design documents.

I set out to use and embrace state of the art technologies within my chosen design field.

<IDEA GENERATION>

- Mind Map
- What Next?
- Combining Interests

<IDEA GENERATION> Mind Map

Ski Jacket GoPro
Control

Gesture Control
Shop Interface

Events Organizer
Application

{ **POTENTIAL** }
IDEAS }

Gesture Home
Control

Temperature
Experiential
Control

Gesture Control
Home Doors

<IDEA GENERATION>

What Next?

I had been trying to think about what do for this project for a fair few weeks even before the brief was even launched, but i simply couldn't think of anything.

I was really struggling to come up with a **killer idea** that I could really invest in and put my heart into. I think this was part of the problem i had been making the project to personal to me. Everything that I had been thinking of either seemed just not good enough or too easy. I needed something that would challenge me, learn me new skills and would be something that in the end i would be proud of.



<IDEA GENERATION>

Combining Interests

I started thinking that i should be designing something that I would like to be designing when I leave university.

Websites are one of the main reasons I came to university, because i liked designing and building them I wanted to learn more about designing for web. Recently i had been focusing on app UI to augmented reality UI recently . So I thought web design would be a refreshing change.



<IDEA GENERATION>

Combining Interests

I continued to think about my interests as I thought that it would be more innovative to combine two of my interests together to make a really interesting project.

So another interest of mine that I thought of combining was film. I have always loved making and editing film and video footage. I believe coming this unique interest with something like the medium of web design could generate a very interesting result.



<IDEA GENERATION>

Combining Interests

Interactive Video Multi Screen Experience Website this something I believe of my own invention. Combining two state of the art technologies to create a full immersive and interactive experience. Because this is something completely new what I have never seen before I am calling it an experiment. I believe that combining these two technologies will create something really creative and new and hopefully will be really aesthetically nice to use.



<VISION>

- Mission Statement

<VISION> Mission Statement

{ “I will create an immersive and digital product that users can interact with to explore real world environments and pieces.” }

<RESEARCH>

- State Of The Art Multi-Screen Experience
 - Technology
- Multi-Screen Experience Websites
- State Of The Art Interactive Videos
 - Technology
- Interactive Videos
- Interactive UI
- Location Settings

<RESEARCH>

State Of The Art Multi-Screen Experience

As experimental web development goes the newest trend seems to me using a multi-screen experience website. These are sites where users are able to interact with the desktop websites and control them using their mobile devices. With the rising popularity of mobile devices like smart phones and tablets, we will be seeing a lot more of these multi-screen experience.

Personally I don't think it'll become popular in mainstream web development as its more experimental and may not crossover to commercial sites but is still a very cool concept as far as experimental web design goes.



<RESEARCH> Technology

The core technology that makes this possible is the WebSocket protocol. With WebSockets you can pass messages back and forth between desktop website and the mobile browser.

Some of the major concerns with this technique would have to be performance and cross-browser compatibility. With so many different devices with various browsers, I would imagine it's a complex process to ensure the multi-screen experience works well on all of them.

WebSockets provide a persistent connection between a client and server that both parties can use to start sending data at any time. The client establishes a WebSocket connection through a process known as the WebSocket handshake.

This process starts with the client sending a regular HTTP request to the server. An Upgrade header is included in this request that informs the server that the client wishes to establish a WebSocket connection.

```
GET /chat HTTP/1.1
Host: server.example.com
Upgrade: websocket
Connection: Upgrade
Sec-WebSocket-Key: x3JJHMbDL1EzLkh9GBhXDw==
Sec-WebSocket-Protocol: chat, superchat
Sec-WebSocket-Version: 13
Origin: http://example.com
```



```
HTTP/1.1 101 Switching Protocols
Upgrade: websocket
Connection: Upgrade
Sec-WebSocket-Accept: HSmrc0sMlYUkAGmm5OPpG2HaGwk=
Sec-WebSocket-Protocol: chat
```

<RESEARCH>

Multi-Screen Experience Websites

Art Project OE20

Is an interactive project, that celebrates Ukrainian band Okean Elzy's 20-th anniversary. This website is a virtual museum, dedicated to the history of the band.

To navigate around the 3D virtual space the user links their mobile device over the wifi network with a simple code generated by the desktop site linking the two devices.

Then to move around the site the user spins the number wheel on the mobile interface each number represents a room and when the number is selected the camera moves to the room entrance. Where they can see more information on specific albums by scrolling on the device.

I think this is an excellent site that really shows off what is possible in this technology.



<RESEARCH>

Multi-Screen Experience Websites

Diplomatic-cover

Diplomatic-Cover website that allows you to connect your smart phone with the desktop browser. Then you can navigate and consume the content they offer from the desktop browser using your phone.

How it works is simple and effective the user scrolls through different icons on the mobile device and to view the selected content on the desktop screen the user simply flicks the icon forward and as if by magic the icon travels onto the desktop and enlarges and displays the content to the user.

This is a brilliant way of using websockets bridging the gap of user interaction into the more physical and gesture based side of computing.



<RESEARCH>

Multi-Screen Experience Websites

Racer

This is a slot car game that works across multiple mobile/tablet browser screen. It can support up to five screens. Start a race, sync up the devices and tap your screens to accelerate and release to slow down.

Racer is a web-based mobile Chrome Experiment developed by Active Theory. Up to 5 friends can connect their phones or tablets to race across every screen.

Google Creative Lab's concept pushed the limits of browser technology in a fun way.



<RESEARCH>

Multi-Screen Experience Websites

Roll It

Roll It is a Chrome Experiment that reimagines a classic boardwalk game using only the browser on your phone and computer. The browser on your phone lets you aim and roll the ball with a flick of your wrist, while the browser on your computer renders the real time graphics of the Roll It alley with WebGL and Canvas. The two devices communicate via Websockets. This game also makes use of the phone's accelerometer to perform some special moves.

Roll It is a sign of the times to come. Between the open source projects that powered its development, the processing power of the devices on our desks and in our pockets, and the state of the web as a platform, it's a truly exciting and transformative time to be connected on the open web.



<RESEARCH>

Multi-Screen Experience Websites

Where Is Danny Torrance

In support of Doctor Sleep, Stephen King's long-awaited sequel to The Shining, this dual screen, interactive Chrome experience takes users inside the tortured mind of a now middle-aged Danny Torrance.

Using a combination of the desktop and the mobile devices this interactive experience can really engage with the users by allowing them to use gestures in conjunction with real time visuals on screen to guide them through the experience in a realistic and intriguing rate.



<RESEARCH>

State Of The Art Interactive Videos

The term interactive video usually refers to a technique used to blend interaction and linear film or video.

There are three main types of interactive video.

Customizable videos allow the user to adjust some variables and then play a video customized to the user's particular preferences. However the user does not actually interact with the video while it is playing.

Conversational videos allow the user to interact with a video in a turn-based manner, almost as though the user was having a simple conversation with the characters in the video.

Exploratory videos allow the user to move through a space or look at an object such as an artwork from multiple angles, almost as though the user was looking at the object in real life. The object or space is depicted using video loops, not still, creating a more "live" feel.



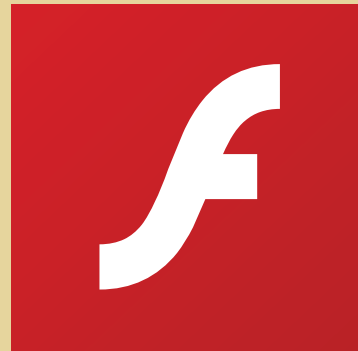
<RESEARCH>

Technology

Technology used to make interactive videos has changed in recent years for many years Adobe Flash used to be the only way to make interactive videos. Using Flashes old and tedious time line system to creates changing video time lines and interactive elements.

In recent years flash has died out and browsers have evolved to by used without it. With the introduction of HTML5 much more advanced interactive video designs are achievable and also transferable to varying devices.

HTML5 is the state of the art production method to be creating interactive videos with. It is something that is tangible in terms of being able to interact with the core parts of it from the outside for example using websockets this is something I will need to do for my project so using flash is not applicable for this project as I would not be able to interact with the elements and it would not transfer well over different devices.



HTML



<RESEARCH>

Interactive Videos

Happy

This is an project that won best interactive video for the 2014 web awards. The four-minute, upbeat song is played on loop, with each cycle introducing a new dancer (or dancers) at a different location. Viewers can fast-forward or move backward using a clock interface that hovers over the display.

Other interactive elements play with the 24-hour concept. Comments, for example are time-stamped and linked to corresponding moments in the day-long dance, and they can be viewed in temporal order as an overlay to the video.

This is a fantastically innovative project that really pushes whats possible in interactive videos and doing something that no one has done before.



<RESEARCH>

Interactive Videos

BEAR 71

BEAR 71 is a rich interactive project, installation and social narrative that at the heart of it all features a 20 minute interactive documentary that raises awareness about the intersection of animals, humans and technology.

This project blurs the line between the wild world and the wired one. Audiences explore the bear's natural habitat, which is expressed as an abstract landscape constructed by thousands of stylized data points. A 3D particle engine was custom-built to bring this nature grid to life. As users tour the grid, they can peek into the multiple surveillance cameras placed around the preserve.

This is a really great example of an interactive video that really grips the user with the location and keeps them emotionally invested.



<RESEARCH>

Interactive Videos

The Wilderness Downtown

Featuring Arcade Fire's single "We Used To Wait" from their latest album The Suburbs, The Wilderness Downtown is an interactive music video built in HTML 5, using Google Maps and Street-view for Google Chrome Experiments. The film takes an intimate approach by prompting users to input an address from their childhood which then places them at the center of the film's narrative.

Users see themselves in the film as they run through the streets of their old neighborhood and finally reach their childhood home. This is tied very closely to the song's lyrics to make for a powerful emotional experience.



<RESEARCH>

Interactive UI

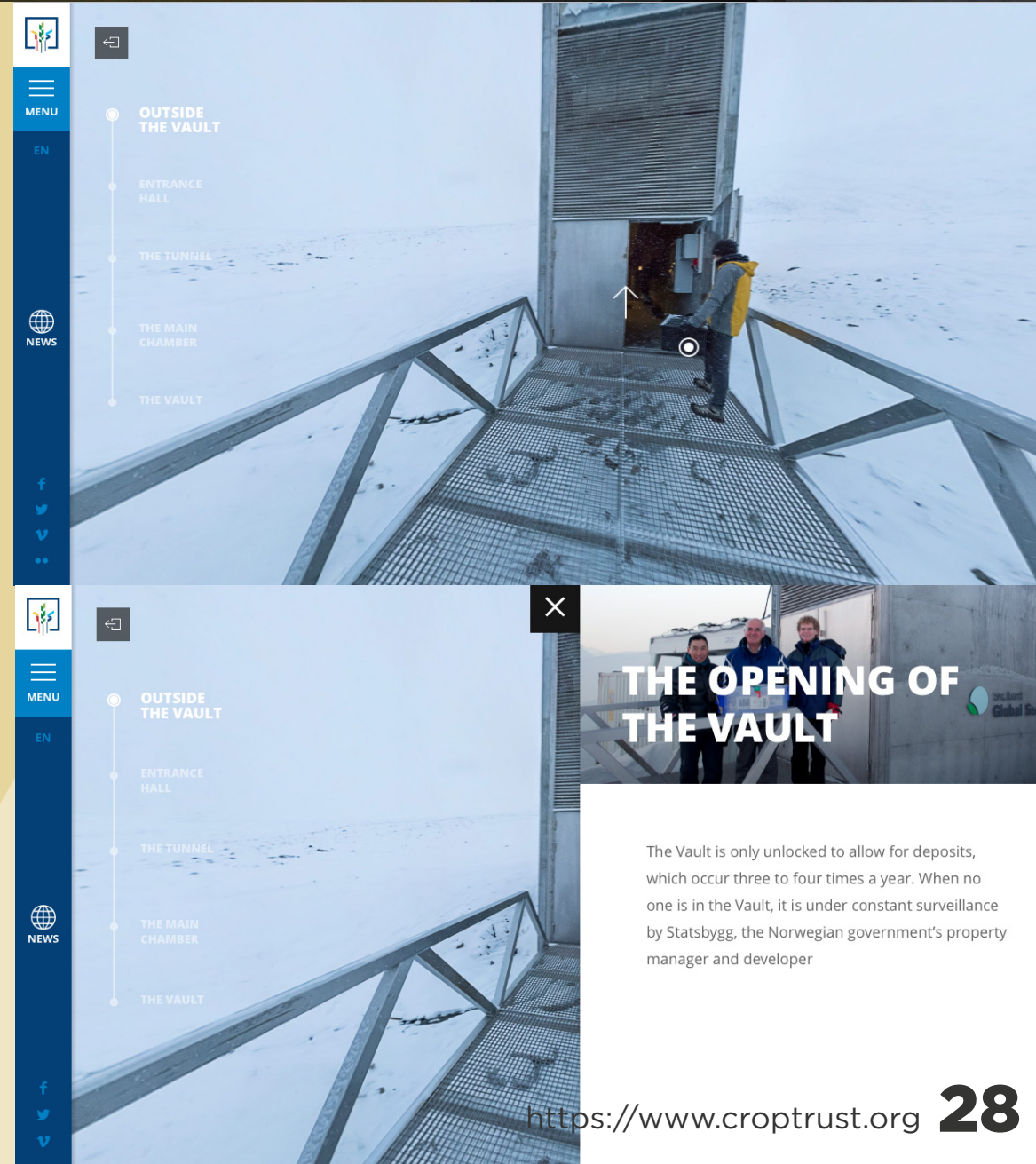
Crop Trust Website

This is an interactive website to showcase the Crop Trust project. The Crop Trust is an international organization working to safeguard crop diversity, forever.

This interactive websites shows off the Crop Trust vault in Statsbygg. Usually the site is unavailable to the public as the contents need to be protected and stored so they will save. So this website was made to give a virtual experience to the public to inform and educate about the project.

To navigate around the virtual space the users use the mouse to spin around 360 images at different points throughout the facility. To jump to different spinning points. Simple arrow UI. To access information along the way info points are represented by dots on the screen and when pressed brings up a side panel displaying pictures and information about the specified points. Also to inform the users where abouts they are within the vault theres a info graphic to the left hand side showing so.

These are simple interactions which I think work effectively and I like the idea of adding a info graphic on the side to show location. I think the idea could work better with a interactive video style experience.



<RESEARCH>

Location Setting - Baltic

Baltic

Housed in a landmark industrial building on the south bank of the River Tyne in Gateshead, BALTIC is a major international centre for contemporary art. BALTIC has no permanent collection, providing instead an ever-changing calendar of exhibitions and events that give a unique and compelling insight into contemporary artistic practice. BALTIC's dynamic, diverse and international program ranges from blockbuster exhibitions to innovative new work and projects created by artists working within the local community.

I went to have a look around the Baltic myself and to take some pictures. I had initially thought that this would be perfect for my project. But after looking around I felt that it wasn't suited for what I wanted to do first of all the exhibitions are scattered around 5 floors which would be hard for a camera to be walked around as it would take too long for the transition part and I think moving between floors would be confusing. So I decided to look for another alternative.



<RESEARCH>

Location Setting - The Biscuit Factory

The Biscuit Factory

The Biscuit Factory is the UK's largest art, craft & design gallery set in the heart of Newcastle's cultural quarter. Housed in a former Victorian warehouse, our beautiful gallery spaces set over two floors, display a range of exciting contemporary fine art, sculpture, original prints and jewelery, quality craftsmanship and design led homewares. The Biscuit Factory hosts four major exhibitions a year, representing the work of around 250 artists each season, so there is always something new to see every time you visit.

When looking round The Biscuit Factory myself I felt I under estimated how good at it actually was and as far as it goes for my project it was the perfect location it was small enough to walk around and it also had one floor that revolved around a circle so would be easy to connect viewpoints.



<USER RESEARCH>

- Frequency Of Gallery Visits Survey
- Purpose Of Gallery Visits Survey
- Persona's

<USER RESEARCH>

Frequency Of Gallery Visits Survey

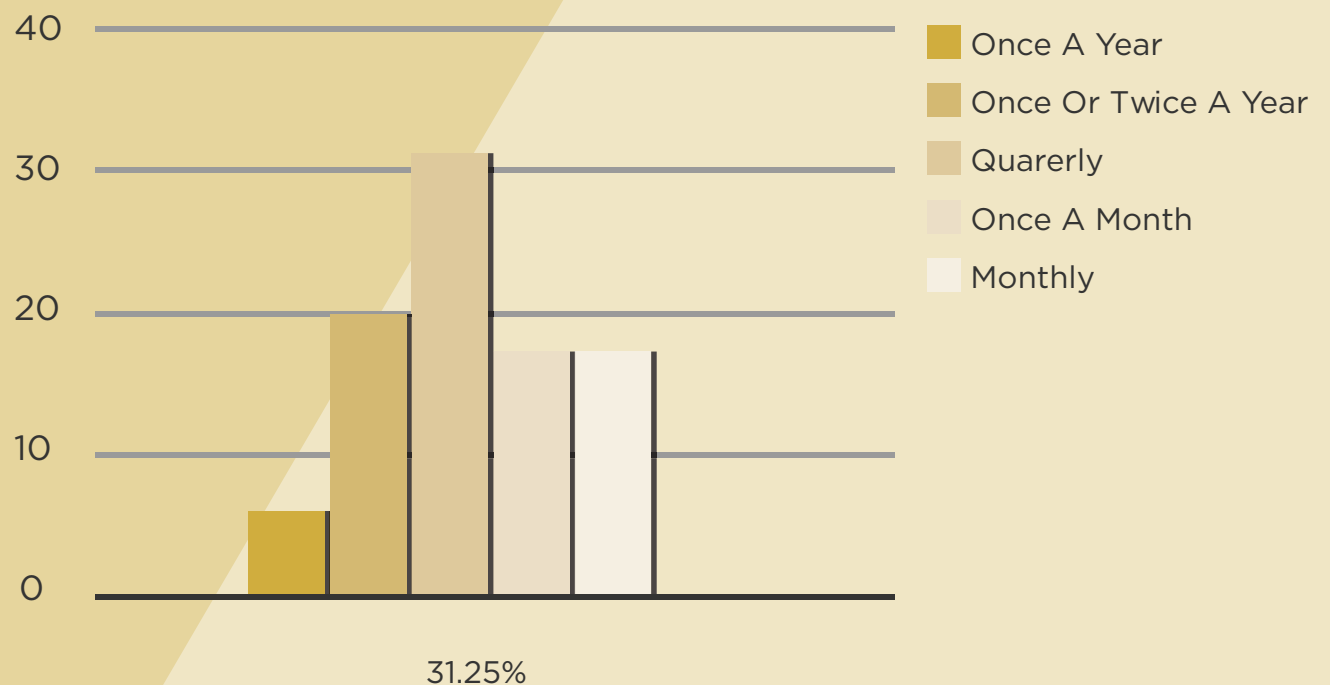
Questionnaires were handed out to people entering the Biscuit Factory during early to mid December.

The findings that related directly to the frequency of gallery visits are as shown in the chart here. Showing that the majority of users are only visit the gallery quarterly.

And when exhibitions can be changed on a monthly basis at the Biscuit Factory visitors will be missing certain pieces of art or entire exhibitions this not only effects visitors but also the biscuit factory in terms of income and the artists in regards to recognition and income too.

If there was a way to showcase the Biscuit Factory to the visitors without them having to come in so they could see and also purchase the artists work I think this would be a great idea if it could be pulled of well and if it could engage with the users to keep their intrigue.

FREQUENCY OF GALLERY VISITS



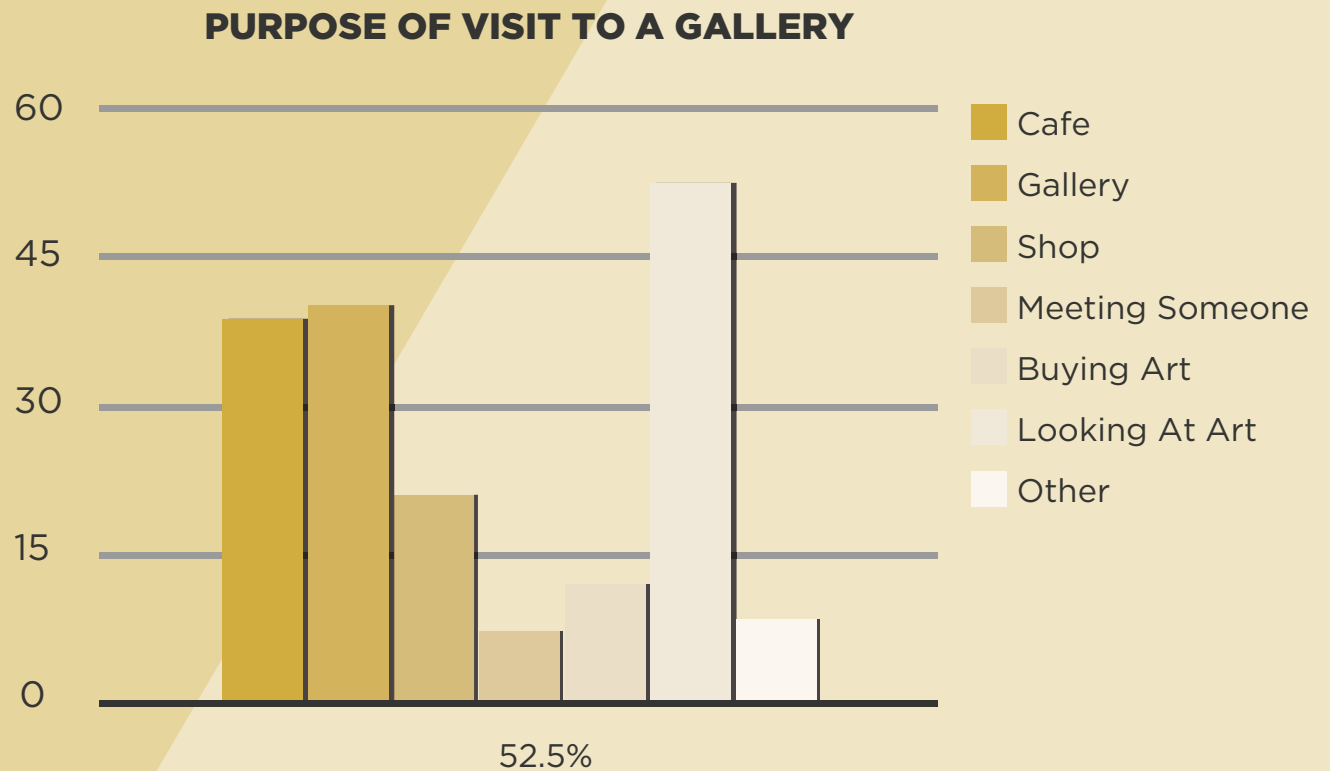
<USER RESEARCH>

Purpose Of Gallery Visits Survey

The findings that related directly to the purpose of visiting the gallery are as shown in the chart here. Showing that the majority of users are only visit the gallery purely on looking at art.

This shows that people are eager to see the art displayed in the gallery and thats what they are interested in. This is excellent for the artist displaying their pieces. This data shows a need for some kind of service to give users that do not attend the gallery monthly to see all the new artists pieces.

This will benefit the users and the artist as the users will be seeing more pieces and the artists will be getting more reach on their pieces and their profession.



<USER RESEARCH>

Persona #1

Margret

Retired

Age: Over 56

Occupation: Retired

Location: Newcastle

Status: Married



Gallery Interests

Looking at Art, interested in paintings

Don't have a specified art budget

Buy paintings from art galleries for home decoration

Visit museums and galleries approximately 4 times a year

Stayed for roughly 1 hour

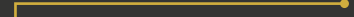


Main purpose of visit was to see artwork

“ Visited the gallery with a couple of friends. Took their time in walking around looking at the art. They don't intend to buy any pieces but just enjoy looking at other peoples creation. After looking at the art a quick trip to the cafe to take some weight off their feet and have a cup of tea. ”

GOALS

- To visit more galleries.
- Get in touch with the local art community.
- Get more in touch with technology.

TECHNOLOGY USAGE

- Technically Minded  Alluded by technology.
- Technology Habbits  Uses Kindle alot.
- Favourite Devices  Kindle, Desktop.



<USER RESEARCH>

Persona #2

Paul

Junior Dr

Age: 22 - 30

Occupation: Junior Doctor

Location: Newcastle

Status: Engaged



Gallery Interests

In full time employment in a medical/ Scientific career
Main purpose of visit was to go to the cafe
Prefer to look at sculpture
Have an irregular yearly art budget
Purchase art from art shops
Tend to buy art as a gift for someone
Visits galleries and or museums once or twice a year
Their visit lasted 2 hours

“ Paul is a 26 year old Junior Doctor at the Royal Victoria Infirmary in Newcastle. He took his fiancée to the cafe at The Biscuit Factory on his day off but was distracted by a piece of sculpture on display on his way there. Paul and his fiancée spent some time debating the possibility of purchasing the sculpture for their new home over a cup of coffee but ultimately couldn't justify the price tag due to their irregular art budget. ”

GOALS

- To visit more galleries.
- Get in touch with the local art community.
- Try to find new pieces to buy

TECHNOLOGY USAGE

- Technically Minded Skilled to an basic level
- Technology Habbits Uses iPad alot around work
- Favourite Devices iPad, Desktop, Laptop, iPhone.



<USER RESEARCH>

Persona #3

Jane

Part Time Employment

Age: 46 - 55

Occupation: Graphic Designer

Location: Newcastle

Status: Single



Gallery Interests

Visited the biscuit factory for the shop
Prefer to look at prints
£100-£500 yearly art budget
Purchase art from exhibitions
Buy art for an investment
Visit galleries/ Museums once a month
Stay for only 16-25 minutes



A mother who (whilst the children are at school) maintains her interest in art and design by going to local galleries. Since shes in the art industry Jane visits the gallery with a keen eye and doesn't waste time looking at artwork shes not interested in. In order to stay to her daily schedule she does not visit any other part of the gallery and therefore has a short yet informative visit.



GOALS

- To visit more galleries.
- Find new artists to but from.
- Find new places to show her work

TECHNOLOGY USAGE

- Technically Minded  Skilled to an advanced level
- Technology Habbits  Uses her MacBook all the time.
- Favourite Devices  iPad, Laptop, iPhone, Mac.



<TESTING>

- The WebSocket Protocol
- HTML5 Interactive Video

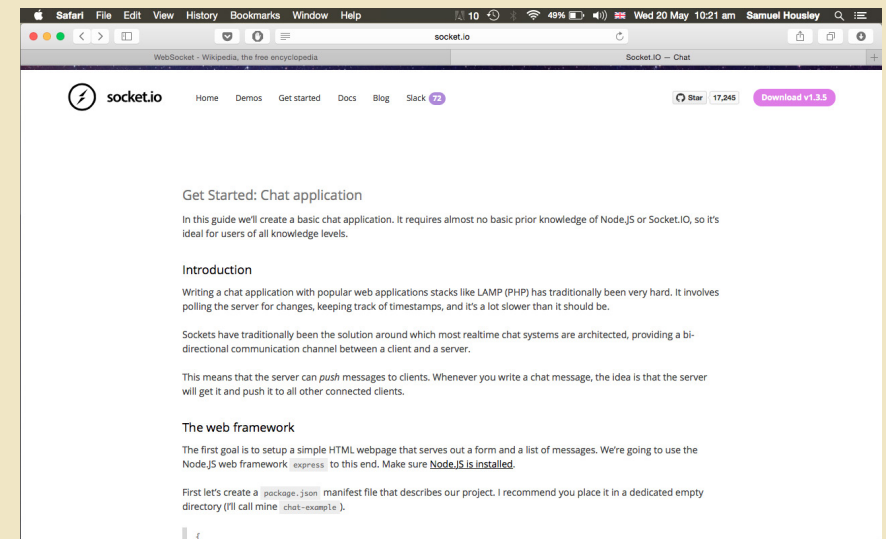
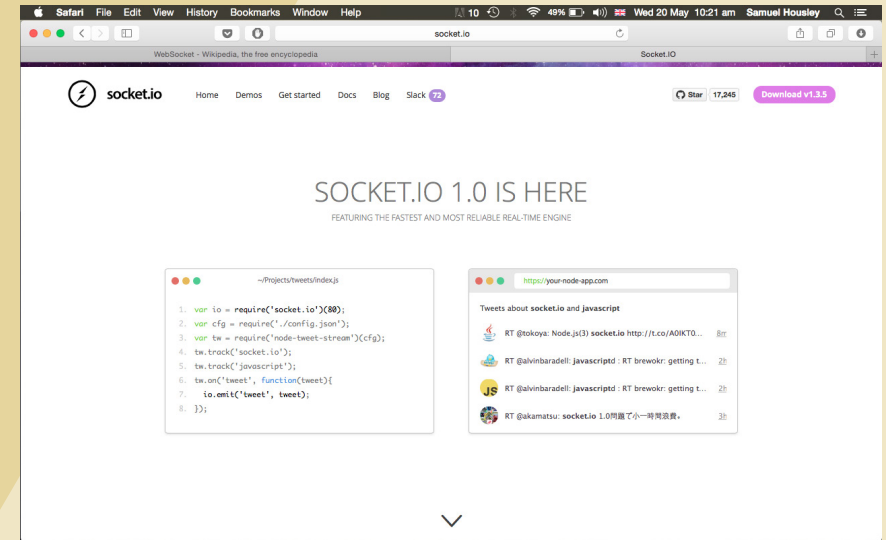
<TESTING>

The WebSocket Protocol

As stated earlier in my research to establish a WebSocket connection, the client sends a WebSocket handshake request, for which the server returns a WebSocket handshake response. This is very basic and is pretty much the easiest thing you can do with WebSockets yet still within in an area of difficulty.

This basic command can only really stretch as far as creating a simple chat application passing messages back and forth between devices.

For my project the interaction and coding would be so much more complex I had been looking around for weeks trawling the Internet and books in the library for more incites and information on WebSockets and because they are repetitively new the only information really about them are just telling you what they do and how to make simple chat app's. Theres nothing that tells you how to use them properly all of the little bits that I have tried to make work myself are so complicated. I really struggled to get my head round it with minimal information given to me.



<TESTING>

The WebSocket Protocol

Because of there only really being chat application tutorials out there, I decided to try and get in contact with one of the people who had helped create the Art Project OE20 from page 17 of my research I got an email from the developer page and sent them an email asking for any incites or help that they might give me because my project would sort of work similarly to theres. But to no avail I did not receive any reply.

So I trawled around the Internet again trying to find answers to which i started to see how difficult WebSockets actually are.

And I found an experienced developers site where he talks on how hard they are.

After getting to this point after weeks and weeks of trying I decided it was probably not achievable anymore for myself to create, which was a shame because I really wanted it fully working. But I knew that the tech was there for it to work so this part of my project would become more concept and future development.



Parts of HTML5 are fairly well understood and noncontroversial.

Other parts are more difficult, including the WebSocket protocol. Understand that “difficulty” here isn’t a euphemism for “written by people acting in bad faith” or “subject to an evil conspiracy.” The problems HTML5 addresses are hard ones that demand careful design and engineering.

- Cameron Lairdis an experienced developer

<TESTING>

HTML5 Interactive Video

When it came to testing for creating my HTML5 interactive video I started with what I assumed was simple tutorials from HTML5 Hub to which at the time I used sample footage because I hadn't shot my own footage yet I wanted to create a certain code template so that when the time came that I did have my footage I could just replace the footage names and it would potentially all work.

So I started to put together some code from the tutorial in Dreamweaver and I had managed to successfully get the video to be placed onto a html page and for it to start playing I even strung to individual videos to play one after the other. But I could not get the any thing like a button to be placed and to overlay the video so that it could clicked to trigger another event I simply couldn't get it to overlay on top this was something I spent a lot of time on.

As I went through I was getting more and more worried I wouldn't have time to do it. Also because this was very simple interaction and video time line, where I wanted my final one to have a much more complex workflow that was nonlinear.



```
<video id="myVideo" width="500" height = "400">  
<source src="SampleVideo.mp4" type="video/mp4">  
</video>  
<canvas id="myCanvas" width ="500" height="400"> </canvas>
```


<TESTING>

HTML5 Interactive Video

After realizing that I was running out of time on creating my interactive video I decided that there must be an easier more effective way of creating an interactive video in this day and age. And luckily enough there was, I look around the Internet and it turns out theres some free and subscription based programs out there already I had a look through a lot of them and check around some forums discussing which one people thought was best and it turned out a lot of people was talking about rapt media.

The Rapt Media Composer is a cloud-based creative tool and editing suite wrapped up into one easy to use in browser editing tool.

A click-able interactive layer always accompanies the video content and can do almost anything like:

- Cue or launch different media
- Jump to specific time code
- Trigger an event on your webpage
- Launch a new web page or an app
- Add items to a shopping cart

The screenshot shows the Rapt Media website in a Safari browser window. The page features a teal background with a grid pattern. At the top, there is a navigation menu with links for Overview, Features, Technology, Client Services, and Pricing. The main content area highlights several key metrics and benefits:

- 2x Conversions**: Represented by a bar chart icon.
- 3x Engagements**: Represented by a circular progress icon.
- 14x Higher CTR**: Represented by a network of dots icon.
- Better interactions. Better data.**: The main headline.
- The best decision for your business.**: A sub-headline.
- Higher Value Views**: Represented by a bar chart icon.
- Sharper Insights**: Represented by a grid of dots icon.
- Mobile Friendly**: Represented by a play button icon.

<TESTING>

HTML5 Interactive Video

To test out this software for what I wanted my interactive video to do. I made a Rapt Media account online and created a test project to try out the software getting to grips with it and seeing if it would do what I wanted for my project.

So I took some test footage of myself walking around The Biscuit Factory. I then uploaded them easily to my account. I could then easily place these things called nodes around the project space which worked as a visual and working workflow. Once the nodes were in place and where named so I could figure out what videos to put in them it was a simple drag and drop system to place the files.

Once placed you could easily drag lines to each node to show where the video would go to next to trigger the next event.

I came across a problem that there was no way of adding picture files so that they could be used as UI buttons there was only in built buttons provided that you can add text to. I solved this problem by making the inbuilt buttons invisible so that I could add them to the videos in after effects before bringing them into Rapt Media to achieve the same effect.

The screenshot displays the Rapt Media web interface in a Safari browser window. The main workspace shows a workflow diagram with several nodes and transitions. A 'START' node leads to a 'Start' node, which then transitions to an 'INTRO SPIN' node. From 'INTRO SPIN', there are two paths: one leading to '1 TRANS' and another leading to '3 TRANS'. Above 'INTRO SPIN', there are two more transition nodes labeled '7 TRANS' and '5 TRANS'. A text box above the workflow says 'Node 7 Drag media into me'. On the right side, there is a 'Media library' containing a grid of video thumbnails, some labeled with 'TRANS' and others with 'INTRO SPIN'. The interface includes a top navigation bar with 'Rapt Media' logo, 'Projects', 'Multi Screen Experience', and 'Edit' tabs. A 'Preview' button is visible in the top right. A tip at the bottom left reads 'Tip: Hold the shift key to select multiple nodes'.

<DEVELOPMENT>

- Filming
- Contacts
- Planning
- Floorplan
- Organization
- Style
- Editing
- Low-Fi Wireframes Interactive Video UI
- Directional Button Testing
- Hi-Fi Designs Interactive Video UI
- Design For The Future
- Interactive Video Creation
- Working Prototype

<DEVELOPMENT>

Filming

When organizing how to film the video parts of my project I considered different ways in which I could film it. For example at first I was thinking to go and use a DSLR Camera to captures high quality footage so that the video would look extremely clear and would easily size up and look great on bigger monitors and even projectors if need be. After thinking on this for a while it hit me that I would be filming this footage walking around and just holding the camera in my hands which would have made the footage very shaky. I knew that id have to use a stabilizer to mount the camera on when used which I didn't have or couldn't even book out.

So started to think of alternative camera to use and it hit me that using a Go Pro would be perfect as it would capture more of the gallery space due to the fish eye lens plus would be easy to mount using a chest mount for and would also give the footage a more human feel as the camera would move with you. Making the user feel like they are actually walking around the gallery. The Camera also films in full HD so will scale.



<DEVELOPMENT>

Contacts



Hi,

I am a 3rd year student at northumbria university studying interactive media design. I am currently in the process of creating an innovative web experience to show off real world places and experiences through an interactive video and web design.

My vision is to hopefully use the Biscuit Factory as the experience. My project will show off the galleries that you have and the art pieces within them. Giving credit to the artists and the Gallery space.

I would be using a GoPro camera and a stills camera to capture the footage I would need. Is this something I can do? In regards to permissions for filming in the gallery and copyrights etc. All the footage captured would be credited to the Biscuit Factory and the artists of the pieces that would be filmed.

Many Thanks

Sam Housley

{ After a couple of days of sending the initial email to the main inquiry email address. I went into the Biscuit Factory in person to see if i could talk to anyone. I found the Emma Shard the marketing and brand manager. She hadn't seen the email but after a short conversation explaining what i wanted to do for my project she was very excited about the project and allowed me to have unrestricted access to the gallery while i was filming and taking pictures. I asked her if i could have some of the floor plans and if she could let me know peak times that i could avoid. }

Hi Sam,

I've just has a look at our floor plans and the really aren't very detailed! This is because all the walls and screens in the gallery are movable and change so often. But I have attached what we do have - hope it helps!

I'm sure you'll be fine at any time tomorrow - but we're usually busiest 11.30-2.30pm

Kind Regards,
Emma



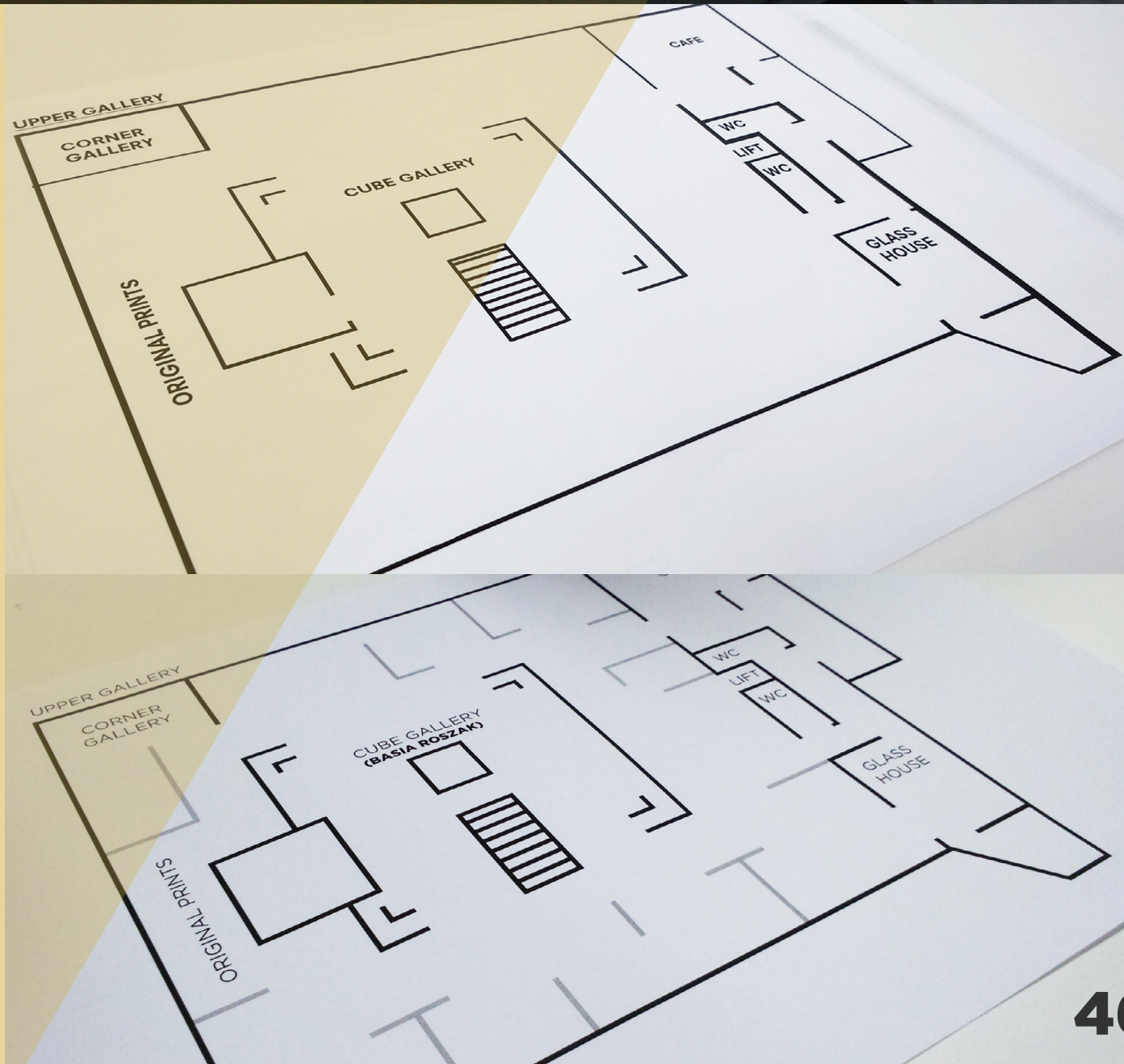
<DEVELOPMENT>

Planning

After getting a floor plan file from Emma at the biscuit factory, I was given two sets an upstairs plan and a downstairs plan.

I would only need the upstairs plan because downs stairs plan holds a jewelry shop which was not necessary for my projects. The gallery and all of the pieces are located on the upper floor, so this was the area I would focus on.

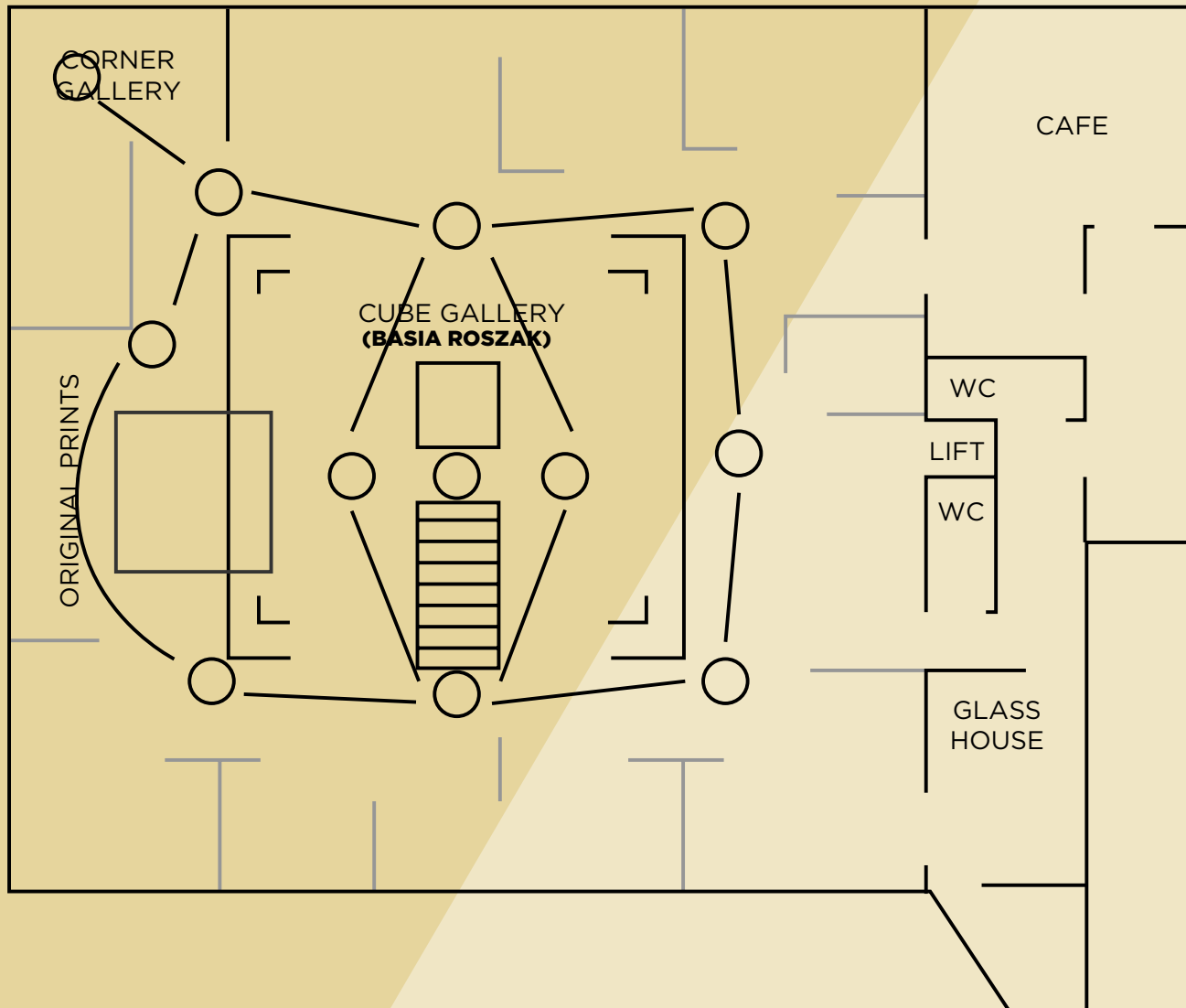
When I was given the floor plan it was very basic and didn't show exactly where the movable exhibits dividers were. So I went to the biscuit factory with a printed copy and manually drew the sections in so that I knew where they were after which I created a digital copy so it was more clear and I had the potential to use in my interface.



<DEVELOPMENT>

Floorplan

UPPER GALLERY



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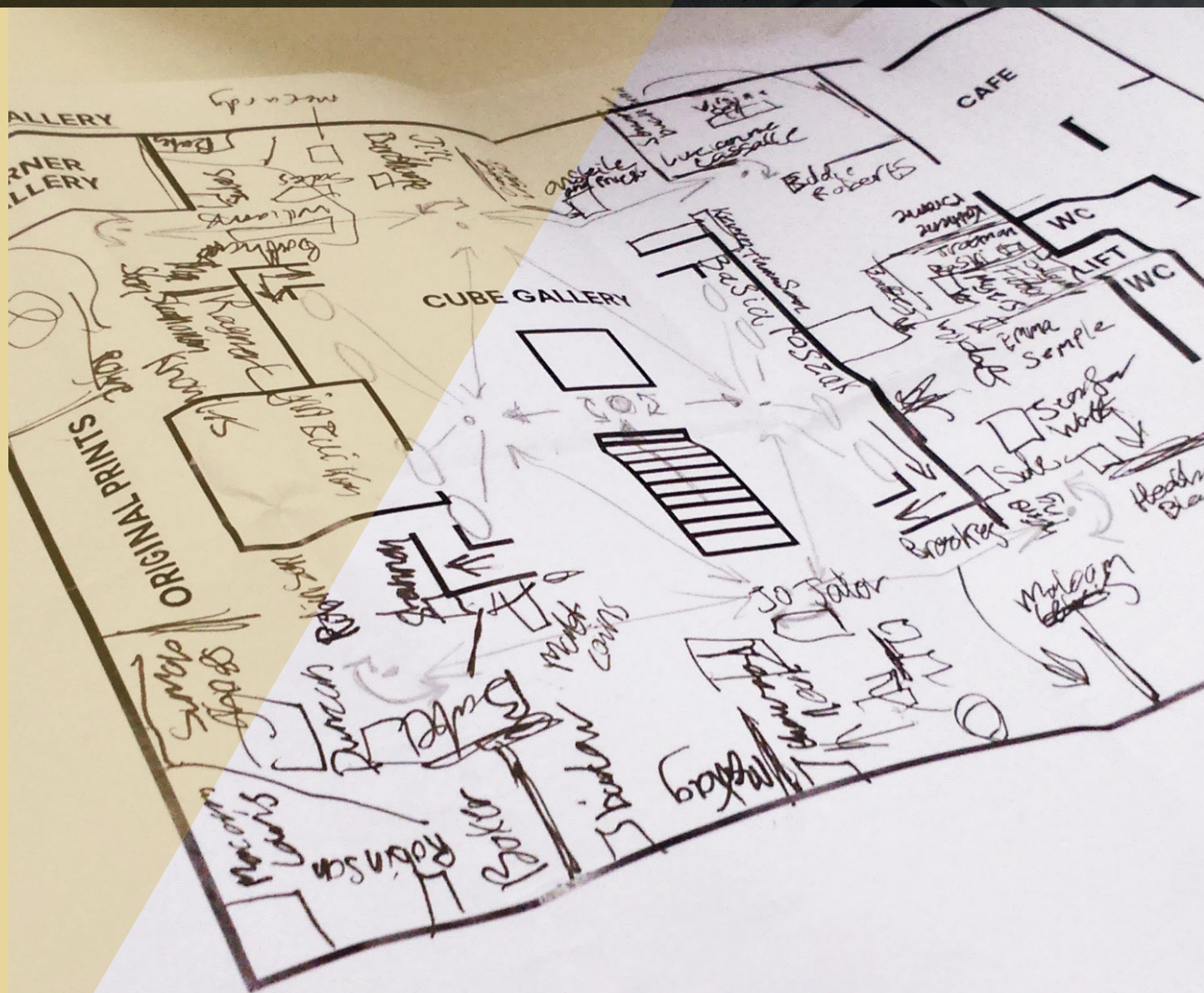
Organization

Throughout this project you may not have had thought it but a serious amount of organization was needed to keep up with the sheer amount of content involved.

Where the organization started was noting down all of the artists involved and displayed in the biscuit factory and stating their locations within the biscuit factory.

I went to the biscuit factory a second time and took a picture of every single piece of art in the biscuit factory. And I made a note of who the artist was and their location within the gallery so that I would have imagery to show in my interface and I would also know exactly where they are placed.

This scrawl of paper is what really seems unorganized but to me it is not and is what had guided me through my project though I may be the only one to understand it.



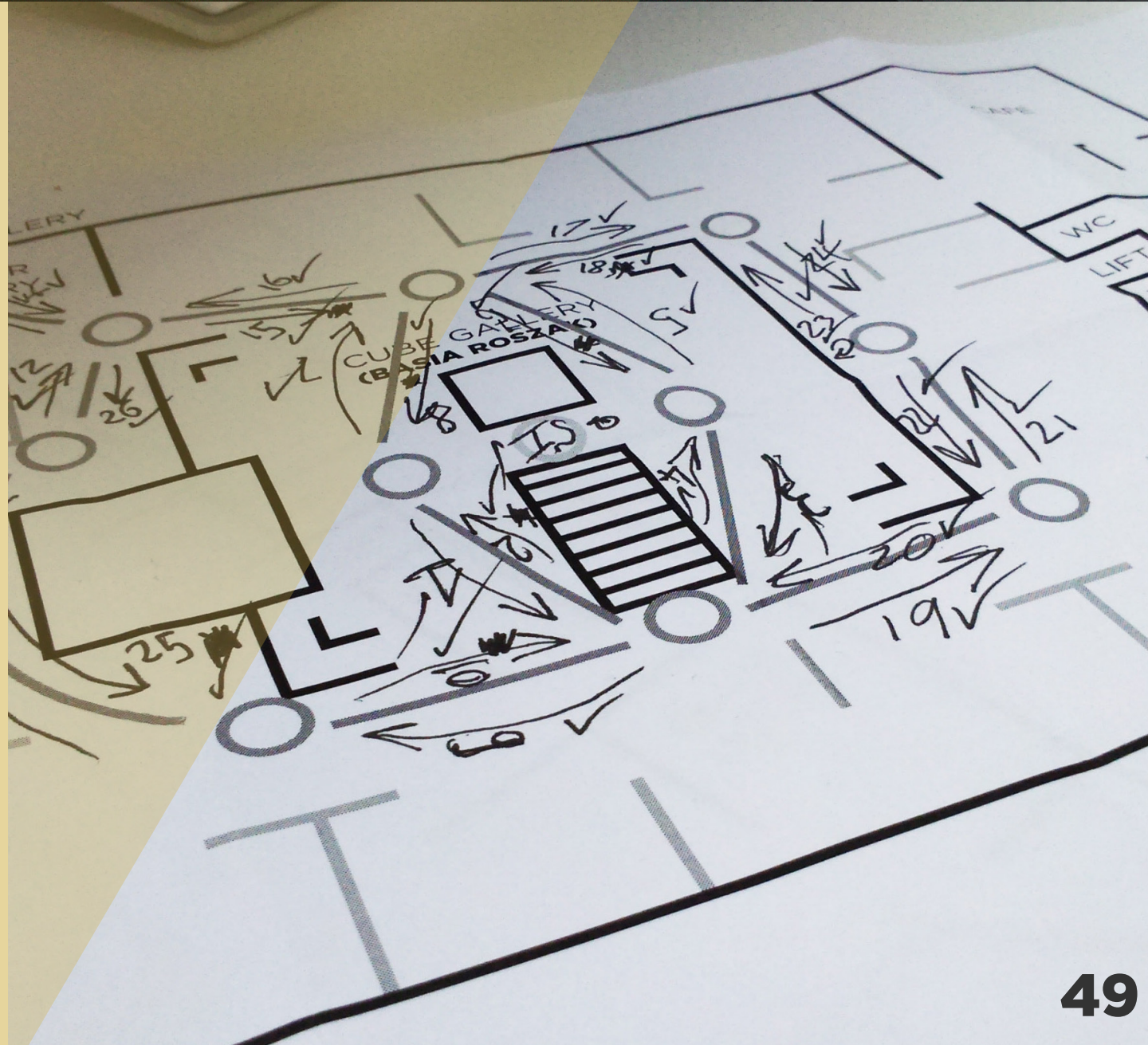
<DEVELOPMENT>

Organization

Next I started to plan out the routes I would take through the gallery and planning where each stationary place I would stop would be.

I decided to base and locate the stationary points around the corner points of the gallery and at a middle point in between the corners this way I could capture every part of the gallery with minimal amount of stationary points. And in turn reducing the amount of transition routes.

After planing the stationary points I drew in the transition routes and labeled each transition forward and back between each station with a number. This way I could effectively count how many videos needed to be shot and would also benefit me later on when I came to naming the files and being able to identify them to be used in my interactive video. This plan also helped me a lot when I went to the Biscuit Factory to film all of the footage.



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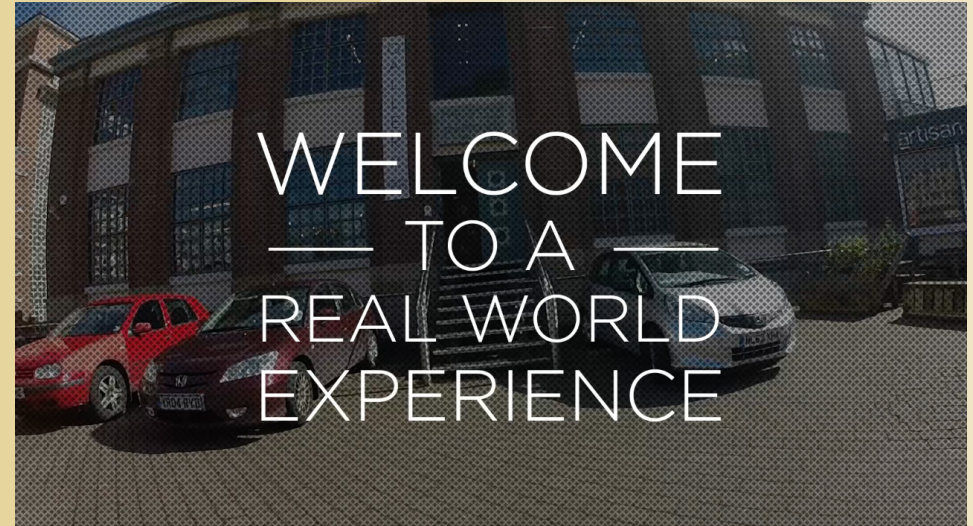
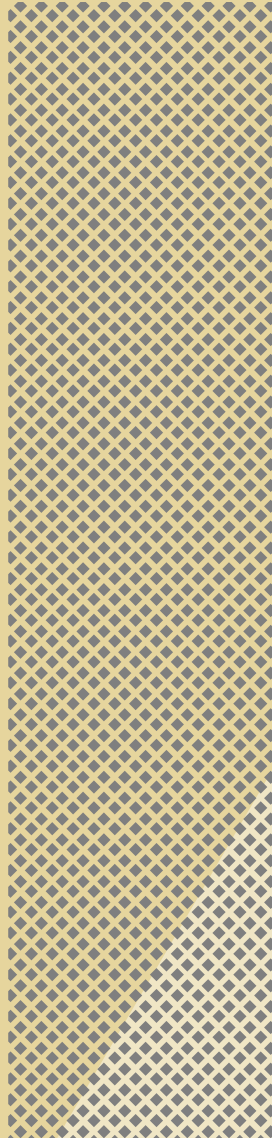
Style

After capturing initial footage in The Biscuit Factory, I decided that I wanted to define the style and look of what my main project would look like I had it in my head from the start that I didn't want the footage taken to look raw and untouched.

I wanted give the footage some depth and to also give it and by extension The Biscuit Factory a cool and refreshing look something edgy and something different. Id had this idea to create an overlaying effect for all of the footage that was not some generic default after effects setting or something similar so I created the diamond pattern shown here in illustrator and I duplicated it and resized it so that it wasn't as obvious that it was a collection of shapes and more of a pattern.

When I took it and overlayed it onto the video it worked really and also darkened the footage which I was able to change by changing the opacity.

I defined this style and also visual identity by creating a teaser trailer for the concept this helped me focus my idea, style and branding.



<https://www.youtube.com/watch?v=eTfFC9Wuiss&spfreload=10>

<DEVELOPMENT>

Style

I wanted to keep the branding style simple and minimalistic and to try and keep the elegance and sophistication of the gallery so I stuck with white text and using the Gotham typeface because I really like that one and it also looks similar to the one used in The Biscuit Factory's logo.

I didn't go for the exact same one because I felt like it needed some variation to let it my project have its own identity.

I had been thinking for a while a name to call my project and nothing seemed fitting because in my head my project was more of an experiment and I its i felt it was hard to come up because my project focuses on The Biscuit Factory. That closest I got to a name was Multi-Screen Experience but it didn't capture what the project was about so I came up with defining the project through this graphic and stating what it is which is "An Experiment Showcasing The Biscuit Factory And Artists". Which I think works perfectly.

AN EXPERIMENT SHOWCASING



THE BISCUIT FACTORY — AND ARTISTS —

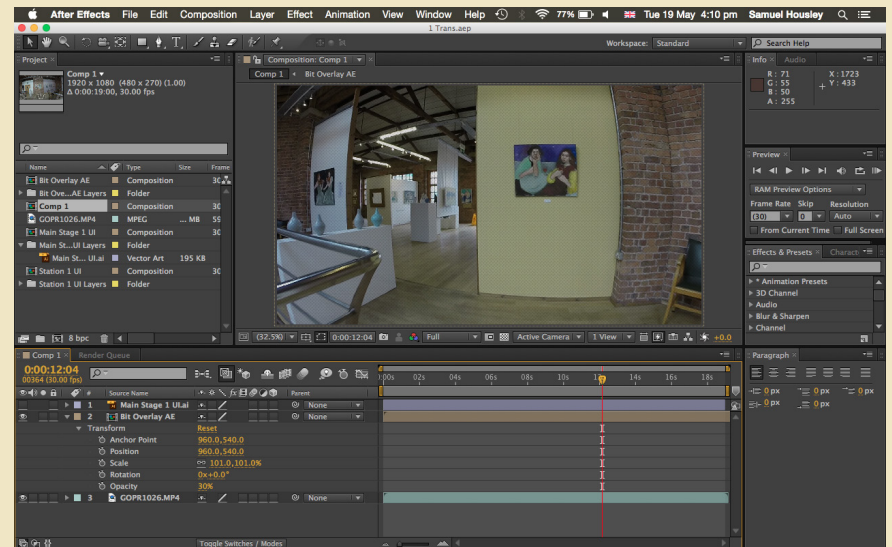
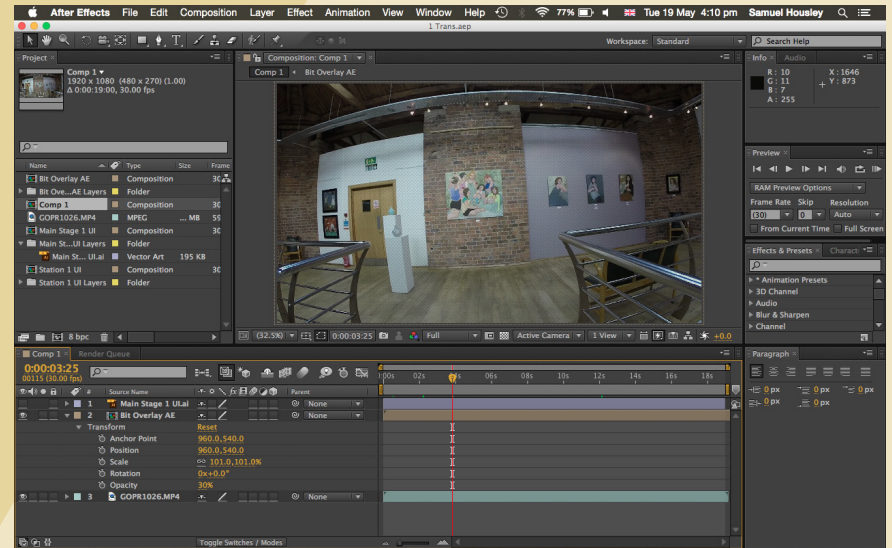
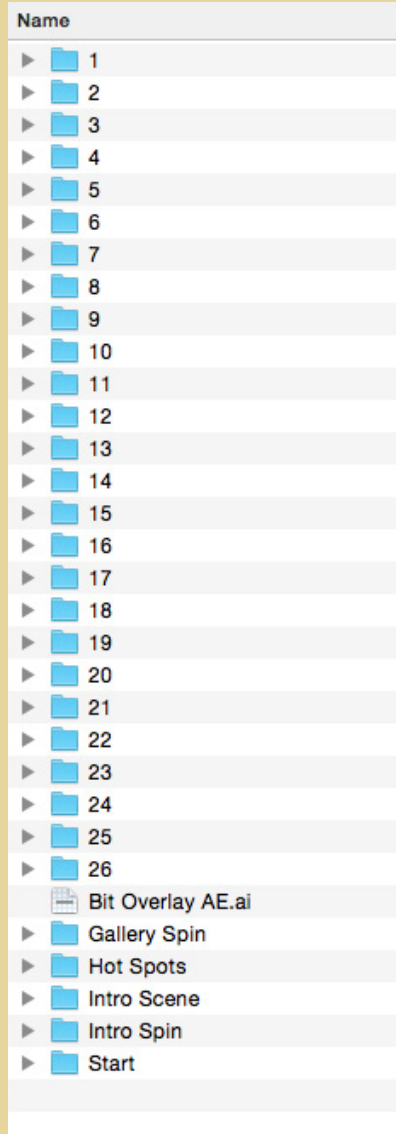
<DEVELOPMENT>

Editing

It took me a full day to film all the footage that I needed for my interactive video. I was told by Emma Shard the gallery director the peek times that people would be in the gallery so that I could try and avoid so that I wouldnt bump into gallery viewers in my footage.

So after filming around The Biscuit Factory and finishing my teaser trailer I set up an organized a folder structure on my laptop to place my footage into so that I that I could easily access all of the videos without losing track of whats what.

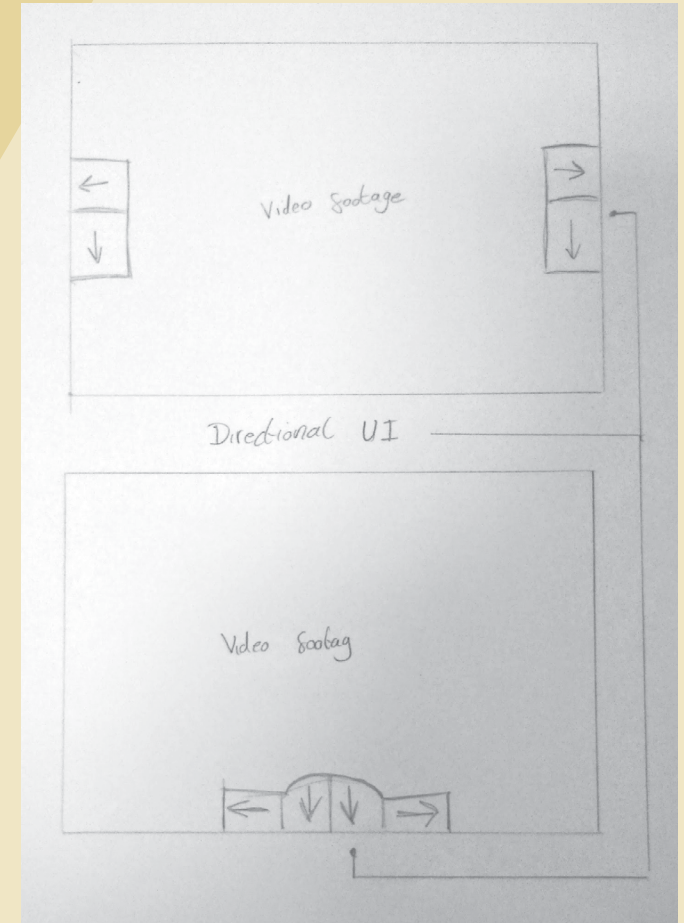
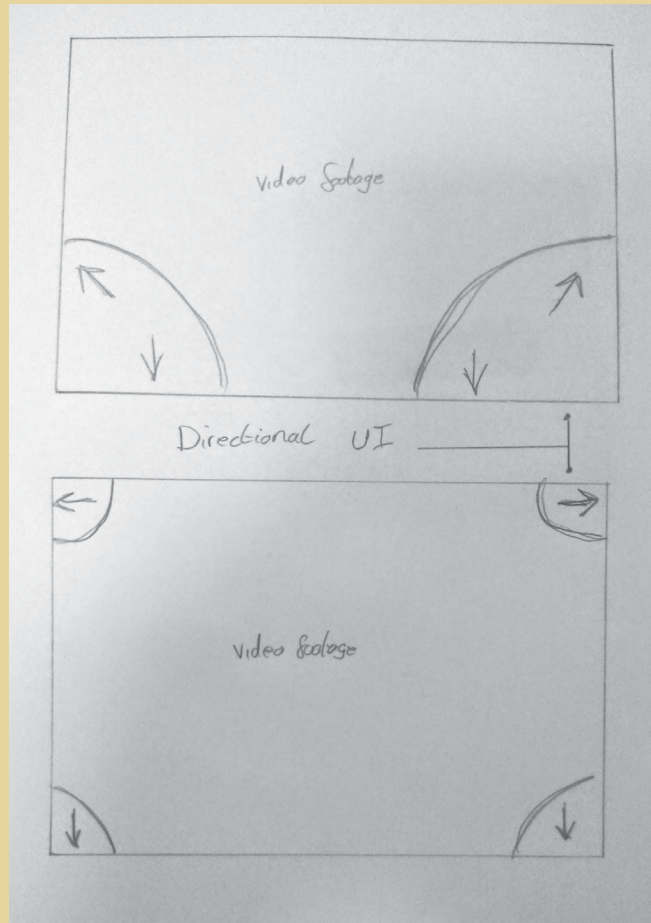
Even though at this point I hadn't decided on my user interface to overlay on top of my video. I took my footage into after effects and made a after effects file for each one so that when the time came that I had finished my user interface it would be simple and easy enough to overlay the UI and render out.



<DEVELOPMENT>

Lo-Fi Wireframes Interactive Video UI

I initially did some lo-fi wireframes on paper to sketch out some possible UI ideas for my interactive video. These are focused on directional UI and would form the top layer of interface for my design. I tried out different placements to see which might work best with out disrupting the video footage.

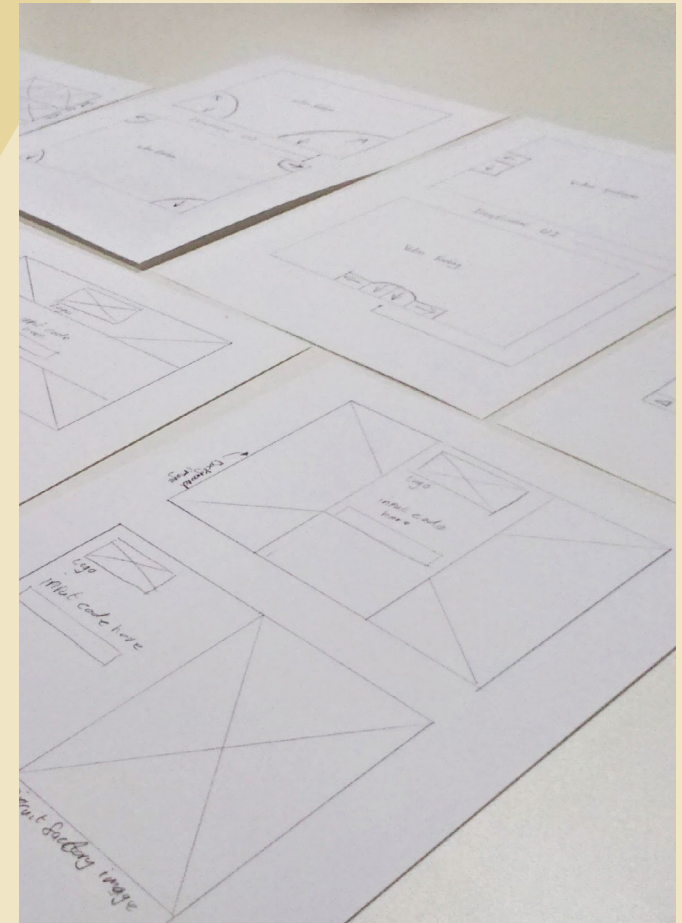
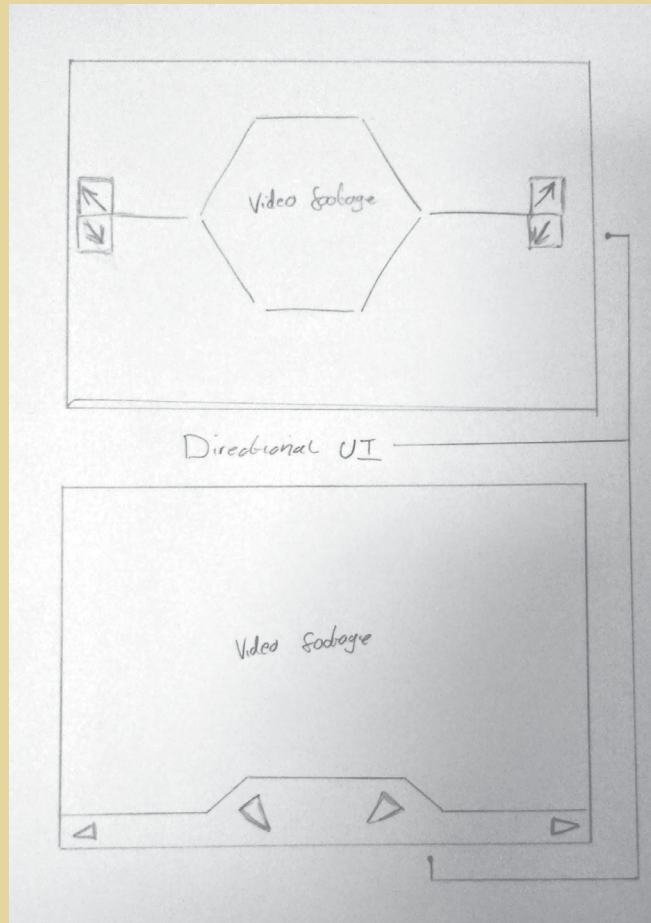


<DEVELOPMENT>

Lo-Fi Wireframes Interactive Video UI

Some of the lo-fi wireframes stemmed from very basic and functional and some very much futuristic and experimental.

I hadn't really decided which one I was going to progress with because I like a few ideas and I wasn't entirely sure if each one would work because I couldn't see the video footage behind it and how the colours effected the UI. So I would take a few of these wirframe ideas and progress on them later digitally where it might make a bit more sense.



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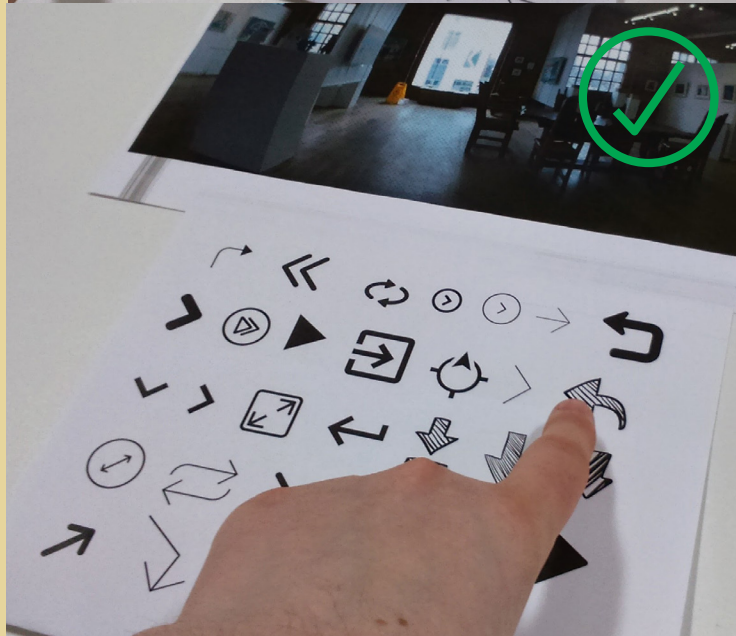
Directional Button Testing

When it came to designing directional buttons for my interactive video to control the user around The Biscuit Factory I was shocked to find how hard it was for people to understand exactly where an arrow would direct someone in a 3D space.

I got too engrossed in the arrows I had initially thought of using and because I knew how my project worked it they seemed okay to me but after showing a few people they didn't understand where the arrows took you.

So what I did was printed off a scene still from where you can choose to go either left, right, back to the left or back to the right. Then I got together a number of arrows that I thought all had the potential to work and got them to choose which arrows they thought took them where when I asked them.

It turns out the ones that work the most effectively are arrows that have a curved back end showing the direction coming from and going to as difference from using a straight arrow that's on an angle which didn't work



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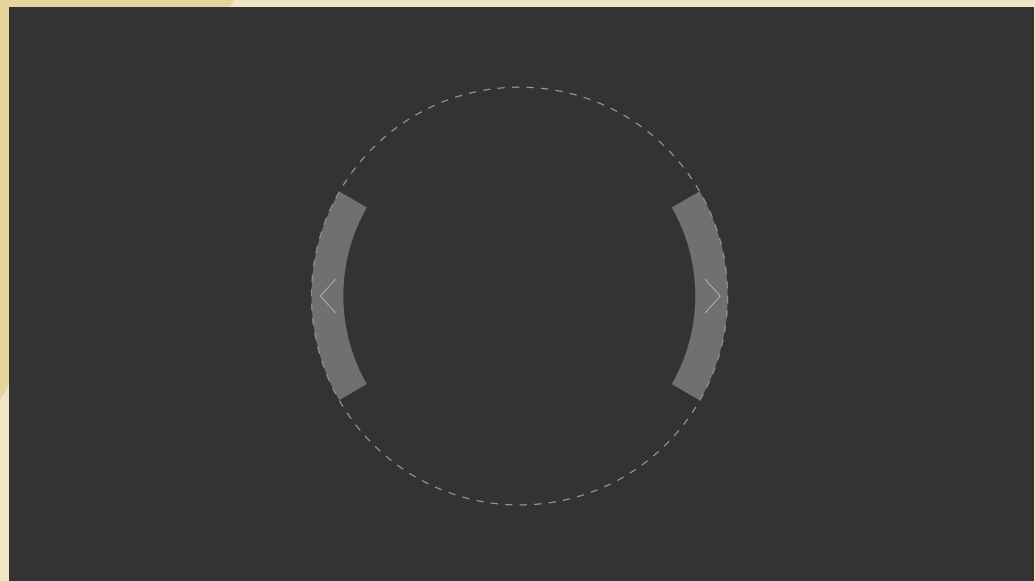
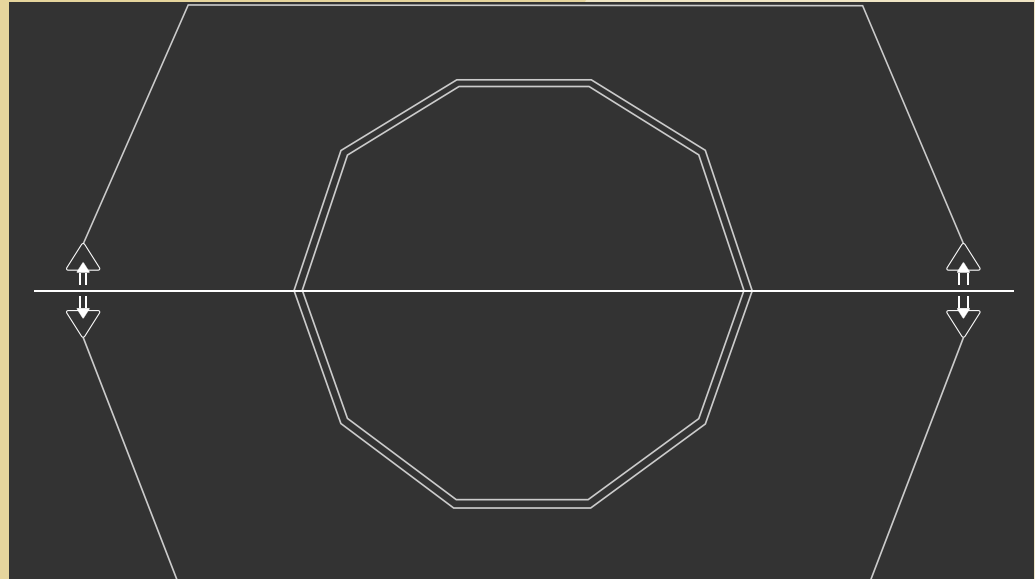
Hi-Fi Designs Interactive Video UI

Top Layer UI Set 1

After doing some initial low fi wireframes I came on to doing some Hi-Fi wireframes / final designs. It was hard to transfer what I had shown in my Low- Fi wirframes and put into my final visual designs. This was because I didn't realise how hard it is to create a working functional interface that overlays a video.

Theres so much that you might forget to account for so for example:

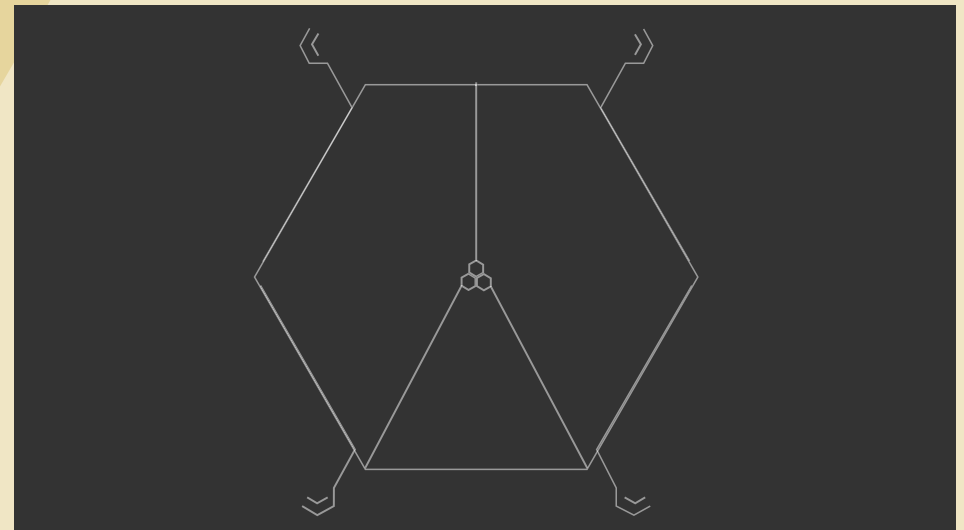
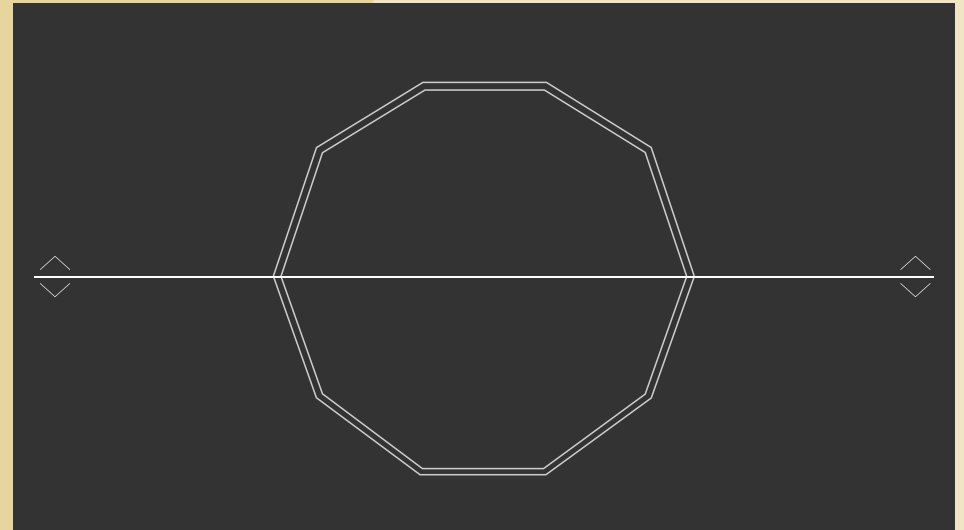
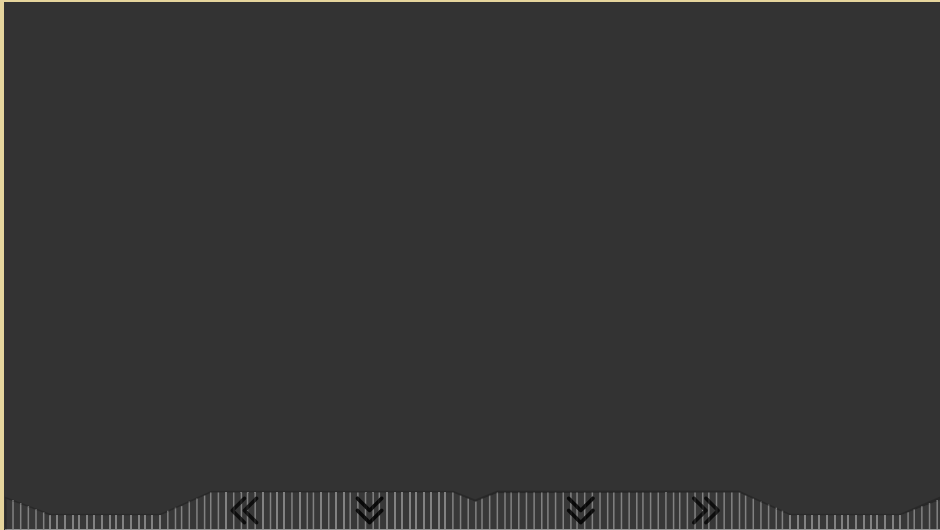
- I needed to keep the video as dominant as possible making sure I wasn't obstructing any video visuals.
- I needed to make something the would work without instruction
- Take not of UI button placement so that directional arrows work as intended.
- Have the UI not overly bold so the users aren't distracted by it. (After all im promoting this as an experience)
- Yet at the same time making it visually appealing.



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

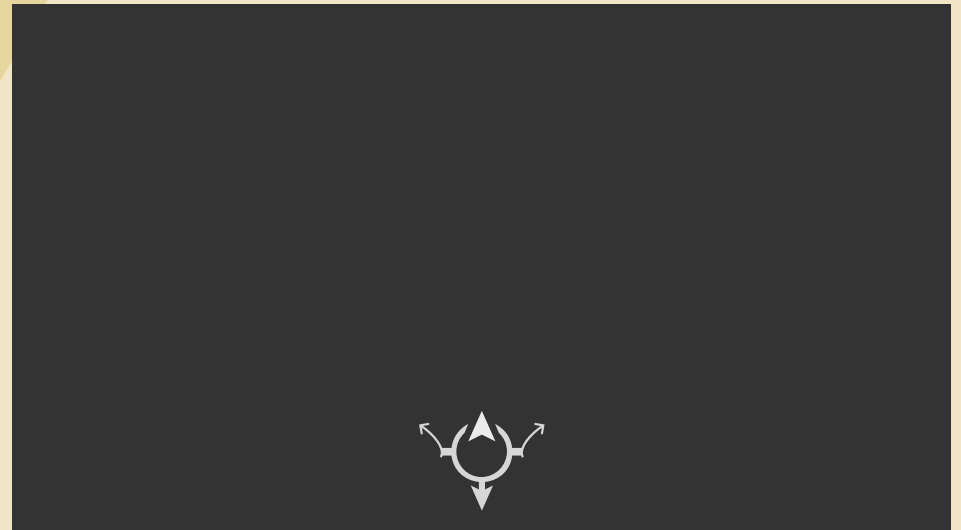
Top Layer UI Set 2



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

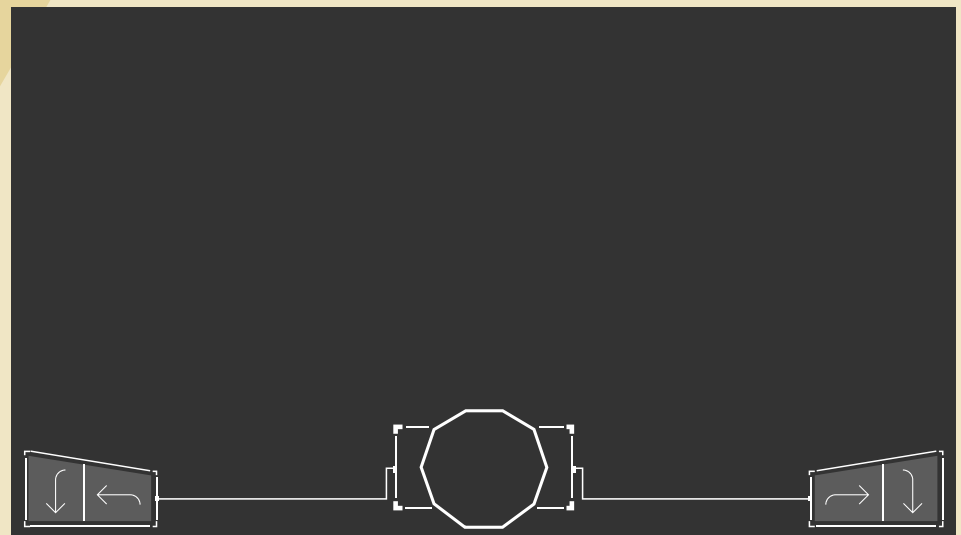
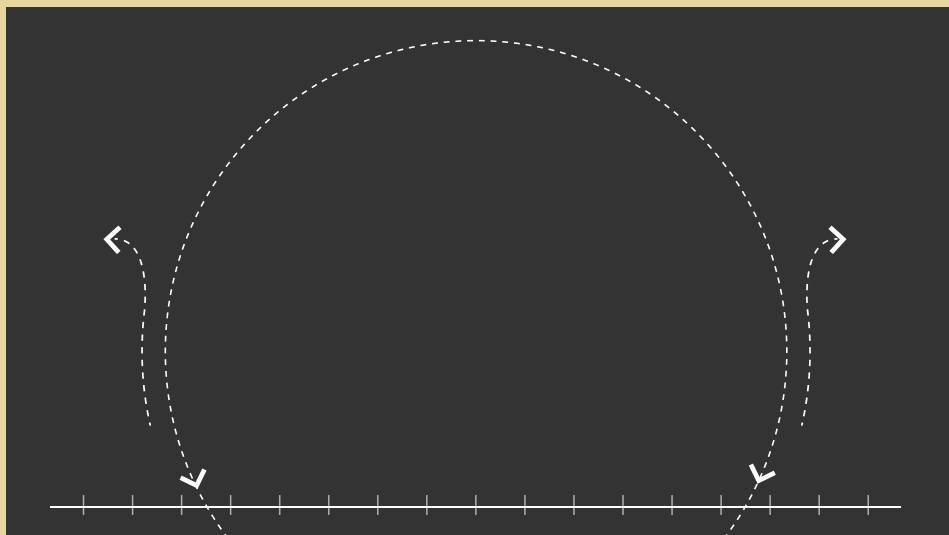
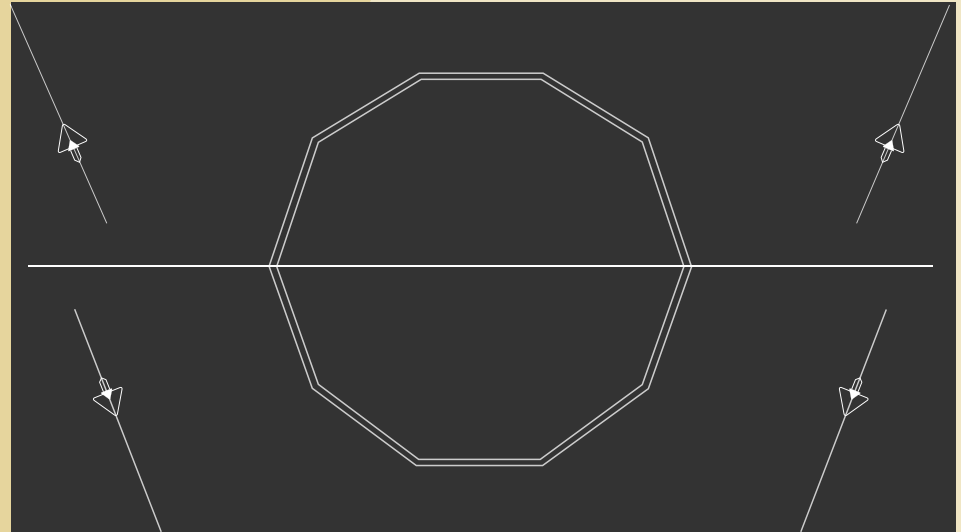
Top Layer UI Set 3



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

Top Layer UI Set 4



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

Top Layer UI Final

So as you can see I had done a lot of different variations of what the final top UI could be ranging from:

Set 1: Aesthetically over full screened UI

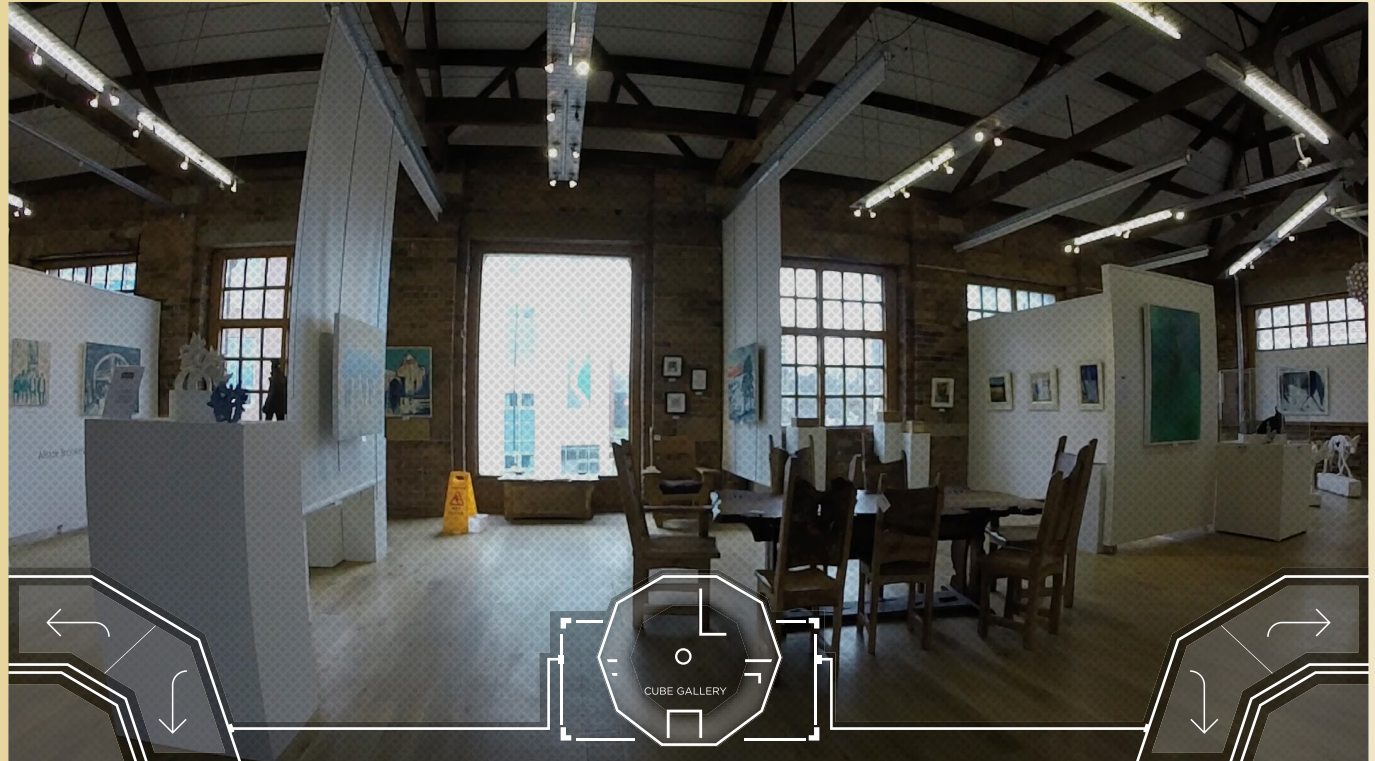
Set 2: Subtle and open UI with very thin lines to open the scene up.

Set 3: Extremely minimal design covering very little of video footage

Set 4: Experimental but functional UI

It had taken me ages to decide on and try and design the top UI as I felt like nothing really worked then after finding the right arrows to use everything became a little easier to piece together.

My final design for the top layer works as a functional piece and embodies design assets from my previous designs such as the octagonal that I really wanted to incorporate. The central octagonal shape shows the floor plan where you are at the time.



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

Top Layer UI Final Iteration

On finalising my UI I was initially happy with the top version but it had occurred to me that my Interactive video piece would be viewed primarily on an iPad devices. So thinking about this matter it occurred to me that it would probably be uncomfortable if the user was holding the iPad in landscape mode for them to tap the navigation buttons as they are located directly in the corner.

So to solve this problem I spaced the buttons out around a circular point from the corner this would work better for the user ergonomically. I was also able to incorporate the octagonal shapes into this design too.



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

Middle Layer UI Final

This is the middle layer of UI this part contains the hotspots for what pieces of art the user can click on I thought that using octagonal shapes would work perfectly to highlight them given that my whole style has an octagonal look. I did initially try circles but I didn't think it worked with my design.

So I went with the octagonal shapes and at first I had the idea to show the outline and have the actual pieces highlighted in a lighter colour brightness which I tried out in the top picture but as you can see because some of the pieces are quite far away and small its not as obvious that they are highlighted.

To solve this problem I took the octagonal shapes and I upped the brightness of the whole shape which gives the user a more defined and larger area to see and click on.



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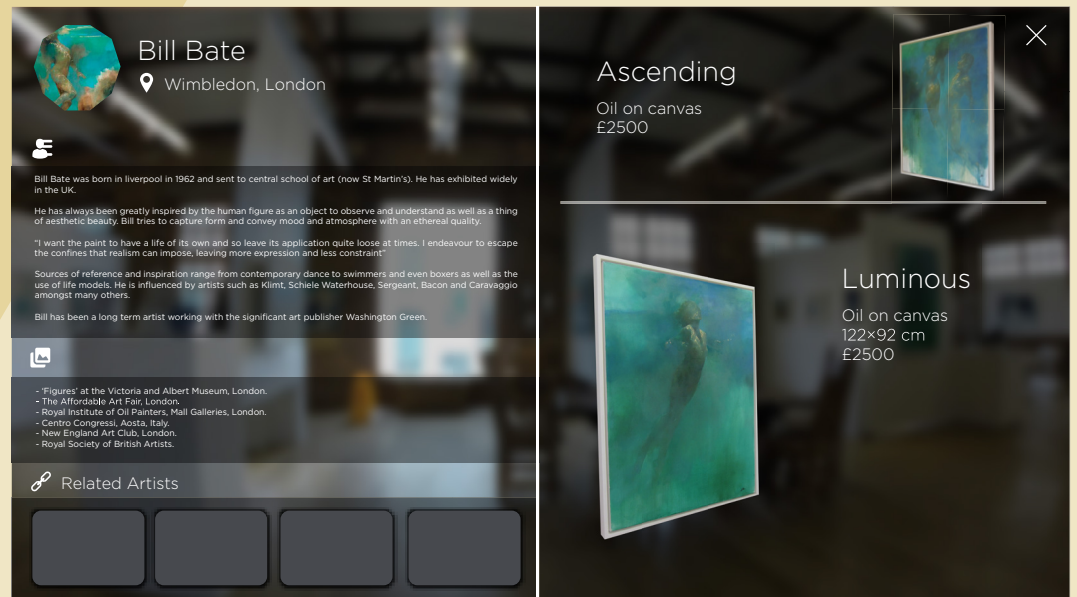
Hi-Fi Designs Interactive Video UI

Bottom Layer UI

The bottom UI is the last piece of Interactive Video UI that I needed to do to complete the 3 layer set.

The bottom UI is the one that needs to hold a lot of information it should contain information about a specified artist and show a certain profile on them and show the artists pieces that are in the biscuit factory. The top image shows my first draft attempt at the UI, I wanted to keep it simple but i think it was a bit to simple and maybe lacked thought.

The next version the bottom picture was my more thought out version it shows categorization and more thought into making it look like a profile. At this point I also added a related artists section that would show other artist that maybe similar to the one that you are currently looking at. The main display of the pieces i think work better in this version too adding text and prices also making the pieces look more organized.



<DEVELOPMENT>

Hi-Fi Designs Interactive Video UI

Bottom Layer UI Final

This is my final design for my artists profile page (bottom layer UI). I liked the look of the last version but something didn't quite feel right about it, it seemed cluttered and unorganized so I broke down the information I had for the artists into sections

- About
- Exhibitions
- Quote
- Related Artists

Along with adding their location and personal websites underneath there name. I also thought it would be nice to make their profile picture a signature piece of their art. I changed the look of the art pieces side to give that side a bit more weight to balance the whole look out.

At this point I started implementing the Own Art logo onto the pieces where the offer was on. Own Art makes buying art easy and affordable by letting you spread the cost of your purchase over 10 months with an interest free loan.

Own art

Bill Bate
Wimbledon, London
<http://billbate.co.uk>

About
Bill Bate was born in Liverpool in 1962 and sent to central school of art (now St Martin's). He has exhibited widely in the UK.
He has always been greatly inspired by the human figure as an object to observe and understand as well as a thing of aesthetic beauty. Bill tries to capture form and convey mood and atmosphere with an ethereal quality.
Sources of reference and inspiration range from contemporary dance to swimmers and even boxers as well as the use of life models. He is influenced by artists such as Klimt, Schiele, Waterhouse, Sargent, Bacon and Caravaggio amongst many others.
Bill has been a long term artist working with the significant art publisher Washington Green.

Exhibitions
- 'Figures' at the Victoria and Albert Museum, London.
- The Affordable Art Fair, London.
- Royal Institute of Oil Painters, Mall Galleries, London.
- Centro Congressi, Aosta, Italy.
- New England Art Club, London.
- Royal Society of British Artists.

Quote
"I want the paint to have a life of its own and so leave its application quite loose at times. I endeavour to escape the confines that realism can impose, leaving more expression and less constraint"

Ascending
Oil on canvas
£2,500

Luminous
Oil on canvas
122x92 cm
£2,500

Related Artists

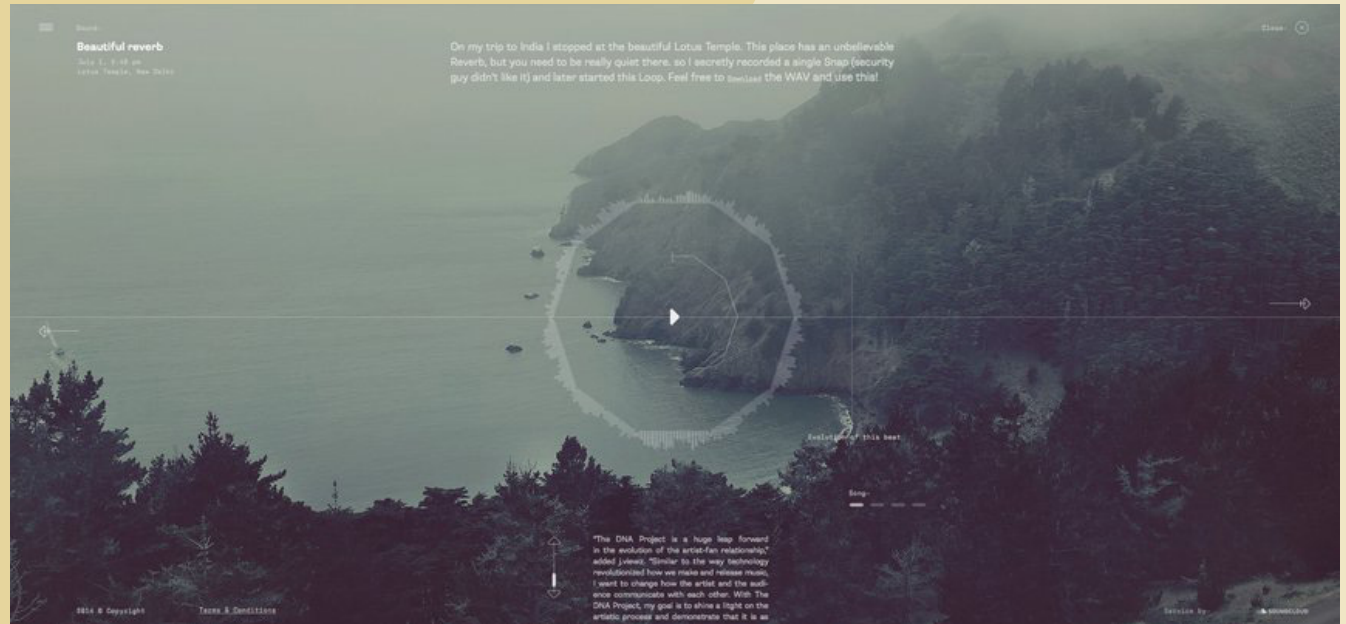
<DEVELOPMENT>

Design For The Future

On starting this project I think I had it in the back of my mind that I wanted my UI to be new different and beautiful. And I in this sense I wanted to adopt and adapt to the future and what that meant visually i had seen a lot of inspiration of futuristic edgy userinter faces that were far from the normal things you might see all be it the seemed more technical and futuristic I just loved the style.

Now due to the nature of my project and it being based around The Biscuit Factory a gallery of reputable status some might say that designs like these of this futuristic nature would not fit into a design for an interface of the present day in such a setting like a serious gallery.

But then why not? I had been working on designs for the future for all of my final year at university through projects like npower designing for the future home and Alstom designing UI for real time smart glasses. So I say why not adapt and design for the future because its coming whether we like it or not and its better to experiment and embrace rather than be shocked when it arrives.



<http://www.dandad.org/awards/professional/2015/digital-design/24313/the-dna-project/>



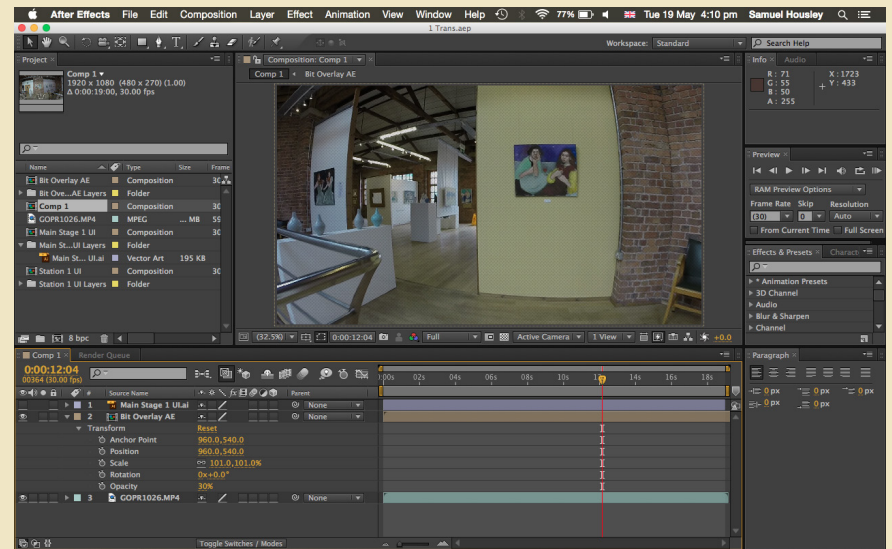
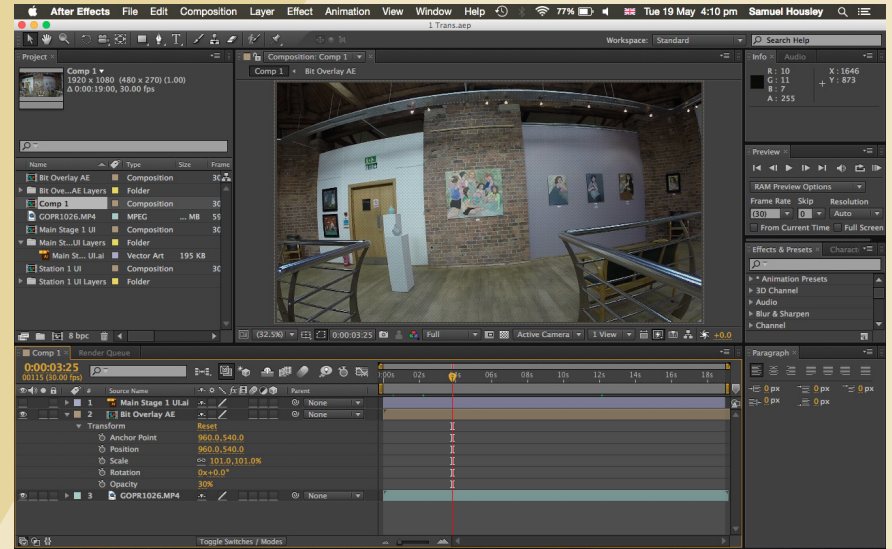
<http://gizmodo.com/7-experimental-interfaces-that-show-the-future-of-ui-de-1642890943>

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Interactive Video Creation

Overlaying The UI

Before I could start using Rapt Media again I had to re render all my videos with each specific UI on top of it this was simply a matter of importing the illustrator files and placing it on the top layer in after effects and because I had already cut by video segments to the right length all I had to do was hit render.



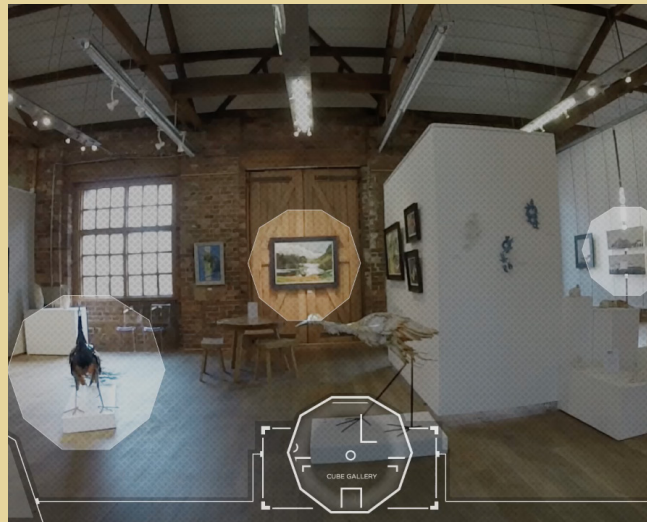
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Interactive Video Creation

Overlaying The UI

Next it came to rendering out the artists profile segments these were a bit different as I felt that they needed a certain transition effect rather than just cutting straight to a flat screen so what I did was take the station after effects files the points in which the camera stops for the user to choose and artists and I faded a Gaussian blur to overlay it and then had the profile fade on soon after.

This I think created a very visually pleasing affect that I personally believe once seen will entice the users to click on more.





Peter Sales
Durham, UK
<http://www.petersalessculpture.co.uk>

About Exhibitions


Peter typically uses lacquer to make his sculptures. Lacquer is a clear or coloured wood finish that dries by solvent evaporation or a curing process that produces a hard, durable finish.

This finish can be of any sheen level from ultra matte to high gloss, and it can be further polished as required.

It is also used for "lacquer paint", which is a paint that typically dries better on a hard and smooth surface.


Mouncey Fine Art, UK

Related Artists




Peacock
Lacquered Steel
£3,700

OWN art



Stalking Egret
Lacquered Steel
£3,700

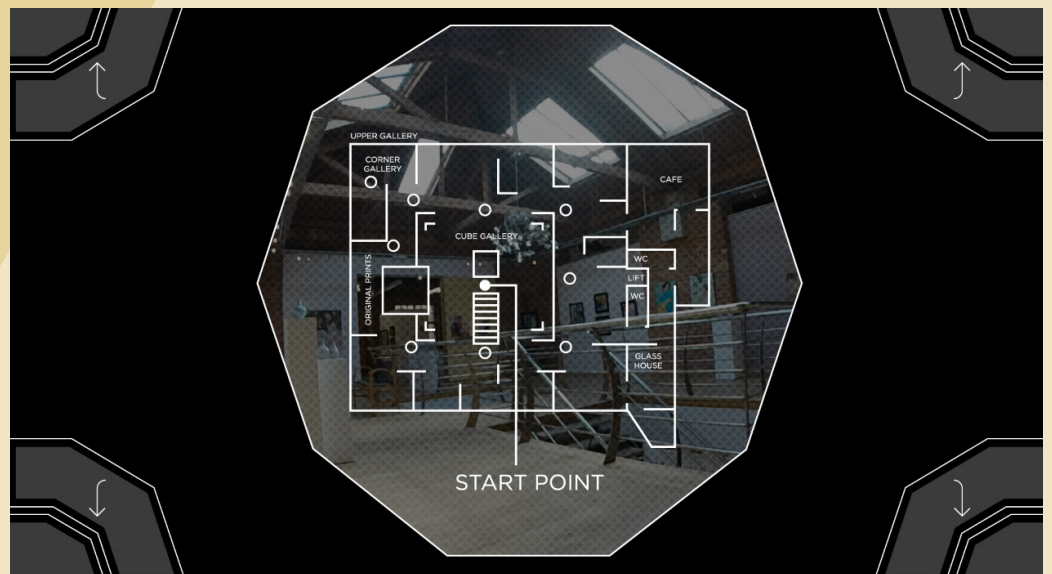


<DEVELOPMENT>

Interactive Video Creation

One Last UI

Some thing that had slipped my mind at first was the start of the interaction all I had for my introduction videos was a spinning 360 degree view which gave the users a sense of where to go but couldn't fully show it so I had the idea to add text stating to use the navigation to begin and I spaced out the navigation to the four corners so that the users could effectively take any of the beginning paths without confusion I also added a floor plan and picture for a visual aid declaring the users start point.



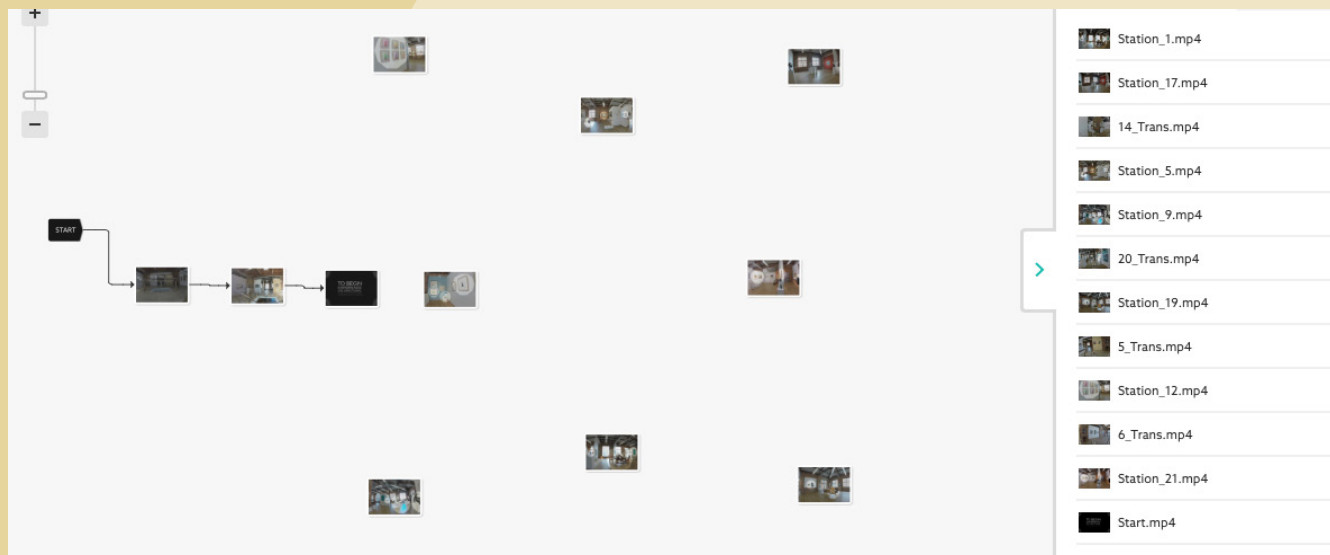
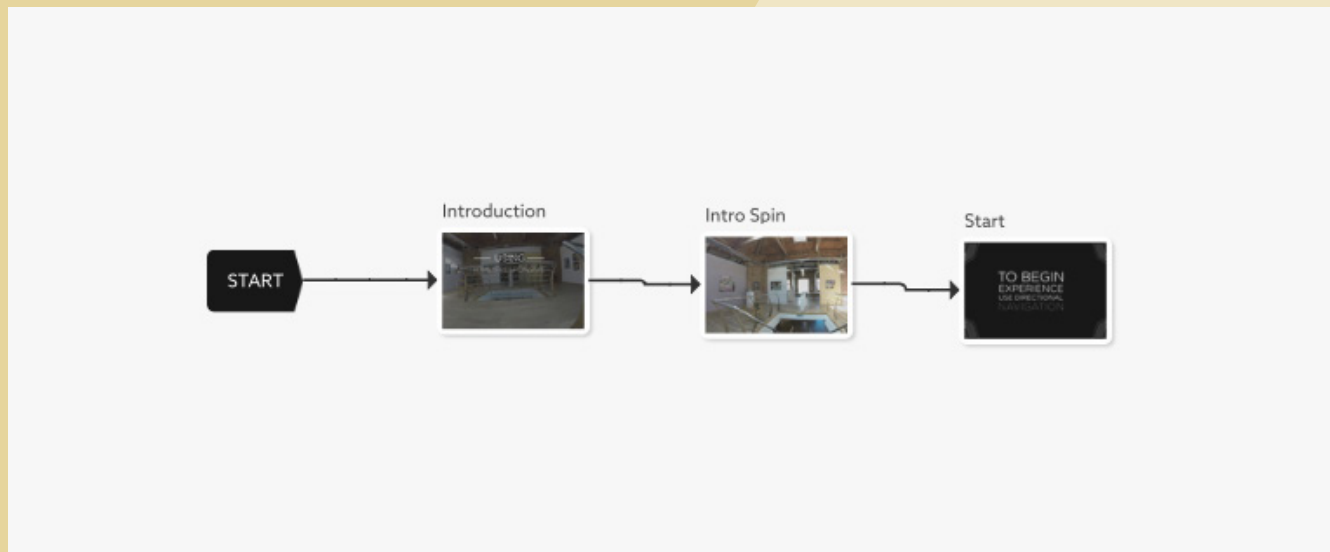
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Interactive Video Creation

Rapt Media Workflow

After uploading all of my video footage to my rapt media account I started planning out my workflow in the web app I started by placing my introduction videos at the start and chaining them together so that they play one after another.

Once that initial set up was placed in the app, I started to organize my videos in the workflow as seen here in these screen shots I tried to replicate the floor plan of the biscuit factory so that I could better make sense of which videos went where and which videos needed to transition from one and another. I thought this would be essential because of the sheer amount of videos to go in.



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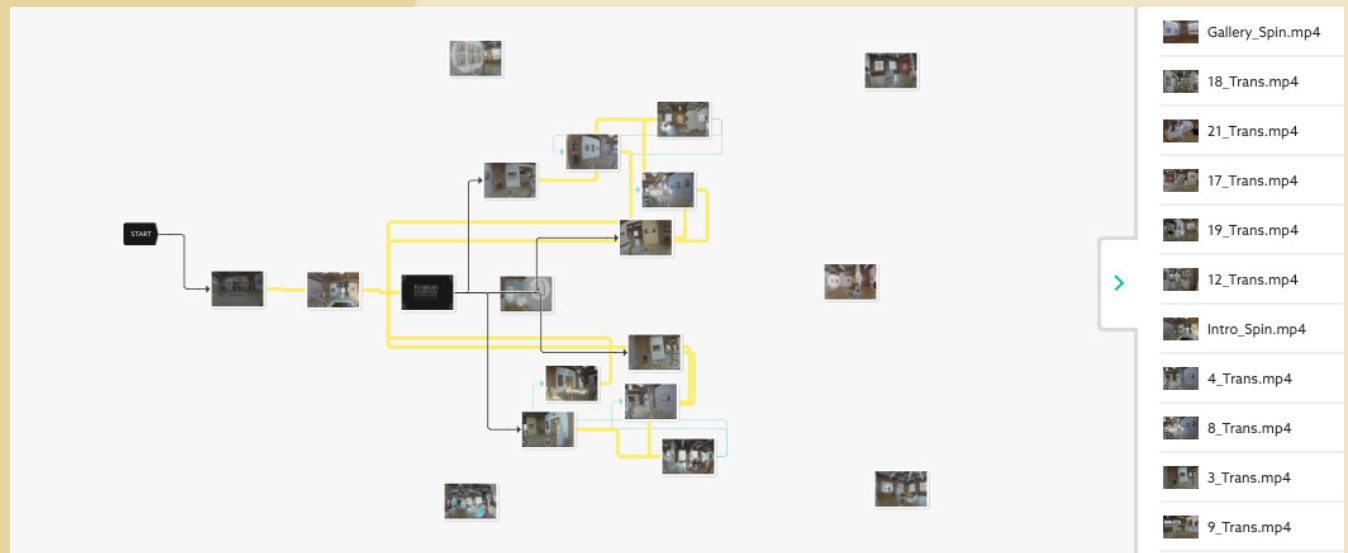
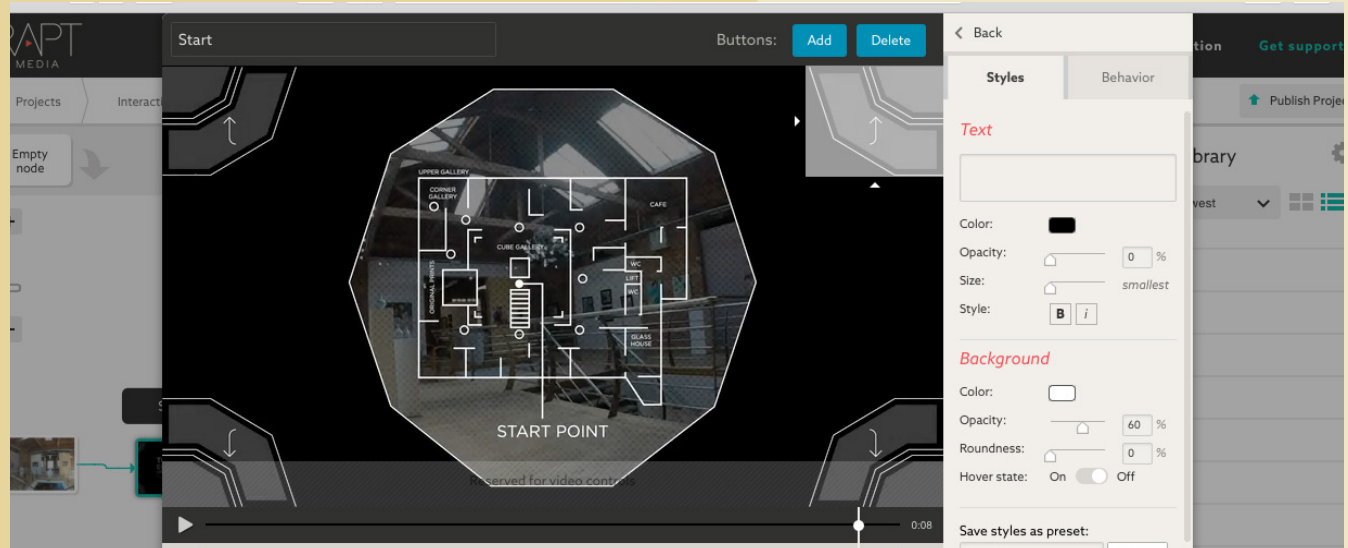
Interactive Video Creation

Rapt Media Workflow

Once I had placed the initial stations around in my workflow I decided before placing all of the rest of the footage in to the app that I should first make the starting interaction work so that I wouldn't get it confused with the rest of the videos later on.

I started by creating buttons in the inside video editor this was simple enough using the drag to create shape feature then all I had to do was click the invisible box in the settings and tell the button which video it should trigger next when played I did this for each individual button and then back again so that when the transition video is trigger it'll will take you to a station point after its play through and from there you can also get back to the start video again by using this same technique.

The lines show the routes, transitions and interaction points.



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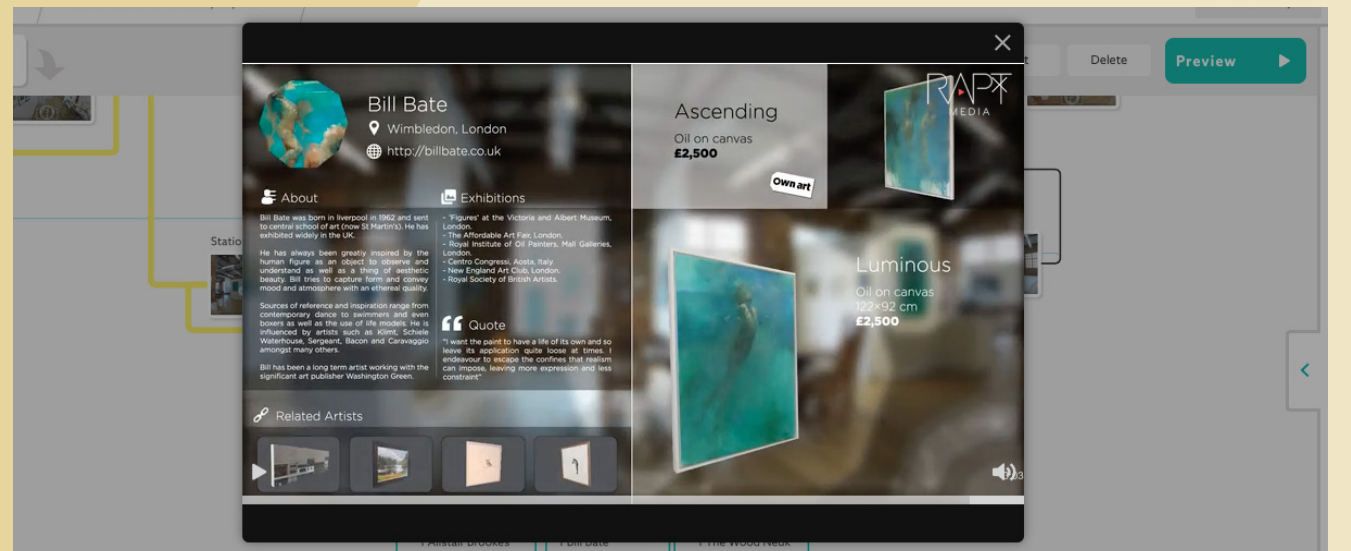
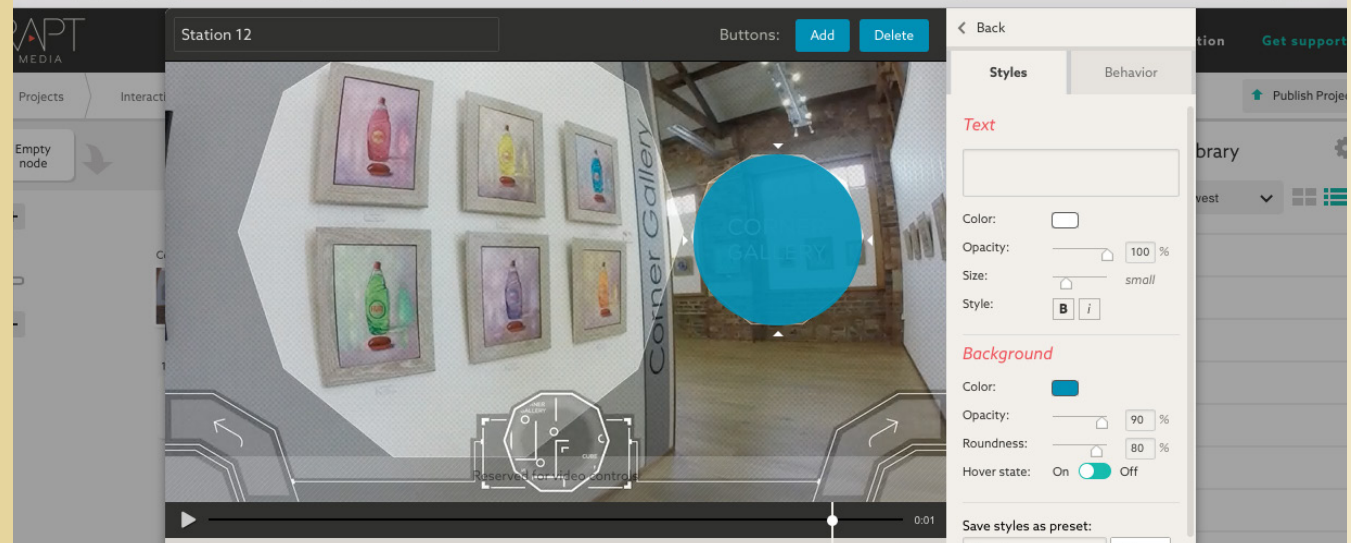
Interactive Video Creation

Rapt Media Workflow

When working on the interaction for when the artist profile pages appear i was able to change the hotspot invisible buttons circular this was better because the hotspot shape was octagonal/circular this reduces the risk of miss clicking it because of the corners that a square shape would have.

So once these hotspots was clicked they would take you to an specified artists profile which worked nicely when I tested it. Apart from one major issue I had initially placed the cross to return to the station points in the top right hand corner of the page. But I didn't account for the rapt media player to overlay there logo in the corner so you could still see the cross but the interaction was underneath the logo and when the logo was clicked it would take you to the Rapt Media Page.

This was really troublesome because I had to re render all 20 of the artists video segments withe the cross lower down so the user could interact with it. Otherwise there would be no way to get back.



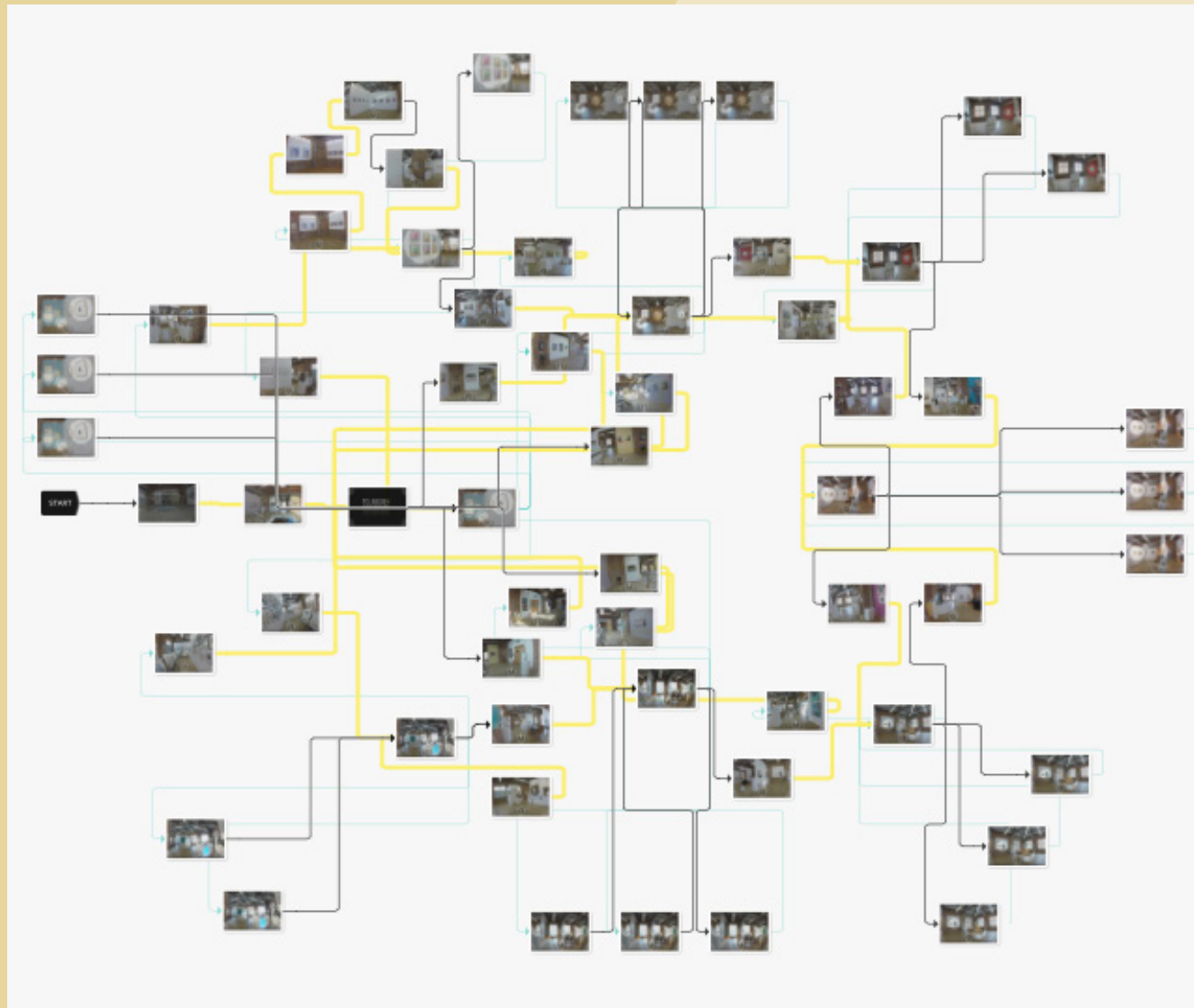
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Working Prototype

Working Workflow

Finally I had my working prototype fully functional. Its hard to really get across how difficult this was to achieve it may look pretty simple using the Rapt Media web app which has to be said is an amazing application. But in reality creating this working prototype was intensely hard down to video rendering so many different UI's and tonnes more video segments that had to seamlessly be strung together. The amount of organization required to effectively produce this was insane.

The nature of my video being an exploratory video and it being nonlinear its wasn't easily pieced together usually one video follows another but mine has multiple, transitions, moves and interaction points. And the fact that it doesn't have an ending means that each and every video must somehow be linked to the rest through some means.



<DEVELOPMENT>

Working Prototype

Working Prototype

My interactive video is fully functional and works really well in terms of the design, interaction and communication. Although a strong Internet connection is required for a seamless play through. I have noticed on unreliable Internet platforms the video can lag out quite a lot which is disappointing maybe this is something i could fix as future development reducing the file sizes of the video footage.

After creating and refining 38 separate user interfaces and 59 individually edited videos

I came out with 1 fully interactive and imersive video.

Try the Interactive Video Here:

<http://cdn1.raptmedia.com/projects/5pKMeGQ9/play>

RAPT
MEDIA



Interactive Biscuit Factory Experience



<FUTURE DEVELOPMENT>

- Mobile Wireframes
- Website Wireframes
- Conceptual Online Designs
- Concept Video

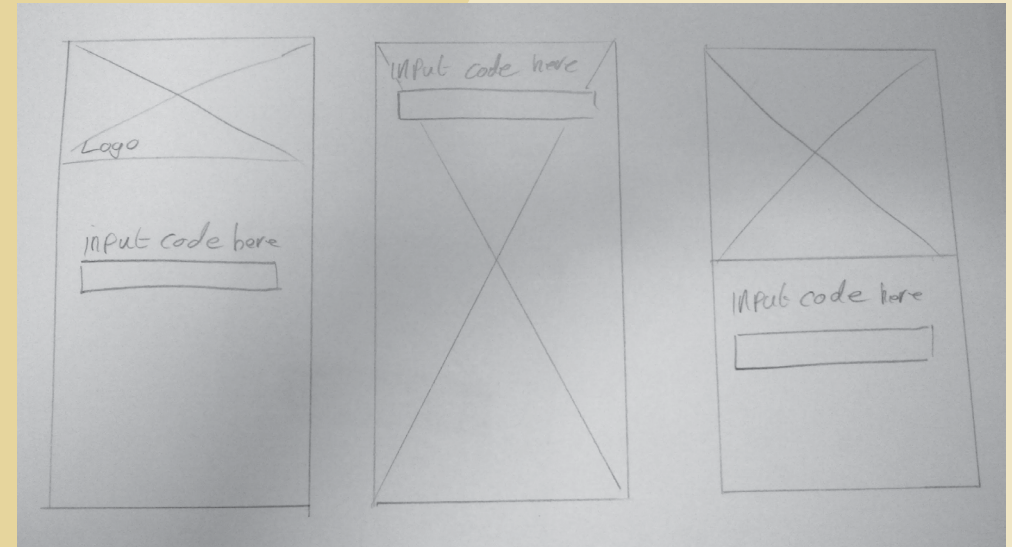
<FUTURE DEVELOPMENT>

Mobile Wireframes

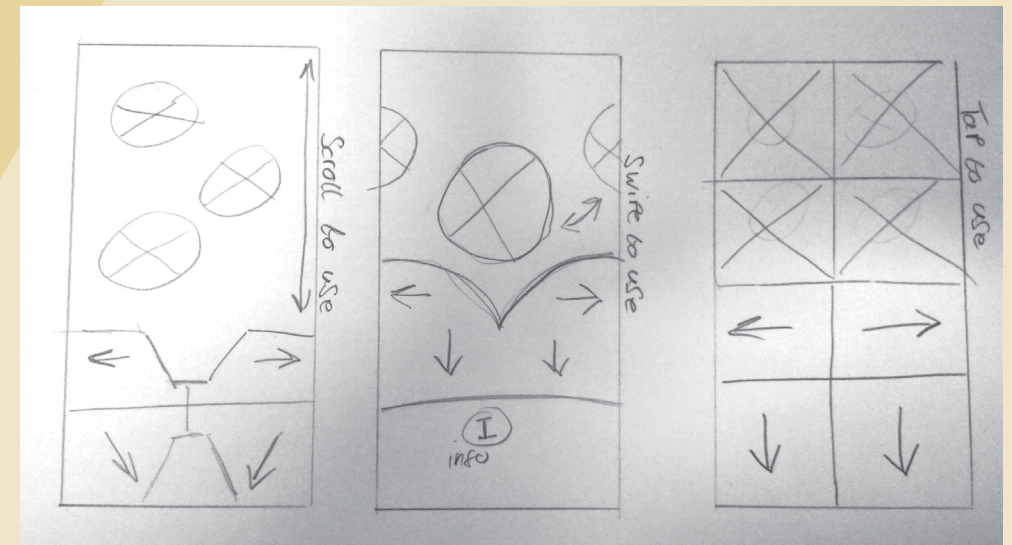
Lo-Fi Wireframes

To push out some ideas and get some inspiration for the future development side of my project I sketched out some lo-fi wireframes for the loading connection screen and for the interaction for when the two devices are linked together. I didn't linger too long on these as the interactive would be simple and quick and would not need to be overly detailed.

I decided to go with the 1st one of the loading screen connection and the middle one on the linked connection.



Loading Connection Screen



Linked Connection Screen

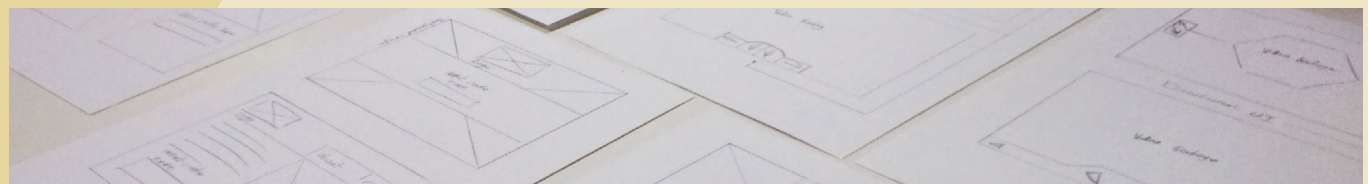
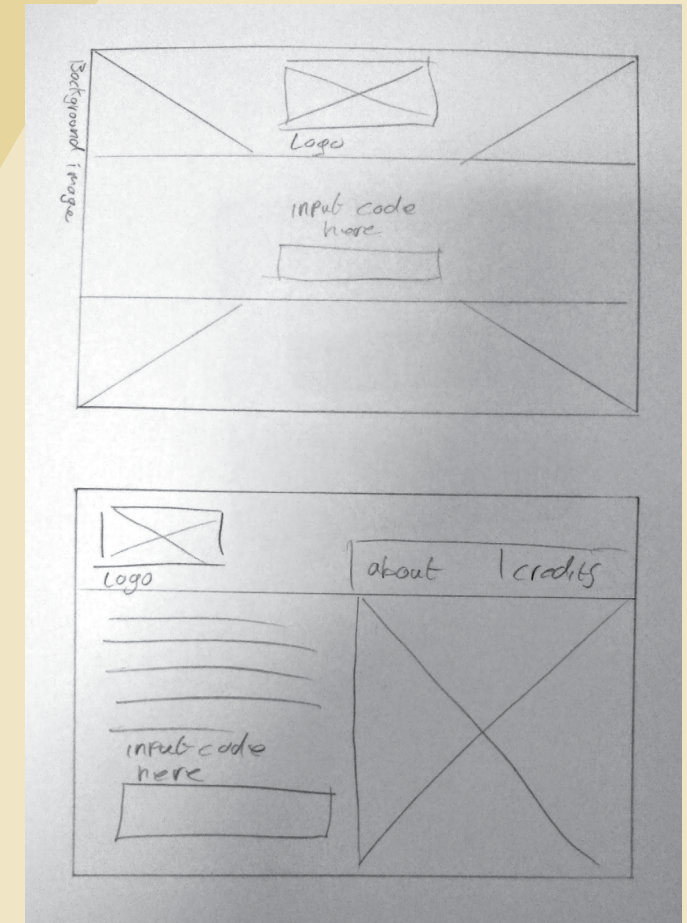
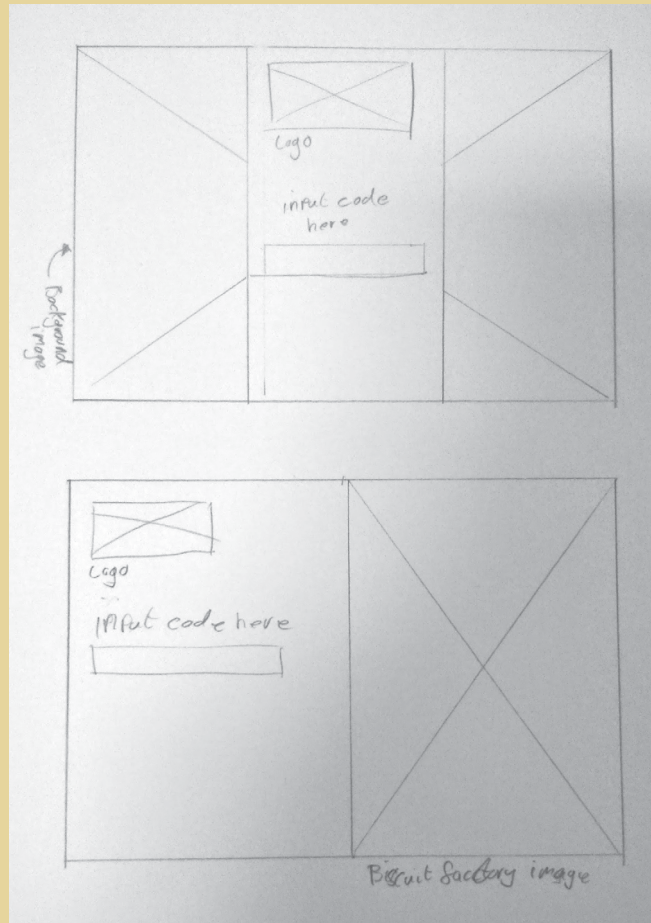
<FUTURE DEVELOPMENT>

Website Wireframes

Lo-Fi Wireframes

Again I thought it would be a good idea to sketch out some different Ideas of what the main site would look like on opening and giving you user the connection details.

I personally like the top left version as I thought it was simple and not overly complicated as not to put off the user from wanted to use the site.



<FUTURE DEVELOPMENT>

Conceptual Online Designs

Concept Web Design

After refining my sketched up lo-fi wireframe ideas I went ahead with a simplified version of them combining the logo and with a nice full screened background of the outside of the biscuit factory. Which I think aesthetically works really nicely and is something a transfered to the mobile site designs on the next page.

From this screen the user is given a shortened web address so that they can easily type into their browsers on their mobile devices. A unique simple four digit code is generated on the desktop site which is easily typed into the phones UI on the next page which will link them both together and start the interactive video controlled through the phone interface.



<FUTURE DEVELOPMENT>

Conceptual Online Designs

Concept Phone Designs

So I went ahead and with the lo-fi wireframe ideas and came out with these two designs for the mobile version of the site

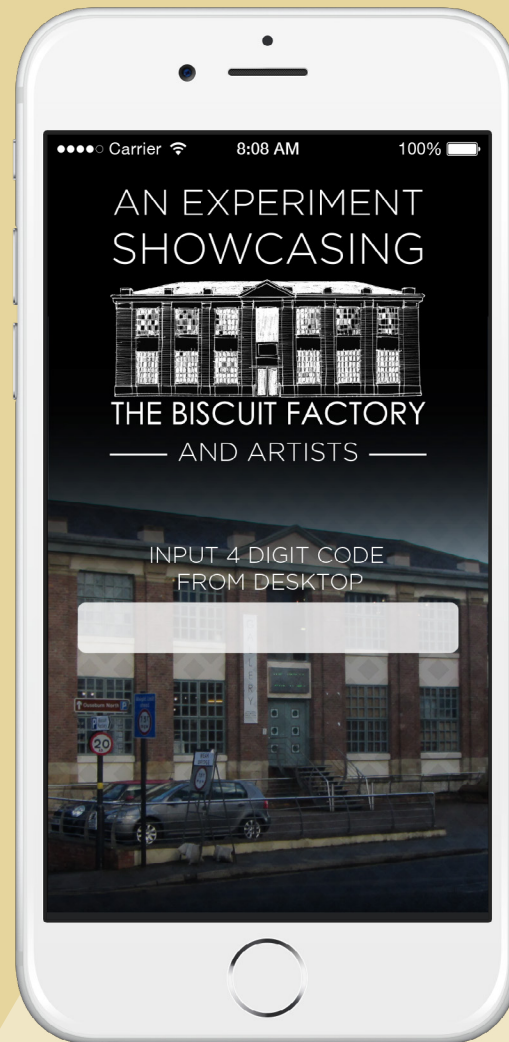
Loading Connection Screen

This screen is simple enough to use and understand just a basic input screen where the user will type a code given from the desktop site.

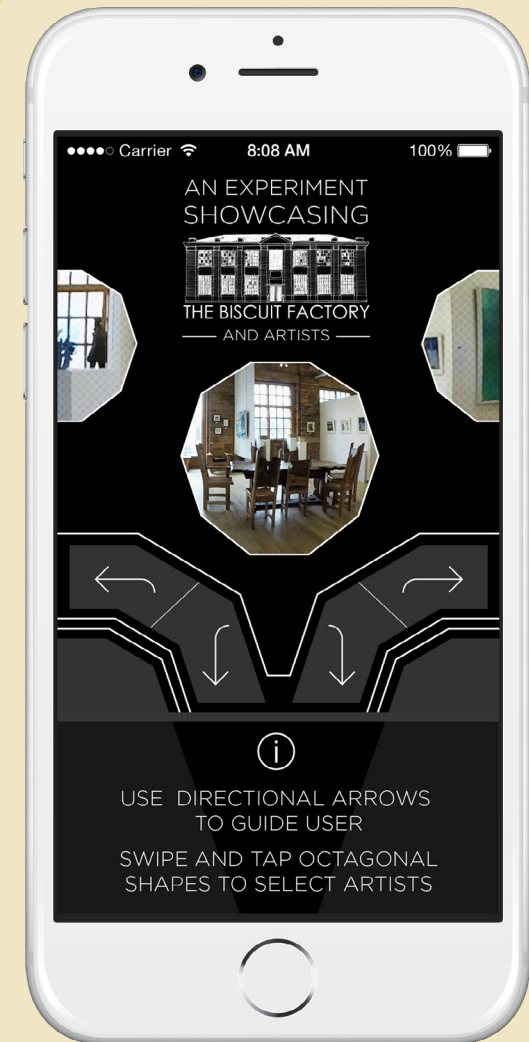
Linked Connection Screen

This screen had required more thought I used the same UI style from the interactive video to keep the consistency of the design. To select an artist from the phone simply swipe to the to get to the one you want and tap on the art icon.

I had also used the bottom half of the phone for simple instruction and info. I did this because I didn't want the UI at the bottom of the phone as I thought it may get awkward to hold and use.



Loading Connection Screen



Linked Connection Screen

<FUTURE DEVELOPMENT>

Conceptual Video

Concept Video

To finish up my project and to show the public and consumers and understanding of what the project is and what it does. So I created a concept video to convey the idea.

<https://www.youtube.com/watch?v=8Jinp-GSM2A&spfreload=10>



AN EXPERIMENT
SHOWCASING

THE BISCUIT FACTORY

— AND ARTISTS —

COPY URL AND PASTE INTO
SMART PHONE BROWSER

www.multiscreenexperience.com

THEN INPUT UNIQUE FOUR
DIGIT CODE BELOW INTO
THE SMART PHONE

0-4-7-1

<REFLECTION>

- Evaluation

<REFLECTION>

Evaluation

So if I am completely honest I have had my fair share of ups and downs with this project, all the way from noting being bothered about it to being so protective over it that I wouldn't show anyone, from hating it to loving it.

Straight from the word go at the very beginning of the project I had struggled to come up with an idea for my project even though its something that I had been thinking about for months before but to no avail. I think I had been just trying to think of the perfect project, some killer idea that doesn't really exists. I was fixated on having something perfect because it was my final project. I feel as though I put to much pressure on my self this way and this I believe was projected through the whole project.

Once I had settled on my idea I was pretty happy with it and myself. I think it was validation from my peers and also the recognition that was received from The Biscuit Factory. Every time that I had visited I talked with Emma Shard the marketing and brand manager and she had been saying her and the whole gallery manager have been really looking forward to it.

This I think really drove me to make the best of my project to really create something beautiful and functional that The Biscuit Factory could use.

What had annoyed me a lot was the fact that I couldn't get my website websocket code to work I was really disappointed that I wouldn't have a something functional and working for the design show. Id wanted to prove to myself and my tutors that I could undertake this difficult coded project. This also raised a lot of issues for what I could have working for the show and so I really think I turned the project around. When I started to focus and put all my time and energy into creating an interactive video for my working prototype.

To outline weaknesses from this project I would defiantly say that they come in the form of having lacked behind in my idea generation process this obviously really held me back and also that I couldn't make it work like I had wanted it to from the beginning.

Some people might also say that a weakness from the project is that its doesn't a strong need or purpose.

I would disagree with that though because it does at least have a call for my project to exist and the nature of my project is experimental its really something to test out on users its a product thats adapting to the future and at the very least its a great promotional tool for The Biscuit Factory and why wouldn't user not want to try out something that is completely new and has never been done before. This turns a potential weakness into a great strength in my opinion.

My two overall favorite parts of this project and personally the parts that have became its greatest strengths are one my interactive video, I am so pleased with it I put so much time and effort into making and producing it. The finished prototype works so well in my eyes its perfect in terms of interaction and experience. And I am especially pleased with my overall design and look over everything I have done, I personally think it looks very professional it works with in the media of the subject and also adapts and embraces the future of consumer centered design.

<END/>

Credit to all of the artists featured:

Alistair Brookes
The Wood Neuk
Cate Inglis
Jill Barthorpe
Bill Bate

Peter Sales
Simon Griffiths
Catherine Raymes
Jin Eui Kim
Zoe Robinson

Sam Knowles
Eddie Roberts
Stuart Buchanan
Heather Blanchard
Jarvis Furniture Makers

Phil Mcmenemy
Emma Semple
Jonothan Trotman
Maria Wojdat
Lizzie Rowe

And The Biscuit Factory.



Personal Project 2 and Final Project.
An experiment showcasing The Biscuit Factory.

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